

AIP
AERONAUTICAL INFORMATION PUBLICATION
UNITED STATES OF AMERICA

TWENTY-SIXTH EDITION DATED 16 JULY 2020

AMENDMENT 2

17 JUN 2021

CONSULT NOTAM FOR LATEST INFORMATION

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIP Amendment 2

Page Control Chart

17 JUNE 2021

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PART 1 – GENERAL (GEN)

GEN 0.

GEN 0.1 Preface

1. Name of the Publishing Authority

1.1 The United States of America Aeronautical Information Publication (AIP) is published by the authority of the Federal Aviation Administration.

2. Applicable ICAO Documents

2.1 The AIP is prepared in accordance with the Standards and Recommended Practices (SARP) of Annex 15 to the Convention on International Civil Aviation and the Aeronautical Information Services Manual (ICAO Doc 8126). Charts contained in the AIP are produced in accordance with Annex 4 to the Convention on International Civil Aviation and the Aeronautical Chart Manual (ICAO Doc 8697). Differences from ICAO Standards, Recommended Practices and Procedures are given in subsection GEN 1.7.

3. The AIP Structure and Established Regular Amendment Interval

3.1 The AIP Structure

The AIP is made up of three Parts; General (GEN), En Route (ENR), and Aerodromes (AD); each divided into sections and subsections as applicable, containing various types of information subjects.

3.1.1 PART 1 – General (GEN)

PART 1 consists of five sections containing information as briefly described hereafter:

3.1.1.1 GEN 0. – Preface; Record of AIP Amendments; Checklist of AIP Pages; and Table of Contents to PART 1.

3.1.1.2 GEN 1. National Regulations and Requirements – Designated Authorities; Flights Into or Over U.S. Territorial Airspace; Entry, Transit, and Departure of Cargo; Aircraft Instruments, Equipment, and Flight Documents; Summary of National

Regulations and International Agreements/Conventions; and Differences from ICAO Standards, Recommended Practices, and Procedures.

3.1.1.3 GEN 2. Tables and Codes – Measuring System, Time System, and Aircraft Markings; Abbreviations Used in AIS Publications; Chart Symbols; Location Indicators; List of Radio Navigation Aids; Conversion Tables; and Sunrise/Sunset Tables.

3.1.1.4 GEN 3. Services – Aeronautical Information Services; Aeronautical Charts; Air Traffic Services; Communication Service; Meteorological Services; Search and Rescue; and Aircraft Rescue and Fire Fighting Communications.

3.1.1.5 GEN 4. Charges for Aerodromes/Heliports and Air Navigation Services – Fees and Charges; and Air Navigation Facility Charges.

3.1.2 PART 2 – En Route (ENR)

PART 2 consists of seven sections containing information as briefly described hereafter:

3.1.2.1 ENR 0. – Checklist of AIP Pages; and the Table of Contents to PART 2.

3.1.2.2 ENR 1. General Rules and Procedures – General Rules; Visual Flight Rules; Instrument Flight Rules; ATS Airspace Classification; Holding, Approach, and Departure Procedures; ATS Surveillance Services and Procedures; Altimeter Setting Procedures; Flight Planning; Addressing of Flight Plans for Domestic or international Flight Planning; National Security and Interception Procedures; Medical Facts for Pilots; Safety, Hazard, and Accident Reports; and Performance-Based Navigation (PBN) and Area Navigation (RNAV).

3.1.2.3 ENR 2. Air Traffic Services Airspace.

3.1.2.4 ENR 3. ATS Routes – Lower ATS Routes; Upper ATS Routes; Area Navigation Routes; and Other Routes.

3.1.2.5 ENR 4. Navigation Aids/Systems – Navigation Aids – En Route; and Special Navigation Systems.

3.1.2.6 ENR 5. Navigation Warnings – Prohibited, Restricted, and Other Areas; Military Exercise and Training Areas; Bird Migration and Areas with Sensitive Fauna; and Potential Flight Hazards.

3.1.2.7 ENR 6. Helicopter Operations – Helicopter IFR Operations; and Special Operations.

3.1.2.8 ENR 7. Oceanic Operations – General Procedures; Data Link Procedures; Special Procedures for In-Flight Contingencies in Oceanic Airspace; Operational Policy 50 NM Lateral Separation; Operational Policy ADS-C Distance-Based Separation; North Atlantic (NAT) Oceanic Clearance Procedures; North Atlantic (NAT) Time-keeping Procedures; North Atlantic (NAT) Safety Information; San Juan FIR Customs Procedures; Y-Routes; Atlantic High Offshore Airspace Offshore Routes Supporting Florida Airspace Optimization; Reduced Separation Climb/Descent Procedures; and New York Oceanic Control Area (OCA) West Flight Level Allocation.

3.1.3 PART 3 – Aerodromes (AD)

PART 3 consists of three sections containing information as briefly described hereafter:

3.1.3.1 AD 0. – Checklist of AIP Pages; and Table of Contents to PART 3.

3.1.3.2 AD 1. Aerodromes – Introduction: Aerodrome Availability.

3.1.3.3 AD 2. Aerodromes: Listing of Aerodromes.

3.2 Regular Amendment Interval

Regular amendments to the AIP will be issued every 6 months on Aeronautical Information Regulation and Control (AIRAC) effective dates listed in TBL GEN 0.1-1. A list of all AIRAC effective dates are contained in TBL GEN 0.1-2.

TBL GEN 0.1-1
Publication Schedule

New Edition or Amendment	Cutoff Date for Submission	Effective Date of Publication
Twenty-Sixth Edition	30 JAN 20	16 JUL 20
Amendment 1	16 JUL 20	31 DEC 20
Amendment 2	31 DEC 20	17 JUN 21
Amendment 3	17 JUN 21	2 DEC 21
Twenty-Seventh Edition	2 DEC 21	19 MAY 22
Amendment 1	19 MAY 22	3 NOV 22
Amendment 2	3 NOV 22	20 APR 23
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TBL GEN 0.1-2
AIRAC System Effective Dates

2020	2021	2022	2023	2024
2 JAN	28 JAN	27 JAN	26 JAN	25 JAN
30 JAN	25 FEB	24 FEB	23 FEB	22 FEB
27 FEB	25 MAR	24 MAR	23 MAR	21 MAR
26 MAR	22 APR	21 APR	20 APR	18 APR
23 APR	20 MAY	19 MAY	18 MAY	16 MAY
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13 AUG	9 SEP	8 SEP	7 SEP	5 SEP
10 SEP	7 OCT	6 OCT	5 OCT	3 OCT
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GEN 0.5 List of Hand Amendments to the AIP – Not applicable

GEN 1.7 Differences From ICAO Standards, Recommended Practices and Procedures

NOTE–

See GEN 1.6 for the availability of Title 14 of the U.S. Code of Federal Regulations Parts 1–199.

ANNEX 1 – PERSONNEL LICENSING	
Chapter 1	Definitions and General Rules Concerning Licences
Remote co-pilot	The United States does not currently define.
Remote flight crew member	The United States does not currently define.
Remote pilot	The United States does not currently define.
Chapter 1 Reference 1.2.5.2	<p>The maximum validity allowed for non-FAA air traffic controllers (required to hold an FAA Second-Class airman medical certificate) is 12 months.</p> <p>The maximum validity allowed for FAA air traffic controllers is 24 months for those under age 40 who work at FAA terminals or centers.</p> <p>U.S. free balloon and glider pilots are not required to hold medical certificates but are prohibited from operating during periods of medical deficiency.</p> <p>Since the United States has not specifically mandated RPAS medical assessment, a 48-month duration period for the remote pilot licence –aeroplane, airship, glider, rotorcraft, powered-lift, or free balloon is not established.</p>
Chapter 1 Reference 1.2.5.2.2	U.S. commercial pilots engaging in single-crew commercial air transport operations carrying passengers have a 12-month validity on their medical assessments regardless of age.
Chapter 1 Reference 1.2.5.2.3	U.S. commercial pilots have a 12-month validity on their medical assessments regardless of age.
Chapter 1 Reference 1.2.5.2.4	<p>U.S. free balloon and glider pilots are not required to hold a medical certificate but are prohibited from operating during periods of medical deficiency.</p> <p>Certain holders of U.S. private pilot licenses (operating domestically) are not required to hold an FAA medical certificate but must meet U.S. (“Basic Med”) regulations effective May 1, 2017. “Basic Med” requires a medical education course every 24 months and medical examination every 48 months.</p> <p>Since the United States has not specifically mandated RPAS medical assessment, reducing validity to 24 months for holders of remote pilot licenses is not established.</p>
Chapter 1 Reference 1.2.5.2.5	<p>U.S. private pilots required to hold an FAA Third-Class medical certificate who have passed their 50th birthday have a 24-month validity on their medical assessments.</p> <p>U.S. free balloon and glider pilots are not required to hold medical certificates but are prohibited from operating during periods of medical deficiency.</p> <p>Since the United States has not specifically mandated RPAS medical assessment, reducing validity to 12 months for holders of remote pilot licenses who have passed their 50th birthday is not established.</p>
Chapter 1 Reference 1.2.5.2.6	The United States does not defer medical examinations.

Chapter 2	Licences and Ratings for Pilots
Chapter 2 Reference 2.1.9.2	The United States only allows pilots to log SIC flight experience in an aircraft that requires an SIC by type design or by an operational requirement.
Chapter 2 Reference 2.1.9.3	SIC experience (hours) may only be used towards obtaining an Airline Transport Pilot certificate with an Airplane rating. Then, only 1/3 of the SIC time may be applied, with a maximum allowable 500 hrs as SIC.
Chapter 2 Reference 2.1.10	The U.S. currently limits all part 121 operations to age 65, but has no age restriction on all other commercial air trans operations (such as part 135 operations).
Chapter 2 Reference 2.3.1.4	U.S. private pilots required to hold an FAA Third-Class medical certificate must meet the requirements of an FAA Third-Class medical certificate which are equivalent to ICAO Class 2 with exceptions specified in Chapter 6.
Chapter 2 Reference 2.4.1.4	U.S. commercial pilots must meet the requirements of an FAA Second-Class medical certificate which are equivalent to ICAO Class 1 with exceptions specified in Chapter 6.
Chapter 2 Reference 2.5.1.1	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.1.2	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.1.3.1	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.1.3.2	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.1.4	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.2.1	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.2.2	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.2.3	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.3.1	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.3.2	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.3.3	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.4.1	The United States has no 14 CFR provisions for MPL.
Chapter 2 Reference 2.5.4.2	The United States has no 14 CFR provisions for MPL. However, the FAA could approve a part 141 special curriculum or part 142 training curriculum for operators wanting to train persons to meet the ICAO MPL requirements.
Chapter 2 Reference 2.6.1.1.	The United States minimum age is 23.
Chapter 2 Reference 2.6.1.4	U.S. airline transport pilots must meet the requirements of an FAA First-Class medical certificate which are equivalent to ICAO Class 1 with exceptions specified in Chapter 6.
Chapter 2 Reference 2.7.1.3.1	U.S. private pilots required to hold an FAA Third-Class medical certificate who hold an airplane instrument rating are not required to comply with ICAO Class 1 hearing standards. U.S. hearing requirements for FAA First- and Third-Class medical certificates are equivalent to ICAO Class 1 with exceptions specified in Chapter 6.

Chapter 2 Reference 2.8.2.2	The United States has no 14 CFR provisions for MPL. However, the FAA could approve a part 141 special curriculum or a part 142 training curriculum for operators wanting to train persons to meet the ICAO MPL requirements.
Chapter 2 Reference 2.9.1.5	U.S. glider pilots are not required to hold a medical certificate but are prohibited from operating during periods of medical deficiency.
Chapter 2 Reference 2.10.1.5	U.S. free balloon pilots are not required to hold a medical certificate but are prohibited from operating during periods of medical deficiency.
Chapter 2 Reference 2.11.9	The United States has not specifically mandated an age 60 limitation on RPAS privileges.
Chapter 2 Reference 2.12.3	The United States has not established a specific category for “student remote pilot” nor a requirement for medical assessment equivalent to ICAO Class 1 or Class 3.
Chapter 2 Reference 2.13.1.4	The United States has not established a specific requirement for an instrument–rated RPAS pilot to hold a Class 3 or Class 1 medical assessment
Chapter 3	Licences for Flight Crew Members other than Licences for Pilots
Chapter 3 Reference 3.2.1.5	U.S. flight navigators must meet the requirements of an FAA Second-Class medical certificate which are equivalent to ICAO Class 2 with exceptions specified in Chapter 6.
Chapter 3 Reference 3.3.1.5	U.S. flight engineers must meet the requirements of an FAA Second-Class medical certificate which are equivalent to ICAO Class 2 with exceptions specified in Chapter 6.
Chapter 4	Licences and Ratings for Personnel other than Flight Crew Members
Chapter 4 Reference 4.2.1.3	The United States does not require 4 years of experience to qualify to take the written examination for a mechanic’s airframe and powerplant license.
Chapter 4 Reference 4.2.2.4	The United States does not allow an approved maintenance organization to appoint non-licensed personnel to exercise the privileges of 4.2.2 within the U.S.
Chapter 4 Reference 4.3.2	Non-FAA air traffic controllers must meet the requirements of an FAA Second-Class medical certificate which meets the intent of ICAO Class 3 with exceptions specified in Chapter 6.
Chapter 4 Reference 4.4.1.1	The United States requires that an applicant be at least 18 years of age.
Chapter 4 Reference 4.4.1.3	Intentionally left blank.
Chapter 4 Reference 4.4.1.4	Non-FAA air traffic controllers must meet the requirements of an FAA Second-Class medical certificate which meets the intent of ICAO Class 3 with exceptions specified in Chapter 6.
Chapter 4 Reference 4.6.1.1	The United States requires the applicant shall not be less than 23 years of age.
Chapter 4 Reference 4.6.1.3.2	The United States permits the applicant to have two years of experience in the last three years.
Chapter 5	Specifications for Personnel Licences
Chapter 5 Reference 5.1.3	The United States only issues certificates in the English language.
Chapter 6	Medical Provisions for Licencing: Please note: References containing 6.3 refer to airline transport pilots and commercial pilots; 6.4 refer to private pilots, free balloon pilots, glider pilots, student pilots, flight engineers, and flight navigators; and 6.5 refer to air traffic controllers.
Chapter 6 Reference 6.1.1	The United States has not established a specific medical assessment standard for the remote pilot license.

Chapter 6 Reference 6.2.3.2	The United States uses a variety of methods for testing visual acuity that meet the intent of ICAO Recommended Practice. Illumination levels are set by manufactured standards.
Chapter 6 Reference 6.3.1.2	An FAA first-class medical certificate is required when exercising the privileges of an airline transport pilot and an FAA second-class medical certificate is required when exercising the privileges of a commercial pilot, a flight engineer, or a flight navigator. The United States has no provisions for MPL.
Chapter 6 Reference 6.3.2.6	Electrocardiography is not required for airline transport pilots at first issue unless the individual is age 35 or older and not for commercial pilots, flight engineers, or flight navigators unless clinically indicated.
Chapter 6 Reference 6.3.2.6.1	Electrocardiography is required in re-examination of airline transport pilot applicants over the age of 40 every 12 months. Electrocardiography is not specifically required for commercial pilots, flight engineers, or flight navigators unless clinically indicated.
Chapter 6 Reference 6.3.2.6.2	Electrocardiography is required in re-examination of airline transport pilot applicants over the age of 40 every 12 months. Electrocardiography is not specifically required for commercial pilots, flight engineers, or flight navigators unless clinically indicated.
Chapter 6 Reference 6.3.2.9.1	Chest radiography is not specifically required unless clinically indicated.
Chapter 6 Reference 6.3.3.2 (b)	A specific requirement that a [spare] set of suitable correcting spectacles be kept readily available when exercising the privileges of the license is not established.
Chapter 6 Reference 6.3.3.2.1 (c)	A specific requirement that a set of suitable correcting spectacles be kept readily available when exercising the privileges of the license [with contact lenses] is not established.
Chapter 6 Reference 6.3.3.2.3	The demonstration of compliance with visual acuity by providing a full ophthalmic report is not required.
Chapter 6 Reference 6.3.3.4	The demonstration of compliance with the visual requirements to be made with only one pair of corrective lenses is not specifically required.
Chapter 6 Reference 6.3.3.4.1	A requirement that a second pair of near-correction spectacles be kept available when exercising the privileges of the license is not established.
Chapter 6 Reference 6.3.4.1.1	Applicants are not required to demonstrate normal hearing against a background noise that reproduces or simulates the masking properties of flight deck noise upon speech and beacon signals.
Chapter 6 Reference 6.3.4.1.2	Applicants are not required to take a practical hearing test.
Chapter 6 Reference 6.4.1.1	U.S. free balloon and glider pilots are not required to hold a medical certificate but are prohibited from operating during periods of medical deficiency.
Chapter 6 Reference 6.4.1.2	U.S. free balloon and glider pilots are not required to hold a medical certificate but are prohibited from operating during periods of medical deficiency. Certain holders of U.S. private pilot licenses (operating domestically) are not required to hold an FAA medical certificate but must meet U.S. ("Basic Med") regulations effective May 1, 2017. "Basic Med" requires a medical education course every 24 months and medical examination every 48 months.
Chapter 6 Reference 6.4.2.6	Electrocardiography for applicants for third-class airman (private pilot) medical certification is not required at first issue unless clinically indicated.

Chapter 6 Reference 6.4.2.6.1	Routine electrocardiography for applicants for FAA third-class airman (private pilot) medical certification is not required unless clinically indicated.
Chapter 6 Reference 6.4.3.4	The demonstration of compliance with the visual requirements to be made with only one pair of corrective lenses is not specifically required.
Chapter 6 Reference 6.4.3.4.1	A requirement that a second pair of near-correction spectacles be kept available when exercising the privileges of the license is not established.
Chapter 6 Reference 6.5.1	The United States has not established a specific medical assessment standard for the remote pilot license, therefore a U.S. remote pilot would not undergo specific medical examination unless U.S. regulations are adopted by 2022.
Chapter 6 Reference 6.5.1.2	The United States has not established a specific medical assessment standard for the remote pilot license.
Chapter 6 Reference 6.5.2.6	Electrocardiography is required for FAA air traffic controllers at first issue but not for non-FAA ATCs unless clinically indicated.
Chapter 6 Reference 6.5.2.6.1	Electrocardiography is required for FAA ATCs but not for non-FAA ATCs unless clinically indicated.
Chapter 6 Reference 6.5.3.2 (b)	A specific requirement that a [spare] set of suitable correcting spectacles be kept readily available when exercising the privileges of the license is not established.
Chapter 6 Reference 6.5.3.2.1 (c)	A specific requirement that a set of suitable correcting spectacles be kept readily available when exercising the privileges of the license [with contact lenses] is not established.
Chapter 6 Reference 6.5.3.2.3	The demonstration of compliance with visual acuity by providing a full ophthalmic report is not required.
Chapter 6 Reference 6.5.3.4	The demonstration of compliance with the visual requirements to be made with only pair of corrective lenses is not specifically required.
Chapter 6 Reference 6.5.3.4.1	A requirement that a second pair of near-correction spectacles be kept available when exercising the privileges of the license is not established.
Chapter 6 Reference 6.5.4.1.1	Applicants are not required to demonstrate normal hearing against a background noise that reproduces or simulates an air traffic control working environment.
Chapter 6 Reference 6.5.4.1.2	Applicants are not required to take a practical hearing test.

ANNEX 2 – RULES OF THE AIR	
Chapter 1	Definitions
Advisory Airspace	Advisory service is provided in terminal radar areas and the outer areas associated with Class C and Class E airspace areas.
Aerodrome control tower	In the U.S., an “aerodrome control facility” is referred to as a “tower” or “airport traffic control tower”; “aerodrome control” is referred to as “airport traffic control service.”
Aerodrome Traffic Zone	There are no more Control Zones (Airport Traffic Zones) or Airport Traffic Areas (ATA). In the 7110.65, PCG, Controlled Airspace covers the defined dimensions of airspace. Class D was formerly the ATA (normally a 5NM radius around the airport). The old Control Zones were extensions of the ATA to encompass (ILS) Approach Paths.
Airborne Collision Avoidance System (ACAS)	The U.S. uses “traffic alert collision avoidance system (TCAS).” TCAS is an airborne collision avoidance system based on radar beacon signals and operates independent of ground – based equipment. TCAS – I generates traffic advisories only. TCAS – II generates traffic advisories and resolution (collision avoidance) advisories in the vertical plane.
Air-ground Control Radio Station	FAA Pilot Controller Glossary defines a Flight Service Station (FSS) as an air traffic facility which provides pilot briefings, flight plan processing, en route flight advisories, search and rescue services, and assistance to lost aircraft and aircraft in emergency situations. FSSs also relay ATC clearances, process Notices to Airmen, and broadcast aviation weather and aeronautical information. In Alaska, FSSs provide Airport Advisory Services.
Air-taxiing	The U.S. uses “hover taxi” for this maneuver above 100 feet above ground level (AGL) and “air taxi” below 100 feet AGL.
Area control service	The U.S. does not use the term “area control service” to indicate controlled flight in controlled areas.
Area control centre	The U.S. equivalent facility for an Area Control Centre (ACC) is an Air Route Traffic Control Center (ARTCC).
ATS route	In U.S. domestic airspace, the term “ATS route” is not used. Routes in the U.S. include VOR airways, jet routes, substitute routes, and off-airway routes. The U.S. also uses instrument departure procedures (DPs) and standard terminal arrivals (STARs).
Controlled airspace	The U.S. terms for controlled airspace have different parameters than for ICAO.
Current Flight Plan	FAA Pilot Controller Glossary (PCG) defines flight plan as “specified information relating to the intended flight of an aircraft that is filed orally or in writing with an FSS or an ATC facility.” The Pilot Controller Glossary makes a specific distinction between current flight plan and filed flight plans, defining filed flight plans as “filed...without any subsequent changes or clearances.” Therefore, the PCG definition of flight plan includes changes brought about by clearances or amendments
Danger area	The term “danger area” is not used within the U.S. or any of its possessions or territories.
Estimated off-block time	The U.S. uses the term “estimated departure time” for domestic operations.
Flight information centre	The U.S. does not operate flight information centers (FICs). In the U.S., the services provided by FICs are performed by air traffic control (ATC) facilities, flight service stations (FSSs), and rescue coordination centers (RCCs).
Ground Visibility	The U.S. defines Ground Visibility as: Prevailing horizontal visibility near the earth’s surface as reported by the United States National Weather Service or an accredited observer.
Instrument meteorological conditions	The U.S. air traffic service units use the phrase “IFR conditions.”
Level	The U.S. uses “altitude” or “flight level” rather than “level” and “cruising altitude” rather than “cruising level.” The term “level” is not used to mean “height,” “altitude,” or “flight level.”

Movement area	<p>In the U.S., the term “movement area” means “the runways, taxiways, and other areas of an airport/heliport which are utilized for taxiing, hover taxiing, air-taxiing, take-off and landing of aircraft, exclusive of loading ramps and parking areas. At those airport/heliports with a tower, specific approval for entry onto the movement area must be obtained from ATC.”</p> <p>The U.S. does not use an all-inclusive term to denote the movement area plus loading ramps and parking areas of an airport, nor does the U.S. use the term “maneuvering area” in any related context.</p>
Repetitive flight plan (RPL)	The U.S. uses the term “stored flight plan” for domestic operations.
Terminal control area	<p>In the U.S., “terminal control area” has been replaced by “Class B airspace/area.” Standard IFR services are provided to IFR aircraft operating in Class B airspace.</p> <p>Class B airspace CFR 14 part 71.41, exceeds TCA with more restrictive airman’s qualifications and aircraft certifications.</p>
Total estimated elapsed time	The U.S. uses “estimated time en route” for domestic operations.
Traffic Avoidance Advice	The U.S. uses the term Traffic Advisory
Transition altitude	In U.S. domestic airspace, “transition altitude,” “layer” and “level” are not used; however, in the U.S., flight levels begin at FL 180 where the reference datum of 29.92 inches of mercury is used as the constant atmospheric pressure. Below FL 180, altitudes are based on barometric pressure readings. QNH and QFE altimeter settings are not provided in domestic U.S. airspace.
Visibility	The U.S. defines Visibility as: The ability, as determined by atmospheric conditions and expressed in units of distance, to see and identify prominent unlighted objects by day and prominent lighted objects by night. Visibility is reported as statute miles, hundreds of feet, or meters. The U.S. identifies the following classes of visibility: Flight Visibility, Ground Visibility, Prevailing Visibility, Runway Visibility Value, and Runway Visual Range.
Visual meteorological conditions	The U.S. air traffic service units use the phrase “VFR conditions.”
Chapter 2	Applicability of the Rules of the Air
2.2	See difference under “Movement area.”
2.5	Except in an emergency, no pilot of a civil aircraft may allow a person who appears to be intoxicated or who demonstrates by manner or physical indications that the individual is under the influence of drugs (except a medical patient under proper care) to be carried in that aircraft.
Chapter 3	General Rules
3.1.8	In addition, aircraft shall not be flown in formation flight when passengers are carried for hire.
3.2 Note	See difference under “Movement area.”
3.2.2.5.3	Annex 2 seems to only mention “emergency” right of way rules as it pertains to the landing phase of flight, whereas 91.113(c) says that aircraft in distress have the right of way over “all” other traffic.
3.2.2.6.1	See difference under “Movement area.”
3.2.3.2 d)	The U.S. national regulations do not require aircraft on the movement area of an airport, whose engines are running, to display lights which indicate that fact from sunset to sunrise.
3.2.5	<p>Unless otherwise authorized or required by ATC, no person may operate an aircraft within a Class B, C, or D surface area except for the purpose of landing at, or taking off from, an airport within that area.</p> <p>In addition, in the case of a helicopter approaching to land, avoid the flow of fixed-wing aircraft.</p>

	In addition, no person may, within a Class B, C, or D surface area operate an aircraft to, from, or on an airport having a control tower operated by the U.S. unless two-way radio communications are maintained between that aircraft and the control tower.
3.3.1.2	In the U.S., ATC flight plans are not required for VFR flight in Class C, D, or E airspace.
3.3.1.2.1 d)	Requirements pertaining to filing flight plans for flights operating across U.S. borders and for identification purposes are described in 14 CFR Part 91 (Section 91.84) and Part 99.
3.3.1.2.2	The U.S. requires that domestic flight plans be submitted at least 30 minutes before departure. For international flights, the U.S. recommends that they be transmitted so that they are received by ATC authorities in each Flight Information Region (FIR) to be entered, at least 2 hours prior to entry, unless otherwise provided in that State's requirements.
3.6.1	Air traffic control clearances are not needed for VFR flight in U.S. Class C, D, or E airspace.
3.6.2.2	The United States requires pilots to report changes in the average true airspeed (at cruising altitude) when it varies by 5 percent or 10 knots (whichever is greater) from that filed in the flight plan. However, 14 CFR 91.703 requires pilots to abide by Annex 2 when flying over the high seas. In addition, when complying with speed adjustment assignments, the United States requires pilots to maintain an indicated airspeed within plus or minus 10 knots or 0.02 Mach number of the specified speed.
3.6.2.4	When meteorological conditions fall below the minimum specified for en route VFR flights, the pilot of the aircraft shall not continue his/her flight in such conditions, except in emergency, beyond the extent necessary to return to his/her departure point or to the nearest suitable landing point.
3.6.5.2 (Communication Failure)	<p>Two-way Radio Communications Failure</p> <p>a. It is virtually impossible to provide regulations and procedures applicable to all possible situations associated with two-way radio communications failure. During two-way radio communications failure, when confronted by a situation not covered in the regulation, pilots are expected to exercise good judgment in whatever action they elect to take. Should the situation so dictate they should not be reluctant to use the emergency action contained in 14 CFR Section 91.3(b)</p> <p>b. Whether two-way communications failure constitutes an emergency depends on the circumstances, and in any event, it is a determination made by the pilot. 14 CFR Section 91.3(b) authorizes a pilot to deviate from any rule in Subparts A and B to the extent required to meet an emergency.</p> <p>c. In the event of two-way radio communications failure, ATC service will be provided on the basis that the pilot is operating in accordance with 14 CFR Section 91.185. A pilot experiencing two-way communications failure should (unless emergency authority is exercised) comply with 14 CFR Section 91.185 quoted below</p> <p>1. General. Unless otherwise authorized by ATC, each pilot who has two-way radio communications failure when operating under IFR shall comply with the rules of this section.</p>

3.6.5.2.2	<p>In the event of two-way communications failure in the U.S., ATC service is predicated on pilot compliance with the provisions of 14 CFR Part 91 (Section 91.185). If the failure occurs in IMC, or if VFR cannot be complied with, each pilot is to continue the flight according to the following:</p> <p><u>Route</u></p> <ul style="list-style-type: none"> a) By the route assigned in the last ATC clearance received; b) If being radar vectored, by the direct route from the point of failure to the fix, route, or airway specified in the vector clearance; c) In the absence of an assigned route, by the route that ATC has advised may be expected in a further clearance; or d) In the absence of an assigned route or a route that ATC has advised may be expected in a further clearance, by the route filed in the flight plan. <p><u>Altitude</u> – At the HIGHEST of the following altitudes or flight levels FOR THE ROUTE SEGMENT BEING FLOWN:</p> <ul style="list-style-type: none"> a) The altitude or flight level assigned in the last ATC clearance received; b) The minimum altitude/flight level as prescribed for IFR operations; or c) The altitude or flight level ATC has advised may be expected in a further clearance. <p><u>IFR conditions</u> – If the failure occurs in IFR conditions, or if subparagraph 2 above cannot be complied with, each pilot shall continue the flight according to the following:</p> <ul style="list-style-type: none"> (a) Route. <ul style="list-style-type: none"> (1) By the route assigned in the last ATC clearance received; (2) If being radar vectored, by the direct route from the point of radio failure to the fix, route, or airway specified in the vector clearance; (3) In the absence of an assigned route, by the route that ATC has advised may be expected in a further clearance; or (4) In the absence of an assigned route of a route that ATC has advised may be expected in a further clearance by the route filed in the flight plan. (b) Altitude. At the HIGHEST of the following altitudes or flight levels FOR THE ROUTE SEGMENT BEING FLOWN: <ul style="list-style-type: none"> (1) The altitude or flight level assigned in the last ATC clearance received; (2) The minimum altitude (converted, if appropriate) to minimum flight level as prescribed in 14 CFR Section 91.121(c) for IFR operations; or (3) The altitude or flight level ATC has advised may be expected in a further clearance.
3.6.5.2.2 a)	<p>Annex 2 references maintaining last assigned speed, level, or minimum flight altitude for a specified amount of time depending on radar coverage. 91.185 does not require last assigned speeds and altitudes be maintained for specified amounts of time.</p>

Basic VFR Weather Minimums

Airspace	Flight Visibility	Distance from Clouds
Class A	Not Applicable	Not Applicable
Class B	3 statute miles	Clear of Clouds
Class C	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
Class D	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
Class E Less than 10,000 feet MSL	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
At or above 10,000 feet MSL	5 statute miles	1,000 feet below 1,000 feet above 1 statute mile horizontal
Class G 1,200 feet or less above the surface (regardless of MSL altitude). For aircraft other than helicopters: Day, except as provided in §91.155(b) Night, except as provided in §91.155(b)	1 statute mile 3 statute miles	Clear of clouds 500 feet below 1,000 feet above 2,000 feet horizontal
For helicopters: Day Night, except as provided in §91.155(b)	½ statute mile 1 statute mile	Clear of clouds Clear of clouds
More than 1,200 feet above the surface but less than 10,000 feet MSL. Day	1 statute mile	500 feet below 1,000 feet above 2,000 feet horizontal
Night	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
More than 1,200 feet above the surface and at or above 10,000 feet MSL.	5 statute miles	1,000 feet below 1,000 feet above 1 statute mile horizontal

Chapter 4	Visual Flight Rules
4.1 and Table 4–1	There is no Class F airspace in the U.S. Basic VFR weather minimums are listed in the table above.
4.1 a)	Except as otherwise authorized by the appropriate air traffic control unit for special VFR flights within Class B, C, D, or E surface areas, no person may operate an aircraft under VFR when the flight visibility is less, or at a distance from clouds that is less than that prescribed for the corresponding altitude and class of airspace in the table above.

	<p>5) Operating rules and pilot and equipment requirements for flight in Class B airspace.</p> <p>a) Operating rules. No person may operate an aircraft within Class B airspace except in compliance with the following rules:</p> <p>1) No person may operate an aircraft within Class B airspace unless that person has received an appropriate authorization from ATC prior to operation of that aircraft in that area.</p> <p>2) Unless otherwise authorized by ATC, each person operating a large turbine engine-powered airplane to or from a primary airport shall operate at or above the designated floors while within the lateral limits of the Class B airspace.</p> <p>3) Any person conducting pilot training operations at an airport within Class B airspace shall comply with any procedures established by ATC for such operations in Class B airspace.</p> <p>b) Pilot requirements. No person may take off or land a civil aircraft at an airport within Class B airspace or operate a civil aircraft within Class B airspace unless:</p> <p>1) The pilot-in-command holds at least a private pilot certificate; or</p> <p>2) The aircraft is operated by a student pilot who has met the requirements (14 CFR Part 61 (Section 61.95)).</p> <p>c) Communications and navigation requirements. Unless otherwise authorized by ATC, no person may operate an aircraft within Class B airspace unless that aircraft is equipped with:</p> <p>1) For IFR operations, an operable VOR or TACAN receiver, and</p> <p>2) For all operations, an operable two-way radio capable of communications with ATC on appropriate frequencies for that Class B airspace.</p> <p>d) Transponder requirements. No person may operate an aircraft in Class B airspace unless the aircraft is equipped with the applicable operating transponder and automatic altitude reporting equipment.</p>
	<p>6) Operating rules and pilot and equipment requirements for operating in Class C airspace.</p> <p>a) General. For the purpose of this section, the primary airport is the airport designated in 14 CFR Part 71, for which the Class C airspace is designated. A satellite airport is any other airport within the Class C airspace.</p> <p>b) Deviations. An operator may deviate from any provisions of this section under the provisions of an ATC authorization issued by the ATC facility giving jurisdiction of the Class C airspace. ATC may authorize a deviation on a continuing basis or for an individual flight, as appropriate.</p> <p>c) Arrivals and overflights. No person may operate an aircraft in Class C airspace unless two-way radio communication is established with the ATC facility having jurisdiction over the Class C airspace prior to entering that area and is thereafter maintained with the ATC facility having jurisdiction over the Class C airspace while within that area.</p> <p>d) Departures. No person may operate an aircraft within Class C airspace except as follows:</p> <p>1) From the primary airport or satellite airport with an operating control tower, unless two-way radio communication is established and maintained with the control tower, and thereafter as instructed by ATC while operating in the Class C airspace.</p> <p>2) From a satellite airport without an operating control tower, unless two-way radio communication is established as soon as practical after departing and thereafter maintained with the ATC facility having jurisdiction over the Class C airspace.</p> <p>e) Traffic patterns. No person may take off or land an aircraft at a satellite airport within Class C airspace except in compliance with FAA arrival and departure traffic patterns.</p> <p>f) Equipment requirements. Unless otherwise authorized by the ATC facility having jurisdiction over the Class C airspace, no person may operate an aircraft within Class C airspace unless that aircraft is equipped with the applicable equipment specified in 14 CFR Part 91 (Section 91.215).</p>

	<p>7) Except for persons operating gliders below the floor of Class A airspace, no person may operate an aircraft in Class B, C, D, or E airspace of the 48 contiguous States and the District of Columbia above 10,000 feet MSL, excluding that airspace at and below 2,500 feet AGL, unless that aircraft is equipped with an operable radar beacon transponder having at least a Mode 3/A 4096–code capability, replying to Mode 3/A interrogation with the code specified by ATC, and automatic altitude reporting equipment having a Mode C capability that automatically replies to Mode C interrogations by transmitting pressure altitude information in 100–foot increments.</p> <p>8) Compliance with ATC clearances and instructions:</p> <p>a) When an ATC clearance has been obtained, no pilot–in–command may deviate from that clearance, except in an emergency, unless an amended clearance is obtained. A pilot–in–command may cancel an IFR flight plan if that pilot is operating in VFR weather conditions outside of Class A airspace. If a pilot is uncertain of the meaning of an ATC clearance, the pilot shall immediately request clarification from ATC.</p> <p>b) Except in an emergency, no person may operate an aircraft contrary to an ATC instruction in an area in which ATC is exercised.</p> <p>c) Each pilot–in–command who, in an emergency, deviates from an ATC clearance or instruction shall notify ATC of that deviation as soon as possible.</p> <p>d) Each pilot–in–command who is given priority by ATC in an emergency shall submit a detailed report of that emergency within 48 hours to the manager of that ATC facility, if requested by ATC.</p> <p>e) Unless otherwise authorized by ATC, no person operating an aircraft may operate that aircraft according to any clearance or instruction that has been issued to the pilot of another aircraft for radar ATC purposes.</p>
Appendix 1	SIGNALS
4.1.1	<p>The flashing white signal to aircraft in flight, meaning “land at this aerodrome and proceed to apron” is not used in the United States.</p> <p>In addition, the alternating red and green signal to aircraft on the ground or in flight means exercise extreme caution.</p>
Appendix 5	UNMANNED FREE BALLOONS (<i>Note.—See Chapter 3, 3.1.10 of the Annex</i>)
1.	<p>14 CFR part 101 prescribes rules governing the operation in the United States, of any unmanned free balloon that—</p> <p>(i) Carries a payload package that weighs more than four pounds and has a weight/size ratio of more than three ounces per square inch on any surface of the package, determined by dividing the total weight in ounces of the payload package by the area in square inches of its smallest surface;</p> <p>(ii) Carries a payload package that weighs more than six pounds;</p> <p>(iii) Carries a payload, of two or more packages, that weighs more than 12 pounds; or</p> <p>(iv) Uses a rope or other device for suspension of the payload that requires an impact force of more than 50 pounds to separate the suspended payload from the balloon.</p>

9.9.4.1.1	Coordinates for NAVAIDs and Significant Points are shown in degrees, minutes and hundredths of minutes. Bearings are shown to the nearest degree and distances to the nearest mile. DME antenna elevation is not shown. Obstacles are depicted textually with position and height, and without regard for penetration of OIS. Minimum vectoring altitudes are not shown.
Chapter 10	Standard Arrival Chart – Instrument (STAR) – ICAO
10.2	Charts are provided only when a procedure has been established.
10.3.2	Charts are not generally drawn to scale.
10.3.3	Scale bar is not shown.
10.4.2	Parallels and meridians are not shown.
10.4.3	Graduation marks are not shown.
10.5	Procedure route is identified in accordance with FAA Order JO 7100.9
10.6.1	Culture and topography are not shown.
10.6.2	Contour relief is not shown. Obstacles are listed textually.
10.7	Magnetic variation is not shown.
10.8.1 10.8.2	Bearings and tracks are not provided as True values.
10.9.1.1	Airports are shown by symbol vice pattern.
10.9.2	Danger areas are not shown. Vertical limits are not shown.
10.9.3.1	Minimum Sector Altitude is not shown.
10.9.3.2	Area minimum altitudes are not shown.
10.9.4.1.1	Bearings are shown to the nearest degree and distances to the nearest mile. Coordinates for NAVAIDs and Significant Points are shown in degrees, minutes and hundredths of minutes. DME antenna elevation is not shown. Minimum vectoring altitudes are not shown.
Chapter 11	Instrument Approach Chart – ICAO
11.3.3	Scale is not shown.
11.3.3.1	Distance circle is not shown.
11.3.3.2	Distance between components and between last component and runway shown.
11.4	Sheet size is 8.25 inches by 5.375 inches
11.5.2	Graduation marks are not shown.
11.7.1	Culture information is not shown. Shaded hydrographic features are shown, but not labeled.
11.7.2	Terrain charting criteria does not include approach gradient steeper than optimal due to terrain.
11.7.3	Terrain is not charted if Std 11.7.2 is not met.
11.8.1	Magnetic variation is shown only in areas of compass instability and on charts North of 67 degrees of latitude.
11.10.1.1	Only airports specifically requested for charting are shown.
11.10.1.2	Only airports specifically requested for charting are shown.
11.10.2.2	Obstacles that are the determining factor for an OCA/OCH are not necessarily shown.
11.10.2.7	Absence of obstacle free zones are not shown.
11.10.3	Danger Areas do not exist in the U.S. Warning Areas exist and are charted.
11.10.4.3	Geographic final approach fix coordinates are not shown.
11.10.5	Minimum Safe Altitudes vice Minimum Sector Altitudes. Terminal Arrival Areas vice Terminal Arrival Altitude.
11.10.6.1	Arrowed dotted line is used for MA track. Arrowed dashed line used for Visual track. Times required for the procedure are not shown.

11.10.6.2	Distance to airport from final approach NAVAID is not shown.
11.10.6.3	Missed approach segment is shown by arrowed, dotted line. Arrowed, dashed line is used for visual segments. Times required for the procedure are not shown. Distance between components is shown vice a distance scale.
11.10.6.4	Parentheses are not shown.
11.10.6.5	Ground profile and shaded altitude blocks are not shown.
11.10.7.1	Procedure landing minima are shown vice aerodrome operating minima.
11.10.7.2	Decision Altitude/Height (DA/H) shown vice OCA/H.
11.10.8.2	Altitude/height table is not shown.
11.10.8.3	Altitude/height table is not shown.
11.10.8.4	Rate of descent table is not shown on individual plates, but a combined climb/descent table is available digitally or with printed procedure publication.
11.10.8.5	Descent gradient not shown, threshold crossing height shown in feet, vertical descent angle shown to hundredths of a degree.
11.10.8.6	Threshold crossing height shown in feet. Descent angle shown to the nearest hundredth of a degree.
11.10.8.8	Cautionary note is dependent on multiple criteria.
Chapter 12	Visual Approach Chart – ICAO
12.2	Chart provided only when visual approach procedure has been established.
12.3.3	Charts are shown at scale of 1:250,000, IAPs at 1:500,000 or smaller.
12.4	Sheet size is 8.25 inches by 5.375 inches.
12.5.2	Graduation marks are not shown
12.8	Magnetic variation is shown only in areas of compass instability and on charts North of 67 degrees of latitude.
12.9.3	Grid meridian is not shown.
12.10.2.3	Height of obstacle above Mean Sea Level is shown.
12.10.2.3.1	Datum height not shown. Parentheses are not shown.
12.10.3	Danger areas do not exist in the U.S. Warning areas exist and are charted. Vertical limits are not shown.
12.10.4	Control zones and Traffic zones are not shown.
12.10.5.3	VASI, MEHT, and angle of displacement are not shown.
Chapter 13	Aerodrome/Heliport Chart – ICAO
13.1	Helicopter movement is supported only with the location of helipads.
13.3.2	Latitude and longitude graticules are shown vice linear scale.
13.6.1	Latitude and longitude graticules are shown vice geographical coordinates. Airport elevations and runway end elevations are shown. Runway length and width are shown in feet. Clearways are not shown. Taxiways and identification only are shown. Standard taxi routes are not shown. Boundaries of air traffic service are not shown. RVR observation sites are not shown. Approach and runway lighting are not shown. VASI systems are not shown. VOR checkpoint and frequency are not shown.
13.6.2	Locations accommodating folding wing tips are not identified.
13.6.3	Helicopter pads only are shown. Touchdown and liftoff areas are not shown. Final approach and takeoff areas are not shown. Safety areas are not shown. Clearways are not shown. Visual aids are not shown. Declared distances are not shown.
Chapter 14	Aerodrome Ground Movement Chart – ICAO
14.1	Chart is not produced.

Chapter 15	
15.1	Chart is not produced.
Chapter 16	World Aeronautical Chart – ICAO 1:1 000 000
16.3.1	Linear scales are shown in the following order: nautical miles, statute miles, kilometers.
16.4.3	Charts are folded in eleven vertical panels and one horizontal fold.
16.5.1	Standard parallels are for each 8 degrees and are shown 1 degree and 20 minutes in from the Northern and Southern edges of the chart. Charts are not produced above 80 degrees latitude.
16.5.2	Distance between parallels is 1 degree. Above 56 degrees North, latitude graduation marks are shown only on every even degree of longitude. Distance between longitude meridians is 1 degree. Above 64 degrees North, meridian graduation marks are shown every 5 minutes.
16.5.3.1	Lengths of interval marks are as follow: 1 minute – .045 inches; 5 minutes – .065 inches; 10 minutes – .10 inches on both sides.
16.6	Chart numbering is indicated on Title Panel chart index.
16.7.2.2	Tunnels, if possible, are shown wherever they exist.
16.7.3.2	Roads are not shown within outlined populated areas.
16.7.9.2	Coordinates shown to the nearest minute.
16.7.10.1	Notes will read ‘Relief data incomplete’ or ‘Limits of reliable relief information.’
16.7.12.1	Wooded areas are not shown.
16.7.13	Date of topographic information is not shown.
16.8.2	Date of isogonic information is shown in the chart legend.
16.9.2.2	Other than hard surface runways are shown by symbol.
16.9.3.1	Obstacles greater than 500 feet are shown.
16.9.4	Danger Areas do not exist in the U.S. Alert Areas, Military Operating Areas and Warning Areas are also shown.
16.9.7.1	Only aeronautical ground lights that operate continuously are shown.
16.9.7.2	Only marine lights that operate year round, with a range of at least 10 NM, and are omnidirectional are shown.
Chapter 17	Aeronautical Chart – ICAO 1:500 000
17.3.1	Linear scales are shown in the following order: nautical miles, statute miles, kilometers.
17.4.3	Charts are folded in eleven vertical panels and one horizontal fold.
17.4.4	Relationship of chart to WAC series is not shown.
17.5.4.1	The 10 minute interval mark is .10 inches on both sides of the graticule line.
17.6.1.1	Relationship of chart to WAC series is not shown.
17.7.2.2	Tunnels, if possible, are shown wherever they exist. Prominent tunnels are shown pictorially.
17.7.3.1	Roads are shown for radar and visual value and for distinct configurations that provide visual checkpoint value.
17.7.9.2	Coordinates are shown to the nearest minute.
17.7.10.1	Notes will read ‘Relief data incomplete’ or ‘Limits of reliable relief information.’
17.7.12.1	Wooded areas are not shown.
17.7.13	Date of topographic information is not shown.
17.8.2	Date of isogonic information is shown in the chart legend.
17.9.2.2	Other than hard surface runways are shown by symbol.
17.9.3.1	Obstacles greater than 200 feet are shown, except in built up areas where only those greater than 300 feet are shown.

17.9.4	Danger areas do not exist in the U.S. Alert Areas, Military Operations Areas, and Warning Areas are also shown.
17.9.7.1	Only aeronautical ground lights that operate continuously are shown.
17.9.7.2	Only marine lights that operate year round, with a range of at least 10 NM, and are omnidirectional are shown.
Chapter 18	Aeronautical Navigation Chart — ICAO Small Scale
18.1	Chart is not produced.
Chapter 19	Plotting Chart – ICAO
19.1	Chart is not produced.
Chapter 20	Electronic Aeronautical Chart Display — ICAO
20.1	Charts provided digitally to operators. Digital charts mimic paper products described above and may not be modified.
Chapter 21	ATC Surveillance Minimum Altitude Chart — ICAO
21.1	Minimum Vectoring Altitude charts are available in electronic format only.
Appendix 6	Aeronautical Data Quality Requirements
Table 5. Bearing used for the formation of an en route and of a terminal fix	Whole degree resolution in charting of bearing used for formation of an en route and terminal fix.
Table 5. Bearing used for the formation of an instrument approach fix	Whole degree resolution in charting of bearing used for formation of an instrument approach procedure fix.
Table 6. (Length/ distance/ dimension) Distance used for the formation of an en route fix	Whole NM resolution in charting of distance used for formation of an en route fix.
Table 6. (Length/ distance/ dimension) Distance used for formation of an terminal and instrument approach procedure fix	Whole NM resolution in charting of distance used for formation of an Arrival or Departure fix.

DOC 10066, PANS-AIM	Procedures for Air Navigation Services Aeronautical Information Management
Chapter 1	Definitions
ASHTAM	The U.S. does not have a series of NOTAM called ASHTAM.
Danger Area	The FAA does not have Danger Area airspace within the U.S.
SNOWTAM	The U.S. does not use the SNOWTAM format.
Chapter 5	Aeronautical Information Products and Services
5.2.1.3.7	The FAA does not produce an AIP Supplement.
5.2.1.4	The FAA does not produce an AIP Supplement.
5.2.5	The U.S. Does not use SNOWTAM format.
5.2.5	The U.S. does not have a series of NOTAM called ASHTAM.
5.2.5	Currently, the U.S. does not utilize the ICAO format for Domestic NOTAMs. The U.S. NOTAMs that are distributed as International NOTAMs may be in ICAO format.
5.4.2	The FAA distribution system does not always match the ICAO standard for formatting, SNOWTAM, and ASHTAM.
Chapter 6	Aeronautical Information Updates
6.1.4	The FAA does not issue Trigger NOTAMs.
Appendix 2	Content of the Aeronautical Information Publication (AIP)
ENR 5.1	The FAA does not have Danger Area airspace within the U.S.
Appendix 3	NOTAM Format
Entire Appendix	Currently, the U.S. does not utilize the ICAO format for Domestic NOTAMs. The U.S. NOTAMs that are distributed as International NOTAMs may be in ICAO format.
Appendix 4	SNOWTAM Format
Entire Appendix	The U.S. does not use the SNOWTAM format.
Appendix 5	ASHTAM Format
Entire Appendix	The U.S. does not have a series of NOTAM called ASHTAM.
Appendix 7	Predetermined Distribution System for NOTAM
Entire Appendix	The FAA distribution system does not always match the ICAO standard for formatting, SNOWTAM, and ASHTAM.

ANNEX 5 – UNITS OF MEASUREMENT TO BE USED IN AIR-GROUND COMMUNICATIONS	
Chapter 3	Standard application of units of measurement
3.2.2 Table 3-3 Table 3-4	Table 3-4 Ref 1.12, runway length and Ref 1.13 runway visual range, unit of measure is in feet. Table 3-4 Ref 1.16, visibility unit of measure is statute miles (SM). Table 3-4 Ref 3.2, altimeter setting, unit of measure is reported as inches of mercury. Table 3-4, Ref 3.3, atmospheric pressure, unit of measure is in inches of mercury.
Attachment B	Guidance on the application of System of Units (SI)
5.4.2	Specifications differ from Attachment B, Style and usage, Para 5.4 Numbers. Comma is not acceptable as a decimal marker. Comma is used to separate digits in groups of three.

ANNEX 6 – OPERATION OF AIRCRAFT	
Part I	
Chapter 3	General
Chapter 3 Reference 3.3.6	The U.S. Flight Quality Assurance Program is a voluntary program.
Chapter 4	Flight Operations
Chapter 4 Reference 4.2.2.3	U.S. regulations exempt a single pilot in a 9-or-less seating configuration operation from having a maintenance manual. Rather, U.S. regulations (CFR 135.411) require a single pilot to comply with the maintenance requirements in CFR 91 and 43 in lieu of a maintenance manual or program.
Chapter 4 Reference 4.3.2	For multiengine, aeroplanes, commuter and on-demand operators are required to maintain fuel and oil records as part of the load manifest for 30 days rather than 3 months. For single engine aeroplanes, commuter and on-demand operators are not required to maintain fuel and oil records.
Chapter 4 Reference 4.3.4.1.2	The FAA treats takeoff alternates differently. Take off alternate: for airplanes with 3 or more engines SP/59/4.1 states that the take-off alternate aerodrome must be located within the following flight time distance from the aerodrome of departure: two hours of flight time at an all-engine operating cruising speed, determined from the aircraft operating manual, calculated in ISA and still-air conditions using the actual take-off mass. FAR 121.617 states 2 hours at normal cruising speed with one engine inoperative.
Chapter 4 Reference 4.3.8.2	The U.S. requires descent within four minutes to 14,000 ft not 13,000 ft, in the event of loss of pressurization. For commuter and on-demand operations, the descent altitude is 15,000 ft.
Chapter 4 Reference 4.9.2	The U.S. allows turbo-jets that are certificated for single pilot operations.
Chapter 5	Aeroplane performance operating limitations
Chapter 5 Reference 5.2.8.1	The United States does not have specific regulations that require the loss of Runway length be considered due to alignment of the airplane prior to takeoff. However, the United States does within its aircraft certification regulations require aircraft performance be determined by using the point on the runway where takeoff is started when computing takeoff distance. This same criteria is used when computing runway available for accelerate/stop distance. Accounting for runway loss due to alignment is done within each air carrier's approved operations manual.
Chapter 5 Reference 5.4.1	The U.S. does not require turbine engine reliability to have a power loss rate of less than 1 per 100,000 engine hours, a radio altimeter, two attitude indicators, airborne weather radar, a certified navigation system to identify aerodromes as forced landing areas, or an engine fire warning system.
Chapter 5 Reference 5.4.2	The U.S. does not require an automatic trend monitoring system on aeroplanes certificated after 1 January 2005.
Chapter 6	Aeroplane instruments, equipment and flight documents
Chapter 6 Reference 6.17.2	The U.S. does not require an ELT unless operated over water or remote areas.
Chapter 6 Reference 6.17.3	The U.S. does not require an ELT unless operated over water or remote areas.
Chapter 6 Reference 6.17.4	The U.S. does not require an ELT unless operated over water or remote areas.
Chapter 6 Reference 6.17.5	The U.S. does not require an ELT unless operated over water or remote areas.
Chapter 6 Reference 6.19.2	The U.S. does not require pressure altitude information with a resolution of 25 feet or better.

Chapter 6 Reference 6.19.3	The U.S. does not require pressure altitude information with a resolution of 25 feet or better.
Chapter 6 Reference 6.4.1	The U.S. does not require a time piece.
Chapter 6 Reference 6.4.2	The United States does not require aeroplanes on VFR flights, when operated as controlled flights, to be equipped in accordance with the requirements for aeroplanes operated under instrument flight rules.
Chapter 6 Reference 6.5.1	Seaplanes are not required to have equipment for making the sound signals prescribed in the International Regulations for Preventing Collision at Sea. Seaplanes are not required to be equipped with sea anchor.
Chapter 6 Reference 6.5.3.1	The United States defines extended over water operations for aircraft other than helicopters as an operation over water at a horizontal distance of more than 50 nautical miles from the nearest shoreline.
Chapter 6 Reference 6.12	The United States does not require equipment to measure cosmic radiation.
Chapter 6 Reference 6.15.6	The U.S. does not require ground prox systems for piston powered airplanes.
Chapter 6 Reference 6.20.2	The U.S. does not require pressure altitude information with a resolution of 25 feet or better.
Chapter 6 Reference 6.20.3	The U.S. does not require pressure altitude information with a resolution of 25 feet or better.
Chapter 6 Reference 6.21	The United States does not require crewmembers on flight deck duty to communicate through boom or throat microphones below the transition level/altitude.
Chapter 6 Reference 6.23	The U.S. requires an autopilot for IFR passenger operations, not for VFR or cargo operations. A) The U.S. does not require a boom microphone. B) The U.S. requires charts be available and used.
Chapter 8	Aeroplane Maintenance
Chapter 8 Reference 8.1.3	The person signing the maintenance release must have a CFR 65 certificate.
Chapter 8 Reference 8.4.2	The United States requires that records of work be retained until the work is repeated, superseded by other work or for one year after the work is performed, but does not require the records be retained after the unit has been permanently withdrawn from service.
Chapter 8 Reference 8.7.1.1	Left Intentionally Blank
Chapter 9	Aeroplane flight crew
Chapter 9 Reference 9.4.2.1	The U.S. does not have currency requirements for cruise relief pilots.
Chapter 9 Reference 9.4.2.2	The U.S. does not have currency requirements for cruise relief pilots.
Chapter 9 Reference 9.4.3.2	The United States requires air carrier pilots “before beginning a flight become familiar with all available information concerning the flight.” It does not require the pilot to demonstrate this knowledge.
Chapter 9 Reference 9.4.3.5	<p>The U.S. does not restrict operators from using a pilot as a pilot-in-command on a route where the pilot has not, within the preceding 12 months, made at least one trip between the terminal points of that route as a pilot member of the flight crew, or as an observer on the flight deck except for special areas and airports.</p> <p>A list of U.S. Special airports may be found at the following link: http://fsims.faa.gov/PICDetail.aspx?docId=AD20682A64001B6686257B71005E5B74 </p>

Chapter 9 Reference 9.4.3.6	The U.S. does not have an area/route 12 month currency requirement for pilots in command, except for special areas and airports.
Chapter 9 Reference 9.4.4.1	For PICs, the U.S. requires 1 proficiency checks per 12 months and either proficiency check or an approved simulator training course, for SICs, the U.S. requires 1 proficiency check each 24 months and another proficiency check or an approved simulator training course every 12 months.
PART II	
Section I	General
Chapter 1.1	Definitions
Continuous descent final approach (CDEFA)	The FAA does not believe “circling or visual flight maneuver” needs to be added to the definition of a CDEFA. The primary reason for a CDEFA is to maintain a continuous rate of descent from the FAF, through the MDA until 50 feet above the threshold in the FAS of an NPA. A circle or visual flight maneuver is contrary to the CDEFA, the aircraft must stop at the MDA and transition to level flight in order to accomplish the circling or visual flight maneuver to landing. The FAA does recognize that a constant descent rate, not to exceed 1000 ft/min, is normally used to accomplish the descent from the FAF to the circling MDA where level flight is maintained to accomplish the maneuver. This rate of descent may vary due to the design of the circle and/or category of the aircraft. The procedure for accomplishing a circling maneuver has not changed over time, versus, changing the technique for flying a FAS from a “dive and drive” maneuver to a CDEFA.
Low-visibility operations (LVO)	FAA defines LVO only as a condition regarding ground operations; not as it pertains to approach and takeoff operations. Further, the FAA sets the threshold for LVO at an RVR of 1200 feet or 350 meters.
Section II	General Aviation Operations
Chapter 2.2	Flight Operations
2.2.2.2.1.1	The FAA allows general aviation operations to 100' HAT using enhanced flight visions systems when actual visibility is below the newly established ICAO LVO threshold, without a specific approval.
2.2.2.2.5	The FAA allows general aviation instrument approach operations down to MDA or CAT I DA, irrespective of ceiling and visibility, without a specific approval. Further, these operations may be conducted without RVR information.
2.2.2.2.6	The FAA allows general aviation and fractional ownership operators to conduct takeoffs with visibility below the newly established ICAO LVO threshold without a specific approval
Chapter 2 Reference 2.2.3.4.3	In addition to the Standard prescribed in Annex 6, Part II, 4.6.4, the U.S. prohibits a pilot from taking of a US registered large or turbine-powered multi-engine general aviation aeroplane if there is frost, snow, or ice adhering to critical systems, components, and surfaces of the aircraft.
Chapter 2.4	Aeroplane instruments, equipment and flight documents.
Chapter 2 Reference 2.4.2.6.1	The United States does not require break-in point markings.
Chapter 2 Reference 2.4.2.6.2	The United States does not require break-in point markings.
Chapter 2 Reference 2.4.4.1	The United States does not require all seaplanes on all flights to be equipped with one life jacket or equivalent individual floatation device for each person on board; equipment for making the sound signals prescribed in the International Regulations for Preventing Collisions at Sea; and anchor or a sea anchor (drogue).

Chapter 2 Reference 2.4.5	Airplanes operated over land areas designated as areas in which search and rescue would be especially difficult are not required to be equipped with signaling devices or life-saving equipment. The United States does not designate areas in which search and rescue would be especially difficult, and therefore does not require such additional equipment.
Chapter 2 Reference 2.4.8	Airplanes operated under visual flight rules at night are not required to be equipped with c) to f) a) a turn and slip indicator; b) an altitude indicator (artificial horizon); c) a heading indicator (directional gyroscope); d) a means of indicating whether the supply of power to the gyroscopic instruments is adequate; 3) a sensitive pressure altimeter; f) a means of indicating the outside air temperature; g) a timepiece with a sweep second hand; h) an airspeed indicating system with a means of preventing malfunctioning due to condensation or icing; i) a rate-of-climb and descent indicator; j) a landing light; k) illumination for flight instruments and equipment; l) lights in passenger compartments; and m) a flashlight (electric torch) for each crew member station.
Chapter 2 Reference 2.4.11.4	Ground proximity warning systems are not required on general aviation aircraft, including turbine-engine airplanes with a take-off mass greater than 5700 kg or capable of carrying more than nine passengers.
Chapter 2.5	Aeroplane Communication, Navigation and Surveillance Equipment
Chapter 2 Reference 2.5.1.1	Except when operating under controlled flight, airplanes operated at night are not required to have radio communications equipment capable of conducting two-way communications. United States requirements for radio communications equipment are based upon the type of airspace in which the operation occurs, and not on the time of the day.
Chapter 2 Reference 2.5.1.2	When more than one radio communications equipment unit is required, the United States has no provision that each unit be independent of any other.
Chapter 2 Reference 2.5.1.4	Except when operating under controlled flight, airplanes on extended flights over water or on flights over underdeveloped land are not required to have radio communications equipment capable of conducting two-way communications.
Chapter 2 Reference 2.5.2.1	The United States has no provisions concerning requirement aircraft navigation instruments enabling a flight to proceed in accordance with a flight plan, prescribed RNP types, or the air traffic services provided. The United States does not specify a minimum distance between landmark references used by flight operating under visual flight rules.
2.5.2.7 (b)	The FAA monitors RVSM performance on a continual basis via ADS-B
Chapter 2 Reference 2.5.2.9	Though the FAA does not have RVSM operational reporting requirements, it does have a quality assurance requirement in 14 CFR appendix G Sections 2,3, and 4. In addition, RVSM operational deviation may be noted by FAA ATC and reported the FAA Office of Aviation Safety for disposition as deem appropriate.
Chapter 2 Reference 2.5.2.12	Airplanes are not required to have navigation equipment to ensure that in the event of the failure of one item of equipment at any stage of the flight, the remaining equipment will enable the aeroplane to proceed in accordance with Annex 6, Part II, 2.2.1. to 7.2.3.
Chapter 2.6	Aeroplane maintenance
Chapter 2 Reference 2.6.2.2.	The FAA established Title 14 Code of Federal Regulations section 43.10, which speaks to the disposition of parts, removed from type-certificated products. After April 15, 2002, each person who removes a life-limited part from a type certificated product must ensure that the part is controlled using: a record keeping system; tag or record attached to part; non-permanent marking; permanent marking; or segregation.
Chapter 2.7	Aeroplane flight crew
Chapter 2 Reference 2.7.2.2	Only pilot operating aircraft with TCAS under 14 CFR parts 91 (subpart K), 121, and 135 are required to having on the use of TCAS.
Appendix 2.4	General aviation specific approvals

2. SPECIFIC APPROVAL TEMPLATE	The FAA monitors RVSM performance on a continual basis via ADS–B
Section III	Large and Turbojet Aeroplanes
Chapter 3.6	Aeroplane instruments, equipment and flight documents
Chapter 3 Reference 3.6.1.1.2	The United States does not base requirements for flight data recorders on aircraft mass, but on passenger and engine configuration.
PART III	
Section I	General
Chapter 1	Definitions
Continuous descent final approach (CDFA).	The FAA does not believe “circling or visual flight maneuver” needs to be added to the definition of a CDFA. The primary reason for a CDFA is to maintain a continuous rate of descent from the FAF, through the MDA until 50 feet above the threshold in the FAS of an NPA. A circle or visual flight maneuver is contrary to the CDFA, the aircraft must stop at the MDA and transition to level flight in order to accomplish the circling or visual flight maneuver to landing. The FAA does recognize that a constant descent rate, not to exceed 1000 ft/min, is normally used to accomplish the descent from the FAF to the circling MDA where level flight is maintained to accomplish the maneuver. This rate of descent may vary due to the design of the circle and/or category of the aircraft. The procedure for accomplishing a circling maneuver has not changed over time, versus, changing the technique for flying a FAS from a “dive and drive” maneuver to a CDFA.
Low-visibility operations (LVO).	FAA defines LVO only as a condition regarding ground operations; not as it pertains to approach and takeoff operations. Further, the FAA sets the threshold for LVO at an RVR of 1200 feet or 350 meters
Section II	International Commercial Air Transport
Chapter 2 Reference 2.2.3.1	Intentionally left blank.
Chapter 2 Reference 2.2.4.2	Intentionally left blank
Chapter 2 Reference 2.2.9.1	Helicopter operators are not required to maintain fuel and oil records showing that the requirements of 2.3.6 have been met.
Chapter 2 Reference 2.2.9.2	Helicopter operators are not required to keep fuel and oil records for three months, though there is a requirement that load manifests be retained for 30 days.
Chapter 2 Reference 2.2.12	Intentionally left blank
Chapter 2 Reference 2.3.2	The pilot-in-command is not required to ensure that all persons on board are aware of the location and general manner of use of the principal emergency equipment carried for collective use.
Chapter 2 Reference 2.3.2	The United States requires that flight preparation forms must be retained for 30 days, not three months.
Chapter 2 Reference 2.3.3.2	The United States does not require that the operations manual describe the contents and use of the operational flight plan, but does require establishing procedures for locating each flight.
Chapter 2 Reference 2.3.6.2.	Intentionally left blank
Chapter 2 Reference 2.3.6.3	The fuel requirements for commuter and on demand operations are expressed in terms of flight time and do not include a specific altitude requirement.
Chapter 2 Reference 2.3.6.3.1	The United States does not require IFR helicopter operations to maintain a specific altitude above a destination.
Chapter 2 Reference 2.3.6.3.2	Fuel reserves for IFR helicopter operations is 30 minutes at normal cruise speed beyond the alternate heliport.
Chapter 2 Reference 2.3.6.3.3	The U.S. has no provisions addressing when a suitable alternate is unavailable. If the destination weather so requires, an alternate must be specified and 30 minute fuel reserved must be carried.

Chapter 2 Reference 2.3.6.4	The operations manual does not include procedures for loss of pressurization and other contingencies.
Chapter 2 Reference 2.3.8.1	The United States does not require oxygen at all times for passengers experiencing cabin pressure altitudes above 13,000 ft (620hPa). Oxygen for all passengers is not required until 15,000 ft (4,572m).
Chapter 2 Reference 2.3.8.2	The United States does not require oxygen at all times for passengers experiencing cabin pressure altitudes above 13,000 ft (620hPa). Oxygen for all passengers is not required until 15,000 ft (4,572m).
Chapter 2 Reference 2.4	The pilot-in-command is not specifically required, prior to commencing a flight, to be satisfied that any load carried is safely secured.
Chapter 2 Reference 2.4.1.3	The United States does not utilize a 1,000 ft minimum for non-precision approaches
Chapter 2 Reference 2.6.2.2	The United States allows for meteorological conditions at the estimated time of arrival and for one hour after the estimated time of arrival, not two hours.
Chapter 2 Reference 2.6.3.2	The United States allows the continuation of an approach regardless of the reported weather.
Chapter 2 Reference 2.8.3.1	The United States does not require that a specific altitude above the alternate be maintained.
Chapter 2 Reference 2.8.3.2	The United States does not require that a specific altitude above the alternate be maintained.
Chapter 2 Reference 2.8.4	The U.S. does not require that the procedures for loss of pressurization, where applicable, or failure of one power-unit while en route, be part of the required fuel and oil computations.
Chapter 2 Reference 2.10	The U.S. requirement for use of breathing oxygen by flight crew members applies only to altitudes above 14000 ft (4,267m).
Chapter 2 Reference 2.11	During an emergency, the pilot-in-command is not required to ensure that all persons on board the aircraft are instructed in emergency procedures.
Chapter 2 Reference 2.14	The pilot-in-command is not specifically required to discontinue a flight beyond the nearest suitable aerodrome when flight crew member's capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness, and lack of oxygen.
Chapter 3 Reference 3.1.1	US does not specify or restrict helicopter operations based on performance, class or category. (See definition of performance class in Annex 6, Part III, Section 1).
Chapter 3 Reference 3.2.1	The United States does not specify or restrict helicopter operations based on performance class or category (see definition of Performance Class in Annex 6, Part III, Section 1)
Chapter 3 Reference 3.2.7	US does not require the helicopter weight limitations found I n3.2.7 a), c), and d).
Chapter 4 Reference 4.1.2	US does not require carriage of a copy of the air operator's certificate.
Chapter 4 Reference 4.1.4.1	The United States does not require break-in points.
Chapter 4 Reference 4.1.4.2	The United States does not require break-in points.
Chapter 4 Reference 4.2.2	a) first aid equipment is not required on helicopters b) US has no provisions that fire extinguishers, when discharge, will not cause dangerous contamination of the air within the helicopter c) (3) US has no provisions for a safety harness device to prevent interference with flight controls should a pilot become incapacitated.
Chapter 4 Reference 4.2.4.1	The US does not require marking of break-in points.
Chapter 4 Reference 4.2.4.2	The U.S. does not require marking of break-in points.
Chapter 4 Reference 4.3.2.3	Life-saving rafts are not required on helicopters operating on flights over water.
Chapter 4 Reference 4.4	Helicopters operated over land areas designated as areas in which search and rescue would be especially difficult are not required to be equipped with signaling devices or life-saving equipment. The U.S. does not designate areas in which search and rescue would be especially difficult and therefore does not require such additional equipment.
Chapter 4 Reference 4.4.2	Helicopters flown over water in passenger operations are not required to be certified for ditching but only to be equipped with flotation devices.

Chapter 4 Reference 4.5.2.1	B) and C) Life saving rafts and pyrotechnic devices are only required for extended over-water operations. That is in respect to helicopters in operations over water with a horizontal distance of more than 50 NM from the nearest shore line and more than 50 NM form an off-shore heliport structure.
Chapter 4 Reference 4.6	The U.S. does not require helicopters to carry a specific document attesting noise certification. However, the helicopter's type certificate is the de facto document that the helicopter complied with the noise certification requirements at the time it received FAA type certification.
Chapter 4 Reference 4.6	Helicopters operated over land areas designated as areas in which search and rescue would be especially difficult are not required to be equipped with signaling devices or life-saving equipment. The U.S. does not designate areas in which search and rescue would be especially difficult and therefore does not require additional equipment.
Chapter 4 Reference 4.9.1	The U.S. requires transponders only in certain airspace.
Chapter 4 Reference 4.11	The U.S. does not require helicopters to carry a specific document attesting noise certification. However, the helicopter's type certificate is the de facto document that the helicopter complied with the noise certification requirements at the time it received FAA type certification.
Chapter 4 Reference 4.13	The U.S. requires transponders only in certain airspace.
Chapter 4 Reference 4.14	The U.S. does not require crew members flight deck duty to communicate through boom or throat microphone.
Chapter 5 Reference 5.1.1	Except when operating under controlled flight, helicopters are not required to have radio communications for night operators.
Chapter 5 Reference 5.1.2	The U.S. does not require that the radio communications equipment specified in 5.1.1 be independent of the other or others to the extent that failure in my any one will not result in failure of any other.
Chapter 5 Reference 5.1.4	Except when operating under controlled flight, helicopters on extended flights over water or on flights over underdeveloped land are not required to have radio communications equipment.
Chapter 5 Reference 5.2.1	The U.S. has no provision that visual landmarks used in VFR be located at least every 60 NM (110km).
Chapter 5 Reference 5.2.1	The United does not require a helicopter to be provided with navigation equipment in accordance with RNP types for navigation with the United States. However, the United States does provide information and operations specifications for IFR operating requirements when U.S. operators and aircraft conduct operations in the European Airspace Designated for Basic Area Navigation (RNP-5 and 10).
Chapter 6 Reference 6.1.1	All United States helicopters used in commercial air transport are certified as commuter or on demand operations. Maintenance on United States commuter and on demand helicopters may be performed by either an approved maintenance organization, a certified mechanic, or by persons under the supervisions of a certified mechanic.
Chapter 6 Reference 6.2.2	The U.S. requires that records of work must be retained until the work is repeated, superseded by other work, or for one year after the work is performed.
Chapter 6 Reference 6.3.1	The U.S. does not require an operator's maintenance training program to include training in knowledge and skills related to human performance.
Chapter 6 Reference 6.4.2	The U.S. requires that records of work be retained until the work is repeated, superseded by other work for one year after the work is performed, but does not require the records be retained after the until has been permanently withdrawn from service.
Chapter 6 Reference 6.8.2	The U.S. requires that records of work must be retained until the work is repeated, superseded by other work, or for one year after the work is performed.
Chapter 7 Reference 7.4.2.2	Helicopter pilots are not required to demonstrate to the operator an adequate knowledge of the specific areas described in 7.4.3.2
Chapter 7 Reference 7.5	The U.S. practice is to require a spare set of correcting lenses only when a flight crew member's defective visual acuity necessitates a limitation on the pilot's medical certificate.
Chapter 9 Reference 9.5	The U.S. does not require that an operator keep a list of the emergency and survival equipment carried on board any of their helicopters engaged in international air navigation.

Chapter 11 Reference 11.1	A checklist containing procedures to be followed in searching for a suspected bomb is not required to be aboard the aircraft. The U.S. requires that crew members be trained in dealing with explosives that may be on board an aircraft, but this does not necessarily include training on how to search for an explosive.
Chapter 11 Reference 11.2.1	The U.S. does not require an operator to establish and maintain a training program that enables crew members to act in the most appropriate manner to minimize the consequences of acts of unlawful interference.
Chapter 11 Reference 11.2.2	The U.S. does not require an operator to establish and maintain a training program that enables crew members to act in the most appropriate manner to minimize the consequences of acts of unlawful interference.
Chapter 11 Reference 11.3	The pilot-in-command is not required to submit, without delay, a report of an act of unlawful interference to the designated local authority.
Section III	International General Aviation
	Intentionally left blank

ANNEX 7 – AIRCRAFT NATIONALITY AND REGISTRATION MARKS	
3.3.1 and 4.2.1	The marks on wing surfaces are not required.
3.2.5 and Section 8	Identification plates are not required on unmanned, free balloons.
4.2.2	The minimum height of marks on small (12,500 lb or less), fixed-wing aircraft is 3 inches when none of the following exceeds 180 knots true airspeed: (1) design cruising speed; (2) maximum operating limit speed; (3) maximum structural cruising speed; and (4) if none of the foregoing speeds have been determined for the aircraft, the speed shown to be the maximum cruising speed of the aircraft.
Section 6	A centralized registry of unmanned free balloons is not maintained. Operators are required to furnish the nearest ATC facility with a prelaunch notice containing information on the date, time, and location of release, and the type of balloon. This information is not maintained for any specified period of time.
Section 8	<p>United States Identification plate does not have nationality or registration mark.</p> <p>ICAO ID plate information required by Annex 7.8 does not include nationality or registration mark.</p> <p>Also for non Part 121 and commuter aircraft, location must be either adjacent to and aft of the rear-most entrance door or on the fuselage near the tail surfaces.</p>

ANNEX 8 – AIRWORTHINESS OF AIRCRAFT	
PART II Procedures for Certification and Continued Airworthiness	
Chapter 1	Type Certification
1.2.5	ICAO requires that the design of an aircraft under ICAO Annex 8, Parts IIIB, IVB, and V use alternative fire extinguishing agents to halon in the lavatories, engines, and auxiliary power units. The United States does not have a similar requirement.
PART III Aeroplanes	
Part IIIA	
Chapter 4	Design and Construction
4.1.6 (b), 4.1.6 (g), 4.1.6 (h), 4.1.6 (i)	The United States does not have similar requirements. The FAA has begun work in an effort to amend the U.S. regulations with the purpose of eventually meeting the intent of these provisions.
Chapter 8	Instruments and Equipment
8.4.1	ICAO requires that airplanes operating on the movement area of an airport shall have airplane lights of such intensity, color, fields of coverage and other characteristics to furnish personnel on the ground with as much time as possible for interpretation and for subsequent maneuver necessary to avoid a collision. The FAA has no such requirement.
8.4.2 (b)	This provision addresses the lights’ affect on outside observers in reference to “harmful dazzle.” The U.S. regulations do not address the affect of aircraft lights on outside observers. However, visibility to other pilots and the lights’ affect on the flight crew is addressed.
Chapter 9	Operating Limitations and Information
9.3.5	The United States does not have similar requirements. The FAA has begun work in an effort to amend the U.S. regulations with the purpose of eventually meeting the intent of these provisions.
Chapter 11	Security
11.2, 11.3, 11.4	With the exception of the door required by 11.3, the United States does not have similar requirements. The FAA has begun work in an effort to amend the U.S. regulations with the purpose of eventually meeting the intent of these provisions.
Part IIIB	
Large Aeroplane Certification	
Chapter 3	Structure
3.8.2	The corresponding FAA requirement does not specify the use of failsafe principles; however, the FAA does advise the use of failsafe principles.
Chapter 4	Design and Construction
4.1.6	On November 28, 2008, the FAA adopted new regulations that meet the intent of these provisions. However, Part IIIB applies to airplanes with a date of application of March 2, 2004 or later, but the U.S. requirements apply to airplanes with a date of application of November 28, 2008 or later.
D.2 (g)	Paragraph D.2.g.1 of the ICAO standard requires a fire suppression system for each cargo compartment accessible to a crewmember in a passenger-carrying airplane. U.S. requirements permit manual fire fighting in an accessible cargo compartment by a crewmember or members for an all-passenger-carrying airplane or a passenger-cargo combination carrying airplane. Additionally, the FAA does not have specific requirements to consider the effects of explosions or incendiary devices.
D.2 (h)	The United States does have provisions to protect against possible instances of cabin depressurization. However, the FAA does not have specific requirements to consider the effects of explosions or incendiary devices.

F.4.1	ICAO requires that airplanes operating on the movement area of an airport shall have air- plane lights of such intensity, color, fields of coverage and other characteristics to furnish personnel on the ground with as much time as possible for interpretation and for subsequent maneuver necessary to avoid a collision. The U.S. has no such requirement.
Chapter 7	Operating Limitations and Information
7.3.5	The United States does not have similar requirements. The FAA has begun work in an effort to amend the U.S. regulations with the purpose of eventually meeting the intent of these provisions.
Chapter 10	Security
10.3.1, 10.3.2	The FAA has a door requirement, but no requirements addressing bulkheads, floors, etc. On January 5, 2007, the FAA published Notice of Proposed Rulemaking that, when adopted, will meet the intent of these provisions.
PART IV Helicopters	
Part IIIB	Large Aeroplane Certification
Chapter 2	Design and Production
4.2	The United States does not have a specific requirement for physical separation of systems. However, physical separation is considered in the means of compliance to various regula- tions such as 25.1309, 25.901(c) and 25.903(d).
Part IVA	
Chapter 2	Flight
2.2.3.1, 2.2.3.1.1 – 2.2.3.1.4	These provisions address take–off performance data for all classes of helicopters and require that this performance data include the take–off distance required. However, the United States has adopted the requirements only for Category A helicopters.
Chapter 6	Rotor and Power Transmissions Systems and Powerplant Installation
6.7	This provision requires that there be a means for restarting a helicopter’s engine at altitudes up to a declared maximum altitude. In some cases the FAA does not require demonstration of engine restart capability. Since there is a different level of certitude for transport and nor- mal category helicopters in the United States, the engine restart capability is only required for Category A and B helicopters (14 CFR Part 29) and Category A normal helicopters (14 CFR Part 27).
Chapter 7	Instruments and Equipment
7.4.2	This provision addresses the need to switch off or reduce the intensity of the flashing lights. The United States has minimum acceptable intensities that are prescribed for navigation lights and anti–collision lights. No reduction below these levels is possible.
7.4.2 (b)	This provision addresses the lights’ affect on outside observers in reference to “harmful dazzle.” The U.S. regulations do not address the affect of aircraft lights on outside observ- ers. However, visibility to other pilots and the lights’ affect on the flight crew is addressed.
8.4.2 (b)	This provision addresses the lights’ affect on outside observers in reference to “harmful dazzle.” The U.S. regulations do not address the affect of aircraft lights on outside observ- ers. However, visibility to other pilots and the lights’ affect on the flight crew is addressed.
Part IVB	
Chapter 6	Systems and Equipment
6.5	U.S. regulations do not address electromagnetic interference from external sources. High Intensity Radiated Fields (HIRF) are addressed by Special Conditions but only for flight critical systems, not flight essential systems.

PART V Small Aeroplanes	
Chapter 8	Crashworthiness and Cabin Safety
8.5 (e)	The FAA provides requirements for emergency lighting systems in 14CFR 23.812. These requirements do not address the impact of the fuel spillage on emergency lighting systems. Only commuter category airplanes are required to install emergency lighting systems.

ANNEX 9 – FACILITATION	
*The list of differences include Guam, Puerto Rico, and the U.S. Virgin Islands. The status of implementation of Annex 9 in Guam with respect to public health quarantine is not covered in the list of differences.	
Chapter 2	Entry and Departure of Aircraft
2.3	Written crew baggage declaration is required in certain circumstances, and a special Embarkation/Disembarkation Card is required for most alien crew members.
2.4	A General Declaration for all inbound and for outbound flights with commercial cargo are required. However, the General Declaration outbound flights with commercial cargo shall not be required if the declaratory statement is made on the air cargo manifest. No declaration is required for outbound flights without commercial cargo if Customs clearance is obtained by telephone.
Remarks	19 CFR 122
2.4.1	Each crew member must be listed showing surname, given name, and middle initial.
2.4.4	The signing or stamping of the General Declaration protects the carrier by serving as proof of clearance.
2.5	The crew list is required by statute.
2.7	There is a statutory requirement for the Cargo Manifest.
2.8	In order to combat illicit drug smuggling, the U.S. requires the additional following information: the shipper's and the consignee's name and address, the type of air waybills, weight, and number of house air waybills. The manifest submitted in electronic form may become legally acceptable in the future. However, until the compliance rate for the automated manifest is acceptable, the U.S. must be able to require the written form of the manifest.
Remarks	19 CFR 122.48
2.9	Nature of goods information is required.
2.10	Stores list required in all cases but may be recorded on General Declaration in lieu of a separate list.
2.17	A cargo manifest is required except for merchandise, baggage and stores arriving from and departing for a foreign country on the same through flight. "All articles on board which must be licensed by the Secretary of State shall be listed on the cargo manifest." "Company mail shall be listed on the cargo manifest."
2.18	Traveling general declaration and manifest, crew purchases and stores list as well as a permit to proceed are required under various conditions when aircraft arrive in the U.S. from a foreign area with cargo shown on the manifest to be traveling to other airports in the U.S. or to foreign areas.
2.21	There is a statutory requirement that such changes can only be made prior to or at the time of formal entry of the aircraft.
2.25	The U.S. does not support the use of insecticides in aircraft with passengers present. Pesticides registered for such use should not be inhaled. In effect, the passenger safety issue has precluded the use of such insecticides in the presence of passengers since 1979.
2.35	Advance notice is required of the number of citizens and aliens on board (non-scheduled flights only).
2.40	A copy of the contract for remuneration or hire is required to be a part of the application in the case of non-common carrier operations.
2.41	Single inspection is accorded certain aircraft not by size of aircraft but rather by type of operation. Loads (cargo) of an agricultural nature require inspection by a plant or animal quarantine inspector.
2.41c	Fees are charged for services provided in connection with the arrival of private aircraft (nonscheduled aircraft).
Chapter 3	Entry and Departure of Persons and Their Baggage
3.3	Medical reports are required in some cases.

Remarks	8 CFR 212.7 and INA 234
3.4	Documents such as visas with certain security devices serve as identity documents.
3.4.1	The U.S. has not standardized the personal identification data included in all national passports to conform with the recommendation in Doc 9303.
3.5.6	U.S. passport fees exceed the cost of the operation.
3.5.7	U.S. allows separate passports for minor dependents under the age of 16 entering the U.S. with a parent or legal guardian.
3.7	The U.S. has a pilot program that allows nationals of certain countries which meet certain criteria to seek admission to the U.S. without a visa for up to 90 days as a visitor for pleasure or business.
Remarks	22 CFR 41.112(d) INA 212(d)(4), INA 238, 8 CFR 214.2(c) INA 217
	The law permits visa waivers for aliens from contiguous countries and adjacent islands or in emergency cases. Visas are also waived for admissible aliens arriving on a carrier which is signatory to an agreement assuring immediate transit of its passengers provided they have a travel document or documents establishing identity, nationality, and ability to enter some country other than the U.S.
3.8	The U.S. charges a fee for visas.
3.8.3	Duration of stay is determined at port of entry.
Remarks	INA 217
3.8.4	A visitor to the U.S. cannot enter without documentation.
Remarks	INA 212(a) (26)
3.8.5	Under U.S. law, the duration of stay is determined by the Immigration Authorities at the port of entry and thus cannot be shown on the visa at the time of issuance.
3.10	Embarkation/Disembarkation Card does not conform to Appendix 4 in some particulars.
3.10.1	The operator is responsible for passengers' presentation of completed embarkation/disembarkation cards.
Remarks	8 CFR 299.3
3.10.2	Embarkation/Disembarkation cards may be purchased from the U.S. Government, Superintendent of Documents.
Remarks	8 CFR 299.3
3.14.2	The U.S. fully supports the electronic Advance Passenger Information (API) systems. However, the WCO/IATA Guideline is too restrictive and does not conform to the advancements in the PAXLIST EDIFACT international standard.
3.15	U.S. Federal Inspection Services' officials see individuals more than once.
3.16	Written baggage declarations by crew members are required in some instances.
3.17.1	The U.S. uses a multiple channel system rather than the dual channel clearance system.
3.23, 3.23.1	Statute requires a valid visa and passport of all foreign crew members.
3.24, 3.24.1, 3.25, 3.25.1, 3.25.2, 3.25.3	Crew members, except those eligible under Visa Waiver Pilot Program guidelines, are required to have valid passports and valid visas to enter the U.S.
Remarks	INA 212(a) (26), INA 252 and 253, 8 CFR 214.1(a), 8 CFR 252.1(c)
3.26, 3.27, 3.28, 3.29	Passports and visas are required for crew and non–U.S. nationals to enter the U.S.
3.33	Does not apply to landing card.
3.35	Law requires that the alien shall be returned to the place whence he/she came. Interpretation of this provision requires that he/she be returned to the place where he/she began his/her journey and not only to the point where he/she boarded the last–used carrier.
3.35.1	Law requires that certain aliens be deported from the U.S. at the expense of the transportation line which brought them to the U.S.
3.36	Statute provides for a fine if a passenger is not in possession of proper documents.

3.39.3	NOTE: The U.S. considers security for individuals in airline custody to be the carrier's responsibility.
3.40.2	Annex 9 recommends that fines and penalties be mitigated if an alien with a document deficiency is eventually admitted to the country of destination.
3.43	Operator can be held responsible for some detention costs.
Chapter 4	Entry and Departure of Cargo and Other Articles
4.20	The Goods Declaration as defined by the Kyoto Convention serves as the fundamental Customs document rather than the commercial invoice.
4.40	Aircraft equipment and parts, certified for use in civil aircraft, may be entered duty-free by any nation entitled to most-favored nation tariff treatment. Security equipment and parts, unless certified for use in the aircraft, are not included.
4.41	Customs currently penalizes the exporting carrier for late filing of Shipper's Export Declarations (SEDs) and inaccuracies on bills of lading with respect to the SEDs.
4.42	Regulations require entry of such items, most of which are dutiable by law.
4.44	Certain items in this category are dutiable by law.
4.48	Carriers are required to submit new documentation to explain the circumstances under which cargo manifest is not unladen. No penalty is imposed if the carrier properly reports this condition.
4.50	The procedures for adding, deleting, or correcting manifest items require filing a separate document.
4.55	The U.S. requires a transportation in-bond entry or a special manifest bonded movement for this type of movement.
Chapter 5	Traffic Passing Through the Territory of a Contracting State
5.1	Such traffic must be inspected at airports where passengers are required to disembark from the aircraft and no suitable sterile area is available.
5.2	Passports and visas are waived for admissible aliens arriving on a carrier which is signatory to an agreement assuring immediate transit of its passengers provided they have a travel document or documents establishing identity, nationality, and ability to enter some country other than the U.S.
5.3	Such traffic must be inspected at airports where no suitable sterile area is available.
5.4	Passports and visas are waived for admissible aliens arriving on a carrier which is signatory to an agreement assuring immediate transit of its passengers provided they have a travel document or documents establishing identity, nationality, and ability to enter some country other than the U.S.
5.4.1	Passengers will not be required to obtain and present visas if they will be departing from the U.S. within 8 hours of arrival or on the first flight thereafter departing for their destination.
5.8	Examination of transit traffic is required by law. Transit passengers without visas are allowed one stopover between the port of arrival and their foreign destination.
5.9	Passports and visas are required generally for transit passengers who are remaining in the U.S. beyond 8 hours or beyond the first available flight to their foreign destinations.
Chapter 6	International Airports – Facilities and Services for Traffic
6.3.1	Procedures involving scheduling committees raise a number of anti-trust problems under U.S. law.
6.33	Sterile physical facilities shall be provided, and in-transit passengers within those areas shall be subject to immigration inspection at any time.
Remarks	OI 214.2(c)
6.34	The U.S. inspects crew and passengers in transit.
6.36	The U.S. inspects crew and passengers in transit.

6.56	Operators of aircraft are statutorily required to pay overtime charges for federal inspections conducted outside normal scheduled hours of operation. This requirement places aircraft operators in a less favorable position than operators of highway vehicles and ferries who are statutorily exempt from such charges.
Chapter 8	Other Facilitation Provisions
8.1	Separate bonds are required.
8.3.2	Visas are issued by the Department of State and are not issued at ports of entry.

ANNEX 10 – AERONAUTICAL TELECOMMUNICATIONS	
ANNEX 10 – VOLUME 1 – RADIO NAVIGATION AIDS	
PART I	
Chapter 3	Specifications for Radio Navigation Aids
3.1.2.1.1	Remote control and monitoring is implemented at all ILS installations for CAT II and III. Most, but not all, CAT I installations are monitored. A–CAT II and III; C– CAT I
3.1.4.1, 3.1.4.2	The United States does not require such equipage for aircraft. Interference from FM broadcast signals will not adversely affect aircraft navigation and communications systems in the United States airspace
3.3.4.2	The US minimum VOR signal strength is -120 dBW/m2. The ICAO requirement is - 107 dBW/m2.
3.3.8.1, 3.3.8.2	The United States does not require such equipage for aircraft. Interference from FM broadcast signals will not adversely affect aircraft navigation and communications systems in the United States airspace.
3.5.4.1.5.1	The US minimum DME signal strength is –91.5 dBW/m2 above 18,000 ft and –86.0 dBW/m2 below 18,000 ft. The ICAO requirement is –83 dBW/m2.
3.7.3.4.4.3	Current satellite contract calls for –150dBW under the conditions specified in 3.7.3.4.4.3. Difference is greater signal power than called for in Annex 10.
3.7.3.5.3	Currently, the service volume of GBAS in FAA Order 6050.32B is 23 NM up to 10,000 feet.
Appendix B	TECHNICAL SPECIFICATIONS FOR THE GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)
3.6.7.2.3.5	A solution has been implemented in the US which does not require protection level bounding for rare anomalous ionospheric storms under extreme conditions. The solution requires denial of the approach service when anomalous ionosphere conditions could cause potentially large residual errors and allows operations when estimated residual errors would be below a threshold. The resulting errors under the threshold were found to be acceptable using specific safety assessments and criteria for this equipment.
3.6.8.2.2.5.3	In the U.S., the LAAS operates above the ILS LOC frequency band on center frequencies from 112.05 to 117.950 MHz; therefore, this standard does not apply.
3.6.8.2.2.6	Currently, the D/U standard for co–channel rejection is the same as the ICAO standard of 26 dB. However, D/U standard for the second adjacent channel rejection is 46 dB, which is 3 dB less than the ICAO standard. In addition, no third adjacent channel rejection standard exists in Order 6050.32B.
3.6.8.2.2.6.1c	In the U.S., the LAAS operates above the ILS LOC frequency band on center frequencies from 112.05 to 117.950 MHz; therefore, this standard does not apply.
3.6.8.2.2.6.2c	In the U.S., the LAAS operates above the ILS LOC frequency band on center frequencies from 112.05 to 117.950 MHz.
3.6.8.2.2.6.3c	In the U.S., the LAAS operates above the ILS LOC frequency band on center frequencies from 112.05 to 117.950 MHz.
3.6.8.2.2.6.4	In the U.S., the LAAS receiver protection from an undesired LAAS, VOR, or ILS signal offset by +/- 1 MHz or more is not considered during the frequency assignment process.
Attachment C	INFORMATION AND MATERIAL FOR GUIDANCE IN THE APPLICATION OF THE STANDARDS AND RECOMMENDED PRACTICES FOR ILS, VOR, PAR, 75 MHz MARKER BEACONS (EN–ROUTE), NDB AND DME
2.6.2.1.2	The US frequency protections for ILS localizers are 3 dB more stringent than the ICAO protections (i.e. 23 dB vs. 20 dB for co–channel, –4 dB vs. –7 dB for interim 1st adjacent channels, –31 dB vs. –34 dB for final 1st adjacent channels, –43 dB vs. –46 dB for 2nd adjacent channels, and –47 dB vs. –50 dB for 3rd adjacent channels).

2.6.2.2.1	The US frequency protections for ILS localizers are 3 dB more stringent than the ICAO protections (i.e. 23 dB vs. 20 dB for co-channel, -4 dB vs. -7 dB for interim 1st adjacent channels, -31 dB vs. -34 dB for final 1st adjacent channels, -43 dB vs. -46 dB for 2nd adjacent channels, and -47 dB vs. -50 dB for 3rd adjacent channels).
3.4.6.1 a),b),c) 3.4.6.2 a),b),c)	The US frequency protections for co-channel, 1st and 2nd adjacent channels for VOR are 3 dB more stringent than the ICAO protections (i.e. 23 dB vs. 20 dB for co-channel, -4 dB vs. -7 dB for interim 1st adjacent channels, -31 dB vs. -34 dB for final 1st adjacent channels, -43 dB vs. -46 dB for 2nd adjacent channels).
3.4.6.1 d) 3.4.6.2 d)	The US does not provide any VOR frequency protection for 3rd adjacent channels. The ICAO protection provides -50 dB for 3rd adjacent channels.
7.1.8.1 7.1.8.2 Table C6	The US frequency protections for co-channel and 1st adjacent channels for DME are 3 dB more stringent than the ICAO protections (i.e. 11 dB vs. 8 dB for co-channel, -39 dB vs. -42 dB for 1st adjacent channels). The US frequency protection for 2nd adjacent channels for DME is 28 dB more stringent than the ICAO protection (i.e. -47 dB vs. -75 dB).
Volume I, Appendix B-112, 3.6.7.2.3.5	A solution has been implemented in the US which does not require protection level bounding for rare anomalous ionospheric storms under extreme conditions. The solution requires denial of the approach service when anomalous ionosphere conditions could cause potentially large residual errors and allows operations when estimated residual errors would be below a threshold. The resulting errors under the threshold were found to be acceptable using specific safety assessments and criteria for this equipment.

ANNEX 10 – VOLUME II – COMMUNICATION PROCEDURES INCLUDING THOSE WITH PANS STATUS	
Chapter 3	General Procedures for the International Aeronautical Telecommunication Service
3.2.2, 3.2.3	US regulations do not have any specific procedures for closing down international aeronautical stations. All international aeronautical stations in the U.S. operate continuously (24 hours a day and seven days a week)
Chapter 5	Aeronautical Mobile Service – Voice Communications
5.1.5	US regulations do not require pilots to wait 10 seconds before making a second call. US regulations only require “a few seconds” instead of “10 seconds.”
5.2.1.4.1.1	The United States directs that, for air carriers and other civil aircraft having FAA authorized call signs, the call sign should be followed by the flight number in group form; and for air carriers of foreign registry, the flight number should be stated in group form, or using separate digits if that is the format used by the pilot.
5.2.1.4.1.1	The United States issues surface wind using the word “wind” followed by the separate digits of the indicated wind direction to the nearest 10–degree multiple, the word “at” and the separate digits of the indicated velocity in knots, to include any gusts.
5.2.1.4.1.3	The United States issues the separate digits of a frequency, inserting the word “point” where the decimal point occurs.
5.2.2.7.1.2	US regulations do not specifically require pilots to send a message twice preceded with the phrase “TRANSMITTING BLIND”. US regulations provides general procedures which allow pilots to make blind transmissions in case of emergency.
5.2.2.7.1.3.2	US regulations do not specifically require pilots to make a blind transmission preceded by “TRANSMITTING BLIND DUE TO RECEIVER FAILURE” with respect to the continuation of the flight of the aircraft. US regulations provide general procedures which allow pilots to make appropriate blind transmissions.
5.2.2.7.2.1, 5.2.2.7.2.2, 5.2.2.7.2.3	US regulations do not specifically require aeronautical stations to get assistance from other aircraft in case of communications failure. US regulations require aeronautical stations to use “all appropriate means” available to re-establish communications with aircraft.
5.2.2.7.2.4	US regulations do not provide this specific standard. US regulations require aeronautical stations to use “all appropriate means” available to re-establish communications with aircraft.
5.2.2.7.3.1	US regulations do not specifically require pilots to make a blind transmission preceded by “TRANSMITTING BLIND DUE TO RECEIVER FAILURE”. US regulations provide general procedures which allow pilots to make appropriate blind transmissions.
ANNEX 10 – VOLUME III – COMMUNICATION SYSTEMS	
PART I – DIGITAL DATA COMMUNICATION SYSTEMS	
Chapter 1	Definitions
ATN Directory Services	The FAA has not implemented the DIR as part of the AMHS Extended Service. The Basic Service AMHS has been implemented. ATN standard is only recorded in the NCP until the FAA Order can be amended.
ATN Security Services	The ATN Security Service can be implemented as part of the AMHS Extended Service. ATN standard is only recorded in the NCP until the FAA Order can be amended.
Authentication	This is a part of ATN Security Services of the ATN DIR/AMHS Extended Service that has not been implemented. ATN standard is only recorded in the NCP until the FAA Order can be amended.

Security Management	This is a part of ATN Security Services capability of the ATN DIR/AMHS Extended Service that has not been implemented. ATN standard is only recorded in the NCP until the FAA Order can be amended.
Chapter 3	Aeronautical Telecommunication Network
3.2.1	The Ground-to-Ground ATN service based on OSI has been implemented (AMHS) but not Air-to-Ground. The CPDLC has been postponed by the FAA. AOC is not Air Traffic related service. ATN standard is only recorded in the NCP until the FAA Order can be amended.
3.2.2	ATN Ground-to-Ground service does not support sections a) 4) APC, c), e), f) and g). ATN standard is only recorded in the NCP until the FAA Order can be amended.
3.3.1	FAA ATN service does not support a) ATS to aircraft and c) AOC. The CPDLC has been postponed by the FAA. AOC is not Air Traffic related service. ATN standard is only recorded in the NCP until the FAA Order can be amended.
3.4.1.4	The FAA ATN only supports AMHS (ground service). ATN standard is only recorded in the NCP until the FAA Order can be amended.
Chapter 7	Aeronautical Mobile Airport Communications System (AeroMACS)
7.4.5.1 (d)	In the U.S., the power spectral density of any frequency removed from the assigned frequency above 150% of the authorized frequency is 50 dB or 55 + log (P) dB, whichever is the lesser attenuation. ICAO requires 50 dB.
PART II – VOICE COMMUNICATION SYSTEMS	
Chapter 2	Aeronautical Mobile Service
2.2.1.2	ICAO recommends a signal-in-space field strength of 75 uv/m (-109dBW/m^2), which translates to -82.5 dBm at the input of the receiver assuming 0 dB system losses. In the U.S., per RTCA DO-186a MOPS, the input power to the aircraft receiver should be -87 dBm .
2.3.3.4	The U.S. does not require airborne VHF communications receiving systems to meet the FM broadcast immunity performance standards recommended by ICAO.
ANNEX 10 – VOLUME IV – SURVEILLANCE AND COLLISION AVOIDANCE SYSTEMS	
Chapter 3	Surveillance Systems
3.1.1.7.13	SPI required to be transmitted for 18 +/- 1 second. US regulations are more stringent than ICAO.
3.1.2.6.5.2	In the request to downlink, Annex 10 assigns bits 0 to 7, many of them are reserved. The FAA Order 6365.1A implements this requirement assigning bits 0 and 1 and the bits 2 through 15 are not assigned.
3.1.2.10.4.3.3	Annex 10 requires “If antenna selection is based on signal level, it shall be carried out at all signal levels between MTL and -21 dBm .” The RTCA MOPS for Mode S transponders, DO-181c, does not specify the range of signal levels over which the antenna selection must correctly be accomplished. FAA Order 6365.1A paragraph 5.5.1 addresses the issue of antenna selection. However, the TSO standard conferred upon manufacturers does not require implementation.
3.1.2.11.3	The US National Standard for the Mode S Beacon System, FAA Order 6365.1A, paragraph 6.3 requires – When the interrogator transmitter is not transmitting an interrogation, its output does not exceed -5 dBm effective radiated power at any frequency. This requirement exceeds the ICAO SARPs frequency of interest 960 to 1215 MHz.
Chapter 4	Airborne Collision Avoidance System
4.1	US documentation contains the following definition for TA: Information given to the pilot pertaining to the position of another aircraft in the immediate vicinity. The information contains no suggested maneuver. The ICAO SARPs considers this a potential threat. The TAs are issued to show all nearby traffic. TCAS does not determine by a test or analysis that some of these aircraft may be a potential threat. Information given to the pilot pertaining to the position of another aircraft in the immediate vicinity. The information contains no suggested maneuver.
4.2.3.3	The TSO-C118 (RTCA DO-197) implements this requirement. However, requirement of limiting Mode S power to the level of Mode A/C (paragraph 4.2.3.4) is not implemented.

4.3.1.1.1	Specifies a nominal cycle of 1 second
4.3.2.1.2	The US specifies a false track probability of less than 1.2% for Mode A/C and less than 0.1% for Mode S.
4.3.5.3.2	No changes planned to the current U.S. guidance. Per Advisory Circular (AC) 120–55C, Change 1, Section 11 (MAINTENANCE), para c., TCAS Software Updates: “when necessary, operators should ensure that appropriate TCAS software updates are incorporated. The latest version of software for TCAS II is version 7.1. To ensure compatibility with international standards, the FAA encourages the installation of this software as practical. Software version 6.04A, version 7.0 and version 7.1 are all approved for operations in U.S. airspace.”
4.3.5.3.3	No changes planned to the current U.S. guidance. Per Advisory Circular (AC) 120–55C, Change 1, Section 11 (MAINTENANCE), para c., TCAS Software Updates: “when necessary, operators should ensure that appropriate TCAS software updates are incorporated. The latest version of software for TCAS II is version 7.1. To ensure compatibility with international standards, the FAA encourages the installation of this software as practical. Software version 6.04A, version 7.0 and version 7.1 are all approved for operations in U.S. airspace.”
4.3.8.4.2.2.1.3	US documentation contains an additional requirement After an RA has been terminated: by TCAS, it is still required to be reported by the Mode S transponder for 18±1 seconds.
4.3.8.4.2.3.2.3	The US uses “don’t descend” vs. “do not pass below” and “Don’t climb” vs. “do not pass above”
4.3.8.4.2.3.2.5	Limited to TCAS with horizontal on-board resolution equipment
4.3.8.4.2.3.2.7	Limited to TCAS with horizontal on-board resolution equipment
4.3.8.4.2.3.4.5	The US specifies a different bit coding scheme. The US has implemented the AID code. The bit pattern documented in the RTCA document is in the bit order as received from the control head. The Annex 10 SARPs show the bit order of the RF transmission.
4.3.9.3.1	The US specifies 10 ft or less.
ACAS	The US uses the term Traffic Alert and Collision Avoidance System (TCAS). The difference of terminology does not impact interoperability of the systems.
ANNEX 10 – VOLUME V – AERONAUTICAL RADIO FREQUENCY SPECTRUM UTILIZATION	
Chapter 2	Distress frequencies
2.1.1	After June 21, 1995, the US does not allow any new installations of 121.5 MHz emergency locator transmitters (ELT) in aircraft. However, the US does not have a mandatory requirement of both 121.5 MHz and 406 MHz ELT’s in all aircraft.
Chapter 4	Utilization of frequencies above 30 MHz
4.1.2.2	The minimum frequency separation of 8.33 KHz has not been adopted in the US. The U.S. continues to use the channel separation of 25 KHz
4.1.2.3	Mandatory carriage of 8.33 KHz equipment has not been established in the US. The U.S. continues to use the channel separation of 25 KHz
4.1.2.4	FAA has not issued a mandatory carriage of VDL Mode 3 and VDL Mode 4.
4.1.2.4.1	FAA has not issued a mandatory carriage of VDL Mode 3.
4.1.3.1.6	The US does not require aircraft flying within the US airspace to meet one of the characteristics dealing with the FM interference immunity performance. The U.S. Aviation Rulemaking Committee made a decision not to adopt the FM interference immunity performance standards in the U.S. The U.S. continues to use its own FM immunity standards to avoid FM interference in aircraft.
4.1.4.1	The US does not provide the 20 dB desired-to-undesired signal protection for VHF frequency assignments. The US provides 14 dB.

4.1.4.2	The US does not require aircraft flying within the US airspace to meet one of the characteristics dealing with the FM interference immunity performance. The U.S. Aviation Rulemaking Committee made a decision not to adopt the FM interference immunity performance standards in the U.S. The U.S. continues to use its own FM immunity standards to avoid FM interference in aircraft.
4.1.6.2 List A	Assignable frequencies in 25 KHz steps in the US are 121.550 – 123.075 MHz instead of 121.550 – 123.050 MHz, and 123.125 – 136.975 MHz instead of 123.150 – 136.975 MHz.
4.2.3	The US does not follow the VOR assignment priority as defined in Section 4.2.3. Due to severe frequency congestion in the U.S., the ICAO frequency assignment priority order would result in inefficient use of the radio spectrum.

ANNEX 11 – AIR TRAFFIC SERVICES	
Chapter 1	Definitions
Accepting Unit	The term “receiving facility” is used.
Advisory Airspace	Advisory service is provided in terminal radar service areas and the outer area associated with class C airspace areas as well as Class E airspace.
Advisory Route	Advisory service is provided in terminal radar service areas and the outer area associated with class C airspace areas as well as Class E airspace.
ACAS–Airborne Collision Avoidance System	Traffic Alert and Collision Avoidance System (TCAS) – An airborne collision avoidance system based on radar beacon signals which operates independent of ground-based equipment. 14 CFR 1.1 further defines and breaks down TCAS into TCAS 1 – provides traffic advisories 2 – provides traffic advisories and resolution advisories in the vertical plane and 3 – provides traffic advisories and resolution advisories in the vertical and horizontal planes.
AIRMET	FAA Pilot Controller Glossary defines (in part) AIRMET as “In-flight weather advisories issued only to amend the area forecast concerning weather phenomena which are of operational interest to all aircraft and potentially hazardous to aircraft having limited capability because of lack of equipment instrumentation or pilot qualifications....” The ICAO definition of AIRMET narrows the purpose of the advisory to “low-level aircraft operations”, where the FAA has a more broad definition to encompass “all aircraft and ... aircraft having limited capability...” Also, ICAO uses the term “forecast ... for the flight information region” where the FAA uses “area forecast”. Difference in character (terminology) for area forecast. FAA uses AIRMETS for broader purpose.
Air traffic control unit	The U.S. uses the term “air traffic control facility”. (i.e. En Route, Terminal, or Flight Service)
Air traffic services reporting office	FAA Pilot Control Glossary defines (in part) Flight Service Stations (FSS) as “air traffic facilities which provide pilot briefing, en route communications and VFR search and rescue services, assist lost aircraft in emergency situations, relay ATC clearances, originate notices to airmen, broadcast aviation weather and NAS information, receive and process IFR flight plans....” FSS’s are available to receive any reports concerning air traffic services as well as accept and file flight plans.
Air traffic services unit	The U.S. uses “Air Route Traffic Control Center”.
Airway	A Class E airspace area established in the form of a corridor, the centerline of which is defined by radio navigational aids.
Alert Phase	Alert – a notification to a position that there is an aircraft-to-aircraft or aircraft-to-airspace conflict as detected by automated problem detection.
Altitude	Height above ground level (AGL), mean sea level (MSL) or indicate altitude.
Apron Management Service	Ground control or ramp control provide the same service. There is no formal definition in the Pilot Controller Glossary.
Area Control Centre	The U.S. uses the terms “Traffic Control Center”, “Radar Approach Control Facility”, and “Tower” to define a facility that provides air traffic control service to aircraft operating on IFR flight plans within controlled airspace and principally during the en route phase of flight. When equipment capabilities and controller workload permit, certain advisory/assistance services may be provided to VFR aircraft.
Area Control Service	Air Traffic Control – A service operated by appropriate authority to promote the safe, orderly and expeditious flow of air traffic.

Controlled flight	The US uses the term “IFR Clearance”.
Control Zone	The US uses the term “Surface Area”. Surface area is airspace contained by the lateral boundary of the Class B, C, D, or E airspace designated for an airport that begins at the surface and extends upward.
Cruising Level	Cruising Altitude – an altitude or flight level maintained during en route level flight. This is a constant altitude and should not be confused with a cruise clearance.
Downstream Clearance	Same as air traffic control clearance. Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.
Flight Information Centre	In the US, flight information service and alerting service are often provided by flight service stations.
Level	The term “altitude” is used.
Maneuvering Area	Any locality either on land, water, or structures, including airports/heliports and intermediate landing fields, which is used, or intended to be used, for the landing and takeoff of aircraft whether or not facilities are provided for the shelter, servicing, or for receiving or discharging passengers or cargo.
Meteorological office	No PCG definition. However FSSs perform this duty.
Movement Area	The runways, taxiways, and other areas of an airport/heliport which are utilized for taxiing/hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports/heliports with a tower, specific approval for entry onto the movement area must be obtained from ATC.
Pilot-in-command	The person who has final authority for the operation and safety of the flight has been designated as pilot in command before or during the flight and hold the appropriate category, class and type rating for the flight.
Traffic avoidance advice	US uses the term “Safety Alert”
Traffic information	US uses the term “Traffic Advisory”
Waypoint	A predetermined geographical position used for route/instrument approach definition, progress reports, published VFR routes, visual reporting points or points for transitioning and/or circumnavigating controlled and/or special use airspace, that is defined relative to a VORTAC station or in terms of latitude/longitude coordinates.
Chapter 2	General
2.3.2	Annex 11, paragraph 2.3.2 directs the flight information service to accomplish objective d) of para 2.2, “to provide advice and information for the safe and efficient conduct of flight.” Details on procedures to accomplish this objective are contained in FAA Order JO 7210.3, Part 4, Flight Service Stations. Specific procedures for accomplishing this objective are contained in FAA Order JO 7110.10, Flight Services. Also, the FAA Pilot Controller Glossary defines a Flight Service Station (FSS) as an air traffic facility which provides pilot briefings, flight plan processing, en route flight advisories, search and rescue services, and assistance to lost aircraft and aircraft in emergency situations. FSSs also relay ATC clearances, process Notices to Airmen, and broadcast aviation weather and aeronautical information. In Alaska, FSSs provide Airport Advisory Services.
2.5.2.2.1	FAA uses the generic term “controlled airspace” and “surface areas”
2.5.2.2.1.1	FAA also provides this service in Class E.
2.6	The Class F airspace is not used in the designation of U.S. airspace.
2.6.1	The U.S. has chosen not to use Class F airspace.

2.10.3.2.2	Class E–5 700/1200–foot airspace areas are used for transitioning aircraft to/from the terminal or en route environment.
2.10.3.3	En Route Domestic Airspace Areas consist of Class E airspace that extends upward from a specified altitude to provide controlled airspace in those areas where there is a requirement to provide IFR en route ATC services but the Federal airway structure is inadequate. En Route Domestic Airspace Areas may be designated to serve en route operations when there is a requirement to provide ATC service but the desired routing does not qualify for airway designation. Offshore/Control Airspace Areas are locations designated in international airspace (between the U.S. 12–mile territorial limit and the CTA/FIR boundary, and within areas of domestic radio navigational signal or ATC radar coverage) wherein domestic ATC procedures may be used for separation purposes.
2.10.5.1	A Class D airspace area shall be of sufficient size to: 1. Allow for safe and efficient handling of operations. 2. Contain IFR arrival operations while between the surface and 1,000 feet above the surface, and IFR departure operations while between the surface and 1,000 feet above the surface, and IFR departure operations while between the surface and the base of adjacent controlled airspace.
2.10.5.2	A Class D airspace area shall be of sufficient size to: 1. Allow for safe and efficient handling of operations. 2. Contain IFR arrival operations while between the surface and 1,000 feet above the surface, and IFR departure operations while between the surface and the base of adjacent controlled airspace. Size and shape may vary to provide for 1 and 2. The emphasis is that a Class D area shall be sized to contain the intended operations.
2.10.5.3	Refer to Surface Areas
2.25.5	No time is issued prior to taxi for take–off. Time checks are given to the nearest quarter minute.
2.27.5	Process is described in the FAA Safety Management System Manual and the FAA Order 1100.161.
Chapter 3	Air Traffic Control Service
3.2	Air Route Traffic Control Facilities (ARTCC) are used instead of Area Control Service, and Terminal Control Facilities instead of Approach Control Service.
3.6.2.4	The U.S. does not specify notification of 2–way communication. The accepting unit shall not alter the clearance of an aircraft that has not yet reached the transfer of control point without the prior approval of the transferring unit.
3.7.3.1	Air crews are not required to read back clearances, only to acknowledge receipt of clearances.
3.7.3.1.1	Air crews are not required to read back clearances, only to acknowledge receipt of clearances.
3.7.3.3	The U.S. only requires a read back for operations regarding hold short instructions. Controllers may request a read back whenever they feel a read back is necessary.
3.7.4.3	4–3–8. COORDINATION WITH RECEIVING FACILITY Coordinate with the receiving facility before the departure of an aircraft if the departure point is less than 15 minutes flying time from the transferring facility’s boundary unless an automatic transfer of data between automated systems will occur, in which case the flying time requirement may be reduced to 5 minutes or replaced with a mileage from the boundary parameter when mutually agreeable to both facilities.
3.7.4.4	4–4–5. CLASS G AIRSPACE Include routes through Class G airspace only when requested by the pilot. NOTE–1. Flight plans filed for random RNAV routes through Class G airspace are considered a request by the pilot. 2. Flight plans containing MTR segments in/through Class G airspace are considered a request by the pilot. Air Traffic Control Clearance means an authorization by air traffic control within controlled airspace.
Chapter 4	Flight Information Service
4.2.2	No Class F airspace. Collision Hazard information is provided between known traffic to aircraft in Class G airspace.

Chapter 6	Air Traffic Services Requirements for Communications
6.1.1.4 6.2.2.3.8	The US uses a 45 day retention period.
6.2.3.6	The US has a 45 day or longer retention period, with some exceptions. US en route facilities using system analysis recording tapes as their radar retention media shall retain radar data for 15 days. Facilities using a teletype emulator or console printout must be retained for 30 days unless they are related to an accident or incident. A facility using a console typewriter printout take-up device may retain the printout on the spool for 15 days after the last date on the spool. If a request is received to retain data information following an accident or incident, the printout of the relative data will suffice and the tape/disc may then be returned to service through the normal established rotational program.
6.3.1.3	The US has a 45 day or longer retention period except that those facilities utilizing an analog voice recorder system shall retain voice recordings for 15 days.
6.4.1.2	The US retains surveillance data recordings for 45 days or longer when they are pertinent to an accident or incident investigation, except that en route facilities using system analysis recording tapes as their radar retention media (regardless of the type of voice recorder system being used) shall retain voice recordings for 15 days and those facilities using an analog voice recorder system shall retain voice recordings for 15 days. FAA's Air Traffic Control System Command Center shall retain voice recordings for 15 days.
Chapter 7	Air Traffic Services Requirements for Information
7.1.5	The term “communication station” is not used but the flight information is passed.
7.6	Temporary Flight Restrictions (TFRs) are the mechanism that would be implemented in such cases.
Appendix 2	Principles Governing the Establishment and Identification of Significant Points
3.1	<p>In US, per FAA Order 8260.19D, there are some points not to be named. Fixes used for navigation not to be named include Visual Descent Points (VDPs), radar fixes used on ASR and/or PAR procedures, RNAV missed approach point at threshold, and an ATD fix located between the MAP and the landing area marking the visual segment descent point on COPTER RNAV PinS approach annotated “PROCEED VISUALLY.”</p> <p>Additionally, there are some non-pronounceable points allowed. Order 8260.19 states “Except as noted below, each name must consist of a 5-letter pronounceable word. These non-pronounceable exceptions include; Stepdown fixes between FAF and MAP, Missed Approach Points (MAP), Computer Navigation Fixes (CNFs), and VFR Waypoints.</p>
Appendix 4	ATS Airspace Classifications
	<p>Speed restrictions of 250 knots do not apply to aircraft operating beyond 12 NM from the coast line within the U.S. Flight Information Region, in offshore Class E airspace below 10,000 feet MSL.</p> <p>Paragraph (a) of § 91.117 of Title 14 of the Code of Federal Regulations (CFR) provides that “Unless otherwise authorized by the Administrator, no person may operate an aircraft below 10,000 feet MSL at an indicated airspeed of more than 250 knots.” Within domestic airspace, a pilot operating at or above 10,000 MSL on an assigned speed adjustment greater than 250 knots is expected to comply with § 91.117(a) when cleared below 10,000 feet MSL without notifying Air Traffic Control (ATC).</p> <p>The Federal Aviation Administration has proceeded from an operational perspective that the speed restrictions of § 91.117(a) do not apply to U.S.-registered aircraft, via § 91.703(a)(3), when operating outside the United States (and not within another country's territorial airspace).</p>

Appendix 6	Fatigue Risk Management System (FRMS) Requirements
1biii	Minimum duration of a relief period is not specified.
3	FAA does not have <i>specific</i> processes for deviations or variations from prescriptive fatigue management regulations.

ANNEX 12 – SEARCH AND RESCUE

There are no reportable differences between U.S. regulations and the Standards and Recommended Practices contained in this Annex.

ANNEX 13 – AIRCRAFT ACCIDENT INVESTIGATION	
Chapter 5	Investigation
5.12	<p>The full exchange of information is vital to effective accident investigation and prevention. The U.S. supports, in principle, measures that are intended to facilitate the development and sharing of information. The laws of the U.S. require the determination and public reporting of the facts, circumstances, and probable cause of every civil aviation accident. This requirement does not confine the public disclosure of such information to an accident investigation. However, the laws of the U.S. do provide some protection against public dissemination of certain information of a medical or private nature.</p> <p>Also, U.S. law prohibits the disclosure of cockpit voice recordings to the public and limits the disclosure of cockpit voice recording transcript to that specific information which is deemed pertinent and relevant by the investigative authority. However, U.S. Courts can order the disclosure of the foregoing information for other than accident investigation purposes. The standard for determining access to this information does not consider the adverse domestic or international effects on investigations that might result from such access.</p>
5.25 h)	<p>Investigative procedures observed by the U.S. allow full participation in all progress and investigation planning meetings; however, deliberations related to analysis, findings, probable causes, and safety recommendations are restricted to the investigative authority and its staff. However, participation in these areas is extended through timely written submissions, as specified in paragraph 5.25 i).</p>
5.26 b)	<p>The U.S. supports, in principle, the privacy of the State conducting the investigation regarding the progress and the findings of that investigation. However, the laws of the U.S. facilitate the public disclosure of information held by U.S. government agencies and U.S. commercial business. The standard for determining public access to information requested from a U.S. government agency or a commercial business does not consider or require the expressed consent of the State conducting the investigation.</p>
Chapter 6	Reporting
6.13	<p>The U.S. supports the principle of not circulating, publishing, or providing access to a draft report or any part thereof unless such a report or document has already been published or released by the State which conducted the investigation. However, the laws of the U.S. facilitate the public disclosure of information held by government agencies and commercial business. The U.S. government may not be able to restrict public access to a draft report or any part thereof on behalf of the State conducting the investigation. The standard for determining public access to information requested from a U.S. government agency or a commercial business does not consider or require the expressed consent of the State conducting an investigation.</p>

ANNEX 14 – AERODROMES	
VOLUME 1 – AERODROME DESIGN AND OPERATIONS	
Chapter 1	General
1.2.1	<p>Airports in the U.S. are for the most part owned and operated by local governments and quasi-government organizations formed to operate transportation facilities. The Federal Government provides air traffic control, operates and maintains NAVAIDs, provides financial assistance for airport development, certifies major airports, and issues standards and guidance for airport planning, design, and operational safety.</p> <p>There is general conformance with the Standards and Recommended Practices of Annex 14, Volume I. At airports with scheduled passenger service using aircraft having more than nine seats, compliance with standards is enforced through regulation and certification. At other airports, compliance is achieved through the agreements with individual airports under which Federal development funds were granted; or, through voluntary actions.</p>
1.3.1 1.3.2 1.3.3 1.3.4	<p>In the U.S., the Airport Reference Code is a two-component indicator relating the standards used in the airport's design to a combination of dimensional and operating characteristics of the largest aircraft expected to use the airport. The first element, Aircraft Approach Category, corresponds to the ICAO PANS-OPS approach speed groupings. The second, Airplane Design Group, corresponds to the wingspan groupings of code element 2 of the Annex 14, Aerodrome Reference Code. See below:</p>

TBL GEN 1.7-1
Airport Reference Code (ARC)

Aircraft Approach Category	Approximate Annex 14 Code Number
A	1
B	2
C	3
D	4
E	–
Airplane Design Group	Corresponding Annex 14 Code Letter
I	A
II	B
III	C
IV	D
V	E
VI	F (proposed)

EXAMPLE: AIRPORT DESIGNED FOR B747–400 ARC D–V.

Chapter 2	Aerodrome Data
2.2.1	The airport reference point is recomputed when the ultimate planned development of the airport is changed.
2.9.6 2.9.7	Minimum friction values have not been established to indicate that runways are “slippery when wet.” However, U.S. guidance recommends that pavements be maintained to the same levels indicated in the ICAO Airport Services Manual.
2.11.3	If inoperative fire fighting apparatus cannot be replaced immediately, a NOTAM must be issued. If the apparatus is not restored to service within 48 hours, operations shall be limited to those compatible with the lower index corresponding to operative apparatus.
2.12 e)	Where the original VASI is still installed, the threshold crossing height is reported as the center of the on-course signal, not the top of the red signal from the downwind bar.

Chapter 3	Physical Characteristics
3.1.2*	The crosswind component is based on the ARC: 10.5 kt for AI and BI; 13 kt for AII and BII; 16 kt for AIII, BIII and CI through DIII; 20 kts for AIV through DVI.
3.1.9*	Runway widths (in meters) used in design are shown in the table below:

Width of Runway in Meters

Aircraft Approach Category	Airplane Design Group					
	I	II	III	IV	V	VI
A	18 ¹	23 ¹	—	—	45	60
B	18 ¹	23 ¹	—	—	45	60
C	30	30	30 ²	45	45	60
D	30	30	30 ²	45	45	60

¹The width of a precision (lower than ³/₄ statute mile approach visibility minimums) runway is 23 meters for a runway which is to accommodate only small (less than 5,700 kg) airplanes and 30 meters for runways accommodating larger airplanes.

²For airplanes with a maximum certificated take-off mass greater than 68,000 kg, the standard runway width is 45 meters.

3.1.12*	Longitudinal runway slopes of up to 1.5 percent are permitted for aircraft approach categories C and D except for the first and last quarter of the runway where the maximum slope is 0.8 percent.
3.1.18*	Minimum and maximum transverse runway slopes are based on aircraft approach categories as follows: For categories A and B: 1.0 – 2.0 percent C and D: 1.0 – 1.5 percent
3.2.2	The U.S. does not require that the minimum combined runway and shoulder widths equal 60 meters. The widths of shoulders are determined independently.
3.2.3*	The transverse slope on the innermost portion of the shoulder can be as high as 5 percent.
3.3.3 3.3.4* 3.3.5*	A strip width of 120 meters is used for code 3 and 4 runways for precision, nonprecision, and non-instrumented operations. For code 1 and 2 precision runways, the width is 120 meters. For non-precision/visual runways, widths vary from 37.5 meters up to 120 meters.
3.3.9*	Airports used exclusively by small aircraft (U.S. Airplane Design Group I) may be graded to distances as little as 18 meters from the runway centerline.
3.3.14*	The maximum transverse slope of the graded portion of the strip can be 3 percent for aircraft approach categories C and D and 5 percent for aircraft approach categories A and B.
3.3.15*	The U.S. does not have standards for the maximum transverse grade on portions of the runway strip falling beyond the area that is normally graded.
3.3.17*	Runways designed for use by smaller aircraft under non-instrument conditions may be graded to distances as little as 18 meters from the runway centerline (U.S. Airplane Design Groups I and II).
3.4.2*	For certain code 1 runways, the runway end safety areas may be only 72 meters.
3.7.1* 3.7.2*	The U.S. does not provide Standards or Recommended Practices for radio altimeter operating areas.
3.8.3*	The U.S. specifies a 6 meter clearance for Design Group VI airplanes.
3.8.4*	The taxiway width for Design Group VI airplanes is 30 meters.
3.8.5*	The U.S. also permits designing taxiway turns and intersections using the judgmental oversteering method.

3.8.7*	Minimum separations between runway and taxiway centerlines, and minimum separations between taxiways and taxilanes and between taxiway/taxilanes and fixed/moveable objects are shown in the tables that follow. Generally, U.S. separations are larger for non–instrumented runways, and smaller for instrumented runways, than the Annex. Values are also provided for aircraft with wingspans up to 80 meters.
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Minimum Separations Between Runway Centerline and Parallel Taxiway/Taxilane Centerline

Operation	Aircraft Approach Category	Airplane Design Group						
		I ¹	I	II	III	IV	V	VI
Visual runways and runways with not lower than $\frac{3}{4}$ -statute mile (1,200 meters) approach visibility minimums	A and B	150 feet 45 meters	225 feet 67.5 meters	240 feet 72 meters	300 feet 90 meters	400 feet 120 meters	—	—
Runways with lower than $\frac{3}{4}$ -statute mile (1,200 meters) approach visibility minimums	A and B	200 feet 60 meters	250 feet 75 meters	300 feet 90 meters	350 feet 105 meters	400 feet 120 meters	—	—
Visual runways and runways with not lower than $\frac{3}{4}$ -statute mile (1,200 meters) approach visibility minimums	C and D	—	300 feet 90 meters	300 feet 90 meters	400 feet 120 meters	400 feet 120 meters	400 ² feet 120 ² meters	600 feet 180 meters
Runways with lower than $\frac{3}{4}$ -statute mile (1,200 meters) approach visibility minimums	C and D	—	400 feet 120 meters	400 feet 120 meters	400 feet 120 meters	400 feet 120 meters	400 ² feet 120 ² meters	600 feet 180 meters

¹These dimensional standards pertain to facilities for small airplanes exclusively.

²Corrections are made for altitude: 120 meters separation for airports at or below 410 meters; 135 meters for altitudes between 410 meters and 2,000 meters; and, 150 meters for altitudes above 2,000 meters.

Minimum Taxiway and Taxilane Separations:

Airplane Design Group						
	I	II	III	IV	V	VI
Taxiway centerline to parallel taxiway/taxilane centerline	69 feet 21 meters	105 feet 32 meters	152 feet 46.5 meters	215 feet 65.5 meters	267 feet 81 meters	324 feet 99 meters
Fixed or movable object	44.5 feet 13.5 meters	65.5 feet 20 meters	93 feet 28.5 meters	129.5 feet 39.5 meters	160 feet 48 meters	193 feet 59 meters
Taxilane centerline to parallel taxilane centerline	64 feet 19.5 meters	97 feet 29.5 meters	140 feet 42.5 meters	198 feet 60 meters	245 feet 74.5 meters	298 feet 91 meters
Fixed or movable object	39.5 feet 12 meters	57.5 feet 17.5 meters	81 feet 24.5 meters	112.5 feet 34 meters	138 feet 42 meters	167 feet 51 meters

3.8.10*	Line-of-sight standards for taxiways are not provided in U.S. practice, but there is a requirement that the sight distance along a runway from an intersecting taxiway must be sufficient to allow a taxiing aircraft to safely enter or cross the runway.
3.8.11*	Transverse slopes of taxiways are based on aircraft approach categories. For categories C and D, slopes are 1.0–1.5 percent; for A and B, 1.0–2.0 percent.
3.11.5	The runway centerline to taxi–holding position separation for code 1 is 38 meters for non–precision operations and 53 meters for precision. Code 3 and 4 precision operations require a separation of 75 meters, except for “wide bodies,” which require 85 meters.

Dimensions and Slopes for Protective Areas and Surfaces

	Precision Approach	Non-precision Instrument Approach			Visual Runway	
	All runways	All runways ^a	Runways other than utility ^b	Utility runways ^d	Runways other than utility	Utility runways
Width of inner edge	305 meters	305 meters	152 meters	152 meters	152 meters	76 meters ^c
Divergency (each side)	15 percent	15 percent	15 percent	15 percent	10 percent	10 percent
Final width	4,877 meters	1,219 meters	1,067 meters ^c	610 meters	475 meters ^c	381 meters ^c
Length	15,240 meters	3,048 meters ^c	3,048 meters ^c	1,524 meters ^c	1,524 meters ^c	1,524 meters ^c
Slope: inner 3,049 meters	2 percent	2.94 percent ^c	2.94 percent ^c	5 percent ^c	5 percent ^c	5 percent ^c
Slope: beyond 3,048 meters	2.5 percent ^c					

^aWith visibility minimum as low as 1.2 km; ^bwith visibility minimum greater than 1.2 km; ^ccriteria less demanding than Annex 14 Table 4–1 dimensions and slopes. ^dUtility runways are intended to serve propeller-driven aircraft having a maximum take-off mass of 5,570 kg.

Chapter 4	Obstacle Restriction and Removal
4.1	Obstacle limitation surfaces similar to those described in 4.1–4.20 are found in 14 CFR Part 77.
4.1.21	A balked landing surface is not used.
4.1.25	The U.S. does not establish take-off climb obstacle limitation areas and surface, <i>per se</i> , but does specify protective surfaces for each end of the runway based on the type of approach procedures available or planned. The dimensions and slopes for these surfaces and areas are listed in the table above.
4.2	The dimensions and slopes of U.S. approach areas and surfaces are set forth in the above table. Aviation regulations do not prohibit construction of fixed objects above the surfaces described in these sections.
4.2.1	Primary surface is also used as a civil airport imaginary surface. Primary surface is a surface longitudinally centered on a runway. U.S. uses the width of the primary surface of a runway as prescribed in 14 CFR Part 77.25 for the most precise approach existing or planned for either end of that runway.
4.2.8	The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.
4.2.9	Approach surfaces are applied to each end of each runway based upon the type of approach available or planned for that runway end.
4.2.10, 4.2.11	Any proposed construction of or alteration to an existing structure is normally considered to be physically shielded by one or more existing permanent structure(s), natural terrain, or topographic feature(s) of equal or greater height if the structure under consideration is located within the lateral dimensions of any runway approach surface but would not exceed an overall height above the established airport elevation greater than that of the outer extremity of the approach surface, and located within, but would not penetrate, the shadow plane(s) of the shielding structure(s).
4.2.12	The basic principle in applying shielding guidelines is whether the location and height of the structures are such that aircraft, when operating with due regard for the shielding structure, would not collide with that structure.
4.2.16	The size of each imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.
4.2.17	Approach surfaces are applied to each end of each runway based upon the type of approach available or planned for that runway end.

Chapter 5	Visual Aids for Navigation
5.2.1.7*	The U.S. does not require unpaved taxiways to be marked.
5.2.2.2*	The U.S. does not require a runway designator marking for unpaved runways.
5.2.2.4	Zeros are not used to precede single–digit runway markings. An optional configuration of the numeral 1 is available to designate a runway 1 and to prevent confusion with the runway centerline.
5.2.4.2* 5.2.4.3*	Threshold markings are not required, but sometimes provided, for non–instrument runways that do not serve international operations.
5.2.4.5	The current U.S. standard for threshold designation is eight stripes, except that more than eight stripes may be used on runways wider than 45 meters. After 1 January 2008, the U.S. standard will comply with Annex 14.
5.2.4.6	The width and spacing of threshold stripes will comply with Annex 14 after 1 January 2008.
5.2.4.10	When a threshold is temporarily displaced, there is no requirement that runway or taxiway edge markings, prior to the displaced threshold, be obscured. These markings are removed only if the area is unsuitable for the movement of aircraft.
5.2.5.2 5.2.5.3*	Aiming point markings are required on precision instrument runways and code 3 and 4 runways used by jet aircraft.
5.2.5.4	The aiming point marking commences 306 meters from the threshold at all runways.
5.2.6.3	The U.S. pattern for touchdown zone markings, when installed on both runway ends, is only applicable to runways longer than 4,990 feet. On shorter runways, the three pair of markings closest to the runway midpoint are eliminated.
5.2.6.4	The U.S. standard places the aiming point marking 306 meters from the threshold where it replaces one of the pair of three stripe threshold markings. The 306 meters location is used regardless of runway length.
5.2.6.5*	Touchdown zone markings are not required at a non–precision approach runway, though they may be provided.
5.2.7.4*	Runway side stripe markings on a non–instrument runway may have an over–all width of 0.3 meter.
5.2.8.3	Taxiway centerline markings are never installed longitudinally on a runway even if the runway is part of a standard taxi route.
5.2.9.5*	The term “ILS” is used instead of CAT I, CAT II, CAT III.
5.2.11.4 5.2.11.5* 5.2.11.6*	Check–point markings are provided, but the circle is 3 meters in diameter, and the directional line may be of varying width and length. The color is the yellow used for taxiway markings.
5.2.12	Standards for aircraft stand markings are not provided.
5.2.13.1*	Apron safety lines are not required although many airports have installed them.
5.2.14.1	The U.S. does not have standards for holding position markings on roadways that cross runways. Local traffic control practices are used.
5.3.1.1 5.3.1.2*	The U.S. does not have regulations to prevent the establishment of non–aviation ground lights that might interfere with airport operations.
5.3.1.3 5.3.1.4	New approach lighting installations will meet the frangibility requirements. Some existing non–frangible systems may not be replaced before 1 January 2005.
5.3.2.1* 5.3.2.2* 5.3.2.3*	There is no requirement for an airport to have emergency runway lighting available if it does not have a secondary power source. Some airports do have these systems, and there is an FAA specification for these lights.
5.3.3.1 5.3.3.3	Only airports served by aircraft having more than 30 seats are required to have a beacon, though they are available at many others.
5.3.3.6	Although the present U.S. standard for beacons calls for 24–30 flashes per minute, some older beacons may have flash rates as low as 12 flashes per minute.
5.3.3.8	Coded identification beacons are not required and are not commonly installed. Typically, airport beacons conforming to 5.3.3.6 are installed at locations served by aircraft having more than 30 seats.

5.3.4.1	While the U.S. has installed an approach light system conforming to the specifications in 5.3.4.10 through 5.3.4.19, it also provides for a lower cost system consisting of medium intensity approach lighting and sequenced flashing lights (MALSF) at some locations.
5.3.4.2	In addition to the system described in 5.3.4.1, a system consisting of omnidirectional strobe lights (ODALS) located at 90 meters intervals extending out to 450 meters from the runway threshold is used at some locations.
5.3.4.10 through 5.3.4.19	The U.S. standard for a precision approach category I lighting system is a medium intensity approach lighting system with runway alignment indicator lights (MALSR). This system consists of 3 meters barrettes at 60 meters intervals out to 420 meters from the threshold and sequenced flashing lights at 60 meters intervals from 480 meters to 900 meters. A crossbar 20 meters in length is provided 300 meters from the threshold. The total length of this system is dependent upon the ILS glide path angle. For angles 2.75° and higher, the length is 720 meters.
5.3.4.16 5.3.4.31	The capacitor discharge lights can be switched on or off when the steady-burning lights of the approach lighting system are operating. However, they cannot be operated when the other lights are not in operation.
5.3.4.20	The U.S. standard for a precision approach category II and III lighting system has a total length dependent upon the ILS glide path angle. For angles 2.75° and higher, the length is 720 meters.
5.3.5.1 5.3.5.3 5.3.5.4	Visual approach slope indicator systems are not required for all runways used by turbojets except runways involved with land and hold short operations that do not have an electronic glideslope system.
5.3.5.2	In addition to PAPI and APAPI systems, VASI and AVASI type systems remain in service at U.S. airports with commercial service. Smaller general aviation airports may have various other approach slope indicators including tri-color and pulsating visual approach slope indicators.
5.3.5.27	The U.S. standard for PAPI allows for the distance between the edge of the runway and the first light unit to be reduced to 9 meters for code 1 runways used by nonjet aircraft.
5.3.5.42	The PAPI obstacle protection surface used is as follows: The surface begins 90 meters in front of the PAPI system (toward the threshold) and proceeds outward into the approach zone at an angle 1 degree less than the aiming angle of the third light unit from the runway. The surface flares 10 degrees on either side of the extended runway centerline and extends 4 statute miles from its point of origin.
5.3.8.4	The U.S. permits the use of omnidirectional runway threshold identification lights.
5.3.13.2	The U.S. does not require the lateral spacing of touchdown zone lights to be equal to that of touchdown zone marking when runways are less than 45 meters wide. The lateral distance between the markings is 22 meters when installed on runways with a width of 45 meters or greater. The distance is proportionately smaller for narrower runways. The lateral distance between touchdown zone lights is nominally 22 meters but may be reduced to 20 meters to avoid construction problems.
5.3.14	The U.S. has no provision for stopway lights.
5.3.15.1 5.3.15.2*	Taxiway centerline lights are required only below 183 meters RVR on designated taxi routes. However, they are generally recommended whenever a taxiing problem exists.
5.3.15.3 8.2.3	Taxiway centerline lights are not provided on runways forming part of a standard taxi route even for low visibility operations. Under these conditions, the taxi path is coincident with the runway centerline, and the runway lights are illuminated.
5.3.15.5	Taxiway centerline lights on exit taxiways presently are green. However, the new U.S. standard which is scheduled to be published by 1 January 98 will comply with the alternating green/yellow standard of Annex 14.
5.3.15.7*	The U.S. permits an offset of up to 60 cm.
5.3.16.2 8.2.3	Taxiway edge lights are not provided on runways forming part of a standard taxi route.

5.3.17.1 5.3.17.2* 5.3.17.3 5.3.17.4* 5.3.17.5*	Stop bars are required only for runway visual range conditions less than a value of 183 meters at taxiway/runway intersections where the taxiway is lighted during low visibility operations. Once installed, controlled stop bars are operated at RVR conditions less than a value of 350 meters.														
5.3.17.6	Elevated stop bar lights are normally installed longitudinally in line with taxiway edge lights. Where edge lights are not installed, the stop bar lights are installed not more than 3 meters from the taxiway edge.														
5.3.17.9	The beamspread of elevated stop bar lights differs from the in-pavement lights. The inner isocandela curve for the elevated lights is ± 7 horizontal and ± 4 vertical.														
5.3.17.12	The U.S. standard for stop bars, which are switchable in groups, does not require the taxiway centerline lights beyond the stop bars to be extinguished when the stop bars are illuminated. The taxiway centerline lights which extend beyond selectively switchable stop bars are grouped into two segments of approximately 45 meters each. A sensor at the end of the first segment re-illuminates the stop bar and extinguishes the first segment of centerline lights. A sensor at the end of the second segment extinguishes that segment of centerline lights.														
5.3.18.1*	Taxiway intersection lights are also used at other hold locations on taxiways such as low visibility holding points.														
5.3.18.2	<p>Taxiway intersection lights are collocated with the taxiway intersection marking. The marking is located at the following distances from the centerline of the intersecting taxiway:</p> <table> <tr> <th>Airplane Design Group</th><th>Distance</th></tr> <tr> <td>I</td><td>13.5 meters</td></tr> <tr> <td>II</td><td>20 meters</td></tr> <tr> <td>III</td><td>28.5 meters</td></tr> <tr> <td>IV</td><td>39 meters</td></tr> <tr> <td>V</td><td>48.5 meters</td></tr> <tr> <td>VI</td><td>59 meters</td></tr> </table>	Airplane Design Group	Distance	I	13.5 meters	II	20 meters	III	28.5 meters	IV	39 meters	V	48.5 meters	VI	59 meters
Airplane Design Group	Distance														
I	13.5 meters														
II	20 meters														
III	28.5 meters														
IV	39 meters														
V	48.5 meters														
VI	59 meters														
5.3.19.1 5.3.19.2*	Runway guard lights are required only for runway visual range conditions less than a value of 350 meters.														
5.3.19.4 5.3.19.5	Runway guard lights are placed at the same distance from the runway centerline as the aircraft holding distance, or within a few feet of this location.														
5.3.19.12	The new U.S. standard for in-pavement runway guard lights complies with Annex 14. However, there may be some existing systems that do not flash alternately.														
5.3.20.4*	The U.S. does not set aviation standards for flood lighting aprons.														
5.3.21	The U.S. does not provide standards for visual docking guidance systems. U.S. manufacturers of these devices generally adhere to ICAO SARPS.														
5.3.23.1	The U.S. does not have a requirement for providing roadholding position lights during RVR conditions less than a value of 350 meters.														
5.4.1.2	Signs are often installed a few centimeters taller than specified in Annex 14, Volume 1, Table 5–4.														
5.4.1.5	Sign inscriptions are slightly larger, and margins around the sign slightly smaller, than indicated in Annex 14, Volume 1, Appendix 4.														
5.4.1.6	The sign luminance requirements are not as high as specified in Appendix 4. The U.S. does not specify a nighttime color requirement in terms of chromaticity.														
5.4.2.2 5.4.2.4 5.4.2.9 5.4.2.14 5.4.2.16	All signs used to denote precision approach holding positions have the legend “ILS.”														
5.4.2.6	U.S. practice uses the NO ENTRY sign to prohibit entry by aircraft only.														
5.4.2.8 5.4.2.10	The second mandatory instruction sign is usually not installed unless added guidance is necessary.														

5.4.2.15	Signs for holding aircraft and vehicles from entering areas where they would infringe on obstacle limitation surfaces or interfere with NAVAIDs are inscribed with the <i>designator of the approach</i> , followed by the letters “APCH”; <i>for example</i> , “15–APCH.”
5.4.3.13 5.4.3.15	U.S. practice is to install signs about 3 to 5 meters closer to the taxiway/runway (See Annex 14, Table 5–4).
5.4.3.16	The U.S. does not have standards for the location of runway exit signs.
5.4.3.24	A yellow border is used on all location signs, regardless of whether they are stand-alone or collocated with other signs.
5.4.3.26	U.S. practice is to use Pattern A on runway vacated signs, except that Pattern B is used to indicate that an ILS critical area has been cleared.
5.4.3.30*	The U.S. does not have standards for signs used to indicate a series of taxi-holding positions on the same taxiway.
5.4.4.4*	The inscription, “VOR Check Course,” is placed on the sign in addition to the VOR and DME data.
5.4.5.1*	The U.S. does not have requirements for airport identification signs, though they are usually installed.
5.4.6.1*	Standards are not provided for signs used to identify aircraft stands.
5.4.7.2	The distance from the edge of road to the road-holding position sign conforms to local highway practice.
5.5.2.2* 5.5.7.1*	Boundary markers may be used to denote the edges of an unpaved runway.
5.5.3	There is no provision for stopway edge markers.
Chapter 6	Visual Aids for Denoting Obstacles
6.1	Recommended practices for marking and lighting obstacles are found in FAA Advisory Circular 70/7460–1J, Obstruction Marking and Lighting.
6.1.3	Any temporary or permanent structure, including all appurtenances, that exceeds an overall height of 200 feet (61m) above ground level or exceeds any obstruction standard contained in 14 CFR Part 77, should normally be marked and/or lighted.
6.2.1	This chapter provides recommended guidelines to make certain structures conspicuous to pilots during daylight hours. One way of achieving this conspicuity is by painting and/or marking these structures. Recommendations on marking structures can vary depending on terrain features, weather patterns, geographic location, and in the case of wind turbines, number of structures and overall layout of design.
6.2.3*	The maximum dimension of the rectangles in a checkered pattern is 6 meters on a side.
6.2.7	Markers should be displayed in conspicuous positions on or adjacent to the structure so as to retain the general definition of the structure. They should be recognizable in clear air from a distance of at least 4,000 feet (1219m) and in all directions from which aircraft are likely to approach. Markers should be distinctively shaped, i.e., spherical or cylindrical, so they are not mistaken for items that are used to convey other information. They should be replaced when faded or otherwise deteriorated.
6.2.11	Flag markers should be displayed around, on top, or along the highest edge of the obstruction. When flags are used to mark extensive or closely grouped obstructions, they should be displayed approximately 50 feet (15m) apart. The flag stakes should be of such strength and height that they will support the flags above all surrounding ground, structures, and/or objects of natural growth.
6.2.12	Each side of the flag marker should be at least 2 feet (0.6m) in length. Standard does not specifically address mobile objects.
6.2.14	Color patterns. Flags should be colored as follows: solid, orange and white, and checkerboard. Standard does not specifically address mobile objects.

6.3.1	Obstruction lighting may be displayed on structures as follows: aviation red obstruction lights; medium intensity flashing white obstruction lights, high intensity flashing white obstruction lights, dual lighting, obstruction lights during construction, obstruction lights in urban areas, and temporary construction equipment lighting.
6.3.11	The height of the structure AGL determines the number of light levels. Recommendations on marking structures can vary depending on terrain features, weather patterns, geographic location, and in the case of wind turbines, number of structures and overall layout of design.
6.3.13	When a structure lighted by a high intensity flashing light system is topped with an antenna or similar appurtenance exceeding 40 feet (12m) in height, a medium intensity flashing white light (L-865) should be placed within 40 feet (12m) from the tip of the appurtenance. This light should operate 24 hours a day and flash simultaneously with the rest of the lighting system.
6.3.14	The number of light units recommended depends on the diameter of the structure at the top.
6.3.16	Lights should be installed on the highest point at each end. At intermediate levels, lights should be displayed for each 150 feet (46m) or fraction thereof. The vertical position of these lights should be equidistant between the top lights and the ground level as the shape and type of obstruction will permit. One such light should be displayed at each outside corner on each level with the remaining lights evenly spaced between the corner lights.
6.3.17	Lights should be installed on the highest point at each end. At intermediate levels, lights should be displayed for each 150 feet (46m) or fraction thereof. The vertical position of these lights should be equidistant between the top lights and the ground level as the shape and type of obstruction will permit. One such light should be displayed at each outside corner on each level with the remaining lights evenly spaced between the corner lights.
6.3.18	Lights should be installed on the highest point at each end. At intermediate levels, lights should be displayed for each 150 feet (46m) or fraction thereof. The vertical position of these lights should be equidistant between the top lights and the ground level as the shape and type of obstruction will permit. One such light should be displayed at each outside corner on each level with the remaining lights evenly spaced between the corner lights.
6.3.19, 6.3.20	One or more light units is needed to obtain the desired horizontal coverage. The number of light units recommended per level (except for the supporting structures of catenary wires and buildings) depends upon the average outside diameter of the specific structure, and the horizontal beam width of the light fixture. The light units should be installed in a manner to ensure an unobstructed view of the system by a pilot approaching from any direction. The number of lights recommended is the minimum. The U.S. does not utilize Type A or Type B obstacle lights. Recommendations on marking structures can vary depending on terrain features, weather patterns, geographic location, and in the case of wind turbines, number of structures and overall layout of design.
6.3.21* 6.3.22*	The effective intensity, for daylight–luminance background, of Type A high–intensity obstacle lights is 270,000 cd \pm 25 percent. The effective intensity, for daylight–luminance background, of Type B high–intensity obstacle lights is 140,000 cd \pm 25 percent.
6.3.22	The height of the structure AGL determines the number of light levels. The light levels may be adjusted slightly, but not to exceed 10 feet (3m) when necessary to accommodate guy wires and personnel who replace or repair light fixtures. If an adjacent object shields any light, horizontal placement of the lights should be adjusted or additional lights should be mounted on that object to retain or contribute to the definition of the obstruction. Recommendations on marking structures can vary depending on terrain features, weather patterns, geographic location, and in the case of wind turbines, number of structures and overall layout of design.

6.3.23, 6.3.24, 6.3.27, 6.3.29	<p>Red obstruction lights are used to increase conspicuity during nighttime. The red obstruction lighting system is composed of flashing omnidirectional beacons (L–864) and/or steady burning (L–810) lights. When one or more levels is comprised of flashing beacon lighting, the lights should flash simultaneously.</p> <p>The U.S. does not utilize Type A, B, C, or D obstacle lights. Recommendations on marking structures can vary depending on terrain features, weather patterns, geographic location, and in</p>
6.3.28	<p>When objects within a group of obstructions are approximately the same overall height above the surface and are located a maximum of 150 feet (46m) apart, the group of obstructions may be considered an extensive obstruction. Install light units on the same horizontal plane at the highest portion or edge of prominent obstructions. Light units should be placed to ensure that the light is visible to a pilot approaching from any direction.</p>
6.3.30, 6.3.31, 6.3.32	<p>The medium intensity flashing white light system is normally composed of flashing omnidirectional lights. Medium intensity flashing white obstruction lights may be used during daytime and twilight with automatically selected reduced intensity for nighttime operation.</p> <p>The U.S. does not utilize Type A, B, or C obstacle lights. Medium intensity flashing white (L–865) obstruction lights may provide conspicuity both day and night. Recommendations on marking structures can vary depending on terrain features, weather patterns, geographic location, and in the case of structures and overall layout of design.</p>
6.3.35	<p>Use high intensity flashing white obstruction lights during daytime with automatically selected reduced intensities for twilight and nighttime operations. When high intensity white lights are operated 24 hours a day, other methods of marking and lighting may be omitted.</p> <p>The U.S. does not utilize Type A obstacle lights. Lighting with high intensity (L–856) flashing white obstruction lights provides the highest degree of conspicuity both day and night. Recommendations on marking structures can vary depending on terrain features, weather patterns, geographic location, and in the case of wind turbines, number of structures and overall layout of design.</p>
Chapter 7	Visual Aids for Denoting Restricted Use Areas
7.1.2*	A “closed” marking is not used with partially closed runways. See 5.2.4.10, above.
7.1.4	<p>Crosses with shapes similar to figure 7.1, illustration b) are used to indicate closed runways and taxiways.</p> <p>The cross for denoting a closed runway is yellow.</p>
7.1.5	In the U.S. when a runway is permanently closed, only the threshold marking, runway designation marking, and touchdown zone marking need be obliterated. Permanently closed taxiways need not have the markings obliterated.
7.1.7	The U.S. does not require unserviceability lights across the entrance to a closed runway or taxiway when it is intersected by a night–use runway or taxiway.
7.4.4	Flashing yellow lights are used as unserviceability lights. The intensity is such as to be adequate to delineate a hazardous area.
Chapter 8	Equipment and Installations
8.1.5* 8.1.6* 8.1.7 8.1.8	<p>A secondary power supply for non–precision instrument and non–instrument approach runways is not required, nor is it required for all precision approach runways.</p> <p>The U.S. does not provide secondary power specifically for take–off operations below 550 meters RVR.</p>
8.2.1	There is no requirement in the U.S. to interleave lights as described in the Aerodrome Design Manual, Part 5.
8.2.3	See 5.3.15.3 and 5.3.16.2
8.7.2* 8.7.3 8.7.4*	Glide slope facilities and certain other installations located within the runway strip, or which penetrate obstacle limitation surfaces, may not be frangibly mounted.

8.9.7*	A surface movement surveillance system is recommended for operations from 350 meters RVR down to 183 meters. Below 183 meters RVR, a surface movement radar or alternative technology is generally required.
Chapter 9	Emergency and Other Services
9.1.1	Emergency plans such as those specified in this section are required only at airports serving scheduled air carriers using aircraft having more than 30 seats. These airports are certificated under 14 CFR Part 139. In practice, other airports also prepare emergency plans.
9.1.12	Full-scale airport emergency exercises are conducted at intervals, not to exceed three years, at airports with scheduled passenger service using aircraft with more than 30 seats.
9.2.1	Rescue and fire fighting equipment and services such as those specified in this section are required only at airports serving scheduled air carriers in aircraft having more than 30 seats. Such airports generally equate to ICAO categories 4 through 9. Other airports have varying degrees of services and equipment.
9.2.3*	There is no plan to eliminate, after 1 January 2005, the current practice of permitting a reduction of one category in the index when the largest aircraft has fewer than an average of five scheduled departures a day.
9.2.4 9.2.5	The level of protection at U.S. airports is derived from the length of the largest aircraft serving the airport similar to the Annex's procedure, except that maximum fuselage width is not used. U.S. indices A–E are close equivalents of the Annex's categories 5–9. The U.S. does not have an equivalent to category 10.

Fire Extinguishing Agents and Equipment

Index	Aircraft length		Total minimum quantities of extinguishing agents		Minimum trucks	Discharge rate ¹
	More than	Not more than	Dry chemical	Water for protein foam		
A		27 meters	225 kg	0	1	See below
B	27 meters	38 meters	225 kg	5,700 L	1	See below
C	38 meters	48 meters	225 kg	5,700 L	2	See below
D	48 meters	60 meters	225 kg	5,700 L	3	See below
E	60 meters		225 kg	11,400 L	3	See below

¹Truck size

1,900 L but less than 7,600
7,600 L or greater

Discharge rate

at least 1,900 L per minute but not more than 3,800 L per minute
at least 2,280 L per minute but not more than 4,560 L per minute

9.2.10	The required firefighting equipment and agents by index are shown in the table above. The substitution equivalencies between complementary agents and foam meeting performance level A are also used for protein and fluoroprotein foam. Equivalencies for foam meeting performance level B are used only for aqueous film forming foams.
9.2.18*	There is no specific requirement to provide rescue equipment as distinguished from firefighting equipment.
9.2.19*	At least one apparatus must arrive and apply foam within 3 minutes with all other required vehicles arriving within 4 minutes. Response time is measured from the alarm at the equipment's customary assigned post to the commencement of the application of foam at the mid-point of the farthest runway.
9.2.29*	For ICAO category 6 (U.S. index B), the U.S. allows one vehicle.
9.4.4	At the present time, there is no requirement to perform tests using a continuous friction measuring device with self-wetting features. Some U.S. airports own these devices, while others use less formal methods to monitor build-up of rubber deposits and the deterioration of friction characteristics.
9.4.15	The standard grade for temporary ramps is 15 feet longitudinal per 1 inch of height (0.56 percent slope) maximum, regardless of overlay depth.
9.4.19	There is no U.S. standard for declaring a light unserviceable if it is out of alignment or if its intensity is less than 50 percent of its specified value.

*Indicates ICAO Recommended Practice

ANNEX 14 – AERODROMES	
VOLUME II – HELIPORTS	
Chapter 1	Definitions
Declared distances	The U.S. does not use declared distances (take-off distance available, rejected take-off distance available, or landing distance available) in designing heliports.
Final approach and take-off area (FATO)	The U.S. “take-off and landing area” is comparable to the ICAO FATO, and the U.S. “FATO” is more comparable to the ICAO TLOF. The U.S. definition for the FATO stops with “the take-off manoeuvre is commenced.” This difference in definition reflects a variation in concept. The rejected take-off distance is an operational computation and is not required as part of the design.
Helicopter stand	The U.S. does not use the term “helicopter stand.” Instead, the U.S. considers paved or unpaved aprons, helipads, and helidecks, all as helicopter parking areas; i.e., helicopter stands.
Safety area	The U.S. considers the safety area to be part of the take-off and landing area which surrounds the FATO and does not call for or define a separate safety area.
Touchdown and lift-off area (TLOF)	The U.S. differs in the definition by considering helipads and helidecks to be FATO. The U.S. does not define the load bearing area on which the helicopter may touch down or lift-off as a TLOF.
Chapter 2	Heliport Data
2.1 d)	The U.S. does not measure or report a safety area as a separate feature of a heliport.
2.2	The U.S. does not “declare” distances for heliports.
Chapter 3	Physical Characteristics
3.1.2	The U.S. does not distinguish between single-engine and multi-engine helicopters for the purposes of heliport design standards. Neither does the U.S. design or classify heliports on the basis of helicopter performance. The U.S. FATO dimensions are at least equal to the rotor diameter of the design single rotor helicopter and the area must be capable of providing ground effect. The U.S. does not have alternative design standards for water FATOs, elevated heliports, or helidecks.
3.1.3	The U.S. has a single gradient standard; i.e., 5 percent, except in fueling areas where the limit is 2 percent, which is applicable for all portions of heliports.
3.1.6 3.1.7* 3.1.8*	The U.S. does not require or provide criteria for clearways in its design standards. It does encourage ownership and clearing of the land underlying the innermost portion of the approach out to where the approach surface is 10.5 meters above the level of the take-off surface.
3.1.14 to 3.1.21	Safety areas are considered part of the take-off and landing area (or primary surface) in U.S. heliport design. The take-off and landing area of the U.S. design criteria, based on 2 rotor diameters, provides for the ICAO safety area; however, the surface does not have to be continuous with the FATO or be load bearing.
3.1.22	Taxiway widths are twice the undercarriage width of the design helicopter.
3.1.23	The U.S. requires 1.25 rotor diameters plus 2 meters of separation between helicopter ground taxiways.
3.1.24	The U.S. gradient standard for taxiways is a maximum of 5 percent.
3.1.32*	The U.S. sets no gradient standards for air taxiways.
3.1.33	The U.S. requires 1.5 rotor diameters of separation between hover or air taxiways.
3.1.34	The U.S. standards for air taxiways and air transit routes are combined as the standards for hover taxiways noted in paragraphs 3.1.23, 3.1.24 and 3.1.33.
3.1.35	The U.S. sets no maximum turning angle or minimum radius of turn on hover taxiways.
3.1.36	The U.S. gradient standard for aprons is a maximum of 5 percent except in fueling areas where it is 2 percent.
3.1.37	The U.S. criterion for object clearances is 1/3 rotor diameter or 3 meters, whichever is greater.
3.1.38	The U.S. standard for helipads (comparable to helicopter stands) is 1.5 times the undercarriage length or width, whichever is greater.

3.1.39	The U.S. standard for separation between FATO center and the centerline of the runway is 120 meters.
3.2.2	The U.S. does not apply either a performance related or an alternative design standard for elevated heliport facilities.
3.2.5 to 3.2.10	The U.S. does not use safety areas in its heliport design.
3.3 3.4	In the U.S., shipboard and relocatable off-shore helicopter “helideck” facilities are under the purview of the U.S. Coast Guard and utilize the International Maritime Organization (IMO) code. Fixed off-shore helideck facilities are under the purview of the Department of Interior based on their document 351DM2. Coastal water helideck facilities are under the purview of the individual affected States.
Chapter 4	Obstacle Restriction and Removal
4.1.1	The U.S. approach surface starts at the edge of the take-off and landing area.
4.1.2 a)	The U.S. approach surface width adjacent to the heliport take-off and landing area is a minimum of 2 rotor diameters.
4.1.2 b) 2)	The U.S. precision instrument approach surface flares from a width of 2 rotor diameters to a width of 1,800 meters at the 7,500 meters outer end. The U.S. does not use a note similar to the one that follows 4.1.4, as it does not differentiate between helicopter requirements on the basis of operational performance.
4.1.5	The outer limit of the U.S. transitional surfaces adjacent to the take-off and landing area is 76 meters from the centerline of the VFR approach/departure surfaces. The transitional surface width decreases to zero at a point 1,220 meters from the take-off and landing area. It does not terminate at an inner horizontal surface or at a predetermined height.
4.1.6	The U.S. transitional surfaces have a fixed width, 76 meters less the width of the take-off and landing area, from the approach centerline for visual operations and an outwardly flaring width to 450 meters for precision instrument operations. The U.S. does not use an inner horizontal surface nor terminate the transitional surfaces at a fixed/predetermined height.
4.1.7 b)	Since the U.S. includes the safety area in the take-off and landing area, the comparable elevation is at the elevation of the FATO.
4.1.9 through 4.1.20	The U.S. does not use the inner horizontal surface, the conical surface, or take-off climb surface described in these paragraphs or the note following paragraph 4.1.20 for heliport design.
4.1.21 through 4.1.25	The U.S. does not have alternative criteria for floating or fixed-in-place helidecks.
4.2	The U.S. has no requirement for a note similar to the one following the heading “Obstacle limitation requirements.”
4.2.1	The U.S. criteria does not require a take-off climb surface or a conical obstacle limitation surface to establish a precision instrument approach procedure.
4.2.2	The U.S. criteria does not require a take-off climb surface or a conical obstacle limitation surface to establish a non-precision instrument approach procedure.
4.2.3	The U.S. criteria does not require a take-off climb obstacle limitation surface to establish a non-instrument approach procedure.
4.2.4*	The U.S. has no requirement for protective surfaces such as an inner horizontal surface or a conical surface.
4.2.5	The U.S. does not have tables for heliport design comparable to the ICAO Tables 4–1 to 4–4.
4.2.6	The U.S. subscribes to the intent of this paragraph to limit object heights in the heliport protective surfaces but uses fewer surfaces with different dimensions for those surfaces.
4.2.7*	The U.S. subscribes to the intent of this paragraph but uses different dimensional surfaces.
4.2.8	The U.S. criterion requires that a heliport have at least one approach and departure route and encourages multiple approaches separated by arcs of 90 to 180 degrees.
4.2.9*	The U.S. has no requirement that a heliport’s approach surfaces provide 95 percent usability.

4.2.10	Since the U.S. does not differentiate between surface level and elevated heliports, the comments to paragraphs 4.2.1 through 4.2.5 above apply.
4.2.11	The U.S. has no requirement for a take-off climb surface. It does require at least one approach/departure surface and encourages that there be as many approaches as is practical separated by arcs of 90 to 180 degrees.
4.2.12 through 4.2.22	Since the U.S. does not have alternative design criteria for helidecks or shipboard heliports, there are no comparable U.S. protective surface requirements.
Tables 4–1, 4–2, 4–3, 4–4	The U.S. does not have tables comparable to the ICAO Tables 4–1 to 4–4.
Chapter 5	Visual Aids
5.2.1	The U.S. does not have criteria for markings to be used in defining winching areas.
5.2.3.3	The U.S. maximum mass markings are specified in 1,000 pound units rather than tonnes or kilograms.
5.2.4.3	The U.S. criterion requires FATO markers but is not specific on the number or spacing between markers.
5.2.4.4	The U.S. criteria for FATO markers is not dimensionally specific.
5.2.6	The U.S. does not require, or have criteria for, marking an aiming point.
5.2.7.1	The U.S. does not require specific criteria for marking floating or off-shore fixed-in-place helicopter or helideck facilities.
5.2.8	The U.S. does not require marking the touchdown area.
5.2.9	The U.S. does not have criteria for heliport name markings.
5.2.10	The U.S. does not have a requirement to mark helideck obstacle-free sectors.
5.2.12.2	The U.S. criterion places the air taxiway markers along the edges of the routes rather than on the centerline.
5.2.12.3	The U.S. criterion for air taxiway markers does not specify the viewing area or height to width ratio.
5.3.2.3	The U.S. heliport beacon flashes white-green-yellow colors rather than a series of timed flashes.
5.3.2.5*	The U.S. criteria is not specific on the light intensity of the flash.
5.3.3.3	The U.S. criterion specifies a 300 meters approach light system configuration. The light bars are spaced at 30 meters intervals. The first two bars of the configuration are single lights, the next two bars are two lights, then two bars with three lights, then two bars with four lights, and finally two bars with five lights.
5.3.3.4	The U.S. approach light system uses aimed PAR-56 lights.
5.3.3.6	The U.S. heliport approach light system does not contain flashing lights.
5.3.5.2 a)	The U.S. requires an odd number of lights, but not less than three lights per side.
5.3.5.2 b)	The U.S. requires a minimum of eight lights for a circular FATO and does not specify the distance between lights.
5.3.5.4*	The U.S. criteria does not specify light distribution.
5.3.6	The U.S. does not have specific criteria for aiming point lights.
5.3.8	The U.S. does not have standards for winching area lighting.
Chapter 6	Heliport Services
6.1*	The U.S. requirements for rescue and fire fighting services at certificated heliports are found in 14 CFR Part 139. Criteria for other heliports are established by the National Fire Protection Association (NFPA) pamphlets 403 or 418, or in regulations of local fire departments.

*Indicates ICAO Recommended Practice

ANNEX 15 – AERONAUTICAL INFORMATION SERVICES	
Chapter 1	General
1.2.2.2	The U.S. utilizes Geoid–03 which is a component of the North American Vertical Datum of 1988 (NAVD 88).
1.1 ASHTAM	The U.S. doesn’t have a series of NOTAM called ASHTAM, although notification procedures are written on handling of Volcanic Ash activity.
1.1 Danger area	“Danger area” is not used in reference to areas within the U.S. or in any of its possessions or territories.
1.1 Maneuvering area	Any locality either on land, water, or structures, including airports/heliports and intermediate landing fields, which is used, or intended to be used, for the landing and takeoff of aircraft whether or not facilities are provided for the shelter, servicing, or for receiving or discharging passengers or cargo.
1.1 Movement area	The runways, taxiways, and other areas of an airport/heliport which are utilized for taxiing/hover-taxiing, air-taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports/heliports with a tower, specific approval for entry onto the movement area must be obtained from ATC.
1.1 Pre-flight Information Bulletin (PIB)	The US does not use the term PIB. However, current NOTAM information is gathered and available through different sources.
1.1 SNOWTAM	The US presents the information in a different manner via a NOTAM.
Chapter 3	Aeronautical Information Management
3.6.1	Current quality management system applies only to the Aeronautical Information Services.
Chapter 5	Aeronautical Information Products and Services
5.2.2	The FAA does not use PIBs, but does provide pertinent NOTAM information in plain language form every 28 days in a document called the Notices to Airmen Publication (NTAP).
5.2.5.1. f)	The US does not produce an Aircraft Parking / Docking Chart.
5.3.3.4.1	The United States does not publish the horizontal extent of obstacles.
Chapter 6	Aeronautical Information Updates
6.3.2.1	The U.S. does not routinely issue “trigger NOTAMs” referencing published material when an AIP amendment is issued.
6.3.2.3	The U.S. does not provide a NOTAM for accidental release of radioactive material, toxic chemicals, or volcanic ash deposition.

ANNEX 16 – ENVIRONMENTAL PROTECTION	
VOLUME I – AIRCRAFT NOISE	
Reference: Part 36 of Title 14 of the United States Code of Federal Regulations	
Chapter 1	
1.7	Each person who applies for a type certificate for an airplane covered by 14 CFR Part 36, irrespective of the date of application for the type certificate, must show compliance with Part 36.
Chapter 2	
2.1.1	For type design change applications made after 14 August 1989, if an airplane is a Stage 3 airplane prior to a change in type design, it must remain a Stage 3 airplane after the change in type design regardless of whether Stage 3 compliance was required before the change in type design.
2.3.1 a)	Sideline noise is measured along a line 450 meters from and parallel to the extended runway centerline for two- and three-engine aircraft; for four-engine aircraft, the sideline distance is 0.35 NM.
2.4.2	Noise level limits for Stage 2 derivative aircraft depend upon whether the engine by-pass ratio is less than two. If it is, the Stage 2 limits apply. Otherwise, the limits are the Stage 3 limits plus 3 dB or the Stage 2 value, whichever is lower.
2.4.2.2 b)	Take-off noise limits for three-engine, Stage 2 derivative airplanes with a by-pass ratio equal to or greater than 2 are 107 EPNdB for maximum weights of 385,000 kg (850,000 lb) or more, reduced by 4 dB per halving of the weight down to 92 EPNdB for maximum weights of 28,700 kg (63,177 lb) or less. Aircraft with a by-pass ratio less than 2 only need meet the Stage 2 limits.
2.5.1	Trade-off sum of excesses not greater than 3 EPNdB and no excess greater than 2 EPNdB.
2.6.1.1	For airplanes that do not have turbo-jet engines with a by-pass ratio of 2 or more, the following apply: a) four-engine airplanes – 214 meters (700 feet); b) all other airplanes – 305 meters (1,000 feet). For all airplanes that have turbo-jet engines with a by-pass ratio of 2 or more, the following apply: a) four-engine airplanes – 210 meters (689 feet); b) three-engine airplanes – 260 meters (853 feet); c) airplanes with fewer than three engines – 305 meters (1,000 feet). The power may not be reduced below that which will provide level flight for an engine inoperative or that will maintain a climb gradient of at least 4 percent, whichever is greater.
Chapter 3	
3.1.1	For type design change applications made after 14 August 1989, if an airplane is a Stage 3 airplane prior to a change in type design, it must remain a Stage 3 airplane after the change in type design regardless of whether Stage 3 compliance was required before the change in type design.
3.3.1 a) 2)	The U.S. has no equivalent provision in 14 CFR Part 36.
3.3.2.2	A minimum of two microphones symmetrically positioned about the test flight track must be used to define the maximum sideline noise. This maximum noise may be assumed to occur where the aircraft reaches 305 meters (1,000 feet). 14 CFR Part 36 does not require symmetrical measurements to be made at each and every point for propeller-driven airplane sideline noise determination.
3.6.2.1 c)	Under 14 CFR Part 36, during each test take-off, simultaneous measurements should be made at the sideline noise measuring stations on each side of the runway and also at the take-off noise measuring station. If test site conditions make it impractical to simultaneously measure take-off and sideline noise, and if each of the other sideline measurement requirements is met, independent measurements may be made of the sideline noise under simulated flight path techniques. If the reference flight path includes a power cutback before the maximum possible sideline noise level is developed, the reduced sideline noise level, which is the maximum value developed by the simulated flight path technique, must be the certificated sideline noise value.

3.6.2.1 d)	14 CFR Part 36 specifies the day speeds and the acoustic reference speed to be the minimum approved value of $V_2 + 10$ kt, or the all-engines operating speed at 35 feet (for turbine-engine powered airplanes) or 50 feet (for reciprocating-engine powered airplanes), whichever speed is greater as determined under the regulations constituting the type certification basis of the airplane. The test must be conducted at the test day speeds ± 3 kt.
3.7.4	If a take-off test series is conducted at weights other than the maximum take-off weight for which noise certification is requested: a) at least one take-off test must be at or above that maximum weight; b) each take-off test weight must be within +5 or –10 percent of the maximum weight. If an approach test series is conducted at weights other than the maximum landing weight for which certification is requested: a) at least one approach test must be conducted at or above that maximum weight; b) each test weight must exceed 90 percent of the maximum landing weight. Total EPNL adjustment for variations in approach flight path from the reference flight path and for any difference between test engine thrust or power and reference engine thrust or power must not exceed 2 EPNdB.
Chapter 5	
5.1.1	Applies to all large transport category aircraft (as they do to all subsonic turbo-jet aircraft regardless of category). Commuter category aircraft, propeller-driven airplanes below 8,640 kg (19,000 lb) are subject to 14 CFR Part 36, Appendix F or to Appendix G, depending upon the date of completion of the noise certification tests.
Chapter 6	
6.1.1	Applies to new, all propeller-driven airplane types below 19,000 lb (8,640 kg.) in the normal, commuter, utility, acrobatic, transport, or restricted categories for which the noise certification tests are completed before 22 December 1988.
Chapter 8	
General	14 CFR Part 36 (Section 36.1 (h)) defines Stage 1 and Stage 2 noise levels and Stage 1 and Stage 2 helicopters. These definitions parallel those used in 14 CFR Part 36 for turbo-jets and are used primarily to simplify the acoustical change provisions in Section 36.11. 14 CFR Part 36 (Section 36.805(c)) provides for certain derived versions of helicopters for which there are no civil prototypes to be certificated above the noise level limits.
8.1.1 a)	Applicable to new helicopter types for which application for an original type certificate was made on or after 6 March 1988.
8.1.1 b)	Applicable only to “acoustical changes” for which application for an amended or supplemental type certificate was made on or after 6 March 1988.
8.4	14 CFR Part 36 Appendix H specifies a slightly different rate of allowable maximum noise levels as a function of helicopter mass. The difference can lead to a difference in the calculated maximum noise limits of 0.1 EPNdB under certain roundoff condition.
8.6.3.1 b)	Does not include the V_{NE} speeds.
8.7	14 CFR Part 36 Appendix H does not permit certain negative corrections. Annex 16 has no equivalent provision.
8.7.4	EPNL correction must be less than 2.0 EPNdB for any combination of lateral deviation, height, approach angle and, in the case of flyover, thrust or power. Corrections to the measured data are required if the tests were conducted below the reference weight. Corrections to the measured data are required if the tests were conducted at other than reference engine power.
8.7.5	The rotor speed must be maintained within one percent of the normal operating RPM during the take-off procedure.
8.7.8	The helicopter shall fly within $\pm 10^\circ$ from the zenith for approach and take-off, but within $\pm 5^\circ$ from the zenith for horizontal flyover.

Chapter 10	
General	Exception from acoustical change rule given for aircraft with flight time prior to 1 January 1955 and land configured aircraft reconfigured with floats or skis.
10.1.1	Applies to new, amended, or supplemental type certificates for propeller-driven airplanes not exceeding 8,640 kg (19,000 lb) for which noise certification tests have not been completed before 22 December 1988.
10.4	The maximum noise level is a constant 73 dBA up to 600 kg (1,320 lb). Above that weight, the limit increases at the rate of 1 dBA/75kg (1 dBA/165 lb) up to 85 dBA at 1,500 kg (3,300 lb) after which it is constant up to and including 8,640 kg (19,000 lb).
10.5.2, second phase, d)	For variable-pitch propellers, the definition of engine power is different in the second segment of the reference path. Maximum continuous installed power instead of maximum power is used.
Chapter 11	
11.1	14 CFR Part 36 Appendix J was effective 11 September 1992 and applies to those helicopters for which application for a type certificate was made on or after 6 March 1986.
11.4	14 CFR Part 36 Appendix J specifies a slightly different rate of allowable maximum noise levels as a function of helicopter mass. The difference can lead to a difference in the calculated maximum noise limits of 0.1 EPNdB under certain roundoff condition.
11.6	14 CFR Part 36 Appendix J prescribes a ± 15 meter limitation on the allowed vertical deviation about the reference flight path. Annex 16 has no equivalent provision.
PART V	
General	No comparable provision exists in U.S. Federal Regulations. Any local airport proprietor may propose noise abatement operating procedures to the FAA which reviews them for safety and appropriateness.
Appendix 1	
General	Sections 3, 8, and 9 of Appendix 1 which contain the technical specifications for equipment, measurement and analysis and data correction for Chapter 2 aircraft and their derivatives differ in many important aspects from the corresponding requirements in Appendix 2 which has been updated several times. 14 CFR Part 36 updates have generally paralleled those of Appendix 2 of Annex 16. These updated requirements are applicable in the U.S. to both Stage 2 and Stage 3 aircraft and their derivatives.
2.2.1	A minimum of two microphones symmetrically positioned about the test flight track must be used to define the maximum sideline noise. This maximum noise may be assumed to occur where the aircraft reaches 305 meters (1,000 feet), except for four-engine, Stage 2 aircraft for which 439 meters (1,440 feet) may be used.
2.2.2	No obstructions in the cone defined by the axis normal to the ground and the half-angle 80° from the axis.
2.2.3 c)	Relative humidity and ambient temperature over the sound path between the aircraft and 10 meters above the ground at the noise measuring site is such that the sound attenuation in the 8 kHz one-third octave band is not greater than 12 dB/100 meters and the relative humidity is between 20 and 95 percent. However, if the dew point and dry bulb temperature used for obtaining relative humidity are measured with a device which is accurate to within one-half a degree Celsius, the sound attenuation rate shall not exceed 14 dB/100 meters in the 8 kHz one-third octave band.
2.2.3 d)	Test site average wind not above 12 kt and average cross-wind component not above 7 kt.
2.3.4	The aircraft position along the flight path is related to the recorded noise 10 dB downpoints.
2.3.5	At least one take-off test must be a maximum take-off weight and the test weight must be within +5 or -10 percent of maximum certificated take-off weight.
Appendix 2	
2.2.1	A minimum of two symmetrically placed microphones must be used to define the maximum sideline noise at the point where the aircraft reaches 305 meters.

2.2.2	When a multiple layering calculation is required, the atmosphere between the airplane and the ground shall be divided into layers. These layers are not required to be of equal depth, and the maximum layer depth must be 100 meters.
2.2.2 b)	14 CFR Part 36 specifies that the lower limit of the temperature test window is 36 degrees Fahrenheit (2.2 degrees Celsius). Annex 16 provides 10 degrees Celsius as the lower limit for the temperature test window. 14 CFR Part 36 does not specify that the airport facility used to obtain meteorological condition measurements be within 2,000 meters of the measurement site.
2.2.2 c)	14 CFR Part 36 imposes a limit of 14 dB/100 meters in the 8 kHz one-third octave band when the temperature and dew point are measured with a device which is accurate to within one-half a degree Celsius.
2.2.3	14 CFR Part 36 requires that the limitations on the temperature and relative humidity test window must apply over the whole noise propagation path between a point 10 meters above the ground and the helicopter. Annex 16 specifies that the limitations on the temperature and relative humidity test window apply only at a point 10 meters above the ground. 14 CFR Part 36 requires that corrections for sound attenuation must be based on the average of temperature and relative humidity readings at 10 meters and the helicopter. Annex 16 implies that the corrections for sound absorption are based on the temperature and relative humidity measured at 10 meters only.
3.2.6	No equivalent requirement.
3.4.5	For each detector/integrator the response to a sudden onset or interruption of a constant sinusoidal signal at the respective one-third octave band center frequency must be measured at sampling times 0.5, 1.0, 1.5, and 2.0 seconds after the onset or interruption. The rising responses must be the following amounts before the steady-state level: 0.5 seconds: 4.0 ± 1.0 dB 1.0 seconds: 1.75 ± 0.75 dB 1.5 seconds: 1.0 ± 0.5 dB 2.0 seconds: 0.6 ± 0.5 dB
3.4.5 (Note 1)	No equivalent provision in 14 CFR Part 36.
3.5.2	No equivalent requirement.
5.4	14 CFR Part 36 requires that the difference between airspeed and groundspeed shall not exceed 10 kt between the 10 dB down time period.
8.4.2	14 CFR Part 36 specifies a value of –10 in the adjustment for duration correction. Annex 16 specifies a value of –7.5.
9.1.2, 9.1.3	14 CFR Part 36 always requires use of the integrated procedure if the corrected take-off or approach noise level is within 1.0 dB of the applicable noise limit.
Appendix 6	
4.4.1	The microphone performance, not its dimensions, is specified. The microphone must be mounted 1.2 meters (4 feet) above ground level. A windscreen must be employed when the wind speed is in excess of 9 km/h (5 kt).
5.2.2 a)	Reference conditions are different. Noise data outside the applicable range must be corrected to 77 degrees F and 70 percent humidity.
5.2.2 c)	There is no equivalent provision in 14 CFR Part 36. Fixed-pitch propeller-driven airplanes have a special provision. If the propeller is fixed-pitch and the test power is not within 5 percent of reference power, a helical tip Mach number correction is required.

ANNEX 16 – ENVIRONMENTAL PROTECTION**VOLUME II – AIRCRAFT ENGINE EMISSIONS****Chapter 1**

The U.S. currently has regulations prohibiting intentional fuel venting from turbojet, turbofan and turboprop aircraft, but we do not now have a regulation preventing the intentional fuel venting from helicopter engines.

ANNEX 17 – SECURITY – SAFEGUARDING INTERNATIONAL CIVIL AVIATION AGAINST ACTS OF UNLAWFUL INTERFERENCE

There are no reportable differences between U.S. regulations and the Standards and Recommended Practices contained in this Annex.

ANNEX 18 – THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR
Adopted by the ICAO Council 6/26/81
Effective Date: 1/1/83
Applicability Date: 1/1/84
(Note: Differences are to be filed with ICAO by 6/1/83).

Chapter 1	General
1.2.2.2	The U.S. utilizes Geoid-03 which is a component of the North American Vertical Datum of 1988 (NAVD 88).
1.1 ASHTAM	The U.S. doesn't have a series of NOTAM called ASHTAM, although notification procedures are written on handling of Volcanic Ash activity.
1.1 Danger area	"Danger area" is not used in reference to areas within the U.S. or in any of its possessions or territories.
1.1 Maneuvering area	Any locality either on land, water, or structures, including airports/heliports and intermediate landing fields, which is used, or intended to be used, for the landing and takeoff of aircraft whether or not facilities are provided for the shelter, servicing, or for receiving or discharging passengers or cargo.
1.1 Movement area	The runways, taxiways, and other areas of an airport/heliport which are utilized for taxiing/hover-taxiing, air-taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports/heliports with a tower, specific approval for entry onto the movement area must be obtained from ATC.
1.1 Pre-flight Information Bulletin (PIB)	The US does not use the term PIB. However, current NOTAM information is gathered and available through different sources.
1.1 SNOWTAM	The US presents the information in a different manner via a NOTAM.
Chapter 3	Aeronautical Information Management
3.6.1	Current quality management system applies only to the Aeronautical Information Services.
Chapter 5	Aeronautical Information Products and Services
5.2.2	The FAA does not use PIBs, but does provide pertinent NOTAM information in plain language form every 28 days in a document called the Notices to Airmen Publication (NTAP).
5.2.5.1. f)	The US does not produce an Aircraft Parking / Docking Chart.
5.3.3.4.1	The United States does not publish the horizontal extent of obstacles.
Chapter 6	Aeronautical Information Updates
6.3.2.1	The U.S. does not routinely issue "trigger NOTAMs" referencing published material when an AIP amendment is issued.
6.3.2.3	The U.S. does not provide a NOTAM for accidental release of radioactive material, toxic chemicals, or volcanic ash deposition.

ANNEX 19 – SAFETY MANAGEMENT	
Chapter 3	State Safety Management Responsibilities
3.3.2.3	The U.S. has not established criteria for international general aviation operators of large or turbojet aeroplanes to implement an SMS.

PANS – OPS – 8168/611	
VOLUME 1	
PART III	
Table III-1-1 and Table III-1-2	Max speeds for visual maneuvering (Circling)” must not be applied to circling procedures in the U.S. Comply with the airspeeds and circling restrictions in ENR 1.5, paragraphs 11.1 and 11.6, in order to remain within obstacle protection areas.
PART IV	
1.2.1	The airspeeds contained in ENR 1.5 shall be used in U.S. CONTROLLED AIRSPACE .

PAN – ABC – DOC 8400

Differences between abbreviations used in U.S. AIP, International NOTAMs Class I and Class II, and Notices to Airmen Publication and ICAO PANS – ABC are listed in GEN 2.2. For other U.S. listings of abbreviations (contractions) for general use, air traffic control, and National Weather Service (NWS), which differ in some respects, see U.S. publication Contractions Handbook (FAA Order JO 7340.2). In addition, various U.S. publications contain abbreviations of terms used therein, particularly those unique to that publication.

GEN 3. SERVICES

GEN 3.1 Aeronautical Information Services

1. Aeronautical Information Service

1.1 The U.S. Aeronautical Information Services is a part of the Air Traffic Organization of the Federal Aviation Administration.

Postal Address:
Federal Aviation Administration
Aeronautical Information Services
1305 East-West Highway
Silver Spring, MD 20910
Telephone: 800-638-8972
Telex: 892-562
Commercial Telegraphic Address: FAA WASH
AFTN Address: KRWAYAYX

1.2 The U.S. NOTAM office is located at the following address:

Postal Address:
Federal Aviation Administration
U.S. NOTAM Office
Air Traffic Control System Command Center
3701 Macintosh Drive
Warrenton, VA 20187
Telephone: 540-422-4260
Toll Free: 1-888-876-6826
Facsimile: 540-422-4298
Telex: None
AFTN Address (Administrative):
KDCAYNXX
AFTN (NOTAM): KDZZNAXX

2. Area of Responsibility of AIS

2.1 Aeronautical Information Services is responsible for the collection, validation, and dissemination of aeronautical information for the U.S. and areas under its jurisdiction for air traffic control purposes.

3. Aeronautical Publications

3.1 United States AIP

3.1.1 The AIP, issued in one volume, is the basic aeronautical information document published for international use. It contains information of a lasting character, with interim updates published in various other publications. The AIP is available in English

only and is maintained on a current basis by a 6-month amendment service.

3.2 Aeronautical Information Circulars

3.2.1 These circulars, called Advisory Circulars, contain information of general or technical interest relating to administrative or aviation matters which are inappropriate to either the AIP or the NOTAM. Advisory Circulars are available in English only. A checklist of outstanding circulars is issued annually.

3.3 En Route Aeronautical Charts, En Route Supplements, Approach Procedure Charts, Chart Supplements

3.3.1 These publications, available in English only, contain specific information on airspace, airports, navigational aids, and flight procedures applicable to the regional areas of the U.S. and the territories and airspace under its jurisdiction. These publications are available on the AIS website at:
http://www.faa.gov/air_traffic/flight_info/aeronav.

4. Distribution of Publications

4.1 This publication is available on the FAA website. All foreign aeronautical authorities are responsible for viewing, downloading, and subscribing to receive electronic mail notifications when changes occur to this publication. Electronic subscription information can be obtained by visiting www.faa.gov/air_traffic/publications or by contacting the Federal Aviation Administration, Mission Support Services, Policy Directorate (AJV-P), 600 Independence Avenue, SW Washington, DC 20597. See information in paragraph 1.2 for published NOTAMs.

4.2 Private paying subscriptions must be obtained for each AIP document from the:

Superintendent of Documents
U.S. Government Publishing Office
P. O. Box 979050
St. Louis, MO 63197-9000
Telephone: 202-512-1800
Internet: <https://bookstore.gpo.gov>

4.3 Advisory Circulars are available, upon request, from the:

U.S. Department of Transportation
Subsequent Distribution Office
Ardmore East Business Center
3341 Q 75th Avenue
Landover, MD 20785

4.4 Public sales of charts and publications are available through FAA approved print providers. A listing of products, dates of latest editions, and print providers is available on the AIS website at: http://www.faa.gov/air_traffic/flight_info/aeronav.

4.5 For the latest information regarding publication availability of world-wide products see the National Geospatial-Intelligence Agency (NGA) website: <https://www.nga.mil/ProductsServices/Pages/PublicProducts.aspx>

5. NOTAM Service

5.1 NOTAM Class I (Telecommunication Distribution)

5.1.1 NOTAM Class I distribution is used mainly for the notification of temporary information of timely significance such as unforeseen changes in services, facilities, airspace utilization, or any other emergency. Distribution is via telecommunications through International NOTAM Office of the Aeronautical Information Services, in accordance with the following classifications:

5.1.1.1 International NOTAM. NOTAM containing full information on all airports, facilities and flight procedures available for use by international civil aviation. NOTAMs are given selected distribution to adjacent or appropriate International NOTAM Offices which require their exchange.

5.1.1.2 International Airspace NOTAM. NOTAM containing short term information pertaining to potentially hazardous international and domestic airspace utilization which is of concern to international flights. NOTAMs are given selected distribution to adjacent or appropriate International NOTAM Offices which require their exchange.

5.1.1.3 International Airspace NOTAM. NOTAM containing permanent changes—en route airway structure/aeronautical service and information of a

general nature. NOTAMs are given selected distribution to adjacent or appropriate International NOTAM Offices which require their exchange.

5.1.1.4 Domestic NOTAM. NOTAM containing information of concern to aircraft other than those engaged in international civil aviation. Distribution is to local or national users only. (See ENR 1.10.)

5.1.2 Each NOTAM is assigned a four digit serial number which is followed by the location indicator for which the series is applicable. The serial numbers start with number 0001 at 0000 UTC on 1 July of each year. Each serial number is preceded by a letter:

5.1.2.1 “A” for NOTAM classification “1.”

NOTE—

NOTAM number one for the year 1984 for the New York, John F. Kennedy International Airport would read A0001/84 JFK. All NOTAMs issued will be preceded by an “A.”

5.1.2.2 “B” for NOTAM classification “2.” (Airspace): the identifier of the affected air traffic control center/FIR will be used.

NOTE—

NOTAM number one for the year 1984 for the Oakland ARTCC/FIR (Pacific Ocean Area) would read A0001/84 KZOA.

5.1.2.3 “C” for NOTAM classification “3” (Permanent Airspace): The KFDC identifier will be used for data of permanent airway/aeronautical services and of a general nature that are transmitted as NOTAMs and are given selected distribution to adjacent or appropriate International NOTAM Offices which require their exchange.

NOTE—

NOTAM number one for the year 1984 for KFDC is A0001/84 KFDC.

5.1.2.4 “E” for NOTAM classification “5” (domestic): No application (see ENR 1.10.)

5.2 Each NOTAM is provided with an identification letter adjoining the end of the word NOTAM meaning:

5.2.1 NOTAMN: NOTAM containing new information.

5.2.2 NOTAMC: NOTAM cancelling a previous NOTAM indicated.

5.2.3 NOTAMR: NOTAM replacing a previous NOTAM indicated.

9.4 Designated UNICOM/MULTICOM Frequencies

9.4.1 Frequency Use

9.4.1.1 TBL GEN 3.3–21 depicts UNICOM and MULTICOM frequency uses as designated by the Federal Communications Commission (FCC).

NOTE–

1. In some areas of the country, frequency interference may be encountered from nearby airports using the same UNICOM frequency. Where there is a problem, UNICOM operators are encouraged to develop a “least interference” frequency assignment plan for airports concerned using the frequencies designated for airports without operating control towers. UNICOM licensees are encouraged to apply for UNICOM 25 KHz spaced channel frequencies. Due to the extremely limited number of frequencies with 50 KHz channel spacing, 25 KHz channel spacing should be implemented. UNICOM licensees may then request FCC to assign frequencies in accordance with the plan, which FCC will review and consider for approval.

2. Wind direction and runway information may not be available on UNICOM frequency 122.950.

9.4.1.2 TBL GEN 3.3–22 depicts other frequency uses as designated by the FCC.

9.5 Use of UNICOM for ATC purposes

9.5.1 UNICOM service may be used for air traffic control purposes, only under the following circumstances:

9.5.1.1 Revision to proposed departure time.

9.5.1.2 Takeoff, arrival, or flight plan cancellation time.

9.5.1.3 ATC clearance, provided arrangements are made between the ATC facility and the UNICOM licensee to handle such messages.

TBL GEN 3.3–21
UNICOM/MULTICOM Frequency Usage

Use	Frequency
Airports without an operating control tower.	122.700 122.725 122.800 122.975 123.000 123.050 123.075
(MULTICOM FREQUENCY) Activities of a temporary, seasonal, emergency nature or search and rescue, as well as, airports with no tower, FSS, or UNICOM.	122.900
(MULTICOM FREQUENCY) Forestry management and fire suppression, fish and game management and protection, and environmental monitoring and protection.	122.925
Airports with a control tower or FSS on airport.	122.950

TBL GEN 3.3–22
Other Frequency Usage Designated by FCC

Use	Frequency
Air-to-air communication (private fixed wing aircraft).	122.750
Helicopter air-to-air communications; Air traffic control operations.	123.025
Aviation instruction, Glider, Hot Air Balloon (not to be used for advisory service).	123.300 123.500
Assignment to flight test land and aircraft stations (not for air-to-air communication except for those aircraft operating in an oceanic FIR).	123.400 ¹ 123.450 ²

¹This frequency is available only to itinerant stations that have a requirement to be periodically transferred to various locations.

²Mobile station operations on these frequencies are limited to an area within 320 km (200 mi) of an associated flight test land station.

9.6 Automatic Terminal Information Service (ATIS)

9.6.1 ATIS is the continuous broadcast of recorded noncontrol information in selected high activity terminal areas. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive transmission of essential but routine information. The information is continuously broadcast over a discrete VHF radio frequency or the voice portion of a local NAVAID. ATIS transmissions on a discrete VHF radio frequency are engineered to be receivable to a maximum of 60 NM from the ATIS site and a maximum altitude of 25,000 feet AGL. At most locations, ATIS signals may be received on the surface of the airport, but local conditions may limit the maximum ATIS reception distance and/or altitude. Pilots are urged to cooperate in the ATIS program as it relieves frequency congestion on approach control, ground control, and local control frequencies. The Chart Supplement U.S. indicates airports for which ATIS is provided.

9.6.2 ATIS information includes:

9.6.2.1 Airport/facility name

9.6.2.2 Phonetic letter code

9.6.2.3 Time of the latest weather sequence (UTC)

9.6.2.4 Weather information consisting of:

a) Wind direction and velocity

b) Visibility

c) Obstructions to vision

d) Present weather consisting of: sky condition, temperature, dew point, altimeter, a density altitude advisory when appropriate, and other pertinent remarks included in the official weather observation

9.6.2.5 Instrument approach and runway in use.

The ceiling/sky condition, visibility, and obstructions to vision may be omitted from the ATIS broadcast if the ceiling is above 5,000 feet and the visibility is more than 5 miles. The departure runway will only be given if different from the landing runway except at locations having a separate ATIS for departure. The broadcast may include the appropriate frequency and instructions for VFR arrivals to make initial contact with approach control. Pilots of aircraft arriving or departing the terminal area can receive the continuous ATIS broadcast at times when cockpit

duties are least pressing and listen to as many repeats as desired. ATIS broadcast must be updated upon the receipt of any official hourly and special weather. A new recording will also be made when there is a change in other pertinent data such as runway change, instrument approach in use, etc.

SAMPLE BROADCAST–

DULLES INTERNATIONAL INFORMATION SIERRA. ONE FOUR ZERO ZERO ZULU. WIND THREE FIVE ZERO AT EIGHT. VISIBILITY ONE ZERO. CEILING FOUR THOUSAND FIVE HUNDRED BROKEN. TEMPERATURE THREE FOUR. DEW POINT TWO EIGHT. ALTIMETER THREE ZERO ONE ZERO. ILS RUNWAY ONE RIGHT APPROACH IN USE. DEPARTING RUNWAY THREE ZERO. ADVISE ON INITIAL CONTACT YOU HAVE INFORMATION SIERRA.

9.6.3 Pilots should listen to ATIS broadcasts whenever ATIS is in operation.

9.6.4 Pilots should notify controllers on initial contact that they have received the ATIS broadcast by repeating the alphabetical code word appended to the broadcast.

EXAMPLE–

“Information Sierra received.”

9.6.5 When the pilot acknowledges receipt of the ATIS broadcast, controllers may omit those items contained on the broadcast if they are current. Rapidly changing conditions will be issued by ATC and the ATIS will contain words as follows:

EXAMPLE–

“Latest ceiling/visibility/altimeter/wind/(other conditions) will be issued by approach control/tower.”

NOTE–

The absence of a sky condition/ceiling and/or visibility on ATIS indicates a sky condition/ceiling of 5,000 feet or above and visibility of 5 miles or more. A remark may be made on the broadcast, “the weather is better than 5,000 and 5,” or the existing weather may be broadcast.

9.6.6 Controllers will issue pertinent information to pilots who do not acknowledge receipt of a broadcast or who acknowledge receipt of a broadcast which is not current.

9.6.7 To serve frequency-limited aircraft, FSSs are equipped to transmit on the omnirange frequency at most en route VORs used as ATIS voice outlets. Such communication interrupts the ATIS broadcast. Pilots of aircraft equipped to receive on other FSS frequencies are encouraged to do so in order that these

2. 0929:10 . . . time, zero niner two niner and one-quarter

4.5.7 Communications with Tower when Aircraft Transmitter/Receiver or Both are Inoperative

4.5.7.1 Arriving Aircraft

a) Receiver Inoperative. If you have reason to believe your receiver is inoperative, remain outside or above Class D airspace until the direction and flow of traffic has been determined; then, advise the tower of your type aircraft, position, altitude, intention to land, and request that you be controlled with light signals. When you are approximately 3 to 5 miles from the airport, advise the tower of your position and join the airport traffic pattern. From this point on, watch the tower for light signals. Thereafter, if a complete pattern is made, transmit your position when downwind and/or turning base leg.

b) Transmitter Inoperative. Remain outside or above Class D airspace until the direction and flow of traffic has been determined, then join the airport traffic pattern. Monitor the primary local control frequency as depicted on sectional charts for landing or traffic information, and look for a light signal which may be addressed to your aircraft. During hours of daylight, acknowledge tower transmissions or light signals by rocking your wings. At night, acknowledge by blinking the landing or navigational lights.

NOTE—

To acknowledge tower transmissions during daylight hours, hovering helicopters will turn in the direction of the controlling facility and flash the landing light. While in flight, helicopters should show their acknowledgment of receiving a transmission by making shallow banks in opposite directions. At night, helicopters will acknowledge receipt of transmissions by flashing either the landing or the search light.

c) Transmitter and Receiver Inoperative. Remain outside or above Class D airspace until the direction and flow of traffic has been determined, then join the airport traffic pattern and maintain visual contact with tower to receive light signals.

4.5.7.2 Departing Aircraft. If you experience radio failure prior to leaving the parking area, make

every effort to have the equipment repaired. If you are unable to have the malfunction repaired, call the tower by telephone and request authorization to depart without two-way radio communications. If tower authorization is granted, you will be given departure information and requested to monitor the tower frequency or watch for light signals, as appropriate. During daylight hours, acknowledge tower transmissions or light signals by moving the ailerons or rudder. At night, acknowledge by blinking the landing or navigation lights. If radio malfunction occurs after departing the parking area, watch the tower for light signals or monitor tower frequency.

4.5.8 Contact Procedures

4.5.8.1 Initial Contact

a) The terms “initial contact” or “initial call up” mean the first radio call you make to a given facility, or the first call to a different controller/FSS specialist within a facility. Use the following format:

- 1)** Name of facility being called.
- 2)** Your full aircraft identification as filed in the flight plan or as discussed under aircraft call signs.
- 3)** When operating on an airport surface, state your position.
- 4)** The type of message to follow or your request if it is short; and
- 5)** The word “Over,” if required.

EXAMPLE—

- 1.** “New York Radio, Mooney Three One One Echo.”
- 2.** “Columbia Ground, Cessna Three One Six Zero Foxtrot, south ramp, I–F–R Memphis.”
- 3.** “Miami Center, Baron Five Six Three Hotel, request VFR traffic advisories.”

b) Many FSSs are equipped with remote communications outlets and can transmit on the same frequency at more than one location. The frequencies available at specific locations are indicated on charts above FSS communications boxes. To enable the specialist to utilize the correct transmitter, advise the location and frequency on which you expect a reply.

EXAMPLE-

St. Louis FSS can transmit on frequency 122.3 at either Farmington, MO, or Decatur, IL. If you are in the vicinity of Decatur, your callup should be "Saint Louis radio, Piper Six Niner Six Yankee, receiving Decatur One Two Two Point Three."

c) If radio reception is reasonably assured, inclusion of your request, your position or altitude, the phrase "Have numbers" or "Information Charlie received" (for ATIS) in the initial contact helps decrease radio frequency congestion. Use discretion and do not overload the controller with information he/she does not need. When you do not get a response from the ground station, recheck your radios or use another transmitter and keep the next contact short.

EXAMPLE-

"Atlanta Center, Duke Four One Romeo, request VFR traffic advisories, Twenty Northwest Rome, Seven Thousand Five Hundred, over."

4.5.9 Initial Contact when your Transmitting and Receiving Frequencies are Different

4.5.9.1 If you are attempting to establish contact with a ground station and you are receiving on a different frequency than that transmitted, indicate the VOR name or the frequency on which you expect a reply. Most FSSs and control facilities can transmit on several VOR stations in the area. Use the appropriate FSS call sign as indicated on charts.

EXAMPLE-

New York FSS transmits on the Kennedy, Deer Park and Calverton VORTACs. If you are in the Calverton area, your callup should be "New York Radio, Cessna Three One Six Zero Foxtrot, receiving Riverhead VOR, over."

4.5.9.2 If the chart indicates FSS frequencies above the VORTAC or in FSS communications boxes, transmit or receive on those frequencies nearest your location.

4.5.9.3 When unable to establish contact and you wish to call any ground station, use the phrase "any radio (tower) (station), give Cessna Three One Six Zero Foxtrot a call on (frequency) or (VOR)." If an emergency exists or you need assistance, so state.

4.5.10 Subsequent Contacts and Responses to Call Up from a Ground Facility. Use the same format as used for initial contact except you should state your message or request with the call up in one transmission. The ground station name and the word "Over" may be omitted if the message requires an

obvious reply and there is no possibility for misunderstandings. You should acknowledge all callups or clearances unless the controller of FSS specialist advises otherwise. There are some occasions when the controller must issue time-critical instructions to other aircraft and he/she may be in a position to observe your response, either visually or on radar. If the situation demands your response, take appropriate action or immediately advise the facility of any problem. Acknowledge with your aircraft identification, either at the beginning or at the end of your transmission, and one of the words "Wilco, Roger, Affirmative, Negative" or other appropriate remarks; e.g., "Piper Two One Four Lima, Roger." If you have been receiving services such as VFR traffic advisories and you are leaving the area or changing frequencies, advise the ATC facility and terminate contact.

4.6 Acknowledgement of Frequency Changes

4.6.1 When advised by ATC to change frequencies, acknowledge the instruction. If you select the new frequency without an acknowledgement, the controller's workload is increased because he/she has no way of knowing whether you received the instruction or have had radio communications failure.

4.6.2 At times, a controller/specialist may be working a sector with multiple frequency assignments. In order to eliminate unnecessary verbiage and to free the controller/specialist for higher priority transmissions, the controller/specialist may request the pilot "(Identification), change to my frequency 134.5." This phrase should alert the pilot that he/she is only changing frequencies, not controller/specialist, and that initial call-up phraseology may be abbreviated.

EXAMPLE-

"United Two Twenty-two on One Three Four Point Five" or "One Three Four Point Five, United Two Twenty-two."

4.6.3 Compliance with Frequency Changes. When instructed by ATC to change frequencies, select the new frequency as soon as possible unless instructed to make the change at a specific time, fix, or altitude. A delay in making the change could result in an untimely receipt of important information. If you are instructed to make the frequency change at a specific time, fix, or altitude, monitor the frequency you are on until reaching the specified time, fix, or altitudes unless instructed otherwise by ATC.

5. Communications for VFR Flights

5.1 FSSs and Supplemental Weather Service Locations (SWSLs) are allocated frequencies for different functions; for example, in Alaska, certain FSSs provide Local Airport Advisory on 123.6 MHz or other frequencies which can be found in the Chart Supplement U.S. If you are in doubt as to what frequency to use, 122.2 MHz is assigned to the majority of FSSs as a common en route simplex frequency.

NOTE—

In order to expedite communications, state the frequency being used and the aircraft location during initial call-up.

EXAMPLE—

Dayton radio, November One Two Three Four Five on one two two point two, over Springfield V–O–R, over.

5.2 Certain VOR voice channels are being utilized for recorded broadcasts; for example, ATIS. These services and appropriate frequencies are listed in the Chart Supplement U.S. On VFR flights, pilots are urged to monitor these frequencies. When in contact with a control facility, notify the controller if you plan to leave the frequency to monitor these broadcasts.

6. Over-water Flights Radio Procedure

6.1 Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries; for example, operations on Route R220 between Anchorage and Tokyo, since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties. (Reference ICAO Annex 10, Vol II Paras. 5.2.2.1.1.1 and 5.2.2.1.1.2.)

7. Radio Communications and Navigation Facilities

7.1 A complete listing of air traffic radio communications facilities and frequencies and radio navigation facilities and frequencies is contained in the Chart Supplement U.S. Similar information for the Pacific and Alaskan areas is contained in the

Pacific and Alaskan Supplements (See GEN 3.2, Aeronautical Charts).

8. U.S. Aeronautical Telecommunications Services

8.1 The following services are available for aircraft engaged in international or overseas flight.

8.2 The aeronautical voice communication stations listed are available to and utilized by the U.S. Federal Aviation Administration Air Traffic Control Centers for air traffic control purposes.

8.3 The frequencies in use will depend upon the time of day or night and conditions which affect radio wave propagation. Voice communications handled on a single channel simplex basis (i.e., with the aircraft and the ground station using the same frequency for transmission and reception) unless otherwise noted in remarks.

8.4 The stations will remain on continuous watch for aircraft within their communications areas and, when practicable, will transfer this watch to another station when the aircraft reaches the limit of the communications area.

8.5 Stations listed below which are designated “FAA” are operated by the U.S. Federal Aviation Administration. Stations designated “Radio” are operated by Collins Aerospace, Incorporated, (formerly ARINC). Contact the Aviation Voice Services Support Section at IMS-Voice-Svcs@Collins.com. (See TBL GEN 3.4–6.)

8.6 All users of the North Atlantic HF MWARA services should consult International NOTAMS and ICAO Regional Supplementary Procedures, Document 7030, for current procedures concerning the operational use of the North Atlantic HF families. At present, procedures for the distribution of HF communications traffic in the North Atlantic are:

8.6.1 All aircraft registered in the hemisphere west of 30W should use family alpha on the southern routes and family bravo on the central and northern routes. (Southern routes are those which enter the New York, San Juan and Santa Maria FIRs. The central and northern routes comprise all others).

8.6.2 All aircraft registered in the hemisphere east of 30W should use family alpha on the southern routes and family charlie on the central and northern routes.

8.6.3 All aircraft should use family alpha on the southern route and family delta on the central and northern routes while outside the organized track system (OTS).

8.6.4 Aircraft registered in Australia will use families designated to aircraft registered east of 30W.

8.7 Aircraft operating in the Anchorage Arctic CTA/FIR beyond line of sight range of remote control VHF air/ground facilities operated from the

Anchorage ACC, must maintain communications with Cambridge Bay radio and a listening or SELCAL watch on HF frequencies of the North Atlantic D (NAT D) network (2971 kHz, 4675 kHz, 8891 kHz and 11279 kHz). Additionally, and in view of reported marginal reception of the Honolulu Pacific Volmet broadcasts in that and adjacent Canadian airspace, Cambridge Bay radio can provide Anchorage and Fairbanks surface observations and terminal forecasts to flight crews on request.

TBL GEN 3.4-6

Station and Operating Agency	Radio Call	Transmitting Frequencies	Remarks
HONOLULU (FAA)	Honolulu Radio	122.6 122.2 #121.5 MHz	#Emergency. Frequency 122.1 also available for receiving only.
	Volmet	2863 6679 8828 13282 kHz	Broadcasts at H+00-05 and H+30-35; Aerodrome Forecasts, Honolulu, Hilo, Agana, Honolulu. SIGMET. Hourly Report, Honolulu, Hilo, Kahului, Agana, Honolulu.
			Broadcasts at H+05-10 and H+35-40; Hourly Reports, San Francisco, Los Angeles, Seattle, Portland, Sacramento, Ontario, Las Vegas. SIGMET. Aerodrome Forecasts, San Francisco, Seattle, Los Angeles.
			Broadcasts at H+25-30 and H+55-60; Hourly Reports, Anchorage, Elmendorf, Fairbanks, Cold Bay, King Salmon, Vancouver. SIGMET. Aerodrome Forecasts, Anchorage, Fairbanks, Cold Bay, Vancouver.
MIAMI (FAA)	Miami Radio	126.7 118.4 126.9 122.2 122.4 122.75 123.65 127.9 MHz	Local and Short Range.
		#121.5 MHz	#Emergency.
NEW YORK (FAA)	New York Radio (Volmet)	3485* 6604 10051 13270* kHz	*3485 Volmet broadcasts from 1 hour after sunset to 1 hour before sunrise.
			*13270 Volmet broadcasts from 1 hour before sunrise to 1 hour after sunset.
			Broadcasts at H+00-05; Aerodrome Forecasts, Detroit, Chicago, Cleveland. Hourly Reports, Detroit, Chicago, Cleveland, Niagara Falls, Milwaukee, Indianapolis.
			Broadcasts at H+05-10; SIGMET (Oceanic-New York). Aerodrome Forecasts, Bangor, Pittsburgh, Charlotte. Hourly Reports, Bangor, Pittsburgh, Windsor Locks, St. Louis, Charlotte, Minneapolis.
			Broadcasts at H+10-15; Aerodrome Forecasts, New York, Newark, Boston. Hourly reports, New York, Newark, Boston, Baltimore, Philadelphia, Washington.
			Broadcasts at H+15-20; SIGMET (Oceanic-Miami/San Juan). Aerodrome Forecasts, Bermuda, Miami, Atlanta. Hourly Reports, Bermuda, Miami, Nassau, Freeport, Tampa, West Palm Beach, Atlanta.
			Broadcasts at H+30-35; Aerodrome Forecasts, Niagara Falls, Milwaukee, Indianapolis. Hourly Reports Detroit, Chicago, Cleveland, Niagara Falls, Milwaukee, Indianapolis.
			Broadcasts at H+35-40; SIGMET (Oceanic-New York). Aerodrome Forecasts, Windsor Locks, St. Louis. Hourly Reports, Bangor, Pittsburgh, Windsor Locks, St. Louis, Charlotte, Minneapolis.
			Broadcasts at H+40-45; Aerodrome Forecasts, Baltimore, Philadelphia, Washington. Hourly Reports, New York, Newark, Boston, Baltimore, Philadelphia, Washington.
			Broadcasts at H+45-50; SIGMET (Oceanic-Miami/San Juan). Aerodrome Forecasts, Nassau, Freeport. Hourly Reports, Bermuda, Miami, Nassau, Freeport, Tampa, West Palm Beach, Atlanta.

Station and Operating Agency	Radio Call	Transmitting Frequencies	Remarks
NEW YORK (RADIO)	New York	3016 5598 8906 13306 17946 21964 kHz	North Atlantic Family A Network.
		2962 6628 8825 11309 13354 17952 kHz	North Atlantic Family E Network.
		2887 3455 5550 6577 8846 11396 kHz	Caribbean Family A Network.
		5520 6586 8918 11330 13297 17907 kHz	Caribbean Family B Network.
		3494 6640 8933 11342 13330 17925 kHz	Long Distance Operations Control (LDOC) Service (phone–patch). Communications are limited to operational control matters only. Public correspondence (personal messages) to/from crew or passengers cannot be accepted. Note: New York RADIO can also provide HF communications over South America on these LDOC frequencies through their remote site located in Santa Cruz, Bolivia.
		129.90 MHz	Extended range VHF. Coverage area includes Canadian Maritime Provinces, and oceanic routes to the Caribbean, from Boston, New York and Washington areas to approximately 250 nautical miles from the east coast.
		130.7 MHz	Extended range VHF. Full period service is provided within most of the Gulf of Mexico. Also on routes between Miami and San Juan to a distance of approximately 250 nautical miles from the Florida coast and within approximately 250 nautical miles of San Juan. Note: New York RADIO also provides VHF communications over the Northern two-thirds of Mexico on 130.7 MHz for 14 CFR Section 121.99 compliance.
		436623	Aircraft operating within the New York Oceanic FIR.
SAN FRANCISCO (RADIO)	San Francisco	3413 3452 5574 5667 6673 8843 10057 11330 13354 kHz	Central East Pacific One Network.
		2869 5547 11282 13288 21964 kHz	Central East Pacific Two Network.
		2998 4666 6532 8903 11384 13300 17904 21985 kHz	Central West Pacific Network.
		3467 5643 8867 13261 17904 kHz	South Pacific Network.
		2932 5628 6655 8915 8951 10048 11330 13273 13339 17946 21925 kHz	North Pacific Network

Station and Operating Agency	Radio Call	Transmitting Frequencies	Remarks
		3494 6640 8903 11342 13348 17925 21964 kHz	Long Distance Operations Control (LDOC) Service (phone–patch). Communications are limited to operational control matters only. Public correspondence (personal messages) to/from crew or passengers cannot be accepted. Note: San Francisco RADIO can also provide HF communications along the polar routes on these LDOC frequencies through their remote site located at Barrow, Alaska.
		131.95 MHz	Extended range VHF. Coverage area includes area surrounding the Hawaiian Islands and Guam. Coverage extends out approximately 250 NM from Hawaii and from the West coast.
		129.40 MHz	For en route communications for aircraft operating on Seattle/Anchorage/Routes.
		436625	Aircraft operating within the Oakland and Anchorage Oceanic FIRs.
OAKLAND (FAA)	Oakland Radio	122.5 122.2 #121.5 MHz	#Emergency.
SAN JUAN P.R. (FAA)	San Juan Radio	#121.5 122.2 126.7 123.65 #243.0 255.4 114.0 113.5 108.2 108.6 109.0 110.6 MHz	Unscheduled broadcasts H+00, H+15, H+30 and H+45 as appropriate, for Weather and Military Activity Advisories, on 110.6, 109.0, 108.6, 108.2, 113.5, and 114.0 MHz. #Emergency. For frequencies 114.0, 113.5, 108.2 and 109.0 MHz use 122.1 MHz for transmissions to San Juan Radio. For frequency 108.6 use 123.6 MHz.

9. Selective Calling System (SELCAL) Facilities Available

9.1 The SELCAL is a communication system which permits the selective calling of individual aircraft over radio–telephone channels from the ground station to properly equipped aircraft, so as to eliminate the need for the flight crew to constantly monitor the frequency in use.

TBL GEN 3.4–7

Location	Operator	HF	VHF
New York	RADIO	X	X
San Francisco	RADIO	X	X

10. Special North Atlantic, Caribbean, and Pacific Area Communications

10.1 VHF air–to–air frequencies enable aircraft engaged on flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

10.2 Frequencies have been designated as follows:

TBL GEN 3.4–8

Area	Frequency
North Atlantic	123.45 MHz
Caribbean	123.45 MHz
Pacific	123.45 MHz

11. Distress and Urgency Communications

11.1 A pilot who encounters a distress or urgency condition can obtain assistance simply by contacting the air traffic facility or other agency in whose area of responsibility the aircraft is operating, stating the nature of the difficulty, pilot’s intentions, and assistance desired. Distress and urgency communications procedures are prescribed by the International Civil Aviation Organization (ICAO), however, and have decided advantages over the informal procedure described above.

11.2 Distress and urgency communications procedures discussed in the following paragraphs relate to the use of air ground voice communications.

11.3 The initial communication, and if considered necessary, any subsequent transmissions by an aircraft in distress should begin with the signal MAYDAY, preferably repeated three times. The signal PAN–PAN should be used in the same manner for an urgency condition.

11.4 Distress communications have absolute priority over all other communications, and the word MAYDAY commands radio silence on the frequency in use. Urgency communications have priority over all other communications except distress, and the word PAN–PAN warns other stations not to interfere with urgency transmissions.

11.5 Normally, the station addressed will be the air traffic facility or other agency providing air traffic services, on the frequency in use at the time. If the pilot is not communicating and receiving services, the station to be called will normally be the air traffic facility or other agency in whose area of responsibility the aircraft is operating, on the appropriate assigned frequency. If the station addressed does not respond, or if time or the situation dictates, the distress or urgency message may be broadcast, or a collect call may be used, addressing “Any Station (Tower) (Radio) (Radar).”

11.6 The station addressed should immediately acknowledge a distress or urgency message, provide assistance, coordinate and direct the activities of assisting facilities, and alert the appropriate Search and Rescue coordinator if warranted. Responsibility will be transferred to another station only if better handling will result.

11.7 All other stations, aircraft and ground, will continue to listen until it is evident that assistance is being provided. If any station becomes aware that the station being called either has not received a distress or urgency message, or cannot communicate with the aircraft in difficulty, it will attempt to contact the aircraft and provide assistance.

11.8 Although the frequency in use or other frequencies assigned by ATC are preferable, the following emergency frequencies can be used for distress or urgency communications, if necessary or desirable:

11.8.1 121.5 MHz and 243.0 MHz. Both have a range generally limited to line of sight. 121.5 MHz is

guarded by direction finding stations and some military and civil aircraft. 243.0 MHz is guarded by military aircraft. Both 121.5 MHz and 243.0 MHz are guarded by military towers, most civil towers, flight service stations, and radar facilities. Normally ARTCC emergency frequency capability does not extend to radar coverage limits. If an ARTCC does not respond when called on 121.5 MHz or 243.0 MHz, call the nearest tower or flight service station.

11.8.2 2182 kHz. The range is generally less than 300 miles for the average aircraft installation. It can be used to request assistance from stations in the maritime service. 2182 kHz is guarded by major radio stations serving Coast Guard Rescue Coordination Centers and Coast Guard units along the sea coasts of the U.S. and shores of the Great Lakes. The call “Coast Guard” will alert all Coast Guard Radio Stations within range. 2182 kHz is also guarded by most commercial coast stations and some ships and boats.

12. Two-Way Radio Communications Failure

12.1 It is virtually impossible to provide regulations and procedures applicable to all possible situations associated with two-way radio communications failure. During two-way radio communications failure when confronted by a situation not covered in the regulation, pilots are expected to exercise good judgment in whatever action they elect to take. Should the situation so dictate, they should not be reluctant to use the emergency action contained in 14 CFR Section 91.3(b).

12.2 Whether two-way communications failure constitutes an emergency depends on the circumstances, and in any event is a determination made by the pilot. 14 CFR Section 91.3 authorizes a pilot to deviate from any rule to the extent required to meet an emergency.

12.3 In the event of two-way radio communications failure, ATC service will be provided on the basis that the pilot is operating in accordance with 14 CFR Section 91.185. A pilot experiencing two-way communications failure should (unless emergency authority is exercised) comply with 14 CFR Section 91.185 as indicated below.

12.4 Unless otherwise authorized by ATC, each pilot who has two-way radio communications failure when operating under IFR must comply with the following conditions:

12.4.1 If the failure occurs in VFR conditions, or if VFR conditions are encountered after the failure, each pilot must continue the flight under VFR and land as soon as practicable.

NOTE–

This procedure also applies when two-way radio failure occurs while operating in Class A airspace. The primary objective of this provision in 14 CFR Section 91.185 is to preclude extended IFR operation by these aircraft within the ATC system. Pilots should recognize that operation under these conditions may unnecessarily as well as adversely affect other users of the airspace, since ATC may be required to reroute or delay other users in order to protect the failure aircraft. However, it is not intended that the requirement to “land as soon as practicable” be construed to mean “as soon as possible.” Pilots retain the prerogative of exercising their best judgment and are not required to land at an unauthorized airport, at an airport unsuitable for the type of aircraft flown, or to land only minutes short of their intended destination.

12.4.2 If the failure occurs in IFR conditions, or if VFR conditions cannot be complied with, each pilot must continue the flight according to the following requirements.

12.5 Route requirements:

12.5.1 By the route assigned in the last ATC clearance received.

12.5.2 If being radar vectored, by the direct route from the point of radio failure to the fix, route, or airway specified in the vector clearance.

12.5.3 In the absence of an assigned route, by the route that ATC has advised may be expected in a further clearance.

12.5.4 In the absence of an assigned route or a route that ATC has advised may be expected in a further clearance, by the route filed in the flight plan.

12.6 Altitude requirements. At the HIGHEST of the following altitudes or flight levels FOR THE ROUTE SEGMENT BEING FLOWN:

12.6.1 The altitude or flight level assigned in the last ATC clearance received.

12.6.2 The minimum altitude (converted, if appropriate, to minimum flight level as prescribed in 14 CFR Section 91.121(c)) for IFR operations.

12.6.3 The altitude or flight level ATC has advised may be expected in a further clearance.

NOTE–

The intent of the rule is that a pilot who has experienced two-way radio failure should select the appropriate altitude for the particular route segment being flown and make the necessary altitude adjustments for subsequent route segments. If the pilot received an “expect further clearance” containing a higher altitude to expect at a specified time or fix, he/she should maintain the highest of the following altitudes until that time/fix: (1) his/her last assigned altitude, or (2) the minimum altitude/flight level for IFR operations.

Upon reaching the time/fix specified, the pilot should commence his/her climb to the altitude he/she was advised to expect. If the radio failure occurs after the time/fix specified, the altitude to be expected is not applicable and the pilot should maintain an altitude consistent with 1 or 2 above.

If the pilot receives an “expect further clearance” containing a lower altitude, the pilot should maintain the highest of 1 or 2 above until that time/fix specified in paragraph 12.7, Leave Clearance Limit.

EXAMPLE–

1. A pilot experiencing two-way radio failure at an assigned altitude of 7,000 feet is cleared along a direct route which will require a climb to a minimum IFR altitude of 9,000 feet, should climb to reach 9,000 feet at the time or place where it becomes necessary (see 14 CFR Section 91.177(b)). Later while proceeding along an airway with an MEA of 5,000 feet, the pilot would descend to 7,000 feet (the last assigned altitude), because that altitude is higher than the MEA.

2. A pilot experiencing two-way radio failure while being progressively descended to lower altitudes to begin an approach is assigned 2,700 feet until crossing the VOR and then cleared for the approach. The MOCA along the airway is 2,700 feet and MEA is 4,000 feet. The aircraft is within 22 NM of the VOR. The pilot should remain at 2,700 feet until crossing the VOR because that altitude is the minimum IFR altitude for the route segment being flown.

3. The MEA between a and b – 5,000 feet. The MEA between b and c – 5,000 feet. The MEA between c and d – 11,000 feet. The MEA between d and e – 7,000 feet. A pilot had been cleared via a, b, c, d, to e. While flying between a and b the assigned altitude was 6,000 feet and the pilot was told to expect a clearance to 8,000 feet at b. Prior to receiving the higher altitude assignment, the pilot

experienced two–way failure. The pilot would maintain 6,000 to b, then climb to 8,000 feet (the altitude the pilot was advised to expect.) The pilot would maintain 8,000 feet, then climb to 11,000 at c, or prior to c if necessary to comply with an MCA at c. (14 CFR Section 91.177(b).) Upon reaching d, the pilot would descend to 8,000 feet (even though the MEA was 7,000 feet), as 8,000 was the highest of the altitude situations stated in the rule 14 CFR Section 91.185.

12.7 Leave Clearance Limit

12.7.1 When the clearance limit is a fix from which an approach begins, commence descent or descent and approach as close as possible to the expect further clearance time if one has been received, or if one has not been received, as close as possible to the estimated time of arrival as calculated from the filed or amended (with ATC) estimated time en route.

12.7.2 If the clearance limit is not a fix from which an approach begins, leave the clearance limit at the expect further clearance time if one has been received, or if none has been received, upon arrival over the clearance limit, and proceed to a fix from which an approach begins and commence descent or descent and approach as close as possible to the estimated time of arrival as calculated from the filed or amended (with ATC) estimated time en route.

13. Transponder Operation During Two–Way Communications Failure

13.1 If an aircraft with a coded radar beacon

transponder experiences a loss of two–way radio capability, the pilot should adjust the transponder to reply on Mode 3/A, Code 7600.

13.2 The pilot should understand that the aircraft may not be in an area of radar coverage.

14. Reestablishing Radio Contact

14.1 In addition to monitoring the NAVAID voice feature, the pilot should attempt to reestablish communications by attempting contact:

14.1.1 On the previously assigned frequency.

14.1.2 With an FSS, New York Radio, or San Francisco Radio.

14.2 If communications are established with an FSS, New York Radio or San Francisco Radio, the pilot should advise the aircraft's position, altitude, and last assigned frequency; then request further clearance from the controlling facility. The preceding does not preclude the use of 121.5 MHz. There is no priority on which action should be attempted first. If the capability exists, do all at the same time.

NOTE–

New York Radio and San Francisco Radio are operated by Collins Aerospace, Incorporated (formerly ARINC) under contract with the FAA for communications services. These Radio facilities have the capability of relaying information to/from ATC facilities throughout the country.

3.5 FAA Weather Services

3.5.1 The FAA provides the Flight Service program, which serves the weather needs of pilots through its flight service stations (FSS) (both government and contract via 1-800-WX-BRIEF) and via the Internet, through Leidos Flight Service.

3.5.2 The FAA maintains an extensive surface weather observing program. Airport observations (METAR and SPECI) in the U.S. are provided by automated observing systems. Various levels of human oversight of the METAR and SPECI reports and augmentation may be provided at select larger airports by either government or contract personnel qualified to report specified weather elements that cannot be detected by the automated observing system.

3.5.3 Other Sources of Weather Information

3.5.3.1 Weather and aeronautical information are available from numerous private industry sources on an individual or contract pay basis. Prior to every flight, pilots should gather all information vital to the nature of the flight. Pilots can receive a regulatory compliant briefing without contacting Flight Service. Pilots are encouraged to use automated resources and review AC 91–92, Pilot’s Guide to a Preflight Briefing, for more information.

3.5.3.2 Pilots can access Leidos Flight Services via the Internet at <http://www.1800wxbrief.com>. Pilots can receive preflight weather data and file VFR and IFR flight plans.

3.6 Use of Aviation Weather Products

3.6.1 Air carriers and operators certificated under the provisions of 14 CFR Part 119 are required to use the aeronautical weather information systems defined in the Operations Specifications issued to that certificate holder by the FAA. These systems may utilize basic FAA/National Weather Service (NWS) weather services, contractor– or operator–proprietary weather services and/or Enhanced Weather Information System (EWINS) when approved in the Operations Specifications. As an integral part of this system approval, the procedures for collecting, producing and disseminating aeronautical weather information, as well as the crew member and dispatcher training to support the use of system weather products, must be accepted or approved.

3.6.2 Operators not certificated under the provisions of 14 CFR Part 119 are encouraged to use FAA/NWS products through Flight Service Stations, Leidos Flight Service, and/or Flight Information Services–Broadcast (FIS–B).

3.6.3 The suite of available aviation weather product types is expanding, with the development of new sensor systems, algorithms and forecast models. The FAA and NWS, supported by various weather research laboratories and corporations under contract to the Government, develop and implement new aviation weather product types. The FAA’s NextGen Aviation Weather Research Program (AWRP) facilitates collaboration between the NWS, the FAA, and various industry and research representatives. This collaboration ensures that user needs and technical readiness requirements are met before experimental products mature to operational application.

3.6.4 The AWRP manages the transfer of aviation weather R&D to operational use through technical review panels and conducting safety assessments to ensure that newly developed aviation weather products meet regulatory requirements and enhance safety.

3.6.5 The AWRP review and decision–making process applies criteria to weather products at various stages. The stages are composed of the following:

3.6.5.1 Sponsorship of user needs.

3.6.5.2 R & D and controlled testing.

3.6.5.3 Experimental application.

3.6.5.4 Operational application.

3.6.6 Pilots and operators should be aware that weather services provided by entities other than FAA, NWS, or their contractors may not meet FAA/NWS quality control standards. Hence, operators and pilots contemplating using such services should request and/or review an appropriate description of services and provider disclosure. This should include, but is not limited to, the type of weather product (for example, current weather or forecast weather), the currency of the product (that is, product issue and valid times), and the relevance of the product. Pilots and operators should be cautious when using unfamiliar products, or products not supported by FAA/NWS technical specifications.

NOTE–

When in doubt, consult with a FAA Flight Service Station Specialist.

3.6.7 In addition, pilots and operators should be aware there are weather services and products available from government organizations beyond the scope of the AWRP process mentioned earlier in this section. For example, governmental agencies such as the NWS and the Aviation Weather Center (AWC), or research organizations such as the National Center for Atmospheric Research (NCAR) display weather “model data” and “experimental” products which require training and/or expertise to properly interpret and use. These products are developmental prototypes that are subject to ongoing research and can change without notice. Therefore, some data on display by government organizations, or government data on display by independent organizations may be unsuitable for flight planning purposes. Operators and pilots contemplating using such services should request and/or review an appropriate description of services and provider disclosure. This should include, but is not limited to, the type of weather product (for example, current weather or forecast weather), the currency of the product (i.e., product issue and valid times), and the relevance of the product. Pilots and operators should be cautious when using unfamiliar weather products.

NOTE–

When in doubt, consult with a FAA Flight Service Station Specialist.

3.6.8 With increased access to weather products via the public Internet, the aviation community has access to an over whelming amount of weather information and data that support self-briefing. FAA AC 00-45 (current edition) describes the weather products distributed by the NWS. Pilots and operators using the public Internet to access weather from a third party vendor should request and/or review an appropriate description of services and provider disclosure. This should include, but is not limited to, the type of weather product (for example, current weather or forecast weather), the currency of the product (i.e., product issue and valid times), and the relevance of the product. Pilots and operators should be cautious when using unfamiliar weather products and when in doubt, consult with a Flight Service Specialist.

3.6.9 The development of new weather products, coupled with the termination of some legacy textual

and graphical products may create confusion between regulatory requirements and the new products. All flight-related, aviation weather decisions must be based on all available pertinent weather products. As every flight is unique and the weather conditions for that flight vary hour by hour, day to day, multiple weather products may be necessary to meet aviation weather regulatory requirements. Many new weather products now have a Precautionary Use Statement that details the proper use or application of the specific product.

3.6.10 The FAA has identified three distinct types of weather information available to pilots and operators.

3.6.10.1 Observations. Raw weather data collected by some type of sensor suite including surface and airborne observations, radar, lightning, satellite imagery, and profilers.

3.6.10.2 Analysis. Enhanced depiction and/or interpretation of observed weather data.

3.6.10.3 Forecasts. Predictions of the development and/or movement of weather phenomena based on meteorological observations and various mathematical models.

3.6.11 Not all sources of aviation weather information are able to provide all three types of weather information. The FAA has determined that operators and pilots may utilize the following approved sources of aviation weather information:

3.6.11.1 Federal Government. The FAA and NWS collect raw weather data, analyze the observations, and produce forecasts. The FAA and NWS disseminate meteorological observations, analyses, and forecasts through a variety of systems. In addition, the Federal Government is the only approval authority for sources of weather observations; for example, contract towers and airport operators may be approved by the Federal Government to provide weather observations.

3.6.11.2 Enhanced Weather Information System (EWINS). An EWINS is an FAA authorized, proprietary system for tracking, evaluating, reporting, and forecasting the presence or lack of adverse weather phenomena. The FAA authorizes a certificate holder to use an EWINS to produce flight movement forecasts, adverse weather phenomena forecasts, and other meteorological advisories. For more detailed information regarding EWINS, see the Aviation Weather Services Advisory Circular 00-45

CLOUDS COVERAGE AND HEIGHTS MSL

VALID: 0700Z TUE 07 JUN 2016

Cloud Coverage Legend: FEW SCT BKN OVC

Cloud Layers, Coverage and Base (MSL)

AVIATION WEATHER CENTER (NOAA/NWS/NCEP)

ISSUED: 1758 UTC MON 06 JUN 2016

3.8.1 Flight Service is one of the primary sources for obtaining preflight briefings and to file flight plans by phone or the Internet. Flight Service Specialists are qualified and certificated as Pilot Weather Briefers by the FAA. They are not authorized to make original forecasts, but are authorized to translate and interpret available forecasts and reports directly into terms describing the weather conditions which you can expect along your flight route and at your destination. Prior to every flight, pilots should gather all information vital to the nature of the flight. Pilots can receive a regulatory compliant briefing without contacting Flight Service. Pilots are encouraged to use automated resources and review AC 91-92, Pilot's Guide to a Preflight Briefing, for more information. Pilots who prefer to contact Flight Service are encouraged to conduct a self-brief prior to calling. Conducting a self-brief before contacting Flight Service provides familiarity of meteorological and aeronautical conditions applicable to the route of flight and promotes a better understanding of weather information.

appropriate background information. This will enable the briefer to tailor the information to the pilot's intended flight. The following paragraphs describe the types of briefings available and the information provided in each briefing.

3.8.2 Standard Briefing. You should request a Standard Briefing any time you are planning a flight and you have not received a previous briefing or have not received preliminary information through online resources. International data may be inaccurate or incomplete. If you are planning a flight outside of U.S. controlled airspace, the briefer will advise you to check data as soon as practical after entering foreign airspace, unless you advise that you have the international cautionary advisory. The briefer will automatically provide the following information in the sequence listed, except as noted, when it is applicable to your proposed flight.

3.8.2.1 Adverse Conditions. Significant meteorological and/or aeronautical information that might influence the pilot to alter or cancel the proposed flight; for example, hazardous weather conditions, airport closures, air traffic delays, etc. Pilots should be especially alert for current or forecast weather that could reduce flight minimums below VFR or IFR conditions. Pilots should also be alert for any reported or forecast icing if the aircraft is not certified for operating in icing conditions. Flying into areas of

icing or weather below minimums could have disastrous results.

3.8.2.2 VFR Flight Not Recommended. When VFR flight is proposed and sky conditions or visibilities are present or forecast, surface or aloft, that, in the briefer's judgment, would make flight under VFR doubtful, the briefer will describe the conditions, describe the affected locations, and use the phrase "*VFR flight not recommended.*" This recommendation is advisory in nature. The final decision as to whether the flight can be conducted safely rests solely with the pilot. Upon receiving a "*VFR flight not recommended*" statement, the non-IFR rated pilot will need to make a "go or no go" decision. This decision should be based on weighing the current and forecast weather conditions against the pilot's experience and ratings. The aircraft's equipment, capabilities and limitations should also be considered.

NOTE–

Pilots flying into areas of minimal VFR weather could encounter unforecasted lowering conditions that place the aircraft outside the pilot's ratings and experience level. This could result in spatial disorientation and/or loss of control of the aircraft.

3.8.2.3 Synopsis. A brief statement describing the type, location, and movement of weather systems and/or air masses which might affect the proposed flight.

NOTE–

The first 3 elements of a standard briefing may be combined in any order when the briefer believes it will help to describe conditions more clearly.

3.8.2.4 Current Conditions. Reported weather conditions applicable to the flight will be summarized from all available sources; e.g., METARs, PIREPs, RAREPs. This element may be omitted if the proposed time of departure is beyond two hours, unless the information is specifically requested by the pilot. For more detailed information on PIREPs, users can refer to the current version of AC 00–45, Aviation Weather Services.

3.8.2.5 En Route Forecast. En route conditions forecast for the proposed route are summarized in logical order; i.e., departure–climbout, en route, and descent.

3.8.2.6 Destination Forecast. The destination forecast (TAF) for the planned estimated time of

arrival (ETA). Any significant changes within 1 hour before and after the planned arrival are included.

3.8.2.7 Winds Aloft. Forecast winds aloft for the proposed route will be provided using degrees of the compass. The briefer will interpolate wind directions and speeds between levels and stations as necessary to provide expected conditions at planned altitudes.

3.8.2.8 Notices to Airmen (NOTAMs)

a) Available NOTAM (D) information pertinent to the proposed flight, including special use airspace (SUA) NOTAMs for restricted areas, aerial refueling, and night vision goggles (NVG).

NOTE–

Other SUA NOTAMs (D), such as military operations area (MOA), military training route (MTR), and warning area NOTAMs, are considered "upon request" briefing items as indicated in paragraph 3.8.2.10.

b) Prohibited Areas P–40, P–49, P–56, and the special flight rules area (SFRA) for Washington, DC.

NOTE–

For information on SFRAs, see ENR 5, Navigation Warnings, Paragraph 2.4.2.

c) FSS briefers do not provide FDC NOTAM information for special instrument approach procedures unless specifically asked. Pilots authorized by the FAA to use special instrument approach procedures must specifically request FDC NOTAM information for these procedures.

NOTE–

1. NOTAM information may be combined with current conditions when the briefer believes it is logical to do so.

2. Airway NOTAMs, procedural NOTAMs, and NOTAMs that are general in nature and not tied to a specific airport/facility (for example, flight advisories and restrictions, open duration special security instructions, and special flight rules areas) are briefed solely by pilot request. NOTAMs, graphic notices, and other information published in the Domestic Notices and International Notices are not included in pilot briefings unless the pilot specifically requests a review of these notices. For complete flight information, pilots are urged to review the Domestic Notices and International Notices found in the External Links section of the Federal NOTAM System (FNS) NOTAM Search or Air Traffic Plans and Publications website and the Chart Supplement U.S. in addition to obtaining a briefing.

3.8.2.9 Air Traffic Control (ATC) Delays. Any known ATC delays and flow control advisories which might affect the proposed flight.

3.8.2.10 Pilots may obtain the following from flight service station briefers upon request:

a) Information on Special Use Airspace (SUA) and SUA related airspace, except those listed in paragraph 3.8.2.8.

NOTE–

1. For the purpose of this paragraph, SUA and related airspace includes the following types of airspace: alert area, military operations area (MOA), warning area, and air traffic control assigned airspace (ATCAA). MTR data includes the following types of airspace: IFR training routes (IR), VFR training routes (VR), and slow training routes (SR).

2. Pilots are encouraged to request updated information from ATC facilities while in flight.

b) A review of airway NOTAMs, procedural NOTAMs, and NOTAMs that are general in nature and not tied to a specific airport/facility (for example, flight advisories and restrictions, open duration special security instructions, and special flight rules areas), Domestic Notices and International Notices. Domestic Notices and International Notices are found in the External Links section of the Federal NOTAM System (FNS) NOTAM Search System.

c) Approximate density altitude data.

d) Information regarding such items as air traffic services and rules, customs/immigration procedures, ADIZ rules, and search and rescue.

e) NOTAMs, available military NOTAMs, runway friction measurement value NOTAMs.

f) GPS RAIM availability for 1 hour before to 1 hour after ETA, or a time specified by the pilot.

g) Other assistance as required.

3.8.3 Abbreviated Briefing. Request an Abbreviated Briefing when you need information to supplement mass disseminated data, to update a previous briefing, or when you need only one or two specific items. Provide the briefer with appropriate background information, the time you received the previous information, and/or the specific items needed. You should indicate the source of the information already received so that the briefer can limit the briefing to the information that you have not received, and/or appreciable changes in meteorological/aeronautical conditions since your previous briefing. To the extent possible, the briefer will provide the information in the sequence shown for a

Standard Briefing. If you request only one or two specific items, the briefer will advise you if adverse conditions are present or forecast. Adverse conditions contain both meteorological and aeronautical information. Details on these conditions will be provided at your request.

3.8.4 Outlook Briefing. You should request an Outlook Briefing whenever your proposed time of departure is 6 or more hours from the time of the briefing. The briefer will provide available forecast data applicable to the proposed flight. This type of briefing is provided for planning purposes only. You should obtain a Standard or Abbreviated Briefing prior to departure in order to obtain such items as adverse conditions, current conditions, updated forecasts, winds aloft, and NOTAMs.

3.8.5 Inflight Briefing. You are encouraged to conduct a self-briefing using online resources or obtain your preflight briefing by telephone or in person before departure (Alaska only). In those cases where you need to obtain a preflight briefing or an update to a previous briefing by radio, you should contact the nearest FSS to obtain this information. After communications have been established, advise the specialist of the type briefing you require and provide appropriate background information. You will be provided information as specified in the above paragraphs, depending on the type of briefing requested. En Route advisories tailored to the phase of flight that begins after climb-out and ends with descent to land are provided upon pilot request. Besides flight service, there are other resources available to the pilot inflight, including:

Automatic Dependent Surveillance–Broadcast (ADS–B). Free traffic, weather, and flight information are available on ADS–B In receivers that can receive data over 978 MHz (UAT) broadcasts. These services are available across the nation to aircraft owners who equip with ADS–B In, with further advances coming from airborne and runway traffic awareness. Even search-and-rescue operations benefit from accurate ADS–B tracking.

Flight Information Services–Broadcast (FIS–B). FIS–B is a free service; but is only available to aircraft who can receive data over 978 MHz (UAT). FIS–B automatically transmits a wide range of weather products with national and regional focus to all equipped aircraft. Having current weather and

aeronautical information in the cockpit helps pilots plan more safe and efficient flight paths, as well as make strategic decisions during flight to avoid potentially hazardous weather.

Pilots are encouraged to provide a continuous exchange of information on weather, winds, turbulence, flight visibility, icing, etc., between pilots and inflight specialists. Pilots should report good weather as well as bad, and confirm expected conditions as well as unexpected. Remember that weather conditions can change rapidly and that a “go or no go” decision, as mentioned in paragraph 3.8.2.2, should be assessed at all phases of flight.

3.8.6 Following any briefing, feel free to ask for any information that you or the briefer may have missed. It helps to save your questions until the briefing has been completed. This way the briefer is able to present the information in a logical sequence and lessens the chance of important items being overlooked.

3.9 Inflight Aviation Weather Advisories

3.9.1 Background

3.9.1.1 Inflight Aviation Weather Advisories are forecasts to advise en route aircraft of development of potentially hazardous weather. Inflight aviation weather advisories in the conterminous U.S. are issued by the Aviation Weather Center (AWC) in Kansas City, MO, as well as 20 Center Weather Service Units (CWSU) associated with ARTCCs. AWC also issues advisories for portions of the Gulf of Mexico, Atlantic and Pacific Oceans, which are under the control of ARTCCs with Oceanic flight information regions (FIRs). The Weather Forecast Office (WFO) in Honolulu issues advisories for the Hawaiian Islands and a large portion of the Pacific Ocean. In Alaska, the Alaska Aviation Weather Unit (AAWU) issues inflight aviation weather advisories along with the Anchorage CWSU. All heights are referenced MSL, except in the case of ceilings (CIG) which indicate AGL.

3.9.1.2 There are four types of inflight aviation weather advisories: the SIGMET, the Convective SIGMET, the AIRMET (text or graphical product), and the Center Weather Advisory (CWA). All of these advisories use the same location identifiers (either VORs, airports, or well-known geographic areas) to describe the hazardous weather areas.

3.9.1.3 The Severe Weather Watch Bulletins (WWs), (with associated Alert Messages) (AWW) supplements these Inflight Aviation Weather Advisories.

3.9.2 SIGMET (WS)/AIRMET(WA or G–AIRMET)

SIGMETs/AIRMET text (WA) products are issued corresponding to the Area Forecast (FA) areas described in FIG GEN 3.5–4 and FIG GEN 3.5–5. The maximum forecast period is 4 hours for SIGMETs and 6 hours for AIRMETs. The G–AIRMET is issued over the CONUS every 6 hours, valid at 3-hour increments through 12 hours, with optional forecasts possible during the first 6 hours. The first 6 hours of the G–AIRMET correspond to the 6-hour period of the AIRMET. SIGMETs and AIRMETs are considered “widespread” because they must be either affecting or be forecasted to affect an area of at least 3,000 square miles at any one time. However, if the total area to be affected during the forecast period is very large, it could be that in actuality only a small portion of this total area would be affected at any one time.

3.9.2.1 SIGMETs/AIRMET (or G–AIRMET) for the conterminous U.S. (CONUS)

SIGMETs/AIRMET text products for the CONUS are issued corresponding to the areas in FIG GEN 3.5–4. The maximum forecast period for a CONUS SIGMET is 4 hours and 6 hours for CONUS AIRMETs. The G–AIRMET is issued over the CONUS every 6 hours, valid at 3-hour increments through 12 hours with optional forecasts possible during the first 6 hours. The first 6 hours of the G–AIRMET correspond to the 6-hour period of the AIRMET. SIGMETs and AIRMETs are considered “widespread” because they must be either affecting or be forecasted to affect an area of at least 3,000 square miles at any one time. However, if the total area to be affected during the forecast period is very large, it could be that in actuality only a small portion of this total area would be affected at any one time. Only SIGMETs for the CONUS are for non-convective weather. The U.S. issues a special category of SIGMETs for convective weather called Convective SIGMETs.

3.9.2.2 SIGMETs/AIRMETs for Alaska

Alaska SIGMETs are valid for up to 4 hours, except for Volcanic Ash Cloud SIGMETs which are valid for

up to 6 hours. Alaska AIRMETs are valid for up to 8 hours.

3.9.2.3 SIGMETs/AIRMETs for Hawaii and U.S. FIRs in the Gulf of Mexico, Caribbean, Western Atlantic and Eastern and Central Pacific Oceans

These SIGMETs are valid for up to 4 hours, except SIGMETs for Tropical Cyclones and Volcanic Ash Clouds, which are valid for up to 6 hours. AIRMETs are issued for the Hawaiian Islands and are valid for up to 6 hours. No AIRMETs are issued for U.S. FIRs in the the Gulf of Mexico, Caribbean, Western Atlantic and Pacific Oceans.

3.9.3 SIGMET

A SIGMET advises of weather that is potentially hazardous to all aircraft. SIGMETs are unscheduled products that are valid for 4 hours. However, SIGMETs associated with tropical cyclones and volcanic ash clouds are valid for 6 hours. Unscheduled updates and corrections are issued as necessary.

3.9.3.1 In the CONUS, SIGMETs are issued when the following phenomena occur or are expected to occur:

- a) Severe icing not associated with thunderstorms.
- b) Severe or extreme turbulence or clear air turbulence (CAT) not associated with thunderstorms.
- c) Widespread dust storms or sandstorms lowering surface visibilities to below 3 miles.
- d) Volcanic ash.

3.9.3.2 In Alaska and Hawaii, SIGMETs are also issued for:

- a) Tornadoes.
- b) Lines of thunderstorms.
- c) Embedded thunderstorms.
- d) Hail greater than or equal to $\frac{3}{4}$ inch in diameter.

3.9.3.3 SIGMETs are identified by an alphabetic designator from November through Yankee excluding Sierra and Tango. (Sierra, Tango, and Zulu are reserved for AIRMET text [WA] products; G-AIRMETs do not use the Sierra, Tango, or Zulu designators.) The first issuance of a SIGMET will be labeled as UWS (Urgent Weather SIGMET). Subsequent issuances are at the forecasters discretion. Issuance for the same phenomenon will be

sequentially numbered, using the original designator until the phenomenon ends. For example, the first issuance in the Chicago (CHI) FA area for phenomenon moving from the Salt Lake City (SLC) FA area will be SIGMET Papa 3, if the previous two issuances, Papa 1 and Papa 2, had been in the SLC FA area. Note that no two different phenomena across the country can have the same alphabetic designator at the same time.

EXAMPLE–

Example of a SIGMET:

BOSR WS 050600

SIGMET ROMEO 2 VALID UNTIL 051000

ME NH VT

FROM CAR TO YSJ TO CON TO MPV TO CAR

OCNL SEV TURB BLW 080 EXP DUE TO STG NWLY FLOW. CONDS CONTG BYD

1000Z.

3.9.4 Convective SIGMET (WST)

3.9.4.1 Convective SIGMETs are issued in the conterminous U.S. for any of the following:

a) Severe thunderstorm due to:

- 1) Surface winds greater than or equal to 50 knots.
- 2) Hail at the surface greater than or equal to $\frac{3}{4}$ inches in diameter.
- 3) Tornadoes.

b) Embedded thunderstorms.

c) A line of thunderstorms.

d) Thunderstorms producing precipitation greater than or equal to heavy precipitation affecting 40 percent or more of an area at least 3,000 square miles.

3.9.4.2 Any convective SIGMET implies severe or greater turbulence, severe icing, and low-level wind shear. A convective SIGMET may be issued for any convective situation that the forecaster feels is hazardous to all categories of aircraft.

3.9.4.3 Convective SIGMET bulletins are issued for the western (W), central (C), and eastern (E) United States. (Convective SIGMETs are not issued for Alaska or Hawaii.) The areas are separated at 87 and 107 degrees west longitude with sufficient overlap to cover most cases when the phenomenon crosses the boundaries. Bulletins are issued hourly at H+55. Special bulletins are issued at any time as required and updated at H+55. If no criteria meeting convective SIGMET requirements are observed or

forecasted, the message “CONVECTIVE SIGMET... NONE” will be issued for each area at H+55. Individual convective SIGMETs for each area (W, C, E) are numbered sequentially from number one each day, beginning at 00Z. A convective SIGMET for a continuing phenomenon will be reissued every hour at H+55 with a new number. The text of the bulletin consists of either an observation and a forecast or just a forecast. The forecast is valid for up to 2 hours.

EXAMPLE-

CONVECTIVE SIGMET 44C

VALID UNTIL 1455Z

AR TX OK

**FROM 40NE ADM-40ESE MLC-10W TXK-50WNW
LFK-40ENE SJT-40NE ADM**

AREA TS MOV FROM 26025KT. TOPS ABV FL450.

OUTLOOK VALID 061455-061855

**FROM 60WSW OKC-MLC-40N TXK-40WSW
IGB-VUZ-MGM-HRV-60S BTR-40N**

IAH-60SW SJT-40ENE LBB-60WSW OKC

**WST ISSUANCES EXPD. REFER TO MOST RECENT
ACUS01 KWNS FROM STORM PREDICTION CENTER
FOR SYNOPSIS AND METEOROLOGICAL DETAILS**

FIG GEN 3.5-4

SIGMET and AIRMET Locations – Conterminous United States

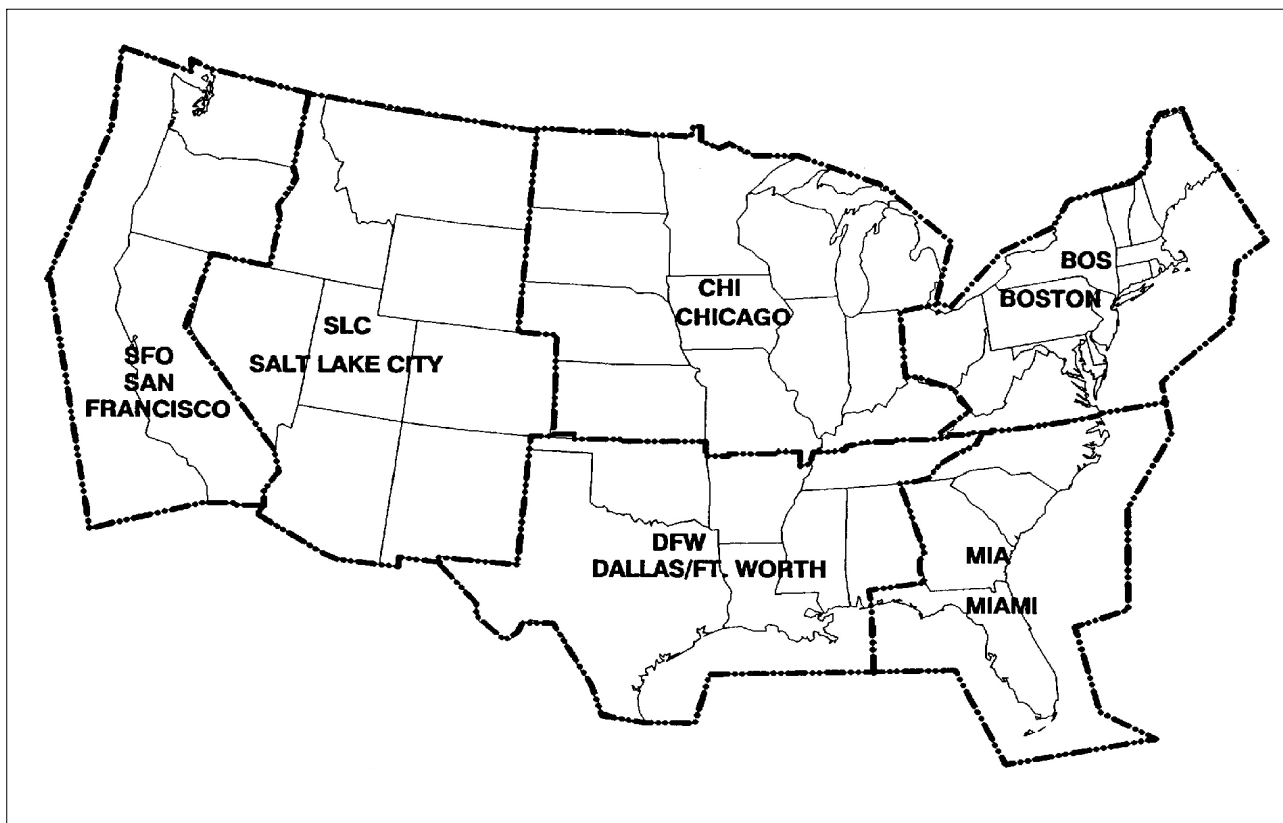
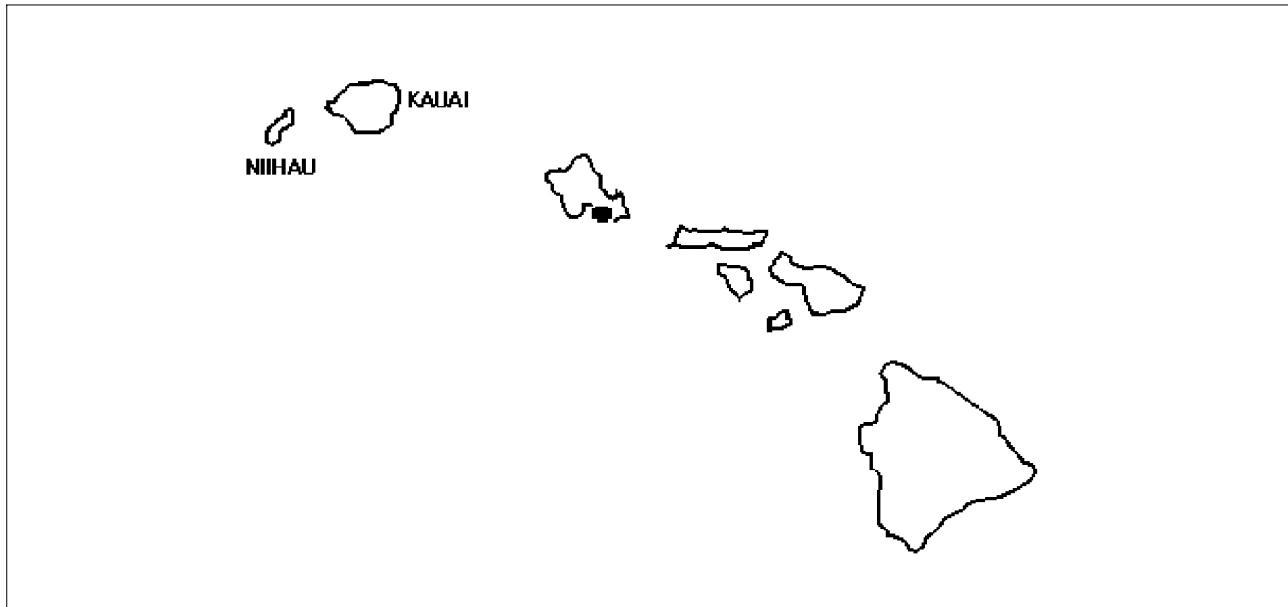


FIG GEN 3.5–5
Hawaii Area Forecast Locations



3.9.5 SIGMET Outside the CONUS

3.9.5.1 Three NWS offices have been designated by ICAO as Meteorological Watch Offices (MWOs). These offices are responsible for issuing SIGMETs for designated areas outside the CONUS that include Alaska, Hawaii, portions of the Atlantic and Pacific Oceans, and the Gulf of Mexico.

3.9.5.2 The offices which issue International SIGMETs are:

- a) The AWC in Kansas City, Missouri.
- b) The AAWU in Anchorage, Alaska.
- c) The WFO in Honolulu, Hawaii.

3.9.5.3 SIGMETs for outside the CONUS are issued for 6 hours for volcanic ash clouds, 6 hours for tropical cyclones (e.g. hurricanes and tropical storms), and 4 hours for all other events. Like the CONUS SIGMETs, SIGMETs for outside the CONUS are also identified by an alphabetic designator from Alpha through Mike and are numbered sequentially until that weather phenomenon ends. The criteria for an international SIGMET are:

- a) Thunderstorms occurring in lines, embedded in clouds, or in large areas producing tornadoes or large hail.
- b) Tropical cyclones.

c) Severe icing.

d) Severe or extreme turbulence.

e) Dust storms and sandstorms lowering visibilities to less than 3 miles.

f) Volcanic ash.

EXAMPLE–

Example of SIGMET Outside the U.S.:

WSNT06 KKCI 022014

SIGA0F

KZMA KZNY TJZS SIGMET FOXTROT 3 VALID 022015/030015 KKCI– MIAMI OCEANIC FIR NEW YORK OCEANIC FIR SAN JUAN FIR FRQ TS WI AREA BOUNDED BY 2711N6807W 2156N6654W 2220N7040W 2602N7208W 2711N6807W. TOPS TO FL470. MOV NE 15KT. WKN. BASED ON SAT AND LTG OBS. MOSHER

3.9.6 AIRMET

3.9.6.1 AIRMETs (WAs) are advisories of significant weather phenomena but describe conditions at intensities lower than those which require the issuance of SIGMETs. AIRMETs are intended for dissemination to all pilots in the preflight and en route phase of flight to enhance safety. AIRMET information is available in two formats: text bulletins (WA) and graphics (G–AIRMET). Both formats meet the criteria of paragraph 3.6.9 and are issued on a scheduled basis every 6 hours beginning at 0145 UTC during Central Daylight Time and at 0245 UTC during Central Standard Time. Unscheduled updates

and corrections are issued as necessary. Each AIRMET Bulletin contains any current AIRMETs in effect and an outlook for conditions expected after the AIRMET valid period. AIRMETs contain details about IFR, extensive mountain obscuration, turbulence, strong surface winds, icing, and freezing levels.

3.9.6.2 There are three AIRMETs: Sierra, Tango, and Zulu. After the first issuance each day, scheduled or unscheduled bulletins are numbered sequentially for easier identification.

a) AIRMET Sierra describes IFR conditions and/or extensive mountain obscurations.

b) AIRMET Tango describes moderate turbulence, sustained surface winds of 30 knots or greater, and/or nonconvective low-level wind shear.

c) AIRMET Zulu describes moderate icing and provides freezing level heights.

EXAMPLE–

Example of AIRMET Sierra issued for the Chicago FA area:

CHIS WA 131445
AIRMET SIERRA UPDT 2 FOR IFR AND MTN OBSCN
VALID UNTIL 132100.

AIRMET IFR...KY
FROM 20SSW HNN TO HMV TO 50ENE DYR TO 20SSW
HNN
CIG BLW 010/VIS BLW 3SM PCPN/BR/FG. CONDS
ENDG BY 18Z.

AIRMET IFR....MN LS
FROM INL TO 70W YQT TO 40ENE DLH TO
30WNW DLH TO 50SE GFK TO 20 ENE GFK TO
INL
CIG BLW 010/VIS BLW 3SM BR. CONDS ENDG 15–
18Z.

AIRMET IFR....KS
FROM 30N SLN TO 60E ICT TO 40S ICT TO 50W
LBL TO 30SSW GLD TO 30N SLN
CIG BLW 010/VIS BLW 3SM PCPN/BR/FG. CONDS
ENDG 15–18Z.

AIRMET MTN OBSCN...KY TN
FROM HNN TO HMV TO GQO TO LOZ TO HNN
MTN OBSC BY CLDS/PCPN/BR. CONDS CONTG
BYD 21Z THRU 03Z.

.....

EXAMPLE–

Example of AIRMET Tango issued for the Salt Lake City FA area:

SLCT WA 131445

AIRMET TANGO UPDT 2 FOR TURB VALID UNTIL
131200.

AIRMET TURB...MT

FROM 40NW HVR TO 50SE BIL TO 60E DLN TO
60SW YQL TO 40NW HVR
MOD TURB BLW 150. CONDS DVLPG 18–21Z.
CONDS CONTG BYD 21Z THRU 03Z.

AIRMET TURB....ID MT WY NV UT CO
FROM 100SE MLS TO 50SSW BFF TO 20SW BTY
TO 40SW BAM TO 100SE MLS
MOD TURB BTN FL310 AND FL410. CONDS
CONTG BYD 21Z ENDG 21–00Z.

AIRMET TURB...NV AZ NM CA AND CSTL WTRS
FROM 100WSW ENI TO 40W BTY TO 40S LAS TO
30ESE TBE TO INK TO ELP TO 50S TUS TO BZA
TO 20S MZB TO 150SW PYE TO 100WSW ENI
MOD TURB BTWN FL210 AND FL380. CONDS
CONTG BYD 21Z THRU 03Z.

....

EXAMPLE–

Example of AIRMET Zulu issued for the San Francisco FA area:

SFOZ WA 131445
AIRMET ZULU UPDT 2 FOR ICE AND FRZLVL VALID
UNTIL 132100.
NO SGFNT ICE EXP OUTSIDE OF CNVTV ACT.

FRZLVL....RANGING FROM SFC–105 ACRS AREA
MULT FRZLVL BLW 080 BOUNDED BY 40SE
YDC–60NNW GEG–60SW MLP–30WSW BKE–
20SW BAM–70W BAM–40SW YKM–40E HUH–
40SE YDC
SFC ALG 20NNW HUH–30SSE HUH–60S SEA
50NW LKV–60WNWOAL–30SW OAL
040 ALG 40W HUH–30W HUH–30NNW SEA–40N
PDX–20NNW DSD
080 ALG 160NW FOT–80SW ONP–50SSW EUG
40SSE OED–50SSE CZQ–60E EHF–40WSW LAS

....

3.9.6.3 Graphical AIRMETs (G-AIRMETs), found on the Aviation Weather Center webpage at <http://aviationweather.gov>, are graphical forecasts of en-route weather hazards valid at discrete times no more than 3 hours apart for a period of up to 12 hours into the future (for example, 00, 03, 06, 09, and 12 hours). Additional forecasts may be inserted during the first 6 hours (for example, 01, 02, 04, and 05). 00 hour represents the initial conditions, and the subsequent graphics depict the area affected by the particular hazard at that valid time. Forecasts valid at

00 through 06 hours correspond to the text AIRMET bulletin. Forecasts valid at 06 through 12 hours correspond to the text bulletin outlook. G–AIRMET depicts the following en route aviation weather hazards:

- a) Instrument flight rule conditions (ceiling <1000' and/or surface visibility <3 miles)
- b) Mountain obscuration
- c) Icing
- d) Freezing level
- e) Turbulence
- f) Low level wind shear (LLWS)
- g) Strong surface winds.

G–AIRMETs are snap shots at discrete time intervals as defined above. The text AIRMET is the result of the production of the G–AIRMET but provided in a time smear for a 6hr valid period. G–AIRMETs provide a higher forecast resolution than text AIRMET products. Since G–AIRMETs and text AIRMETs are created from the same forecast “production” process, there exists perfect consistency between the two. Using the two together will provide clarity of the area impacted by the weather hazard and improve situational awareness and decision making.

Interpolation of time periods between G–AIRMET valid times: Users must keep in mind when using the G–AIRMET that if a 00 hour forecast shows no significant weather and a 03 hour forecast shows hazardous weather, they must assume a change is occurring during the period between the two forecasts. It should be taken into consideration that the hazardous weather starts immediately after the 00 hour forecast unless there is a defined initiation or ending time for the hazardous weather. The same would apply after the 03 hour forecast. The user should assume the hazardous weather condition is occurring between the snap shots unless informed otherwise. For example, if a 00 hour forecast shows no hazard, a 03 hour forecast shows the presence of hazardous weather, and a 06 hour forecast shows no hazard, the user should assume the hazard exists from the 0001 hour to the 0559 hour time period.

EXAMPLE–

See FIG GEN 3.5–6 for an example of the G–AIRMET graphical product.

3.9.7 Watch Notification Messages

The Storm Prediction Center (SPC) in Norman, OK, issues Watch Notification Messages to provide an area threat alert for forecast organized severe thunderstorms that may produce tornadoes, large hail, and/or convective damaging winds within the CONUS. SPC issues three types of watch notification messages: Aviation Watch Notification Messages, Public Severe Thunderstorm Watch Notification Messages, and Public Tornado Watch Notification Messages.

It is important to note the difference between a Severe Thunderstorm (or Tornado) Watch and a Severe Thunderstorm (or Tornado) Warning. A watch means severe weather is possible during the next few hours, while a warning means that severe weather has been observed, or is expected within the hour. Only the SPC issues Severe Thunderstorm and Tornado Watches, while only NWS Weather Forecasts Offices issue Severe Thunderstorm and Tornado Warnings.

3.9.7.1 The Aviation Watch Notification Message. The Aviation Watch Notification Message product is an approximation of the area of the Public Severe Thunderstorm Watch or Public Tornado Watch. The area may be defined as a rectangle or parallelogram using VOR navigational aides as coordinates.

The Aviation Watch Notification Message was formerly known as the Alert Severe Weather Watch Bulletin (AWW). The NWS no longer uses that title or acronym for this product. The NWS uses the acronym SAW for the Aviation Watch Notification Message, but retains AWW in the product header for processing by weather data systems.

EXAMPLE–

Example of an Aviation Watch Notification Message:

WWUS30 KWNS 271559

SAW2

SPC AWW 271559

WW 568 TORNADO AR LA MS 271605Z - 280000Z

AXIS..65 STATUTE MILES EAST AND WEST OF LINE..

45ESE HEZ/NATCHEZ MS/ - 50N TUP/TUPELO MS/

..AVIATION COORDS.. 55NM E/W /18WNW MCB - 60E MEM/

HAIL SURFACE AND ALOFT..3 INCHES. WIND GUSTS..70 KNOTS. MAX TOPS TO 550. MEAN STORM MOTION VECTOR 26030.

LAT...LON 31369169 34998991 34998762 31368948

THIS IS AN APPROXIMATION TO THE WATCH AREA.

FOR A COMPLETE DEPICTION OF THE WATCH SEE WOUS64 KWNS FOR WOU2.

3.9.7.2 Public Severe Thunderstorm Watch Notification Messages describe areas of expected severe thunderstorms. (Severe thunderstorm criteria are 1-inch hail or larger and/or wind gusts of 50 knots [58 mph] or greater). A Public Severe Thunderstorm Watch Notification Message contains the area description and axis, the watch expiration time, a description of hail size and thunderstorm wind gusts expected, the definition of the watch, a call to action statement, a list of other valid watches, a brief discussion of meteorological reasoning and technical information for the aviation community.

3.9.7.3 Public Tornado Watch Notification Messages describe areas where the threat of tornadoes exists. A Public Tornado Watch Notification Message contains the area description and axis, watch expiration time, the term “damaging tornadoes,” a description of the largest hail size and strongest thunderstorm wind gusts expected, the definition of the watch, a call to action statement, a list of other valid watches, a brief discussion of meteorological reasoning and technical information for the aviation community. SPC may enhance a Public Tornado Watch Notification Message by using the words “THIS IS A PARTICULARLY DANGEROUS SITUATION” when there is a likelihood of multiple strong (damage of EF2 or EF3) or violent (damage of EF4 or EF5) tornadoes.

3.9.7.4 Public severe thunderstorm and tornado watch notification messages were formerly known as the Severe Weather Watch Bulletins (WW). The NWS no longer uses that title or acronym for this product but retains WW in the product header for processing by weather data systems.

EXAMPLE–

Example of a Public Tornado Watch Notification

Message:

WWUS20 KWNS 050550

SEL2

SPC WW 051750

URGENT - IMMEDIATE BROADCAST REQUESTED
TORNADO WATCH NUMBER 243

NWS STORM PREDICTION CENTER NORMAN OK
1250 AM CDT MON MAY 5 2011

THE NWS STORM PREDICTION CENTER HAS ISSUED
A

*TORNADO WATCH FOR PORTIONS OF
WESTERN AND CENTRAL ARKANSAS
SOUTHERN MISSOURI

FAR EASTERN OKLAHOMA

*EFFECTIVE THIS MONDAY MORNING FROM 1250

AM UNTIL 600 AM CDT.

...THIS IS A PARTICULARLY DANGEROUS SITUATION...

*PRIMARY THREATS INCLUDE

Numerous intense tornadoes likely

Numerous significant damaging wind gusts to 80 mph likely

Numerous very large hail to 4 inches in diameter likely

The tornado watch area is approximately along and 100 statute miles east and west of a line from 15 miles west northwest of Fort Leonard Wood Missouri to 45 miles southwest of Hot Springs Arkansas. For a complete depiction of the watch see the associated watch outline update (WOUS64 KWNS WOU2).

Remember...A Tornado Watch means conditions are favorable for tornadoes and severe thunderstorms in and close to the watch area. Persons in these areas should be on the lookout for threatening weather conditions and listen for later statements and possible warnings.

Other watch information...This tornado watch replaces Tornado Watch Number 237. Watch Number 237 will not be in effect after

1250 AM CDT. Continue...WW 239...WW 240...WW 241...WW 242...

Discussion...SRN MO squall line expected to continue EWD...where long/hooked hodographs suggest threat for embedded supercells/possible tornadoes. Farther S...more widely scattered

supercells with a threat for tornadoes will persist in very strongly deep sheared/LCL environment in AR.

Aviation...Tornadoes and a few severe thunderstorms with hail surface and aloft to 4 inches. Extreme turbulence and surface wind gusts to 70 knots. A few cumulonimbi with maximum tops to 500. Mean storm motion vector 26045.

3.9.7.5 Status reports are issued as needed to show progress of storms and to delineate areas no longer under the threat of severe storm activity. Cancellation bulletins are issued when it becomes evident that no severe weather will develop or that storms have subsided and are no longer severe.

3.9.8 Center Weather Advisories (CWA)

3.9.8.1 CWAs are unscheduled inflight, flow control, air traffic, and air crew advisory. By nature of its short lead time, the CWA is not a flight planning

product. It is generally a nowcast for conditions beginning within the next two hours. CWAs will be issued:

a) As a supplement to an existing SIGMET, Convective SIGMET or AIRMET.

b) When an Inflight Advisory has not been issued but observed or expected weather conditions meet SIGMET/AIRMET criteria based on current pilot reports and reinforced by other sources of information about existing meteorological conditions.

c) When observed or developing weather conditions do not meet SIGMET, Convective SIGMET, or AIRMET criteria; e.g., in terms of intensity or area coverage, but current pilot reports or other weather information sources indicate that existing or anticipated meteorological phenomena will adversely affect the safe flow of air traffic within the ARTCC area of responsibility.

3.9.8.2 The following example is a CWA issued from the Kansas City, Missouri, ARTCC. The “3” after ZKC in the first line denotes this CWA has been issued for the third weather phenomena to occur for the day. The “301” in the second line denotes the phenomena number again (3) and the issuance number (01) for this phenomena. The CWA was issued at 2140Z and is valid until 2340Z.

EXAMPLE–

ZKC3 CWA 032140

ZKC CWA 301 VALID UNTIL 032340

ISOLD SVR TSTM over KCOU MOVG SWWD 10 KTS ETC.

4. Categorical Outlooks

4.1 Categorical outlook terms describing general ceiling and visibility conditions for advance planning purposes are used only in area forecasts. They are defined as follows:

4.1.1 LIFR (Low IFR). Ceiling less than 500 feet and/or visibility less than 1 mile.

4.1.2 IFR. Ceiling 500 to less than 1,000 feet and/or visibility 1 to less than 3 miles.

4.1.3 MVFR (Marginal VFR). Ceiling 1,000 or 3,000 feet and/or visibility 3 to 5 miles inclusive.

4.1.4 VFR. Ceiling greater than 3,000 feet and visibility greater than 5 miles; includes sky clear.

4.2 The cause of LIFR, IFR, or MVFR is indicated by either ceiling or visibility restrictions or both. The contraction “CIG” and/or weather and obstruction to vision symbols are used. If winds or gusts of 25 knots or greater are forecast for the outlook period, the word “WIND” is also included for all categories, including VFR.

EXAMPLE–

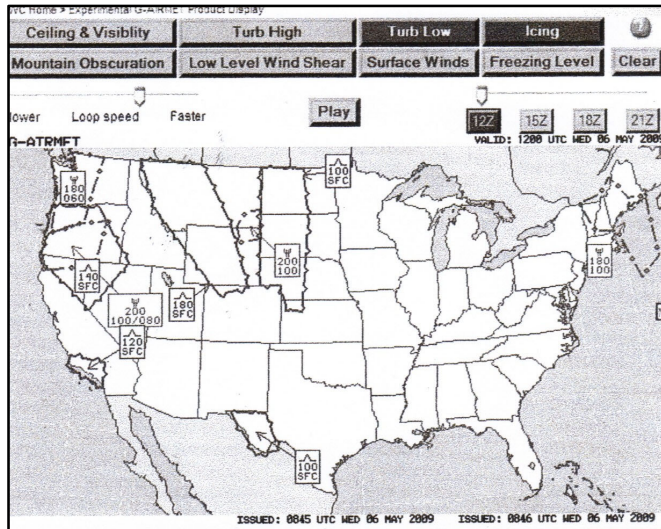
LIFR CIG–low IFR due to low ceiling.

IFR FG–IFR due to visibility restricted by fog.

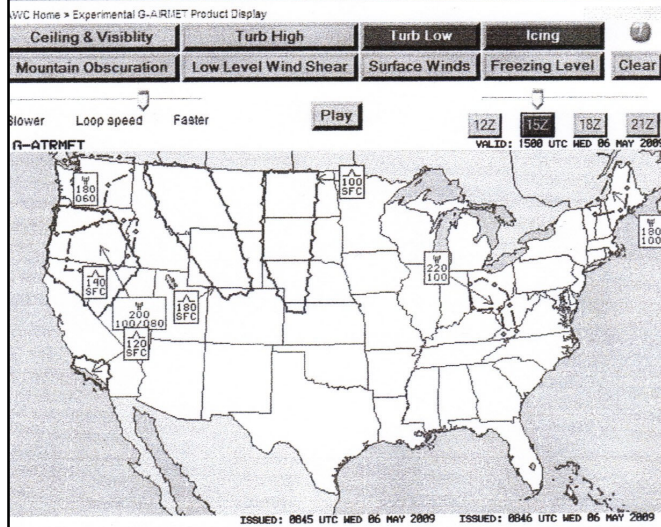
MVFR CIG HZ FU–marginal VFR due both to ceiling and to visibility restricted by haze and smoke.

IFR CIG RA WIND–IFR due both to low ceiling and to visibility restricted by rain; wind expected to be 25 knots or greater.

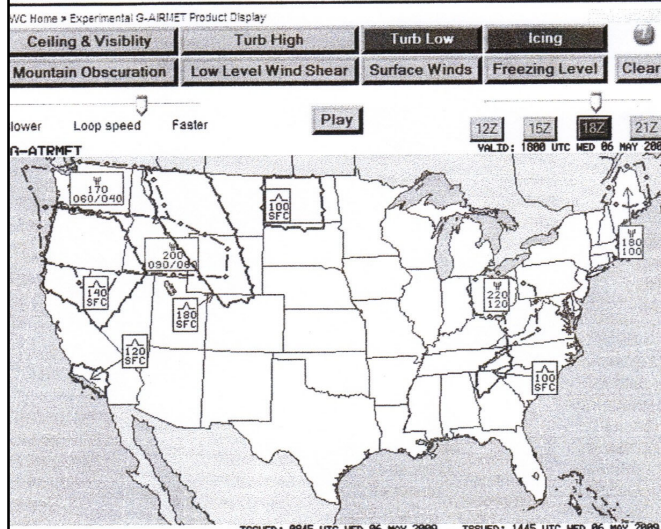
FIG GEN 3.5-6
G-AIRMET Graphical Product



Example G-AIRMET
Valid at 1200Z on May 6, 2009
Displaying:
Low Level Turbulence
Icing

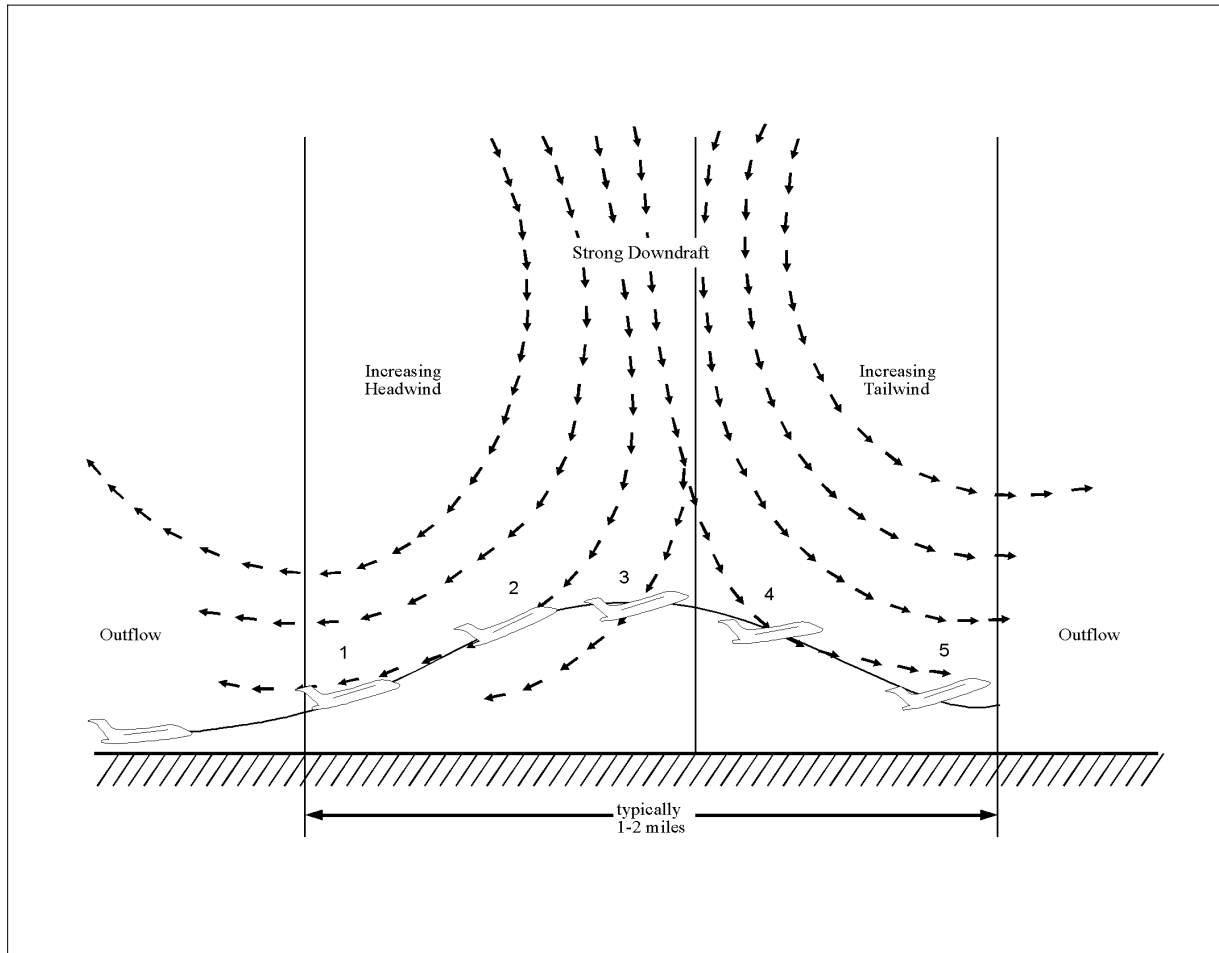


Example G-AIRMET
Valid at 1500Z on May 6, 2009
Displaying:
Low Level Turbulence
Icing



Example G-AIRMET
Valid at 1800Z on May 6, 2009
Displaying:
Low Level Turbulence
Icing

FIG GEN 3.5-8
Microburst Encounter During Takeoff



NOTE-

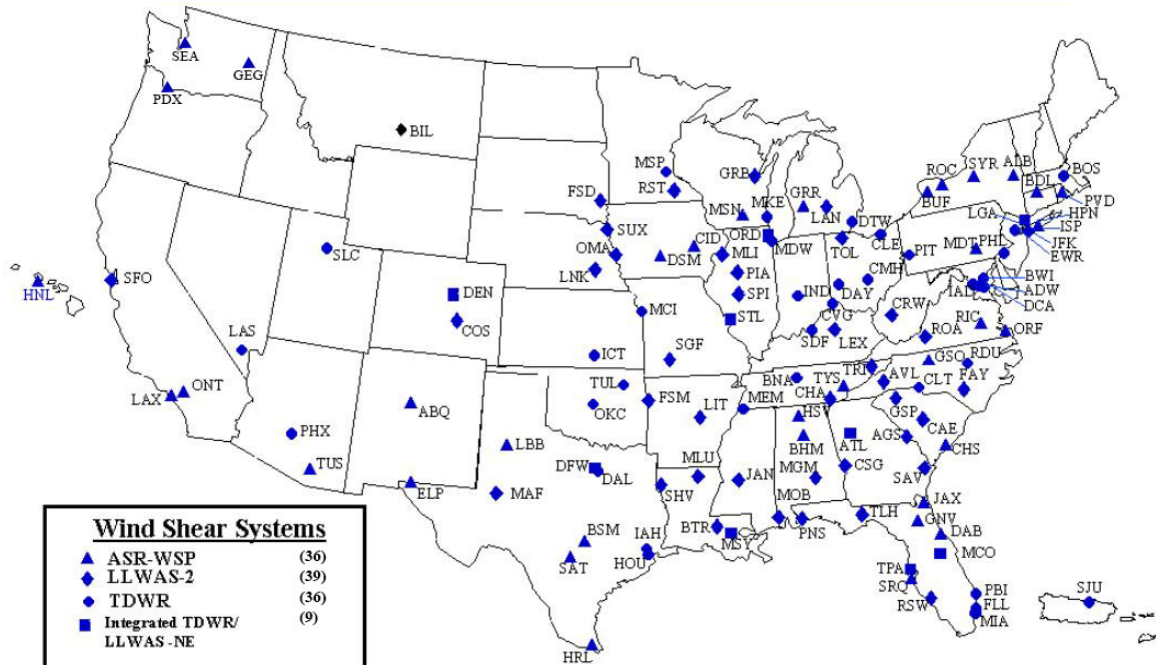
A microburst encounter during takeoff. The airplane first encounters a headwind and experiences increasing performance (1), this is followed in short succession by a decreasing headwind component (2), a downdraft (3), and finally a strong tailwind (4), where 2 through 5 all result in decreasing performance of the airplane. Position (5) represents an extreme situation just prior to impact. Figure courtesy of Walter Frost, FWG Associates, Inc., Tullahoma, Tennessee.

24.5 Microburst wind shear may create a severe hazard for aircraft within 1,000 feet of the ground, particularly during the approach to landing and landing and take-off phases. The impact of a microburst on aircraft which have the unfortunate

experience of penetrating one is characterized in FIG GEN 3.5-8. The aircraft may encounter a headwind (performance increasing), followed by a downdraft and a tailwind (both performance decreasing), possibly resulting in terrain impact.

FIG GEN 3.5-9
NAS Wind Shear Product Systems

NAS Wind Shear Product Systems



24.6 Detection of Microbursts, Wind Shear, and Gust Fronts

24.6.1 FAA's Integrated Wind Shear Detection Plan

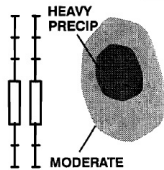
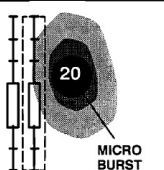
24.6.1.1 The FAA currently employs an integrated plan for wind shear detection that will significantly improve both the safety and capacity of the majority of the airports currently served by the air carriers. This plan integrates several programs, such as the Integrated Terminal Weather System (ITWS), Terminal Doppler Weather Radar (TDWR), Weather System Processor (WSP), and Low Level Wind Shear Alert Systems (LLWAS) into a single strategic

concept that significantly improves the aviation weather information in the terminal area.
(See FIG GEN 3.5-9.)

24.6.1.2 The wind shear/microburst information and warnings are displayed on the ribbon display terminal (RBDT) located in the tower cabs. They are identical (and standardized) to those in the LLWAS, TDWR and WSP systems, and designed so that the controller does not need to interpret the data, but simply read the displayed information to the pilot. The RBDTs are constantly monitored by the controller to ensure the rapid and timely dissemination of any hazardous event(s) to the pilot.

capability, terminal weather information, both alphanumerically and graphically, is now available directly to the cockpit at 43 airports in the U.S. NAS. (See FIG GEN 3.5–15.)

FIG GEN 3.5–15
TWIP Image of Convective Weather
at MCO International

WEATHER SITUATION	TWIP TEXT MESSAGE
	MCO 1800 TERMINAL WEATHER –STORM(S) 3NM N–E MOD PRECIP 4NM NE HVY PRECIP MOVG W AT 15KT .EXPECTED MOD PRECIP BEGIN 1805
	MCO 1810 TERMINAL WEATHER *MODERATE PRECIP BEGAN 1805 –STORM(S) ARPT ALQDS MOD PRECIP 1NM N–E HVY PRECIP MOVG W AT 15KT .EXPECTED HVY PRECIP BEGIN 1815

b) TWIP products are generated using weather data from the TDWR or the Integrated Terminal Weather System (ITWS). These products can then be accessed by pilots using the Aircraft Communications Addressing and Reporting System (ACARS) data link services. Airline dispatchers can also access this database and send messages to specific aircraft whenever wind shear activity begins or ends at an airport.

c) TWIP products include descriptions and character graphics of microburst alerts, wind shear alerts, significant precipitation, convective activity within 30 NM surrounding the terminal area, and expected weather that will impact airport operations. During inclement weather; i.e., whenever a predetermined level of precipitation or wind shear is detected within 15 miles of the terminal area, TWIP products are updated once each minute for text messages and once every 5 minutes for character graphic messages. During good weather (below the predetermined precipitation or wind shear parameters) each message is updated every 10 minutes. These products are intended to improve the situational awareness of the pilot/flight crew, and to aid in flight planning prior to arriving or departing the terminal area. It is important to understand that, in the context of TWIP, the predetermined levels for inclement versus good weather has nothing to do with the criteria for VFR/MVFR/IFR/LIFR; it only deals with precipitation, wind shears, and microbursts.

TBL GEN 3.5–12
TWIP–Equipped Airports

Airport	Identifier
Andrews AFB, MD	KADW
Hartsfield–Jackson Atlanta Intl Airport	KATL
Nashville Intl Airport	KBNA
Logan Intl Airport	KBOS
Baltimore/Washington Intl Airport	KBWI
Hopkins Intl Airport	KCLE
Charlotte/Douglas Intl Airport	KCLT
Port Columbus Intl Airport	KCMH
Cincinnati/Northern Kentucky Intl Airport	KCVG
Dallas Love Field Airport	KDAL
James M. Cox Intl Airport	KDAY
Ronald Reagan Washington National Airport	KDCA
Denver Intl Airport	KDEN
Dallas–Fort Worth Intl Airport	KDFW
Detroit Metro Wayne County Airport	KDTW
Newark Liberty Intl Airport	KEWR
Fort Lauderdale–Hollywood Intl Airport	KFLL
William P. Hobby Airport	KHOU
Washington Dulles Intl Airport	KIAD
George Bush Intercontinental Airport	KIAH
Wichita Mid–Continent Airport	KICT
Indianapolis Intl Airport	KIND
John F. Kennedy Intl Airport	KJFK
LaGuardia Airport	KLGA
Kansas City Intl Airport	KMCI
Orlando Intl Airport	KMCO
Midway Intl Airport	KMDW
Memphis Intl Airport	KMEM
Miami Intl Airport	KMIA
General Mitchell Intl Airport	KMKE
Minneapolis St. Paul Intl Airport	KMSP
Louis Armstrong New Orleans Intl Airport	KMSY
Will Rogers World Airport	KOKC
O’Hare Intl Airport	KORD

Airport	Identifier
Palm Beach Intl Airport	KPBI
Philadelphia Intl Airport	KPHL
Pittsburgh Intl Airport	KPIT
Raleigh–Durham Intl Airport	KRDU
Louisville Intl Airport	KSDF
Salt Lake City Intl Airport	KSLC
Lambert–St. Louis Intl Airport	KSTL
Tampa Intl Airport	KTPA
Tulsa Intl Airport	KTUL

25. PIREPs Relating to Volcanic Ash Activity

25.1 Volcanic eruptions which send ash into the upper atmosphere occur somewhere around the world several times each year. Flying into a volcanic ash cloud can be exceedingly dangerous. At least two B747s have lost all power in all four engines after such an encounter. Regardless of the type aircraft, some damage is almost certain to ensue after an encounter with a volcanic ash cloud. Additionally, studies have shown that volcanic eruptions are the only significant source of large quantities of sulphur dioxide (SO₂) gas at jet-cruising altitudes. Therefore, the detection and subsequent reporting of SO₂ is of significant importance. Although SO₂ is colorless, its presence in the atmosphere should be suspected when a sulphur-like or rotten egg odor is present throughout the cabin.

25.2 While some volcanoes in the U.S. are monitored, many in remote areas are not. These unmonitored volcanoes may erupt without prior warning to the aviation community. A pilot observing a volcanic eruption who has not had previous notification of it may be the only witness to the eruption. Pilots are strongly encouraged to transmit a PIREP regarding volcanic eruptions and any observed volcanic ash clouds or detection of sulphur dioxide (SO₂) gas associated with volcanic activity.

25.3 Pilots should submit PIREPs regarding volcanic activity using the Volcanic Activity Reporting form (VAR) as illustrated in FIG GEN 3.5–30. (If a VAR form is not immediately available, relay enough information to identify the position and type of volcanic activity.)

25.4 Pilots should verbally transmit the data required in items 1 through 8 of the VAR as soon as possible. The data required in items 9 through 16 of the VAR should be relayed after landing, if possible.

26. Thunderstorms

26.1 Turbulence, hail, rain, snow, lightning, sustained updrafts and downdrafts, and icing conditions are all present in thunderstorms. While there is some evidence that maximum turbulence exists at the middle level of a thunderstorm, recent studies show little variation of turbulence intensity with altitude.

26.2 There is no useful correlation between the external visual appearance of thunderstorms and the severity or amount of turbulence or hail within them. Also, the visible thunderstorm cloud is only a portion of a turbulent system whose updrafts and downdrafts often extend far beyond the visible storm cloud. Severe turbulence can be expected up to 20 miles from severe thunderstorms. This distance decreases to about 10 miles in less severe storms. These turbulent areas may appear as a well-defined echo on weather radar.

26.3 Weather radar, airborne or ground-based, will normally reflect the areas of moderate to heavy precipitation. (Radar does not detect turbulence.) The frequency and severity of turbulence generally increases with the areas of highest liquid water content of the storm. NO FLIGHT PATH THROUGH AN AREA OF STRONG OR VERY STRONG RADAR ECHOES SEPARATED BY 20–30 MILES OR LESS MAY BE CONSIDERED FREE OF SEVERE TURBULENCE.

26.4 Turbulence beneath a thunderstorm should not be minimized. This is especially true when the relative humidity is low in any layer between the surface and 15,000 feet. Then the lower altitudes may be characterized by strong out-flowing winds and severe turbulence.

26.5 The probability of lightning strikes occurring to aircraft is greatest when operating at altitudes where temperatures are between –5 C and +5 C. Lightning can strike aircraft flying in the clear in the vicinity of a thunderstorm.

26.6 Current weather radar systems are able to objectively determine precipitation intensity. These precipitation intensity areas are described as “light,” “moderate,” “heavy,” and “extreme.”

REFERENCE–
Pilot/Controller Glossary Term– Precipitation Radar Weather Descriptions.

EXAMPLE–
Alert provided by an ATC facility to an aircraft: (aircraft identification) EXTREME precipitation between ten o'clock and two o'clock, one five miles. Precipitation area is two five miles in diameter.

EXAMPLE–
Alert provided by an FSS: (aircraft identification) EXTREME precipitation two zero miles west of Atlanta V–O–R, two five miles wide, moving east at two zero knots, tops flight level three niner zero.

27. Thunderstorm Flying

27.1 Thunderstorm Avoidance. Never regard any thunderstorm lightly, even when radar echoes are of light intensity. Avoiding thunderstorms is the best policy. Following are some Do's and Don'ts of thunderstorm avoidance:

27.1.1 Don't land or takeoff in the face of an approaching thunderstorm. A sudden gust front of low-level turbulence could cause loss of control.

27.1.2 Don't attempt to fly under a thunderstorm even if you can see through to the other side. Turbulence and wind shear under the storm could be disastrous.

27.1.3 Don't attempt to fly under the anvil of a thunderstorm. There is a potential for severe and extreme clear air turbulence.

27.1.4 Don't fly without airborne radar into a cloud mass containing scattered embedded thunderstorms. Scattered thunderstorms not embedded usually can be visually circumnavigated.

27.1.5 Don't trust the visual appearance to be a reliable indicator of the turbulence inside a thunderstorm.

27.1.6 Don't assume that ATC will offer radar navigation guidance or deviations around thunderstorms.

27.1.7 Don't use data-linked weather next generation weather radar (NEXRAD) mosaic imagery as the sole means for negotiating a path through a thunderstorm area (tactical maneuvering).

27.1.8 Do remember that the data-linked NEXRAD mosaic imagery shows where the weather was, not where the weather is. The weather conditions may be

15 to 20 minutes older than the age indicated on the display.

27.1.9 Do listen to chatter on the ATC frequency for Pilot Weather Reports (PIREP) and other aircraft requesting to deviate or divert.

27.1.10 Do ask ATC for radar navigation guidance or to approve deviations around thunderstorms, if needed.

27.1.11 Do use data-linked weather NEXRAD mosaic imagery (for example, Flight Information Service-Broadcast (FIS-B)) for route selection to avoid thunderstorms entirely (strategic maneuvering).

27.1.12 Do advise ATC, when switched to another controller, that you are deviating for thunderstorms before accepting to rejoin the original route.

27.1.13 Do ensure that after an authorized weather deviation, before accepting to rejoin the original route, that the route of flight is clear of thunderstorms.

27.1.14 Do avoid by at least 20 miles any thunderstorm identified as severe or giving an intense radar echo. This is especially true under the anvil of a large cumulonimbus.

27.1.15 Do circumnavigate the entire area if the area has 6/10 thunderstorm coverage.

27.1.16 Do remember that vivid and frequent lightning indicates the probability of a severe thunderstorm.

27.1.17 Do regard as extremely hazardous any thunderstorm with tops 35,000 feet or higher whether the top is visually sighted or determined by radar.

27.1.18 Do give a PIREP for the flight conditions.

27.1.19 Do divert and wait out the thunderstorms on the ground if unable to navigate around an area of thunderstorms.

27.1.20 Do contact Flight Service for assistance in avoiding thunderstorms. Flight Service specialists have NEXRAD mosaic radar imagery and NEXRAD single site radar with unique features such as base and composite reflectivity, echo tops, and VAD wind profiles.

27.2 If you cannot avoid penetrating a thunderstorm, following are some Do's before entering the storm:

27.2.1 Tighten your safety belt, put on your shoulder harness (if installed), if and secure all loose objects.

27.2.2 Plan and hold the course to take the aircraft through the storm in a minimum time.

27.2.3 To avoid the most critical icing, establish a penetration altitude below the freezing level or above the level of –15 C.

27.2.4 Verify that pitot heat is on and turn on carburetor heat or jet engine anti-ice. Icing can be rapid at any altitude and cause almost instantaneous power failure and/or loss of airspeed indication.

27.2.5 Establish power settings for turbulence penetration airspeed recommended in your aircraft manual.

27.2.6 Turn up cockpit lights to highest intensity to lessen danger of temporary blindness from lightning.

27.2.7 If using automatic pilot, disengage Altitude Hold Mode and Speed Hold Mode. The automatic altitude and speed controls will increase maneuvers of the aircraft thus increasing structural stress.

27.2.8 If using airborne radar, tilt the antenna up and down occasionally. This will permit the detection of other thunderstorm activity at altitudes other than the one being flown.

27.3 Following are some Do's and Don'ts during the thunderstorm penetration:

27.3.1 Do keep your eyes on your instruments. Looking outside the cockpit can increase danger of temporary blindness from lightning.

27.3.2 Don't change power settings; maintain settings for the recommended turbulence penetration airspeed.

27.3.3 Do maintain constant attitude. Allow the altitude and airspeed to fluctuate.

27.3.4 Don't turn back once you are in the thunderstorm. A straight course through the storm most likely will get the aircraft out of the hazards most quickly. In addition, turning maneuvers increase stress on the aircraft.

28. Wake Turbulence

28.1 General

28.1.1 Every aircraft generates wake turbulence while in flight. Wake turbulence is a function of an aircraft producing lift, resulting in the formation of

two counter-rotating vortices trailing behind the aircraft.

28.1.2 Wake turbulence from the generating aircraft can affect encountering aircraft due to the strength, duration, and direction of the vortices. Wake turbulence can impose rolling moments exceeding the roll-control authority of encountering aircraft, causing possible injury to occupants and damage to aircraft. Pilots should always be aware of the possibility of a wake turbulence encounter when flying through the wake of another aircraft, and adjust the flight path accordingly.

28.2 Vortex Generation

28.2.1 The creation of a pressure differential over the wing surface generates lift. The lowest pressure occurs over the upper wing surface and the highest pressure under the wing. This pressure differential triggers the roll up of the airflow at the rear of the wing resulting in swirling air masses trailing downstream of the wing tips. After the roll up is completed, the wake consists of two counter-rotating cylindrical vortices. (See FIG GEN 3.5–16.) The wake vortex is formed with most of the energy concentrated within a few feet of the vortex core.

28.2.2 More aircraft are being manufactured or retrofitted with winglets. There are several types of winglets, but their primary function is to increase fuel efficiency by improving the lift-to-drag ratio. Studies have shown that winglets have a negligible effect on wake turbulence generation, particularly with the slower speeds involved during departures and arrivals.

28.3 Vortex Strength

28.3.1 Weight, speed, wingspan, and shape of the generating aircraft's wing all govern the strength of the vortex. The vortex characteristics of any given aircraft can also be changed by extension of flaps or other wing configuring devices. However, the vortex strength from an aircraft increases proportionately to an increase in operating weight or a decrease in aircraft speed. Since the turbulence from a "dirty" aircraft configuration hastens wake decay, the greatest vortex strength occurs when the generating aircraft is HEAVY, CLEAN, and SLOW.

28.3.2 Induced Roll

28.3.2.1 In rare instances, a wake encounter could cause catastrophic inflight structural damage to an aircraft. However, the usual hazard is associated with

induced rolling moments that can exceed the roll-control authority of the encountering aircraft. During inflight testing, aircraft intentionally flew directly up trailing vortex cores of larger aircraft. These tests demonstrated that the ability of aircraft to counteract the roll imposed by wake vortex depends primarily on the wingspan and counter-control responsiveness of the encountering aircraft. These tests also demonstrated the difficulty of an aircraft to remain within a wake vortex. The natural tendency is for the circulation to eject aircraft from the vortex.

28.3.2.2 Counter-control is usually effective and induced roll minimal in cases where the wing span and ailerons of the encountering aircraft extend beyond the rotational flow field of the vortex. It is more difficult for aircraft with short wing span (relative to the generating aircraft) to counter the imposed roll induced by vortex flow. Pilots of short-span aircraft, even of the high-performance type, must be especially alert to vortex encounters. (See FIG GEN 3.5–17.)

28.4 Vortex Behavior

28.4.1 Trailing vortices have certain behavioral characteristics which can help a pilot visualize the wake location and thereby take avoidance precautions.

28.4.1.1 An aircraft generates vortices from the moment it rotates on takeoff to touchdown, since trailing vortices are a by-product of wing lift. Prior to takeoff or touchdown pilots should note the rotation or touchdown point of the preceding aircraft. (See FIG GEN 3.5–18.)

28.4.1.2 The vortex circulation is outward, upward and around the wing tips when viewed from either ahead or behind the aircraft. Tests with larger aircraft have shown that the vortices remain spaced a bit less than a wingspan apart, drifting with the wind, at altitudes greater than a wingspan from the ground. In view of this, if persistent vortex turbulence is encountered, a slight change of altitude (upward) and lateral position (upwind) should provide a flight path clear of the turbulence.

28.4.1.3 Flight tests have shown that the vortices from larger aircraft sink at a rate of several hundred feet per minute, slowing their descent and diminishing in strength with time and distance behind the generating aircraft. Pilots should fly at or above the preceding aircraft's flight path, altering course as necessary to avoid the area directly behind and below the generating aircraft. (See FIG GEN 3.5–19.) Pilots, in all phases of flight, must remain vigilant of possible wake effects created by other aircraft. Studies have shown that atmospheric turbulence hastens wake breakup, while other atmospheric conditions can transport wake horizontally and vertically.

FIG GEN 3.5–16
Wake Vortex Generation

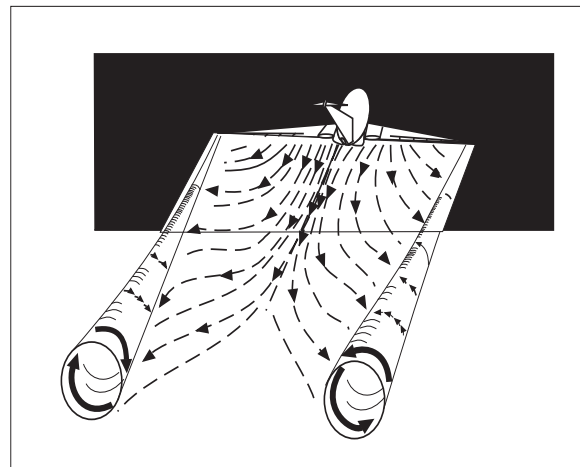


FIG GEN 3.5–17
Wake Encounter Counter Control

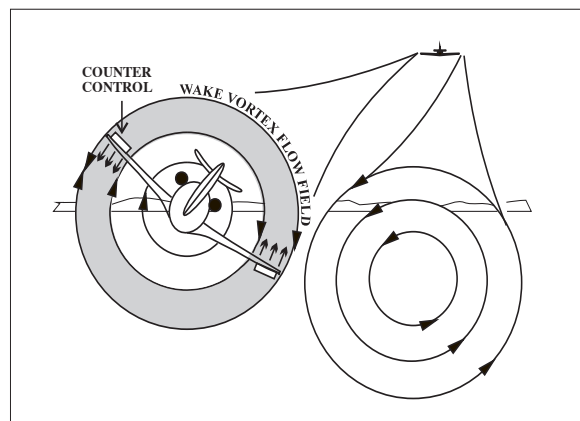


FIG GEN 3.5-18
Wake Ends/Wake Begins

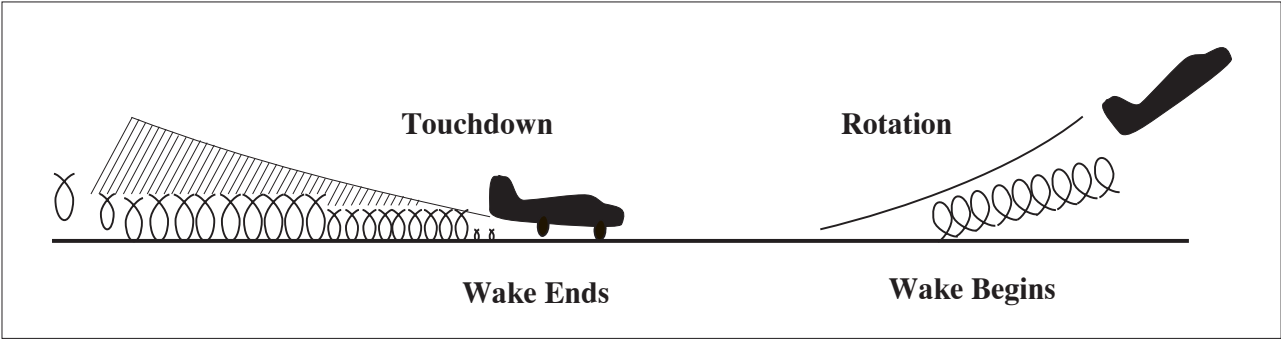


FIG GEN 3.5-19
Vortex Flow Field

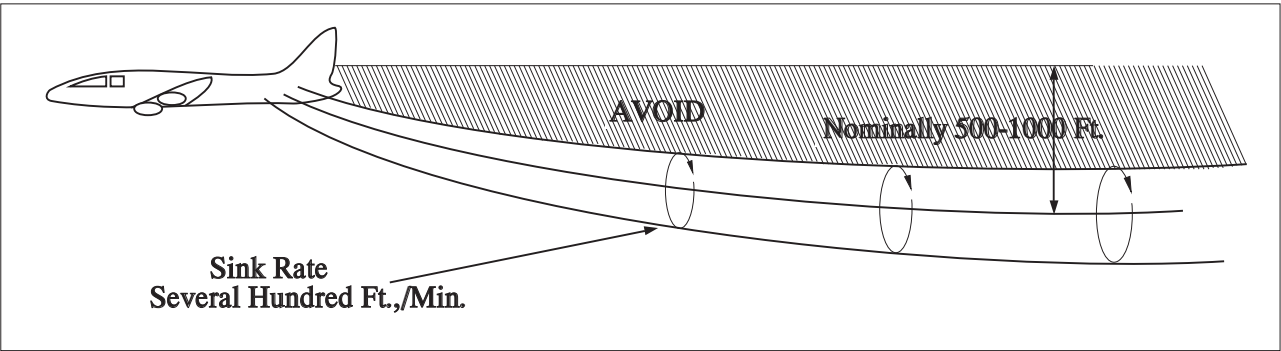


FIG GEN 3.5-20
Vortex Movement Near Ground - No Wind

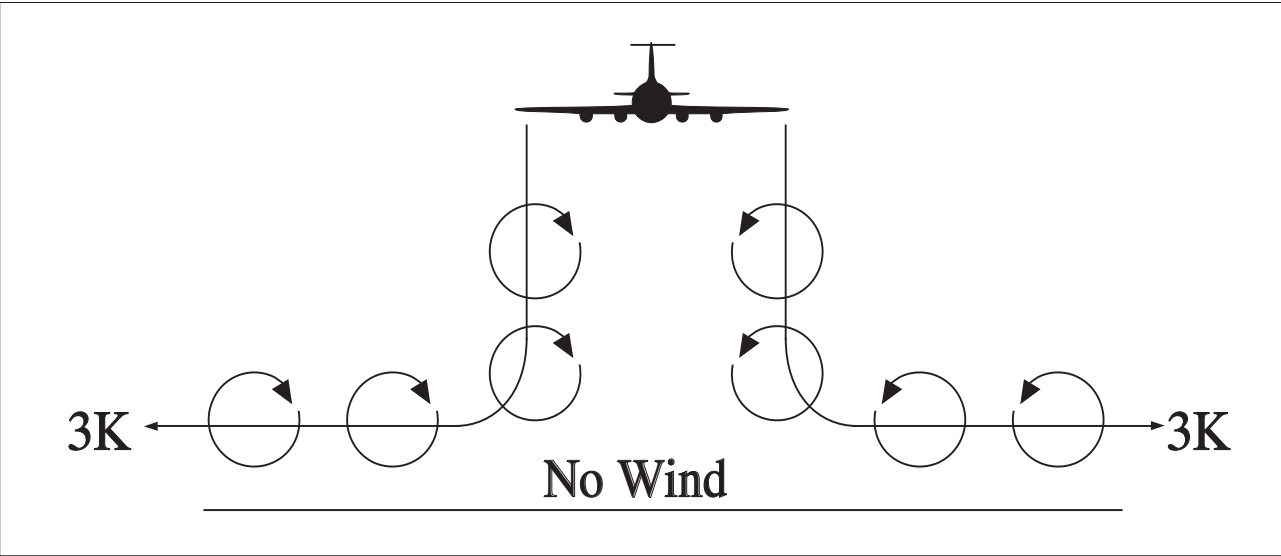


FIG GEN 3.5–30
Volcanic Activity Reporting Form (VAR)

Air–reports are critically important in assessing the hazards which volcanic ash cloud presents to aircraft operations.

OPERATOR:			A/C IDENTIFICATION: (as indicated on flight plan)		
PILOT-IN-COMMAND:					
DEP FROM:	DATE:	TIME; UTC:	ARR AT:	DATE:	TIME; UTC:
ADDRESSEE			AIREP SPECIAL		
Items 1–8 are to be reported immediately to the ATS unit that you are in contact with.					
1) AIRCRAFT IDENTIFICATION			2) POSITION		
3) TIME			4) FLIGHT LEVEL OR ALTITUDE		
5) VOLCANIC ACTIVITY OBSERVED AT (position or bearing, estimated level of ash cloud and distance from aircraft)					
6) AIR TEMPERATURE			7) SPOT WIND		
Other _____					
8) SUPPLEMENTARY INFORMATION					
SO ₂ detected Yes <input type="checkbox"/> No <input type="checkbox"/>					
Ash encountered Yes <input type="checkbox"/> No <input type="checkbox"/>					
(Brief description of activity especially vertical and lateral extent of ash cloud and, where possible, horizontal movement, rate of growth, etc.)					
After landing complete items 9–16 then fax form to: (Fax number to be provided by the meteorological authority based on local arrangements between the meteorological authority and the operator concerned.)					
9) DENSITY OF ASH CLOUD	<input type="checkbox"/> (a) Wispy	<input type="checkbox"/> (b) Moderate dense	<input type="checkbox"/> (c) Very dense		
10) COLOUR OF ASH CLOUD	<input type="checkbox"/> (a) White	<input type="checkbox"/> (b) Light grey	<input type="checkbox"/> (c) Dark grey		
	<input type="checkbox"/> (d) Black	<input type="checkbox"/> (e) Other _____			
11) ERUPTION	<input type="checkbox"/> (a) Continuous	<input type="checkbox"/> (b) Intermittent	<input type="checkbox"/> (c) Not visible		
12) POSITION OF ACTIVITY	<input type="checkbox"/> (a) Summit	<input type="checkbox"/> (b) Side	<input type="checkbox"/> (c) Single		
	<input type="checkbox"/> (d) Multiple	<input type="checkbox"/> (e) Not observed			
13) OTHER OBSERVED FEATURES OF ERUPTION	<input type="checkbox"/> (a) Lightning	<input type="checkbox"/> (b) Glow	<input type="checkbox"/> (c) Large rocks		
	<input type="checkbox"/> (d) Ash fallout	<input type="checkbox"/> (e) Mushroom cloud	<input type="checkbox"/> (f) All		
14) EFFECT ON AIRCRAFT	<input type="checkbox"/> (a) Communication	<input type="checkbox"/> (b) Navigation systems	<input type="checkbox"/> (c) Engines		
	<input type="checkbox"/> (d) Pitot static	<input type="checkbox"/> (e) Windscreen	<input type="checkbox"/> (f) Windows		
15) OTHER EFFECTS	<input type="checkbox"/> (a) Turbulence	<input type="checkbox"/> (b) St. Elmo's Fire	<input type="checkbox"/> (c) Other fumes		
16) OTHER INFORMATION (Any information considered useful.)					

Date: 07/19/2010

GEN 3.6 Search and Rescue

1. Responsible Authority

1.1 The Search and Rescue (SAR) service in the U.S. and its area of jurisdiction is organized in accordance with the Standards and Recommended Practices of ICAO Annex 12 by the Federal Aviation Administration with the collaboration of the U.S. Coast Guard and the U.S. Air Force. The Coast Guard and the Air Force are the responsible SAR authorities and have the responsibility for making the necessary facilities available. Postal and telegraphic addresses for the Federal Aviation Administration are given in . The appropriate addresses for Coast Guard and Air Force offices are:

Air Force

Postal Address:

Inland SAR Coordinator

Commander ARRS

USAF RCC

Tyndall AFB, FL

Telegraphic Address: None.

Telex: None.

Telephone: 1-800-851-3051,

Commercial: 850-283-5955, or

Defense Switching Network: 523-5955.

Coast Guard

Postal Address:

United States Coast Guard

Search and Rescue Division (GOSR/73)

400 7th Street, S.W.

Washington, D.C. 20590

Telegraphic Address: None.

Telex: 89 2427

2. Types of Service

2.1 Details of the Rescue Coordination Centers (RCCs) and related rescue units are given in this section. In addition, various elements of state and local police organizations are available for search and rescue missions when required. The aeronautical, maritime and public telecommunication services are available to the search and rescue organizations.

2.2 Aircraft, both land and amphibious based, are used, as well as land and seagoing vessels, when required, and carry survival equipment. Airborne

survival equipment, capable of being dropped, consists of inflatable rubber dinghies equipped with medical supplies, emergency rations and survival radio equipment. Aircraft and marine craft are equipped to communicate on 121.5, 123.1, 243.0, 500 kHz, 2182 kHz, and 8364 kHz. Ground rescue teams are equipped to communicate on 121.5 MHz, 500 kHz, and 8364 kHz. SAR aircraft and marine craft are equipped with direction finding equipment and radar.

3. SAR Agreements

3.1 Bilateral agreements exist between the U.S. and the following neighboring States of the NAM region: Canada and Mexico.

3.1.1 There are two agreements with Canada. One provides for public aircraft of either country which are engaged in air search and rescue operations to enter or leave either country without being subjected to immigration or customs formalities normally required. The other permits vessels and wrecking appliances of either country to render aid and assistance on specified border waters and on the shores and in the waters of the other country along the Atlantic and Pacific Coasts within a distance of 30 miles from the international boundary on those coasts. A post operations report is required.

3.1.2 The agreement with Mexico applies to territorial waters and shores of each country within 200 miles of the border on the Gulf Coast and within 270 miles of the border on the Pacific Coast. It permits the vessels and aircraft of either country to proceed to the assistance of a distressed vessel or aircraft of their own registry upon notification of entry and of departure of the applicable waters and shores.

3.2 In situations not falling under the above agreements, requests from States to participate in a SAR operation within the U.S. for aircraft of their own registry may be addressed to the nearest RCC. The RCC would reply, and issue appropriate instructions.

4. General Conditions of Availability

4.1 The SAR service and facilities in the U.S. are available to the neighboring States within the NAM, NAT, CAR, PAC Regions upon request to the appropriate RCC at all times when they are not engaged in search and rescue activity in their home territory. All facilities are specialized in SAR techniques and functions.

5. Applicable ICAO Documents

Annex 12	Search and Rescue
Annex 13	Aircraft Accident Inquiry
Doc 7030	Regional Supplementary Procedures for Alerting and Search and Rescue Services applicable to the NAM, NAT, CAR, PAC Regions.

6. Differences from ICAO Standards, Recommended Practices and Procedures

6.1 Differences from ICAO Standards, Recommended Practices and Procedures are listed in GEN 1.7.

7. Emergency Locator Transmitters

7.1 General

7.1.1 ELTs are required for most General Aviation airplanes.

*REFERENCE—
14 CFR SECTION 91.207.*

7.1.2 ELTs of various types were developed as a means of locating downed aircraft. These electronic, battery operated transmitters operate on one of three frequencies. These operating frequencies are 121.5 MHz, 243.0 MHz, and the newer 406 MHz. ELTs operating on 121.5 MHz and 243.0 MHz are analog devices. The newer 406 MHz ELT is a digital transmitter that can be encoded with the owner's contact information or aircraft data. The latest 406 MHz ELT models can also be encoded with the aircraft's position data which can help SAR forces locate the aircraft much more quickly after a crash. The 406 MHz ELTs also transmits a stronger signal when activated than the older 121.5 MHz ELTs.

7.1.2.1 The Federal Communications Commission (FCC) requires 406 MHz ELTs be registered with the

National Oceanic and Atmospheric Administration (NOAA) as outlined in the ELTs documentation. The FAA's 406 MHz ELT Technical Standard Order (TSO) TSO-C126 also requires that each 406 MHz ELT be registered with NOAA. The reason is NOAA maintains the owner registration database for U.S. registered 406 MHz alerting devices, which includes ELTs. NOAA also operates the United States' portion of the Cospas-Sarsat satellite distress alerting system designed to detect activated 406 MHz ELTs and other distress alerting devices.

7.1.2.2 As of 2009, the Cospas-Sarsat system terminated monitoring and reception of the 121.5 MHz and 243.0 MHz frequencies. What this means for pilots is that those aircraft with only 121.5 MHz or 243.0 MHz ELTs onboard will have to depend upon either a nearby air traffic control facility receiving the alert signal or an overflying aircraft monitoring 121.5 MHz or 243.0 MHz detecting the alert and advising ATC.

7.1.2.3 In the event that a properly registered 406 MHz ELT activates, the Cospas-Sarsat satellite system can decode the owner's information and provide that data to the appropriate search and rescue (SAR) center. In the United States, NOAA provides the alert data to the appropriate U.S. Air Force Rescue Coordination Center (RCC) or U.S. Coast Guard Rescue Coordination Center. That RCC can then telephone or contact the owner to verify the status of the aircraft. If the aircraft is safely secured in a hangar, a costly ground or airborne search is avoided. In the case of an inadvertent 406 MHz ELT activation, the owner can deactivate the 406 MHz ELT. If the 406 MHz ELT equipped aircraft is being flown, the RCC can quickly activate a search. 406 MHz ELTs permit the Cospas-Sarsat satellite system to narrow the search area to a more confined area compared to that of a 121.5 MHz or 243.0 MHz ELT. 406 MHz ELTs also include a low-power 121.5 MHz homing transmitter to aid searchers in finding the aircraft in the terminal search phase.

7.1.2.4 Each analog ELT emits a distinctive downward swept audio tone on 121.5 MHz and 243.0 MHz.

7.1.2.5 If "armed" and when subject to crash-generated forces, ELTs are designed to automatically activate and continuously emit their respective signals, analog or digital. The transmitters will operate continuously for at least 48 hours over a wide temperature range. A properly installed, maintained,

and functioning ELT can expedite search and rescue operations and save lives if it survives the crash and is activated.

7.1.2.6 Pilots and their passengers should know how to activate the aircraft's ELT if manual activation is required. They should also be able to verify the aircraft's ELT is functioning and transmitting an alert after a crash or manual activation.

7.1.2.7 Because of the large number of 121.5 MHz ELT false alerts and the lack of a quick means of verifying the actual status of an activated 121.5 MHz or 243.0 MHz analog ELT through an owner registration database, U.S. SAR forces do not respond as quickly to initial 121.5/243.0 MHz ELT alerts as the SAR forces do to 406 MHz ELT alerts. Compared to the almost instantaneous detection of a 406 MHz ELT, SAR forces' normal practice is to wait for confirmation of an overdue aircraft or similar notification. In some cases, this confirmation process can take hours. SAR forces can initiate a response to 406 MHz alerts in minutes compared to the potential delay of hours for a 121.5/243.0 MHz ELT. Therefore, due to the obvious advantages of 406 MHz beacons and the significant disadvantages to the older 121.5/243.0 MHz beacons, and considering that the International Cospas-Sarsat Program stopped the monitoring of 121.5/243.0 MHz by satellites on February 1, 2009, all aircraft owners/operators are highly encouraged by both NOAA and the FAA to consider making the switch to a digital 406 MHz ELT beacon. Further, for non-aircraft owner pilots, check the ELT installed in the aircraft you are flying, and as appropriate, obtain a personal locator beacon transmitting on 406 MHz.

7.2 ELT Testing

7.2.1 ELTs should be tested in accordance with the manufacturer's instructions, preferably in a shielded or screened room or specially designed test container to prevent the broadcast of signals which could trigger a false alert.

7.2.2 When this cannot be done, aircraft operational testing is authorized as follows:

7.2.2.1 Analog 121.5/243 MHz ELTs should only be tested during the first 5 minutes after any hour. If operational tests must be made outside of this period, they should be coordinated with the nearest FAA Control Tower. Tests should be no longer than three audible sweeps. If the antenna is removable, a

dummy load should be substituted during test procedures.

7.2.2.2 Digital 406 MHz ELTs should only be tested in accordance with the unit's manufacturer's instructions.

7.2.2.3 Airborne tests are not authorized.

7.3 False Alarms

7.3.1 Caution should be exercised to prevent the inadvertent activation of ELTs in the air or while they are being handled on the ground. Accidental or unauthorized activation will generate an emergency signal that cannot be distinguished from the real thing, leading to expensive and frustrating searches. A false ELT signal could also interfere with genuine emergency transmissions and hinder or prevent the timely location of crash sites. Frequent false alarms could also result in complacency and decrease the vigorous reaction that must be attached to all ELT signals.

7.3.2 Numerous cases of inadvertent activation have occurred as a result of aerobatics, hard landings, movement by ground crews and aircraft maintenance. These false alarms can be minimized by monitoring 121.5 MHz and/or 243.0 MHz as follows:

7.3.2.1 In flight when a receiver is available.

7.3.2.2 Before engine shut down at the end of each flight.

7.3.2.3 When the ELT is handled during installation or maintenance.

7.3.2.4 When maintenance is being performed near the ELT.

7.3.2.5 When a ground crew moves the aircraft.

7.3.2.6 If an ELT signal is heard, turn off the aircraft's ELT to determine if it is transmitting. If it has been activated, maintenance might be required before the unit is returned to the "ARMED" position. You should contact the nearest Air Traffic facility and notify it of the inadvertent activation.

7.4 Inflight Monitoring and Reporting

7.4.1 Pilots are encouraged to monitor 121.5 MHz and/or 243.0 MHz while in flight to assist in identifying possible emergency ELT transmissions. On receiving a signal, report the following information to the nearest air traffic facility:

7.4.1.1 Your position at the time the signal was first heard.

7.4.1.2 Your position at the time the signal was last heard.

7.4.1.3 Your position at maximum signal strength.

7.4.1.4 Your flight altitudes and frequency on which the emergency signal was heard: 121.5 MHz or 243.0 MHz. If possible, positions should be given relative to a navigation aid. If the aircraft has homing equipment, provide the bearing to the emergency signal with each reported position.

8. National Search and Rescue Plan

8.1 By federal interagency agreement, the National Search and Rescue Plan provides for the effective use of all available facilities in all types of SAR missions. These facilities include aircraft, vessels, pararescue and ground rescue teams, and emergency radio fixing. Under the Plan, the U.S. Coast Guard is responsible for the coordination of SAR in the Maritime Region, and the U.S. Air Force is responsible in the Inland Region. To carry out these responsibilities, the Coast Guard and the Air Force have established RCCs to direct SAR activities within their regions. For aircraft emergencies, distress and urgency information normally will be passed to the appropriate RCC through an air route traffic control center (ARTCC) or flight service station (FSS).

8.2 Coast Guard Rescue Coordination Centers

TBL GEN 3.6-1

Coast Guard Rescue Coordination Centers	
Alameda, CA 510-437-3701	Miami, FL 305-415-6800
Boston, MA 617-223-8555	New Orleans, LA 504-589-6225
Cleveland, OH 216-902-6117	Portsmouth, VA 757-398-6390
Honolulu, HI 808-541-2500	Seattle, WA 206-220-7001
Juneau, AK 907-463-2000	San Juan, PR 787-289-2042

8.3 Coast Guard Rescue Coordination Centers are served by major radio stations which guard 2182 kHz (VOICE). In addition, Coast Guard units along the seacoasts of the U.S. and shores of the Great Lakes guard 2182 kHz. The call "COAST GUARD" will alert all Coast Guard Radio Stations within range. 2182 kHz is also guarded by most commercial coast stations and some ships and boats.

8.4 Air Force Rescue Coordination Centers

TBL GEN 3.6-2

Air Force Rescue Coordination Center	
Tyndall AFB, Florida	Phone
Commercial	850-283-5955
WATS	800-851-3051
DSN	523-5955

TBL GEN 3.6-3

Air Command Rescue Coordination Center Alaska

Alaskan Air Command Rescue Coordination Center	
Elemendorf AFB, Alaska	Phone
Commercial	907-428-7230 or 800-420-7230 (outside Anchorage)
DSN	317-551-7230

8.5 Joint Rescue Coordination Center Hawaii

TBL GEN 3.6-4

Honolulu Joint Rescue Coordination Center	
HQ 14th CG District Honolulu	Phone
Commercial	808-541-2500
DSN	448-0301

PART 2 – EN ROUTE (ENR)

ENR 0.

ENR 0.1 Preface – Not applicable

ENR 0.2 Record of AIP Amendments – See GEN 0.2-1

ENR 0.3 Record of AIP Supplements – Not applicable

ENR 0.4 Checklist of Pages

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ENR 0.5 List of Hand Amendments to the AIP – Not applicable

display Code 7600 and will interrogate 7600 only when the aircraft is under direct radar control at the time of radio failure. However, replying on Code 7700 first, increases the probability of early detection of a radio failure condition.

37.10 Radar Services

37.10.1 Safety Alert

37.10.1.1 A safety alert will be issued to pilots of aircraft being controlled by ATC if the controller is aware the aircraft is at an altitude which, in the controller's judgment, places the aircraft in unsafe proximity to terrain, obstructions, or other aircraft. The provision of this service is contingent upon the capability of the controller to have an awareness of situations involving unsafe proximity to terrain, obstructions, and uncontrolled aircraft. The issuance of a safety alert cannot be mandated, but it can be expected on a reasonable, though intermittent, basis. Once the alert is issued, it is solely the pilot's prerogative to determine what course of action, if any, will be taken. This procedure is intended for use in time critical situations where aircraft safety is in question. Noncritical situations should be handled via the normal traffic alert procedures.

37.10.2 Terrain/Obstruction Alert

37.10.2.1 Controllers will immediately issue an alert to the pilots of aircraft under their control when they recognize that the aircraft is at an altitude which, in their judgment, may be in unsafe proximity to terrain/obstructions. The primary method of detecting unsafe proximity is through Mode C automatic altitude reports.

EXAMPLE–

Low altitude alert Cessna Three Four Juliet, check your altitude immediately. And if the aircraft is not yet on final approach, the MVA (MEA/MIA/MOCA) in your area is six thousand.

37.10.2.2 Most En Route and Terminal radar facilities have an automated function which, if operating, alerts controllers when a tracked Mode C equipped aircraft under their control is below or is predicted to be below a predetermined minimum safe altitude. This function, called Minimum Safe Altitude Warning (MSAW), is designed solely as a controller aid in detecting potentially unsafe aircraft proximity to terrain/obstructions. The radar facility will, when MSAW is operating, provide MSAW monitoring for all aircraft with an operating Mode C

altitude encoding transponder that are tracked by the system and are:

- a) Operating on a IFR flight plan.
- b) Operating VFR and have requested MSAW monitoring.

NOTE–

Pilots operating VFR may request MSAW or monitoring if their aircraft are equipped with Mode C transponders.

EXAMPLE–

Apache Three Three Papa requests MSAW monitoring.

37.10.2.3 Due to the lack of terrain and obstacle clearance data, accurate automation databases may not be available for providing MSAW information to aircraft overflying Mexico and Canada. Air traffic facilities along the United States/Mexico/Canada borders may have MSAW computer processing inhibited where accurate terrain data is not available.

37.10.3 Aircraft Conflict Alert

37.10.3.1 Controllers will immediately issue an alert to the pilots of aircraft under their control if they are aware of an aircraft that is not under their control at an altitude which, in the controller's judgment, places both aircraft in unsafe proximity to each other. With the alert, when feasible, the controller will offer the pilot the position of the traffic if time permits and an alternate course(s) of action. Any alternate course of action the controller may recommend to the pilot will be predicated only on other traffic in the controller's jurisdiction.

EXAMPLE–

American Three, traffic alert, (position of traffic, if time permits), advise you turn right/left heading (degrees) and/or climb/descend to (altitude) immediately.

37.10.4 Radar Traffic Information Service (RTIS)

37.10.4.1 This is a service provided by radar ATC facilities. Pilots receiving this service are advised of any radar target observed on the radar display which may be in such proximity to the position of their aircraft or its intended route of flight that it warrants their attention. This service is not intended to relieve the pilot of the responsibility for continual vigilance to see and avoid other aircraft.

a) Purpose of this Service

1) The issuance of traffic information as observed on a radar display is based on the principle of assisting and advising a pilot that a particular radar

target's position and track indicates it may intersect or pass in such proximity to the intended flight path that it warrants the pilot's attention. This is to alert the pilot to the traffic, to be on the lookout for it, and thereby be in a better position to take appropriate action should the need arise.

2) Pilots are reminded that the surveillance radar used by ATC does not provide altitude information unless the aircraft is equipped with Mode C and the radar facility is capable of displaying altitude information.

b) Provisions of the Service

1) Many factors, such as limitations of the radar, volume of traffic, controller workload, and communications frequency congestion could prevent the controller from providing this service. Controllers possess complete discretion for determining whether they are able to provide or continue to provide this service in a specific case. The controller's reason against providing or continuing to provide the service in a particular case is not subject to question nor need it be communicated to the pilot. In other words, the provision of this service is entirely dependent upon whether controllers believe they are in a position to provide it. Traffic information is routinely provided to all aircraft operating on IFR flight plans except when the pilot declines the service, or the pilot is operating within Class A airspace. Traffic information may be provided to flights not operating on IFR Flight Plans when requested by pilots of such flights.

NOTE-

Radar ATC facilities normally display and monitor both primary and secondary radar as well as ADS-B, except that secondary radar or ADS-B may be used as the sole display source in Class A airspace, and under some circumstances outside of Class A airspace (beyond primary coverage and in en route areas where only secondary and/or ADS-B is available). Secondary radar and/or ADS-B may also be used outside Class A airspace as the sole display source when the primary radar is temporarily unusable or out of service. Pilots in contact with the affected ATC facility are normally advised when a temporary outage occurs; i.e., "primary radar out of service; traffic advisories available on transponder or ADS-B aircraft only." This means simply that only aircraft that have transponders and ADS-B installed and in use will be depicted on ATC displays when the primary and/or secondary radar is temporarily out of service.

2) When receiving VFR radar advisory service, pilots should monitor the assigned frequency at all

times. This is to preclude controllers' concern for radio failure of emergency assistance to aircraft under the controller's jurisdiction. VFR radar advisory service does not include vectors away from conflicting traffic unless requested by the pilot. When advisory service is no longer desired, advise the controller before changing frequencies, then change your transponder code to 1200 if applicable. THE, as appropriate, MEA/MVA/MOCA IN YOUR AREA IS (altitude) or if past the final approach fix, THE, as appropriate, MDA/DH (if known) is (altitude). Except in programs where radar service is automatically terminated, the controller will advise the aircraft when radar is terminated.

NOTE-

Participation by VFR pilots in formal programs implemented at certain terminal locations constitutes pilot request. This also applies to participating pilots at those locations where arriving VFR flights are encouraged to make their first contact with the tower on the approach control frequency.

c) **Issuance of Traffic Information.** Traffic information will include the following concerning a target which may constitute traffic for an aircraft that is:

1) Radar identified.

(a) Azimuth from the aircraft in terms of the twelve hour clock.

(b) When rapidly maneuvering civil test or military aircraft prevent accurate issuance of traffic as in a) above, specify the direction from an aircraft's position in terms of the eight cardinal compass points (N, NE, E, SE, S, SW, W, NW). This method must be terminated at the pilot's request.

(c) Distance from the aircraft in nautical miles.

(d) Direction in which the target is proceeding.

(e) Type of aircraft and altitude if known.

EXAMPLE-

Traffic 10 o'clock, 3 miles, west-bound (type aircraft and altitude, if known, of the observed traffic). The altitude may be known, by means of Mode C, but not verified with the pilot for accuracy. (To be valid for separation purposes by ATC, the accuracy of Mode C readouts must be verified. This is usually accomplished upon initial entry into the radar system by a comparison of the readout to pilot stated

altitude, or the field elevation in the case of continuous readout being received from an aircraft on the airport.) When necessary to issue traffic advisories containing unverified altitude information, the controller will issue the indicated altitude of the aircraft. The pilot may upon receipt of traffic information, request a vector (heading) to avoid such traffic. The vector will be provided to the extent possible as determined by the controller provided the aircraft to be vectored is within the airspace under the jurisdiction of the controller.

2) Not radar identified

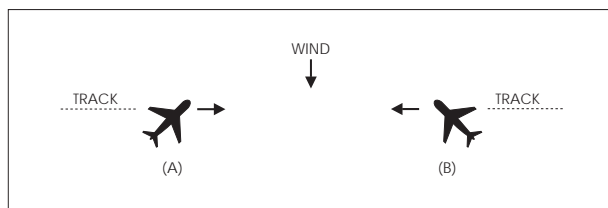
- (a) Distance and direction with respect to a fix.
- (b) Direction in which the target is proceeding.
- (c) Type of aircraft and altitude if known.

EXAMPLE–

Traffic 8 miles south of the airport northeastbound, (type aircraft and altitude if known).

(d) The examples depicted in FIG ENR 1.1–28 and FIG ENR 1.1–29 point out the possible error in the position of this traffic when it is necessary for a pilot to apply drift correction to maintain this track. This error could also occur in the event a change in course is made at the time radar traffic information is issued.

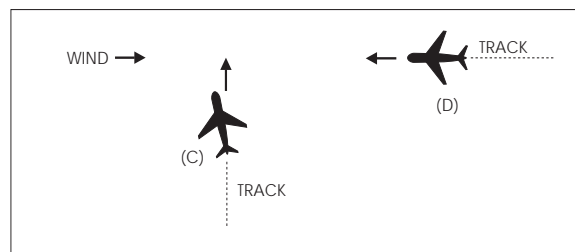
FIG ENR 1.1–28
Induced Error in Position of Traffic



EXAMPLE–

In FIG ENR 1.1–28, traffic information would be issued to the pilot of aircraft “A” as 12 o’clock. The actual position of the traffic as seen by the pilot of aircraft “A” would be one o’clock. Traffic information issued to aircraft “B” would also be given as 12 o’clock, but in this case, the pilot of “B” would see the traffic at 11 o’clock.

FIG ENR 1.1–29
Induced Error in Position of Traffic



EXAMPLE–

In FIG ENR 1.1–29, traffic information would be issued to the pilot of aircraft “C” as two o’clock. The actual position of the traffic as seen by the pilot of aircraft “C” would be three o’clock. Traffic information issued to aircraft “D” would be at an 11 o’clock position. Since it is not necessary for the pilot of aircraft “D” to apply wind correction (CRAB) to remain on track, the actual position of the traffic issued would be correct. Since the radar controller can only observe aircraft track (course) on the radar display, traffic advisories are issued accordingly, and pilots should give due consideration to this fact when looking for reported traffic.

37.11 Radar Assistance to VFR Aircraft

37.11.1 Radar equipped FAA ATC facilities provide radar assistance and navigation service (vectors) to VFR aircraft provided the aircraft can communicate with the facility, are within radar coverage, and can be radar identified.

37.11.2 Pilots should clearly understand that authorization to proceed in accordance with such radar navigational assistance does not constitute authorization for the pilot to violate Federal Aviation Regulations. In effect, assistance provided is on the basis that navigational guidance information issued is advisory in nature and the job of flying the aircraft safely remains with the pilot.

37.11.3 In many cases, controllers will be unable to determine if flight into instrument conditions will result from their instructions. To avoid possible hazards resulting from being vectored into IFR conditions, pilots should keep controllers advised of the weather conditions in which they are operating and along the course ahead.

37.11.4 Radar navigation assistance (vectors) may be initiated by the controller when one of the following conditions exist:

37.11.4.1 The controller suggests the vector and the pilot concurs.

37.11.4.2 A special program has been established and vectoring service has been advertised.

37.11.4.3 In the controller’s judgment the vector is necessary for air safety.

37.11.5 Radar navigation assistance (vectors) and other radar derived information may be provided in response to pilot requests. Many factors, such as limitations of radar, volume of traffic, communications frequency, congestion, and controller workload could prevent the controller from providing it. Controllers have complete discretion for determining if they are able to provide the service in a particular case. Their decision not to provide the service in a particular case is not subject to question.

38. Operational Policy/Procedures for Reduced Vertical Separation Minimum (RVSM) in the Domestic U.S., Alaska, Offshore Airspace and the San Juan FIR

38.1 Applicability and RVSM Mandate (Date/Time and Area)

38.1.1 Applicability. The policies, guidance and direction in this section are consistent with the policies and procedures used in Domestic U.S. RVSM Airspace, as specified in the Aeronautical Information Manual, Chapter 4, Section 6. For any oceanic area specific items, see Part II, ENR 7. Oceanic Procedures.

38.1.2 Requirement. The FAA implemented RVSM between flight level (FL) 290–410 (inclusive) in the following airspace: the airspace of the lower 48 states of the United States, Alaska, Atlantic and Gulf of Mexico High Offshore Airspace and the San Juan FIR. RVSM has been implemented worldwide and may be applied in all ICAO Flight Information Regions (FIR).

38.1.3 In accordance with 14 CFR Section 91.706, with only limited exceptions, prior to operating in RVSM airspace, operators must comply with the standards of Part 91, Appendix G, and be authorized by the Administrator. If the operator has not been authorized for RVSM operations, or the aircraft is not RVSM compliant, the aircraft will be referred to as “non-RVSM” aircraft. Paragraph 38.10 discusses ATC policies for accommodation of non-RVSM aircraft flown by the Department of Defense, Air Ambulance (MEDEVAC) operators, foreign State governments and aircraft flown for certification and

development. Paragraph 38.11, Non-RVSM Aircraft Requesting Climb to and Descent from Flight Levels Above RVSM Airspace Without Intermediate Level Off, contains policies for non-RVSM aircraft climbing and descending through RVSM airspace to/from flight levels above RVSM airspace.

38.1.4 Benefits. RVSM enhances ATC flexibility, mitigates conflict points, enhances sector throughput, reduces controller workload and enables crossing traffic. Operators gain fuel savings and operating efficiency benefits by flying at more fuel efficient flight levels and on more user preferred routings.

38.2 Flight Level Orientation Scheme

Altitude assignments for direction of flight follow a scheme of odd altitude assignment for magnetic courses 000–179 degrees and even altitudes for magnetic courses 180–359 degrees for flights up to and including FL 410, as indicated in FIG ENR 1.1–30.

**FIG ENR 1.1–30
Flight Level Orientation Scheme**

Flight Level Orientation Scheme	
FL 430	←
FL 410	→
FL 400	←
FL 390	→
FL 380	←
FL 370	→
FL 360	←
FL 350	→
FL 340	←
FL 330	→
FL 320	←
FL 310	→
FL 300	←
FL 290	→

NOTE–

*Odd Flight Levels: Magnetic Course 000–179 Degrees
Even Flight Levels: Magnetic Course 180–359 Degrees.*

38.3 Aircraft and Operator Approval Policy/Procedures, RVSM Monitoring and Databases for Aircraft and Operator Approval

38.3.1 RVSM Authority. 14 CFR Section 91.180 applies to RVSM operations within the U.S. 14 CFR Section 91.706 applies to RVSM operations outside the U.S. Both sections require that the operator obtain authorization prior to operating in RVSM airspace.

38.3.2 Sources of Information. Advisory Circular (AC) 91–85, Authorization of Aircraft and Operators

ENR 1.5 Holding, Approach, and Departure Procedures

1. Holding Procedures

1.1 Whenever an aircraft is cleared to a fix other than the destination airport and delay is expected, it is the responsibility of ATC to issue complete holding instructions (unless the pattern is charted), an EFC time and best estimate of any additional en route/terminal delay.

NOTE—

Only those holding patterns depicted on U.S. government or commercially produced (meeting FAA requirements) low/high altitude en route, and area or STAR charts should be used.

1.2 If the holding pattern is charted and the controller doesn't issue complete holding instructions, the pilot is expected to hold as depicted on the appropriate chart. When the pattern is charted on the assigned procedure or route being flown, ATC may omit all holding instructions except the charted holding direction and the statement *AS PUBLISHED*; for example, *HOLD EAST AS PUBLISHED*. ATC must always issue complete holding instructions when pilots request them.

1.3 If no holding pattern is charted and holding instructions have not been issued, the pilot should ask ATC for holding instructions prior to reaching the fix. This procedure will eliminate the possibility of an aircraft entering a holding pattern other than that desired by ATC. If unable to obtain holding instructions prior to reaching the fix (due to frequency congestion, stuck microphone, etc.), then enter a standard pattern on the course on which the aircraft approached the fix and request further clearance as soon as possible. In this event, the altitude/flight level of the aircraft at the clearance limit will be protected so that separation will be provided as required.

1.4 When an aircraft is 3 minutes or less from a clearance limit and a clearance beyond the fix has not been received, the pilot is expected to start a speed reduction so that the aircraft will cross the fix, initially, at or below the maximum holding airspeed.

1.5 When no delay is expected, the controller should issue a clearance beyond the fix as soon as possible

and, whenever possible, at least 5 minutes before the aircraft reaches the clearance limit.

1.6 Pilots should report to ATC the time and altitude/flight level at which the aircraft reaches the clearance limit and report leaving the clearance limit.

NOTE—

In the event of two-way communications failure, pilots are required to comply with 14 CFR Section 91.185.

1.7 Patterns at the most generally used holding fixes are depicted (charted) on U.S. Government or commercially produced (meeting FAA requirements) Low or High Altitude En Route, Area, Departure Procedure, and STAR Charts. Pilots are expected to hold in the pattern depicted unless specifically advised otherwise by ATC. (See ENR 1.1, Paragraph 27. ATC Clearances and Aircraft Separations.)

NOTE—

Holding patterns that protect for a maximum holding airspeed other than the standard may be depicted by an icon, unless otherwise depicted. The icon is a standard holding pattern symbol (racetrack) with the airspeed restriction shown in the center. In other cases, the airspeed restriction will be depicted next to the standard holding pattern symbol.

1.8 An ATC clearance requiring an aircraft to hold at a fix where the pattern is not charted will include the following information:

1.8.1 Direction of holding from the fix in terms of the eight cardinal compass points; i.e., N, NE, E, SE, etc.

1.8.2 Holding fix. (The fix may be omitted if it is included at the beginning of the transmission as the clearance limit.)

1.8.3 Radial, course, bearing, airway, or route on which the aircraft is to hold.

1.8.4 Leg length in miles if DME or RNAV is to be used. (Leg length will be specified in minutes on pilot request or if the controller considers it necessary.)

1.8.5 Direction of turn if left turns are to be made, the pilot requests, or the controller considers it necessary.

1.8.6 Time to expect further clearance, and any pertinent additional delay information.

1.9 Typical Holding Pattern Example

1.9.1 When holding at a VOR station, pilots should begin the turn to the outbound leg at the time of the

first complete reversal of the “to–from” indicator. See GEN 3.4, Paragraph 12, Two–Way Radio Communications Failure, for holding at the approach fix when radio failure occurs.

1.9.2 Holding Pattern Airspace Protection

Holding pattern airspace protection is based on the following procedures.

NOTE–

Holding pattern airspace protection design criteria is contained in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS.)

1.9.2.1 Airspeeds

a) All aircraft may hold at the following altitudes and maximum holding airspeeds:

TBL ENR 1.5-1

Altitude (MSL)	Airspeed (KIAS)
MHA – 6,000'	200
6,001' – 14,000'	230
14,001' and above	265

NOTE–

These are the maximum indicated air speeds applicable to all holding.

b) The following are exceptions to the maximum holding airspeeds:

1) Holding patterns from 6,001' to 14,000' may be restricted to a maximum airspeed of 210 KIAS. This nonstandard pattern will be depicted by an icon.

2) Holding patterns may be restricted to a maximum speed. The speed restriction is depicted in parenthesis inside the holding pattern on the chart: for

example, (175). The aircraft should be at or below the maximum speed prior to initially crossing the holding fix to avoid exiting the protected airspace. Pilots unable to comply with the maximum airspeed restriction should notify ATC.

3) Holding patterns at USAF airfields only – 310 KIAS maximum, unless otherwise depicted.

4) Holding patterns at Navy fields only – 230 KIAS maximum, unless otherwise depicted.

5) All helicopter/power lift aircraft holding on a “COPTER” instrument procedure is predicated on a minimum airspeed of 90 KIAS unless charted otherwise.

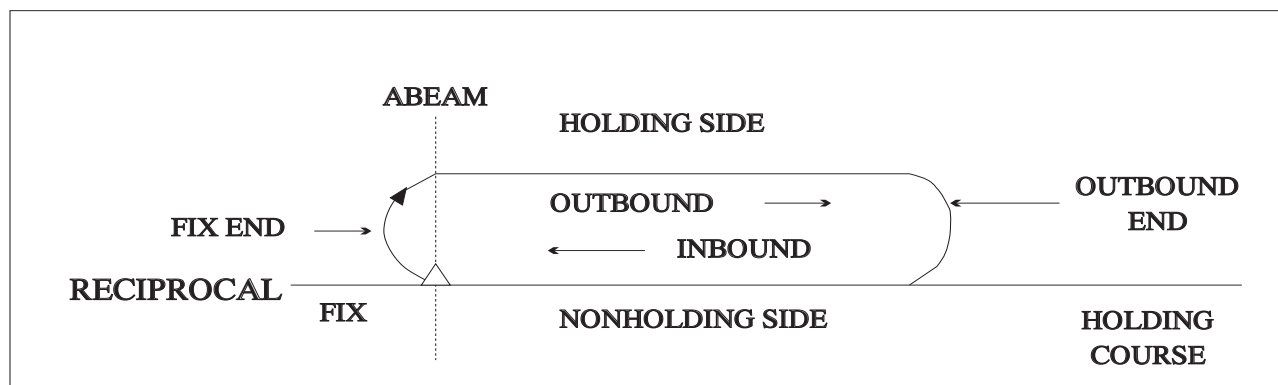
6) When a climb–in hold is specified by a published procedure (for example, “Climb–in holding pattern to depart XYZ VORTAC at or above 10,000.” or “All aircraft climb–in TRUCK holding pattern to cross TRUCK Int at or above 11,500 before proceeding on course.”), additional obstacle protection area has been provided to allow for greater airspeeds in the climb for those aircraft requiring them. A maximum airspeed of 310 KIAS is permitted in Climb–in–holding, unless a maximum holding airspeed is published, in which case that maximum airspeed is applicable. The airspeed limitations in 14 CFR Section 91.117, Aircraft Speed, still apply.

c) The following phraseology may be used by an ATC specialist to advise a pilot of the maximum holding airspeed for a holding pattern airspace area.

PHRASEOLOGY–

(AIRCRAFT IDENTIFICATION) (holding instructions, when needed) MAXIMUM HOLDING AIRSPEED IS (speed in knots).

FIG ENR 1.5-1
Holding Pattern Descriptive Terms



6.5.3 Once reaching the final approach fix via the published segments, the pilot may continue on approach to a landing.

6.5.4 If proceeding to an IAF with a published course reversal (procedure turn or hold-in-lieu of PT pattern), except when cleared for a straight in approach by ATC, the pilot must execute the procedure turn/hold-in-lieu of PT, and complete the approach.

6.5.5 If cleared to an IAF/IF via a NoPT route, or no procedure turn/hold-in-lieu of PT is published, continue with the published approach.

6.5.6 In addition to the above, RNAV aircraft may be issued a clearance direct to the IAF/IF at intercept angles not greater than 90 degrees for both conventional and RNAV instrument approaches. Controllers may issue a heading or a course direct to a fix between the IF and FAF at intercept angles not greater than 30 degrees for both conventional and RNAV instrument approaches. In all cases, controllers will assign altitudes that ensure obstacle clearance and will permit a normal descent to the FAF. When clearing aircraft direct to the IF, ATC will radar monitor the aircraft until the IF and will advise the pilot to expect clearance direct to the IF at least 5 miles from the fix. ATC must issue a straight-in approach clearance when clearing an aircraft direct to an IAF/IF with a procedure turn or hold-in-lieu of a procedure turn, and ATC does not want the aircraft to execute the course reversal.

NOTE–

Refer to 14 CFR 91.175 (i).

6.6 RNAV aircraft may be issued a clearance direct to the FAF that is also charted as an IAF, in which case the pilot is expected to execute the depicted procedure turn or hold-in-lieu of procedure turn. ATC will not issue a straight-in approach clearance. If the pilot desires a straight-in approach, they must request vectors to the final approach course outside of the FAF or fly a published “NoPT” route. When visual approaches are in use, ATC may clear an aircraft direct to the FAF.

NOTE–

1. *In anticipation of a clearance by ATC to any fix published on an instrument approach procedure, pilots of RNAV aircraft are advised to select an appropriate IAF or feeder fix when loading an instrument approach procedure into the RNAV system.*

2. *Selection of “Vectors-to-Final” or “Vectors” option for an instrument approach may prevent approach fixes located outside of the FAF from being loaded into an RNAV system. Therefore, the selection of these options is discouraged due to increased workload for pilots to reprogram the navigation system.*

6.7 Arrival Holding. Some approach charts have an arrival holding pattern depicted at an IAF or at a feeder fix located along an airway. The arrival hold is depicted using a “thin line” since it is not always a mandatory part of the instrument procedure.

6.7.1 Arrival holding is charted where holding is frequently required prior to starting the approach procedure so that detailed holding instructions are not required. The arrival holding pattern is not authorized unless assigned by ATC. Holding at the same fix may also be depicted on the en route chart.

6.7.2 Arrival holding is also charted where it is necessary to use a holding pattern to align the aircraft for procedure entry from an airway due to turn angle limitations imposed by procedure design standards. When the turn angle from an airway into the approach procedure exceeds the permissible limits, an arrival holding pattern may be published along with a note on the procedure specifying the fix, the airway, and arrival direction where use of the arrival hold is required for procedure entry. Unlike a hold-in-lieu of procedure turn, use of the arrival holding pattern is not authorized until assigned by ATC. If ATC does not assign the arrival hold before reaching the holding fix, the pilot should request the hold for procedure entry. Once established on the inbound holding course and an approach clearance has been received, the published procedure can commence. Alternatively, if using the holding pattern for procedure entry is not desired, the pilot may ask ATC for maneuvering airspace to align the aircraft with the feeder course.

EXAMPLE–

Planview Chart Note: “Proc NA via V343 northeast bound without holding at JOXIT. ATC CLNC REQD.”

6.8 An RF leg is defined as a constant radius circular path around a defined turn center that starts and terminates at a fix. An RF leg may be published as part of a procedure. Since not all aircraft have the capability to fly these leg types, pilots are responsible for knowing if they can conduct an RNAV approach with an RF leg. Requirements for RF legs will be indicated on the approach chart in the notes section or at the applicable initial approach fix. Controllers will

clear RNAV-equipped aircraft for instrument approach procedures containing RF legs:

6.8.1 Via published transitions, or

6.8.2 In accordance with paragraph 6.5.6 above, and

6.8.3 ATC will not clear aircraft direct to any waypoint beginning or within an RF leg, and will not assign fix/waypoint crossing speeds in excess of charted speed restrictions.

EXAMPLE–

1. *Controllers will not clear aircraft direct to THIRD because that waypoint begins the RF leg, and aircraft cannot be vectored or cleared to TURNN or vectored to intercept the approach segment at any point between THIRD and FORTH because this is the RF leg. (See FIG ENR 1.5–9.)*

6.9 When necessary to cancel a previously issued approach clearance, the controller will advise the pilot “Cancel Approach Clearance” followed by any additional instructions when applicable.

7. Landing Priority

7.1 A clearance for a specific type of approach (ILS, RNAV, GLS, ADF, VOR, or visual approach) to an aircraft operating on an IFR flight plan does not mean that landing priority will be given over other traffic. Traffic control towers handle all aircraft, regardless of the type of flight plan, on a “first-come, first-served” basis. Therefore, because of local traffic or runway in use, it may be necessary for the controller, in the interest of safety, to provide a different landing sequence. In any case, a landing sequence will be issued to each aircraft as soon as possible to enable the pilot to properly adjust the aircraft’s flight path.

8. Procedure Turn and Hold-in-lieu of Procedure Turn

8.1 A procedure turn is the maneuver prescribed when it is necessary to reverse direction to establish the aircraft inbound on an intermediate or final approach course. The procedure turn or hold-in-lieu-of-PT is a required maneuver when it is depicted on the approach chart, unless cleared by ATC for a straight-in approach. Additionally, the procedure turn or hold-in-lieu-of-PT is not permitted when the symbol “No PT” is depicted on the initial segment being used, when a RADAR VECTOR to the final

approach course is provided, or when conducting a timed approach from a holding fix. The altitude prescribed for the procedure turn is a minimum altitude until the aircraft is established on the inbound course. The maneuver must be completed within the distance specified in the profile view. For a hold-in-lieu-of-PT, the holding pattern should be flown as depicted and the specified leg length/timing must not be exceeded.

NOTE–

The pilot may elect to use the procedure turn or hold-in-lieu-of-PT when it is not required by the procedure, but must first receive an amended clearance from ATC. If the pilot is uncertain whether the ATC clearance intends for a procedure turn to be conducted or to allow for a straight-in approach, the pilot must immediately request clarification from ATC (14 CFR Section 91.123).

8.1.1 On U.S. Government charts, a barbed arrow indicates the maneuvering side of the outbound course on which the procedure turn is made. Headings are provided for course reversal using the 45 degree type procedure turn. However, the point at which the turn may be commenced and the type and rate of turn is left to the discretion of the pilot (limited by the charted remain within xx NM distance). Some of the options are the 45 degree procedure turn, the racetrack pattern, the teardrop procedure turn, or the 80 degree ↔ 260 degree course reversal. Racetrack entries should be conducted on the maneuvering side where the majority of protected airspace resides. If an entry places the pilot on the non-maneuvering side of the PT, correction to intercept the outbound course ensures remaining within protected airspace. Some procedure turns are specified by procedural track. These turns must be flown exactly as depicted.

8.1.2 Descent to the procedure turn (PT) completion altitude from the PT fix altitude (when one has been published or assigned by ATC) must not begin until crossing over the PT fix or abeam and proceeding outbound. Some procedures contain a note in the chart profile view that says “Maintain (altitude) or above until established outbound for procedure turn” (See FIG ENR 1.5–10). Newer procedures will simply depict an “at or above” altitude at the PT fix without a chart note (See FIG ENR 1.5–11). Both are there to ensure required obstacle clearance is provided in the procedure turn entry zone (See FIG ENR 1.5–12). Absence of a chart note or specified minimum altitude adjacent to the PT fix is an indication that descent to the procedure turn

altitude can commence immediately upon crossing over the PT fix, regardless of the direction of flight. This is because the minimum altitudes in the PT entry zone and the PT maneuvering zone are the same.

8.1.3 When the approach procedure involves a procedure turn, a maximum speed of not greater than 200 knots (IAS) should be observed from first overheading the course reversal IAF through the procedure turn maneuver to ensure containment within the obstruction clearance area. Pilots should begin the outbound turn immediately after passing the procedure turn fix. The procedure turn maneuver must be executed within the distance specified in the profile view. The normal procedure turn distance is 10 miles. This may be reduced to a minimum of 5 miles where only Category A or helicopter aircraft are to be operated or increased to as much as 15 miles

to accommodate high performance aircraft.

8.1.4 A teardrop procedure or penetration turn may be specified in some procedures for a required course reversal. The teardrop procedure consists of departure from an initial approach fix on an outbound course followed by a turn toward and intercepting the inbound course at or prior to the intermediate fix or point. Its purpose is to permit an aircraft to reverse direction and lose considerable altitude within reasonably limited airspace. Where no fix is available to mark the beginning of the intermediate segment, it must be assumed to commence at a point 10 miles prior to the final approach fix. When the facility is located on the airport, an aircraft is considered to be on final approach upon completion of the penetration turn. However, the final approach segment begins on the final approach course 10 miles from the facility.

FIG ENR 1.5-9
Example of an RNAV Approach with RF Leg

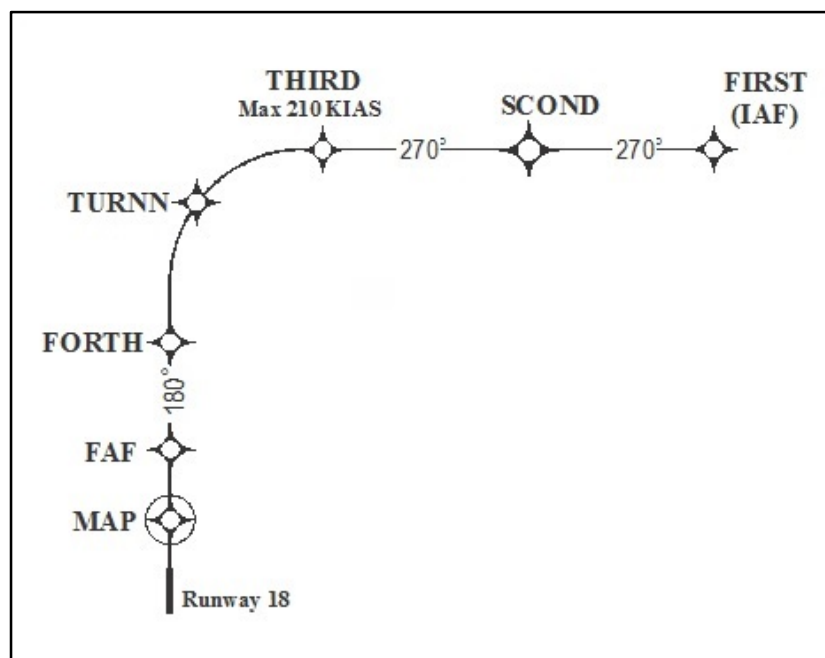


FIG ENR 1.5-10

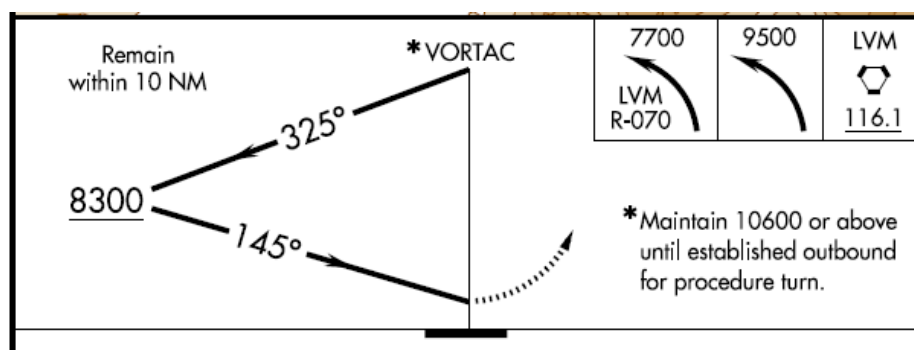
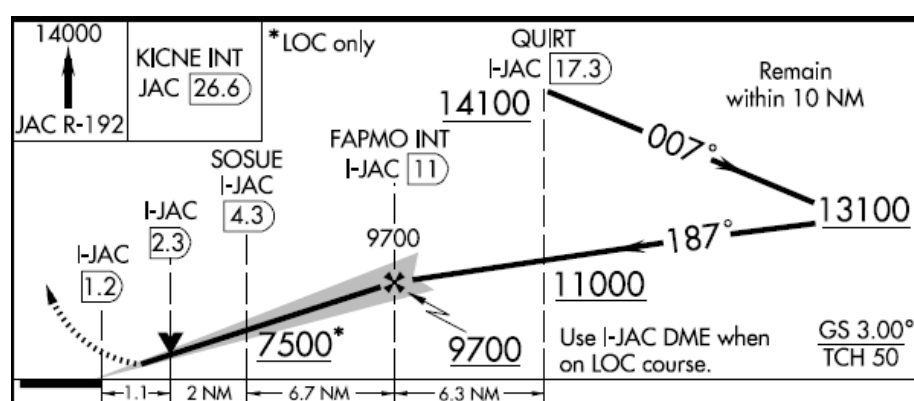


FIG ENR 1.5-11



8.1.5 A holding pattern in lieu of procedure turn may be specified for course reversal in some procedures. In such cases, the holding pattern is established over an intermediate fix or a final approach fix. The holding pattern distance or time specified in the profile view must be observed. For a hold-in-lieu-of-PT, the holding pattern direction must be flown as depicted and the specified leg length/timing must not be exceeded. Maximum holding airspeed limitations as set forth for all holding patterns apply. The holding pattern maneuver is completed when the aircraft is established on the inbound course after executing the appropriate entry. If cleared for the approach prior to returning to the holding fix, and the aircraft is at the prescribed altitude, additional circuits of the holding pattern are not necessary nor expected by ATC. If

pilots elect to make additional circuits to lose excessive altitude or to become better established on course, it is their responsibility to so advise ATC upon receipt of their approach clearance.

8.1.6 A procedure turn is not required when an approach can be made directly from a specified intermediate fix to the final approach fix. In such cases, the term “NoPT” is used with the appropriate course and altitude to denote that the procedure turn is not required. If a procedure turn is desired, and when cleared to do so by ATC, descent below the procedure turn altitude should not be made until the aircraft is established on the inbound course, since some NoPT altitudes may be lower than the procedure turn altitudes.

interfere with the pilot's ability to see the external scene, to identify the required visual references, or to see the sensor image.

24.13 Additional Information. Operational criteria for EFVS can be found in Advisory Circular (AC) 90–106, Enhanced Flight Vision System Operations, and airworthiness criteria for EFVS can be found in AC 20–167, Airworthiness Approval of Enhanced Vision System, Synthetic Vision System, Combined Vision System, and Enhanced Flight Vision System Equipment.

25. Visual Approach

25.1 A visual approach is conducted on an IFR flight plan and authorizes a pilot to proceed visually and clear of clouds to the airport. The pilot must have either the airport or the preceding identified aircraft in sight. This approach must be authorized and controlled by the appropriate air traffic control facility. Reported weather at the airport must have a ceiling at or above 1,000 feet and visibility 3 miles or greater. ATC may authorize this type of approach when it will be operationally beneficial. Visual approaches are an IFR procedure conducted under Instrument Flight Rules in visual meteorological conditions. Cloud clearance requirements of 14 CFR Section 91.155 are not applicable, unless required by operation specifications. When conducting visual approaches, pilots are encouraged to use other available navigational aids to assist in positive lateral and vertical alignment with the runway.

25.2 Operating to an Airport Without Weather Reporting Service. ATC will advise the pilot when weather is not available at the destination airport. ATC may initiate a visual approach provided there is a reasonable assurance that weather at the airport is a ceiling at or above 1,000 feet and visibility 3 miles or greater (e.g., area weather reports, PIREPs, etc.).

25.3 Operating to an Airport With an Operating Control Tower. Aircraft may be authorized to conduct a visual approach to one runway while other aircraft are conducting IFR or VFR approaches to another parallel, intersecting, or converging runway. ATC may authorize a visual approach after advising all aircraft involved that other aircraft are conducting operations to the other runway. This may be accomplished through use of the ATIS.

25.3.1 When operating to parallel runways separated by less than 2,500 feet, ATC will ensure approved separation is provided unless the succeeding aircraft reports sighting the preceding aircraft to the adjacent parallel and visual separation is applied.

25.3.2 When operating to parallel runways separated by at least 2,500 feet but less than 4,300 feet, ATC will ensure approved separation is provided until the aircraft are issued an approach clearance and one pilot has acknowledged receipt of a visual approach clearance, and the other pilot has acknowledged receipt of a visual or instrument approach clearance, and aircraft are established on a heading or established on a direct course to a fix or cleared on an RNAV/instrument approach procedure which will intercept the extended centerline of the runway at an angle not greater than 30 degrees.

25.3.3 When operating to parallel runways separated by 4,300 feet or more, ATC will ensure approved separation is provided until one of the aircraft has been issued and the pilot has acknowledged receipt of the visual approach clearance, and each aircraft is assigned a heading, or established on a direct course to a fix, or cleared on an RNAV/instrument approach procedure which will allow the aircraft to intercept the extended centerline of the runway at an angle not greater than 30 degrees.

NOTE–

The intent of the 30 degree intercept angle is to reduce the potential for overshoots of the final and to preclude side-by-side operations with one or both aircraft in a belly-up configuration during the turn-on.

25.4 Separation Responsibilities. If the pilot has the airport in sight but cannot see the preceding aircraft, ATC may clear the aircraft for a visual approach; however, ATC retains both separation and wake vortex separation responsibility. When visually following a preceding aircraft, acceptance of the visual approach clearance constitutes acceptance of pilot responsibility for maintaining a safe approach interval and adequate wake turbulence separation.

25.5 A visual approach is not an IAP and therefore has no missed approach segment. If a go around is necessary for any reason, aircraft operating at controlled airports will be issued an appropriate advisory/clearance/instruction by the tower. At uncontrolled airports, aircraft are expected to remain clear of clouds and complete a landing as soon as possible. If a landing cannot be accomplished, the aircraft is expected to remain clear of clouds and

contact ATC as soon as possible for further clearance. Separation from other IFR aircraft will be maintained under these circumstances.

25.6 Visual approaches reduce pilot/controller workload and expedite traffic by shortening flight paths to the airport. It is the pilot's responsibility to advise ATC as soon as possible if a visual approach is not desired.

25.7 Authorization to conduct a visual approach is an IFR authorization and does not alter IFR flight plan cancellation responsibility. See ENR 1.10, Paragraph 11.2, Canceling IFR Flight Plan.

25.8 Radar service is automatically terminated, without advising the pilot, when the aircraft is instructed to change to advisory frequency.

26. Charted Visual Flight Procedures (CVFPs)

26.1 CVFPs are charted visual approaches established for environmental/noise considerations, and/or when necessary for the safety and efficiency of air traffic operations. The approach charts depict prominent landmarks, courses, and recommended altitudes to specific runways. CVFPs are designed to be used primarily for turbojet aircraft.

26.2 These procedures will be used only at airports with an operating control tower.

26.3 Most approach charts will depict some NAVAID information which is for supplemental navigational guidance only.

26.4 Unless indicating a Class B airspace floor, all depicted altitudes are for noise abatement purposes and are recommended only. Pilots are not prohibited from flying other than recommended altitudes if operational requirements dictate.

26.5 When landmarks used for navigation are not visible at night, the approach will be annotated "PROCEDURE NOT AUTHORIZED AT NIGHT."

26.6 CVFPs usually begin within 20 flying miles from the airport.

26.7 Published weather minimums for CVFPs are based on minimum vectoring altitudes rather than the recommended altitudes depicted on charts.

26.8 CVFPs are not instrument approaches and do not have missed approach segments.

26.9 ATC will not issue clearances for CVFPs when the weather is less than the published minimum.

26.10 ATC will clear aircraft for a CVFP after the pilot reports sighting a charted landmark or a preceding aircraft. If instructed to follow a preceding aircraft, pilots are responsible for maintaining a safe approach interval and wake turbulence separation.

26.11 Pilots should advise ATC if at any point they are unable to continue an approach or lose sight of a preceding aircraft. Missed approaches will be handled as a go-around.

26.12 When conducting visual approaches, pilots are encouraged to use other available navigational aids to assist in positive lateral and vertical alignment with the assigned runway.

27. Missed Approach

27.1 When a landing cannot be accomplished, advise ATC and, upon reaching the missed approach point defined on the approach procedure chart, the pilot must comply with the missed approach instructions for the procedure being used or with an alternate missed approach procedure specified by ATC.

27.2 Obstacle protection for missed approach is predicated on the missed approach being initiated at the decision altitude/decision height (DA/DH) or at the missed approach point and not lower than minimum descent altitude (MDA). A climb gradient of at least 200 feet per nautical mile is required, (except for Copter approaches, where a climb of at least 400 feet per nautical mile is required), unless a higher climb gradient is published in the notes section of the approach procedure chart. When higher than standard climb gradients are specified, the end point of the non-standard climb will be specified at either an altitude or a fix. Pilots must preplan to ensure that the aircraft can meet the climb gradient (expressed in feet per nautical mile) required by the procedure in the event of a missed approach, and be aware that flying at a higher than anticipated ground speed increases the climb rate requirement (feet per minute). Tables for the conversion of climb gradients (feet per nautical mile) to climb rate (feet per minute), based on ground speed, are included on page D1 of the U.S. Terminal Procedures booklets. Reasonable buffers are provided for normal maneuvers. However, no consideration is given to an abnormally early turn. Therefore, when an early missed approach is executed, pilots should, unless otherwise cleared by

ATC, fly the IAP as specified on the approach plate to the missed approach point at or above the MDA or DH before executing a turning maneuver.

27.3 If visual reference is lost while circling to land from an instrument approach, the missed approach specified for that particular procedure must be followed (unless an alternate missed approach procedure is specified by ATC). To become established on the prescribed missed approach course, the pilot should make an initial climbing turn toward the landing runway and continue the turn until

established on the missed approach course. Inasmuch as the circling maneuver may be accomplished in more than one direction, different patterns will be required to become established on the prescribed missed approach course depending on the aircraft position at the time visual reference is lost. Adherence to the procedure will help assure that an aircraft will remain laterally within the circling and missed approach obstruction clearance areas. Refer to paragraph 27.8 concerning vertical obstruction clearance when starting a missed approach at other than the MAP. (See FIG ENR 1.5–42.)

FIG ENR 1.5–42

Circling and Missed Approach Obstruction Clearance Areas

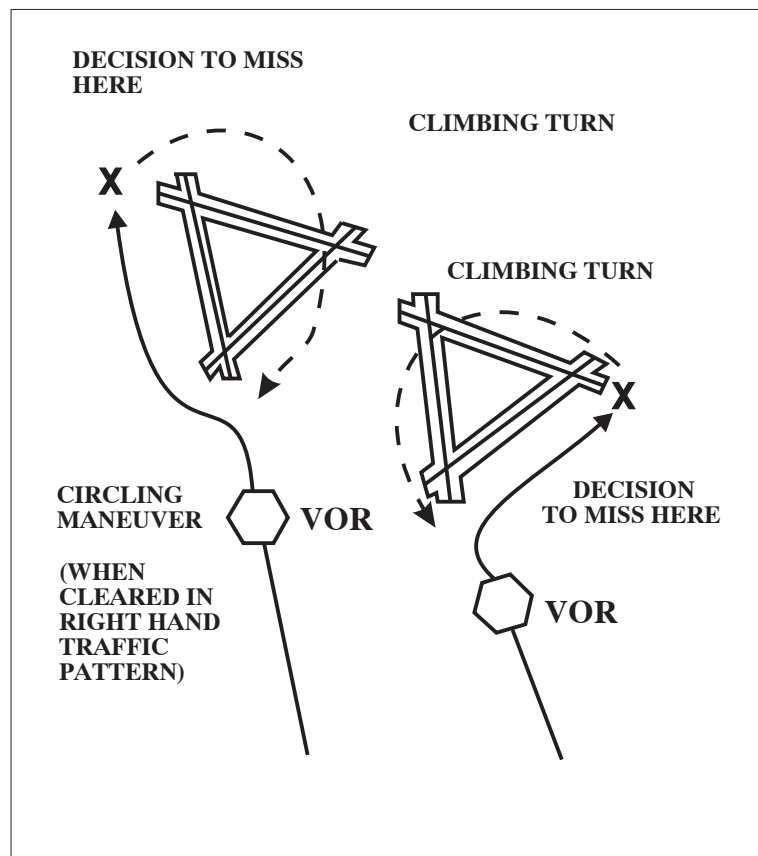


FIG ENR 1.5-43
Missed Approach

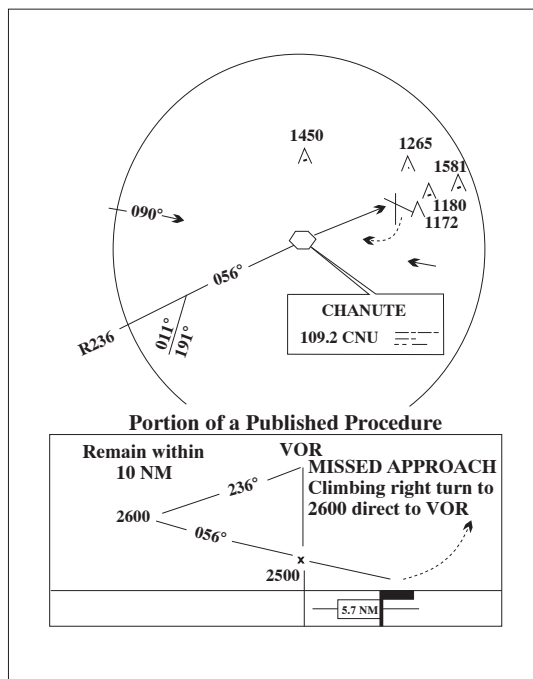
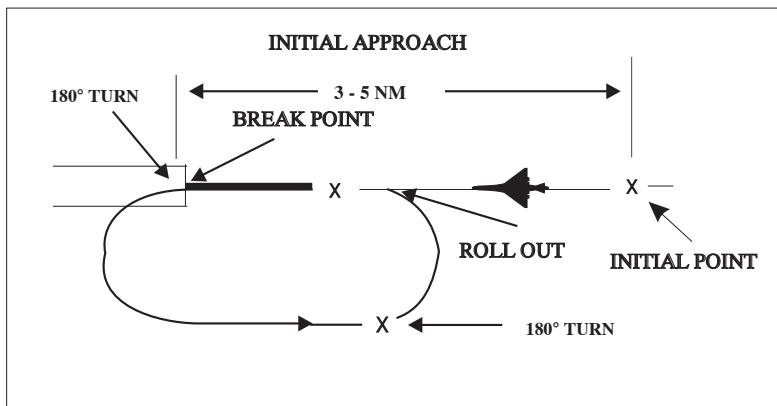


FIG ENR 1.5-44
Overhead Maneuver



ENR 1.10 Flight Planning (Restriction, Limitation or Advisory Information)

1. Preflight Preparation

1.1 Prior to every flight, pilots should gather all information vital to the nature of the flight, assess whether the flight would be safe, and then file a flight plan. Pilots can receive a regulatory compliant briefing without contacting Flight Service. Pilots are encouraged to use automated resources and review Advisory Circular AC 91-92, Pilot's Guide to a Preflight Briefing, for more information. Pilots who prefer to contact Flight Service are encouraged to conduct a self-brief prior to calling. Conducting a self-brief before contacting Flight Service provides familiarity of meteorological and aeronautical conditions applicable to the route of flight and promotes a better understanding of weather information. Pilots may access Flight Service through www.1800wxbrief.com or by calling 1-800-WX-BRIEF. Flight planning applications are also available for conducting a self-briefing and filing flight plans.

NOTE-

Alaska only: Pilots filing flight plans via "fast file" who desire to have their briefing recorded, should include a statement at the end of the recording as to the source of their weather briefing.

1.2 The information required by the FAA to process flight plans is contained on FAA Form 7233-1, Flight Plan. The forms are available at all flight service stations.

REFERENCE-

AIP, ENR 1.10, Paragraph 4., Flight Plan Requirements.

1.3 FSSs are required to advise of pertinent NOTAMs if a *standard* briefing is requested, but if they are overlooked, do not hesitate to remind the specialist that you have not received NOTAM information. Additionally, FSS briefers do not provide FDC NOTAM information for special instrument approach procedures unless specifically asked. Pilots authorized by the FAA to use special instrument approach procedures must specifically request FDC NOTAM information for these procedures. Pilots who receive the information electronically will receive NOTAMs for special IAPs automatically.

NOTE-

Domestic Notices and International Notices are not provided during a briefing unless specifically requested by the pilot since the FSS specialist has no way of knowing whether the pilot has already checked the Federal NOTAM System (FNS) NOTAM Search External links or Air Traffic Plans and Publications website prior to calling. Airway NOTAMs, procedural NOTAMs, and NOTAMs that are general in nature and not tied to a specific airport/facility (for example, flight advisories and restrictions, open duration special security instructions, and special flight rules areas) are briefed solely by pilot request. Remember to ask for these notices if you have not already reviewed this information, and to request all pertinent NOTAMs specific to your flight.

1.4 Pilots are urged to use only the latest issue of aeronautical charts in planning and conducting flight operations. Aeronautical charts are revised and reissued on a periodic basis to ensure that depicted data are current and reliable. In the conterminous U.S., sectional charts are updated each 6 months, IFR en route charts each 56 days, and amendments to civil IFR approach charts are accomplished on a 56-day cycle with a change notice volume issued on the 28-day mid-cycle. Charts that have been superseded by those of a more recent date may contain obsolete or incomplete flight information.

REFERENCE-

AIP, GEN 3.2, contains a description of aeronautical charts.

1.5 When requesting a preflight briefing, identify yourself as a pilot and provide the following:

1.5.1 Type of flight planned; e.g., VFR or IFR.

1.5.2 Aircraft number or pilot's name.

1.5.3 Aircraft type.

1.5.4 Departure airport.

1.5.5 Route of flight.

1.5.6 Destination.

1.5.7 Flight altitude(s).

1.5.8 ETD and ETE.

1.6 Prior to conducting a briefing, briefers are required to have the background information listed above so that they may tailor the briefing to the needs of the proposed flight. The objective is to communicate a "picture" of meteorological and

aeronautical information necessary for the conduct of a safe and efficient flight. Briefers use all available weather and aeronautical information to summarize data applicable to the proposed flight. Pilots who have briefed themselves before calling Flight Service should advise the briefer what information has been obtained from other sources.

REFERENCE–

See AIP, GEN 3.5 for meteorological services.

1.7 The Federal Aviation Administration has designated High Density Traffic Airports (HDTA) and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopter operations) to and from these airports.

REFERENCE–

AIP, GEN 3.3, Paragraph 9.7, Airport Reservations Operations and Procedures.

1.8 In addition to the filing of a flight plan, if the flight will traverse or land in one or more foreign countries, it is particularly important that pilots leave a complete itinerary with someone directly concerned and keep that person advised of the flight's progress. If serious doubt arises as to the safety of the flight, that person should first contact the FSS.

1.9 Pilots operating under the provisions of 14 CFR Part 135 without an FAA assigned 3-letter designator, must prefix the normal registration (N) number with the letter "T" on flight plan filing.

EXAMPLE–

TN 1234B.

1.10 Cold Temperature Operations

Pilots should begin planning for operating into airports with cold temperatures during the preflight planning phase. Instrument approach charts will contain a snowflake symbol and a temperature when cold temperature correction must be applied. Pilots operating into airports requiring cold temperature corrections should request the lowest forecast temperature at the airport for departure and arrival times. If the temperature is forecast to be at or below any published cold temperature restriction, calculate an altitude correction for the appropriate segment(s) and/or review procedures for operating automatic cold temperature compensating systems, as applicable. The pilot is responsible to calculate and apply the corrections to the affected segment(s) when the actual reported temperature is at or below any published cold temperature restriction, or pilots with automatic cold temperature compensating systems must ensure

the system is on and operating on each designated segment. Advise ATC when intending to apply cold temperature correction and of the amount of correction required on initial contact (or as soon as possible) for the intermediate segment and/or the published missed approach. This information is required for ATC to provide aircraft appropriate vertical separation between known traffic.

2. Follow IFR Procedures Even When Operating VFR

2.1 To maintain IFR proficiency, pilots are urged to practice IFR procedures whenever possible, even when operating VFR. Some suggested practices include:

2.1.1 Obtain a complete preflight briefing and check NOTAMs. Prior to every flight, pilots should gather all information vital to the nature of the flight. Pilots can receive a regulatory compliant briefing without contacting Flight Service. Pilots are encouraged to use automated resources and review AC 91–92, Pilot's Guide to a Preflight Briefing, for more information. NOTAMs are available online from the Federal NOTAM System (FNS) NOTAM Search website (<https://notams.aim.faa.gov/notamSearch/>), private vendors, or on request from Flight Service.

2.1.2 File a flight plan. This is an excellent low cost insurance policy. The cost is the time it takes to fill it out. The insurance includes the knowledge that someone will be looking for you if you become overdue at your destination. Pilots can file flight plans either by using a website or by calling Flight Service. Flight planning applications are also available to file, activate, and close VFR flight plans.

2.1.3 Use current charts.

2.1.4 Use the navigation aids. Practice maintaining a good course by keeping the needle centered.

2.1.5 Maintain a constant altitude appropriate for direction of flight.

2.1.6 Estimate en route position times.

2.1.7 Make accurate and frequent position reports to the FSSs along your route of flight.

2.2 Simulated IFR flight is recommended (under the hood); however, pilots are cautioned to review and adhere to the requirements specified in 14 CFR Section 91.109 before and during such flight.

2.3 When flying VFR at night, in addition to the altitude appropriate for the direction of flight, pilots

should maintain an altitude which is at or above the minimum en route altitude as shown on charts. This is especially true in mountainous terrain, where there is usually very little ground reference. Do not depend on your eyes alone to avoid rising unlighted terrain, or even lighted obstructions such as TV towers.

3. Notice to Airmen (NOTAM) System

3.1 Time-critical aeronautical information that is of either a temporary nature or not sufficiently known in advance to permit publication on aeronautical charts or in other operational publications, receives immediate dissemination via the NOTAM System. When data appearing in a NOTAM is printed correctly in a publication or on a chart, or when a temporary condition is returned to normal status, the corresponding NOTAM is canceled. NOTAMs are eligible to be disseminated up to 7 days before the start of activity. Pilots can access NOTAM information via FSS or online via NOTAM Search at: <https://notams.aim.faa.gov/notamSearch/>.

3.1.1 In accordance with 14 CFR § 91.103, Preflight Action, prior to departure, pilots must become familiar with all available information concerning that flight, including NOTAMs. NOTAM information is aeronautical information that could affect a pilot's decision to make a flight and includes changes to:

3.1.1.1 Aerodromes.

3.1.1.2 Runways, taxiways, and ramp restrictions.

3.1.1.3 Obstructions.

3.1.1.4 Communications.

3.1.1.5 Airspace.

3.1.1.6 Status of navigational aids, ILSs, or radar service availability.

3.1.1.7 Other information essential to planned en route, terminal, or landing operations.

3.1.2 Pilots should ensure they review those NOTAMs contained under the ARTCC location (for example, ZDC, ZOB, etc.) that the flight is operating within as they can include NOTAMs relevant to all operations, including Central Altitude Reservation Function (CARF), Special Use Airspace (SUA), Temporary Flight Restrictions (TFR), Global Positioning System (GPS), Flight Data Center (FDC)

changes to routes, wind turbine, and Unmanned Aircraft System (UAS).

NOTE–

NOTAM information is transmitted using ICAO contractions to reduce transmission time. See TBL ENR 1.10–2 for a listing of the most commonly used contractions, or go online to the following URL: <https://www.notams.faa.gov/downloads/contractions.pdf>. For a complete listing of approved NOTAM Contractions, see FAA JO Order 7340.2, Contractions.

3.1.3 Due to the changeable nature of the NAS components, and frequent processing of NOTAM information, it is recommended, that while en route, pilots contact ATC or FSS and obtain updated information for their route of flight and destination. Pilots should be particularly vigilant when operating at locations without an operating control tower. Dynamic situations, such as snow removal, fire and rescue activities, construction, and wildlife encroachment, may pose hazards that may not reach the pilot prior to arrival/departure.

3.1.4 If a NAVAID fails or is removed from service prior to all airspace and procedural dependencies being removed, a NOTAM is published to inform pilots of the NAVAID being Unserviceable (U/S). Pilots must check NOTAMs to ensure any NAVAID required for the flight is in service. There can be considerable time between the NAVAID being U/S and ultimately its removal from the charts, which, during the transition period, means a NOTAM is the primary method of alerting pilots to its unavailability. It is recommended that pilots using VFR charts should regularly consult the Aeronautical Chart Bulletin found in the back matter of the appropriate Chart Supplement U.S. This bulletin identifies any updates to the chart that have not yet been accounted for because of the extended six-month chart cycle for most VFR charts.

NOTE–

1. *Pilots should be alert for NAVAIDs having a dissimilar identifier from the airport(s) they serve and to use the Chart Supplement U.S. to identify the correct NAVAID NOTAM file. Flight planning should include review of NAVAIDs that aren't included for the departure/destination airport but may be part of the route of flight.*

2. *Charts may indicate a NAVAID's unavailability by depicting a crosshatch pattern through the frequency, which indicates its shutdown status.*

3.2 NOTAM information is classified as Domestic NOTAMs (NOTAM D), Flight Data Center (FDC)

NOTAMs, International NOTAMs, or Military NOTAMs.

3.2.1 NOTAM (D) information is disseminated for all navigational facilities that are part of the National Airspace System (NAS), all public use aerodromes, seaplane bases, and heliports listed in the Chart Supplement U.S. NOTAM (D) information includes such data as taxiway closures, personnel and equipment near or crossing runways, and airport lighting aids that do not affect instrument approach criteria, such as VASI. All NOTAM Ds must have one of the keywords listed in TBL ENR 1.10–1, as the first part of the text after the location identifier. These keywords categorize NOTAM Ds by subject; for example, APRON (ramp), RWY (runway), SVC (Services), etc. There are several types of NOTAM Ds:

3.2.1.1 Aerodrome activity and conditions, to include field conditions.

3.2.1.2 Airspace to include CARE, SUA, and general airspace activity like UAS or pyrotechnics.

3.2.1.3 Visual and radio navigational aids.

3.2.1.4 Communication and services.

3.2.1.5 Pointer NOTAMs. NOTAMs issued to point to additional aeronautical information. When pointing to another NOTAM, the keyword in the pointer NOTAM must match the keyword in the original NOTAM. Pointer NOTAMs should be issued for, but are not limited to, TFRs, Airshows, Temporary SUA, major NAS system interruptions, etc.

3.2.2 NOTAM Ds that crossover into International NOTAMs. These NOTAMs contain the same data as NOTAM Ds, only they are referenced differently. They are categorized, stored, and issued with a series letter preceding them and are distributed via Service A to countries requesting NOTAMs for that airport. The FAA currently uses the Series A (and may use Series K) for this type of NOTAM.

3.2.3 FDC NOTAMs. On those occasions when it becomes necessary to disseminate information that is regulatory in nature, an FDC NOTAM is issued. FDC NOTAMs include NOTAMs such as:

3.2.3.1 Amendments to published IAPs and other current aeronautical charts.

3.2.3.2 Temporary Flight Restrictions (TFR). Pilots should read NOTAMs in their entirety as some TFRs may allow pilots to fly through the flight restriction should they request permission to do so and subsequently receive it. Pilots are encouraged to use online preflight resources as they provide graphics and plain language interpretations for TFRs.

3.2.3.3 High barometric pressure warning.

3.2.3.4 Laser light activity.

3.2.3.5 ADS–B, TIS–B, and FIS–B service availability.

3.2.3.6 Satellite–based systems such as WAAS or GPS.

3.2.3.7 Special Notices.

3.2.4 International NOTAMs.

3.2.4.1 Distributed to more than one country, they are published in ICAO format under guidelines established in Annex 15. International NOTAMs issued by the U.S. NOTAM Office use Series A followed by 4 sequential numbers, a slant “/” and a 2–digit number representing the year the NOTAM was issued. For the most part, International NOTAMs duplicate data found in a U.S. Domestic NOTAM.

3.2.4.2 Not every topic of a U.S. Domestic NOTAM is issued as an International NOTAM by the U.S. When possible, the U.S. International NOTAM will be linked to the appropriate U.S. Domestic NOTAM.

3.2.4.3 International NOTAMs received by the FAA from other countries are stored in the U.S. NOTAM System.

3.2.4.4 The International NOTAM format includes a “Q” Line that can be easily read/parsed by a computer and allows the NOTAM to be displayed digitally.

a) Field A: ICAO location identifier or FIR affected by the NOTAM.

b) Field B: Start of Validity.

c) Field C: End of Validity (both in [Year][Month][Day][Hour][Minute] format).

d) Field D: (when present) Schedule.

e) Field E: Full NOTAM description.

f) Field F: (when present) Lowest altitude, or “SFC.”

g) Field G: (when present) Highest altitude, or “UNL.”

3.2.4.5 For more on International format, please see Annex 15.

3.2.5 Military NOTAMs. NOTAMs originated by the U.S. Air Force, Army, Marine, or Navy, and pertaining to military or joint-use navigational aids/airports that are part of the NAS. Military NOTAMs are published in the International NOTAM format and should be reviewed by users of a military or joint-use facility.

3.3 Security NOTAMS. U.S. Domestic Security NOTAMS are FDC NOTAMS that inform pilots of

curtain U.S. security activities or requirements, such as Special Security Instructions for aircraft operations to, from, within, or transitioning U.S. territorial airspace. These NOTAMS are found on the Federal NOTAM System (FNS) NOTAM Search website under the location designator KZZZ.

3.3.1 United States International Flight Prohibitions, Potential Hostile Situations, and Foreign Notices are issued by the FAA and are found on the Federal NOTAM System (FNS) NOTAM Search website under the location designator KICZ.

TBL ENR 1.10–1
NOTAM Keywords

Keyword	Definition
RWY <i>Example</i>	Runway !BNA BNA RWY 18/36 CLSD YYMMDDHHMM–YYMMDDHHMM
TWY <i>Example</i>	Taxiway !BTW BTW TWY C EDGE LGT OBSC YYMMDDHHMM–YYMMDDHHMM
APRON <i>Example</i>	Apron/Ramp !BNA BNA APRON NORTH APN E 100FT CLSD YYMMDDHHMM–YYMMDDHHMM
AD <i>Example</i>	Aerodrome !BET BET AD AP ELK NEAR MOVEMENT AREAS YYMMDDHHMM–YYMMDDHHMM
OBST <i>Example</i>	Obstruction !SJT SJT OBST MOORED BALLOON WI AN AREA DEFINED AS 1NM RADIUS OF SJT 2430FT (510FT AGL) FLAGGED YYMMDDHHMM–YYMMDDHHMM
NAV <i>Example</i>	Navigation Aids !SHV SHV NAV ILS RWY 32 110.3 COMMISSIONED YYMMDDHHMM–PERM
COM <i>Example</i>	Communications !INW INW COM REMOTE COM OUTLET 122.6 U/S YYMMDDHHMM–YYMMDDHHMM EST (Note* EST will auto cancel)
SVC <i>Example</i>	Services !ROA ROA SVC TWR COMMISSIONED YYMMDDHHMM–PERM
AIRSPACE .. <i>Example</i>	Airspace !MHV MHV AIRSPACE AEROBATIC ACFT WI AN AREA DEFINED AS 4.3NM RADIUS OF MHV 5500FT–10500FT AVOIDANCE ADZ CTC JOSHUA APP DLY YYMMDDHHMM–YYMMDDHHMM
ODP <i>Example</i>	Obstacle Departure Procedure !FDC 2/9700 DIK ODP DICKINSON – THEODORE ROOSEVELT RGNL, DICKINSON, ND. TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1... DEPARTURE PROCEDURE: RWY 25, CLIMB HEADING 250 TO 3500 BEFORE TURNING LEFT. ALL OTHER DATA REMAINS AS PUBLISHED. THIS IS TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES, AMDT 1A. YYMMDDHHMM–PERM
SID <i>Example</i>	Standard Instrument Departure !FDC x/xxxx DFW SID DALLAS/FORT WORTH INTL, DALLAS, TX. PODDE THREE DEPARTURE... CHANGE NOTES TO READ: RWYS 17C/R, 18L/R: DO NOT EXCEED 240KT UNTIL LARRN. RWYS 35L/C, 36L/R: DO NOT EXCEED 240KT UNTIL KMART YYMMDDHHMM–YYMMDDHHMM
STAR <i>Example</i>	Standard Terminal Arrival !FDC x/xxxx DCA STAR RONALD REAGAN WASHINGTON NATIONAL, WASHINGTON, DC. WZRRD TWO ARRIVAL... SHAAR TRANSITION: ROUTE FROM DRUZZ INT TO WZRRD INT NOT AUTHORIZED. AFTER DRUZZ INT EXPECT RADAR VECTORS TO AML VORTAC YYMMDDHHMM–YYMDDHHMM

Keyword	Definition
CHART <i>Example</i>	Chart !FDC 2/9997 DAL IAP DALLAS LOVE FIELD, DALLAS, TX. ILS OR LOC RWY 31R, AMDT 5... CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 31L. MISSED APPROACH: CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 5000 ON HEADING 330 AND CVE R-046 TO FINGR INT/ CVE 36.4 DME AND HOLD. CHART LOC RWY 31L. THIS IS ILS OR LOC RWY 31R, AMDT 5A. YYM-MDDHHMM–PERM
DATA <i>Example</i>	Data !FDC 2/9700 DIK ODP DICKINSON – THEODORE ROOSEVELT RGNL, DICKINSON, ND. TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1... DEPARTURE PROCEDURE: RWY 25, CLIMB HEADING 250 TO 3500 BEFORE TURNING LEFT. ALL OTHER DATA REMAINS AS PUBLISHED. THIS IS TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES, AMDT 1A. YYMMDDHHMM–PERM
IAP <i>Example</i>	Instrument Approach Procedure !FDC 2/9997 DAL IAP DALLAS LOVE FIELD, DALLAS, TX. ILS OR LOC RWY 31R, AMDT 5... CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 31L. MISSED APPROACH: CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 5000 ON HEADING 330 AND CVE R-046 TO FINGR INT/ CVE 36.4 DME AND HOLD. CHART LOC RWY 31L. THIS IS ILS OR LOC RWY 31R, AMDT 5A. YYM-MDDHHMM–PERM
VFP <i>Example</i>	Visual Flight Procedures !FDC X/XXXX JFK VFP JOHN F KENNEDY INTL, NEW YORK, NY. PARKWAY VISUAL RWY 13L/R, ORIG...WEATHER MINIMUMS 3000 FOOT CEILING AND 3 MILES VISIBILITY. YYMMDDHHMM–YYMMDDHHMM
ROUTE <i>Example</i>	Route !FDC x/xxxx ZFW ROUTE ZFW ZKC. V140 SAYRE (SYO) VORTAC, OK TO TULSA (TUL) VORTAC, OK MEA 4300. YYMMDDHHMM–YYMMDDHHMM EST
SPECIAL ... <i>Example</i>	Special !FDC x/xxxx JNU SPECIAL JUNEAU INTERNATIONAL, JUNEAU, AK. LDA-2 RWY 8 AMDT 9 PROCEDURE TURN NA. YYMMDDHHMM–YYMMDDHHMM
SECURITY .. <i>Example</i>	Security !FDC x/xxxx FDC ...SPECIAL NOTICE... THIS IS A RESTATEMENT OF A PREVIOUSLY ISSUED ADVISORY NOTICE. IN THE INTEREST OF NATIONAL SECURITY AND TO THE EXTENT PRACTICABLE, PILOTS ARE STRONGLY ADVISED TO AVOID THE AIRSPACE ABOVE, OR IN PROXIMITY TO SUCH SITES AS POWER PLANTS (NUCLEAR, HYDRO-ELECTRIC, OR COAL), DAMS, REFINERIES, INDUSTRIAL COMPLEXES, MILITARY FACILITIES AND OTHER SIMILAR FACILITIES. PILOTS SHOULD NOT CIRCLE AS TO LOITER IN THE VICINITY OVER THESE TYPES OF FACILITIES.

3.8.2 WAAS

3.8.2.1 RNAV systems using WAAS input may be used as an alternate means of navigation guidance without restriction.

3.8.2.2 RNAV systems using WAAS input may be used as a substitute means of navigation guidance provided WAAS availability for the operation is confirmed. Operators must check WAAS NOTAMS.

3.8.3 DME/DME/IRU

3.8.3.1 RNAV systems using DME/DME/IRU, without GPS input, may be used as an alternate means of navigation guidance whenever valid DME/DME position updating is available.

4. Recognizing, Mitigating and Adapting to GPS Interference (Jamming and Spoofing)

4.1 The low-strength data transmission signals from GPS satellites are vulnerable to various anomalies that can significantly reduce the reliability of the navigation signal. Because of the many uses of GPS in aviation (e.g., navigation, ADS-B, terrain awareness/warning systems), operators of aircraft using GPS need to be aware of these vulnerabilities, and be able to recognize and adjust to degraded signals. Aircraft should have additional navigation equipment for their intended route.

4.2 GPS signals are vulnerable to intentional and unintentional interference from a wide variety of sources, including radars, microwave links, ionosphere effects, solar activity, multi-path error, satellite communications, GPS repeaters, and even some systems onboard the aircraft. In general, these types of unintentional interference are localized and intermittent. Of greater and growing concern is the intentional and unauthorized interference of GPS signals by persons using “jammers” or “spoofers” to disrupt air navigation by interfering with the reception of valid satellite signals.

NOTE—

The U.S. government regularly conducts GPS tests, training activities, and exercises that interfere with GPS signals. These events are geographically limited, coordinated, scheduled, and advertised via GPS and/or WAAS

NOTAMS. Operators of GPS aircraft should always check for GPS and/or WAAS NOTAMS for their route of flight.

4.3 GPS is a critical component of essential communication, navigation, and surveillance (CNS) in the NAS; and flight safety/control systems. Additionally, some satellite communications avionics use GPS signals for operations in oceanic and remote airspaces. It is the sole aircraft position-reporting source for Automatic Dependent Surveillance – Broadcast (ADS-B). Some business aircraft are using GPS as a reference source for aircraft flight control and stability systems. GPS is also a necessary component of the Aircraft Terrain Awareness and Warning System (TAWS) – an aircraft safety system that alerts pilots of upcoming terrain. There are examples of false “terrain-pull up” warnings during GPS anomalies.

4.4 When flying IFR, pilots should have additional navigation equipment for their intended route to crosscheck their position. Routine checks of position against VOR or DME information, for example, could help detect a compromised GPS signal. Pilots transitioning to VOR navigation in response to GPS anomalies should refer to the Chart Supplement U.S. to identify airports with available conventional approaches associated with the VOR Minimum Operational Network (MON) program. (Reference Aeronautical Information Manual (AIM) 1-1-3(f)).

4.5 When flying GPS approaches, particularly in IMC, pilots should have a backup plan in the event of GPS anomalies. Although the appropriate response will vary with the situation, in general pilots should:

4.5.1 Maintain control of the aircraft.

4.5.2 Use the last reliable navigation information as the basis for initial heading, and climb above terrain.

4.5.3 Change to another source of navigation, if available (i.e., VOR, DME, radar vectors), and

4.5.4 Contact ATC as soon as practical.

4.6 Pilots should promptly notify ATC if they experience GPS anomalies. Pilots should not normally inform ATC of GPS interference or outages when flying through a known NOTAMed testing area, unless they require ATC assistance. (See Aeronautical Information Manual (AIM) 1-1-13)

4.7 Aircraft equipment which provides for automatic DME selection assures reception of azimuth and distance information from a common source whenever designated VOR/DME, VORTAC, and ILS/DME navigation facilities are selected. Pilots are cautioned to disregard any distance displays from automatically selected DME equipment when VOR or ILS facilities, which do not have the DME feature installed, are being used for position determination.

5. Tactical Air Navigation (TACAN)

5.1 For reasons peculiar to military or naval operations (unusual siting conditions, the pitching and rolling of a naval vessel, etc.) the civil VOR/DME system of air navigation was considered unsuitable for military or naval use. A new navigational system, Tactical Air Navigation (TACAN), was therefore developed by the military and naval forces to more readily lend itself to military and naval requirements. As a result, the FAA has integrated TACAN facilities with the civil VOR/DME program. Although the theoretical, or technical principles of operation of TACAN equipment are quite different from those of VOR/DME facilities, the end result, as far as the navigating pilot is concerned, is the same. These integrated facilities are called VORTACs.

5.2 TACAN ground equipment consists of either a fixed or mobile transmitting unit. The airborne unit in conjunction with the ground unit reduces the transmitted signal to a visual presentation of both azimuth and distance information. TACAN is a pulse system and operates in the UHF band of frequencies. Its use requires TACAN airborne equipment and does not operate through conventional VOR equipment.

5.3 A VORTAC is a facility consisting of two components, VOR and TACAN, which provides three individual services: VOR azimuth, TACAN azimuth, and TACAN distance (DME) at one site. Although consisting of more than one component, incorporating more than one operating frequency, and using more than one antenna system, a VORTAC is considered to be a unified navigational aid. Both components of a VORTAC are envisioned as operating simultaneously and providing the three services at all times.

5.4 Transmitted signals of VOR and TACAN are each identified by three-letter code transmission and are interlocked so that pilots using VOR azimuth and

TACAN distance can be assured that both signals being received are definitely from the same ground station. The frequency channels of the VOR and the TACAN at each VORTAC facility are “paired” in accordance with a national plan to simplify airborne operation.

6. Instrument Landing System (ILS)

6.1 General

6.1.1 The ILS is designed to provide an approach path for exact alignment and descent of an aircraft on final approach to a runway.

6.1.2 The basic components of an ILS are the localizer, glide slope, and Outer Marker (OM) and, when installed for use with Category II or Category III instrument approach procedures, an Inner Marker (IM).

6.1.3 The system may be divided functionally into three parts:

6.1.3.1 Guidance information: localizer, glide slope.

6.1.3.2 Range information: marker beacon, DME.

6.1.3.3 Visual information: approach lights, touchdown and centerline lights, runway lights.

6.1.4 The following means may be used to substitute for the OM:

6.1.4.1 Compass locator; or

6.1.4.2 Precision Approach Radar (PAR); or

6.1.4.3 Airport Surveillance Radar (ASR); or

6.1.4.4 Distance Measuring Equipment (DME), Very High Frequency Omni-directional Range (VOR), or Nondirectional beacon fixes authorized in the Standard Instrument Approach Procedure; or

6.1.4.5 A suitable RNAV system with Global Positioning System (GPS), capable of fix identification on a Standard Instrument Approach Procedure.

6.1.5 Where a complete ILS system is installed on each end of a runway (i.e., the approach end of runway 4 and the approach end of runway 22), the ILS systems are not in service simultaneously.

6.2 Localizer

6.2.1 The localizer transmitter, operates on one of 40 ILS channels within the frequency range of 108.10 MHz to 111.95 MHz. Signals provide the pilot with course guidance to the runway centerline.

6.2.2 The approach course of the localizer is called the front course and is used with other functional parts; e.g., glide slope, marker beacons, etc. The localizer signal is transmitted at the far end of the runway. It is adjusted for a course width (full scale fly-left to a full scale fly-right) of 700 feet at the runway threshold.

6.2.3 The course line along the extended centerline of a runway, in the opposite direction to the front course, is called the back course.

CAUTION-

Unless your aircraft's ILS equipment includes reverse sensing capability, when flying inbound on the back course it is necessary to steer the aircraft in the direction opposite of the needle deflection on the airborne equipment when making corrections from off-course to on-course. This "flying away from the needle" is also required when flying outbound on the front course of the localizer. Do not use back course signals for approach unless a back course approach procedure is published for that particular runway and the approach is authorized by ATC.

6.2.4 Identification is in Morse Code and consists of a three-letter identifier preceded by the letter I (●●) transmitted on the localizer frequency.

EXAMPLE- I-DIA

6.2.5 The localizer provides course guidance throughout the descent path to the runway threshold from a distance of 18 NM from the antenna between an altitude of 1,000 feet above the highest terrain along the course line and 4,500 feet above the elevation of the antenna site. Proper off-course indications are provided throughout the following angular areas of the operational service volume:

6.2.5.1 To 10° either side of the course along a radius of 18 NM from the antenna.

6.2.5.2 From 10° to 35° either side of the course along a radius of 10 NM. (See FIG ENR 4.1-1.)

6.2.6 Unreliable signals may be received outside these areas. ATC may clear aircraft on procedures beyond the service volume when the controller initiates the action or upon pilot request when radar monitoring is provided. Pilots should use caution when accepting a clearance to join the final approach extended centerline beyond the service volume limits.

6.2.7 The areas described in paragraph 6.2.5 and depicted in FIG ENR 4.1-1 represent a Standard Service Volume (SSV) localizer. All charted procedures with localizer coverage beyond the 18 NM SSV have been through the approval process for Expanded Service Volume (ESV), and have been validated by flight inspection. (See FIG ENR 4.1-2.)

FIG ENR 4.1-1
Limits of Localizer Coverage

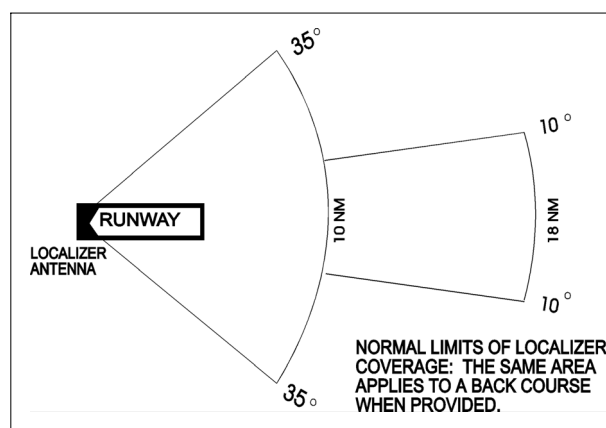
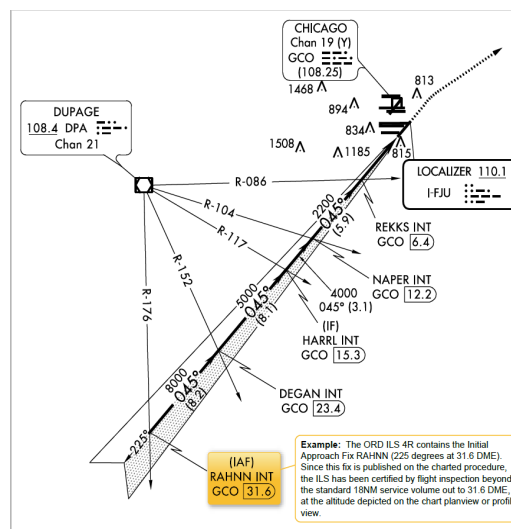


FIG ENR 4.1-2
ILS Expanded Service Volume



6.3 Localizer-Type Directional Aid

6.3.1 The localizer-type directional aid (LDA) is of comparable use and accuracy to a localizer but is not part of a complete ILS. The LDA course usually provides a more precise approach course than the similar Simplified Directional Facility (SDF) installation, which may have a course width of 6 degrees or 12 degrees.

6.3.2 The LDA is not aligned with the runway. Straight-in minimums may be published where alignment does not exceed 30 degrees between the course and runway. Circling minimums only are published where this alignment exceeds 30 degrees.

6.3.3 A very limited number of LDA approaches also incorporate a glideslope. These are annotated in the plan view of the instrument approach chart with a note, “LDA/Glideslope.” These procedures fall under a newly defined category of approaches called Approach with Vertical Guidance (APV) described in ENR 1.5, Paragraph 12., Instrument Approach Procedure Charts, subparagraph 12.1.7.2, Approach with Vertical Guidance (APV). LDA minima for with and without glideslope is provided and annotated on the minima lines of the approach chart as S-LDA/GS and S-LDA. Because the final approach course is not aligned with the runway centerline, additional maneuvering will be required compared to an ILS approach.

6.4 Glide Slope/Glide Path

6.4.1 The UHF glide slope transmitter, operating on one of the 40 ILS channels within the frequency range 329.15 MHz, to 335.00 MHz radiates its signals in the direction of the localizer front course.

CAUTION-

False glide slope signals may exist in the area of the localizer back course approach which can cause the glide slope flag alarm to disappear and present unreliable glide slope information. Disregard all glide slope signal indications when making a localizer back course approach unless a glide slope is specified on the approach and landing chart.

6.4.2 The glide slope transmitter is located between 750 and 1,250 feet from the approach end of the runway (down the runway) and offset 250–600 feet from the runway centerline. It transmits a glide path beam 1.4 degrees wide (vertically).

NOTE-

The term “glide path” means that portion of the glide slope that intersects the localizer.

6.4.3 The glide path projection angle is normally adjusted to 3 degrees above horizontal so that it intersects the middle marker at about 200 feet and the outer marker at about 1,400 feet above the runway elevation. The glide slope is normally usable to the distance of 10 NM. However, at some locations, the

glide slope has been certified for an extended service volume which exceeds 10 NM.

6.4.4 Pilots must be alert when approaching glidepath interception. False courses and reverse sensing will occur at angles considerably greater than the published path.

6.4.5 Make every effort to remain on the indicated glide path. Exercise caution: avoid flying below the glide path to assure obstacle/terrain clearance is maintained.

REFERENCE-

14 CFR Section 91.129(e).

6.4.6 A glide slope facility provides descent information for navigation down to the lowest authorized decision height (DH) specified in the approved ILS approach procedure. The glidepath may not be suitable for navigation below the lowest authorized DH and any reference to glidepath indications below that height must be supplemented by visual reference to the runway environment. Glide slopes with no published DH are usable to runway threshold.

6.4.7 The published glide slope threshold crossing height (TCH) DOES NOT represent the height of the actual glide slope on course indication above the runway threshold. It is used as a reference for planning purposes which represents the height above the runway threshold that an aircraft’s glide slope antenna should be, if that aircraft remains on a trajectory formed by the four-mile-to-middle marker glidepath segment.

6.4.8 Pilots must be aware of the vertical height between the aircraft’s glide slope antenna and the main gear in the landing configuration and, at the DH, plan to adjust the descent angle accordingly if the published TCH indicates the wheel crossing height over the runway threshold may be satisfactory. Tests indicate a comfortable wheel crossing height is approximately 20 to 30 feet, depending on the type of aircraft.

NOTE-

The TCH for a runway is established based on several factors including the largest aircraft category that normally uses the runway, how airport layout affects the glide slope antenna placement, and terrain. A higher than optimum TCH, with the same glide path angle, may cause the aircraft to touch down further from the threshold if the trajectory of the approach is maintained until the flare. Pilots should consider the effect of a high TCH on the runway available for stopping the aircraft.

6.5 Distance Measuring Equipment (DME)

6.5.1 When installed with an ILS and specified in the approach procedure, DME may be used:

6.5.1.1 In lieu of the outer marker.

6.5.1.2 As a back course final approach fix.

6.5.1.3 To establish other fixes on the localizer course.

6.5.2 In some cases, DME from a separate facility may be used within Terminal Instrument Procedures (TERPS) limitations:

6.5.2.1 To provide ARC initial approach segments.

6.5.2.2 As a final approach fix for back course approaches.

6.5.2.3 As a substitute for the outer marker.

6.6 Marker Beacon

6.6.1 ILS marker beacons have a rated power output of 3 watts or less and an antenna array designed to produce an elliptical pattern with dimensions, at 1,000 feet above the antenna, of approximately 2,400 feet in width and 4,200 feet in length. Airborne marker beacon receivers with a selective sensitivity feature should always be operated in the “low” sensitivity position for proper reception of ILS marker beacons.

6.6.2 ILS systems may have an associated OM. An MM is no longer required. Locations with a Category II ILS also have an Inner Marker (IM). Due to advances in both ground navigation equipment and airborne avionics, as well as the numerous means that may be used as a substitute for a marker beacon, the current requirements for the use of marker beacons are:

6.6.2.1 An OM or suitable substitute identifies the Final Approach Fix (FAF) for nonprecision approach (NPA) operations (for example, localizer only); and

6.6.2.2 The MM indicates a position approximately 3,500 feet from the landing threshold. This is also the position where an aircraft on the glide path will be at an altitude of approximately 200 feet above the elevation of the touchdown zone. A MM is no longer operationally required. There are some MMs still in use, but there are no MMs being installed at new ILS sites by the FAA; and

6.6.2.3 An IM, where installed, indicates the point at which an aircraft is at decision height on the glide path during a Category II ILS approach. An IM is only required for CAT II operations that do not have a published radio altitude (RA) minimum.

6.6.3 A back course marker, normally indicates the ILS back course final approach fix where approach descent is commenced.

TBL ENR 4.1-1
Marker Passage Indications

Marker	Code	Light
OM		BLUE
MM	• •	AMBER
IM	• • • •	WHITE
BC	• • • •	WHITE

7. Compass Locator

7.1 Compass locator transmitters are often situated at the middle and outer marker sites. The transmitters have a power of less than 25 watts, a range of at least 15 miles, and operate between 190 and 535 kHz. At some locations, higher-powered radio beacons, up to 400 watts, are used as outer marker compass locators.

7.2 Compass locators transmit two-letter identification groups. The outer locator transmits the first two letters of the localizer identification group, and the middle locator transmits the last two letters of the localizer identification group.

8. ILS Frequency

8.1 The frequency pairs in TBL ENR 4.1-2 are allocated for ILS.

TBL ENR 4.1-2
Frequency Pairs Allocated for ILS

Localizer MHz	Glide Slope
108.10	334.70
108.15	334.55
108.3	334.10
108.35	333.95
108.5	329.90
108.55	329.75
108.7	330.50
108.75	330.35
108.9	329.30
108.95	329.15
109.1	331.40
109.15	331.25
109.3	332.00
109.35	331.85
109.50	332.60
109.55	332.45
109.70	333.20
109.75	333.05
109.90	333.80
109.95	333.65
110.1	334.40
110.15	334.25
110.3	335.00
110.35	334.85
110.5	329.60
110.55	329.45
110.70	330.20
110.75	330.05
110.90	330.80
110.95	330.65
111.10	331.70
111.15	331.55
111.30	332.30
111.35	332.15
111.50	332.9
111.55	332.75
111.70	333.5
111.75	333.35
111.90	331.1
111.95	330.95

9. ILS Minimums

9.1 The lowest authorized ILS minimums, with all required ground and airborne systems components operative, are:

9.1.1 Category I. Decision Height (DH) 200 feet and Runway Visual Range (RVR) 2,400 feet (with touchdown zone and centerline lighting, RVR 1,800 feet), or (with Autopilot or FD or HUD, RVR 1,800 feet);

9.1.2 Special Authorization Category I. DH 150 feet and Runway Visual Range (RVR) 1,400 feet, HUD to DH;

9.1.3 Category II. DH 100 feet and RVR 1,200 feet (with autoland or HUD to touchdown and noted on authorization, RVR 1,000 feet);

9.1.4 Special Authorization Category II with Reduced Lighting. DH 100 feet and RVR 1,200 feet with autoland or HUD to touchdown and noted on authorization, (touchdown zone, centerline lighting and ALSF-2 are not required);

9.1.5 Category IIIa. No DH or DH below 100 feet and RVR not less than 700 feet;

9.1.6 Category IIIb. No DH or DH below 50 feet and RVR less than 700 feet but not less than 150 feet; and

9.1.7 Category IIIc. No DH and no RVR limitation.

NOTE-

Special authorization and equipment are required for Category II and III.

10. Inoperative ILS Components

10.1 Inoperative Localizer. When the localizer fails, an ILS approach is not authorized.

10.2 Inoperative Glide Slope. When the glide slope fails, the ILS reverts to a nonprecision localizer approach.

REFERENCE-

See the Inoperative Component Table in the U.S. Government Terminal Procedures Publication (TPP) for adjustments to minimums due to inoperative airborne or ground system equipment.

11. ILS Course Distortion

11.1 All pilots should be aware that disturbance to ILS localizer/glide slope courses may occur when surface vehicles/aircraft are operated near the localizer/glide slope antennas. Most ILS installations

are subject to signal interference by either surface vehicles, aircraft, or both. ILS “CRITICAL AREAS” are established near each localizer and glide slope antenna.

11.2 Air traffic control issues control instructions to avoid interfering operations within ILS critical areas at controlled airports during the hours the airport traffic control tower is in operation as follows:

11.2.1 Weather Conditions. Official weather observation is a ceiling of less than 800 feet and/or visibility 2 miles.

11.2.1.1 No critical area protection action is provided.

11.2.1.2 If an aircraft advises the tower that an “AUTOLAND”/“COUPLED” approach will be conducted, an advisory will be promptly issued if a vehicle/aircraft will be in or over a critical area when the arriving aircraft is inside the ILS middle marker.

EXAMPLE–

Critical Area not protected.

11.2.2 Weather Conditions. Less than ceiling 800 feet and/or visibility 2 miles.

11.2.2.1 Glide Slope Critical Area. Do not authorize vehicles or aircraft operations in or over the area when an arriving aircraft is inside the ILS outer marker (OM), or the fix used in lieu of the OM, unless the arriving aircraft has reported the runway in sight and is circling or side-stepping to land on another runway.

11.2.2.2 Localizer Critical Area. Except for aircraft that land, exit a runway, depart, or execute a missed approach, vehicles and aircraft are not authorized in or over the critical area when an arriving aircraft is inside the outer marker (OM) or the fix used in lieu of the OM. Additionally, whenever the official weather observation is a ceiling of less than 200 feet or RVR less than 2,000 feet, do not authorize vehicles or aircraft operations in or over the area when an arriving aircraft is inside the MM, or in the absence of a MM, ½ mile final.

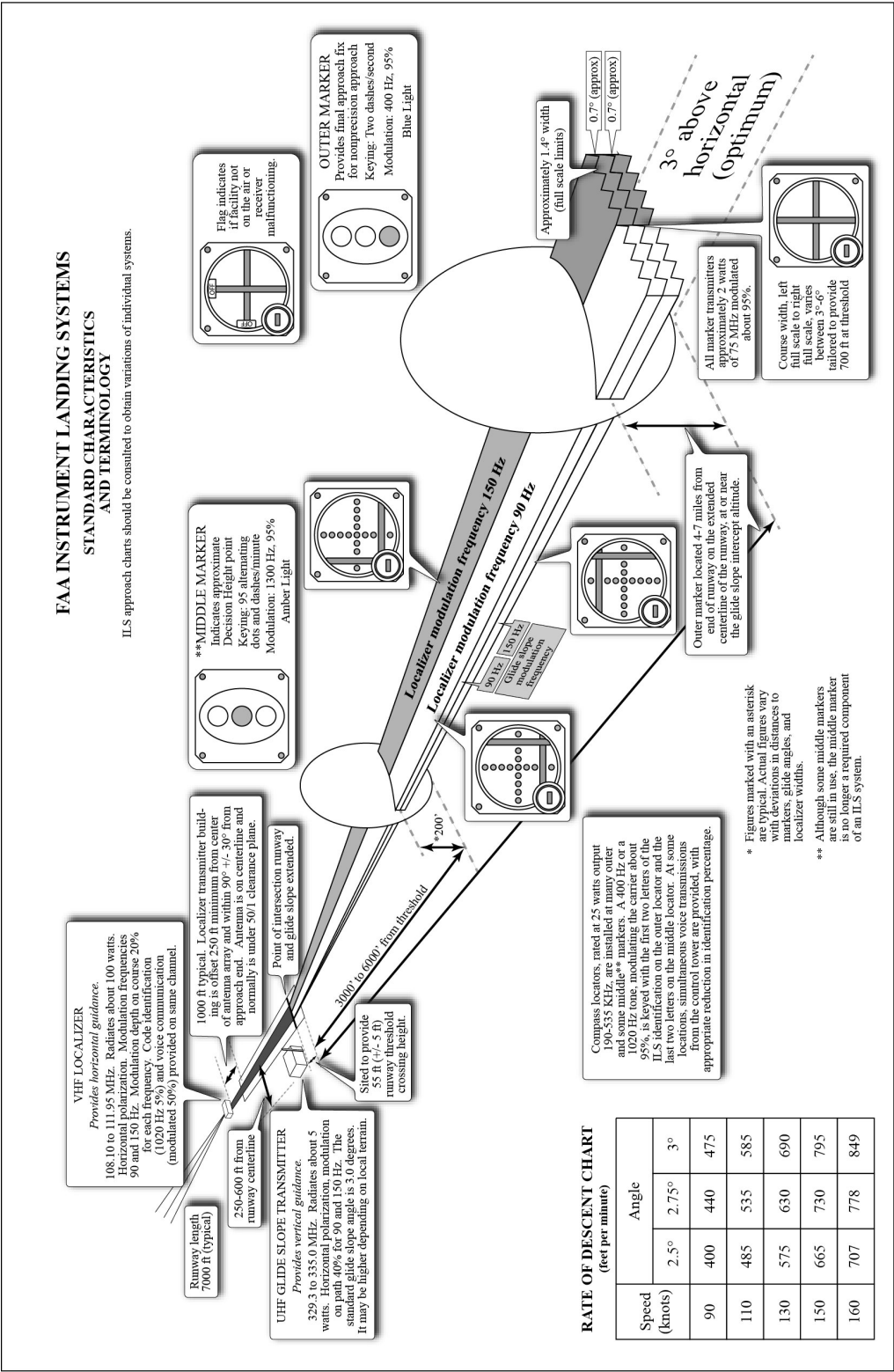
11.3 Aircraft holding below 5000 feet between the outer marker and the airport may cause localizer signal variations for aircraft conducting the ILS approach. Accordingly, such holding is not authorized when weather or visibility conditions are less than ceiling 800 feet and/or visibility 2 miles.

11.4 Pilots are cautioned that vehicular traffic not subject to control by ATC may cause momentary deviation to ILS course/glide slope signals. Also, “critical areas” are not protected at uncontrolled airports or at airports with an operating control tower when weather/visibility conditions are above those requiring protective measures. Aircraft conducting “coupled” or “autoland” operations should be especially alert in monitoring automatic flight control systems. (See FIG ENR 4.1–3.)

NOTE–

Unless otherwise coordinated through Flight Standards, ILS signals to Category I runways are not flight inspected below the point that is 100 feet less than the decision altitude (DA). Guidance signal anomalies may be encountered below this altitude.

FIG ENR 4.1-3
FAA Instrument Landing Systems



12. Continuous Power Facilities

12.1 In order to ensure that a basic ATC system remains in operation despite an area wide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

12.2 In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway:

12.2.1 ILS (Localizer, Glide Slope, Compass Locator, Inner, Middle and Outer Markers).

12.2.2 Wind Measuring Capability.

12.2.3 Approach Light System (ALS) or Short ALS (SALS).

12.2.4 Ceiling Measuring Capability.

12.2.5 Touchdown Zone Lighting (TDZL).

12.2.6 Centerline Lighting (CL).

12.2.7 Runway Visual Range (RVR).

12.2.8 High Intensity Runway Lighting (HIRL).

12.2.9 Taxiway Lighting.

12.2.10 Apron Light (Perimeter Only).

TBL ENR 4.1–3

Continuous Power Airports	
Airport/Ident	Runway No.
Albuquerque (ABQ)	08
Andrews AFB (ADW)	1L
Atlanta (ATL)	9R
Baltimore (BWI)	10
Bismarck (BIS)	31
Boise (BOI)	10R
Boston (BOS)	4R
Charlotte (CLT)	36L
Chicago (ORD)	14R
Cincinnati (CVG)	36
Cleveland (CLE)	5R
Dallas/Fort Worth (DFW)	17L
Denver (DEN)	35R
Des Moines (DSM)	30R

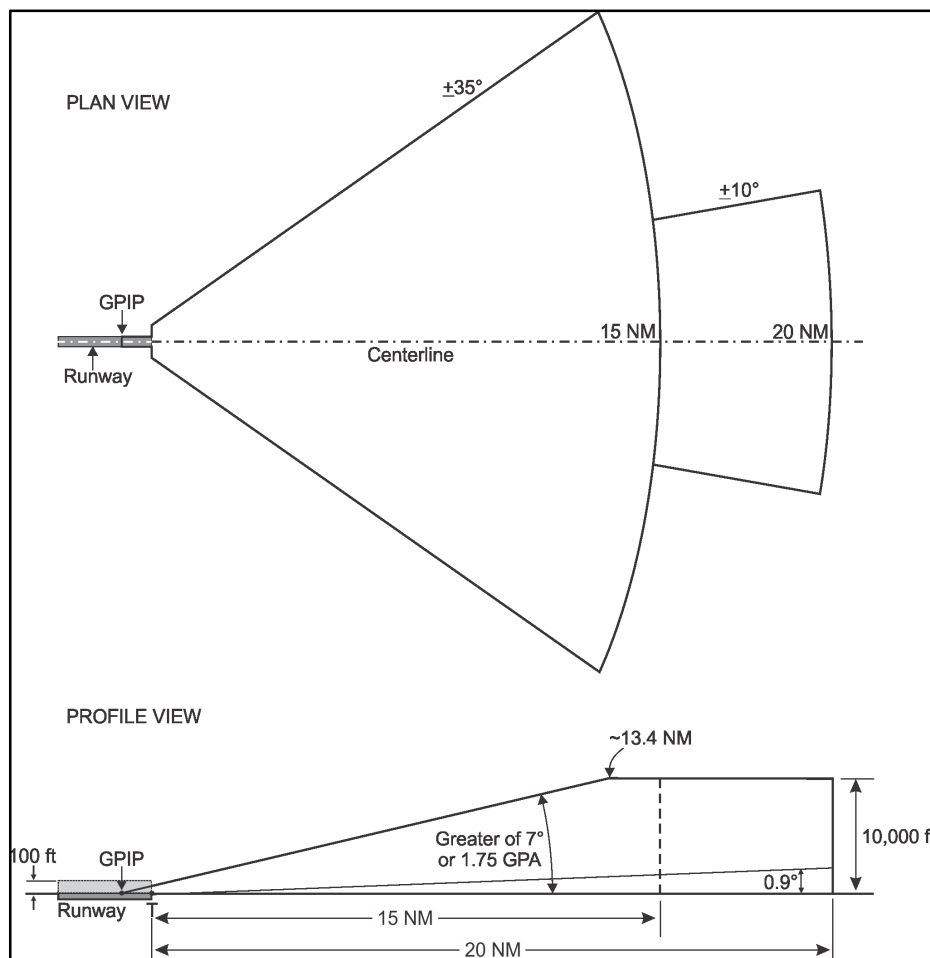
Continuous Power Airports	
Airport/Ident	Runway No.
Detroit (DTW)	3L
El Paso (ELP)	22
Great Falls (GTF)	03
Houston (IAH)	08
Indianapolis (IND)	4L
Jacksonville (JAX)	07
Kansas City (MCI)	19
Los Angeles (LAX)	24R
Memphis (MEM)	36L
Miami (MIA)	9L
Milwaukee (MKE)	01
Minneapolis (MSP)	29L
Nashville (BNA)	2L
Newark (EWR)	4R
New Orleans (MSY)	10
New York (JFK)	4R
New York (LGA)	22
Oklahoma City (OKC)	35R
Omaha (OMA)	14
Ontario, California (ONT)	26R
Philadelphia (PHL)	9R
Phoenix (PHX)	08R
Pittsburgh (PIT)	10L
Reno (RNO)	16
Salt Lake City (SLC)	34L
San Antonio (SAT)	12R
San Diego (SAN)	09
San Francisco (SFO)	28R
Seattle (SEA)	16R
St. Louis (STL)	24
Tampa (TPA)	36L
Tulsa (TUL)	35R
Washington (DCA)	36
Washington (IAD)	1R
Wichita (ICT)	01

12.3 The above have been designated “Continuous Power Airports,” and have independent back up capability for the equipment installed.

NOTE–

The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.

FIG ENR 4.1-4
GLS Standard Approach Service Volume



20. Area Navigation

20.1 General

20.1.1 Area Navigation (RNAV) provides enhanced navigational capability to the pilot. RNAV equipment can compute the airplane position, actual track and ground speed and then provide meaningful information relative to a route of flight selected by the pilot. Typical equipment will provide the pilot with distance, time, bearing and crosstrack error relative to the selected "TO" or "active" waypoint and the selected route. Several navigational systems with different navigational performance characteristics are capable of providing area navigational functions. Present day RNAV includes INS, VOR/DME, and GPS systems. Modern multi-sensor systems can integrate one or more of the above systems to provide a more accurate and reliable navigational system. Due to the different levels of performance, area

navigational capabilities can satisfy different levels of required navigation performance (RNP).

20.2 RNAV Operations Incorporating RNP

20.2.1 During the past four decades, domestic and international air navigation have been conducted using a system of airways and instrument procedures based upon ground-based navigational systems such as NDB, VOR, and ILS. Reliance on ground-based navigational systems has served the aviation community well, but often results in less than optimal routes or instrument procedures and an inefficient use of airspace. With the widespread deployment of RNAV systems and the advent of GPS-based navigation, greater flexibility in defining routes, procedures, and airspace design is now possible with an associated increase in flight safety. To capitalize on the potential of RNAV systems, both the FAA and International Civil Aviation Organization (ICAO) are

affecting a shift toward a new standard of navigation and airspace management called RNP.

20.2.2 Navigational systems are typically described as being sensor specific, such as a VOR or ILS system. By specifying airspace requirements as RNP, various navigation systems or combination of systems may be used as long as the aircraft can achieve the RNP. RNP is intended to provide a single performance standard that can be used and applied by aircraft and aircraft equipment manufacturers, airspace planners, aircraft certification and operations, pilots and controllers, and international aviation authorities. RNP can be applied to obstacle clearance or aircraft separation requirements to ensure a consistent application level.

20.2.3 ICAO has defined RNP values for the four typical navigation phases of flight: oceanic, en route, terminal, and approach. The RNP applicable to a selected airspace, route, or procedure is designated by its RNP Level or Type. As defined in the Pilot/Controller Glossary, the RNP Level or Type is a value typically expressed as a distance, in nautical miles, from the procedure, route or path within which an aircraft would typically operate. RNP applications also provide performance to protect against larger errors at some multiple of RNP level (e.g., twice the RNP level).

20.3 Standard RNP Levels

20.3.1 U.S. standard values supporting typical RNP airspace are as specified in TBL ENR 4.1–6 below. Other RNP levels as identified by ICAO, other states and the FAA may also be used.

TBL ENR 4.1–6
U.S. Standard RNP Levels

RNP Level	Typical Application
.3	Approach
1	Departure, Terminal
2	En Route

20.3.1.1 Application of Standard RNP Levels. U.S. standard levels of RNP typically used for various routes and procedures supporting RNAV operations may be based on use of a specific navigational system or sensor such as GPS, or on multi-sensor RNAV systems having suitable performance. New RNAV routes and procedures will be FAA’s first public use procedures to include a specified RNP level. These procedures are being

developed based on earth referenced navigation and do not rely on conventional ground-based navigational aids. Unless otherwise noted on affected charts or procedures, depiction of a specified RNP level will not preclude the use of other airborne RNAV navigational systems.

20.3.1.2 Depiction of Standard RNP Levels. The applicable RNP level will be depicted on affected charts and procedures. For example, an RNAV departure procedure may contain a notation referring to eligible aircraft by equipment suffix and a phrase “or RNP–1.0.” A typical RNAV approach procedure may include a notation referring to eligible aircraft by specific navigation sensor(s), equipment suffix, and a phrase “or RNP–0.3.” Specific guidelines for the depiction of RNP levels will be provided through chart bulletins and accompany affected charting changes.

20.4 Aircraft and Airborne Equipment Eligibility for RNP Operations. Aircraft meeting RNP criteria will have an appropriate entry including special conditions and limitations, if any, in its Aircraft/Rotorcraft Flight Manual (AFM), or supplement. RNAV installations with AFM–RNP certification based on GPS or systems integrating GPS are considered to meet U.S. standard RNP levels for all phases of flight. Aircraft with AFM–RNP certification without GPS may be limited to certain RNP levels, or phases of flight. For example, RNP based on DME/DME without other augmentation may not be appropriate for phases of flight outside the certified DME service volume. Operators of aircraft not having specific AFM–RNP certification may be issued operational approval including special conditions and limitations, if any, for specific RNP levels. Aircraft navigation systems eligible for RNP airspace will be indicated on charts, or announced through other FAA media such as NOTAMs and chart bulletins.

20.5 Understanding RNP Operations. Pilots should have a clear understanding of the aircraft requirements for operation in a given RNP environment, and advise ATC if an equipment failure or other malfunction causes the aircraft to lose its ability to continue operating in the designated RNP airspace. When a pilot determines a specified RNP level cannot be achieved, he/she should be prepared to revise the route, or delay the operation until an appropriate RNP level can be ensured. Some airborne systems use terms other than RNP to indicate the

spoofing”), the pilot may not be aware of any erroneous navigation indications; ATC may be the only means available for identification of these disruptions and detect unexpected aircraft position while monitoring aircraft for IFR separation.

22.2 Malfunctioning, faulty, inappropriately installed, operated, or modified GPS re-radiator systems, intended to be used for aircraft maintenance activities, have resulted in unintentional disruption of aviation GPS receivers. This type of disruption could result in unflagged, erroneous position-information output to primary flight displays/indicators and to other aircraft and air traffic control systems. Since Receiver Autonomous Integrity Monitoring (RAIM) is only partially effective against this type of disruption (effectively a “signal spoofing”), the pilot may not be aware of any erroneous navigation indications; ATC may be the only means available to identify these disruptions and detect unexpected aircraft positions while monitoring aircraft for IFR separation.

22.3 Pilots encountering navigation error events should transition to another source of navigation and request amended clearances from ATC as necessary.

22.4 Pilots are encouraged to submit detailed reports of NAVAID or GPS anomaly as soon as practical. Pilot reports of navigation error events should contain the following information:

22.4.1 Date and time the anomaly was observed, and NAVAID ID (or GPS).

22.4.2 Location of the aircraft at the time the anomaly started and ended (e.g., latitude/longitude or bearing/distance from a reference point),

22.4.3 Heading, altitude, type of aircraft (make/model/call sign).

22.4.4 Type of avionics/receivers in use (e.g., make/model/software series or version).

22.4.5 Number of satellites being tracked, if applicable.

22.4.6 Description of the position/navigation/timing condition observed; and duration of the event.

22.4.7 Consequences/operational impact(s) of the NAVAID or GPS loss.

22.4.8 Actions taken to mitigate the anomaly and/or remedy provided by the ATC facility.

22.4.9 Post flight pilot/maintenance actions taken.

22.5 Pilots operating an aircraft in controlled airspace under IFR shall comply with CFR § 91.187 and promptly report as soon as practical to ATC any malfunctions of navigational equipment occurring in-flight; pilots should submit initial reports:

22.5.1 Immediately, by radio to the controlling ATC facility or FSS.

22.5.2 By telephone to the nearest ATC facility controlling the airspace where the disruption was experienced.

22.5.3 Additionally, GPS problems should be reported, post flight, by Internet via the GPS Anomaly Reporting Form at http://www.faa.gov/air_traffic/nas/gps_reports/.

22.6 To minimize ATC workload, GPS interference/outages associated with known testing NOTAMs should NOT be reported in-flight to ATC in detail; EXCEPT when:

22.6.1 GPS degradation is experienced outside the NOTAMed area.

22.6.2 Pilot observes any unexpected consequences (e.g., equipment failure, suspected spoofing, failure of other aircraft systems not identified in AFM, such as TAWS).

23. Radio Communications and Navigation Facilities

23.1 A complete listing of air traffic radio communications facilities and frequencies and radio navigation facilities and frequencies are contained in the Chart Supplement U.S. Similar information for the Pacific and Alaskan areas is contained in the Chart Supplements Pacific and Alaska.

3.2 Oakland Oceanic FIR

3.2.1 All flights that will enter the Oakland Oceanic CTA/FTR must address flight plans to KZAKZQZX.

3.3 New York FIR

3.3.1 All flights entering the New York Oceanic CTA/FIR must address flight plans to KZWYZOZX.

3.3.2 All flights entering the New York Oceanic CTA/FIR and a U.S. ARTCC (except Boston) and/or Bermuda airspace must address flight plans to both KZWYZOZX and the appropriate U.S. ARTCC. (See TBL ENR 7.1-1).

TBL ENR 7.1-1

Airspace to be Entered: New York Oceanic CTA/ FIR and U.S. ARTCCs	Required AFTN Addresses
New York (NY) Oceanic CTA/FIR	KZWYZOZX
Boston ARTCC & NY Oceanic	KZWYZOZX only
NY domestic and/or Ber- muda & NY Oceanic	KZNYZQZX & KZWYZOZX
Washington (KZDC) & NY Oceanic	KZDCZQZX & KZWYZOZX
Jacksonville (KZJX) & NY Oceanic	KZJXZQZX & KZWYZOZX
Miami (KZMA) & NY Oceanic	KZMAZQZX & KZWYZOZX
San Juan & NY Oceanic	TZSUZQZX & KZWYZOZX
Houston (KZHU)	KZHUZRZX

3.4 Anchorage Oceanic FIRs

3.4.1 Anchorage Arctic FIR

3.4.1.1 Flight plans must be filed with PAZAZQZX.

3.4.2 Anchorage Oceanic FIR

3.4.2.1 Flight plans must be filed with both PAZAZQZX and PAZNZQZX.

3.5 San Juan CTA/FIR

3.5.1 All aircraft transitioning through San Juan FIR/CTA from a foreign facility that will operate in North Atlantic (NAT) High Level Airspace (HLA) must forward the full route of flight for flight plan verification.

3.5.2 This must be accomplished prior to exiting the San Juan FIR/CTA by one of the following means:

3.5.2.1 Via Direct pilot-controller communication; or

3.5.2.2 Via New York Radio, when requested by ATC.

NOTE-

This requirement does not apply to aircraft operating outside of NAT HLA.

4. Beacon Code Requirements

4.1 Oakland Oceanic FIR

4.1.1 Upon entering the Oakland Oceanic CTA and after radar service is terminated; all aircraft should adjust their transponder to display code 2000 on their display. Aircraft should maintain code 2000 thereafter until otherwise directed by Air Traffic Control.

4.2 New York Oceanic FIR

4.2.1 All aircraft transitioning into the West Atlantic Route System (WATRS) via fixed ATS routes must remain on the last ATC-assigned beacon code.

4.3 Anchorage Oceanic FIR

4.3.1 CPDLC aircraft crossing the Anchorage/Oakland FIR boundary westbound between 150W and 160W must contact San Francisco Radio by 140W to receive a discrete beacon code for use in Anchorage airspace.

4.4 Anchorage Arctic FIR

4.4.1 4.4.1 RESERVED

4.5 Houston Oceanic FIR

4.5.1 All aircraft entering the Houston Oceanic CTA/FIR should remain on the last ATC-assigned beacon code.

4.6 Miami CTA/FIR

4.6.1 There is no primary radar or weather returns available from the Grand Turk, Georgetown, and Nassau radar systems. Since radar separation is dependent upon the receipt of transponder returns, all aircraft within antenna coverage of either system are required to squawk transponder codes as assigned by ATC, or, if none assigned, squawk the appropriate stratum code.

4.6.2 Aircraft departing and overflying the Santo Domingo and Port Au Prince FIRs can expect ATC assigned codes from those ATS providers. If a code is not assigned by either Santo Domingo or Port Au Prince, pilots should request a code. The assigned code should be squawked prior to entering the Miami CTA/FIR.

5. Position Reporting in the Oceanic Environment

5.1 Pilots must report over each point used in the flight plan to define the route of flight, even if the point is depicted on aeronautical charts as an “on request” (non-compulsory) reporting point. For aircraft providing automatic position reporting via an Automatic Dependent Surveillance–Contract (ADS–C) logon, pilots should discontinue voice position reports.

5.2 Advanced Technology and Oceanic Procedures (ATOP) cannot accept CPDLC position reports containing latitude and longitude in the ARINC 424 format. The flight crew should use latitudes and longitudes encoded as waypoint names in the ICAO format (for example, 54N150W).

NOTE–

ARINC 424 describes a 5-character latitude/longitude format for aircraft navigation databases (for example, 10N40 describes a latitude/longitude of 10N140W). The ATSU will reject any downlink message containing waypoint names in the ARINC 424 format.

5.3 Oakland Oceanic FIR

5.3.1 Aircraft filed on PACOTS routes within Oakland Oceanic CTA/FIR airspace must make position reports using latitude/longitude coordinates or named fixes as specified in the track definition messages (TDM). Position reports must comprise information on present position, estimated next position, and ensuing position. Reporting points of reference not specified in the TDM and/or rounding off geographical coordinates is prohibited.

5.4 New York Oceanic FIR

5.4.1 Position reports should be made via ADSC, if the aircraft has ADS–C capability. The two types of ADS–C contracts that will be established with each aircraft are a twenty (20) minute Periodic Report Rate and a five (5) mile Lateral Deviation Event. This is in addition to normal waypoint reports.

5.4.2 Operators should not use CPDLC for position reports but it should be used for all other ATC communications. Position reports should be made via HF if ADS–C is not available.

5.5 Anchorage Oceanic FIR

5.5.1 All waypoints filed in Field 15 of the ICAO flight plan (route field) must be reported as a position report.

5.5.2 Position reports are to be made via ADS, CPDLC or Voice communication in that order of preference.

5.5.3 Aircraft with an active ADS connection must make a CPDLC position report when crossing the IFR boundary (inbound) to ensure CPDLC connectivity.

5.6 Anchorage Arctic FIR

5.6.1 Flights crossing the Anchorage Arctic FIR along 141W between 72N and 90N must file their 141W crossing point as a route element in field 15 of the ICAO flight plan.

5.6.2 All waypoints filed in Field 15 of the ICAO flight plan (route field) must be reported as a position report.

5.7 Houston Oceanic FIR

5.7.1 Position reports and the ability to communicate at any point of the route of flight is vital to the air traffic safety and control process. When flight planning, users are responsible to ensure that they will be capable of compliance. Inability to comply is in violation of ICAO requirements. The communication requirements for IFR flights within the Houston Oceanic Control Area are:

5.7.1.1 Functioning two-way radio communications equipment capable of communicating with at least one ground station from any point on the route;

5.7.1.2 Maintaining a continuous listening watch on the appropriate radio frequency; and

5.7.1.3 Reporting of mandatory points.

5.7.2 The following describes an area in the Houston CTA/FIR where reliable VHF air-to-ground communications below FL180 are not available:

5.7.2.1 26 30 00N 86 00 00W TO 26 30 00N 92 00 00W;

5.7.2.2 TO 24 30 00N 93 00 00W TO 24 30 00N 88 00 00W to;

ENR 7.2 Data Link Procedures

1. Oakland Oceanic Airspace

1.1 Oakland ARTCC has full CPDLC and ADS-C services in the entire Oakland Oceanic FIR for FANS-1/A capable aircraft. The Oakland Oceanic FIR log-on address is “KZAK;” the facility is “OAKODYA.” CADS LOGON is not supported.

1.2 The use of CPDLC and ADS-C in the Oakland Oceanic FIR (KZAK) is only permitted by Inmarsat and Iridium customers. All other forms of data link connectivity are not authorized. Users must ensure that the proper data link code is filed in Item 10a of the ICAO FPL in order to indicate which satellite medium(s) the aircraft is equipped with. The identifier for Inmarsat is J5 and the identifier for Iridium is J7. If J5 or J7 is not included in the ICAO FPL, then the LOGON will be rejected by KZAK and the aircraft will not be able to connect.

1.3 Prior to entering the Oakland Oceanic FIR, contact San Francisco Radio and:

1.3.1 Identify the flight as ADS-C and/or CPDLC connected;

1.3.2 Provide departure, destination and aircraft registration number; and

1.3.3 Request a SELCAL check.

NOTE—

1. Expect to receive primary and secondary HF frequency assignments from San Francisco Radio for the entire route of flight within the Oakland Oceanic FIR.

2. Pilots must maintain HF communications capability with San Francisco Radio at all times within the Oakland Oceanic FIR.

1.4 Aircraft entering the Oakland Oceanic FIR data link service area from non-data link airspace should:

1.4.1 Log on to CPDLC at least 15 but not more than 45 minutes prior to entering the Oakland Oceanic FIR CPDLC service area.

1.4.2 Contact San Francisco Radio on HF for a SELCAL check and provide the information outlined in paragraph 1.3.

1.5 Aircraft entering the Oakland Oceanic FIR data link service area from adjacent data link airspace should:

1.5.1 Determine the status of the CPDLC connection. If KZAK is the active center, the pilot must contact San Francisco Radio on HF for a SELCAL check and identify the flight as a CPDLC.

1.5.2 If KZAK is not the active center, the pilot must, within 5 minutes after the boundary is crossed, terminate the CPDLC connection, then log on to KZAK, contact San Francisco Radio on HF for a SELCAL check, and advise San Francisco Radio that they are a CPDLC flight.

1.6 Flights overflying Honolulu Control Facility (HCF) airspace will receive an END SERVICE message prior to entering HCF airspace that will result in termination of CPDLC. Aircraft must re-log on to CPDLC prior to reentering Oakland Oceanic FIR airspace when HCF advises to contact en route communications or San Francisco Radio.

1.7 Flights overflying Guam Combined Center Radar Approach Control (CERAP) airspace should maintain the CPDLC connection with Oakland ARTCC; however, do not use CPDLC for ATC COM until Guam CERAP advises you to again contact en route communications or San Francisco Radio.

2. Anchorage Oceanic Airspace

2.1 Anchorage ARTCC has full CPDLC capability and normal service in the Arctic FIR for FANS-1/A capable aircraft within INMARSAT or Iridium coverage. The Anchorage Arctic FIR log-on address is “PAZA;” the facility is “ANCXFXA.” CADS LOGON is not supported.

2.2 Anchorage ARTCC has full CPDLC capability and normal service in the Anchorage Domestic and Oceanic FIRs, South of N63 and west of W165 for FANS-1/A capable aircraft. The Anchorage log-on address is “PAZN;” the facility is “ANCATYA.” CADS LOGON is not supported.

2.3 Prior to entering the Anchorage Oceanic FIR, contact San Francisco Radio and:

2.3.1 Identify the flight as ADS-C and/or CPDLC connected;

2.3.2 Provide departure, destination and aircraft registration number; and

2.3.3 Request a SELCAL check.

NOTE-

1. *HF service in the Anchorage Arctic FIR is provided via Gander Radio. San Francisco Radio maintains an HF Long-Distance Operational Control (LDOC) station at Barrow, Alaska that may be of use when the solar conditions inhibit normal communications via Gander. HF service in the Anchorage Oceanic FIR is provided via San Francisco Radio.*

2. *Expect to receive primary and secondary HF frequency assignments from San Francisco Radio for the entire route of flight when within the Anchorage Oceanic FIR.*

3. *Pilots must maintain HF communications capability with appropriate en route RADIO (San Francisco Radio or Gander) at all times within the Anchorage Arctic or Oceanic FIRs.*

3. New York Oceanic Airspace

3.1 New York ARTCC provides full CPDLC and ADS-C services throughout its Oceanic Airspace to FANS-1/A capable flights. The New York Oceanic FIR FANS LOGON address is "KZWY." CADS LOGON is not supported. Flights should use ADS for position reporting and CPDLC for all other ATC communications while in the New York Oceanic Area.

3.2 The use of CPDLC and ADS-C in the New York Oceanic FIR (KZWY) is only permitted by Inmarsat and Iridium customers. All other forms of data link connectivity are not authorized. Users must ensure that the proper data link code is filed in Item 10a of the ICAO FPL in order to indicate which satellite medium(s) the aircraft is equipped with. The identifier for Inmarsat is J5 and the identifier for Iridium is J7. If J5 or J7 is not included in the ICAO FPL, then the LOGON will be rejected by KZWY and the aircraft will not be able to connect.

3.3 Prior to entering the New York Oceanic FIR, contact New York Radio and:

3.3.1 Identify the flight as ADS-C and/or CPDLC connected;

3.3.2 State the name of the next CTA/FIR to be entered along with the latitude and longitude or waypoint exit point leaving the New York FIR; and

3.3.3 Request a SELCAL check.

NOTE-

1. *Expect to receive primary and secondary HF frequency assignments from New York Radio for the route of flight within the data link service area.*

2. *Pilots must maintain HF communications capability with New York Radio at all times within the New York Oceanic FIR.*

3.4 If the flight will exit ZNY oceanic airspace into domestic airspace (including over New York Bermuda RADAR):

3.4.1 Identify the flight as ADS and/or CPDLC connected;

3.4.2 If operating on the Organized Track System (OTS), state the track letter;

3.4.3 State the name of the next CTA/FIR to be entered along with the latitude and longitude or waypoint exit point leaving the ZNY FIR; and

3.4.4 Request a SELCAL check.

NOTE-

New York Radio may require flights to contact them at 60 West for HF frequency updates.

3.5 Aircraft entering the New York Oceanic FIR data link service area from non-data link airspace should:

3.5.1 LOGON to KZWY at least 15 minutes but not more than 45 minutes prior to entering the New York Oceanic CTA/FIR.

3.5.2 Prior to entering the New York Oceanic FIR contact New York Radio on HF or VHF providing the information as outlined in paragraph 3.3.

NOTE-

Do not send a CPDLC position report to confirm CDA prior to, or upon crossing, the FIR.

3.6 Aircraft entering the New York Oceanic FIR data link service area from adjacent data link airspace should:

3.6.1 Determine the status of the FANS connection when crossing the New York Oceanic FIR boundary.

NOTE-

CPDLC and ADS services will be forwarded automatically between New York, Santa Maria, and Gander OCA's. CPDLC connections will be transferred approximately 5 minutes prior to the boundary crossing point.

3.6.1.1 If KZWY is the active connection when crossing the New York Oceanic FIR boundary the pilot must:

3.6.1.2 Contact New York Radio on HF providing the information as outlined in paragraph 3.3.

3.6.2 If KZWY is not the active center when crossing the New York Oceanic FIR boundary the pilot must:

3.6.2.1 Terminate the CPDLC connection, then log-on to KZWY; and

3.6.2.2 Contact New York Radio on HF providing the information as outlined in paragraph 3.3.

NOTE—

Do not send a CPDLC position report to confirm CDA prior to, or upon crossing, the FIR.

3.7 Flights overflying Bermuda RADAR airspace should:

3.7.1 Prior to entering New York Bermuda RADAR airspace, aircraft will receive an END SERVICE message that will result in termination of CPDLC.

3.7.2 Aircraft must re-log-on to KZWY prior to re-entering the New York Oceanic CTA/FIR when they are advised by ATC to contact New York Radio on HF.

3.8 Aircraft exiting the KZWY data link service area and approaching New York Center Domestic, New

York Center Bermuda RADAR, San Juan, Piarco, Jacksonville, Miami, Moncton, and Gander Domestic can expect a CPDLC uplink message containing the VHF frequency assignment for the next facility. CPDLC End Service will be sent approximately 5 minutes prior to the boundary crossing point.

4. Data Link Failure

4.1 In the event of data link failure or outages, flight crews must contact New York Radio or San Francisco Radio via HF voice for routine communications. When unable to communicate on HF, the pilot may conduct normal and routine communications with ATC via New York Radio or San Francisco Radio on SATVOICE. Direct SATVOICE contact with ATC should be limited to distress and urgency situations or when other means are not available and communication is essential.

5.7 In the event of LRNS failure prior to joining a WATRS route, pilots must inform ATC of the failure and ensure ATC is aware the aircraft is no longer qualified for the RNP level indicated in the flight plan. In addition to this notification, pilots should request ATC amend their flight plan to remove the RNP capability indication in Item 18 of the flight plan.

5.8 Information regarding operations in WATRS can be found in the West Atlantic Route System, Gulf of Mexico, and Caribbean Resource Guide for U.S. Operators which is available at:

https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/media/watrs.pdf

6. Provisions for Accommodation of Non-RNP 10 Aircraft (Not Authorized RNP 10 or RNP 4)

The guidance contained in paragraphs 1.7 and 1.13 of this section is applicable to all operations using

Non-RNP 10 aircraft throughout the airspace covered by this document.

7. RNP 10 or RNP 4 Authorization Policy and Procedures for Aircraft and Operators

The guidance contained in paragraphs 1.8 and 1.9 of this section is applicable to operations throughout the airspace covered by this document.

8. Flight Planning Requirements

The guidance contained in paragraphs 1.7 and 1.11 of this section is applicable to operations throughout the airspace covered by this document.

9. Pilot and Dispatcher Basic and In-Flight Contingency Procedures

Information and guidance pertaining to in-flight contingency procedures, applicable in all the oceanic airspace covered by this AIP are provided in ENR 7.4, paragraph 1.12 as well as section ENR 7.3.

PART 3 – AERODROMES (AD)

AD 0.

AD 0.1 Preface – Not applicable

AD 0.2 Record of AIP Amendments – See GEN 0.2-1

AD 0.3 Record of AIP Supplements – Not applicable

AD 0.4 Checklist of Pages

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AD 0.5 List of Hand Amendments to the AIP – Not applicable

AD 2. AERODROMES

1. The following is a partial list of U.S. airports designated to serve international operations. This list contains U.S. airports with scheduled passenger service in large aircraft and certain airports designated as alternate service airports. Omitted from this list are designated general aviation airports, airports with scheduled cargo but no scheduled passenger service, and certain airports having international service in commuter-type aircraft.

ICAO ID	Location	Airport Name	Designation
Alaska			
PANC	Anchorage	Ted Stevens Anchorage International	Regular
PAED	Anchorage	Elmendorf AFB	Alternate
PACD	Cold Bay	Cold Bay	Alternate
PAEI	Fairbanks	Eielson AFB	Alternate
PAFA	Fairbanks	Fairbanks International	Regular
PAJN	Juneau	Juneau International	Regular
PAKN	King Salmon	King Salmon	Alternate
American Samoa			
NSTU	Pago Pago	Pago Pago International	Regular
Arizona			
KPHX	Phoenix	Phoenix Sky Harbor International	Regular
KTUS	Tucson	Tucson International	Regular
California			
KFAT	Fresno	Fresno Yosemite International	Alternate
KLAX	Los Angeles	Los Angeles International	Regular
KOAK	Oakland	Metropolitan Oakland International	Regular
KONT	Ontario	Ontario International	Alternate
KPMD	Palmdale	Palmdale Regional/USAF Plant 42	Alternate
KSMF	Sacramento	Sacramento International	Alternate
KSAN	San Diego	San Diego International	Regular
KSFO	San Francisco	San Francisco International	Regular

ICAO ID	Location	Airport Name	Designation
KSJC	San Jose	San Jose Norman Y. Mineta International	Regular
KSCK	Stockton	Stockton Metropolitan	Alternate
Colorado			
KDEN	Denver	Denver International	Regular
KPUB	Pueblo	Pueblo Memorial	Alternate
Connecticut			
KBDL	Windsor Locks	Bradley International	Regular
District of Columbia			
KIAD	Washington	Washington Dulles International	Regular
Florida			
KFLL	Fort Lauderdale	Fort Lauderdale-Hollywood International	Regular
KRSW	Fort Myers	Southwest Florida International	Regular
KMIA	Miami	Miami International	Regular
KMCO	Orlando	Orlando International	Regular
KTPA	Tampa	Tampa International	Regular
KPBI	West Palm Beach	Palm Beach International	Regular
Georgia			
KATL	Atlanta	Hartsfield – Jackson Atlanta International	Regular
Guam			
PGUM	Agana	Guam International	Regular
PGUA	Guam Island	Andersen AFB	Alternate
Hawaii			
PHTO	Hilo	Hilo International	Alternate
PHNL	Honolulu	Honolulu International	Regular
PHOG	Kahului	Kahului	Regular
Illinois			
KORD	Chicago	Chicago-O’Hare International	Regular
Indiana			
KIND	Indianapolis	Indianapolis International	Regular

ICAO ID	Location	Airport Name	Designation
Kansas			
KICT	Wichita	Wichita Mid-Continent	Alternate
Kentucky			
KCVG	Covington	Cincinnati/ Northern Kentucky International	Regular
Louisiana			
KMSY	New Orleans	Louis Armstrong New Orleans International	Regular
Maine			
KBGR	Bangor	Bangor International	Alternate
Maryland			
KBWI	Baltimore	Baltimore–Washington International Thurgood Marshall	Regular
Massachusetts			
KBOS	Boston	General Edward Lawrence Logan International	Regular
Michigan			
KDTW	Detroit	Detroit Metropolitan Wayne County	Regular
Minnesota			
KMSP	Minneapolis	Minneapolis–St. Paul International (Wold–Chamberlain)	Regular
Missouri			
KMCI	Kansas City	Kansas City International	Regular
KSTL	St. Louis	Lambert–St. Louis International	Regular
Nevada			
KLAS	Las Vegas	McCarran International	Regular
KRNO	Reno	Reno/Tahoe International	Regular
New Jersey			
KEWR	Newark	Newark Liberty International	Regular
New York			
KJFK	New York	John F. Kennedy International	Regular

ICAO ID	Location	Airport Name	Designation
KIAG	Niagara Falls	Niagara Falls International	Alternate
KSYR	Syracuse	Syracuse Hancock International	Regular
North Carolina			
KCLT	Charlotte	Charlotte/Douglas International	Regular
KRDU	Raleigh–Durham	Raleigh–Durham International	Regular
Northern Mariana Islands			
PGSN	Saipan Island	Francisco C. Ada/Saipan International	Regular
Ohio			
KCLE	Cleveland	Cleveland–Hopkins International	Regular
KCMH	Columbus	Port Columbus International	Regular
Oregon			
KPDX	Portland	Portland International	Regular
Pennsylvania			
KPHL	Philadelphia	Philadelphia International	Regular
KPIT	Pittsburgh	Pittsburgh International	Regular
Puerto Rico			
TJMZ	Mayaguez	Eugenio Maria De Hostos	Regular
TJSJ	San Juan	Luis Munoz Marin International	Regular
Tennessee			
KMEM	Memphis	Memphis International	Regular
KBNA	Nashville	Nashville International	Regular
Texas			
KDFW	Dallas	Dallas–Fort Worth International	Regular
KELP	El Paso	El Paso International	Regular
KIAH	Houston	George Bush Intercontinental/Houston	Regular
KLRD	Laredo	Laredo International	Regular
KSAT	San Antonio	San Antonio International	Regular

ICAO ID	Location	Airport Name	Designation
Utah			
KSLC	Salt Lake City	Salt Lake City International	Regular
Virgin Islands			
TIST	Charlotte Amalie St. Thomas	Cyril E King	Regular
TISX	Christiansted St. Croix	Henry E Rohlsen	Regular
Washington			
KPAE	Everett	Snohomish County (Paine Field)	Alternate
KSEA	Seattle	Seattle–Tacoma International	Regular
KGEG	Spokane	Spokane International	Alternate
Wisconsin			
KMKE	Milwaukee	General Mitchell International	Regular

1.1 Diagrams of these airports, arranged alphabetically by state and in the order listed above, are on the pages following. The most up-to-date diagrams of these and other U.S. airports are in the Terminal Procedures Publication (TPP). For additional information on these airports, see the Chart Supplement U.S.

1.2 Public sales of the Chart Supplement U.S. and TPP are available through a network of FAA approved print providers. A listing of products, dates of latest editions, and print providers is available on the AIS website at: http://www.faa.gov/air_traffic/flight_info/aeronav.

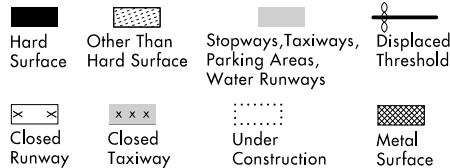
Instrument Approach Procedures (Charts) Airport Diagram/Airport Sketch

12096
LEGEND

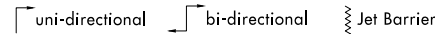
INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

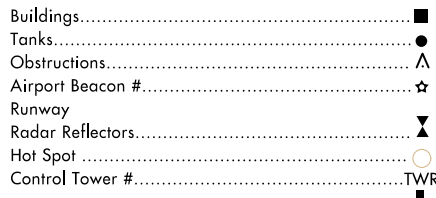


ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.



ARRESTING SYSTEM

REFERENCE FEATURES



When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A **D** symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.

Runway Weight Bearing Capacity/PCN Pavement Classification Number is shown as a codified expression.

Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 PCN 80 F/D/X/U S-75, D-185, 2S-175, 2D-325

Helicopter Alighting Areas (H symbol)
Negative Symbols used to identify Copter Procedures landing point..... (H symbol)

Runway Threshold elevation.....THRE 123
Runway TDZ elevation.....TDZE 123
Runway Slope.....0.3% DOWN
(shown when runway slope is greater than or equal to 0.3%)

NOTE:
Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

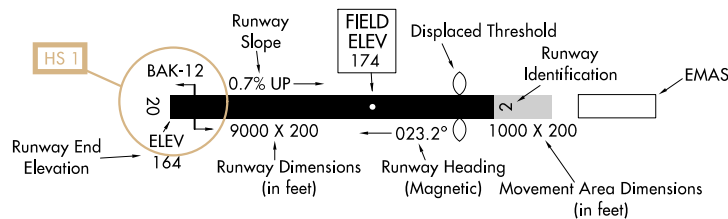
Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

Positional accuracy within ±600 feet unless otherwise noted on the chart.

NOTE:
All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)

31 MAY 2012 to 28 JUN 2012

31 MAY 2012 to 28 JUN 2012

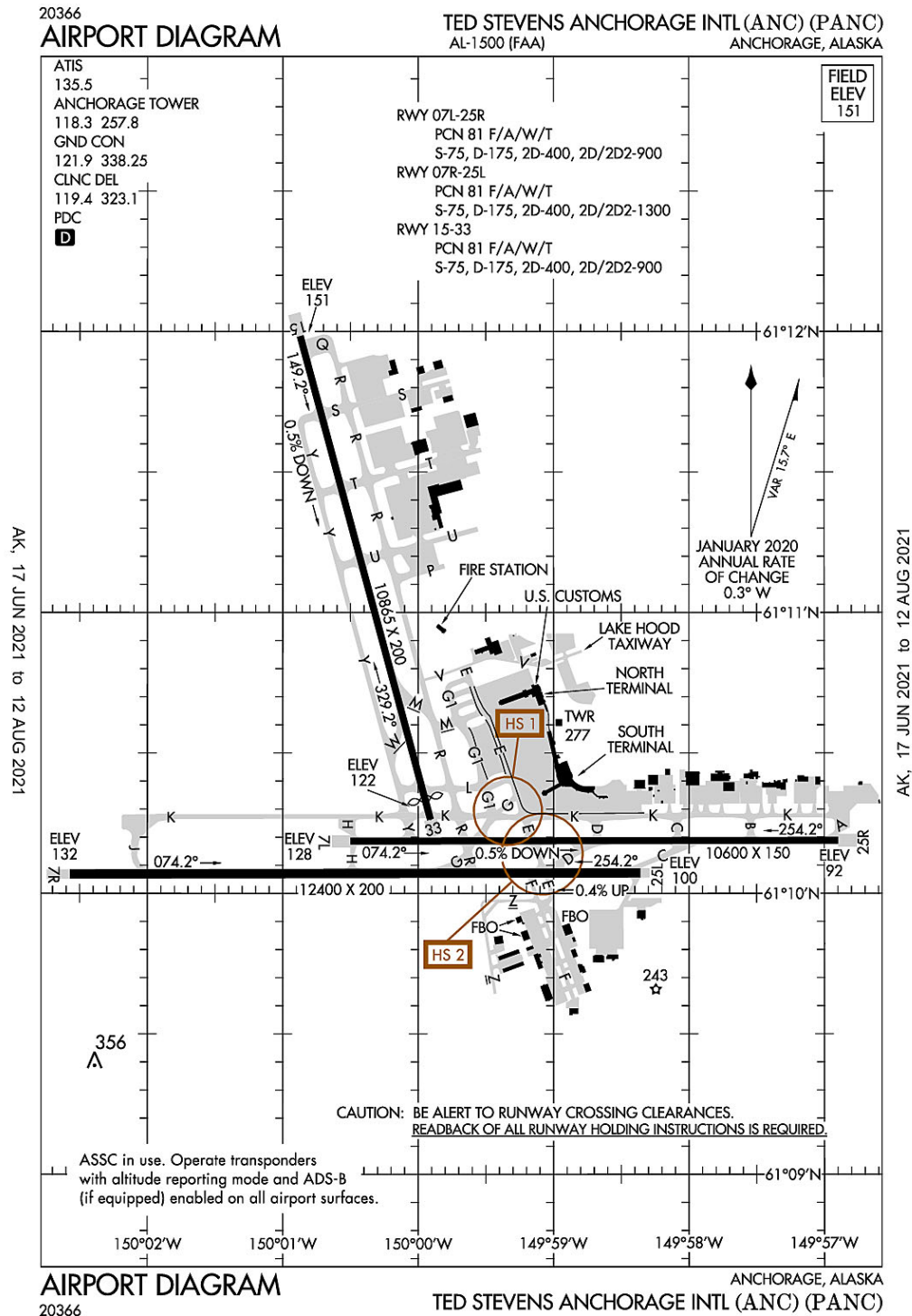


SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

LEGEND

Anchorage, Alaska
Ted Stevens Anchorage International
ICAO Identifier PANC



Anchorage, AK
Ted Stevens Anchorage Intl
ICAO Identifier PANC

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 61-10-26.705N /
149-59-53.295W
2.2.2 From City: 4 miles SW of ANCHORAGE, AK
2.2.3 Elevation: 151.4 ft
2.2.5 Magnetic Variation: 16E (2020)
2.2.6 Airport Contact: JIM SZCZESNIAK
BOX 196960
ANCHORAGE, AK 99519
(907-266-2600)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,A1,100,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 4/1/2005

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 07L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 10600 ft x 150 ft
2.12.4 PCN: 81 F/A/W/T
2.12.5 Coordinates: 61-10-11.1539N /
150-0-29.9998W
2.12.6 Threshold Elevation: 127.6 ft
2.12.6 Touchdown Zone Elevation: 128.2 ft

2.12.1 Designation: 25R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 10600 ft x 150 ft
2.12.4 PCN: 81 F/A/W/T
2.12.5 Coordinates: 61-10-11.3202N /

149-56-53.8826W
2.12.6 Threshold Elevation: 91.5 ft
2.12.6 Touchdown Zone Elevation: 91.8 ft
2.12.1 Designation: 25L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 12400 ft x 200 ft
2.12.4 PCN: 81 F/A/W/T
2.12.5 Coordinates: 61-10-4.3722N / 149-58-21.535W
2.12.6 Threshold Elevation: 100.4 ft
2.12.6 Touchdown Zone Elevation: 114.6 ft
2.12.1 Designation: 07R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 12400 ft x 200 ft
2.12.4 PCN: 81 F/A/W/T
2.12.5 Coordinates: 61-10-4.1216N / 150-2-34.3367W
2.12.6 Threshold Elevation: 131.7 ft
2.12.6 Touchdown Zone Elevation: 131.7 ft

2.12.1 Designation: 33
2.12.2 True Bearing: 345
2.12.3 Dimensions: 10865 ft x 200 ft
2.12.4 PCN: 81 F/A/W/T
2.12.5 Coordinates: 61-10-15.75N / 149-59-54.49W
2.12.6 Threshold Elevation: 121.7 ft
2.12.6 Touchdown Zone Elevation: 120.8 ft

2.12.1 Designation: 15
2.12.2 True Bearing: 165
2.12.3 Dimensions: 10865 ft x 200 ft
2.12.4 PCN: 81 F/A/W/T
2.12.5 Coordinates: 61-11-59.03N / 150-0-52.31W
2.12.6 Threshold Elevation: 151.3 ft
2.12.6 Touchdown Zone Elevation: 151.4 ft

AD 2.13 Declared Distances

2.13.1 Designation: 07L
2.13.2 Take-off Run Available: 10600
2.13.3 Take-off Distance Available: 10600
2.13.4 Accelerate-Stop Distance Available: 10600
2.13.5 Landing Distance Available: 10600

2.13.1 Designation: 25R
2.13.2 Take-off Run Available: 10600
2.13.3 Take-off Distance Available: 10600
2.13.4 Accelerate-Stop Distance Available: 10600
2.13.5 Landing Distance Available: 10600

2.13.1 Designation: 25L
2.13.2 Take-off Run Available: 12400
2.13.3 Take-off Distance Available: 12400
2.13.4 Accelerate-Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 07R
2.13.2 Take-off Run Available: 10900
2.13.3 Take-off Distance Available: 10900
2.13.4 Accelerate-Stop Distance Available: 10900
2.13.5 Landing Distance Available: 12400

2.13.1 Designation: 33
2.13.2 Take-off Run Available: 10865
2.13.3 Take-off Distance Available: 11965
2.13.4 Accelerate-Stop Distance Available: 10865
2.13.5 Landing Distance Available: 10400

2.13.1 Designation: 15
2.13.2 Take-off Run Available: 10865
2.13.3 Take-off Distance Available: 10865
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 07L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 25R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 25L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 07R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 33
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 15
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 119.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 323.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/S
2.18.3 Channel: 128.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 135.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 338.25

149-57-58.3996W

2.18.5 Hours of Operation: 24

2.19.6 Site Elevation: 112 ft

2.18.1 Service Designation: LCL/P

2.19.1 ILS Type: Glide Slope for runway 07R. Magnetic variation: 16E

2.18.3 Channel: 118.3

2.19.2 ILS Identification: ANC

2.18.5 Hours of Operation: 24

2.19.5 Coordinates: 61-10-8.1823N / 150-2-12.4572W

2.18.1 Service Designation: LCL/P

2.19.6 Site Elevation: 124.9 ft

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

2.19.1 ILS Type: Localizer for runway 07R. Magnetic variation: 16E

2.19.2 ILS Identification: ANC

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 07L. Magnetic variation: 16E

2.19.5 Coordinates: 61-10-4.3906N / 149-57-55.495W

2.19.6 Site Elevation: 97.7 ft

2.19.2 ILS Identification: TGN

2.19.1 ILS Type: DME for runway 15. Magnetic variation: 16E

2.19.5 Coordinates: 61-10-14.0636N /

2.19.2 ILS Identification: BSC

149-56-33.0327W

2.19.5 Coordinates: 61-10-0.0069N /

2.19.6 Site Elevation: 105.5 ft

149-59-40.3379W

2.19.6 Site Elevation: 134.7 ft

2.19.1 ILS Type: Glide Slope for runway 07L. Magnetic variation: 16E

2.19.2 ILS Identification: TGN

2.19.1 ILS Type: Glide Slope for runway 15. Magnetic variation: 16E

2.19.5 Coordinates: 61-10-13.93N / 150-0-9.62W

2.19.2 ILS Identification: BSC

2.19.6 Site Elevation: 122.8 ft

2.19.5 Coordinates: 61-11-46.76N / 150-0-54.42W

2.19.1 ILS Type: Localizer for runway 07L. Magnetic variation: 16E

2.19.6 Site Elevation: 151.3 ft

2.19.2 ILS Identification: TGN

2.19.1 ILS Type: Localizer for runway 15. Magnetic variation: 16E

2.19.5 Coordinates: 61-10-11.3329N /

2.19.2 ILS Identification: BSC

149-56-32.6534W

2.19.5 Coordinates: 61-9-59.9158N /

2.19.6 Site Elevation: 84.7 ft

149-59-45.6352W

2.19.6 Site Elevation: 120.9 ft

2.19.1 ILS Type: DME for runway 07R. Magnetic variation: 16E

2.19.2 ILS Identification: ANC

2.19.5 Coordinates: 61-10-2.0211N /

General Remarks:

RIGHT TURN OUT OF RAMP PARKING AREA R-2 THROUGH R-4 PROHIBITED.

UNLGTD 489 FT TWR 2 1/2 MILES NORTHEAST.

NOISE SENSITIVE AREA IN EFFECT; CTC APRT OPNS 907-266-2600 FOR FURTHER INFO.

MIGRATORY BIRDS INVOF ARPT SPRING THROUGH FALL.

FAA RAMP PPR – CTC ANC FIFO FREQ 135.85, 907-271-2414 OR AVN 405-954-9780 MON-FRI 0600-1430L.

ASSC IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

NO COMPASS CALIBRATION PAD.

TO COORDINATE NON-TRANSPONDER OR NON-RADIO OPNS CTC ANC ATCT AT 907-271-2700 DURG ADMIN HRS (0730-1600 WKDAYS). DURG NON-ADMIN HRS & HOLIDAYS CTC FAA AT 907-271-5936.

TWY J STOP BAR NON-STANDARD. LEAD ON LIGHTS REMAIN ON WHEN ACTIVATED.

RWY 07R: BACK-TAXING FM TWY J FOR DEP PROHIBITED.

TWY S, EAST OF TWY R NOT LIGHTED.

TWY V SECURITY GATE EAST OF TWY E; KEY 121.75 5 TIMES TO ACTVT. TWY V RESTRICTED TO ACFT WEIGHING 12500 LBS OR LESS. SUBJECT TO JET BLAST WEST OF TWY E.

FOR WSO PHONE 907-266-5105.

ALL TURBOJET/TURBOFAN ACFT DEPARTING RWYS 7R/7L DURING A RWY 15/33 CLOSURE WILL EMPLOY THE FAA CLOSE-IN NADP OR ICAO PROCEDURE B NADP WHEN SAFETY PERMITS.

USE FREQ 122.55 (RCO) FOR FILING, ACTIVATING & CANCELING FLIGHT PLANS IN THE ANCHORAGE BOWL AREA.

RWY END 25L HAS 200 FT BLAST PAD.

PORTIONS OF TWY K BTN TWY H & TWY J NOT VIS FROM ATCT.

ONE HR PPR FOR NON-TRANSPONDER ACFT OPNS. PPR FOR NON-RADIO ACFT OPNS. NO NIGHTTIME NON-RADIO ACFT OPNS PERMITTED. PILOTS MUST PROVIDE AN ETA & REMAIN WITHIN PLUS OR MINUS 15 MINUTES OF ETA.

ANCHORAGE WX CAMERA AVBL ON INTERNET AT [HTTP://AVCAMS.FAA.GOV](http://AVCAMS.FAA.GOV)

TRANSIENT MILITARY ACFT PPR.

[illegible]

Anchorage, AK
Elmendorf AFB
ICAO Identifier PAED

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 61–15–4.8715N / 149–48–23.4924W
- 2.2.2 From City: 3 miles NE of ANCHORAGE, AK
- 2.2.3 Elevation: 213 ft
- 2.2.5 Magnetic Variation: 18E (2015)
- 2.2.6 Airport Contact: AIRFIELD MGR
300SS/DOFJ
ELMENDORF AFB, AK 99506
(907–552–2444)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types:
- 2.4.5 Hangar Space:
- 2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: None

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 06
- 2.12.2 True Bearing: 80
- 2.12.3 Dimensions: 10000 ft x 200 ft
- 2.12.4 PCN: 58 R/B/W/T
- 2.12.5 Coordinates: 61–14–55.08N / 149–50–39.34W
- 2.12.6 Threshold Elevation: 174.5 ft
- 2.12.6 Touchdown Zone Elevation: 174.5 ft

- 2.12.1 Designation: 24
- 2.12.2 True Bearing: 260
- 2.12.3 Dimensions: 10000 ft x 200 ft
- 2.12.4 PCN: 58 R/B/W/T
- 2.12.5 Coordinates: 61–15–12.16N / 149–47–18.02W
- 2.12.6 Threshold Elevation: 201.3 ft
- 2.12.6 Touchdown Zone Elevation: 201.3 ft

- 2.12.1 Designation: 16
- 2.12.2 True Bearing: 180
- 2.12.3 Dimensions: 7493 ft x 150 ft
- 2.12.4 PCN: 55 F/A/W/T
- 2.12.5 Coordinates: 61–15–43.43N / 149–47–36.52W

- 2.12.6 Threshold Elevation: 212.5 ft
- 2.12.6 Touchdown Zone Elevation: 212.4 ft

- 2.12.1 Designation: 34
- 2.12.2 True Bearing: 360
- 2.12.3 Dimensions: 7493 ft x 150 ft
- 2.12.4 PCN: 55 F/A/W/T
- 2.12.5 Coordinates: 61–14–29.64N / 149–47–36.57W
- 2.12.6 Threshold Elevation: 184.9 ft
- 2.12.6 Touchdown Zone Elevation: 194.1 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 06
- 2.13.2 Take-off Run Available:
- 2.13.3 Take-off Distance Available:
- 2.13.4 Accelerate–Stop Distance Available:
- 2.13.5 Landing Distance Available:

- 2.13.1 Designation: 24
- 2.13.2 Take-off Run Available:
- 2.13.3 Take-off Distance Available:
- 2.13.4 Accelerate–Stop Distance Available:
- 2.13.5 Landing Distance Available:

- 2.13.1 Designation: 16
- 2.13.2 Take-off Run Available:
- 2.13.3 Take-off Distance Available:
- 2.13.4 Accelerate–Stop Distance Available:
- 2.13.5 Landing Distance Available:

- 2.13.1 Designation: 34
- 2.13.2 Take-off Run Available:
- 2.13.3 Take-off Distance Available:
- 2.13.4 Accelerate–Stop Distance Available:
- 2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

- 2.14.1 Designation: 06
- 2.14.2 Approach Lighting System: ALSF1
- 2.14.4 Visual Approach Slope Indicator System: P4L

- 2.14.1 Designation: 24
- 2.14.2 Approach Lighting System:
- 2.14.4 Visual Approach Slope Indicator System: P4L

- 2.14.1 Designation: 16
- 2.14.2 Approach Lighting System:
- 2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

ORD CNTR)
2.18.3 Channel: 282.8
2.18.5 Hours of Operation:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS
2.18.3 Channel: 124.3
2.18.5 Hours of Operation: 0700–2300

2.18.1 Service Designation: OPS (11AF COMD CEN)
2.18.3 Channel: 381
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 273.5
2.18.5 Hours of Operation: 0700–2300

2.18.1 Service Designation: OPS (ARTIC WARRIOR OPS)
2.18.3 Channel: 381
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P
2.18.3 Channel: 128.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PMSV METRO
2.18.3 Channel: 346.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P
2.18.3 Channel: 306.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PTD
2.18.3 Channel: 134.8
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PTD
2.18.3 Channel: 372.2
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 275.8
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 06. Magnetic variation: 18E

2.19.2 ILS Identification: EDF

2.19.5 Coordinates: 61–15–1.2N / 149–50–17W

2.19.6 Site Elevation: 169.2 ft

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 127.2
2.18.5 Hours of Operation: 24

2.19.1 ILS Type: Localizer for runway 06. Magnetic variation: 18E

2.19.2 ILS Identification: EDF

2.19.5 Coordinates: 61–15–14.33N / 149–46–52.29W

2.19.6 Site Elevation: 212.3 ft

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 352.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OPS (11AF RESCUE CO-ORD CNTR)
2.18.3 Channel: 123.1
2.18.5 Hours of Operation:

2.19.1 Navigation Aid Type: TACAN. Magnetic variation: 18E

2.19.2 Navigation Aid Identification: EDF

2.19.5 Coordinates: 61–15–18.03N / 149–46–9.03W

2.19.6 Site Elevation: 226.2 ft

2.18.1 Service Designation: OPS (11AF RESCUE CO-

General Remarks:

DURING VMC DEPS/MISSED APCHS/GO AROUNDS; ACFT SHALL MAINTAIN AT OR BLW 1200 FT MLS UNTIL DEP END OF RWY 06.

RWY 34 HAS A 500 FT DISPLACED THLD ALLOWING 7993 FT USABLE FOR TKFS (RWY 34 TKFS ONLY). ACFT REQ TO USE THE ADDITIONAL 500 FT FOR RWY 34 TKF MUST CTC ATC.

EXTENSIVE SVC DELAY FOR FUEL.

RWY 16/34 RUBBER ACCUM NORTH & SOUTH 1000 FT.

CAUTION: UNLIT TERRAIN 0 FT AGL/341 FT MSL, 1909 FT PRIOR TO THLD, 1914 FT RIGHT OF COURSE.

RWY 34 DEPARTURES FOR ACFT WITH WINGSPANS GREATER THAN 98 FT RQR PRIOR COORD WITH AMC, ATC TWR, OR ALD MGT.

TRAN ALERT ACFT SVC LTD TO POL SERVICING, INTAKE INSPECTIONS, MAGNETIC CHIP DETECTOR INSPECTIONS AND EOR INSPECTIONS.

QUIET HR 0630-1400Z WKDAYS; 0630-1600Z WKEND & HOLDS, AMC ACFT EXEMPT.

PREVENTIVE MAINT: TACAN WED AND FRI 1600-1700Z; ILS TUE AND THR 1500-1700Z; PAR SAT-SUN 1800-2000Z; ASR SAT-SUN 2000-2200.

LIMITED MAINTENANCE CAPABILITIES ON WKEND.

JOAP & LOW & HIGH PRESURE NITROGEN SERVICING FURNISHED DURING NORMAL DUTY HOURS, OTR TIMES ON REQUEST.

OIL: O-123, O-128, O-133, O-148, O-156, JOAP.

HGR SPACE & WARM STORAGE EXTREMELY LMTD OCT-MAY.

FOR CURRENT RCR/RSC'S ON RWY 06/24 AND RWY 16/34, AND AFLD RCRS CTC TWR.

CHANGE JET AIRCRAFT STARTING UNITS (JASU) TO, (A/M32A-86), MC-1A), (MC-2A), (AM32A-60A). (AM32-95)150 +/-5 LBS/MIN (2055 +/-68CFM) AT 51 +/-02 PSIA. LASS 150 +/-5 LBS/MIN @ 49 +/-2 PSIA.

ACFT REQUIRING CABLES DE-RIGGED MUST CTC BASE OPS 24 HR PRIOR TO ARR OR MAKE REQ PRIOR TO PPR BEING ISSUED.

IF EXP TO USE RWY 16 FOR DEP OR RWY 34 FOR LDG SEE JBER CARTEE AIRSPACE DESCRIPTION IN NOTICES SEC OF THIS SUPPLEMENT.

ALL FTR ACFT ON ARR EXPECT REDUCED SEPARATION; SAME TYPE ACFT AND DAY 3000 FT; DISSIMILAR ACFT AND/OR NIGHT 6000 FT; AHEAD/BEHIND FORMATION LDG-6000 FT.

ALL NON-AMC ACFT RQR 732 AMS MAINT/SVC MAY EXPERIENCE LOGISTICAL DELAYS DUE TO MISSION NECESSITIES.

FREQUENT ACTIVITY IN R2203. WHEN UNABLE TO AVOID CTC ATCT.

SPECIAL AIR TRAFFIC RULES FAR PART 93, SEE REGULATORY NOTICES IN THE SUPPLEMENT.

FLUID: PRESAIR, DE-ICE, NITROGEN-LHNIT.

NORMAL BARRIER CONFIGURATION DUR FTR FLY WINDOW LEAVES 5675 FT BTN CABLES ON RWY 06/24, OUTSIDE OF FTR FLY WINDOWS THERE IS 7658 FT BTN CABLES.

DV SPOTS 1 AND 3 LTD TO ACFT WITH WINGSPANS OF 136 FT OR LESS.

ALL VIP ACFT CTC BASE OPS 30 MIN PRIOR TO ARR ON PTD 372.2 OR 134.1 OR C907-552-2107.

ALL TRAN AIRCREWS OPERATING AT ELMENDORF AIRFIELD MUST DROP OFF A COPY OF THEIR CREW ORDERS TO AFLD MGMT UPON ARR.

UNITS DEPLOYING TO, STAGING OUT OF, OR FLYING LCL SORTIES AT ELMENDORF AFB MUST DEPLOY WITH MAINT PERS REQUIRED TO COMPLETE OPS TO INCLUDE DE-ICE QUALIFIED CREWMEMBERS DUR COLD WX OPS.

ANY DEPLOYED OR STAGED ACFT WILL NOT RCV TA SUPPORT BYD INITIAL BLOCK IN.

UNLESS PARTICIPATING IN MAJCOM SPONSORED EXER AT ELMENDORF; DEPLOYED OR STAGED UNITS MUST CTC 3 WG SCHEDULING AT DSN 317-552-2406 OR C907-552-2406 AS EARLY AS POSSIBLE TO COORD LOCAL AREA ORIENTATION BRIEFING, MAINT SPONSORSHIP IF APPLICABLE, AND 3 OG/CC APVL PRIOR TO LCL AREA OPS.

C17/C130 OVERT LIGHTS AVBL ON RWY 16/34. C17/C130 COVERT LIGHTS AVBL ON RWY 16.

NO SIGNS OR PAINTED HOLD SHORT LINES ON INTERSECTING RYS.

CAUTION: MOOSE ON & INVOF RWY.

LNDG RWY 16 NOT RCMND FOR JET ACFT EXCPT DURG DAY VFR DUE OBSTRN 337 FT MSL LCTD 1950 FT FM THR & 574 FT W OF CNGRN.

WX OPR H24; DSN 317-552-4903/4397, C907-552-4903/4397. AUGMENTED SFC VIS RSTD E-SW BY BLDG. EAST RAMP HOT SPOT 19 LTD, EXPLOSIVES CATS 1.1 AND 1.2 GREATER THAN OR EQUAL TO 450 LBS N.E.W. RQR EVAC OF BLDGS 16521 & 16519 FOR DURATION OF HOT ON HS19. FOR BLDG EVAC CTC 907-552-2577.

IFF SVC AVBL.

CAUTION: NUMEROUS ACFT WILL BE OPR IFR BETWEEN 1500-2000 MSL FROM BGQ 092/10 INTO R2203 TO EDF 320/07 INVOF BIG LAKE, PALMER, BIRCHWOOD, GOOSEBAY AND WASILLA, AK., MON-SAT 0300-0800Z++, AND TUES AND THU 1800-2200Z++.

CAUTION: WHEN RWY 16 VGSI INOP, STR-IN TO RWY 16 ONLY AUTHORIZED AT NIGHT WITH MAJCOM A3 APVL.

RWY 16/34 RWY DIST REMAINING (RDR) SIGNS NOT LCTD IN CORRECT LCTN. AT RWY 16 - 2 RDR 2487 FT OF RWY REMAINING. AT RWY 16 -1 RDR 1487 FT OF RWY REMAINING.

NOTICE: A RIDGE EXTENDING FROM APPROXIMATELY 260-020 DEGS ONE TO TWO MILES FROM THE TOWER PREVENTS OBSERVATION OF FOG OVER KNIK ARM. VISIBILITY MAY DROP RAPIDLY AS FOG POURS OVER RIDGE.

FUEL: J8

AFLD MGMT DOES NOT HAVE COMSEC STORAGE AVBL, FOR COMSEC STORAGE CTC COMMAND POST DSN 317-552-3000.

AMC ACFT ON AN AMC ASGN MSN CAN EXP TO HAVE MAINT SVC ACCOMPLISHED BY 732 AMS.

ALL ACFT MAINTAIN IDLE POWER ON OUTBOARD ENG WHILE TAXIING.

NVD OPS ON RWY 16/34 & RWY 06/24 MON-FRI FROM 0400-1000Z++.

JOAP, JOINT OIL ANALYSIS PROGRAM AVBL. LHNIT, LOW & HIGH PRESSURE NITROGEN SERVICING AVBL.

DE-ICE, TYPE 1 DE-ICE LIFTOFF P-88; TYPE 4 ANTI-ICE CLARIANT SAFEWING MP-LAUNCH.

PPRS WILL BE ISSUED NO EARLIER THAN 7 DAYS PRIOR TO ARR.

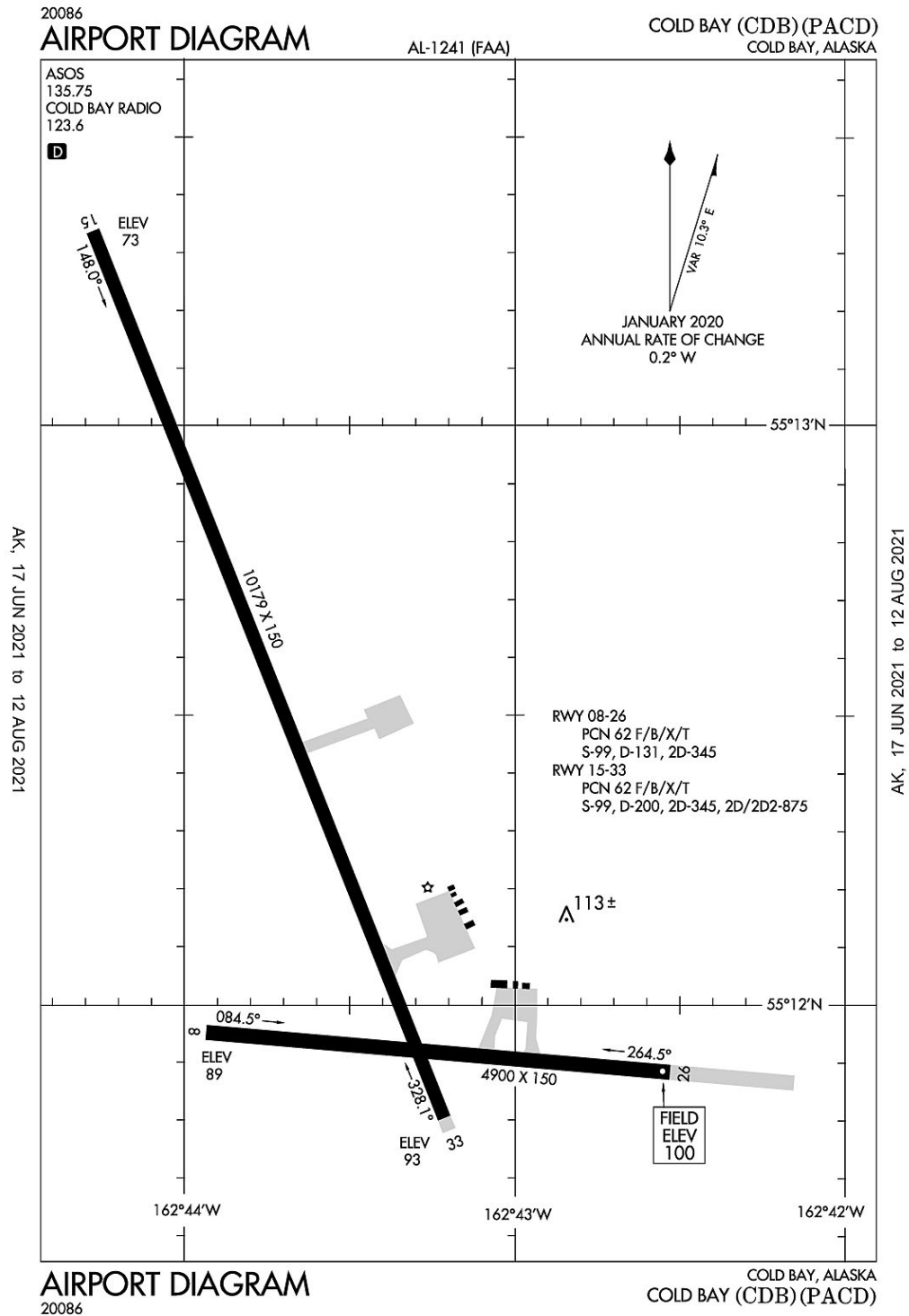
PPR REQUIRED FOR ALL NON JBER ASSIGNED ACFT EXCEPT NON-EXPLOSIVE LADEN AMCC ACFT UNLESS CONDUCTING LCL TRNG.

ACFT REQUIRING CUSTOMS AND AG INSPECTIONS ARE RQR TO CTC BASE OPS NO LATER THAN 90 MIN PRIOR TO ARR.

TWYS N2, N4 & N5 PERM CLOSED.

SUBMIT ALL PPR REQUESTS UTILIZING THE PAED PPR REQUEST FORM LOCATED IN THE PAED GIANT REPORT STIF TO BASEOPS3@US.AF.MIL NO EARLIER THAN 30 DAYS PRIOR AND NO LATER THAN 48 HOURS PRIOR TO ARRIVAL TO BEGIN COORDINATION FOR PPR.

Cold Bay, Alaska
Cold Bay
ICAO Identifier PACD



Cold Bay, AK
Cold Bay
ICAO Identifier PACD

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 55-12-21.3N / 162-43-34.5W
2.2.2 From City: 0 miles N of COLD BAY, AK
2.2.3 Elevation: 99.5 ft
2.2.5 Magnetic Variation: 12E (2015)
2.2.6 Airport Contact: HAROLD KREMER
BOX 97
COLD BAY, AK 99571
(907-532-5000)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, MON – SAT Days, 0700 – 1800 Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: 100LL,A
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I B certified on 4/1/2005

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 08
2.12.2 True Bearing: 95
2.12.3 Dimensions: 4900 ft x 150 ft
2.12.4 PCN: 62 F/B/X/T
2.12.5 Coordinates: 55-11-57.1589N /
162-43-56.7308W
2.12.6 Threshold Elevation: 88.9 ft
2.12.6 Touchdown Zone Elevation: 95.2 ft

2.12.1 Designation: 26
2.12.2 True Bearing: 275
2.12.3 Dimensions: 4900 ft x 150 ft
2.12.4 PCN: 62 F/B/X/T
2.12.5 Coordinates: 55-11-53.1425N /
162-42-32.588W
2.12.6 Threshold Elevation: 99.5 ft
2.12.6 Touchdown Zone Elevation: 99.5 ft

2.12.1 Designation: 15
2.12.2 True Bearing: 158
2.12.3 Dimensions: 10179 ft x 150 ft

2.12.4 PCN: 62 F/B/X/T
2.12.5 Coordinates: 55-13-20.4998N /
162-44-16.4235W
2.12.6 Threshold Elevation: 72.5 ft
2.12.6 Touchdown Zone Elevation: 75 ft
2.12.1 Designation: 33
2.12.2 True Bearing: 338
2.12.3 Dimensions: 10179 ft x 150 ft
2.12.4 PCN: 62 F/B/X/T
2.12.5 Coordinates: 55-11-47.2428N / 162-43-11.707W
2.12.6 Threshold Elevation: 93.3 ft
2.12.6 Touchdown Zone Elevation: 93.4 ft

AD 2.13 Declared Distances

2.13.1 Designation: 08
2.13.2 Take-off Run Available: 4900
2.13.3 Take-off Distance Available: 4900
2.13.4 Accelerate-Stop Distance Available: 4900
2.13.5 Landing Distance Available: 4900

2.13.1 Designation: 26
2.13.2 Take-off Run Available: 4900
2.13.3 Take-off Distance Available: 4900
2.13.4 Accelerate-Stop Distance Available: 4900
2.13.5 Landing Distance Available: 4900

2.13.1 Designation: 15
2.13.2 Take-off Run Available: 10180
2.13.3 Take-off Distance Available: 10180
2.13.4 Accelerate-Stop Distance Available: 10180
2.13.5 Landing Distance Available: 10180

2.13.1 Designation: 33
2.13.2 Take-off Run Available: 10180
2.13.3 Take-off Distance Available: 10180
2.13.4 Accelerate-Stop Distance Available: 10180
2.13.5 Landing Distance Available: 10180

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 08
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 15

2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 33
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.19.6 Site Elevation: 71 ft

2.19.1 ILS Type: Localizer for runway 15. Magnetic
variation: 12E
2.19.2 ILS Identification: CDB
2.19.5 Coordinates: 55-11-40.9813N /
162-43-7.3592W
2.19.6 Site Elevation: 95.9 ft

**AD 2.18 Air Traffic Services Communication
Facilities**

AD 2.19 Radio Navigation and Landing Aids
2.19.1 ILS Type: Glide Slope for runway 15. Magnetic
variation: 12E
2.19.2 ILS Identification: CDB
2.19.5 Coordinates: 55-13-12.7692N /
162-44-3.6464W

2.19.1 Navigation Aid Type: VORTAC. Magnetic
variation: 10E
2.19.2 Navigation Aid Identification: CDB
2.19.5 Coordinates: 55-16-2.2606N /
162-46-26.3866W
2.19.6 Site Elevation: 98.5 ft

General Remarks:

TWR 4.8 NM NW OF ARPT UNLGTD, TWR 0.9 NM S OF ARPT UNLGTD AND TWR 0.4 NM N OF ARPT UNLGTD.

ARPT SAND LARGER GRADATION THAN FAA RECOMMENDED/SEE AC150/5200-30.

WX CAMERA AVBL ON INTERNET AT [HTTP://AVCAMS.FAA.GOV](http://AVCAMS.FAA.GOV)

BRAKELOCK TURNS NOT ALLOWED ON RYS.

NO CUSTOMS AVBL; WRITTEN PERMISSION REQUIRED FOR REFUELING STOPS 24-48 HRS IN ADVANCE IF
ARRIVING FROM A FOREIGN COUNTRY; FAX 907-271-2684 OR 907-271-2686.

ROTG BCN OPS UNMONITORED WHEN CDB FSS UNMANNED.

REMARK: NWS WEATHER BALLOON LAUNCH FACILITY LOCATED ON AIRPORT,SEE INSIDE BACK COVER
FOR OPERATIONS DETAILS.

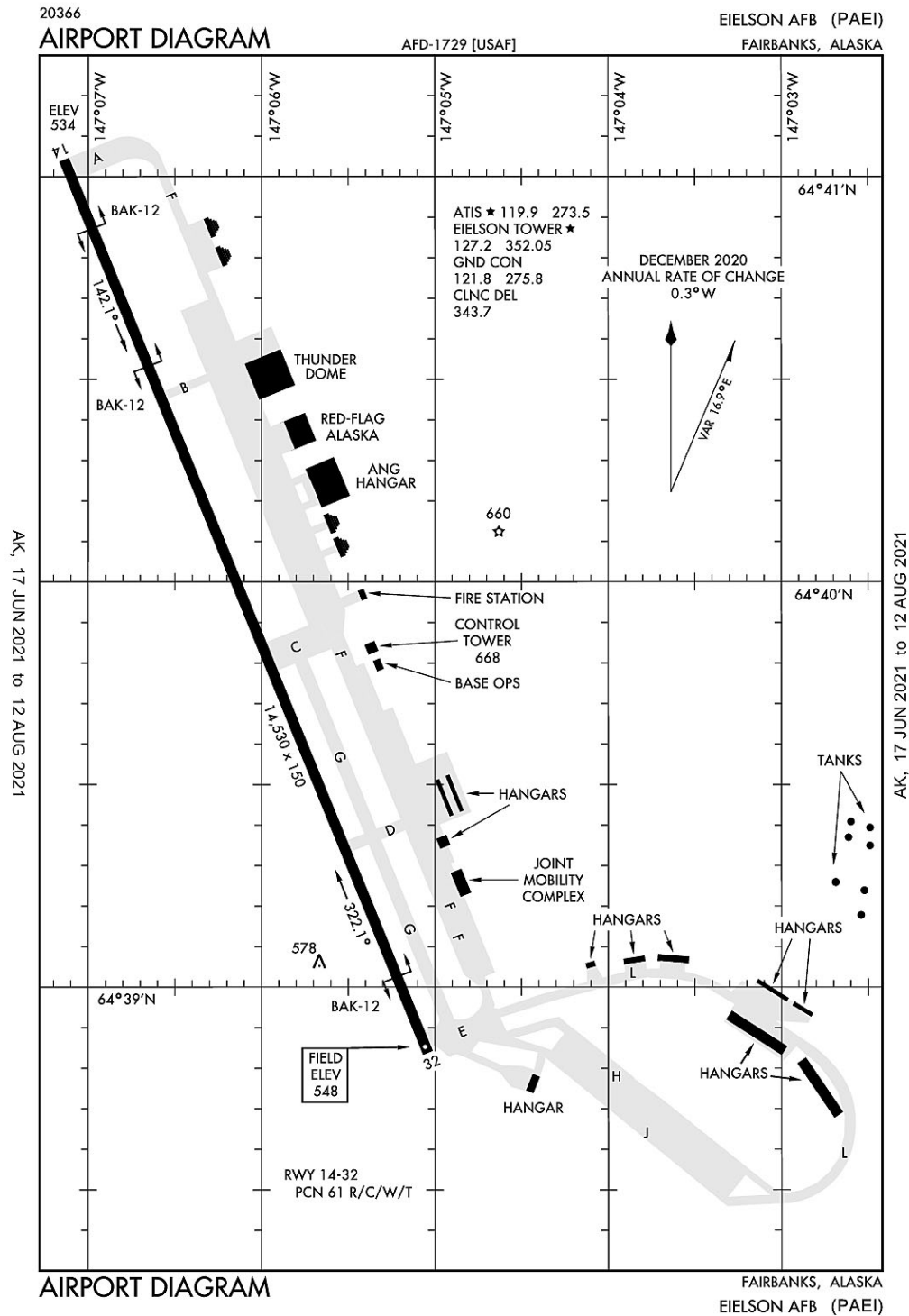
PERSONNEL AND EQUIPMENT MAY BE WORKING ON THE RY AT ANY TIME.

LARGE BIRDS NEAR APCH ENDS OF ALL RYS.

CFR INDEX B. INDEX MAY BE REDUCED FOR ACFT LESS THAN 90'.

SNOW & ICE REMOVAL AND ARPT HAZ RPRTG ONLY PERFORMED DURG DUTY HRS UNLESS BY PRIOR
ARNGMT IN WRITING WITH AMGR.

Fairbanks, Alaska
Eielson AFB
ICAO Identifier PAEI



Fairbanks, AK
Eielson AFB
ICAO Identifier PAEI

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 64–39–56.32N / 147–6–5.18W
2.2.2 From City: 17 miles SE of FAIRBANKS, AK
2.2.3 Elevation: 547.5 ft
2.2.5 Magnetic Variation: 19E (2015)
2.2.6 Airport Contact: CHIEF AIRFIELD MANAGEMENT
343 CSG/OTM
EIELSON AFB, AK 99702 (907–377–3201)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, 1600–0800Z++ Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types:
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: None

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 32
2.12.2 True Bearing: 339
2.12.3 Dimensions: 14530 ft x 150 ft
2.12.4 PCN: 61 R/C/W/T
2.12.5 Coordinates: 64–38–49.48N / 147–5–5.85W
2.12.6 Threshold Elevation: 547.5 ft
2.12.6 Touchdown Zone Elevation: 547.5 ft

2.12.1 Designation: 14
2.12.2 True Bearing: 159
2.12.3 Dimensions: 14530 ft x 150 ft
2.12.4 PCN: 61 R/C/W/T
2.12.5 Coordinates: 64–41–3.14N / 147–7–4.52W
2.12.6 Threshold Elevation: 533.9 ft
2.12.6 Touchdown Zone Elevation: 536.8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 32
2.13.2 Take–off Run Available:
2.13.3 Take–off Distance Available:
2.13.4 Accelerate–Stop Distance Available:

2.13.5 Landing Distance Available:

2.13.1 Designation: 14
2.13.2 Take–off Run Available:
2.13.3 Take–off Distance Available:
2.13.4 Accelerate–Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 32
2.14.2 Approach Lighting System: ALSF1
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 14
2.14.2 Approach Lighting System: ALSF1
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS
2.18.3 Channel: 119.9
2.18.5 Hours of Operation: 1600–0800Z++

2.18.1 Service Designation: ATIS
2.18.3 Channel: 273.5
2.18.5 Hours of Operation: 1600–0800Z++

2.18.1 Service Designation: CD/P
2.18.3 Channel: 343.7
2.18.5 Hours of Operation: 1600–0800Z++

2.18.1 Service Designation: COMD POST (IGLOO OPS)
2.18.3 Channel: 259.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: COMD POST (IGLOO OPS, HAVE QUICK)
2.18.3 Channel: 289.4
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 1600–0800Z++

2.18.1 Service Designation: GND/P
2.18.3 Channel: 275.8
2.18.5 Hours of Operation: 1600–0800Z++

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 127.2
2.18.5 Hours of Operation: 1600-0800Z++

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 352.05
2.18.5 Hours of Operation: 1600-0800Z++

2.18.1 Service Designation: OPS (SOURDOUGH)
2.18.3 Channel: 139.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: OPS (168 ANG OPS)
2.18.3 Channel: 238.3
2.18.5 Hours of Operation:

2.18.1 Service Designation: OPS (168 ANG OPS)
2.18.3 Channel: 293.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: OPS (SOURDOUGH)
2.18.3 Channel: 359.15
2.18.5 Hours of Operation:

2.18.1 Service Designation: PMSV METRO
2.18.3 Channel: 346.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: PTD
2.18.3 Channel: 139.3
2.18.5 Hours of Operation:

2.18.1 Service Designation: PTD
2.18.3 Channel: 372.2
2.18.5 Hours of Operation:

2.18.1 Service Designation: RANGE CTL (SUAIS RADIO)
2.18.3 Channel: 125.3
2.18.5 Hours of Operation:

2.18.1 Service Designation: SFA
2.18.3 Channel: 118.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: SFA
2.18.3 Channel: 259.1

2.18.5 Hours of Operation:

2.18.1 Service Designation: SFA
2.18.3 Channel: 318.2
2.18.5 Hours of Operation:

2.18.1 Service Designation: SFA
2.18.3 Channel: 320.1
2.18.5 Hours of Operation:

2.18.1 Service Designation: SFA
2.18.3 Channel: 324.3
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 14. Magnetic variation: 19E

2.19.2 ILS Identification: EIL
2.19.5 Coordinates: 64-40-51.59N / 147-7-6.54W
2.19.6 Site Elevation: 532 ft

2.19.1 ILS Type: Localizer for runway 14. Magnetic variation: 19E

2.19.2 ILS Identification: EIL
2.19.5 Coordinates: 64-38-33.05N / 147-4-51.27W
2.19.6 Site Elevation: 548 ft

2.19.1 ILS Type: Glide Slope for runway 32. Magnetic variation: 19E

2.19.2 ILS Identification: EAF
2.19.5 Coordinates: 64-38-58.93N / 147-5-25.28W
2.19.6 Site Elevation: 540 ft

2.19.1 ILS Type: Localizer for runway 32. Magnetic variation: 19E

2.19.2 ILS Identification: EAF
2.19.5 Coordinates: 64-41-22.13N / 147-7-21.41W
2.19.6 Site Elevation: 528 ft

2.19.1 Navigation Aid Type: TACAN. Magnetic variation: 19E

2.19.2 Navigation Aid Identification: EIL
2.19.5 Coordinates: 64-39-13.67N / 147-5-38.21W
2.19.6 Site Elevation: 542.4 ft

General Remarks:

ALASKA ANG 168TH AREFS OPS DSN (317-377-8800, C 907-377-8800) ANG OPR 24 HRS. AIRFIELD MANAGEMENT DSN 317-377-1861/3201.

DEP ACFT REMAIN AT OR BLW 1500 FT TIL DEP END OF RWY.

SEE AP1 SUPPLEMENTARY ARPT RMKS. LIMITED SECRET AND COMSEC STORAGE AVBL AT AIRFIELD MANAGEMENT.

OVERHEAD TFC PAT ALT 2000 FT MSL; RECTANGULAR TFC PAT ALT 1500 FT MSL.

QUIET HRS DLY 0700-1500Z-, NO TKOF, LDG, LO APCH, OR TGL, EXCEPTIONS RQR OPS GROUP COMMANDER APPROVAL. UNCONTROLLED TKOF/LDG NOT AUTH.

ALL CONTINGENCY OPER CTC AMGR FOR COORDINATION.

TRAN ALERT: TRANSIENT MAINT LMTD TO F16 SVCG UPON AIRCREW REQ. THRU FLIGHT/BPO/PRE-FLIGHT ISNP OF F16 NOT AVBL.

DURING BIRD WATCH CONDITION MODERATE LCL PATTERN WORK LIMITED TO MIN RQR WITH OG/CC APPROVAL, NO TGL, FORMATION TKOF/LNDG PROHIBITED AND LOW APCH LIMITED TO 300 FT AGL. DURING BIRD WATCH CONDITION SEVERE; TKOF, PATTERN, AND LNDG PROHIBITED WITHOUT OG/CC APPROVAL, EXCP FOR EMERG.

NO ENGINE RUNNING ON-LOADS/OFF-LOADS (ERO) SERVICES AVAILABLE FOR AMC AIRCRAFT.

NSTD RWY EDGE LGTS.

FOR FLT ADVISORIES OR STATUS OF RESTRICTED & MOAS CTC EIELSON RANGE CTL ON SAUIS RADIO 125.3 OR CALL 1-800-758-8723.

AIR TERMINAL AND GROUND HANDLING SVC OPRS 1630-0030Z++ WEEKDAYS. ACFT REQUIRING TERMINAL AND GROUND HANDLING SVC ARE REQUIRED TO PROVIDE ADVANCE NOTICE OR DELAYS IN SVC MAY BE EXPERIENCED. ACFT REQUIRING SVC SHOULD MAKE PRIOR COORDINATION WITH AIRFIELD MANAGEMENT.

N & S BARRIER RUNOUT REDUCED TO 950 FT.

MOOSE HAVE BEEN SPOTTED ON OR NEAR THE RWY ENVIRONMENT ALL HRS OF THE DAY.

PRE-COORDINATE WITH MAINT OPS CENTER DSN 317-377-1205 NO LATER THAN 48 HRS FROM ETA. ANY DEPLOYED OR STAGED ACFT WILL NOT RECEIVE TA SUPPORT BYD INITIAL BLOCK IN/FINAL BLOCK OUT, UNLESS PARTICIPATING IN MAJCOM SPONSORED EXER AT EIELSON. UHF IS THE PREF PATTERN FREQ.

VHF PTD FREQUENCY IS UNMONITORED.

MILITARY-FLUID DE-ICE AVBL, ANTI-ICE UNAVBL.

CTC AIRFIELD MANAGEMENT DSN 317-377-1861, C907-377-1861 FOR PPR NUMBER NO EARLIER THAN 5 DAYS AND NO LATER THAN 24 HR PRIOR TO ARR. PPR GOOD FOR +/- 30 MIN OF PPR TIME. COORD OF PPR OUTSIDE OF TIME BY PHONE IS REQ OR PPR NR WILL BE CONSIDERED CNL. EXP ARR TIME RESTRICTION FOR ALL ACFT EXC AIR EVAC AND DV CODE 7 OR HIGHER.

BASH PHASE II MONTHS ARE APR, MAY, AUG AND SEPT. DURING PERIODS OF STANDING WATER ON THE AIRFIELD, GULLS, DUCKS, GEESE AND OTHER BIRDS POSE A SIGNIFICANT HAZARD TO ACFT. REPORT ALL BIRD AND ANIMAL STRIKES ON & INVOF EILSON TO AIRFIELD MANAGEMENT, DSN 317-377-186, PTD OR 354 FW/SE DSN 317-377-4110.

TRANS ALERT SVC AVBL 0700-0000 MON-FRI EXCP HOL; OTHER TIMES PPR THROUGH BASOPS.

CAUTION: NSTD LGT, 2000 FT OF RWY EDGE LGT BTN DELTA-CHARLIE TWYS LCTD 12 FT FR RWY EDGE.

AUGMENTATION CAPABLE 1600-0800Z-. DUR EVAC OF WX STN CTC OP WX SQDN AT NR ABV. ALT WX LCTN VIS SEVERELY LTD DUE TO BLDG AND PRK ACFT.

PAEW ON RWY 14-32 WHEN TWR UNMANNED.

TRANS BILLETING EXTREMELY LTD/EXTENSIVE FUEL DELAYS DUR RED FLAG ALASKA EXERCISE (APR-OCT).

AIRPORT RMKS: RWY 300 FT WIDE ENTIRE LENGTH, CENTER 150 FT USABLE.

UNMONITORED WHEN PAEI TWR CLSD. WX SUPPORT OPR H24, DSN 317-377-3140/1160 FR 1600-0800Z-; FR 0800-1600Z- PLEASE CALL COMD POST FOR AFTERHOURS DSN 317-377-1500. SVC PRIORITY GIVEN TO LCL FLYING SCHEDULE. WX BRIEFING AVBL DSN 317-377-3140/1160.

PORTIONS OF APRON 'O' ROW AND SOUTH RAMP NOT VISIBLE FROM TWR.

LOOP TWY EAST OF CORROSION/ HANGAR 1348 THROUGH THE 4/8 BAY AREA RESTRICTED TO ACFT W/WINGSPAN OF 45 FT OR SMALLER.

EDGE LGT NSTD RWY 32/14 AT TWY A RWY EDGE LGT AT TWY A ENTRANCE ON THE EAST SIDE OF THE RWY; RESULTING GAP BTN LGT IS 446 FT.

BASE OPS DOES NOT HAVE COMSEC RESPONSIBILITIES. BASE OPS WILL NOT ISSUE COMSEC.

TO AVOID DELAY FILE FLIGHT PLAN AT LEAST 2 HRS PRIOR TO ESTIMATED TIME OF DEPARTURE. ARRIVALS REQUIRING CUSTOMS MUST NOTIFY COMMAND POST 1.5 HRS PRIOR TO LANDING. U.S. IMMIGRATION SVC NOT AVBL. AIR TERMINAL AND GROUND HANDLING SVC OPRS 1630-0030Z++ WEEKDAYS.

CARGO & PSGR CARRYING ACFT CALL COMMAND POST 3 HRS PROIR TO LNDG AND 30 MIN PROIR TO LNDG AND STATE NUMBER OF PASSENGERS.

PMSV: METRO BELOW 3000 FT RECEPTION FROM 300-090 IS LIMITED BEYOND 15NM BY TERRAIN, BELOW 15000 FT LIMITED BEYOND 75NM, NO LIMITATIONS WITHIN 100NM AT 20000 FT.

EDGE LGT NSTD RWY 32/14 AT TWY C RWY EDGE LGT AT TWY C ENTRANCE ON THE EAST SIDE OF THE RWY; RESULTING GAP BTN LGT IS 400 FT.

AIRCREW BE ADVISED FLD COND NOTAM (FICON) AND RWY COND CODE (RWYCC) NOT REPORTED BY AMOPS.

ALL PACAF FTR ACFT ON ARR EXPECT REDUCED RWY SEPARATION; SIMILAR FTR TYPE/DAY - 3000 FT; DISSIMILAR FTR TYPE AND/OR NGT WET RWY OR RCR RPT LESS THAN 17 - 6000 FT; BEHIND FORMATION LNDG - 6000 FT; FTR TYPE LDG BEHIND NON-FTR TYPE - 9000 FT; RCR VALIDATED AS CONDITIONS WARRANT.

AVOID SMALL ARMS RANGE LCTD 2.5 NM E OF APCH END RWY 32. SMALL ARM RANGE ACTIVE WKD 1700-0100Z++, SFC TO 3500 FT AGL.

CRYPTO MATERIALS NOT AVBL TRAN CREW. ALL ACFT WITH VIP CTC AIRFIELD MANAGEMENT 20-30 MINUTES PRIOR TO ETA WITH FIRM CHOCK TIME. LTD FLEET SVC AVBL, NO POTABLE WATER.

LIMITED SECRET AND COMSEC STORAGE AVBL AT BASE OPS. AIRFIELD MANAGEMENT DOES NOT HAVE

COMSEC RESPONSIBILITIES. FOR TOP SECRET AND COMSEC ISSUE/STORAGE CTC COMMAND COMMAND POST DSN 317-377-1500.

RWY 14 & 32 PAPI GS NOT COINCIDENTAL WITH ILS GS.

FAIRBANKS FSS LC 474-0137. FOR FLIGHT ADVISORIES OR STATUS OF RESTRICTED AND MILITARY OPERATING AREAS, CTC EIELSON RANGE CONTROL ON SUAIS RADIO 125.3 OR TELEPHONE 1-800-758-8723.

PHONE PATCH CAPABILITY THROUGH 354 FW/CP AT 907-377-1500. FMQ19 907-377-5846.

ARFF STATUS CRITICAL LVL OF SVC (CLS) 62% FOR USAF CAT 10; AND REDUCED LVL OF SVC (RLS) 81% FOR USAF CAT 9.

BRIEFING FOR TRANSIENT AIRCREWS BEYOND NORMAL OPERATING HRS VIA 17TH OWS AT JOINT BASE PEARL HARBOR-HICKAM DSN 315-449-8333/7950 C808-449-8333/7950 OR DSN 315-448-3809, C808-448-3809.

RWY 14/32 BAK-12 DEP END CABLES IN RAISED POSITION; BAK-12 AER 14/32 AVBL WITH 20 MIN PRIOR NOTICE. NORTH BARRIER RUNOUT REDUCED TO 950 FT, HOOK EQUIPPED ACFT BE ALERT.

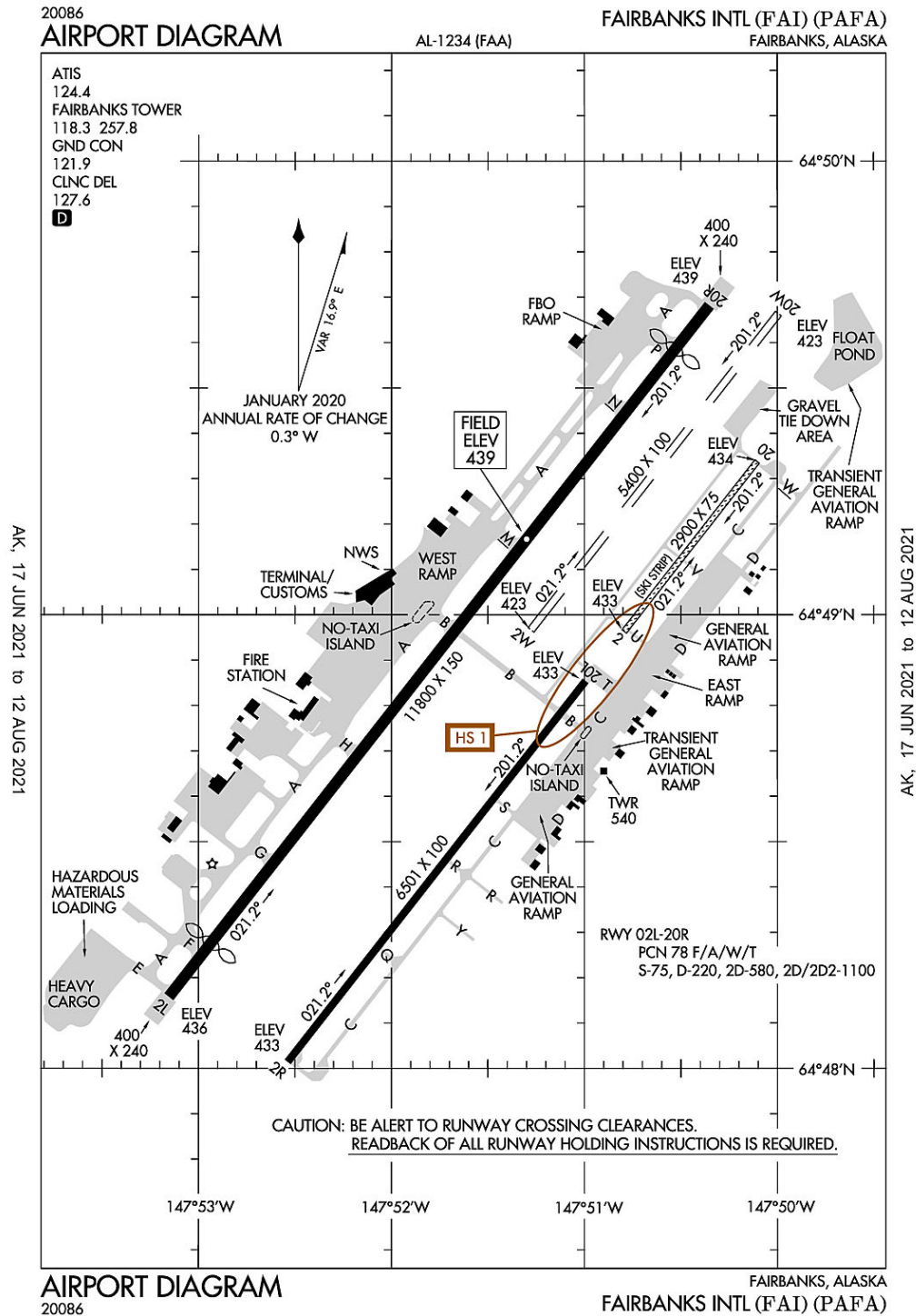
CAUTION: FIRE HYDRANTS LCTD 64 FT NE OF TWY H CNTLN.

AIRPORT RMKS: PRIME KNIGHT NOT AVBL.

ARPT OPR 1600-0800Z++.

RADIO/NAV/WEATHER REMARKS - (F) 1500-0700Z ++ DAILY.

Fairbanks, Alaska
Fairbanks International
ICAO Identifier PAFA



Fairbanks, AK
Fairbanks Intl
ICAO Identifier PAFA

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 64-48-54.4N / 147-51-23.2W
2.2.2 From City: 3 miles SW of FAIRBANKS, AK
2.2.3 Elevation: 439 ft
2.2.5 Magnetic Variation: 18E (2020)
2.2.6 Airport Contact: ANGIE SPEAR
6450 AIRPORT WAY – SUITE 1
FAIRBANKS, AK 99709
(907-474-2500)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A1,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 3/1/2005

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 02
2.12.2 True Bearing: 38
2.12.3 Dimensions: 2900 ft x 75 ft
2.12.4 PCN:
2.12.5 Coordinates: 64-48-57.8002N /
147-50-47.5998W
2.12.6 Threshold Elevation: 433 ft
2.12.6 Touchdown Zone Elevation: 434.6 ft

2.12.1 Designation: 20
2.12.2 True Bearing: 218
2.12.3 Dimensions: 2900 ft x 75 ft
2.12.4 PCN:
2.12.5 Coordinates: 64-49-20.2644N /
147-50-6.2715W
2.12.6 Threshold Elevation: 433.6 ft
2.12.6 Touchdown Zone Elevation: 434.6 ft

2.12.1 Designation: 20R
2.12.2 True Bearing: 218
2.12.3 Dimensions: 11800 ft x 150 ft

2.12.4 PCN: 78 F/A/W/T
2.12.5 Coordinates: 64-49-40.9108N /
147-50-21.1293W
2.12.6 Threshold Elevation: 438.9 ft
2.12.6 Touchdown Zone Elevation: 439 ft
2.12.1 Designation: 02L
2.12.2 True Bearing: 38
2.12.3 Dimensions: 11800 ft x 150 ft
2.12.4 PCN: 78 F/A/W/T
2.12.5 Coordinates: 64-48-9.4756N / 147-53-9.1838W
2.12.6 Threshold Elevation: 435.6 ft
2.12.6 Touchdown Zone Elevation: 438.6 ft

2.12.1 Designation: 02R
2.12.2 True Bearing: 38
2.12.3 Dimensions: 6501 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 64-48-0.8635N /
147-52-32.2371W
2.12.6 Threshold Elevation: 433.2 ft
2.12.6 Touchdown Zone Elevation: 433.2 ft

2.12.1 Designation: 20L
2.12.2 True Bearing: 218
2.12.3 Dimensions: 6501 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 64-48-51.2387N /
147-50-59.6666W
2.12.6 Threshold Elevation: 433.1 ft
2.12.6 Touchdown Zone Elevation: 434.2 ft

2.12.1 Designation: 20W
2.12.2 True Bearing: 218
2.12.3 Dimensions: 5400 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 64-49-39.8349N /
147-49-59.6293W
2.12.6 Threshold Elevation: 423.4 ft
2.12.6 Touchdown Zone Elevation: 423.4 ft

2.12.1 Designation: 02W
2.12.2 True Bearing: 38
2.12.3 Dimensions: 5400 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 64-48-58.0039N /
147-51-16.5892W
2.12.6 Threshold Elevation: 423.4 ft
2.12.6 Touchdown Zone Elevation: 423.4 ft

AD 2.13 Declared Distances

2.13.1 Designation: 02
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 20
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 20R
2.13.2 Take-off Run Available: 11800
2.13.3 Take-off Distance Available: 12800
2.13.4 Accelerate-Stop Distance Available: 11800
2.13.5 Landing Distance Available: 11050

2.13.1 Designation: 02L
2.13.2 Take-off Run Available: 11800
2.13.3 Take-off Distance Available: 12800
2.13.4 Accelerate-Stop Distance Available: 11800
2.13.5 Landing Distance Available: 11050

2.13.1 Designation: 02R
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 20L
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 20W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 02W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 02
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 20
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 20R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 02L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 02R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 20L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 20W
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 02W
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P (360–179)
2.18.3 Channel: 127.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (360–179)
2.18.3 Channel: 251.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC (180–359)
2.18.3 Channel: 125.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC (180–359)
2.18.3 Channel: 363.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S

2.18.3 Channel: 119.85

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS

2.18.3 Channel: 124.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 127.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/S

2.18.3 Channel: 327.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 118.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RADAR

2.18.3 Channel: 253.525

2.18.5 Hours of Operation:

2.18.1 Service Designation: RADAR

2.18.3 Channel: 338.275

2.18.5 Hours of Operation:

2.18.1 Service Designation: RADAR

2.18.3 Channel: 353.525

2.18.5 Hours of Operation:

2.18.1 Service Designation: TRSA (180–359)

2.18.3 Channel: 125.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TRSA (360–179)

2.18.3 Channel: 127.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TRSA (360–179)

2.18.3 Channel: 251.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TRSA (180–359)

2.18.3 Channel: 363.2

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 02L. Magnetic variation: 18E

2.19.2 ILS Identification: CNA

2.19.5 Coordinates: 64–49–50.7376N /
147–50–15.0194W

2.19.6 Site Elevation: 434.8 ft

2.19.1 ILS Type: Glide Slope for runway 02L. Magnetic variation: 18E

2.19.2 ILS Identification: CNA

2.19.5 Coordinates: 64–48–21.0041N /
147–52–36.2974W

2.19.6 Site Elevation: 431.4 ft

2.19.1 ILS Type: Inner Marker for runway 02L. Magnetic variation: 18E

2.19.2 ILS Identification: CNA

2.19.5 Coordinates: 64–48–7.6611N /
147–53–12.5267W

2.19.6 Site Elevation: 429.8 ft

2.19.1 ILS Type: Localizer for runway 02L. Magnetic variation: 18E

2.19.2 ILS Identification: CNA

2.19.5 Coordinates: 64–49–49.8419N / 147–50–4.688W

2.19.6 Site Elevation: 438.1 ft

2.19.1 ILS Type: DME for runway 20R. Magnetic variation: 18E

2.19.2 ILS Identification: FAI

2.19.5 Coordinates: 64–48–2.289N / 147–53–30.754W

2.19.6 Site Elevation: 430 ft

2.19.1 ILS Type: Glide Slope for runway 20R. Magnetic

variation: 18E
2.19.2 ILS Identification: FAI
2.19.5 Coordinates: 64-49-24.4215N /
147-50-39.7123W
2.19.6 Site Elevation: 434.3 ft

2.19.5 Coordinates: 64-48-1.4733N /
147-53-23.8771W
2.19.6 Site Elevation: 429.1 ft

2.19.1 ILS Type: Localizer for runway 20R. Magnetic
variation: 18E
2.19.2 ILS Identification: FAI

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 21E
2.19.2 Navigation Aid Identification: FAI
2.19.5 Coordinates: 64-48-0.2537N / 148-0-43.1132W
2.19.6 Site Elevation: 1526.4 ft

General Remarks:

NWS WEATHER BALLOON LAUNCH SITE 2000 FEET WEST OF MIDFIELD RUNWAY 02L/20R. LAUNCHES
ARE TWICE DAILY AT 1100 AND 2300 HOURS UTC.

MILITARY CONTRACT FUEL AVBL.

COLD TEMPERATURE AIRPORT. ALTITUDE CORRECTION REQUIRED AT OR BELOW -32C.

FOR AVBLTY OF SUMMER GRAVEL STRIP RWY 02/20 AND WINTER SKI STRIP RWY 02/20 CONSULT LOCAL
NOTAMS AND CTC TWR PRIOR TO ARRIVAL /DEPARTURE.

WX CAMERA AVBL ON INTERNET AT [HTTP://AVCAMS.FAA.GOV](http://AVCAMS.FAA.GOV)

FOR TRANSIENT HELICOPTER PARKING CALL ARPT OPS 907-451-2300.

FOR FLIGHTS IN MOAS EAST OF FAIRBANKS RECOMMEND CONTACTING EIELSON RANGR CONTROL ON
125.3/126.3 OR CALL 1-800-758-8723 FOR INFORMATION ON MILITARY ACTIVITES.

SPB CONTROLLED BY FAIRBANKS INTL ATCT. CTC ATCT ON FREQ 118.3 AS SOON AS PRACTICAL AFTER
START UP FOR TAXI ON THE POND. FLOAT POND TFC AS ASSIGNED BY FAIRBANKS ATCT. LIMITED
TRANSIENT FLOAT PLANE PARKING AVBL, CTC REPUBLIC PARKING SYSTEM, LLC 907-455-4571 FOR
INFORMATION. SFC FROZEN IN WINTER, NOT MONITORED.

ATCT LOCATED AT 64-48-39.438N 147-50-55.722W, ELEVATION 538 FT MSL.

BE ALERT FOR SNOW REMOVAL EQUIPMENT OPNS FM 1 OCT TO 15 MAY.

TRANSIENT PARKING EAST RAMP FOR ACFT WITH WINGSPAN LESS THAN 79 FT. NO TRANSIENT ACFT
PARKING ON WEST RAMP, CTC APT OPS 907-451-2300 FOR INFO & MEDIVAC PARKING.

ALL RWY HOLD LINES AND COMPASS ROSE AT TWY W OBSCURED OCTOBER 1 THRU APRIL 1.

NOISE ABATEMENT PROCEDURES IN EFECT FM 2200-0800 ALL LARGE ACFT, TURBINE ENGINE, AND
HEAVY ACFT UTILIZE RWY 02L FOR ARRS AND RWY 20R FOR DEPS WHEN WIND IS NOT AN
OPERATIOINAL FACTOR. CTC APRT OPNS FOR ENGINE RUN-UP LOCATIONS.

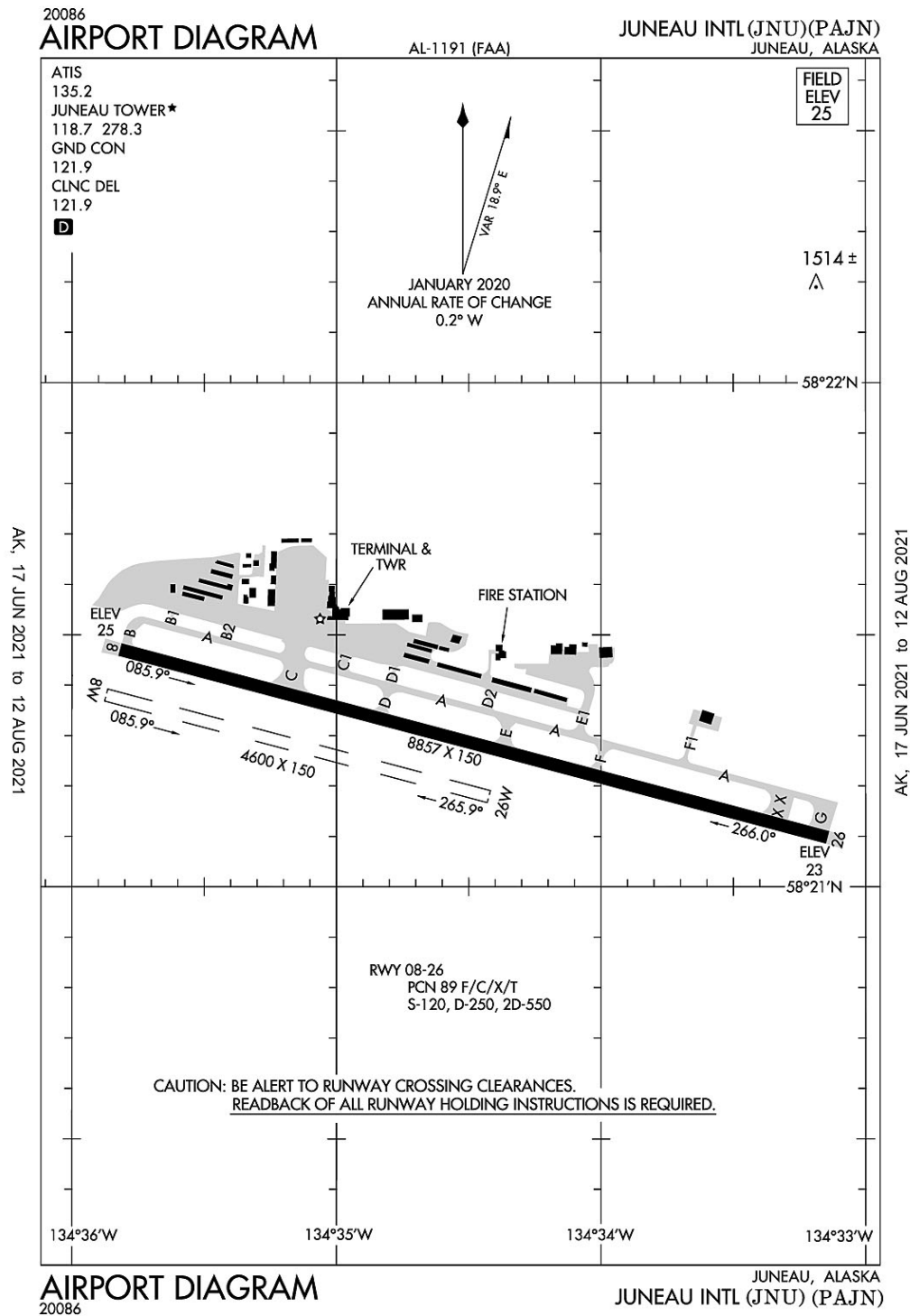
N/S TAXIWAY (TWY A) IS WEST AND PARALLEL TO RWY 02L/20R. BE ALERT TO AVOID LANDING ON
TAXIWAY.

NE COMPASS ROSE CLSD TO HELICOPTERS OVER 12500 LBS. FROST HEAVES SOUTH 2600 FT RWY 02R/20L
CONTACT ARPT OPS 907-451-2300 WITH SAFETY CONCERNS.

SEE ADDITIONAL PAGES UNDER NOTICES FOR TRSA AND FAIRBANKS AREA INFORMATION.

RWY 02R/20L IS LIMITED FOR USE BY ACFT DESIGN GROUP B II, ACFT OR SMALLER.

Juneau, Alaska
Juneau International
ICAO Identifier PAJN



Juneau, AK
Juneau Intl
ICAO Identifier PAJN

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 58-21-16.9625N / 134-34-42.4939W
2.2.2 From City: 7 miles NW of JUNEAU, AK
2.2.3 Elevation: 25.3 ft
2.2.5 Magnetic Variation: 20E (2015)
2.2.6 Airport Contact: PATTY WAHTO
1873 SHELL SIMMONS DR,
SUITE 200
JUNEAU, AK 99801
(907-789-7821)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A1+,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I C certified on 4/1/2005

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 08
2.12.2 True Bearing: 105
2.12.3 Dimensions: 8857 ft x 150 ft
2.12.4 PCN: 89 F/C/X/T
2.12.5 Coordinates: 58-21-28.25N / 134-35-49.09W
2.12.6 Threshold Elevation: 25 ft
2.12.6 Touchdown Zone Elevation: 25.3 ft

2.12.1 Designation: 26
2.12.2 True Bearing: 285
2.12.3 Dimensions: 8857 ft x 150 ft
2.12.4 PCN: 89 F/C/X/T
2.12.5 Coordinates: 58-21-5.88N / 134-33-8.63W
2.12.6 Threshold Elevation: 23.4 ft
2.12.6 Touchdown Zone Elevation: 23.4 ft

2.12.1 Designation: 08W
2.12.2 True Bearing:
2.12.3 Dimensions: 4600 ft x 150 ft

2.12.4 PCN:
2.12.5 Coordinates: 58-21-22.82N / 134-35-52.23W
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: 26W
2.12.2 True Bearing:
2.12.3 Dimensions: 4600 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 58-21-10.71N / 134-34-25.26W
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 08
2.13.2 Take-off Run Available: 8857
2.13.3 Take-off Distance Available: 8857
2.13.4 Accelerate-Stop Distance Available: 8457
2.13.5 Landing Distance Available: 8457

2.13.1 Designation: 26
2.13.2 Take-off Run Available: 8857
2.13.3 Take-off Distance Available: 8857
2.13.4 Accelerate-Stop Distance Available: 8457
2.13.5 Landing Distance Available: 8457

2.13.1 Designation: 08W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 26W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 08
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: V2L

2.14.1 Designation: 26
2.14.2 Approach Lighting System: MALS
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08W
2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 26W

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.18.3 Channel: 120.7

2.18.5 Hours of Operation: 1 APR – SEP 30 0600 – 2300, 1 OCT – MAR 31, 0700 – 2000.

2.18.1 Service Designation: NG OPS

2.18.3 Channel: 64.7

2.18.5 Hours of Operation:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS

2.18.3 Channel: 135.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: NG OPS

2.18.3 Channel: 124.65

2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 1 APR – SEP 30 0600 – 2300, 1 OCT – MAR 31, 0700 – 2000.

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 1 APR – SEP 30 0600 – 2300, 1 OCT – MAR 31, 0700 – 2000.

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 118.7

2.18.5 Hours of Operation: 1 APR – SEP 30 0600 – 2300, 1 OCT – MAR 31, 0700 – 2000.

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 278.3

2.18.5 Hours of Operation: 1 APR – SEP 30 0600 – 2300, 1 OCT – MAR 31, 0700 – 2000.

2.18.1 Service Designation: LCL/S (SEASONAL USE ONLY)

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 08. Magnetic variation: 20E

2.19.2 ILS Identification: JDL

2.19.5 Coordinates: 58–21–31.0221N / 134–38–10.216W

2.19.6 Site Elevation: 179.8 ft

2.19.1 ILS Type: Localizer for runway 08. Magnetic variation: 20E

2.19.2 ILS Identification: JDL

2.19.5 Coordinates: 58–21–32.035N / 134–38–10.3944W

2.19.6 Site Elevation: 165 ft

2.19.1 ILS Type: Outer Marker for runway 08. Magnetic variation: 20E

2.19.2 ILS Identification: JDL

2.19.5 Coordinates: 58–21–33.5717N / 134–41–58.0236W

2.19.6 Site Elevation: 57.9 ft

General Remarks:

FOR LCL CALL TO JUNEAU FSS CALL 907–789–7380.

TRANSIENT DOCK AVBL FOR PUBLIC USE FOR UP TO SIX ACFT, SW CORNER.

RY 08/26 SAND USED TO ENHANCE RY FRICTION MAY NOT MEET FAA SPECS.

TPA 1500 AGL FOR LARGE TURBINE ACFT; 1000 FT AGL FOR FIXED WING ACFT; 500 FT AGL FOR HELICOPTERS.

APRON TERMINAL RAMP CLSD TO ROTORCRAFT. APRON US CUSTOMS RAMP CLSD TO ACFT WITH WINGSPAN MORE THAN 79 FT INTL ACFT WITH WINGSPAN MORE THAN 79 FT AND ALL INTL ROTORCRAFT USE E-1 RAMP (NTL GUARD RAMP).

WILDLIFE & BIRDS ON & INVOF ARPT.

BATTLESHIP ISLAND RLLS GROUPING; CENTER LIGHT 582132.88N 1344012.22W. IJDL–LOCALIZER RLLS

GROUPING; CENTER LIGHT 582132.02N 1343810.39W.

COLD TEMPERATURE AIRPORT. ALTITUDE CORRECTION REQUIRED AT OR BELOW -0C.

PARAGLIDING ACTIVITY 3 MILES N OF ARPT INVOF THUNDER MOUNTAIN & OVER GASTINEAU CHANNEL NEARS DOWNTOWN APR 15-OCT 1 6000 FT & BLO.

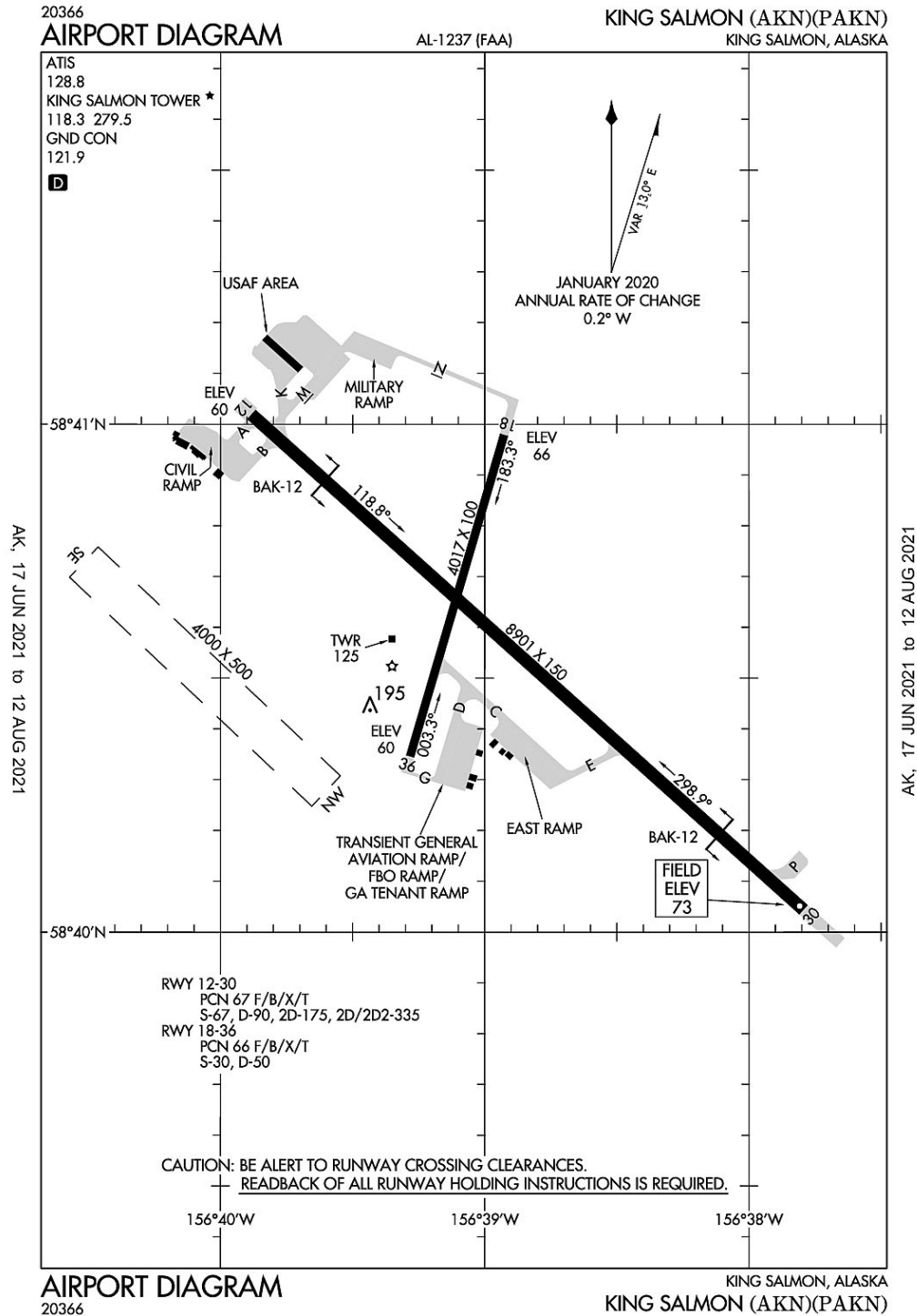
INCREASED HELICOPTER/LIGH ACFT ACTIVITY APR 15-OCT 1 ENTIRE LENGTH ON GASTINEAU CHANNEL & WITHIN 5 MILES OF ARPT.

NATIONAL GUARD 24 HR PPR DUE TO LIMITED PARKING C907-789-3366. 0730-1600 WEEKDAYS CONTACT GUARD OPS 10 MIN PRIOR TO LANDING ON 124.65.

SEE SPECIAL NOTICES AND GENERAL NOTICES FOR ADDITIONAL INFORMATION ON OPNS IN JUNEAU AREA.

LENA POINT, PEDERSON HILL AND SISTERS ISLAND WX CAMERAS AVBL ON INTERNET AT [HTTP://AVCAM.S.FAA.GOV](http://AVCAM.S.FAA.GOV)

King Salmon, Alaska
King Salmon
ICAO Identifier PAKN



King Salmon, AK
King Salmon
ICAO Identifier PAKN

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 58–40–35.3765N / 156–38–55.2876W
2.2.2 From City: 0 miles SE of KING SALMON, AK
2.2.3 Elevation: 73.4 ft
2.2.5 Magnetic Variation: 11E (2025)
2.2.6 Airport Contact: FLOYD WILSON
PO BOX 65
KING SALMON, AK 99613
(907–246–3325)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, 0800–1800 Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I B certified on 3/21/2005

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 12
2.12.2 True Bearing: 132
2.12.3 Dimensions: 8901 ft x 150 ft
2.12.4 PCN: 67 F/B/X/T
2.12.5 Coordinates: 58–41–2.184N / 156–39–53.0154W
2.12.6 Threshold Elevation: 59.9 ft
2.12.6 Touchdown Zone Elevation: 61.8 ft

2.12.1 Designation: 30
2.12.2 True Bearing: 312
2.12.3 Dimensions: 8901 ft x 150 ft
2.12.4 PCN: 67 F/B/X/T
2.12.5 Coordinates: 58–40–3.68N / 156–37–47.63W
2.12.6 Threshold Elevation: 73.4 ft
2.12.6 Touchdown Zone Elevation: 73.4 ft

2.12.1 Designation: 36
2.12.2 True Bearing: 16
2.12.3 Dimensions: 4017 ft x 100 ft
2.12.4 PCN: 66 F/B/X/T

2.12.5 Coordinates: 58–40–21.7997N / 156–39–16.9583W
2.12.6 Threshold Elevation: 59.9 ft
2.12.6 Touchdown Zone Elevation: 65.2 ft

2.12.1 Designation: 18
2.12.2 True Bearing: 196
2.12.3 Dimensions: 4017 ft x 100 ft
2.12.4 PCN: 66 F/B/X/T
2.12.5 Coordinates: 58–40–59.7835N / 156–38–55.6139W
2.12.6 Threshold Elevation: 66.1 ft
2.12.6 Touchdown Zone Elevation: 66.1 ft

2.12.1 Designation: SE
2.12.2 True Bearing:
2.12.3 Dimensions: 4000 ft x 500 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: NW
2.12.2 True Bearing:
2.12.3 Dimensions: 4000 ft x 500 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 12
2.13.2 Take-off Run Available: 8901
2.13.3 Take-off Distance Available: 8901
2.13.4 Accelerate–Stop Distance Available: 8501
2.13.5 Landing Distance Available: 8501

2.13.1 Designation: 30
2.13.2 Take-off Run Available: 8901
2.13.3 Take-off Distance Available: 8901
2.13.4 Accelerate–Stop Distance Available: 8501
2.13.5 Landing Distance Available: 8501

2.13.1 Designation: 36
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate–Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 18

2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: SE
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: NW
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 12
2.14.2 Approach Lighting System: SSALR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 30
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 18
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: SE
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: NW
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS
2.18.3 Channel: 128.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 0800–2000 1 AUG–14 JUN.
0800–2200 15 JUN– 31 JUL.

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 0800–2000 1 AUG–14 JUN.
0800–2200 15 JUN– 31 JUL.

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 279.5
2.18.5 Hours of Operation: 0800–2000 1 AUG–14 JUN.
0800–2200 15 JUN– 31 JUL.

2.18.1 Service Designation: PTD
2.18.3 Channel: 372.2
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 12. Magnetic variation: 11E
2.19.2 ILS Identification: AKN
2.19.5 Coordinates: 58–39–59.6N / 156–37–31.7W
2.19.6 Site Elevation: 78 ft

2.19.1 ILS Type: Glide Slope for runway 12. Magnetic variation: 11E
2.19.2 ILS Identification: AKN
2.19.5 Coordinates: 58–40–57.3435N /
156–39–29.887W
2.19.6 Site Elevation: 63.5 ft

2.19.1 ILS Type: Localizer for runway 12. Magnetic variation: 11E
2.19.2 ILS Identification: AKN
2.19.5 Coordinates: 58–39–56.5549N /
156–37–32.3734W
2.19.6 Site Elevation: 77.7 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 16E
2.19.2 Navigation Aid Identification: AKN
2.19.5 Coordinates: 58–43–28.9653N /
156–45–8.4483W
2.19.6 Site Elevation: 94.6 ft

General Remarks:

FLOCKS OF LARGE MIGRATORY BIRDS IN VCNTY DURG SEASON.

LANDING AREA RWY NW/SE ALSO USED BY BOATS.

TSA REGULATED ARPT. SEE 49 CFR 1542. ALL GATES AND DOORS MUST BE SECURED AT ALL TIMES. TRANSIENT OR UNFAMILIAR PILOTS CONTACT ARPT MGR WITH QUESTIONS.

PRIVATE JETS MAY PARK ON THE SE SECTION OF E RAMP; CALL AMGR AT 907-246-3325 FOR INFO.

WX CAMERA AVBL ON INTERNET AT [HTTP://AVCAMS.FAA.GOV](http://AVCAMS.FAA.GOV)

ONE INCH DIP ON CNTRLN 1850 FT FM AER 36 EXTDS TO THREE INCH DIP 25 FT WIDE ON WEST EDGE.

MILITARY FTRS/EMERGENCY DIVERTS CALL WARRIOR SOF/ELMENDORF SOF ON UHF AT 395.15. NON-EMERG/NON-FTR ACFT CALL KING SALMON OPS; 24 HR POINT NORMALLY MONITORS CTAF DURING OPR HRS.

RCR UPDATED AS REQUIRED DURING 11TH AF FTR FLYING WINDOW. AIRCREWS COORD RCR CHECKS WITH KING SALMON OPS - 907-439-3001 OR 907-439-6000. ACFT OPNS RSTRD TO LOW APCH/FULL STOP LNDG ONLY.

600 FT SAFETY AREA APCH END RWY 12.

ALL FTR ACFT ON ARR EXP REDUCED SEPARATION; SIMILAR APCH CHARACTERISTICS AND DAY - 3000 FT; DISSIMILAR APCH CHARACTERISTICS AND/OR NIGHT - 6000 FT; AHEAD/BEHIND FORMATION LANDING - 6000 FT.

APRON SPOTS 4, 5, 6, 7 NORTH OF MILITARY HANGARS CLSD EXC PROP ACFT. TWY P CLSD.

NWS WEATHER BALLOON LAUNCH FACILITY LOCATED ON AIRPORT, SEE INSIDE BACK COVER FOR OPERATION DETAILS.

OFF PAVEMENT OPERATIONS BY ACFT; INCLUDING HELICOPTERS; NOT AUTHORIZED AT THE ACR APRON. NO LANDING; PARKING OR TKOFS PERMITTED FROM DIRT OR GRASS.

LOCKED WHEEL TURNS PROHIBITED ON ANY SURFACE.

ARFF EQUIPMENT STAFFED DURING PERIODS OF ACR ACTIVITY ONLY.

RWY 18/36 NOT INSPECTED FOR MIL OPERATIONS.

FLIGHTS ORIG OUTSIDE ALASKA REFER TO USAF FCG. NO CSTMS AVBL.

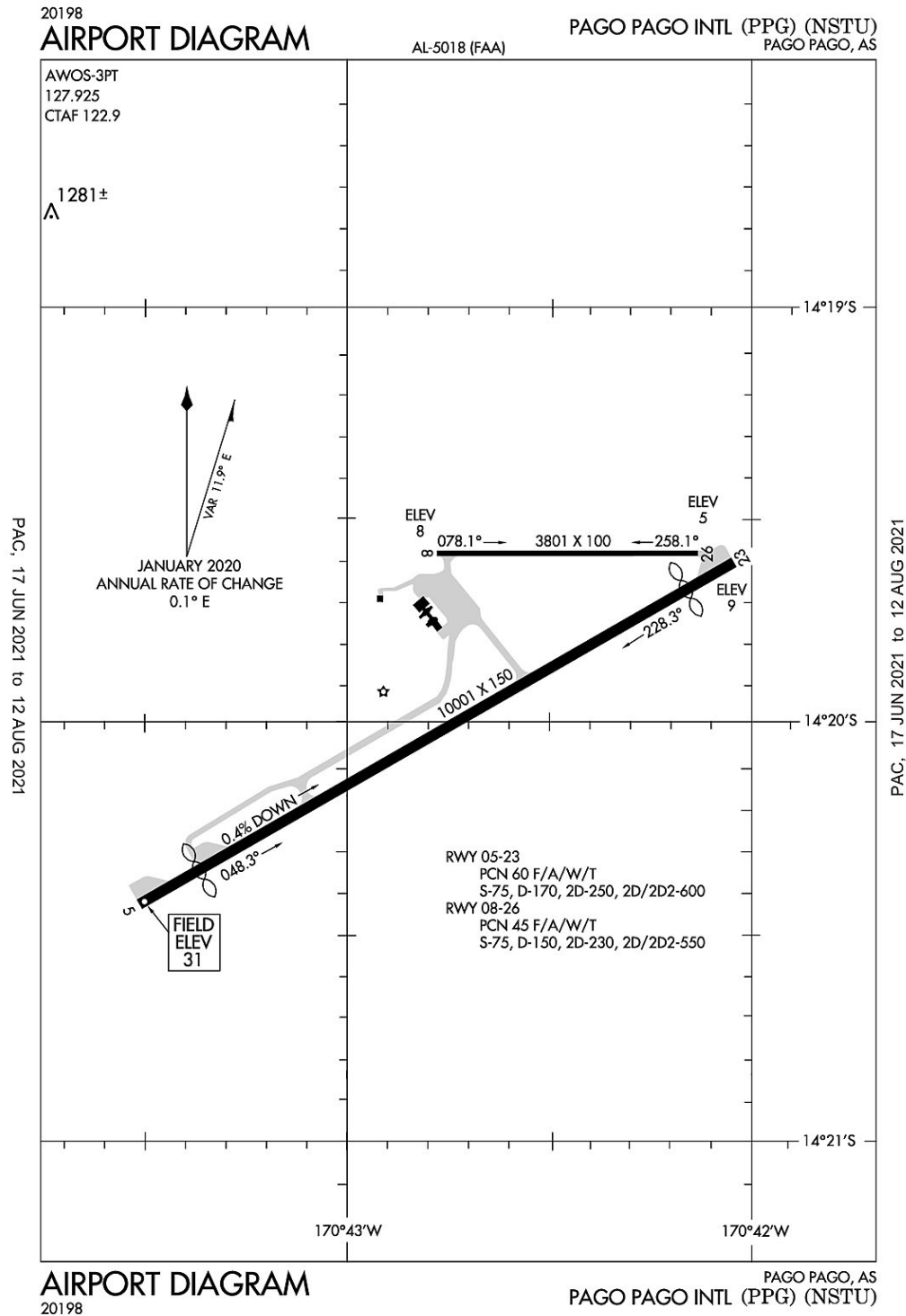
CIVILIAN TRANSIENT PARKING ON SE RAMP ONLY; OTHER PARKING LONGER THAN 48 HRS REQUIRES PERMIT.

GENERAL AVIATION APRON, PAVEMENT CRUMBLING, POSSIBLE FOD HAZARD. JET AIRCRAFT BE ALERT DURING RUN-UP TO AVOID DAMAGE WITH JET WASH.

USAF FACILITIES MINIMALLY OPR BY CIVILIAN CONTRACTORS WITH LIMITED SUPPORT CAPABILITY. CALL TO CONFIRM OPR HRS NOT LATER THAN 24 HRS IN ADVANCE OF EXPECTED ARRIVAL. MIL AIRCRAFT NEED TO CONFIRM FUEL REQUIREMENTS 24-48 HOURS IN ADVANCE.

SNOW, ICE REMOVAL & ARPT HAZ COND PERFORMED & RPRTD DURING ATTENDANCE SCHEDULE. ARFF IS AVBL FOR PART 121 CARRIERS INVOLVED IN ETOPS OPERATIONS WITH 30 MINUTES NOTICE.

Pago Pago, American Samoa
Pago Pago/International
ICAO Identifier NSTU



Pago Pago, AS
Pago Pago Intl
ICAO Identifier NSTU

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 14-19-53.984S / 170-42-41.411W
2.2.2 From City: 3 miles SW of PAGO PAGO, AS
2.2.3 Elevation: 31.2 ft
2.2.5 Magnetic Variation: 12E (1990)
2.2.6 Airport Contact: DR. CLAIRE POUMELE
1539 AIRPORT WAY
P.O. BOX 1539
PAGO PAGO, AS 96799
((684) 733-3076)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A1+,100
2.4.5 Hangar Space:
2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 05
2.12.2 True Bearing: 60
2.12.3 Dimensions: 10001 ft x 150 ft
2.12.4 PCN: 60 F/A/W/T
2.12.5 Coordinates: 14-20-25.8311S / 170-43-30.8448W
2.12.6 Threshold Elevation: 31.2 ft
2.12.6 Touchdown Zone Elevation: 29.3 ft

2.12.1 Designation: 23
2.12.2 True Bearing: 240
2.12.3 Dimensions: 10001 ft x 150 ft
2.12.4 PCN: 60 F/A/W/T
2.12.5 Coordinates: 14-19-36.4755S / 170-42-2.6116W
2.12.6 Threshold Elevation: 8.7 ft
2.12.6 Touchdown Zone Elevation: 8.7 ft

2.12.1 Designation: 08
2.12.2 True Bearing: 90

2.12.3 Dimensions: 3801 ft x 100 ft
2.12.4 PCN: 45 F/A/W/T
2.12.5 Coordinates: 14-19-35.126S / 170-42-46.7563W
2.12.6 Threshold Elevation: 8.1 ft
2.12.6 Touchdown Zone Elevation: 8.1 ft

2.12.1 Designation: 26
2.12.2 True Bearing: 270
2.12.3 Dimensions: 3801 ft x 100 ft
2.12.4 PCN: 45 F/A/W/T
2.12.5 Coordinates: 14-19-35.1106S / 170-42-8.096W
2.12.6 Threshold Elevation: 4.8 ft
2.12.6 Touchdown Zone Elevation: 5.7 ft

AD 2.13 Declared Distances

2.13.1 Designation: 05
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 23
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 08
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 26
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 05
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 23
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08

2.14.2 Approach Lighting System: 170-42-14.7077W
2.14.4 Visual Approach Slope Indicator System: 2.19.6 Site Elevation: 19.1 ft

2.14.1 Designation: 26
2.14.2 Approach Lighting System: 2.19.1 ILS Type: Glide Slope for runway 05. Magnetic variation: 12E
2.14.4 Visual Approach Slope Indicator System: 2.19.2 ILS Identification: TUT
2.19.5 Coordinates: 14-20-13.069S / 170-43-15.1842W
2.19.6 Site Elevation: 24.5 ft

AD 2.18 Air Traffic Services Communication Facilities

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 05. Magnetic variation: 12E
2.19.2 ILS Identification: TUT
2.19.5 Coordinates: 14-19-37.6403S /
2.19.1 ILS Type: Localizer for runway 05. Magnetic variation: 12E
2.19.2 ILS Identification: TUT
2.19.5 Coordinates: 14-19-38.7728S /
170-42-12.8837W
2.19.6 Site Elevation: 5.1 ft

General Remarks:

OLOTELE MT 1617 FT MSL 3.5 MILES WEST OF THLD RY 08.

ALL ACFT EXCDG 100000 GWT UPON TD TAXI TO THR TURN- ARND BFR TXG TO APRON. ACFT UNDER 100000 MAKE TURN-ARND WHERE FEASIBLE.

ALL ACFT TRANSITING PAGO PAGO (EXCP COMMERCIAL CARRIERS) MUST MAKE FUEL ARRANGEMENTS WITH PPG AT 684-733-3158.

<ALL FLTS (EXCP SKED) PRIOR PMSN FROM AMGR WITH 24 HRS PRIOR NOTICE.

FOR NOTAM CONTACT NEW ZEALAND (643) 358-1688FSS: NEW ZEALAND

SEA SPRAY FM SURF & BLOW HOLES MAY DRIFT ACRS RWY 05/23 UNDER ROUGH SEA CONDS.

PERMLY LGTD & MKD 226' TWR ATOP MT ALAVA 4.3SM NNE ARPT.

[illegible]

Phoenix, AZ
Phoenix Sky Harbor Intl
ICAO Identifier KPHX

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 33-26-3.4N / 112-0-41.7W
- 2.2.2 From City: 3 miles E of PHOENIX, AZ
- 2.2.3 Elevation: 1134.8 ft
- 2.2.5 Magnetic Variation: 12E (2000)
- 2.2.6 Airport Contact: CHAD R. MAKOVSKY
2485 E BUCKEYE RD
PHOENIX, AZ 85034
(602-273-3302)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 25R
- 2.12.2 True Bearing: 270
- 2.12.3 Dimensions: 10300 ft x 150 ft
- 2.12.4 PCN: 70 R/B/W/T
- 2.12.5 Coordinates: 33-25-51.7284N / 111-59-36.0429W
- 2.12.6 Threshold Elevation: 1134 ft
- 2.12.6 Touchdown Zone Elevation: 1134.1 ft
- 2.12.1 Designation: 07L
- 2.12.2 True Bearing: 90
- 2.12.3 Dimensions: 10300 ft x 150 ft
- 2.12.4 PCN: 70 R/B/W/T
- 2.12.5 Coordinates: 33-25-51.8081N / 112-1-37.5659W
- 2.12.6 Threshold Elevation: 1110.2 ft
- 2.12.6 Touchdown Zone Elevation: 1116.5 ft
- 2.12.1 Designation: 07R
- 2.12.2 True Bearing: 90
- 2.12.3 Dimensions: 7800 ft x 150 ft

- 2.12.4 PCN: 79 R/B/W/T
- 2.12.5 Coordinates: 33-25-43.8923N / 112-1-37.5686W
- 2.12.6 Threshold Elevation: 1111 ft
- 2.12.6 Touchdown Zone Elevation: 1115.9 ft
- 2.12.1 Designation: 25L
- 2.12.2 True Bearing: 270
- 2.12.3 Dimensions: 7800 ft x 150 ft
- 2.12.4 PCN: 79 R/B/W/T
- 2.12.5 Coordinates: 33-25-43.8354N / 112-0-5.5412W
- 2.12.6 Threshold Elevation: 1126.3 ft
- 2.12.6 Touchdown Zone Elevation: 1126.4 ft

- 2.12.1 Designation: 26
- 2.12.2 True Bearing: 270
- 2.12.3 Dimensions: 11489 ft x 150 ft
- 2.12.4 PCN: 74 R/B/W/T
- 2.12.5 Coordinates: 33-26-26.9643N / 111-59-31.6884W
- 2.12.6 Threshold Elevation: 1134.7 ft
- 2.12.6 Touchdown Zone Elevation: 1134.8 ft

- 2.12.1 Designation: 08
- 2.12.2 True Bearing: 90
- 2.12.3 Dimensions: 11489 ft x 150 ft
- 2.12.4 PCN: 74 R/B/W/T
- 2.12.5 Coordinates: 33-26-27.0993N / 112-1-47.257W
- 2.12.6 Threshold Elevation: 1111.1 ft
- 2.12.6 Touchdown Zone Elevation: 1118 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 25R
- 2.13.2 Take-off Run Available: 10300
- 2.13.3 Take-off Distance Available: 10300
- 2.13.4 Accelerate-Stop Distance Available: 10300
- 2.13.5 Landing Distance Available: 10300
- 2.13.1 Designation: 07L
- 2.13.2 Take-off Run Available: 10300
- 2.13.3 Take-off Distance Available: 10300
- 2.13.4 Accelerate-Stop Distance Available: 10300
- 2.13.5 Landing Distance Available: 10300
- 2.13.1 Designation: 07R
- 2.13.2 Take-off Run Available: 7800
- 2.13.3 Take-off Distance Available: 7800
- 2.13.4 Accelerate-Stop Distance Available: 7800
- 2.13.5 Landing Distance Available: 7800

2.13.1 Designation: 25L
2.13.2 Take-off Run Available: 7800
2.13.3 Take-off Distance Available: 7800
2.13.4 Accelerate-Stop Distance Available: 7800
2.13.5 Landing Distance Available: 7800

2.13.1 Designation: 26
2.13.2 Take-off Run Available: 11489
2.13.3 Take-off Distance Available: 11489
2.13.4 Accelerate-Stop Distance Available: 11489
2.13.5 Landing Distance Available: 11489

2.13.1 Designation: 08
2.13.2 Take-off Run Available: 11489
2.13.3 Take-off Distance Available: 11489
2.13.4 Accelerate-Stop Distance Available: 11489
2.13.5 Landing Distance Available: 10591

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 25R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 07L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 07R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 25L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 118.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 269.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 127.575
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (NORTH)
2.18.3 Channel: 119.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (SOUTH)
2.18.3 Channel: 132.55
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 269.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08/26)
2.18.3 Channel: 118.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 07L/25R,
07R/25L)
2.18.3 Channel: 120.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 07L/25R,
07R/25L)
2.18.3 Channel: 254.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08/26)
2.18.3 Channel: 278.8
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 07L. Magnetic variation: 12E
2.19.2 ILS Identification: PHX
2.19.5 Coordinates: 33-25-54.0771N /
111-59-19.1054W
2.19.6 Site Elevation: 1143 ft

2.19.1 ILS Type: Glide Slope for runway 07L. Magnetic variation: 12E
2.19.2 ILS Identification: PHX
2.19.5 Coordinates: 33-25-49.0529N / 112-1-25.2134W
2.19.6 Site Elevation: 1106.5 ft

2.19.1 ILS Type: Localizer for runway 07L. Magnetic variation: 12E
2.19.2 ILS Identification: PHX
2.19.5 Coordinates: 33-25-51.7152N / 111-59-20.367W
2.19.6 Site Elevation: 1133.5 ft

2.19.1 ILS Type: DME for runway 07R. Magnetic variation: 12E
2.19.2 ILS Identification: AHA
2.19.5 Coordinates: 33-25-41.1847N / 111-59-52.1833W
2.19.6 Site Elevation: 1135.8 ft

2.19.1 ILS Type: Glide Slope for runway 07R. Magnetic variation: 12E
2.19.2 ILS Identification: AHA
2.19.5 Coordinates: 33-25-46.628N / 112-1-25.0931W
2.19.6 Site Elevation: 1107.4 ft

2.19.1 ILS Type: Localizer for runway 07R. Magnetic variation: 12E
2.19.2 ILS Identification: AHA
2.19.5 Coordinates: 33-25-43.8252N / 111-59-52.2902W
2.19.6 Site Elevation: 1124.2 ft

2.19.1 ILS Type: DME for runway 25L. Magnetic variation: 12E
2.19.2 ILS Identification: RJG
2.19.5 Coordinates: 33-25-41.1847N / 111-59-52.1833W
2.19.6 Site Elevation: 1117.1 ft

2.19.1 ILS Type: Glide Slope for runway 25L. Magnetic variation: 12E
2.19.2 ILS Identification: RJG
2.19.5 Coordinates: 33-25-40.9318N / 112-0-16.8722W
2.19.6 Site Elevation: 1120.3 ft

2.19.1 ILS Type: Localizer for runway 25L. Magnetic variation: 12E
2.19.2 ILS Identification: RJG
2.19.5 Coordinates: 33-25-43.8995N / 112-1-49.6368W
2.19.6 Site Elevation: 1103.2 ft

2.19.1 ILS Type: DME for runway 08. Magnetic variation: 12E
2.19.2 ILS Identification: SYQ
2.19.5 Coordinates: 33-26-24.3207N / 111-59-19.7057W
2.19.6 Site Elevation: 1149.2 ft

2.19.1 ILS Type: Glide Slope for runway 08. Magnetic variation: 12E
2.19.2 ILS Identification: SYQ
2.19.5 Coordinates: 33-26-29.6544N / 112-1-24.6276W
2.19.6 Site Elevation: 1111.7 ft

2.19.1 ILS Type: Localizer for runway 08. Magnetic variation: 12E
2.19.2 ILS Identification: SYQ
2.19.5 Coordinates: 33-26-26.9483N / 111-59-19.7443W
2.19.6 Site Elevation: 1134.1 ft

2.19.1 ILS Type: DME for runway 26. Magnetic variation: 12E
2.19.2 ILS Identification: CWJ
2.19.5 Coordinates: 33-26-24.3207N / 111-59-19.7057W
2.19.6 Site Elevation: 1149.2 ft

2.19.1 ILS Type: Glide Slope for runway 26. Magnetic variation: 12E
2.19.2 ILS Identification: CWJ
2.19.5 Coordinates: 33-26-29.603N / 111-59-44.4331W
2.19.6 Site Elevation: 1129.1 ft

2.19.1 ILS Type: Localizer for runway 26. Magnetic variation: 12E
2.19.2 ILS Identification: CWJ
2.19.5 Coordinates: 33-26-27.1078N / 112-1-59.2267W
2.19.6 Site Elevation: 1105.1 ft

General Remarks:

TWYS A, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, F BTN G2 AND G3, D BTN D8 AND T, D BTN S AND R, RESTRICTED TO A WINGSPAN OF LESS THAN 135 FT.

NO EXPERIMENTAL FLT OR GND DMSTRN ON ARPT WO PRIOR WRITTEN CONSENT FM THE AIRSIDE OPS.

NO ENG RUNS ON ARPT WO PRIOR COORDN WITH AIRSIDE OPS. NO ENG RUNS ON ARPT BETWEEN 2300L – 0500L.

FOR GENERAL QUESTIONS CALL AIRPORT COMMUNICATIONS CENTER (602) 273-3302

RWY STATUS LGTS ARE IN OPN.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

TWY R OVERHEAD TRAIN BRIDGE AT MIDPOINT PROVIDES 82FT-4 IN. CLEARANCE.

TWY H5, H6, H7, TWY H BTN TWY H4 AND TWY H7 CLSD TO ACFT WINGSPAN MORE THAN 171 FT.

TWY F BTW TWY INT G2 AND G3 CLSD TO ACFT WITH WINGSPAN GREATER THAN 135 FT DUE TO FAA NAV EQUIPMENT.

PPR ACFT WITH WINGSPAN 215 FT OR GREATER (GROUP VI) CALL ARPT OPNS 602-272-2008 FOR FOLLOW-ME SERVICES WHILE TAXIING TO AND FROM RAMP AND RWYS.

REVIEW HOT SPOT INFO ON AIRPORT DIAGRAM. ADDITIONAL SAFETY VIDEO @ [HTTP://SKYHARBOR.COM/BUSINESS/FORPILOTS/SAFETYVIDEOFORPILOTS](http://skyharbor.com/business/forpilots/safetyvideoforpilots)

FEE FOR ALL CHARTERS; TRAVEL CLUBS AND CERTAIN REVENUE PRODUCING ACFT.

PRACTICE INSTRUMENT APPROACHES, STOP & TAXI BACK LANDINGS, STOP & GO LANDINGS, TOUCH & GO LANDINGS ARE PROHIBITED. ALL OTHER FLIGHT TRAINING OPERATIONS PROHIBITED WO PRIOR WRITTEN APPROVAL (AIRSIDE OPS 602-272-2008).

TWYS C BTN S AND R, D BTN D2 AND D7, D3, D6, H BTN H4 AND H7, H7 RESTRICTED TO WINGSPAN OF LESS THAN 171 FT.

TWY R AND PORTIONS OF TWYS S AND T DIRECTLY BELOW THE ATCT ARE NON VISIBLE AREAS FROM THE ATCT.

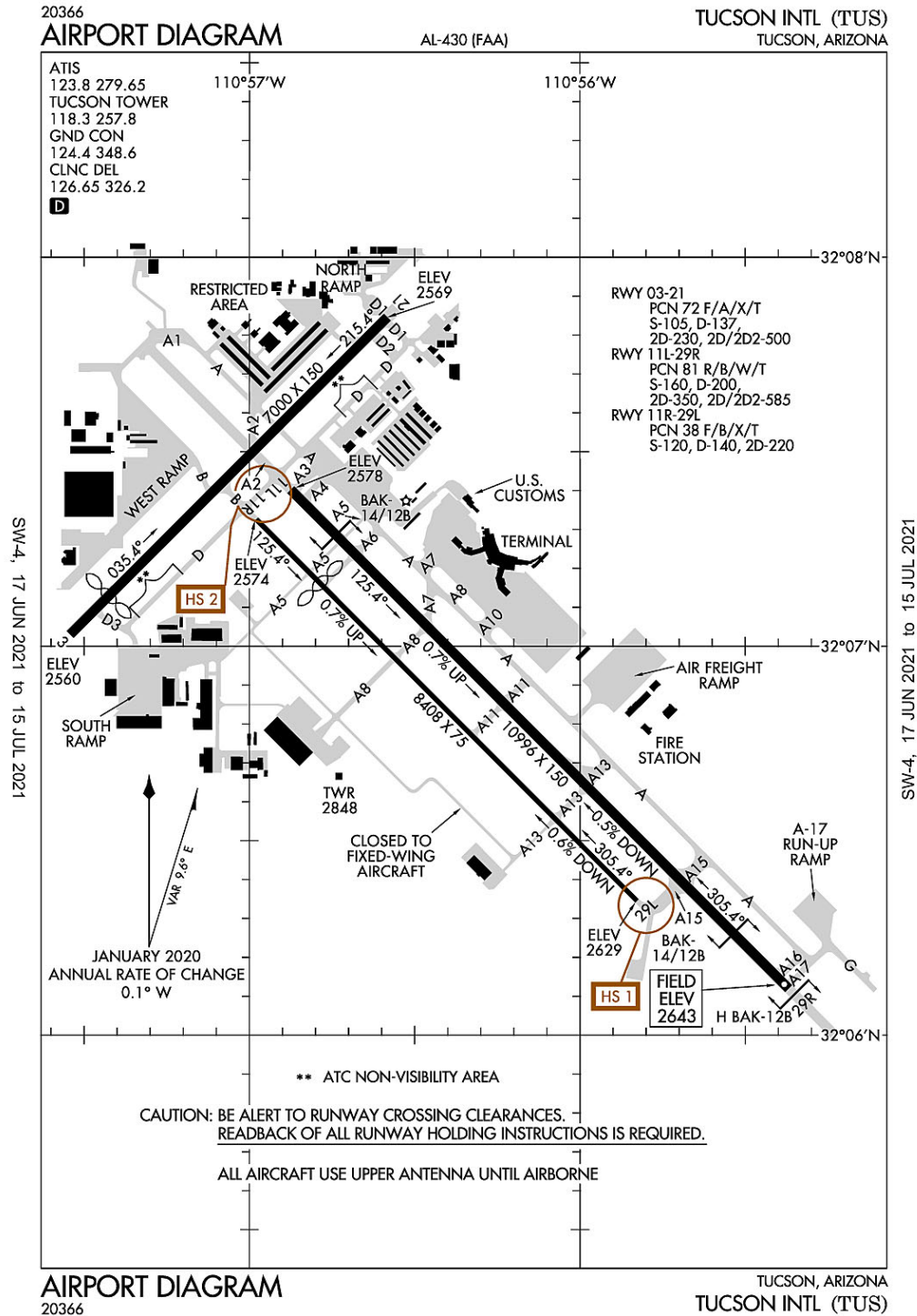
NATL GUARD HAS LMTD TSNT MAINTENANCE AND PARKING RON BY PPR (602)302-9119.

INTERNATIONAL GATE USE RQS COORDN WITH ARPT OPS 48 HOURS PRIOR TO ARRIVAL.

NOISE ABATEMENT PROCEDURES ARE IN AFFECT AT ALL TIMES.

INTERNATIONAL LANDING RIGHTS RQRS US CUSTOMS AND BORDER PROTECTION NOTIFICATION 48 HOURS PRIOR TO LANDING.

Tucson, Arizona
Tucson International
ICAO Identifier KTUS



Tucson, AZ
Tucson Intl
ICAO Identifier KTUS

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 32-6-57.849N / 110-56-27.65W
2.2.2 From City: 6 miles S of TUCSON, AZ
2.2.3 Elevation: 2643 ft
2.2.5 Magnetic Variation: 12E (1995)
2.2.6 Airport Contact: DANETTE BEWLEY
TUCSON APT AUTH 7250 S
TUCSON BLVD
TUCSON, AZ 85756
(520-573-8100)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 03
2.12.2 True Bearing: 45
2.12.3 Dimensions: 7000 ft x 150 ft
2.12.4 PCN: 72 F/A/X/T
2.12.5 Coordinates: 32-7-1.7975N / 110-57-32.5438W
2.12.6 Threshold Elevation: 2560.2 ft
2.12.6 Touchdown Zone Elevation: 2572.1 ft

2.12.1 Designation: 21
2.12.2 True Bearing: 225
2.12.3 Dimensions: 7000 ft x 150 ft
2.12.4 PCN: 72 F/A/X/T
2.12.5 Coordinates: 32-7-50.7361N /
110-56-34.9535W
2.12.6 Threshold Elevation: 2568.8 ft
2.12.6 Touchdown Zone Elevation: 2572.4 ft

2.12.1 Designation: 29R
2.12.2 True Bearing: 315
2.12.3 Dimensions: 10996 ft x 150 ft

2.12.4 PCN: 81 R/B/W/T
2.12.5 Coordinates: 32-6-7.1598N / 110-55-22.1441W
2.12.6 Threshold Elevation: 2643 ft
2.12.6 Touchdown Zone Elevation: 2643 ft

2.12.1 Designation: 11L
2.12.2 True Bearing: 135
2.12.3 Dimensions: 10996 ft x 150 ft
2.12.4 PCN: 81 R/B/W/T
2.12.5 Coordinates: 32-7-24.1289N /
110-56-52.4852W
2.12.6 Threshold Elevation: 2577.7 ft
2.12.6 Touchdown Zone Elevation: 2598.5 ft

2.12.1 Designation: 29L
2.12.2 True Bearing: 315
2.12.3 Dimensions: 8408 ft x 75 ft
2.12.4 PCN: 38 F/B/X/T
2.12.5 Coordinates: 32-6-20.7186N /
110-55-49.6599W
2.12.6 Threshold Elevation: 2628.6 ft
2.12.6 Touchdown Zone Elevation: 2628.7 ft

2.12.1 Designation: 11R
2.12.2 True Bearing: 135
2.12.3 Dimensions: 8408 ft x 75 ft
2.12.4 PCN: 38 F/B/X/T
2.12.5 Coordinates: 32-7-19.5659N / 110-56-58.741W
2.12.6 Threshold Elevation: 2573.5 ft
2.12.6 Touchdown Zone Elevation: 2605 ft

AD 2.13 Declared Distances

2.13.1 Designation: 03
2.13.2 Take-off Run Available: 7000
2.13.3 Take-off Distance Available: 7000
2.13.4 Accelerate-Stop Distance Available: 7000
2.13.5 Landing Distance Available: 6150

2.13.1 Designation: 21
2.13.2 Take-off Run Available: 6000
2.13.3 Take-off Distance Available: 7000
2.13.4 Accelerate-Stop Distance Available: 6000
2.13.5 Landing Distance Available: 6000

2.13.1 Designation: 29R
2.13.2 Take-off Run Available: 10996
2.13.3 Take-off Distance Available: 10996
2.13.4 Accelerate-Stop Distance Available: 10996
2.13.5 Landing Distance Available: 10996

2.13.1 Designation: 11L
2.13.2 Take-off Run Available: 10996
2.13.3 Take-off Distance Available: 10996
2.13.4 Accelerate-Stop Distance Available: 10996
2.13.5 Landing Distance Available: 10996

2.13.1 Designation: 29L
2.13.2 Take-off Run Available: 6998
2.13.3 Take-off Distance Available: 6998
2.13.4 Accelerate-Stop Distance Available: 6998
2.13.5 Landing Distance Available: 6998

2.13.1 Designation: 11R
2.13.2 Take-off Run Available: 6998
2.13.3 Take-off Distance Available: 6998
2.13.4 Accelerate-Stop Distance Available: 6998
2.13.5 Landing Distance Available: 6998

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 03
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 21
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 29R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 11L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 29L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 11R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG COMD POST
2.18.3 Channel: 138.525
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 123.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS
2.18.3 Channel: 279.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 126.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 326.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 124.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/S
2.18.3 Channel: 119
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 11L. Magnetic variation: 12E
2.19.2 ILS Identification: TUS
2.19.5 Coordinates: 32–5–54.9712N / 110–55–3.2284W
2.19.6 Site Elevation: 2676.1 ft

2.19.1 ILS Type: Glide Slope for runway 11L. Magnetic variation: 12E

2.19.2 ILS Identification: TUS

2.19.5 Coordinates: 32-7-14.7604N /
110-56-48.0571W

2.19.6 Site Elevation: 2580.1 ft

2.19.1 ILS Type: Localizer for runway 11L. Magnetic variation: 12E

2.19.2 ILS Identification: TUS

2.19.5 Coordinates: 32-5-53.5044N / 110-55-6.1189W

2.19.6 Site Elevation: 2659.9 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 12E

2.19.2 Navigation Aid Identification: TUS

2.19.5 Coordinates: 32-5-42.7296N /
110-54-53.4781W

2.19.6 Site Elevation: 2670.5 ft

General Remarks:

DESIGN GROUP V ACFT TAXI WITH INBOARD ENGINES ONLY.

SERVICE-A-GEAR: BAK-14/BAK-12B APCH END RWY 11L AND BAK-14/BAK-12B APCH END RWY 29R, ENGAGEMENTS AVBL ONLY DUR ANG DUTY HR AND 15 MIN PN RQR.

RWY 11L/29R HAS DSTC REMAINING MKS ON NE SIDE. RWY 03/21 HAS DSTC REMAINING MKRS ON SE SIDE.

ALL ACFT USE UPPER ANTENNA UNTIL AIRBORNE.

MILITARY: HVY MIGRATORY BIRD ACT (PHASE II) 1 JULY-31 AUG MAY POSE A POTENTIAL HAZ TO ACFT.

NO FLT TRNG 2200-0600 EXCP PPR; CALL AIRSIDE OPERATIONS DEPT 520-573-8190.

MILITARY/COMM/BASE-OPS: UPON ARR CTC TITAN OR PUMA ON ANG BASE OPS/COMD POST FREQ.

REVIEW HOT SPOT INFO ON AIRPORT DIAGRAM.

PPR REQUIRED FOR ALL CHARTER, SPORTS TEAM, CARGO AND MILITARY AIRCRAFT. CONTACT AIRSIDE OPERATIONS FOR PPR NUMBER AT 520-573-8190. LANDING AND PARKING FEES MAY APPLY FOR ACFT 12500 LBS AND UP.

SERVICE-FUEL: A++(MIL)

PORTIONS OF TWY D NOT VISIBLE FROM ATCT DUE TO HANGARS.

AIR CARRIERS USE RWY 11L/29R & RWY 03/21.

TWY A5 LMTD TO 70000 LBS OR LESS.

ACFT DEPG RWY 11R REQD TO ATTAIN AT LEAST 400 FT AGL PRIOR TO STARTING TURN. RWY 29 APPROACHES: DO NOT MISTAKE TWY A FOR A LANDING SURFACE. TWY A IS NORTH AND PARALLEL TO RWY 29R. RWY 29L IS SHORTER AND NARROWER AND SOUTH OF RWY 29R.

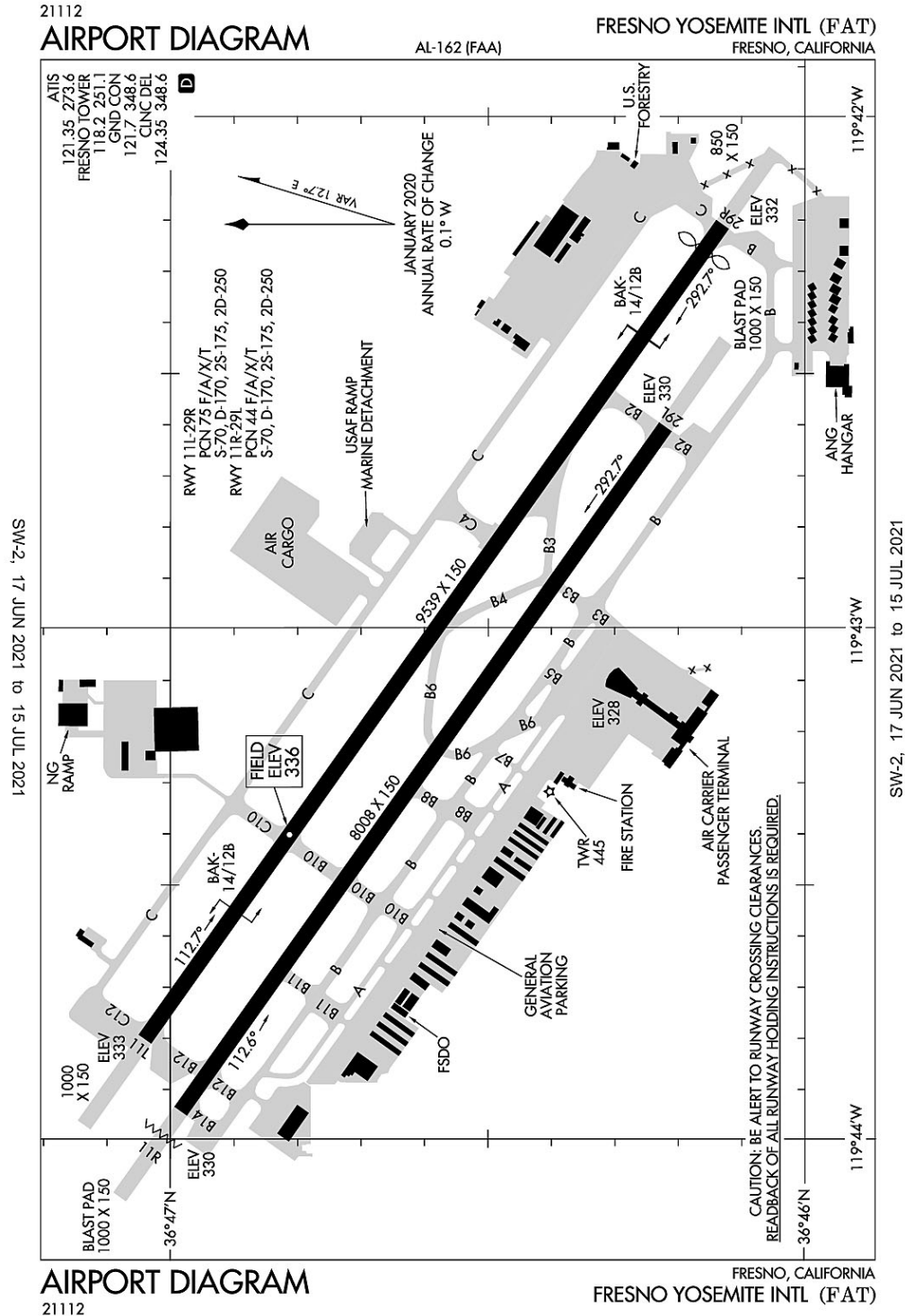
MILITARY: AIR NATL GUARD AFLD MGMT PERS DO NOT DETERMINE/RPT A RWYCC NOR ISSUE FAA FORMATTED FLD COND NOTAM (FICON).

NO REFUELING ON USCBP INSPECTION RAMP EXCEPT DURING MEDICAL EMERGENCIES.

MILITARY: ANG - OFFL BUS ONLY. PPR DSN 844-6731, C520-295-6731, FAX EXTN 6732. 72 HR PRIOR NOTICE REQ FOR ALL PPR'S. BASE OPS OPR 1300-2200Z++ MON-FRI EXC HOL. NO TRAN ALERT MAINT AVBL. NO CONTRACT FUEL AVBL. TRAN ACFT EXP STR-IN FULL STOP ONLY.

FOR GENERAL QUESTIONS CALL AIRPORT COMMUNICATIONS CENTER (520) 573-8182.

Fresno, California
Fresno Yosemite International
ICAO Identifier KFAT



Fresno, CA
Fresno Yosemite Intl
ICAO Identifier KFAT

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 36–46–35.6N / 119–43–7.8W
2.2.2 From City: 5 miles NE of FRESNO, CA
2.2.3 Elevation: 335.5 ft
2.2.5 Magnetic Variation: 13E (2020)
2.2.6 Airport Contact: KEVIN R. MEIKLE
4995 E CLINTON WAY
FRESNO, CA 93727
(559–621–4500)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100,A++
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I B certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 11L
2.12.2 True Bearing: 125
2.12.3 Dimensions: 9539 ft x 150 ft
2.12.4 PCN: 75 F/A/X/T
2.12.5 Coordinates: 36–47–2.406N / 119–43–48.3081W
2.12.6 Threshold Elevation: 333 ft
2.12.6 Touchdown Zone Elevation: 335.5 ft

2.12.1 Designation: 29R
2.12.2 True Bearing: 305
2.12.3 Dimensions: 9539 ft x 150 ft
2.12.4 PCN: 75 F/A/X/T
2.12.5 Coordinates: 36–46–7.8228N /
119–42–12.6898W
2.12.6 Threshold Elevation: 332 ft
2.12.6 Touchdown Zone Elevation: 332.6 ft

2.12.1 Designation: 11R
2.12.2 True Bearing: 125
2.12.3 Dimensions: 8008 ft x 150 ft
2.12.4 PCN: 44 F/A/X/T

2.12.5 Coordinates: 36–46–59.0217N /
119–43–56.7171W
2.12.6 Threshold Elevation: 330 ft
2.12.6 Touchdown Zone Elevation: 332.9 ft

2.12.1 Designation: 29L
2.12.2 True Bearing: 305
2.12.3 Dimensions: 8008 ft x 150 ft
2.12.4 PCN: 44 F/A/X/T
2.12.5 Coordinates: 36–46–13.2042N /
119–42–36.4402W
2.12.6 Threshold Elevation: 329.9 ft
2.12.6 Touchdown Zone Elevation: 330.7 ft

AD 2.13 Declared Distances

2.13.1 Designation: 11L
2.13.2 Take-off Run Available: 9539
2.13.3 Take-off Distance Available: 9539
2.13.4 Accelerate–Stop Distance Available: 9279
2.13.5 Landing Distance Available: 9279

2.13.1 Designation: 29R
2.13.2 Take-off Run Available: 9539
2.13.3 Take-off Distance Available: 9539
2.13.4 Accelerate–Stop Distance Available: 9539
2.13.5 Landing Distance Available: 9227

2.13.1 Designation: 11R
2.13.2 Take-off Run Available: 8008
2.13.3 Take-off Distance Available: 8008
2.13.4 Accelerate–Stop Distance Available: 8008
2.13.5 Landing Distance Available: 8008

2.13.1 Designation: 29L
2.13.2 Take-off Run Available: 8008
2.13.3 Take-off Distance Available: 8008
2.13.4 Accelerate–Stop Distance Available: 8008
2.13.5 Landing Distance Available: 8008

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 11L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 29R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 11R

2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 29L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 140
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 298.3
2.18.5 Hours of Operation:

2.18.1 Service Designation: APCH/P DEP/P (091-239)
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (091-239)
2.18.3 Channel: 323.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(240-090)
2.18.3 Channel: 119.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(240-090)
2.18.3 Channel: 351.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S (S/SE
VISALIA AREA)
2.18.3 Channel: 118.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S (S/SE
VISALIA AREA)
2.18.3 Channel: 268.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS
2.18.3 Channel: 121.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS

2.18.3 Channel: 273.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 124.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (240-090)
2.18.3 Channel: 119.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (091-239)
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (091-239)
2.18.3 Channel: 323.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (240-090)
2.18.3 Channel: 351.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 251.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 40.95
2.18.5 Hours of Operation:

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 132
2.18.5 Hours of Operation:

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 255.8
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 11L. Magnetic variation: 13E

2.19.2 ILS Identification: RPW
2.19.5 Coordinates: 36-47-10.81N / 119-43-56.63W
2.19.6 Site Elevation: 347.1 ft

2.19.1 ILS Type: Localizer for runway 11L. Magnetic variation: 13E

2.19.2 ILS Identification: RPW
2.19.5 Coordinates: 36-46-2.54N / 119-42-3.44W
2.19.6 Site Elevation: 331.3 ft

2.19.1 ILS Type: DME for runway 29R. Magnetic variation: 13E

2.19.2 ILS Identification: FAT
2.19.5 Coordinates: 36-47-10.81N / 119-43-56.63W
2.19.6 Site Elevation: 347.1 ft

2.19.1 ILS Type: Glide Slope for runway 29R. Magnetic variation: 13E

2.19.2 ILS Identification: FAT
2.19.5 Coordinates: 36-46-18.84N / 119-42-23.4799W
2.19.6 Site Elevation: 332 ft

2.19.1 ILS Type: Localizer for runway 29R. Magnetic variation: 13E

2.19.2 ILS Identification: FAT
2.19.5 Coordinates: 36-47-8.2801N / 119-43-58.6W
2.19.6 Site Elevation: 333.7 ft

General Remarks:

MILITARY: SVC: RWY 29R AND 11L A-GEAR CABLE AVBL UPON REQ ONLY; DEFAULT POSN DOWN.

MILITARY: ANG: CTC ANG OPS FOR LCL BIRD WATCH COND (BWC).

SERVICE- JET AIR START UNIT (JASU): (AM32A-60) 2(AGPU)

FRESNO YOSEMITE INTL IS NOISE SENSITIVE; NOISE ABATEMENT PROCEDURES IN EFFECT.

SERVICE - FUEL: ROSS AVIATION, C559-251-1555

RETRACTABLE BAK-12/14 AVBL ON RY 11L AND RY 29R ARE KEPT IN RECESSED POSITION UNTIL REQ FOR USE; TWR MUST BE NOTIFIED AT LEAST 5 SECONDS PRIOR TO ENGAGEMENT SO THAT THE AG CABLE MAY BE RAISED.

POSSIBLE WAKE TURBULENCE OR WIND SHEAR ARR TO RY 29L OR DEP FM RY 11R. JET TESTING CONDUCTED AT AIR NATIONAL GUARD RAMP LCTD AT SE CORNER OF ARPT.

SERVICE-FUEL: SIGNATURE FLIGHT SUPPORT, C559-981-2490

NO MULT APCHS AND LNDGS MON-SAT 2200-0700 AND SUN 1800-1000.

LGTD RY DISTANCE REMAINING MARKERS ON SOUTH SIDE OF RY 11R/29L; LGTD RY DISTANCE REMAINING MARKERS BOTH SIDES OF RY 11L/29R- 11L DRM ON NORTH SIDE; 29R DRM ON SOUTH SIDE.

NUMEROUS BIRDS INVOF ARPT.

[illegible]

Los Angeles, CA
Los Angeles Intl
ICAO Identifier KLAX

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 33–56–32.987N /
118–24–28.975W
2.2.2 From City: 9 miles SW of LOS ANGELES, CA
2.2.3 Elevation: 127.8 ft
2.2.5 Magnetic Variation: 12E (2020)
2.2.6 Airport Contact: VIJI PRASAD
ONE WORLD WAY
LOS ANGELES, CA 90009
(424–646–8251)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 06L
2.12.2 True Bearing: 83
2.12.3 Dimensions: 8926 ft x 150 ft
2.12.4 PCN: 70 R/A/W/T
2.12.5 Coordinates: 33–56–56.8049N /
118–25–52.1755W
2.12.6 Threshold Elevation: 113.1 ft
2.12.6 Touchdown Zone Elevation: 118.8 ft

2.12.1 Designation: 24R
2.12.2 True Bearing: 263
2.12.3 Dimensions: 8926 ft x 150 ft
2.12.4 PCN: 70 R/A/W/T
2.12.5 Coordinates: 33–57–7.5741N / 118–24–7.0161W
2.12.6 Threshold Elevation: 118.9 ft
2.12.6 Touchdown Zone Elevation: 122.4 ft

2.12.1 Designation: 06R
2.12.2 True Bearing: 83
2.12.3 Dimensions: 10885 ft x 150 ft

2.12.4 PCN: 70 R/A/W/T
2.12.5 Coordinates: 33–56–48.5368N /
118–26–4.8042W
2.12.6 Threshold Elevation: 109.9 ft
2.12.6 Touchdown Zone Elevation: 116.2 ft

2.12.1 Designation: 24L
2.12.2 True Bearing: 263
2.12.3 Dimensions: 10885 ft x 150 ft
2.12.4 PCN: 70 R/A/W/T
2.12.5 Coordinates: 33–57–1.6678N /
118–23–56.5656W
2.12.6 Threshold Elevation: 112.9 ft
2.12.6 Touchdown Zone Elevation: 122.5 ft

2.12.1 Designation: 25R
2.12.2 True Bearing: 263
2.12.3 Dimensions: 12923 ft x 150 ft
2.12.4 PCN: 70 R/A/W/T
2.12.5 Coordinates: 33–56–23.5604N /
118–22–47.2005W
2.12.6 Threshold Elevation: 94.3 ft
2.12.6 Touchdown Zone Elevation: 103.8 ft

2.12.1 Designation: 07L
2.12.2 True Bearing: 83
2.12.3 Dimensions: 12923 ft x 150 ft
2.12.4 PCN: 70 R/A/W/T
2.12.5 Coordinates: 33–56–7.9864N /
118–25–19.4335W
2.12.6 Threshold Elevation: 114.8 ft
2.12.6 Touchdown Zone Elevation: 127.8 ft

2.12.1 Designation: 07R
2.12.2 True Bearing: 83
2.12.3 Dimensions: 11095 ft x 200 ft
2.12.4 PCN: 75 R/A/W/T
2.12.5 Coordinates: 33–56–1.1378N / 118–25–8.466W
2.12.6 Threshold Elevation: 121.7 ft
2.12.6 Touchdown Zone Elevation: 127.6 ft

2.12.1 Designation: 25L
2.12.2 True Bearing: 263
2.12.3 Dimensions: 11095 ft x 200 ft
2.12.4 PCN: 75 R/A/W/T
2.12.5 Coordinates: 33–56–14.5069N /
118–22–57.7701W
2.12.6 Threshold Elevation: 97.8 ft
2.12.6 Touchdown Zone Elevation: 103.7 ft

AD 2.13 Declared Distances

2.13.1 Designation: 06L
2.13.2 Take-off Run Available: 8926
2.13.3 Take-off Distance Available: 8926
2.13.4 Accelerate-Stop Distance Available: 8566
2.13.5 Landing Distance Available: 8566

2.13.1 Designation: 24R
2.13.2 Take-off Run Available: 8926
2.13.3 Take-off Distance Available: 8926
2.13.4 Accelerate-Stop Distance Available: 8926
2.13.5 Landing Distance Available: 8926

2.13.1 Designation: 06R
2.13.2 Take-off Run Available: 10285
2.13.3 Take-off Distance Available: 10285
2.13.4 Accelerate-Stop Distance Available: 10285
2.13.5 Landing Distance Available: 9748

2.13.1 Designation: 24L
2.13.2 Take-off Run Available: 10285
2.13.3 Take-off Distance Available: 10285
2.13.4 Accelerate-Stop Distance Available: 10285
2.13.5 Landing Distance Available: 9483

2.13.1 Designation: 25R
2.13.2 Take-off Run Available: 12091
2.13.3 Take-off Distance Available: 12091
2.13.4 Accelerate-Stop Distance Available: 12091
2.13.5 Landing Distance Available: 11134

2.13.1 Designation: 07L
2.13.2 Take-off Run Available: 12091
2.13.3 Take-off Distance Available: 12091
2.13.4 Accelerate-Stop Distance Available: 12091
2.13.5 Landing Distance Available: 11259

2.13.1 Designation: 07R
2.13.2 Take-off Run Available: 11095
2.13.3 Take-off Distance Available: 11095
2.13.4 Accelerate-Stop Distance Available: 11095
2.13.5 Landing Distance Available: 11095

2.13.1 Designation: 25L
2.13.2 Take-off Run Available: 11095
2.13.3 Take-off Distance Available: 11095
2.13.4 Accelerate-Stop Distance Available: 11095
2.13.5 Landing Distance Available: 11095

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 06L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 06R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 25R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 07L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 07R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 25L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 120.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 327
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 133.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)
2.18.3 Channel: 135.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (WEST)
2.18.3 Channel: 121.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (NORTH–CMPLX)
2.18.3 Channel: 121.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (SOUTH CMPLX)
2.18.3 Channel: 121.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 327
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (HELICOPTERS)
2.18.3 Channel: 119.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (SOUTH CM-
PLX)
2.18.3 Channel: 120.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (NORTH CM-
PLX)
2.18.3 Channel: 133.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (NORTH CM-
PLX & HELI)
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (SOUTH CM-
PLX)
2.18.3 Channel: 379.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OPS (SAMSO FLT OPS)
2.18.3 Channel: 372.2
2.18.5 Hours of Operation:

2.18.1 Service Designation: RAMP CTL (TXL C10
0630L–2330L)
2.18.3 Channel: 129.325
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (TXL C7
0600L–2300L)
2.18.3 Channel: 129.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (TXL C6
0600L–2300L)
2.18.3 Channel: 129.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (TXL C9
0530L–2230L)
2.18.3 Channel: 130.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (TXL C8
0500L–2359L)
2.18.3 Channel: 130.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (TXL D9)
2.18.3 Channel: 131.45
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SFRA
2.18.3 Channel: 128.55
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 06L. Magnetic varia-
tion: 12E

2.19.2 ILS Identification: UWU
2.19.5 Coordinates: 33–56–50.7522N /
118–26–26.6221W
2.19.6 Site Elevation: 139.3 ft

2.19.1 ILS Type: Glide Slope for runway 06L. Magnetic
variation: 12E
2.19.2 ILS Identification: UWU
2.19.5 Coordinates: 33–56–54.5859N /
118–25–39.8249W
2.19.6 Site Elevation: 110.5 ft

2.19.1 ILS Type: Localizer for runway 06L. Magnetic

variation: 12E
2.19.2 ILS Identification: UWU
2.19.5 Coordinates: 33-57-8.5767N /
118-23-57.1965W
2.19.6 Site Elevation: 108.5 ft

2.19.1 ILS Type: DME for runway 24R. Magnetic variation: 12E
2.19.2 ILS Identification: OSS
2.19.5 Coordinates: 33-56-50.7522N /
118-26-26.6221W
2.19.6 Site Elevation: 139.3 ft

2.19.1 ILS Type: Glide Slope for runway 24R. Magnetic variation: 12E
2.19.2 ILS Identification: OSS
2.19.5 Coordinates: 33-57-2.4082N / 118-24-18.522W
2.19.6 Site Elevation: 116.7 ft

2.19.1 ILS Type: Localizer for runway 24R. Magnetic variation: 12E
2.19.2 ILS Identification: OSS
2.19.5 Coordinates: 33-56-53.1648N /
118-26-27.6839W
2.19.6 Site Elevation: 125.5 ft

2.19.1 ILS Type: DME for runway 06R. Magnetic variation: 12E
2.19.2 ILS Identification: GPE
2.19.5 Coordinates: 33-56-49.9191N /
118-26-22.7714W
2.19.6 Site Elevation: 134.3 ft

2.19.1 ILS Type: Glide Slope for runway 06R. Magnetic variation: 12E
2.19.2 ILS Identification: GPE
2.19.5 Coordinates: 33-56-53.3646N /
118-25-47.3623W
2.19.6 Site Elevation: 108 ft

2.19.1 ILS Type: Localizer for runway 06R. Magnetic variation: 12E
2.19.2 ILS Identification: GPE
2.19.5 Coordinates: 33-57-2.4125N /
118-23-49.2874W
2.19.6 Site Elevation: 106.3 ft

2.19.1 ILS Type: DME for runway 24L. Magnetic variation: 12E
2.19.2 ILS Identification: HQB
2.19.5 Coordinates: 33-56-49.9191N /

118-26-22.7714W
2.19.6 Site Elevation: 134.3 ft

2.19.1 ILS Type: Glide Slope for runway 24L. Magnetic variation: 12E
2.19.2 ILS Identification: HQB
2.19.5 Coordinates: 33-57-2.31N / 118-24-18.51W
2.19.6 Site Elevation: 116.7 ft

2.19.1 ILS Type: Localizer for runway 24L. Magnetic variation: 12E
2.19.2 ILS Identification: HQB
2.19.5 Coordinates: 33-56-46.746N /
118-26-22.2482W
2.19.6 Site Elevation: 123.4 ft

2.19.1 ILS Type: DME for runway 07L. Magnetic variation: 12E
2.19.2 ILS Identification: IAS
2.19.5 Coordinates: 33-56-4.8698N /
118-25-24.8206W
2.19.6 Site Elevation: 104.3 ft

2.19.1 ILS Type: Glide Slope for runway 07L. Magnetic variation: 12E
2.19.2 ILS Identification: IAS
2.19.5 Coordinates: 33-56-7.743N / 118-24-56.7237W
2.19.6 Site Elevation: 119.8 ft

2.19.1 ILS Type: Localizer for runway 07L. Magnetic variation: 12E
2.19.2 ILS Identification: IAS
2.19.5 Coordinates: 33-56-24.7529N /
118-22-35.5432W
2.19.6 Site Elevation: 90 ft

2.19.1 ILS Type: DME for runway 25R. Magnetic variation: 12E
2.19.2 ILS Identification: CFN
2.19.5 Coordinates: 33-56-4.8698N /
118-25-24.8206W
2.19.6 Site Elevation: 104.3 ft

2.19.1 ILS Type: Glide Slope for runway 25R. Magnetic variation: 12E
2.19.2 ILS Identification: CFN
2.19.5 Coordinates: 33-56-17.8773N /
118-23-10.1796W
2.19.6 Site Elevation: 97.5 ft

2.19.1 ILS Type: Localizer for runway 25R. Magnetic

variation: 12E

2.19.2 ILS Identification: CFN

2.19.5 Coordinates: 33-56-7.2503N /
118-25-26.6262W

2.19.6 Site Elevation: 119.3 ft

2.19.1 ILS Type: DME for runway 07R. Magnetic variation: 12E

2.19.2 ILS Identification: MKZ

2.19.5 Coordinates: 33-56-3.1899N /
118-25-20.7882W

2.19.6 Site Elevation: 126 ft

2.19.1 ILS Type: Glide Slope for runway 07R. Magnetic variation: 12E

2.19.2 ILS Identification: MKZ

2.19.5 Coordinates: 33-55-59.9253N /
118-24-55.0492W

2.19.6 Site Elevation: 118.2 ft

2.19.1 ILS Type: Localizer for runway 07R. Magnetic variation: 12E

2.19.2 ILS Identification: MKZ

2.19.5 Coordinates: 33-56-15.7853N /
118-22-45.2443W

2.19.6 Site Elevation: 92.5 ft

2.19.1 ILS Type: DME for runway 25L. Magnetic variation: 12E

2.19.2 ILS Identification: LAX

2.19.5 Coordinates: 33-56-3.1899N /
118-25-20.7882W

2.19.6 Site Elevation: 126 ft

2.19.1 ILS Type: Glide Slope for runway 25L. Magnetic variation: 12E

2.19.2 ILS Identification: LAX

2.19.5 Coordinates: 33-56-17.7739N /
118-23-10.2139W

2.19.6 Site Elevation: 97.3 ft

2.19.1 ILS Type: Localizer for runway 25L. Magnetic variation: 12E

2.19.2 ILS Identification: LAX

2.19.5 Coordinates: 33-55-59.8649N /
118-25-20.8676W

2.19.6 Site Elevation: 118.4 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 15E

2.19.2 Navigation Aid Identification: LAX

2.19.5 Coordinates: 33-55-59.3368N /
118-25-55.246W

2.19.6 Site Elevation: 185 ft

General Remarks:

TWY D BTN TWY D7 AND D8 (N OF TRML ONE) CLSD TO ACFT WITH WINGSPAN GTR THAN 157 FT.

SIMUL ACFT OPNS PROHIBITED ON TWYS L AND H9 BTWN RWYS 07L/25R AND 07R/25L.

MILITARY AF: ALL MIL AIRCREWS MUST CTC 61 ABW/CP FLT OPS FOR PRK LCTN/INSTR. NO GOVT TRANSPORTATION, QTRS OR SECURITY AVBL. VIP NOTIFICATION PRO APPLY. USER FEES ASSESSED USING AVCARD CREDIT. CTC ATLANTIC AVIATION FBO 131.6 INBD. INBD RELAY ETA, VIP CODE, SVC RQ 30 MIN PRIOR TO ARR.

SBND TURN NOT AVBL FROM WEST REMOTE GATE 408 AND WEST REMOTE GATE 409

RWY STATUS LGTS IN OPN.

RWY 7R/25L PREFERRED EMERG RWY.

AMERICAN EAGLE TRML SOUTHBOUND TAXING ACFT USE MNM PWR DUE TO BLAST HAZ.

ANY ACFT THAT COMES TO A STOP OR HAS ITS MOMENTUM INTRPD WHILE TURNING AND TAXING INTO ITS PRKG PSN, MUST STOP AND BE TOWED.

TURB MAY BE DEFLECTED UPWARD FM THE BLAST FENCE 180 FT E OF RWY 25R.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

PRACTICE INSTRUMENT APPROACHES & TOUCH AND GO LANDINGS ARE PROHIBITED.

NMRS BIRDS ON AND IN VCNTY OF ARPT.

WEST REMOTE GATES: ACFT USE OF OPEN GATES AS TAXI PATH IS PROHIBITED (GATES 406, 407, 408, 409).

NOISE SENS ARPT ON WESTERLY TAKEOFFS NO TURNS BEFORE CROSSING SHORELINE OVER-OCEAN
APCHS UTILIZED 0000-0630.

PILOTS SHOULD USE CTN FOR POSS LASER ACT IN THE LAX AREA.

ACFT USE MINIMAL PWR WHEN TXG VCNTY TRMLS DUE BLAST HAZ.

MILITARY RSTD: ALL MIL ACFT OFFL BUS ONLY, MIN 24 HR PPR, CTC 61 ABW/CP FLT OPS DSN
633-3779/4014,C310-653-3779/4014.

ACFT WITH LEN GTR THAN 240 FT ARE PROHIBITED ON TXLS C7, C8 AND C9 BTN TXL C AND TWY B.

ACFT WITH WINGSPAN GTR THAN 198 FT OBND FM TXL D8 MAY NOT TURN WBND ONTO TXL D.

ACFT WITH WINGSPAN GTR THAN 155 FT WB ON TXL C ARE NOT AUTHD TO MAKE LEFT TURN ON TWY
C10 UNDER PWR.

FOR ACFT WITH WINGSPAN GTR THAN 214 FT CTC LAX AIRSIDE OPS (424)-646-5292 FOR ARPT
RESTRICTIONS.

MAJOR CONSTRUCTION ON AIRPORT, DAILY.

SIMUL ACFT OPNS PROHIBITED ON TWY H2 AND G BTN RWYS 07L/25R AND 07R/25L.

AIRPORT DIAGRAM

AL-294 (FAA)

METRO OAKLAND INTL (OAK)
OAKLAND, CALIFORNIA

D-ATIS
133.775
OAKLAND TOWER
118.3 291.65 (RWYS 10L-28R, 10R-28L, 15-33)
127.2 256.9 (RWY 12-30)
GND CON
121.75 (RWY 12-30)
121.9 (RWYS 10L-28R, 10R-28L, 15-33)
CINC DEL
121.1
CPDLC
PDC

NWS

HANGARS

ELEV 5

VAR 13.4° E

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W

HS 3

EMAS

ELEV 6

ELEV 9

C 33

HS 2

GENERAL AVIATION AREA

HS 1

TWR 257

FEDEX

B5

FIRE STATION

S1

CARGO

OAKLAND MAINTENANCE

TERMINAL

RON PARKING

W1 CAT 2 HOLDING BLAST PAD 400 X 220

ELEV 9

RWY 10L-28R
PCN 69 F/C/W/T
S-75, D-210, 2D-500, 2D/2D2-900

RWY 10R-28L
PCN 97 F/B/W/T
S-75, D-210, 2D-500, 2D/2D2-900

RWY 12-30
PCN 71 F/A/W/T
S-75, D-210, 2D-500, 2D/2D2-900

RWY 15-33
S-12.5, D-65, 2D-100

FIELD ELEV 9

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

Oakland, CA
Metropolitan Oakland Intl
ICAO Identifier KOAK

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 37-43-16.5N / 122-13-16.1W
2.2.2 From City: 4 miles S of OAKLAND, CA
2.2.3 Elevation: 9 ft
2.2.5 Magnetic Variation: 14E (2015)
2.2.6 Airport Contact: MATT DAVIS
METROPOLITAN OAKLAND
INTL ARPT
OAKLAND, CA 94621
(510-563-6436)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 28R
2.12.2 True Bearing: 292
2.12.3 Dimensions: 5458 ft x 150 ft
2.12.4 PCN: 69 F/C/W/T
2.12.5 Coordinates: 37-43-29.3247N /
122-12-16.9329W
2.12.6 Threshold Elevation: 5.8 ft
2.12.6 Touchdown Zone Elevation: 6.8 ft

2.12.1 Designation: 10L
2.12.2 True Bearing: 112
2.12.3 Dimensions: 5458 ft x 150 ft
2.12.4 PCN: 69 F/C/W/T
2.12.5 Coordinates: 37-43-49.6865N /
122-13-19.8481W
2.12.6 Threshold Elevation: 5.5 ft
2.12.6 Touchdown Zone Elevation: 6.3 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 292

2.12.3 Dimensions: 6213 ft x 150 ft
2.12.4 PCN: 97 F/B/W/T
2.12.5 Coordinates: 37-43-20.178N /
122-12-21.6341W
2.12.6 Threshold Elevation: 8.2 ft
2.12.6 Touchdown Zone Elevation: 8.7 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 112
2.12.3 Dimensions: 6213 ft x 150 ft
2.12.4 PCN: 97 F/B/W/T
2.12.5 Coordinates: 37-43-43.345N /
122-13-33.2509W
2.12.6 Threshold Elevation: 8.1 ft
2.12.6 Touchdown Zone Elevation: 9 ft

2.12.1 Designation: 12
2.12.2 True Bearing: 130
2.12.3 Dimensions: 10520 ft x 150 ft
2.12.4 PCN: 71 F/A/W/T
2.12.5 Coordinates: 37-43-12.2256N /
122-14-31.6133W
2.12.6 Threshold Elevation: 8.3 ft
2.12.6 Touchdown Zone Elevation: 8.6 ft

2.12.1 Designation: 30
2.12.2 True Bearing: 310
2.12.3 Dimensions: 10520 ft x 150 ft
2.12.4 PCN: 71 F/A/W/T
2.12.5 Coordinates: 37-42-5.3735N /
122-12-51.3251W
2.12.6 Threshold Elevation: 9 ft
2.12.6 Touchdown Zone Elevation: 9 ft

2.12.1 Designation: 15
2.12.2 True Bearing: 164
2.12.3 Dimensions: 3376 ft x 75 ft
2.12.4 PCN:
2.12.5 Coordinates: 37-44-25.0497N /
122-13-22.1076W
2.12.6 Threshold Elevation: 1.5 ft
2.12.6 Touchdown Zone Elevation: 4.6 ft

2.12.1 Designation: 33
2.12.2 True Bearing: 344
2.12.3 Dimensions: 3376 ft x 75 ft
2.12.4 PCN:
2.12.5 Coordinates: 37-43-52.9005N /
122-13-10.826W
2.12.6 Threshold Elevation: 3.9 ft
2.12.6 Touchdown Zone Elevation: 4.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 5458
2.13.3 Take-off Distance Available: 5458
2.13.4 Accelerate-Stop Distance Available: 5458
2.13.5 Landing Distance Available: 5458

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 5458
2.13.3 Take-off Distance Available: 5458
2.13.4 Accelerate-Stop Distance Available: 5336
2.13.5 Landing Distance Available: 5336

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 6213
2.13.3 Take-off Distance Available: 6213
2.13.4 Accelerate-Stop Distance Available: 6213
2.13.5 Landing Distance Available: 6213

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 6213
2.13.3 Take-off Distance Available: 6213
2.13.4 Accelerate-Stop Distance Available: 6213
2.13.5 Landing Distance Available: 6213

2.13.1 Designation: 12
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 30
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 15
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 33
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 28R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 28L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 10R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 12
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 30
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 15
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 33
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 121.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 133.775
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (RWY 12/30)
2.18.3 Channel: 121.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 10L/28R,
10R/28L, 15/33)

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 10L/28R,
10R/28L, 15/33)

2.18.3 Channel: 118.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 12/30)

2.18.3 Channel: 127.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 12/30)

2.18.3 Channel: 256.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 10L/28R,
10R/28L, 15/33)

2.18.3 Channel: 291.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/S

2.18.3 Channel: 124.9

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic
variation: 14E

2.19.2 ILS Identification: OAK

2.19.5 Coordinates: 37-43-28.5955N /
122-12-30.6206W

2.19.6 Site Elevation: 3.3 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic
variation: 14E

2.19.2 ILS Identification: OAK

2.19.5 Coordinates: 37-43-54.55N / 122-13-34.86W
2.19.6 Site Elevation: 5.2 ft

General Remarks:

100 FT LGTD MICROWAVE ANT TWR LCTD 1320 FT WSW OF OAK VORTAC; S OF UPWIND END OF RWY 28L.

TWY A, E, G, H BTN RWY 28R AND TWY C MAX ACFT WT 150,000 LBS.

PREFERENTIAL RWY USE PROGRAM IN EFFECT 2200-0600. NORTH FLD PREF ARR RWY 28L, NORTH FLD
PREF DEP RWYS 10R OR 28R. IF THESE RWYS UNACCEPTABLE FOR SAFETY OR ATC INSTRN THEN RWY
12/30 MUST BE USED.

2.19.1 ILS Type: Glide Slope for runway 12. Magnetic
variation: 14E

2.19.2 ILS Identification: AAZ

2.19.5 Coordinates: 37-43-2.9276N /
122-14-22.8383W

2.19.6 Site Elevation: 3.3 ft

2.19.1 ILS Type: Localizer for runway 12. Magnetic
variation: 14E

2.19.2 ILS Identification: AAZ

2.19.5 Coordinates: 37-42-2.2539N /
122-12-46.6503W

2.19.6 Site Elevation: 7.2 ft

2.19.1 ILS Type: DME for runway 30. Magnetic varia-
tion: 14E

2.19.2 ILS Identification: INB

2.19.5 Coordinates: 37-43-29.85N / 122-14-58.1W
2.19.6 Site Elevation: 18 ft

2.19.1 ILS Type: Glide Slope for runway 30. Magnetic
variation: 14E

2.19.2 ILS Identification: INB

2.19.5 Coordinates: 37-42-9.7514N / 122-13-5.6277W
2.19.6 Site Elevation: 4.3 ft

2.19.1 ILS Type: Localizer for runway 30. Magnetic
variation: 14E

2.19.2 ILS Identification: INB

2.19.5 Coordinates: 37-43-29.8732N /
122-14-58.1043W
2.19.6 Site Elevation: 9.3 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic vari-
ation: 17E

2.19.2 Navigation Aid Identification: OAK

2.19.5 Coordinates: 37-43-33.3223N /
122-13-24.9086W
2.19.6 Site Elevation: 13.4 ft

TWY C BTN TWY G & J MAX ACFT WEIGHT 90,000 LBS SINGLE; 144,000 LBS DUAL; 257,000 LBS TANDEM.
400 FT BY 220 FT BLAST PAD RWY 12 AND RWY 30.

TWY P MAX ACFT WT 116,000 LBS SINGLE; 190,000 LBS DUAL; 305,000 LBS DUAL TANDEM; 735,000 LBS DOUBLE DUAL TANDEM.

NOISE ABATEMENT PROCS N/A IN EMERGS OR WHENEVER RWY 12/30 IS CLSD DUE TO MAINT, SAFETY, WINDS OR WX.

RWY 15/33 CLSD TO ACR ACFT.

FOR NOISE ABATEMENT INFO CTC NOISE ABATEMENT OFC AT (510) 563-6463.

TWY C BTN RWY 28R & TWY G AND TWYS B, J, AND D MAX ACFT WT 861,000 LBS.

TWY K BTN TWY J AND INT TWYS F, L, K MAX ACFT WT 33000 LBS SINGLE; 45000 LBS DUAL; TANDEM NA.

24 HR NOISE ABATEMENT PROCEDURE – TBJT AND TURBOFAN PWRD ACFT, TURBOROPS OVER 17,000 LBS, FOUR-ENGINE RECIPROCATING PWRD ACFT, AND SURPLUS MIL ACFT OVER 12,500 POUNDS SHOULD NOT DEP RWYS 28L & 28R OR LAND ON RWYS 10R & 10L.

TWY C BTN TWY J & F MAX ACFT WEIGHT 76,000 LBS SINGLE; 115,000 LBS DUAL; 257,000 LBS TANDEM (DUAL TANDEM NA).

BIRDS ON & INVOF ARPT.

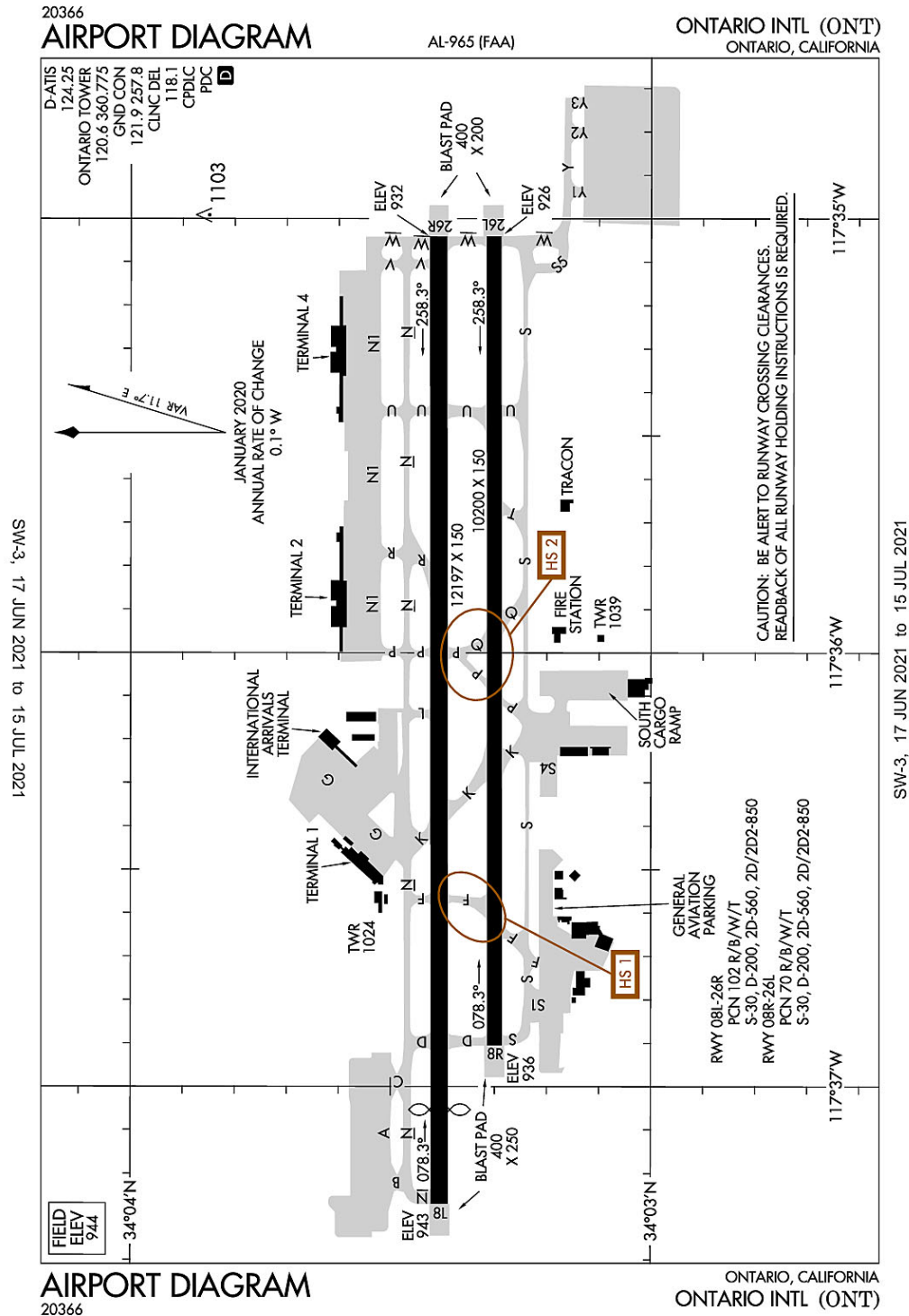
RWYS 30, 28R AND RWY 28L DIST RMNG SIGNS L SIDE.

ACFT WITH EXPERIMENTAL OR LTD CERTIF HAVING OVER 1000 HORSEPOWER OR 4000 LBS ARE RSTRD TO RWY 12/30.

TWY K BTN TWY D & INT TWYS F, L, K MAX ACFT WEIGHT 56,000 LBS SINGLE; 70,000 LBS DUAL; 130,000 LBS TANDEM.

TWY G & H BTN RWY 28L & 28R: MAX ACFT WT 12,500 LBS.

Ontario, California
Ontario International
ICAO Identifier KONT



Ontario, CA
Ontario Intl
ICAO Identifier KONT

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 34–3–21.651N / 117–36–4.275W
2.2.2 From City: 2 miles E of ONTARIO, CA
2.2.3 Elevation: 944.1 ft
2.2.5 Magnetic Variation: 12E (2020)
2.2.6 Airport Contact: MARK THORPE
1923 EAST AVION STREET
ONTARIO, CA 91761
(909–544–5300)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 08L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 12197 ft x 150 ft
2.12.4 PCN: 102 R/B/W/T
2.12.5 Coordinates: 34–3–24.7651N /
117–37–22.1586W
2.12.6 Threshold Elevation: 943.2 ft
2.12.6 Touchdown Zone Elevation: 944.1 ft

2.12.1 Designation: 26R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 12197 ft x 150 ft
2.12.4 PCN: 102 R/B/W/T
2.12.5 Coordinates: 34–3–24.8259N /
117–34–57.2057W
2.12.6 Threshold Elevation: 931.8 ft
2.12.6 Touchdown Zone Elevation: 931.8 ft

2.12.1 Designation: 08R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 10200 ft x 150 ft

2.12.4 PCN: 70 R/B/W/T
2.12.5 Coordinates: 34–3–17.8579N /
117–36–58.4219W
2.12.6 Threshold Elevation: 936 ft
2.12.6 Touchdown Zone Elevation: 936 ft

2.12.1 Designation: 26L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 10200 ft x 150 ft
2.12.4 PCN: 70 R/B/W/T
2.12.5 Coordinates: 34–3–17.9013N /
117–34–57.1985W
2.12.6 Threshold Elevation: 926.2 ft
2.12.6 Touchdown Zone Elevation: 926.2 ft

AD 2.13 Declared Distances

2.13.1 Designation: 08L
2.13.2 Take-off Run Available: 12197
2.13.3 Take-off Distance Available: 12197
2.13.4 Accelerate–Stop Distance Available: 12197
2.13.5 Landing Distance Available: 11200

2.13.1 Designation: 26R
2.13.2 Take-off Run Available: 12197
2.13.3 Take-off Distance Available: 12197
2.13.4 Accelerate–Stop Distance Available: 12197
2.13.5 Landing Distance Available: 12197

2.13.1 Designation: 08R
2.13.2 Take-off Run Available: 10200
2.13.3 Take-off Distance Available: 10200
2.13.4 Accelerate–Stop Distance Available: 10200
2.13.5 Landing Distance Available: 10200

2.13.1 Designation: 26L
2.13.2 Take-off Run Available: 10200
2.13.3 Take-off Distance Available: 10200
2.13.4 Accelerate–Stop Distance Available: 10200
2.13.5 Landing Distance Available: 10200

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 08L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 118.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 124.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 120.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 360.775
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 08L. Magnetic variation: 12E
2.19.2 ILS Identification: AOD
2.19.5 Coordinates: 34-3-21.2425N / 117-36-59.9428W
2.19.6 Site Elevation: 935.9 ft

2.19.1 ILS Type: Localizer for runway 08L. Magnetic variation: 12E

2.19.2 ILS Identification: AOD
2.19.5 Coordinates: 34-3-24.8274N / 117-34-45.0837W
2.19.6 Site Elevation: 929.1 ft

2.19.1 ILS Type: DME for runway 26R. Magnetic variation: 12E

2.19.2 ILS Identification: ONT
2.19.5 Coordinates: 34-3-22.0428N / 117-37-33.7049W
2.19.6 Site Elevation: 955 ft

2.19.1 ILS Type: Glide Slope for runway 26R. Magnetic variation: 12E

2.19.2 ILS Identification: ONT
2.19.5 Coordinates: 34-3-22.0256N / 117-35-11.0293W
2.19.6 Site Elevation: 925.2 ft

2.19.1 ILS Type: Localizer for runway 26R. Magnetic variation: 12E

2.19.2 ILS Identification: ONT
2.19.5 Coordinates: 34-3-24.7616N / 117-37-34.6764W
2.19.6 Site Elevation: 946.2 ft

2.19.1 ILS Type: DME for runway 26L. Magnetic variation: 12E

2.19.2 ILS Identification: TWO
2.19.5 Coordinates: 34-3-20.4777N / 117-37-8.8646W
2.19.6 Site Elevation: 947.7 ft

2.19.1 ILS Type: Glide Slope for runway 26L. Magnetic variation: 12E

2.19.2 ILS Identification: TWO
2.19.5 Coordinates: 34-3-21.9048N / 117-35-11.0216W
2.19.6 Site Elevation: 925.2 ft

2.19.1 ILS Type: Inner Marker for runway 26L. Magnetic variation: 12E

2.19.2 ILS Identification: TWO
2.19.5 Coordinates: 34-3-17.924N / 117-34-47.8618W
2.19.6 Site Elevation: 923.6 ft

2.19.1 ILS Type: Localizer for runway 26L. Magnetic variation: 12E

2.19.2 ILS Identification: TWO
2.19.5 Coordinates: 34-3-17.8524N / 117-37-10.2711W
2.19.6 Site Elevation: 931.1 ft

General Remarks:

ALL MILITARY AND GENERAL AVIATION (FIXED OR ROTOR WING) ACFT OPS ARE RESTRICTED TO FBO FACILITIES WITH ADVANCE COORDINATION; OVERNIGHT TIEDOWN AND PARKING FEE.

PILOTS SHOULD USE JUDGEMENTAL OVERSTEER ON TWY S-4.

ACFT PRKG AND CONTR GND SVCS ARE LTD FOR UNSKED OPS. FOR SKED INFO CALL AIRFIELD OPS (909) 214-7682/7683.

TWY S-4 RSTD TO ACFT WITH WINGSPAN 117 FT OR SMALLER.

EASTBOUND B747, B777, A330, A340 OR LARGER ACFT ON TWY S PROHIBITED FROM NORTHBOUND TURNS ONTO TWY K.

FBO ON FREQ 130.75.

NOISE ABATEMENT PROCEDURES IN EFFECT; FULL-LENGTH TURBOJET DEP ENCOURAGED, NIGHTLY PREFERENTIAL RWY USAGE, 2200-0700.

PTNS OF TWY S IN THE VCY OF TWY F ARE NOT VSB FM ATCT; PILOTS USE CTN ENTERING TWY F SOUTH OF TWY S.

B747, B777, A330, A340 OR LARGER ACFT ON TWY S PROHIBITED FROM NORTHBOUND TURNS ONTO TWY P.

TWY Y EAST OF TWY W IS A NON-MOVEMENT AREA; ALL ACFT CTC RAMP CTL 131.325 FOR ACCESS.

WILDLIFE HAZARD MGT PLAN IN EFFECT; POTENTIAL BIRD HAZARDS MAY EXIST ON AND INVOF ARPT; BE ALERT TO LARGE NUMBERS OF STARLINGS AND CROWS POSSIBLE ON APCH TO RY 26L AND RY 26R, HAWKS, EAGLES, FALCONS AND OWLS SPOTTED ON OCCASION.

ACFT ACCESS TO TWY R FROM RWY 26R PROHIBITED

TWY F SOUTH OF TWY S RSTRD TO ACFT WITH 117 FT WINGSPAN AND SMALLER. TWY F SOUTH OF RWY 26L RSTRD TO ACFT WITH 180 FT WINGSPAN.

[illegible]

Palmdale, CA
Palmdale Rgnl/USAF Plant 42
ICAO Identifier KPMD

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 34-37-45.8N / 118-5-4.39W
2.2.2 From City: 3 miles NE of PALMDALE, CA
2.2.3 Elevation: 2542.5 ft
2.2.5 Magnetic Variation: 12E (2020)
2.2.6 Airport Contact: KEN NEITZEL
2503 E AVE P
PALMDALE, CA 93550
(661-272-6715)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, 1330-0600Z++ Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types:
2.4.5 Hangar Space:
2.4.6 Repair Facilities: None

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: None

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 04
2.12.2 True Bearing: 52
2.12.3 Dimensions: 12001 ft x 150 ft
2.12.4 PCN: 53 R/B/W/T
2.12.5 Coordinates: 34-37-0.842N / 118-5-29.802W
2.12.6 Threshold Elevation: 2542.5 ft
2.12.6 Touchdown Zone Elevation: 2542.5 ft

2.12.1 Designation: 22
2.12.2 True Bearing: 232
2.12.3 Dimensions: 12001 ft x 150 ft
2.12.4 PCN: 53 R/B/W/T
2.12.5 Coordinates: 34-38-14.236N / 118-3-36.966W
2.12.6 Threshold Elevation: 2491.1 ft
2.12.6 Touchdown Zone Elevation: 2497.9 ft

2.12.1 Designation: 25
2.12.2 True Bearing: 266
2.12.3 Dimensions: 12002 ft x 200 ft
2.12.4 PCN: 71 R/B/W/T
2.12.5 Coordinates: 34-37-57.991N / 118-4-23.743W
2.12.6 Threshold Elevation: 2498.7 ft

2.12.6 Touchdown Zone Elevation: 2503.4 ft

2.12.1 Designation: 07
2.12.2 True Bearing: 86
2.12.3 Dimensions: 12002 ft x 200 ft
2.12.4 PCN: 71 R/B/W/T
2.12.5 Coordinates: 34-37-50.106N / 118-6-47.029W
2.12.6 Threshold Elevation: 2540.2 ft
2.12.6 Touchdown Zone Elevation: 2540.2 ft

2.12.1 Designation: 252
2.12.2 True Bearing:
2.12.3 Dimensions: 6000 ft x 75 ft
2.12.4 PCN: 97 R/B/W/T
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: 072
2.12.2 True Bearing:
2.12.3 Dimensions: 6000 ft x 75 ft
2.12.4 PCN: 97 R/B/W/T
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 04
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 22
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 25
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 07
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 252
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 072
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 04
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 25
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 07
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 252
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 072
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS
2.18.3 Channel: 118.275
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

General Remarks:

PRKG RAMP LCTD S OF RWY 22 & TWY V NOT VSB FM ATCT.

2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: OPR 1330-0600Z++.

2.18.1 Service Designation: GND/P
2.18.3 Channel: 317.6
2.18.5 Hours of Operation: OPR 1330-0600Z++.

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 123.7
2.18.5 Hours of Operation: OPR 1330-0600Z++.

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 317.6
2.18.5 Hours of Operation: OPR 1330-0600Z++.

2.18.1 Service Designation: LCL/S
2.18.3 Channel: 236.6
2.18.5 Hours of Operation: OPR 1330-0600Z++.

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 25. Magnetic variation: 12E

2.19.2 ILS Identification: PMD

2.19.5 Coordinates: 34-38-1.256N / 118-4-40.078W

2.19.6 Site Elevation: 2491.8 ft

2.19.1 ILS Type: Localizer for runway 25. Magnetic variation: 12E

2.19.2 ILS Identification: PMD

2.19.5 Coordinates: 34-37-48.786N / 118-7-10.911W

2.19.6 Site Elevation: 2552.2 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 15E

2.19.2 Navigation Aid Identification: PMD

2.19.5 Coordinates: 34-37-53.0341N /
118-3-49.7607W

2.19.6 Site Elevation: 2498 ft

MISC: COMSEC STORAGE UNAVBL.

MISC: WINDS ARE EST DUE TO FMQ-13 WIND SENSORS BEING ACCURATE TO WITHIN ONLY +/- 2 KT. ATC/WX WILL NOT INCL/RELAY WIND CORR INTO FCST/PHRASEOLOGY. THEREFORE, AIRCREWS WILL INCORPORATE A +/- 2 KT ACCURACY INTO THEIR DECISION MAKING PROCESS FOR FLYING OPR.

CAUTION: RWY 25 NSTD MRK: SPOT LDG ZONE MRK LCTD AT 6000 FT REMAINING MRK. RWY 07-25 DECEPTIVE SFC MRK EXCEED STANDARD BY APPROX 50 FT.

MISC: BASE OPS OPR 1330-0600Z++, CLSD FEDERAL HOL.

ALL DEPT ACFT MUST FILE FPL WITH P42 AFLD MGMT OPS.

CAUTION: USE EXTREME CAUTION FOR UNMANNED AERIAL SYSTEMS (UAS) OPS IN VCNTY.

MILITARY USE: ASSAULT LDG ZONE LCTD 1ST 6,000 EAST END OF TWY B. RWY 252 MRK ONLY FOR C-130 ASSAULT OPR; ONE-WAY LDG ONLY.

RSTD: OFFL BUS ONLY. MIL ARPT. CIVIL USE RQR USAF APVL AND DD FORM 2400/01/02. PPR RQR FOR FULL STOP LDG ONLY. CALL DSN 525-9342, C661-275-9342.

TRAN ALERT (2 OF 2): UNABLE TO SVC ACFT WITH ORDNANCE. LTD GRD SUPPORT EQUIPMENT AVBL. NO POTABLE WATER SVC. NO TRAN MAINT AVBL. GND SVC UNAVBL WHEN LIGHTNING WITHIN 5 NM.

RSTD: OVERNIGHT PRK UNAUTHD ON C-RAMP.

CAUTION: CONTRACTOR LEASED SITES ARE INTENDED FOR ACFT BASED THEREIN; ENTRY GATES AND APRONS MAY NOT MEET AF OBST STDS.

FUEL: A++ AVBL. NO TRANS ACFT FUEL SVC AVBL. LTD FUELING AVBL; GOVT ACFT ONLY 1600-2300Z++ MON-FRI. 24 HR PN WITH AFLD MGR RQR; NO SAME DAY REQ; GAS AND GO UNAVBL. EXPECT 2+ HR DELAY FOR FUEL.

BIRD HAZ POTENTIAL EXISTS. MIGRATORY SEASON PHASE II 1 OCT - 31 MAR. DURG BWC MODERATE, TKOF AND LNDG PERMITTED. DURG BWC SEVERE, TKOF AND LNDG PROHIBITED.

RSTD: RWY RESERVED FOR ACFT BASED THEREIN ON SAT AND SUN. GRD CREWS MUST INSPECT ALL ANTICIPATED AFLD PAVEMENTS RQR FOR THEIR MSN PRIOR TO EACH ACFT ARR OR DEP

SERVICE-JASU: POWER CARS UNAVBL.

DRAINAGE DITCHES PARL RWY 22 FM TWY S TO TWY U.

MISC: FLT PLANS MUST BE FILED AND ACTIVATED WITH P42 AFLD MGMT. USE FLT SVC WHEN P42 AFLD MGMT CLSD.

CAUTION: VARIOUS ACFT TEST OPS MARKINGS PAINTED IN WHITE ON TAXIWAY UNIFORM.

CAUTION: CIV ACFT MAY NOT BE GRANTED ACCESS TO KPMD CLASS D FOR PRACTICE APCH OR TRSN OVER ARPT BDRYS.

TRAN ALERT (1 OF 2): NO FLEET SVC AVBL. NO FLW ME SVC AVBL. EXP PROGRESSIVE TAXI TO PRK. AIRCREW RESPONSIBLE FOR ACFT PINNING/SAFING.

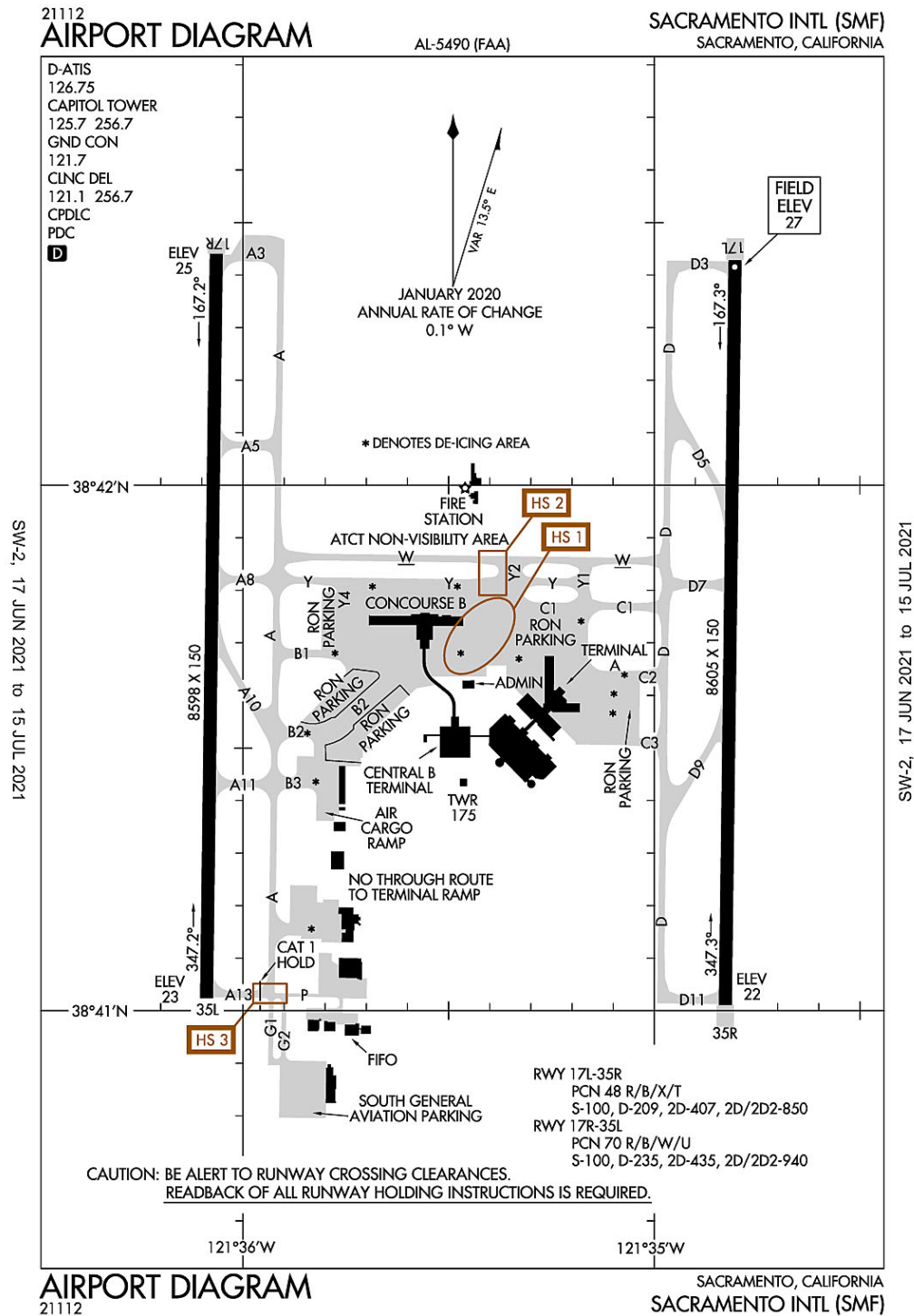
UNLGT OBSTN SURROUND AFLD.

SERVICE-LGT: GATED THLD LGT RWY 07-25 AND RWY 04-22.

MISC: INDUS INSTLN - NO TRNSPN, LODGING OR NML SVC AVBL ON SITE.

RSTD: TWY L BTN RWY 04/22 AND PAX TRML UNLGTD AND USABLE FOR DAYLT VFR ONLY.

Sacramento, California
Sacramento International
ICAO Identifier KSMF



Sacramento, CA
Sacramento Intl
ICAO Identifier KSMF

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 38-41-43.6N / 121-35-26.8W
2.2.2 From City: 10 miles NW of SACRAMENTO, CA
2.2.3 Elevation: 26.9 ft
2.2.5 Magnetic Variation: 13E (2020)
2.2.6 Airport Contact: SHERI THOMPSON-DUARTE
6900 AIRPORT BLVD
SACRAMENTO, CA 95837
((916) 874-0560)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 17L
2.12.2 True Bearing: 181
2.12.3 Dimensions: 8605 ft x 150 ft
2.12.4 PCN: 48 R/B/X/T
2.12.5 Coordinates: 38-42-25.6973N /
121-34-48.2125W
2.12.6 Threshold Elevation: 26.9 ft
2.12.6 Touchdown Zone Elevation: 26.9 ft

2.12.1 Designation: 35R
2.12.2 True Bearing: 1
2.12.3 Dimensions: 8605 ft x 150 ft
2.12.4 PCN: 48 R/B/X/T
2.12.5 Coordinates: 38-41-0.6506N / 121-34-49.642W
2.12.6 Threshold Elevation: 22.1 ft
2.12.6 Touchdown Zone Elevation: 23.8 ft

2.12.1 Designation: 17R
2.12.2 True Bearing: 181
2.12.3 Dimensions: 8598 ft x 150 ft
2.12.4 PCN: 70 R/B/W/U

2.12.5 Coordinates: 38-42-26.4236N /
121-36-3.8961W
2.12.6 Threshold Elevation: 24.8 ft
2.12.6 Touchdown Zone Elevation: 25.3 ft

2.12.1 Designation: 35L
2.12.2 True Bearing: 1
2.12.3 Dimensions: 8598 ft x 150 ft
2.12.4 PCN: 70 R/B/W/U
2.12.5 Coordinates: 38-41-1.439N / 121-36-5.3075W
2.12.6 Threshold Elevation: 22.5 ft
2.12.6 Touchdown Zone Elevation: 23.9 ft

AD 2.13 Declared Distances

2.13.1 Designation: 17L
2.13.2 Take-off Run Available: 8605
2.13.3 Take-off Distance Available: 8605
2.13.4 Accelerate-Stop Distance Available: 8605
2.13.5 Landing Distance Available: 8605

2.13.1 Designation: 35R
2.13.2 Take-off Run Available: 8605
2.13.3 Take-off Distance Available: 8605
2.13.4 Accelerate-Stop Distance Available: 8605
2.13.5 Landing Distance Available: 8605

2.13.1 Designation: 17R
2.13.2 Take-off Run Available: 8598
2.13.3 Take-off Distance Available: 8598
2.13.4 Accelerate-Stop Distance Available: 8598
2.13.5 Landing Distance Available: 8598

2.13.1 Designation: 35L
2.13.2 Take-off Run Available: 8598
2.13.3 Take-off Distance Available: 8598
2.13.4 Accelerate-Stop Distance Available: 8598
2.13.5 Landing Distance Available: 8598

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 17L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17R
2.14.2 Approach Lighting System: ALSF2

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 35L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P

2.18.3 Channel: 121.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 256.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 126.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 256.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 256.7

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 17L. Magnetic variation: 13E

2.19.2 ILS Identification: MDK

2.19.5 Coordinates: 38-40-50.2189N /
121-34-46.3009W

2.19.6 Site Elevation: 30.9 ft

2.19.1 ILS Type: Glide Slope for runway 17L. Magnetic variation: 13E

2.19.2 ILS Identification: MDK

2.19.5 Coordinates: 38-42-15.18N / 121-34-43.22W

2.19.6 Site Elevation: 21.7 ft

2.19.1 ILS Type: Localizer for runway 17L. Magnetic variation: 13E

2.19.2 ILS Identification: MDK

2.19.5 Coordinates: 38-40-50.67N / 121-34-49.81W

2.19.6 Site Elevation: 17.4 ft

2.19.1 ILS Type: DME for runway 17R. Magnetic variation: 13E

2.19.2 ILS Identification: SMF

2.19.5 Coordinates: 38-40-34.7038N / 121-36-3.046W

2.19.6 Site Elevation: 34 ft

2.19.1 ILS Type: Glide Slope for runway 17R. Magnetic variation: 13E

2.19.2 ILS Identification: SMF

2.19.5 Coordinates: 38-42-15.8608N / 121-36-9.106W

2.19.6 Site Elevation: 22.9 ft

2.19.1 ILS Type: Inner Marker for runway 17R. Magnetic variation: 13E

2.19.2 ILS Identification: SMF

2.19.5 Coordinates: 38-42-34.0974N /
121-36-3.7746W

2.19.6 Site Elevation: 23 ft

2.19.1 ILS Type: Localizer for runway 17R. Magnetic variation: 13E

2.19.2 ILS Identification: SMF

2.19.5 Coordinates: 38-40-35.7492N /
121-36-5.7322W

2.19.6 Site Elevation: 19.6 ft

2.19.1 ILS Type: DME for runway 35L. Magnetic variation: 13E

2.19.2 ILS Identification: HUX

2.19.5 Coordinates: 38-40-34.7038N / 121-36-3.046W

2.19.6 Site Elevation: 34 ft

2.19.1 ILS Type: Glide Slope for runway 35L. Magnetic variation: 13E

2.19.2 ILS Identification: HUX

2.19.5 Coordinates: 38-41-12.5012N /
121-36-0.0807W

2.19.6 Site Elevation: 21.7 ft

2.19.1 ILS Type: Localizer for runway 35L. Magnetic variation: 13E

2.19.2 ILS Identification: HUX

2.19.5 Coordinates: 38-42-36.65N / 121-36-3.72W

2.19.6 Site Elevation: 22 ft

General Remarks:

WEST RAMP SPOTS 56-60 & F1 RSTRD TO TOW IN AND TOW OUT ONLY FROM TXL B2. WHEN PUSHING BACK FOR DEP FROM WEST RAMP SPOTS 56-60 & F1 EACH ACFT IS TO PUSH BACK ON TO TXL B2 AND PULL FWD TO THE "ENGINE START LINE" PRIOR TO STARTING ENGS.

CROP DUSTERS OPER INVOF ARPT AT OR BELOW 200 FT AGL.

MILITARY AIRCRAFT PARKING LIMITED. CONTACT ARPT OPNS IF PARKING IS REQUIRED (916) 806-5309.

UNPAVED SFC NORTH OF TWY P AND EAST OF TWY A AND SOUTH OF CARGO 1 RAMP CLSD TO HEL.

NOISE SENSITIVE AREAS W OF ARPT ON SAC RIVER. LCL TURN DISCOURAGED FOR JET ACFT. WHEN CONDUCTING IFR APCH IN VFR CONDITIONS EXECUTE MISSED APCH AT DEP END OF RYS. PLAN VFR PATTERNS TO E. USE MIN POWER SETTINGS.

TWY B1 CLSD TO CARGO ACFT.

PORTION OF TWY W 500 FT EAST OF TWY A TO 2100 FT EAST OF TWY A IS NOT VISIBLE FROM ATCT.

TWY Y4 RESTRICTED TO AIRCRAFT WITH A WINGSPAN OF LESS THAN 118 FT (GROUP III).

ALL ACFT CTC ATC GND CTL PRIOR TO MOVEMENT ON RAMP.

TWY RMK #2: THE MAXIMUM ALLOWABLE GROSS AIRCRAFT LOAD FOR TWYS G1, G2, AND THE GENERAL AVIATION PARKING APRON IS: 70,000 LBS FOR SINGLE GEAR AIRCRAFT; 170,000 LBS FOR DUAL GEAR AIRCRAFT; AND 250,000 LBS FOR DUAL TANDEM GEAR AIRCRAFT.

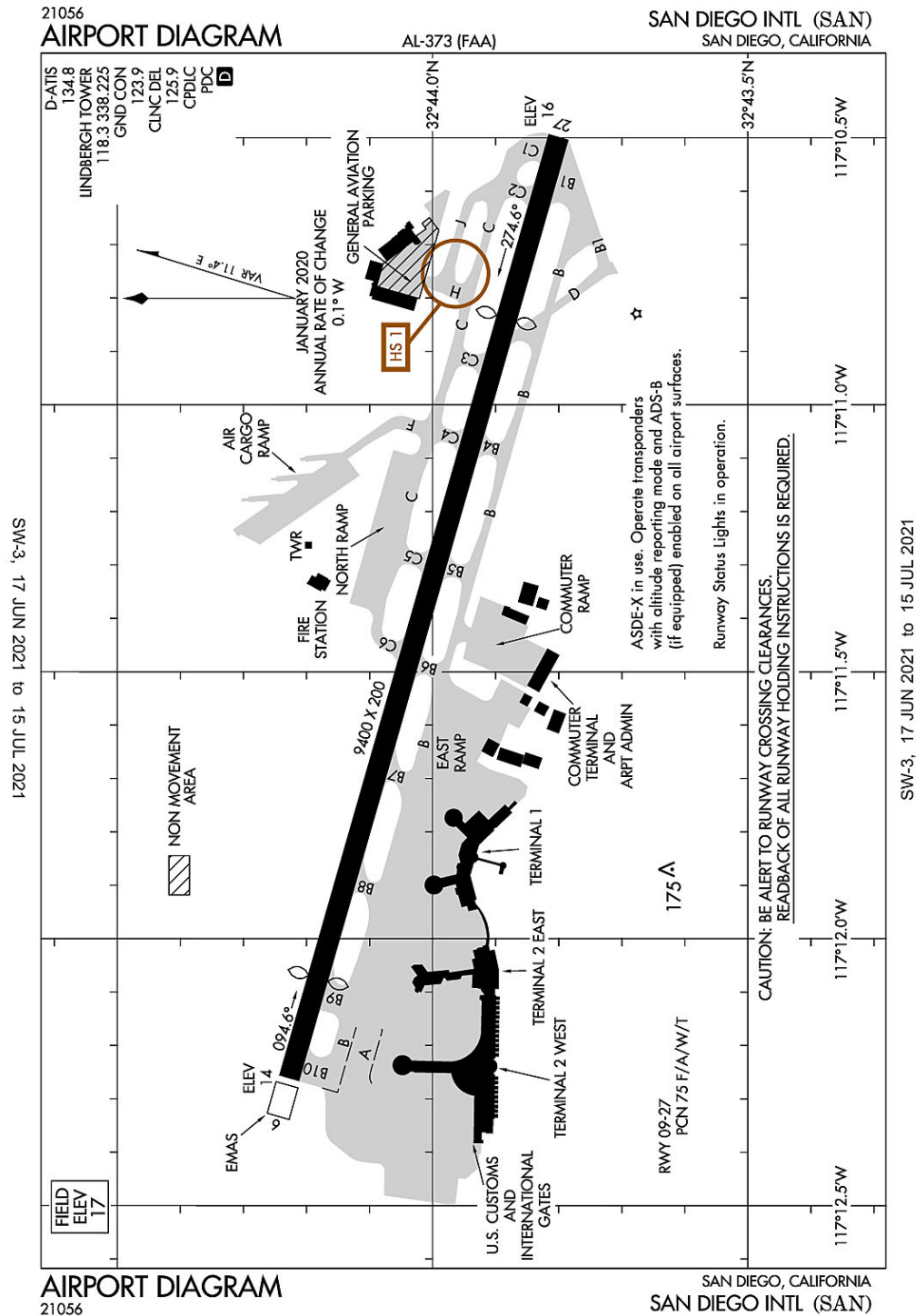
FAA GWT STRENGTH EVALUATION MD-11 = 590,000 LBS.

GND VEHICLE SURVEILLANCE SYS IN USE. OPR TRANSPONDERS WITH ALT RPRTG MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AP SFCS.

BIRDS ON AND IN VICINITY OF ARPT.

TWY RMK #2 CONT'D: AN AIRCRAFT CANNOT EXCEED THE AIRPLANE DESIGN GROUP III CRITERIA AND MUST HAVE A WHEEL BASE OF LESS THAN 60 FT.

San Diego, California
San Diego International
ICAO Identifier KSN



San Diego, CA
San Diego Intl
ICAO Identifier KSAN

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 32-44-0.8N / 117-11-22.8W
- 2.2.2 From City: 2 miles W of SAN DIEGO, CA
- 2.2.3 Elevation: 16.8 ft
- 2.2.5 Magnetic Variation: 11E (2020)
- 2.2.6 Airport Contact: DEAN ROBBINS
3225 N HARBOR DRIVE
SAN DIEGO, CA 92101
(619-400-2718)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 27
- 2.12.2 True Bearing: 286
- 2.12.3 Dimensions: 9400 ft x 200 ft
- 2.12.4 PCN: 75 F/A/W/T
- 2.12.5 Coordinates: 32-43-48.0086N / 117-10-29.9018W
- 2.12.6 Threshold Elevation: 16.4 ft
- 2.12.6 Touchdown Zone Elevation: 16.7 ft
- 2.12.1 Designation: 09
- 2.12.2 True Bearing: 106
- 2.12.3 Dimensions: 9400 ft x 200 ft
- 2.12.4 PCN: 75 F/A/W/T
- 2.12.5 Coordinates: 32-44-13.6413N / 117-12-15.6841W
- 2.12.6 Threshold Elevation: 13.7 ft
- 2.12.6 Touchdown Zone Elevation: 16.6 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 27

- 2.13.2 Take-off Run Available: 9401
- 2.13.3 Take-off Distance Available: 9401
- 2.13.4 Accelerate-Stop Distance Available: 9401
- 2.13.5 Landing Distance Available: 7591

- 2.13.1 Designation: 09
- 2.13.2 Take-off Run Available: 8280
- 2.13.3 Take-off Distance Available: 9401
- 2.13.4 Accelerate-Stop Distance Available: 8280
- 2.13.5 Landing Distance Available: 7280

AD 2.14 Approach and Runway Lighting

- 2.14.1 Designation: 27
- 2.14.2 Approach Lighting System: MALS
- 2.14.4 Visual Approach Slope Indicator System: P4R

- 2.14.1 Designation: 09
- 2.14.2 Approach Lighting System: MALSR
- 2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

- 2.18.1 Service Designation: CD/P
- 2.18.3 Channel: 125.9
- 2.18.5 Hours of Operation: 24

- 2.18.1 Service Designation: D-ATIS
- 2.18.3 Channel: 134.8
- 2.18.5 Hours of Operation: 24

- 2.18.1 Service Designation: GND/P
- 2.18.3 Channel: 123.9
- 2.18.5 Hours of Operation: 24

- 2.18.1 Service Designation: LCL/P
- 2.18.3 Channel: 118.3
- 2.18.5 Hours of Operation: 24

- 2.18.1 Service Designation: LCL/P
- 2.18.3 Channel: 338.225
- 2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

- 2.19.1 ILS Type: DME for runway 09. Magnetic variation: 11E
- 2.19.2 ILS Identification: SAN
- 2.19.5 Coordinates: 32-43-47.0838N / 117-10-28.4698W

2.19.6 Site Elevation: 27.4 ft

2.19.1 ILS Type: Glide Slope for runway 09. Magnetic variation: 11E

2.19.2 ILS Identification: SAN

2.19.5 Coordinates: 32-44-10.76N / 117-11-52.14W

2.19.6 Site Elevation: 16 ft

2.19.1 ILS Type: Localizer for runway 09. Magnetic variation: 11E

2.19.2 ILS Identification: SAN

2.19.5 Coordinates: 32-43-47.6019N /
117-10-28.237W

2.19.6 Site Elevation: 25.9 ft

2.19.1 ILS Type: DME for runway 27. Magnetic variation: 11E

2.19.2 ILS Identification: UBR

2.19.5 Coordinates: 32-44-11.4624N / 117-12-20.064W

2.19.6 Site Elevation: 22.7 ft

2.19.1 ILS Type: Localizer for runway 27. Magnetic variation: 11E

2.19.2 ILS Identification: UBR

2.19.5 Coordinates: 32-44-14.7891N /
117-12-20.4337W

2.19.6 Site Elevation: 10.9 ft

General Remarks:

CROSS-BLEED ENGINE STARTS PERMITTED ONLY ON PARALLEL TWY WITH ACFT ALIGNED ON TWY CNTRLN.

RWY STATUS LGTS IN OPN.

747 AND LARGER ACFT ARE PROHIBITED FM MAKING INTERSECTION TKOFS.

INTERMITTENT PRESENCE OF BIRDS ON AND INVOF OF ARPT.

ACFT WITH WINGSPANS GTR THAN 171 FT (52M) RSTD FROM USING TWY D SOUTH OF TWY B, AND WHEN EXITING RWY 09 WB ON TWY B.

DUE TO PAEW ON RY 09-27, 30 MINUTE PPR 0830-1230Z FOR ALL LANDINGS AND DEPARTURES CALL 619-400-2710.

IN THE EVENT OF A DIVERSION OR IRREGULAR OPERATIONS EVENTS, ACFT OPERATORS CONTACT THE APT DUTY MGR (619) 400-2710 FOR PPR DUE TO LIMITATIONS ASSOCIATED WITH HANDLING DIVERTED FLTS. LIMITATIONS INCLUDE RESTRICTED GATE SPACE, CUSTOMS SERVICES AS WELL AS ACFT SERVICING & PARKING.

MILITARY ACFT ON OFFICIAL BUSINESS ONLY CONTACT ARPT OPS AT 619-400-2710 FOR PPR.

TERRAIN & BLDGS TO 500' MSL N & E WITHIN 1 1/2 MI.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

PILOTS REQUIRED TO CTC ATCT GROUND CONTROLLER PRIOR TO PUSHBACK, TOW OUT AND TAXI FOR TRAFFIC ADVISORIES.

30 MIN PPR (619-400-2710) FOR ACFT WITH OVER 171 FT WINGSPAN.

ACFT CROSSING RY 09/27 ON TWY C6, HOLD SHORT OF TWY C6 FACING WEST ON TWY C, PARALLEL TO RY.

ULTRALIGHT ACFT PROHIBITED ON AP.

TAXIING ACFT ARE PROHIBITED FROM PASSING TO THE SOUTH OF ACFT LCTD ON TWY B INTO ALLEY LCTD BTWN GATES 7 AND 14.

TAXILANE A RSTRD TO ACFT WITH WINGSPANS OF 135 FT OR LESS.

TWY C EDGE LGTS OTS INDEFLY.

OUTBOARD ENGINES OF FOUR-ENGINE ACFT ARE TO BE KEPT AT IDLE POWER FOR ALL GND MANEUVERING.

TAXIING ACFT SHALL FOLLOW LEAD-IN LINES UNTIL THE NOSE WHEEL OF THE ACFT HAS ENTERED THE NON-MOVEMENT AREA OF THE ALLEY.

TO REDUCE JET BLAST IMPACT AT N END OF TWY F ACFT WILL NOT START ENG UNTIL 800 FT FM N END OF TWY F; ABEAM THE SECOND PARKING PAD.

PRACTICE APPROACHES AND TGL PROHIBITED.

FOR ACCESS TO/FR TERMINAL 2: GATES 23, 25, 27, 29, 31, 33-51 AND THE ISLAND AND WEST RON PRKG RAMPS, CTC RAMP CTL ON 129.775 SRY 131.975 FR 0600-2400. FR 0000-0600 CTC GROUND CTL ON 123.9.

20366

AIRPORT DIAGRAM

AL-375 (FAA)

SAN FRANCISCO INTL (SFO)

SAN FRANCISCO, CALIFORNIA

D-ATIS
113.7/115.8 118.85
SAN FRANCISCO TOWER
120.5 269.1
GND CON
121.8
CLNC DEL
118.2
CPDIC
PDC

ASSC in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

Runway Status Lights in Operation.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NOTE: Several runway hold position signs are on the right rather than the left side of the taxiways

AIRPORT DIAGRAM

20366

SAN FRANCISCO, CALIFORNIA

SAN FRANCISCO INTL (SFO)

SAN FRANCISCO, CALIFORNIA

San Francisco, CA
San Francisco Intl
ICAO Identifier KSFO

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 37-37-7.7N / 122-22-31.5W
2.2.2 From City: 8 miles SE of SAN FRANCISCO, CA
2.2.3 Elevation: 13.1 ft
2.2.5 Magnetic Variation: 14E (2015)
2.2.6 Airport Contact: IVAR SATERO
PO BOX 8097
SAN FRANCISCO, CA 94128
((650) 821-3355)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 01L
2.12.2 True Bearing: 28
2.12.3 Dimensions: 7650 ft x 200 ft
2.12.4 PCN: 90 F/B/X/T
2.12.5 Coordinates: 37-36-28.4323N / 122-22-58.5426W
2.12.6 Threshold Elevation: 10.7 ft
2.12.6 Touchdown Zone Elevation: 10.9 ft

2.12.1 Designation: 19R
2.12.2 True Bearing: 208
2.12.3 Dimensions: 7650 ft x 200 ft
2.12.4 PCN: 90 F/B/X/T
2.12.5 Coordinates: 37-37-35.3329N / 122-22-14.1939W
2.12.6 Threshold Elevation: 9.2 ft
2.12.6 Touchdown Zone Elevation: 11.2 ft

2.12.1 Designation: 01R
2.12.2 True Bearing: 28
2.12.3 Dimensions: 8650 ft x 200 ft

2.12.4 PCN: 100 F/B/X/T
2.12.5 Coordinates: 37-36-22.7876N / 122-22-51.7467W
2.12.6 Threshold Elevation: 11.4 ft
2.12.6 Touchdown Zone Elevation: 11.2 ft
2.12.1 Designation: 19L
2.12.2 True Bearing: 208
2.12.3 Dimensions: 8650 ft x 200 ft
2.12.4 PCN: 100 F/B/X/T
2.12.5 Coordinates: 37-37-38.4319N / 122-22-1.599W
2.12.6 Threshold Elevation: 10.5 ft
2.12.6 Touchdown Zone Elevation: 11 ft

2.12.1 Designation: 10L
2.12.2 True Bearing: 118
2.12.3 Dimensions: 11870 ft x 200 ft
2.12.4 PCN: 80 F/B/X/T
2.12.5 Coordinates: 37-37-43.4594N / 122-23-36.2107W
2.12.6 Threshold Elevation: 5.5 ft
2.12.6 Touchdown Zone Elevation: 7 ft

2.12.1 Designation: 28R
2.12.2 True Bearing: 298
2.12.3 Dimensions: 11870 ft x 200 ft
2.12.4 PCN: 80 F/B/X/T
2.12.5 Coordinates: 37-36-48.721N / 122-21-25.708W
2.12.6 Threshold Elevation: 13 ft
2.12.6 Touchdown Zone Elevation: 12.9 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 298
2.12.3 Dimensions: 11381 ft x 200 ft
2.12.4 PCN: 80 F/B/X/T
2.12.5 Coordinates: 37-36-42.163N / 122-21-30.057W
2.12.6 Threshold Elevation: 12.6 ft
2.12.6 Touchdown Zone Elevation: 12.6 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 118
2.12.3 Dimensions: 11381 ft x 200 ft
2.12.4 PCN: 80 F/B/X/T
2.12.5 Coordinates: 37-37-34.648N / 122-23-35.1796W
2.12.6 Threshold Elevation: 7.1 ft
2.12.6 Touchdown Zone Elevation: 8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 01L

2.13.2 Take-off Run Available: 7650
2.13.3 Take-off Distance Available: 7650
2.13.4 Accelerate-Stop Distance Available: 7650
2.13.5 Landing Distance Available: 7010

2.13.1 Designation: 19R
2.13.2 Take-off Run Available: 7650
2.13.3 Take-off Distance Available: 7650
2.13.4 Accelerate-Stop Distance Available: 7650
2.13.5 Landing Distance Available: 7650

2.13.1 Designation: 01R
2.13.2 Take-off Run Available: 8650
2.13.3 Take-off Distance Available: 8650
2.13.4 Accelerate-Stop Distance Available: 8650
2.13.5 Landing Distance Available: 8090

2.13.1 Designation: 19L
2.13.2 Take-off Run Available: 8650
2.13.3 Take-off Distance Available: 8650
2.13.4 Accelerate-Stop Distance Available: 8650
2.13.5 Landing Distance Available: 8650

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 11870
2.13.3 Take-off Distance Available: 11870
2.13.4 Accelerate-Stop Distance Available: 11193
2.13.5 Landing Distance Available: 11193

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 11870
2.13.3 Take-off Distance Available: 11870
2.13.4 Accelerate-Stop Distance Available: 11870
2.13.5 Landing Distance Available: 11236

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 11381
2.13.3 Take-off Distance Available: 11381
2.13.4 Accelerate-Stop Distance Available: 10981
2.13.5 Landing Distance Available: 10275

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 11381
2.13.3 Take-off Distance Available: 11381
2.13.4 Accelerate-Stop Distance Available: 10704
2.13.5 Landing Distance Available: 10704

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 01L
2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 19R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 01R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 19L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 118.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 113.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 115.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 118.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 120.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 269.1

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 19L. Magnetic variation: 14E

2.19.2 ILS Identification: SIA

2.19.5 Coordinates: 37-36-18.7188N /
122-22-59.4082W

2.19.6 Site Elevation: 20.6 ft

2.19.1 ILS Type: Glide Slope for runway 19L. Magnetic variation: 14E

2.19.2 ILS Identification: SIA

2.19.5 Coordinates: 37-37-30.7381N /
122-22-11.0577W

2.19.6 Site Elevation: 6.3 ft

2.19.1 ILS Type: Localizer for runway 19L. Magnetic variation: 14E

2.19.2 ILS Identification: SIA

2.19.5 Coordinates: 37-36-16.2796N /
122-22-56.0614W

2.19.6 Site Elevation: 19 ft

2.19.1 ILS Type: DME for runway 28R. Magnetic variation: 14E

2.19.2 ILS Identification: GWQ

2.19.5 Coordinates: 37-37-48.1978N /
122-23-40.6085W

2.19.6 Site Elevation: 17.7 ft

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic variation: 14E

2.19.2 ILS Identification: GWQ

2.19.5 Coordinates: 37-36-51.3989N /
122-21-43.1171W

2.19.6 Site Elevation: 8.2 ft

2.19.1 ILS Type: Inner Marker for runway 28R. Magnetic variation: 14E

2.19.2 ILS Identification: GWQ

2.19.5 Coordinates: 37-36-46.1575N /
122-21-19.7418W

2.19.6 Site Elevation: 13 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic variation: 14E

2.19.2 ILS Identification: GWQ

2.19.5 Coordinates: 37-37-46.3566N /
122-23-43.1194W

2.19.6 Site Elevation: 5.3 ft

2.19.1 ILS Type: DME for runway 28L. Magnetic variation: 14E

2.19.2 ILS Identification: SFO

2.19.5 Coordinates: 37-37-39.5363N /
122-23-41.4575W

2.19.6 Site Elevation: 20.3 ft

2.19.1 ILS Type: Glide Slope for runway 28L. Magnetic variation: 14E

2.19.2 ILS Identification: SFO

2.19.5 Coordinates: 37-36-51.2769N /
122-21-43.1999W

2.19.6 Site Elevation: 8.2 ft

2.19.1 ILS Type: Localizer for runway 28L. Magnetic variation: 14E

2.19.2 ILS Identification: SFO

2.19.5 Coordinates: 37-37-37.471N /
122-23-41.9198W

2.19.6 Site Elevation: 9.3 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 17E

2.19.2 Navigation Aid Identification: SFO

2.19.5 Coordinates: 37-37-10.1465N /
122-22-26.0165W

2.19.6 Site Elevation: 6 ft

General Remarks:

SEVERAL RY HOLD POSITION SIGNS ARE ON THE RIGHT RATHER THAN THE LEFT SIDE OF THE TWYS.

NOISE SENSITIVE ARPT; FOR NOISE ABATEMENT PROCEDURES CTC ARPT NOISE OFFICE MON-FRI 0800-1700 BY CALLING 650-821-5100.

RWY STATUS LGTS IN OPN.

PAEW APCH END RYS 28L, 28R, 19L INDEFLY.

ALL OUBD TWY ZULU 2 HVY ACFT WITH A WINGSPAN OF 171 FT OR GTR UNDER PWR PROHIBITED FROM ENTERING WB TWY ZULU.

RWY 1L CLSD TO DEPARTING TRIJET ACFT WITH WINGSPAN GREATER THAN 155 FT.

AIRLINE PILOTS SHALL STRICTLY FOLLOW THE PAINTED NOSE GEAR LINES AND NO OVERSTEERING ADJUSTMENT IS PERMITTED.

ASSC IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

FLOCKS OF BIRDS FEEDING ALONG SHORELINE ADJ TO ARPT; ON OCCASIONS FLY ACROSS VARIOUS PARTS OF THE ARPT.

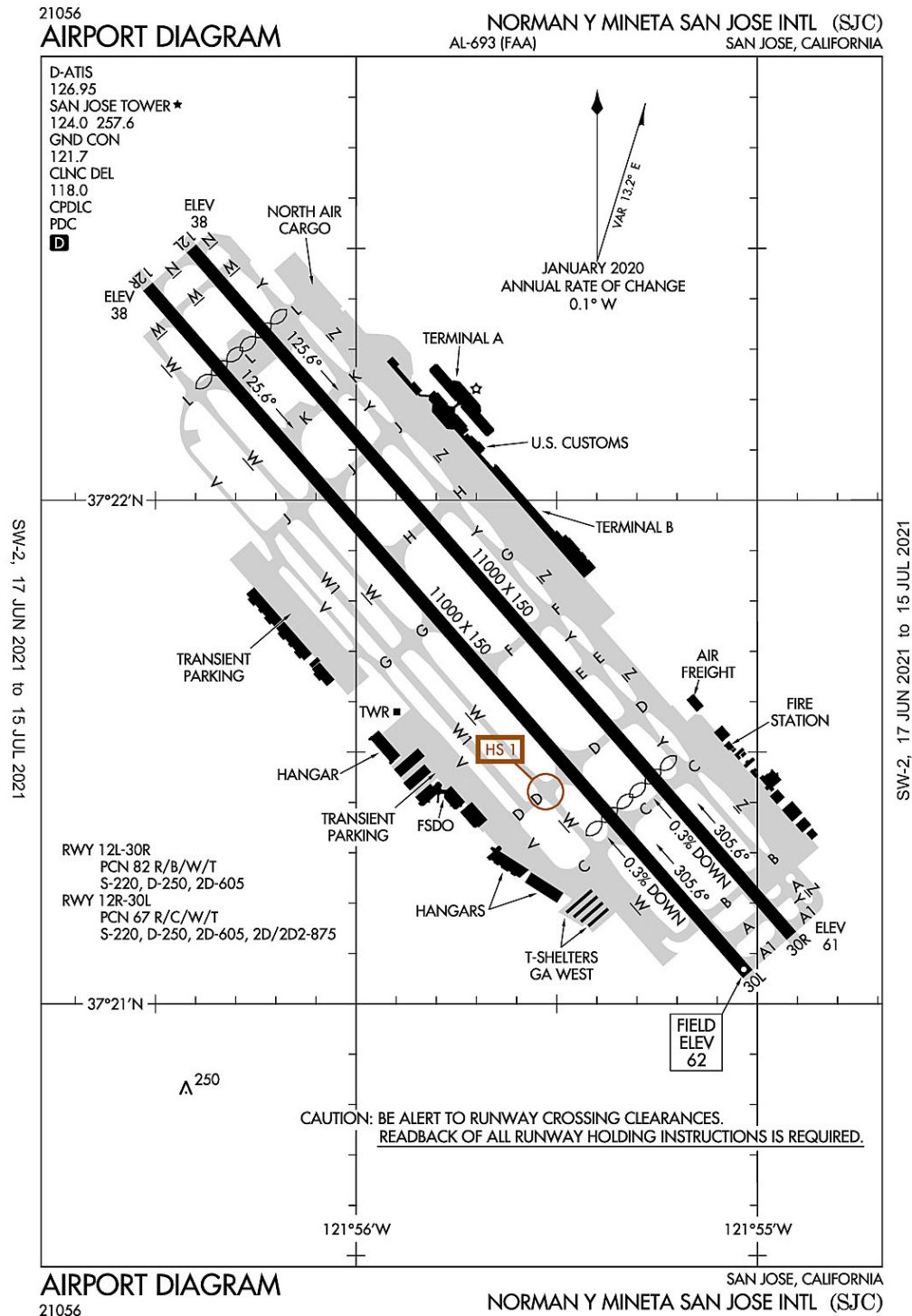
TWY S2 BTN TWY Z AND TWY S3 CLSD TO ACFT WITH WINGSPAN OVER THAN 215 FT.

HIGH SPEED TWY (T) GRVD FULL WIDTH BTN RWY 28R AND 28L.

RY 10 PREFERRED RY BTWN 0100-0600 WEATHER AND FLIGHT CONDITIONS PERMITTING.

SIMULTANEOUS OPERATIONS IN EFFECT ALL RYS.

San Jose, California
Norman Y. Mineta San Jose International
ICAO Identifier KSJC



San Jose, CA
Norman Y. Mineta San Jose Intl
ICAO Identifier KSJC

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 37-21-46.781N / 121-55-43.034W
- 2.2.2 From City: 2 miles NW of SAN JOSE, CA
- 2.2.3 Elevation: 62.2 ft
- 2.2.5 Magnetic Variation: 13E (2020)
- 2.2.6 Airport Contact: JOHN AITKEN
1701 AIRPORT BLVD.,
SUITE B-1130
SAN JOSE, CA 95110
((408) 277-5100)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 12L
- 2.12.2 True Bearing: 139
- 2.12.3 Dimensions: 11000 ft x 150 ft
- 2.12.4 PCN: 82 R/B/W/T
- 2.12.5 Coordinates: 37-22-29.9801N / 121-56-24.6377W
- 2.12.6 Threshold Elevation: 37.7 ft
- 2.12.6 Touchdown Zone Elevation: 43.8 ft
- 2.12.1 Designation: 30R
- 2.12.2 True Bearing: 319
- 2.12.3 Dimensions: 11000 ft x 150 ft
- 2.12.4 PCN: 82 R/B/W/T
- 2.12.5 Coordinates: 37-21-8.1324N / 121-54-54.9212W
- 2.12.6 Threshold Elevation: 61.1 ft
- 2.12.6 Touchdown Zone Elevation: 55.2 ft

- 2.12.1 Designation: 12R

- 2.12.2 True Bearing: 139
- 2.12.3 Dimensions: 11000 ft x 150 ft
- 2.12.4 PCN: 67 R/C/W/T
- 2.12.5 Coordinates: 37-22-25.4266N / 121-56-31.1597W
- 2.12.6 Threshold Elevation: 38.2 ft
- 2.12.6 Touchdown Zone Elevation: 45.6 ft
- 2.12.1 Designation: 30L
- 2.12.2 True Bearing: 319
- 2.12.3 Dimensions: 11000 ft x 150 ft
- 2.12.4 PCN: 67 R/C/W/T
- 2.12.5 Coordinates: 37-21-3.5766N / 121-55-1.4432W
- 2.12.6 Threshold Elevation: 62.1 ft
- 2.12.6 Touchdown Zone Elevation: 57 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 12L
- 2.13.2 Take-off Run Available: 10139
- 2.13.3 Take-off Distance Available: 11000
- 2.13.4 Accelerate-Stop Distance Available: 10139
- 2.13.5 Landing Distance Available: 8831

- 2.13.1 Designation: 30R
- 2.13.2 Take-off Run Available: 10134
- 2.13.3 Take-off Distance Available: 11000
- 2.13.4 Accelerate-Stop Distance Available: 10134
- 2.13.5 Landing Distance Available: 7597

- 2.13.1 Designation: 12R
- 2.13.2 Take-off Run Available: 9883
- 2.13.3 Take-off Distance Available: 11000
- 2.13.4 Accelerate-Stop Distance Available: 9883
- 2.13.5 Landing Distance Available: 8587

- 2.13.1 Designation: 30L
- 2.13.2 Take-off Run Available: 10152
- 2.13.3 Take-off Distance Available: 11000
- 2.13.4 Accelerate-Stop Distance Available: 10152
- 2.13.5 Landing Distance Available: 7614

AD 2.14 Approach and Runway Lighting

- 2.14.1 Designation: 12L
- 2.14.2 Approach Lighting System:
- 2.14.4 Visual Approach Slope Indicator System: P4R

- 2.14.1 Designation: 30R
- 2.14.2 Approach Lighting System:
- 2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 12R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 30L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 118
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 126.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 124
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: LCL/P IC
2.18.3 Channel: 257.6
2.18.5 Hours of Operation: 0600-0000

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 12R. Magnetic variation: 13E
2.19.2 ILS Identification: SLV
2.19.5 Coordinates: 37-21-2.6639N / 121-55-1.3459W
2.19.6 Site Elevation: 81.4 ft

2.19.1 ILS Type: Glide Slope for runway 12R. Magnetic variation: 13E
2.19.2 ILS Identification: SLV
2.19.5 Coordinates: 37-22-6.0334N / 121-56-14.5901W
2.19.6 Site Elevation: 36.8 ft

2.19.1 ILS Type: Localizer for runway 12R. Magnetic variation: 13E
2.19.2 ILS Identification: SLV
2.19.5 Coordinates: 37-21-3.0434N / 121-55-0.8585W
2.19.6 Site Elevation: 75.1 ft

2.19.1 ILS Type: DME for runway 30L. Magnetic variation: 13E
2.19.2 ILS Identification: SJC
2.19.5 Coordinates: 37-22-27.575N / 121-56-32.6145W
2.19.6 Site Elevation: 56 ft

2.19.1 ILS Type: Glide Slope for runway 30L. Magnetic variation: 13E
2.19.2 ILS Identification: SJC
2.19.5 Coordinates: 37-21-33.0094N / 121-55-27.8798W
2.19.6 Site Elevation: 48.6 ft

2.19.1 ILS Type: Localizer for runway 30L. Magnetic variation: 13E
2.19.2 ILS Identification: SJC
2.19.5 Coordinates: 37-22-27.1917N / 121-56-33.1047W
2.19.6 Site Elevation: 49.6 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 16E
2.19.2 Navigation Aid Identification: SJC
2.19.5 Coordinates: 37-22-28.9638N / 121-56-40.8069W
2.19.6 Site Elevation: 34.5 ft

General Remarks:

UNSCHEDULED OPNS BY GROUP 5 ACFT (B747) AND LARGER NOT AUTH EXCEPT WITH PRIOR ARPT APPROVAL CTC AMGR (408) 392-3500.

CURFEW HRS 2300-0700 FAR 36 STAGE II, 2330-0630 FAR 36 STAGE III ACFT LISTED ON THE SCHEDULE OF AUTHORIZED AIRCRAFT ISSUED BY THE DIRECTOR OF AVIATION. DELAYED SCHEDULED FLIGHTS, AND ALTERNATE/EMERGENCY OPERATIONS MAY BE EXEMPT FROM CURFEW HOUR RESTRICTIONS.

PRIOR AIRPORT NOTIFICATION IS REQUIRED FOR ALL LATE/EARLY ARRIVALS. CONTACT MANAGER ON DUTY AT (408) 392-3500.

FIRST 400 FT RY 30R & RY 30L CLSD FOR TKOF DC10, MD11, L1011.

TWY V LTD TO ACFT WITH WINGSPAN OF LESS THAN 118 FT (B-737-900 OR SMALLER).

RRP RQRD FM FBO FOR TSNT HEL OPS.

TWY W BETWEEN TWY J AND TWY L CAN SUPPORT GROUP IV ACFT.

FOR CD WHEN ATCT IS CLSD CTC NORCAL APCH AT 916-361-3748.

TWY Y WILL BE PERIODICALLY RSTRD TO ACFT WITH A WINGSPAN OF LESS THAN 171 FT (MD-11 OR SMALLER) DRG B-787 AND B-747 OPNS ON RWY 12L/30R.

TWY D BETWEEN TWY W AND TWY V LIMITED TO ACFT WITH A WINGSPAN OF LESS THAN 118 FT (B-737-900 OR SMALLER).

TWY Z WILL BE PERIODICALLY RSTRD TO ACFT WITH A WINGSPAN OF LESS THAN 118 FT (B-737-900 OR SMALLER) DRG B-787 AND B-747 OPNS. TWY Z BTN 200 FT NW OF TWY H AND 200 FT NW OF TWY K LTD TO ACFT WITH WINGSPAN OF LESS THAN 135 FT (B-757-300 OR SMALLER).

HIGH INTENSITY LIGHT ACTIVITY: HIGH INTENSITY LIGHTS (LASERS AND LARGE MEDIA SCREENS) MAY BE VISIBLE TO ARR AND DEP ACFT TO SAN JOSE INTERNATIONAL AIRPORT DURING EVENTS AT THE LEVI STADIUM COMPLEX (37-24-15N/121-58-14W, SJC VORTAC R-303/2.1 DME). FLIGHT CREWS SHOULD USE CAUTION WHEN OPERATING IN THIS AREA DURING STADIUM EVENTS. COCKPIT ILLUMINATION AND GLARE EFFECT REDUCING VIS MAY BE INTENSIFIED DURING ARR AND DEP OPS ESPECIALLY AT NIGHT.

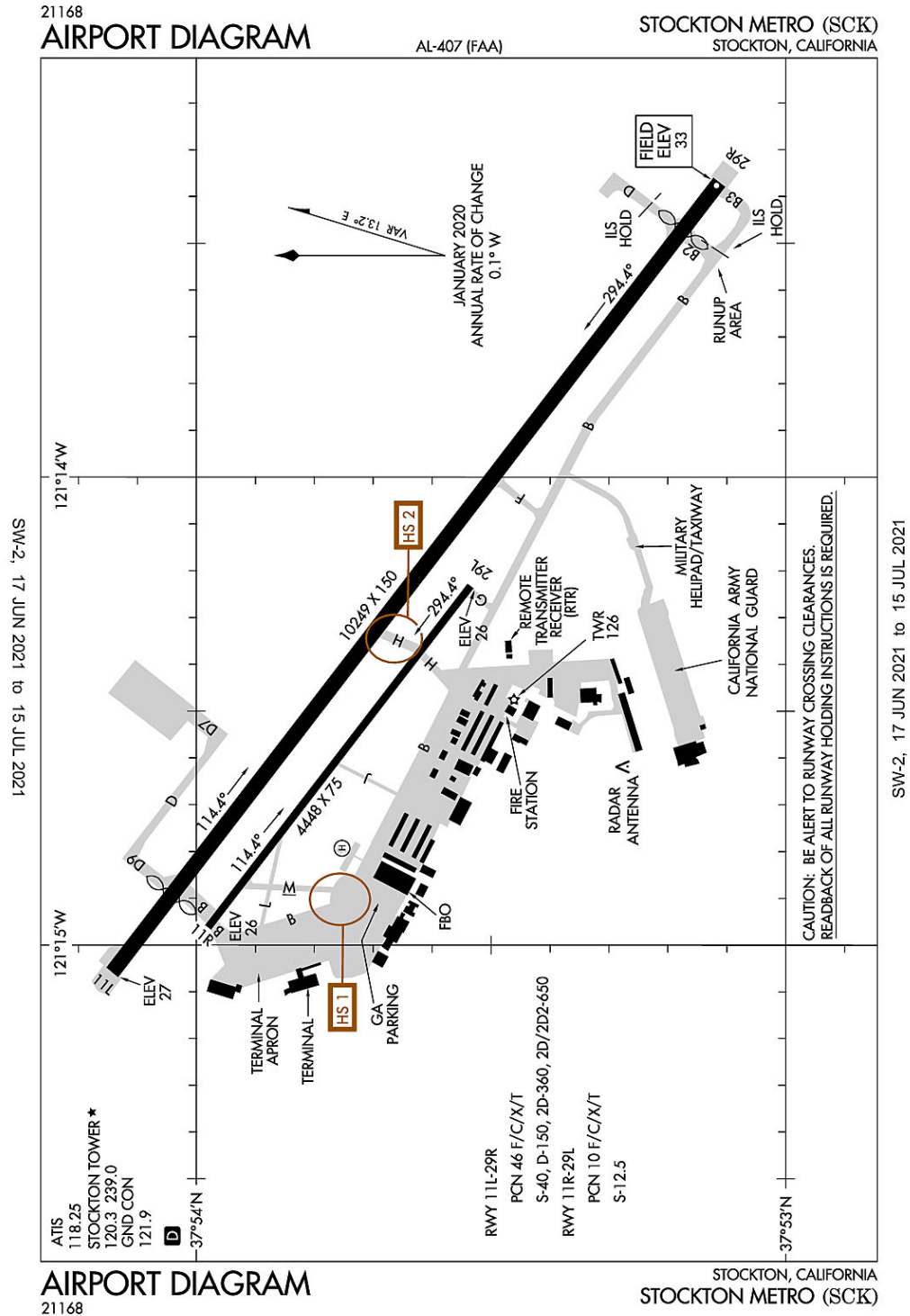
BIRDS FREQUENTLY ON OR IN VICINITY OF AIRPORT.

ALL TURBINE ENGINE RUN-UPS REQUIRE PRIOR AIRPORT APPROVAL, CONTACT MGR ON DUTY (408) 392-3500.

NOISE ABATEMENT PROCEDURE: RY 30L/12R IS PREFERRED ARRIVAL RY FOR JET ACFT AND RY 12L/30R IS THE PREFERRED DEP RY FOR JET ACFT. ALL JET ACFT TKOFS ARE TO BE INITIATED FM EOR UNLESS DIRECTED OTHERWISE BY ATCT.

HOT SPOT 3: RY 11-29 IS NOW TWY W1. SURFACE IS USABLE ONLY AS TAXIWAY AND IS MARKED AND SIGNED AS A TWY.

Stockton, California
Stockton Metropolitan
ICAO Identifier KSCK



Stockton, CA
Stockton Metropolitan
ICAO Identifier KSCK

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 37–53–39.877N /
121–14–19.464W
2.2.2 From City: 3 miles SE of STOCKTON, CA
2.2.3 Elevation: 33.2 ft
2.2.5 Magnetic Variation: 14E (2010)
2.2.6 Airport Contact: RUSSELL STARK
5000 S. AIRPORT WAY
ROOM 202
STOCKTON, CA 95206
(209–468–4700)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types: A,100,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I B certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 29R
2.12.2 True Bearing: 308
2.12.3 Dimensions: 10249 ft x 150 ft
2.12.4 PCN: 46 F/C/X/T
2.12.5 Coordinates: 37–53–6.64N / 121–13–21.88W
2.12.6 Threshold Elevation: 33.2 ft
2.12.6 Touchdown Zone Elevation: 32.3 ft

2.12.1 Designation: 11L
2.12.2 True Bearing: 128
2.12.3 Dimensions: 10249 ft x 150 ft
2.12.4 PCN: 46 F/C/X/T
2.12.5 Coordinates: 37–54–8.4321N / 121–15–3.2005W
2.12.6 Threshold Elevation: 26.5 ft
2.12.6 Touchdown Zone Elevation: 29.1 ft

2.12.1 Designation: 29L
2.12.2 True Bearing: 308
2.12.3 Dimensions: 4448 ft x 75 ft

2.12.4 PCN: 10 F/C/X/T
2.12.5 Coordinates: 37–53–31.8561N /
121–14–13.4466W
2.12.6 Threshold Elevation: 25.9 ft
2.12.6 Touchdown Zone Elevation: 26.6 ft

2.12.1 Designation: 11R
2.12.2 True Bearing: 128
2.12.3 Dimensions: 4448 ft x 75 ft
2.12.4 PCN: 10 F/C/X/T
2.12.5 Coordinates: 37–53–58.6715N /
121–14–57.4211W
2.12.6 Threshold Elevation: 26.2 ft
2.12.6 Touchdown Zone Elevation: 26.4 ft

2.12.1 Designation: H1
2.12.2 True Bearing:
2.12.3 Dimensions: 70 ft x 70 ft
2.12.4 PCN:
2.12.5 Coordinates: 37–53–45.27N / 121–14–47.57W
2.12.6 Threshold Elevation: 26 ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 29R
2.13.2 Take–off Run Available: 8856
2.13.3 Take–off Distance Available: 9856
2.13.4 Accelerate–Stop Distance Available: 9210
2.13.5 Landing Distance Available: 8650

2.13.1 Designation: 11L
2.13.2 Take–off Run Available: 8474
2.13.3 Take–off Distance Available: 9474
2.13.4 Accelerate–Stop Distance Available: 8604
2.13.5 Landing Distance Available: 8650

2.13.1 Designation: 29L
2.13.2 Take–off Run Available: 4448
2.13.3 Take–off Distance Available: 4448
2.13.4 Accelerate–Stop Distance Available: 4448
2.13.5 Landing Distance Available: 3386

2.13.1 Designation: 11R
2.13.2 Take–off Run Available: 4448
2.13.3 Take–off Distance Available: 4448
2.13.4 Accelerate–Stop Distance Available: 4448
2.13.5 Landing Distance Available: 4448

2.13.1 Designation: H1
2.13.2 Take–off Run Available:

2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 29R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 11L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 29L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 11R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: H1
2.14.2 Approach Lighting System: ODALS
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 49
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 118.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9

General Remarks:

PRACTICE CIRCLING APPROACHES TO RWYS 11L/11R NA FOR ANY TURBINE POWERED ACFT/PROP DRIVEN ACFT EXCEEDING 12500 LBS EXCP BY PPR FM AMGR.

TSNT PILOTS USE CTN; DO NOT ENTER THE TSA RSTRD AREA ADJ TO THE TSNT PRKG AREA.

BE ALERT TO ELEVD MALSR APCH END RWY 29R LCTD ON BLAST PAD.

PAVEMENT PRIOR TO THLD OF RWY 11L NOT AVBL FOR TAXI BACK OPS.

ARPT CLSD TO TGL & PLANNED LOW APCHS FOR TURBOJET ACFT 2200-0700 EXCEPT BY PPR FM AMGR PART 36 STAGE 3 ACFT.

2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 120.3
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 239
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 139.4
2.18.5 Hours of Operation:

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 356.9
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 29R. Magnetic variation: 14E

2.19.2 ILS Identification: SCK

2.19.5 Coordinates: 37-54-12.58N / 121-15-15.2W

2.19.6 Site Elevation: 22 ft

2.19.1 ILS Type: Glide Slope for runway 29R. Magnetic variation: 14E

2.19.2 ILS Identification: SCK

2.19.5 Coordinates: 37-53-19.8816N /
121-13-35.2049W

2.19.6 Site Elevation: 29.3 ft

2.19.1 ILS Type: Localizer for runway 29R. Magnetic variation: 14E

2.19.2 ILS Identification: SCK

2.19.5 Coordinates: 37-54-14.48N / 121-15-13.13W

2.19.6 Site Elevation: 23.5 ft

TRANSIENT PARKING AVBL AT FBO.

THE FLWG AREAS NOT VISIBLE FM ATCT: TWY B FM TRML APN TO INT AT TWY M; TWY B FM 300 FT W OF TWY J TO 375 FT E OF TWY J; NON MOVEMENT AREA S OF TWY B FROM TRML APN TO 200 FT W OF TWY H; SE HALF OF TRML APN; TSNT PRKG APN.

AVOID OVERFLYING SAN JOAQUIN GENERAL HOSPITAL & THE CITY OF MANTECA.

FOR CD WHEN ATCT CLSD CTC NORCAL APCH AT 916-361-0516.

MILITARY USE: ARNG OPR 1500-2330Z++ MON-FRI. DSN 466-5319, C209-983-5319, FAX 5391. PPR REQUIRED. LDTD TRAN SVC AND MAINT AVBL FOR CH47.

SEAGULLS ON AND IN VCNTY OF ARPT MOSTLY DURING RAINY WEATHER.

TRML APN, CARGO APN, TWYS B, B2, B3, F, D, D7, D9, AND H FOR ACFT OVER 12500 LBS. ALL OTR TWYS RSTRD TO ACFT LESS THAN 12500 LBS.

AIRPORT DIAGRAM

20366

AL-9077 (FAA)

DENVER, COLORADO

DENVER INTL (DEN)

39°54'N
39°53'N
39°52'N
39°51'N
39°50'N

104°43'W
104°38'W
104°33'W
104°28'W
104°23'W
104°18'W
104°13'W
104°08'W
104°03'W
104°00'W

D-ATIS
ARR 125.6 379.9
DEP 134.025

DENVER TOWER
135.3 351.95 (RWY 16L-34R and 16R-34L)
128.75 273.55 (RWY 07-25)
132.35 239.275 (RWY 08-26 and 17L-35R)
133.3 322.45 (RWY 17R-35L)

GND CON
127.5 379.175 (RWY 07-25, 16L-34R and 16R-34L)
121.85 377.1 (RWY 08-26, 17L-35R, and 17R-35L)

CINC DEL
118.75

CPDLC

PDC

RWY 07-25, 08-26, 16L-34R, 16R-34L, 17L-35R, 17R-35L
PCN 92 R/B/W/T
S-116, D-240, 2D-515, 2D/2D2-1085

ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

DENVER, COLORADO
DENVER INTL (DEN)

Denver, CO
Denver Intl
ICAO Identifier KDEN

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 39–51–42N / 104–40–23.4W
2.2.2 From City: 16 miles NE of DENVER, CO
2.2.3 Elevation: 5433.8 ft
2.2.5 Magnetic Variation: 8E (2015)
2.2.6 Airport Contact: KIM DAY
ADMIN BLDG,
8500 PENA BLVD
DENVER, CO 80249
((303) 342–2206)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 2/1/1995

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 07
2.12.2 True Bearing: 90
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–50–27.4022N /
104–43–35.963W
2.12.6 Threshold Elevation: 5350.2 ft
2.12.6 Touchdown Zone Elevation: 5351.6 ft

2.12.1 Designation: 25
2.12.2 True Bearing: 271
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–50–26.3667N /
104–41–2.1712W
2.12.6 Threshold Elevation: 5355 ft
2.12.6 Touchdown Zone Elevation: 5355 ft

2.12.1 Designation: 26
2.12.2 True Bearing: 271

2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–52–38.0769N /
104–37–10.1479W
2.12.6 Threshold Elevation: 5294.4 ft
2.12.6 Touchdown Zone Elevation: 5309.4 ft

2.12.1 Designation: 08
2.12.2 True Bearing: 91
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–52–39.2009N /
104–39–44.0267W
2.12.6 Threshold Elevation: 5354.3 ft
2.12.6 Touchdown Zone Elevation: 5354.3 ft

2.12.1 Designation: 34R
2.12.2 True Bearing: 1
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–51–50.7743N /
104–41–13.8782W
2.12.6 Threshold Elevation: 5353.7 ft
2.12.6 Touchdown Zone Elevation: 5353.7 ft

2.12.1 Designation: 16L
2.12.2 True Bearing: 181
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–53–49.3301N /
104–41–12.4998W
2.12.6 Threshold Elevation: 5349.9 ft
2.12.6 Touchdown Zone Elevation: 5357.1 ft

2.12.1 Designation: 16R
2.12.2 True Bearing: 181
2.12.3 Dimensions: 16000 ft x 200 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–53–44.869N /
104–41–45.9006W
2.12.6 Threshold Elevation: 5321.8 ft
2.12.6 Touchdown Zone Elevation: 5326.3 ft

2.12.1 Designation: 34L
2.12.2 True Bearing: 1
2.12.3 Dimensions: 16000 ft x 200 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 39–51–6.7926N /
104–41–47.7166W
2.12.6 Threshold Elevation: 5327 ft
2.12.6 Touchdown Zone Elevation: 5327 ft

2.12.1 Designation: 17L
 2.12.2 True Bearing: 181
 2.12.3 Dimensions: 12000 ft x 150 ft
 2.12.4 PCN: 92 R/B/W/T
 2.12.5 Coordinates: 39-51-53.8287N /
 104-38-28.6959W
 2.12.6 Threshold Elevation: 5328.1 ft
 2.12.6 Touchdown Zone Elevation: 5338.5 ft

2.12.1 Designation: 35R
 2.12.2 True Bearing: 1
 2.12.3 Dimensions: 12000 ft x 150 ft
 2.12.4 PCN: 92 R/B/W/T
 2.12.5 Coordinates: 39-49-55.2707N /
 104-38-30.1554W
 2.12.6 Threshold Elevation: 5370 ft
 2.12.6 Touchdown Zone Elevation: 5370 ft

2.12.1 Designation: 17R
 2.12.2 True Bearing: 181
 2.12.3 Dimensions: 12000 ft x 150 ft
 2.12.4 PCN: 92 R/B/W/T
 2.12.5 Coordinates: 39-51-40.4821N /
 104-39-36.5561W
 2.12.6 Threshold Elevation: 5377.9 ft
 2.12.6 Touchdown Zone Elevation: 5391.9 ft

2.12.1 Designation: 35L
 2.12.2 True Bearing: 1
 2.12.3 Dimensions: 12000 ft x 150 ft
 2.12.4 PCN: 92 R/B/W/T
 2.12.5 Coordinates: 39-49-41.9262N /
 104-39-37.9841W
 2.12.6 Threshold Elevation: 5433.8 ft
 2.12.6 Touchdown Zone Elevation: 5433.8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 07
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 12000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 25
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 13000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 26
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 12000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 08
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 13000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 34R
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 13000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 16L
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 12000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 16R
 2.13.2 Take-off Run Available: 16000
 2.13.3 Take-off Distance Available: 16000
 2.13.4 Accelerate-Stop Distance Available: 16000
 2.13.5 Landing Distance Available: 16000

2.13.1 Designation: 34L
 2.13.2 Take-off Run Available: 16000
 2.13.3 Take-off Distance Available: 16000
 2.13.4 Accelerate-Stop Distance Available: 16000
 2.13.5 Landing Distance Available: 16000

2.13.1 Designation: 17L
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 12000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 35R
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 12000
 2.13.4 Accelerate-Stop Distance Available: 12000
 2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 17R
 2.13.2 Take-off Run Available: 12000
 2.13.3 Take-off Distance Available: 12000

2.13.4 Accelerate–Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 35L
2.13.2 Take–off Run Available: 12000
2.13.3 Take–off Distance Available: 12000
2.13.4 Accelerate–Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 07
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 25
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 34L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 17R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 118.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 118.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (ARR)
2.18.3 Channel: 125.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (ARR)
2.18.3 Channel: 125.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (DEP)
2.18.3 Channel: 134.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (DEP)
2.18.3 Channel: 134.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (ARR)
2.18.3 Channel: 379.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (ARR)
2.18.3 Channel: 379.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 08/26,
17L/35R, 17R/35L)
2.18.3 Channel: 121.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 08/26,
17L/35R, 17R/35L)
2.18.3 Channel: 121.85

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 07/25,
16L/34R, 16R/34L)

2.18.3 Channel: 127.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 07/25,
16L/34R, 16R/34L)

2.18.3 Channel: 127.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 08/26,
17L/35R, 17R/35L)

2.18.3 Channel: 377.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 08/26,
17L/35R, 17R/35L)

2.18.3 Channel: 377.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 07/25,
16L/34R, 16R/34L)

2.18.3 Channel: 379.175

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 07/25,
16L/34R, 16R/34L)

2.18.3 Channel: 379.175

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 07/25)

2.18.3 Channel: 128.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 07/25)

2.18.3 Channel: 128.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08/26,
17L/35R)

2.18.3 Channel: 132.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08/26,
17L/35R)

2.18.3 Channel: 132.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 17R/35L)

2.18.3 Channel: 133.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 17R/35L)

2.18.3 Channel: 133.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16L/34R,
16R/34L)

2.18.3 Channel: 135.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16L/34R,
16R/34L)

2.18.3 Channel: 135.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08/26,
17L/35R)

2.18.3 Channel: 239.275

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08/26,
17L/35R)

2.18.3 Channel: 239.275

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 07/25)

2.18.3 Channel: 273.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 07/25)

2.18.3 Channel: 273.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 17R/35L)

2.18.3 Channel: 322.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 17R/35L)

2.18.3 Channel: 322.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16L/34R,
16R/34L)

2.18.3 Channel: 351.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16L/34R,
16R/34L)

2.18.3 Channel: 351.95

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 07. Magnetic variation: 8E

2.19.2 ILS Identification: DZG

2.19.5 Coordinates: 39-50-23.6632N /
104-40-48.6232W

2.19.6 Site Elevation: 5359.1 ft

2.19.1 ILS Type: Glide Slope for runway 07. Magnetic variation: 8E

2.19.2 ILS Identification: DZG

2.19.5 Coordinates: 39-50-23.2656N /
104-43-22.6558W

2.19.6 Site Elevation: 5340.5 ft

2.19.1 ILS Type: Localizer for runway 07. Magnetic variation: 8E

2.19.2 ILS Identification: DZG

2.19.5 Coordinates: 39-50-26.2755N /
104-40-49.0613W

2.19.6 Site Elevation: 5354.9 ft

2.19.1 ILS Type: DME for runway 25. Magnetic variation: 8E

2.19.2 ILS Identification: ERP

2.19.5 Coordinates: 39-50-23.6632N /
104-40-48.6232W

2.19.6 Site Elevation: 5359.1 ft

2.19.1 ILS Type: Glide Slope for runway 25. Magnetic variation: 8E

2.19.2 ILS Identification: ERP

2.19.5 Coordinates: 39-50-22.4098N /
104-41-15.7881W

2.19.6 Site Elevation: 5344.2 ft

2.19.1 ILS Type: Localizer for runway 25. Magnetic variation: 8E

2.19.2 ILS Identification: ERP

2.19.5 Coordinates: 39-50-27.4883N /
104-43-49.0723W

2.19.6 Site Elevation: 5348.9 ft

2.19.1 ILS Type: DME for runway 08. Magnetic variation: 8E

2.19.2 ILS Identification: FUI

2.19.5 Coordinates: 39-52-41.8784N /
104-39-57.5078W

2.19.6 Site Elevation: 5360.2 ft

2.19.1 ILS Type: Glide Slope for runway 08. Magnetic variation: 8E

2.19.2 ILS Identification: FUI

2.19.5 Coordinates: 39-52-43.1529N /
104-39-29.8599W

2.19.6 Site Elevation: 5342.2 ft

2.19.1 ILS Type: Localizer for runway 08. Magnetic variation: 8E

2.19.2 ILS Identification: FUI

2.19.5 Coordinates: 39-52-37.9791N /
104-36-57.0352W

2.19.6 Site Elevation: 5283.1 ft

2.19.1 ILS Type: DME for runway 26. Magnetic variation: 8E

2.19.2 ILS Identification: JOY

2.19.5 Coordinates: 39-52-41.8784N /
104-39-57.5078W

2.19.6 Site Elevation: 5360.2 ft

2.19.1 ILS Type: Glide Slope for runway 26. Magnetic variation: 8E

2.19.2 ILS Identification: JOY

2.19.5 Coordinates: 39-52-42.2239N /
104-37-22.3854W

2.19.6 Site Elevation: 5293.2 ft

2.19.1 ILS Type: Localizer for runway 26. Magnetic variation: 8E

2.19.2 ILS Identification: JOY

2.19.5 Coordinates: 39-52-39.2968N /
104-39-57.142W

2.19.6 Site Elevation: 5347.6 ft

2.19.1 ILS Type: DME for runway 16L. Magnetic variation: 8E

2.19.2 ILS Identification: LTT

2.19.5 Coordinates: 39-53-59.6091N /
104-41-15.7719W

2.19.6 Site Elevation: 5357 ft

2.19.1 ILS Type: Glide Slope for runway 16L. Magnetic variation: 8E

2.19.2 ILS Identification: LTT

2.19.5 Coordinates: 39-53-39.5473N /
104-41-17.8695W

2.19.6 Site Elevation: 5346.5 ft

2.19.1 ILS Type: Localizer for runway 16L. Magnetic variation: 8E

2.19.2 ILS Identification: LTT

2.19.5 Coordinates: 39-51-40.6701N / 104-41-13.996W

2.19.6 Site Elevation: 5343.2 ft

2.19.1 ILS Type: DME for runway 34R. Magnetic variation: 8E

2.19.2 ILS Identification: OUF

2.19.5 Coordinates: 39-53-59.6091N / 104-41-15.7719W

2.19.6 Site Elevation: 5357 ft

2.19.1 ILS Type: Glide Slope for runway 34R. Magnetic variation: 8E

2.19.2 ILS Identification: OUF

2.19.5 Coordinates: 39-52-1.3925N / 104-41-19.0115W

2.19.6 Site Elevation: 5346.4 ft

2.19.1 ILS Type: Inner Marker for runway 34R. Magnetic variation: 8E

2.19.2 ILS Identification: OUF

2.19.5 Coordinates: 39-51-42.2879N / 104-41-13.9788W

2.19.6 Site Elevation: 5345 ft

2.19.1 ILS Type: Localizer for runway 34R. Magnetic variation: 8E

2.19.2 ILS Identification: OUF

2.19.5 Coordinates: 39-53-59.4426N / 104-41-12.3812W

2.19.6 Site Elevation: 5349.7 ft

2.19.1 ILS Type: DME for runway 16R. Magnetic variation: 8E

2.19.2 ILS Identification: DQQ

2.19.5 Coordinates: 39-53-55.7414N / 104-41-50.8967W

2.19.6 Site Elevation: 5323.5 ft

2.19.1 ILS Type: Glide Slope for runway 16R. Magnetic variation: 8E

2.19.2 ILS Identification: DQQ

2.19.5 Coordinates: 39-53-34.8236N / 104-41-51.2764W

2.19.6 Site Elevation: 5316.8 ft

2.19.1 ILS Type: Localizer for runway 16R. Magnetic variation: 8E

2.19.2 ILS Identification: DQQ

2.19.5 Coordinates: 39-50-56.7831N / 104-41-47.8336W

2.19.6 Site Elevation: 5320.8 ft

2.19.1 ILS Type: DME for runway 34L. Magnetic variation: 8E

2.19.2 ILS Identification: DXU

2.19.5 Coordinates: 39-53-55.7414N / 104-41-50.8967W

2.19.6 Site Elevation: 5323.5 ft

2.19.1 ILS Type: Glide Slope for runway 34L. Magnetic variation: 8E

2.19.2 ILS Identification: DXU

2.19.5 Coordinates: 39-51-17.5994N / 104-41-52.8493W

2.19.6 Site Elevation: 5317.6 ft

2.19.1 ILS Type: Inner Marker for runway 34L. Magnetic variation: 8E

2.19.2 ILS Identification: DXU

2.19.5 Coordinates: 39-50-58.2971N / 104-41-47.8092W

2.19.6 Site Elevation: 5321.4 ft

2.19.1 ILS Type: Localizer for runway 34L. Magnetic variation: 8E

2.19.2 ILS Identification: DXU

2.19.5 Coordinates: 39-53-54.875N / 104-41-45.7848W

2.19.6 Site Elevation: 5320.1 ft

2.19.1 ILS Type: DME for runway 17L. Magnetic variation: 8E

2.19.2 ILS Identification: BXP

2.19.5 Coordinates: 39-52-4.266N / 104-38-25.1893W

2.19.6 Site Elevation: 5345.1 ft

2.19.1 ILS Type: Glide Slope for runway 17L. Magnetic variation: 8E

2.19.2 ILS Identification: BXP

2.19.5 Coordinates: 39-51-44.0596N / 104-38-23.5605W

2.19.6 Site Elevation: 5326 ft

2.19.1 ILS Type: Localizer for runway 17L. Magnetic variation: 8E

2.19.2 ILS Identification: BXP

2.19.5 Coordinates: 39-49-45.1652N / 104-38-30.282W

2.19.6 Site Elevation: 5362.9 ft

2.19.1 ILS Type: DME for runway 35R. Magnetic variation: 8E

2.19.2 ILS Identification: DPP

2.19.5 Coordinates: 39-52-4.266N / 104-38-25.1893W

2.19.6 Site Elevation: 5345.1 ft

2.19.1 ILS Type: Glide Slope for runway 35R. Magnetic variation: 8E

2.19.2 ILS Identification: DPP

2.19.5 Coordinates: 39-50-6.3585N /
104-38-24.7651W

2.19.6 Site Elevation: 5359.9 ft

2.19.1 ILS Type: Inner Marker for runway 35R. Magnetic variation: 8E

2.19.2 ILS Identification: DPP

2.19.5 Coordinates: 39-49-46.7811N /
104-38-30.2697W

2.19.6 Site Elevation: 5364.5 ft

2.19.1 ILS Type: Localizer for runway 35R. Magnetic variation: 8E

2.19.2 ILS Identification: DPP

2.19.5 Coordinates: 39-52-3.9404N / 104-38-28.572W

2.19.6 Site Elevation: 5335.5 ft

2.19.1 ILS Type: DME for runway 17R. Magnetic variation: 8E

2.19.2 ILS Identification: ACX

2.19.5 Coordinates: 39-51-50.9244N /
104-39-33.0513W

2.19.6 Site Elevation: 5388 ft

2.19.1 ILS Type: Glide Slope for runway 17R. Magnetic variation: 8E

2.19.2 ILS Identification: ACX

2.19.5 Coordinates: 39-51-30.9128N /

104-39-31.4164W

2.19.6 Site Elevation: 5378 ft

2.19.1 ILS Type: Localizer for runway 17R. Magnetic variation: 8E

2.19.2 ILS Identification: ACX

2.19.5 Coordinates: 39-49-31.8218N /
104-39-38.1041W

2.19.6 Site Elevation: 5427.6 ft

2.19.1 ILS Type: DME for runway 35L. Magnetic variation: 8E

2.19.2 ILS Identification: AQD

2.19.5 Coordinates: 39-51-50.9244N /
104-39-33.0513W

2.19.6 Site Elevation: 5388 ft

2.19.1 ILS Type: Glide Slope for runway 35L. Magnetic variation: 8E

2.19.2 ILS Identification: AQD

2.19.5 Coordinates: 39-49-52.7648N /
104-39-32.5991W

2.19.6 Site Elevation: 5422.6 ft

2.19.1 ILS Type: Localizer for runway 35L. Magnetic variation: 8E

2.19.2 ILS Identification: AQD

2.19.5 Coordinates: 39-51-50.5996N /
104-39-36.4352W

2.19.6 Site Elevation: 5377.3 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 8E

2.19.2 Navigation Aid Identification: DEN

2.19.5 Coordinates: 39-48-45.0506N /
104-39-38.6643W

2.19.6 Site Elevation: 5452.1 ft

General Remarks:

TWY F7 CLSD TO ACFT WINGSPAN MORE THAN 118 FT.

OVERHEAD PSGR BRIDGE ON SOUTH SIDE OF CONCOURSE 'A' PRVDS 42 FT TAIL & 118 FT WINGSPAN CLNC WHEN ON TWY CNTRLN.

WATERFOWL AND MIGRATORY BIRD ACTIVITY INVOF ARPT YEAR ROUND.

ARPT MAINTAINS CLEARWAYS (500 FT X 1,000 FT, 1.25% SLOPE) ON DEP RY 08, RY 25, & RY 34R.

CUSTOMS AVBL WITH PRIOR PERMISSION.

INFORMAL RY USE PROGRAM IS IN EFFECT 24 HRS A DAY. FOR ADDITIONAL NOISE ABATEMENT INFORMATION CONTACT AIRPORT MANAGEMENT AT 303-342-4200.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

21056

AIRPORT DIAGRAM

AL-334 (FAA)

**PUEBLO MEML (PUB)
PUEBLO, COLORADO**

**CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.**

FIELD ELEV 4729

**JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W**

VAR 7.7° E

**RWY 08L-26R S-20
RWY 08R-26L S-75, D-170, 2D-250
RWY 17-35 S-93, D-110, 2S-140, 2D-170**

**ATIS 125.25
PUEBLO TOWER ★ 119.1 257.8
GND CON 121.9
CLNC DEL 120.9**

**Z1 170.6° →
C5 1.0% DOWN**

ELEV 4729

**LAHSO 4690 X 75
LAHSO 10498 X 150**

ELEV 4677

B3 B4 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12

26R 26L

ELEV 4681 4669

080.6° → 080.6°

0.9% UP

C1 C2 C3 C4 C5

350.6° →

ELEV 35 4648

**HANGAR
FIRE TWR
TERMINAL STATION NWS
GENERAL AVIATION PARKING**

NON MOVEMENT AREA

D

4741 A

8310 X 150

104°30'W 104°29'W 104°28'W

38°18'N 38°17'N

AIRPORT DIAGRAM

**PUEBLO, COLORADO
PUEBLO MEML (PUB)**

21056

Pueblo, CO
Pueblo Memorial
ICAO Identifier KPUB

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 38-17-23.811N /
104-29-52.901W
2.2.2 From City: 5 miles E of PUEBLO, CO
2.2.3 Elevation: 4729.3 ft
2.2.5 Magnetic Variation: 8E (2015)
2.2.6 Airport Contact: GREG PEDROZA
31201 BRYAN CIRCLE
PUEBLO, CO 81001
(719-553-2744)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, 0500-2200 Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I A certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 08L
2.12.2 True Bearing: 88
2.12.3 Dimensions: 4690 ft x 75 ft
2.12.4 PCN:
2.12.5 Coordinates: 38-17-24.3081N /
104-30-36.6451W
2.12.6 Threshold Elevation: 4681.2 ft
2.12.6 Touchdown Zone Elevation: 4681.2 ft

2.12.1 Designation: 26R
2.12.2 True Bearing: 268
2.12.3 Dimensions: 4690 ft x 75 ft
2.12.4 PCN:
2.12.5 Coordinates: 38-17-25.7014N /
104-29-37.865W
2.12.6 Threshold Elevation: 4677 ft
2.12.6 Touchdown Zone Elevation: 4678.1 ft

2.12.1 Designation: 08R
2.12.2 True Bearing: 88

2.12.3 Dimensions: 10498 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 38-17-13.6348N /
104-30-36.2409W
2.12.6 Threshold Elevation: 4669.4 ft
2.12.6 Touchdown Zone Elevation: 4671.4 ft

2.12.1 Designation: 26L
2.12.2 True Bearing: 268
2.12.3 Dimensions: 10498 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 38-17-16.7526N /
104-28-24.6616W
2.12.6 Threshold Elevation: 4648.8 ft
2.12.6 Touchdown Zone Elevation: 4658.9 ft

2.12.1 Designation: 17
2.12.2 True Bearing: 178
2.12.3 Dimensions: 8310 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 38-18-15.0609N /
104-30-14.6942W
2.12.6 Threshold Elevation: 4729.3 ft
2.12.6 Touchdown Zone Elevation: 4729.3 ft

2.12.1 Designation: 35
2.12.2 True Bearing: 358
2.12.3 Dimensions: 8310 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 38-16-52.9717N /
104-30-11.6348W
2.12.6 Threshold Elevation: 4648.1 ft
2.12.6 Touchdown Zone Elevation: 4676.9 ft

AD 2.13 Declared Distances

2.13.1 Designation: 08L
2.13.2 Take-off Run Available: 4690
2.13.3 Take-off Distance Available: 4690
2.13.4 Accelerate-Stop Distance Available: 4690
2.13.5 Landing Distance Available: 4690

2.13.1 Designation: 26R
2.13.2 Take-off Run Available: 4690
2.13.3 Take-off Distance Available: 4690
2.13.4 Accelerate-Stop Distance Available: 4690
2.13.5 Landing Distance Available: 4690

2.13.1 Designation: 08R
2.13.2 Take-off Run Available: 10496
2.13.3 Take-off Distance Available: 10496

2.13.4 Accelerate–Stop Distance Available: 10496
2.13.5 Landing Distance Available: 10496

2.13.1 Designation: 26L
2.13.2 Take–off Run Available: 10496
2.13.3 Take–off Distance Available: 10496
2.13.4 Accelerate–Stop Distance Available: 10496
2.13.5 Landing Distance Available: 10496

2.13.1 Designation: 17
2.13.2 Take–off Run Available: 8308
2.13.3 Take–off Distance Available: 8308
2.13.4 Accelerate–Stop Distance Available: 8308
2.13.5 Landing Distance Available: 8308

2.13.1 Designation: 35
2.13.2 Take–off Run Available: 8308
2.13.3 Take–off Distance Available: 8308
2.13.4 Accelerate–Stop Distance Available: 8308
2.13.5 Landing Distance Available: 8308

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 08L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS

2.18.3 Channel: 125.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 120.9
2.18.5 Hours of Operation: 0600–2200

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 0600–2200

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 119.1
2.18.5 Hours of Operation: 0600–2200

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 0600–2200

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 08R. Magnetic variation: 8E

2.19.2 ILS Identification: PUB
2.19.5 Coordinates: 38–17–18.9334N /
104–30–21.5794W
2.19.6 Site Elevation: 4672.8 ft

2.19.1 ILS Type: Localizer for runway 08R. Magnetic variation: 8E

2.19.2 ILS Identification: PUB
2.19.5 Coordinates: 38–17–17.2016N /
104–28–6.1097W
2.19.6 Site Elevation: 4653.1 ft

2.19.1 ILS Type: Glide Slope for runway 26L. Magnetic variation: 8E

2.19.2 ILS Identification: TFR
2.19.5 Coordinates: 38–17–21.3596N /
104–28–39.1966W
2.19.6 Site Elevation: 4649.4 ft

2.19.1 ILS Type: Localizer for runway 26L. Magnetic

variation: 8E
2.19.2 ILS Identification: TFR
2.19.5 Coordinates: 38-17-13.2497N /
104-30-52.5582W
2.19.6 Site Elevation: 4668 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 8E
2.19.2 Navigation Aid Identification: PUB
2.19.5 Coordinates: 38-17-39.3132N /
104-25-46.0107W
2.19.6 Site Elevation: 4755.5 ft

General Remarks:

HIGH VOLUME TRNG DA-20 ACFT SR-SS MON-FRI. OVERHEAD PATTERN DURG TRNG. EXTENSIVE USE OF TRNG AREA 12-28 DME N-SW OF ARPT 500 FT AGL-8500 FT MSL.

BE ALERT; INTENSIVE USAF STUDENT TRAINING IN VICINITY OF COLORADO SPRINGS & PUEBLO COLORADO.

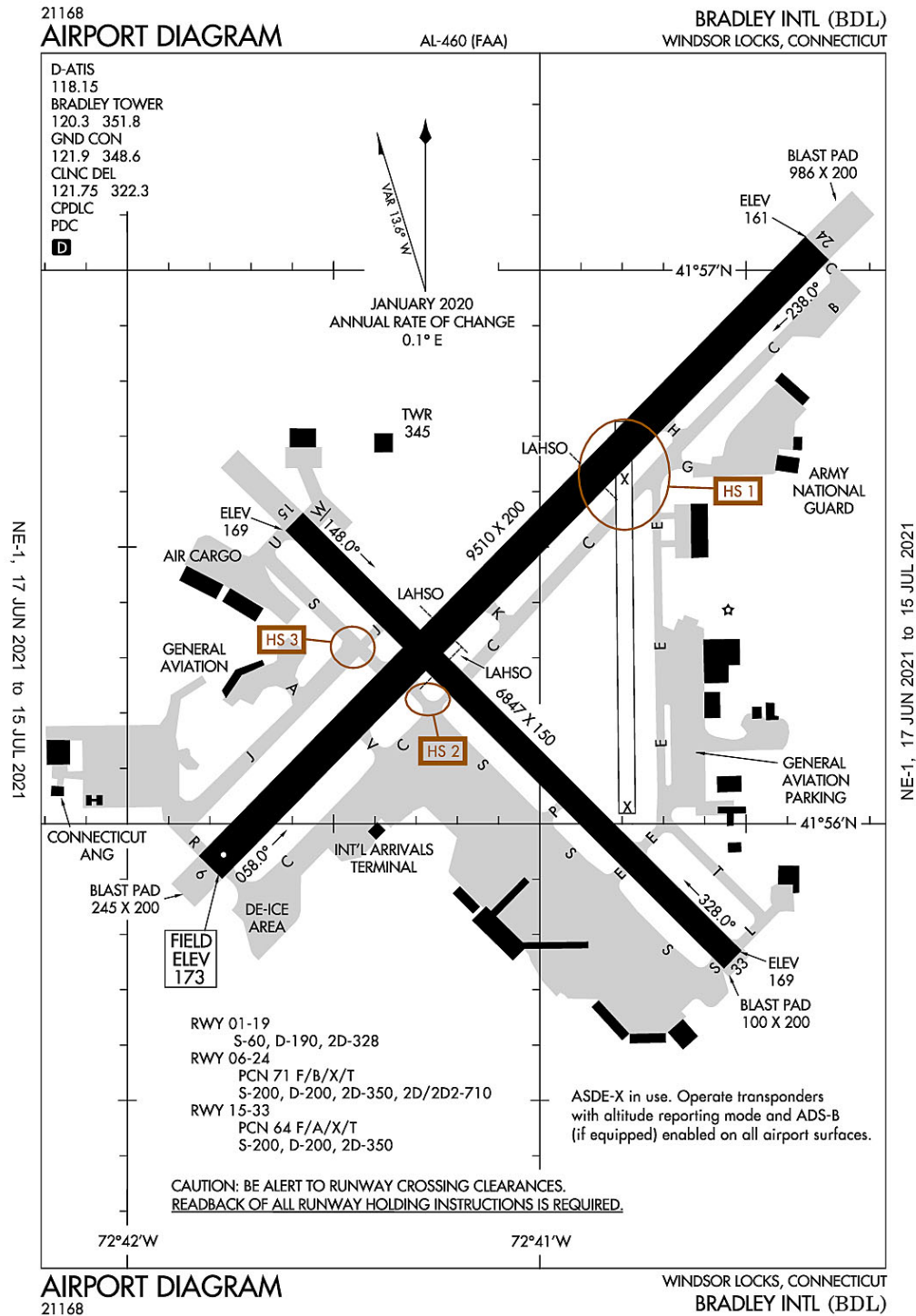
CONDITIONS NOT MONITORED 2200L-0500L.

SEE FLIP AP/1 SUPPLEMENTARY ARPT INFO.

TWY A BTN TWY A2 AND A6 50 FT WID.

FOR CD CTC PUEBLO APCH AT 303-342-1916, WHEN APCH CLSD CTC DENVER ARTCC AT 303-651-4257.

Windsor Locks, Connecticut
Bradley International
ICAO Identifier KBDL



Windsor Locks, CT
Bradley Intl
ICAO Identifier KBDL

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 41-56-20.9N / 72-41-0.1W
2.2.2 From City: 3 miles W of WINDSOR LOCKS, CT
2.2.3 Elevation: 173.3 ft
2.2.5 Magnetic Variation: 14W (1980)
2.2.6 Airport Contact: KEVIN DILLON, AAE
BRADLEY INTL AIRPORT
WINDSOR LOCKS, CT 6096
(860-292-2003)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 01
2.12.2 True Bearing: 359
2.12.3 Dimensions: 4269 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 41-56-1.4056N / 72-40-46.6234W
2.12.6 Threshold Elevation: 170.5 ft
2.12.6 Touchdown Zone Elevation: 170.4 ft

2.12.1 Designation: 19
2.12.2 True Bearing: 179
2.12.3 Dimensions: 4269 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 41-56-43.5734N /
72-40-47.5714W
2.12.6 Threshold Elevation: 168.9 ft
2.12.6 Touchdown Zone Elevation: 170.2 ft

2.12.1 Designation: 06
2.12.2 True Bearing: 44
2.12.3 Dimensions: 9510 ft x 200 ft
2.12.4 PCN: 71 F/B/X/T

2.12.5 Coordinates: 41-55-55.25N / 72-41-47.6885W
2.12.6 Threshold Elevation: 173 ft
2.12.6 Touchdown Zone Elevation: 173.3 ft

2.12.1 Designation: 24
2.12.2 True Bearing: 224
2.12.3 Dimensions: 9510 ft x 200 ft
2.12.4 PCN: 71 F/B/X/T
2.12.5 Coordinates: 41-57-2.3952N / 72-40-19.6697W
2.12.6 Threshold Elevation: 160.9 ft
2.12.6 Touchdown Zone Elevation: 170 ft

2.12.1 Designation: 15
2.12.2 True Bearing: 134
2.12.3 Dimensions: 6847 ft x 150 ft
2.12.4 PCN: 64 F/A/X/T
2.12.5 Coordinates: 41-56-32.6254N /
72-41-35.7104W
2.12.6 Threshold Elevation: 168.8 ft
2.12.6 Touchdown Zone Elevation: 170.8 ft

2.12.1 Designation: 33
2.12.2 True Bearing: 314
2.12.3 Dimensions: 6847 ft x 150 ft
2.12.4 PCN: 64 F/A/X/T
2.12.5 Coordinates: 41-55-45.3238N /
72-40-30.9557W
2.12.6 Threshold Elevation: 168.5 ft
2.12.6 Touchdown Zone Elevation: 171.4 ft

AD 2.13 Declared Distances

2.13.1 Designation: 01
2.13.2 Take-off Run Available: 4268
2.13.3 Take-off Distance Available: 4268
2.13.4 Accelerate-Stop Distance Available: 4268
2.13.5 Landing Distance Available:

2.13.1 Designation: 19
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available: 4268

2.13.1 Designation: 06
2.13.2 Take-off Run Available: 9509
2.13.3 Take-off Distance Available: 9509
2.13.4 Accelerate-Stop Distance Available: 9509
2.13.5 Landing Distance Available: 9509

2.13.1 Designation: 24

2.13.2 Take-off Run Available: 9509
2.13.3 Take-off Distance Available: 9509
2.13.4 Accelerate-Stop Distance Available: 9509
2.13.5 Landing Distance Available: 9509

2.13.1 Designation: 15
2.13.2 Take-off Run Available: 6847
2.13.3 Take-off Distance Available: 6847
2.13.4 Accelerate-Stop Distance Available: 6847
2.13.5 Landing Distance Available: 6847

2.13.1 Designation: 33
2.13.2 Take-off Run Available: 6847
2.13.3 Take-off Distance Available: 6847
2.13.4 Accelerate-Stop Distance Available: 6847
2.13.5 Landing Distance Available: 6847

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 01
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 19
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 06
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 15
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 33
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 138.55
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS

2.18.3 Channel: 349.7
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P
2.18.3 Channel: 121.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 118.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 120.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 351.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 41.9
2.18.5 Hours of Operation:

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 123.45
2.18.5 Hours of Operation:

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 243.9
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 06. Magnetic variation: 14W

2.19.2 ILS Identification: BDL

2.19.5 Coordinates: 41-57-17.2894N / 72-39-56.5118W

2.19.6 Site Elevation: 163.8 ft

2.19.1 ILS Type: Glide Slope for runway 06. Magnetic variation: 14W

2.19.2 ILS Identification: BDL

2.19.5 Coordinates: 41-56-5.5448N / 72-41-41.8869W

2.19.6 Site Elevation: 169.3 ft

2.19.1 ILS Type: Inner Marker for runway 06. Magnetic variation: 14W

2.19.2 ILS Identification: BDL

2.19.5 Coordinates: 41-55-49.4746N / 72-41-56.067W

2.19.6 Site Elevation: 171.3 ft

2.19.1 ILS Type: Localizer for runway 06. Magnetic variation: 14W

2.19.2 ILS Identification: BDL

2.19.5 Coordinates: 41-57-17.8499N / 72-39-59.4045W

2.19.6 Site Elevation: 149.5 ft

2.19.1 ILS Type: DME for runway 24. Magnetic variation: 14W

2.19.2 ILS Identification: MYQ

2.19.5 Coordinates: 41-57-17.2894N / 72-39-56.5118W

2.19.6 Site Elevation: 163.8 ft

2.19.1 ILS Type: Glide Slope for runway 24. Magnetic variation: 14W

General Remarks:

ASDE-X IN USE. OPR TRANSPONDERS WITH ALT RPRTG MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL ARPT SFCS.

CAUTION: ANG RAMP MRK MAY NOT BE APPROPRIATE FOR LARGE ACFT: FLW MARSHALLERS INSTR. OPS CTC AUTOVON 636-8385; COML 860-627-3001.

NMRS BIRDS FQTLY ON OR INVOF ARPT.

MILITARY: ANG: WHEN CKG ATIS, BIRDS IN VCY MAY INDC HEIGHTENED BIRD WATCH CONDITION (BWC). USAF ACFT CTC ANG AIRFIELD OPS ON UHF FOR CURRENT BWC & ANY ASSOCD RSTRNS.

MILITARY: ARNG - DSN 636-7519/7520. C860-292-4519/4520.

2.19.2 ILS Identification: MYQ

2.19.5 Coordinates: 41-56-53.5757N / 72-40-25.9626W

2.19.6 Site Elevation: 156.7 ft

2.19.1 ILS Type: Inner Marker for runway 24. Magnetic variation: 14W

2.19.2 ILS Identification: MYQ

2.19.5 Coordinates: 41-57-12.0728N / 72-40-6.9772W

2.19.6 Site Elevation: 139.9 ft

2.19.1 ILS Type: Localizer for runway 24. Magnetic variation: 14W

2.19.2 ILS Identification: MYQ

2.19.5 Coordinates: 41-55-47.661N / 72-41-57.6296W

2.19.6 Site Elevation: 170.3 ft

2.19.1 ILS Type: DME for runway 33. Magnetic variation: 14W

2.19.2 ILS Identification: IKX

2.19.5 Coordinates: 41-56-37.9724N / 72-41-47.432W

2.19.6 Site Elevation: 181.8 ft

2.19.1 ILS Type: Glide Slope for runway 33. Magnetic variation: 14W

2.19.2 ILS Identification: IKX

2.19.5 Coordinates: 41-55-54.7672N / 72-40-38.5896W

2.19.6 Site Elevation: 167.6 ft

2.19.1 ILS Type: Localizer for runway 33. Magnetic variation: 14W

2.19.2 ILS Identification: IKX

2.19.5 Coordinates: 41-56-40.2961N / 72-41-46.2065W

2.19.6 Site Elevation: 168.3 ft

MILITARY: ANG: AFLD MGR DOES NOT ISSUE OR STORE COMSEC FOR TRAN CREWS.

MILITARY: ANG: PPR V220-2356.

LGTD OBST ANT 36 FT AGL/205 FT MSL (RWY 24 ILS/GS ANT) 162 FT NW OF TWY C CNTRLN MARKING
BTN TWY B & TWY H.

FUEL: A++ (MIL).

NO DE-ICING AVBL AT ANG.

MILITARY: ANG: NSTD YELLOW AEROSPACE GND EQPT AND FIRE BOTTLE BOXES PAINTED ON ANG
RAMP.

NO TRNG FLTS, NO PLAS, NO TGLS BTN: 2300 – 0700 MON THRU SAT & 2300 – 1200 SUN.

MILITARY: ANG: OPR 1200-2030Z++ MON-FRI (SAT, SUN UTA).

TWY J CLSD BTN S & R TO ACFT WITH WING SPANS IN EXCESS OF 170 FT.

TWY S HOLD PAD AT RWY 33 CLSD.

FIXED WING ACFT USE LOW IDLE FOR TAXI, NO ENGINE CHECKS OR POWER RUNS ALLOWED ON THE
ARNG RAMP DUE TO POSSIBLE FOD HAZARD.

TWY C BTN TWY B & TWY H ACFT TAX SPD RSTRN OF 8 KTS/10 MPH MAX FOR ACFT WITH WINGSPAN
214 FT OR GTR.

BASH PHASE II INCRD BIRD ACTVITY SEP-OCT AND MAR-APR.

PARL TWY OPS ON TWY C & TWY B RSTRD TO ACFT WITH WINGSPANS OF 171 FT OR LESS.

(E117) CT ANG AND U.S. ARMY NG.

ACFT REQG US CUST SVCS MUST PARK ON THE CUST SPOT W/ THE NOSE OF THE ACFT FACING SW.
CTC CUST AT 860-292-1314 WHEN PARKED.

20366

AIRPORT DIAGRAM

AL-5100 (FAA)

WASHINGTON DULLES INTL (IAD)

WASHINGTON, DC

D-ATIS
134.85
DULLES TOWER
120.1 317.8 (RWY 01R-19L)
120.25 348.6 (RWY 01C-19C)
134.425 348.6
(RWYS 01L-19R, 12-30)
GND CON
121.9 317.8 (EAST)
121.625 348.6 (WEST)
CLINC DEL
135.7 317.8
MIDFIELD RAMP CON
129.55
CPDLC
PDC

D
ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

Runway Status Lights in operation.

38°57'N

38°58'N

JANUARY 2020
ANNUAL RATE OF CHANGE
0.0° E

FIELD ELEV 313

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Washington, DC
Washington Dulles Intl
ICAO Identifier KIAD

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 38-56-50.8N / 77-27-35.8W
2.2.2 From City: 20 miles W of WASHINGTON, VA
2.2.3 Elevation: 313 ft
2.2.5 Magnetic Variation: 10W (2000)
2.2.6 Airport Contact: MIKE STEWART
1 SAARINEN CIRCLE
DULLES, VA 20166
(703-572-2730)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 19C
2.12.2 True Bearing: 181
2.12.3 Dimensions: 11500 ft x 150 ft
2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-58-14.3066N /
77-27-33.5452W
2.12.6 Threshold Elevation: 268.5 ft
2.12.6 Touchdown Zone Elevation: 271.3 ft

2.12.1 Designation: 01C
2.12.2 True Bearing: 1
2.12.3 Dimensions: 11500 ft x 150 ft
2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-56-20.6392N /
77-27-35.1991W
2.12.6 Threshold Elevation: 286.1 ft
2.12.6 Touchdown Zone Elevation: 286.3 ft

2.12.1 Designation: 01L
2.12.2 True Bearing: 1
2.12.3 Dimensions: 9400 ft x 150 ft

2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-56-41.88N / 77-28-29.3151W
2.12.6 Threshold Elevation: 296 ft
2.12.6 Touchdown Zone Elevation: 296.1 ft

2.12.1 Designation: 19R
2.12.2 True Bearing: 181
2.12.3 Dimensions: 9400 ft x 150 ft
2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-58-14.7845N /
77-28-27.9825W
2.12.6 Threshold Elevation: 276.9 ft
2.12.6 Touchdown Zone Elevation: 278.4 ft

2.12.1 Designation: 01R
2.12.2 True Bearing: 1
2.12.3 Dimensions: 11500 ft x 150 ft
2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-55-25.526N / 77-26-11.222W
2.12.6 Threshold Elevation: 311.7 ft
2.12.6 Touchdown Zone Elevation: 312.4 ft

2.12.1 Designation: 19L
2.12.2 True Bearing: 181
2.12.3 Dimensions: 11500 ft x 150 ft
2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-57-19.185N / 77-26-9.526W
2.12.6 Threshold Elevation: 293.2 ft
2.12.6 Touchdown Zone Elevation: 302.2 ft

2.12.1 Designation: 30
2.12.2 True Bearing: 291
2.12.3 Dimensions: 10501 ft x 150 ft
2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-56-0.997N / 77-27-21.233W
2.12.6 Threshold Elevation: 287.8 ft
2.12.6 Touchdown Zone Elevation: 287.8 ft

2.12.1 Designation: 12
2.12.2 True Bearing: 111
2.12.3 Dimensions: 10501 ft x 150 ft
2.12.4 PCN: 81 R/C/W/T
2.12.5 Coordinates: 38-56-37.58N / 77-29-25.599W
2.12.6 Threshold Elevation: 309.8 ft
2.12.6 Touchdown Zone Elevation: 309.8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 19C
2.13.2 Take-off Run Available: 11500
2.13.3 Take-off Distance Available: 11500

2.13.4 Accelerate–Stop Distance Available: 11500
2.13.5 Landing Distance Available: 11089

2.13.1 Designation: 01C
2.13.2 Take–off Run Available: 11500
2.13.3 Take–off Distance Available: 11500
2.13.4 Accelerate–Stop Distance Available: 11500
2.13.5 Landing Distance Available: 11500

2.13.1 Designation: 01L
2.13.2 Take–off Run Available: 9400
2.13.3 Take–off Distance Available: 9400
2.13.4 Accelerate–Stop Distance Available: 9400
2.13.5 Landing Distance Available: 9400

2.13.1 Designation: 19R
2.13.2 Take–off Run Available: 9400
2.13.3 Take–off Distance Available: 9400
2.13.4 Accelerate–Stop Distance Available: 9400
2.13.5 Landing Distance Available: 9400

2.13.1 Designation: 01R
2.13.2 Take–off Run Available: 11500
2.13.3 Take–off Distance Available: 11500
2.13.4 Accelerate–Stop Distance Available: 11500
2.13.5 Landing Distance Available: 11500

2.13.1 Designation: 19L
2.13.2 Take–off Run Available: 11500
2.13.3 Take–off Distance Available: 11500
2.13.4 Accelerate–Stop Distance Available: 11500
2.13.5 Landing Distance Available: 11500

2.13.1 Designation: 30
2.13.2 Take–off Run Available: 10501
2.13.3 Take–off Distance Available: 10501
2.13.4 Accelerate–Stop Distance Available: 10501
2.13.5 Landing Distance Available: 10501

2.13.1 Designation: 12
2.13.2 Take–off Run Available: 10501
2.13.3 Take–off Distance Available: 10501
2.13.4 Accelerate–Stop Distance Available: 10501
2.13.5 Landing Distance Available: 10501

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 19C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 01C
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 01L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 19R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 01R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 19L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 30
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 12
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 135.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 317.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS
2.18.3 Channel: 134.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (WEST)
2.18.3 Channel: 121.625
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (EAST)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (EAST)
2.18.3 Channel: 317.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (WEST)
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 01R/19L)
2.18.3 Channel: 120.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 01C/19C)
2.18.3 Channel: 120.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 01L/19R,
RWY 12/30)
2.18.3 Channel: 134.425
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 01R/19L)
2.18.3 Channel: 317.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 01L/19R,
RWY 12/30)
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 01C/19C)
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (MIDFLD)
2.18.3 Channel: 129.55
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 01C. Magnetic
variation: 10W
2.19.2 ILS Identification: OSZ

2.19.5 Coordinates: 38-56-31.0615N /
77-27-40.7425W
2.19.6 Site Elevation: 283.3 ft

2.19.1 ILS Type: Localizer for runway 01C. Magnetic
variation: 10W
2.19.2 ILS Identification: OSZ
2.19.5 Coordinates: 38-58-24.6686N /
77-27-33.3933W
2.19.6 Site Elevation: 263.2 ft

2.19.1 ILS Type: Glide Slope for runway 19C. Magnetic
variation: 10W
2.19.2 ILS Identification: DLX
2.19.5 Coordinates: 38-58-4.1832N / 77-27-37.9999W
2.19.6 Site Elevation: 266.3 ft

2.19.1 ILS Type: Inner Marker for runway 19C. Magnet-
ic variation: 10W
2.19.2 ILS Identification: DLX
2.19.5 Coordinates: 38-58-22.9443N /
77-27-33.4218W
2.19.6 Site Elevation: 263.4 ft

2.19.1 ILS Type: Localizer for runway 19C. Magnetic
variation: 10W
2.19.2 ILS Identification: DLX
2.19.5 Coordinates: 38-56-14.614N / 77-27-35.2866W
2.19.6 Site Elevation: 283.9 ft

2.19.1 ILS Type: DME for runway 01L. Magnetic varia-
tion: 10W
2.19.2 ILS Identification: OIU
2.19.5 Coordinates: 38-58-25.0778N /
77-28-31.1627W
2.19.6 Site Elevation: 279.3 ft

2.19.1 ILS Type: Glide Slope for runway 01L. Magnetic
variation: 10W
2.19.2 ILS Identification: OIU
2.19.5 Coordinates: 38-56-52.8723N /
77-28-34.3495W
2.19.6 Site Elevation: 287.9 ft

2.19.1 ILS Type: Inner Marker for runway 01L. Magnet-
ic variation: 10W
2.19.2 ILS Identification: OIU
2.19.5 Coordinates: 38-56-33.3915N /
77-28-29.4465W
2.19.6 Site Elevation: 275 ft

2.19.1 ILS Type: Localizer for runway 01L. Magnetic variation: 10W
2.19.2 ILS Identification: OIU
2.19.5 Coordinates: 38-58-24.7673N / 77-28-27.8426W
2.19.6 Site Elevation: 276.9 ft

2.19.1 ILS Type: DME for runway 19R. Magnetic variation: 10W
2.19.2 ILS Identification: ISU
2.19.5 Coordinates: 38-58-25.0778N / 77-28-31.1627W
2.19.6 Site Elevation: 279.3 ft

2.19.1 ILS Type: Glide Slope for runway 19R. Magnetic variation: 10W
2.19.2 ILS Identification: ISU
2.19.5 Coordinates: 38-58-4.4568N / 77-28-33.3233W
2.19.6 Site Elevation: 272 ft

2.19.1 ILS Type: Inner Marker for runway 19R. Magnetic variation: 10W
2.19.2 ILS Identification: ISU
2.19.5 Coordinates: 38-58-23.5142N / 77-28-27.8585W
2.19.6 Site Elevation: 276 ft

2.19.1 ILS Type: Localizer for runway 19R. Magnetic variation: 10W
2.19.2 ILS Identification: ISU
2.19.5 Coordinates: 38-56-31.8979N / 77-28-29.4605W
2.19.6 Site Elevation: 298.2 ft

2.19.1 ILS Type: DME for runway 01R. Magnetic variation: 10W
2.19.2 ILS Identification: IAD
2.19.5 Coordinates: 38-55-11.0826N / 77-26-8.8302W
2.19.6 Site Elevation: 313.9 ft

2.19.1 ILS Type: Glide Slope for runway 01R. Magnetic variation: 10W

General Remarks:

TAXILANE 'C' ACTIVE; PUSHBACK CLNCS ON NORTH SIDE OF MIDFIELD TERMINAL ARE ONTO TAXILANE 'D' ONLY UNLESS OTHERWISE AUTH.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

LARGE FLOCKS OF BIRDS ON & INVOF ARPT/DEER INVOF ARPT.

2.19.2 ILS Identification: IAD
2.19.5 Coordinates: 38-55-35.845N / 77-26-4.749W
2.19.6 Site Elevation: 306.5 ft

2.19.1 ILS Type: Localizer for runway 01R. Magnetic variation: 10W
2.19.2 ILS Identification: IAD
2.19.5 Coordinates: 38-57-30.868N / 77-26-9.357W
2.19.6 Site Elevation: 301.8 ft

2.19.1 ILS Type: DME for runway 19L. Magnetic variation: 10W
2.19.2 ILS Identification: SGC
2.19.5 Coordinates: 38-55-11.0826N / 77-26-8.8302W
2.19.6 Site Elevation: 313.9 ft

2.19.1 ILS Type: Glide Slope for runway 19L. Magnetic variation: 10W
2.19.2 ILS Identification: SGC
2.19.5 Coordinates: 38-57-9.268N / 77-26-4.613W
2.19.6 Site Elevation: 291.1 ft

2.19.1 ILS Type: Localizer for runway 19L. Magnetic variation: 10W
2.19.2 ILS Identification: SGC
2.19.5 Coordinates: 38-55-11.807N / 77-26-11.427W
2.19.6 Site Elevation: 315.3 ft

2.19.1 ILS Type: Glide Slope for runway 12. Magnetic variation: 10W
2.19.2 ILS Identification: AJU
2.19.5 Coordinates: 38-56-30.399N / 77-29-15.535W
2.19.6 Site Elevation: 303.5 ft

2.19.1 ILS Type: Localizer for runway 12. Magnetic variation: 10W
2.19.2 ILS Identification: AJU
2.19.5 Coordinates: 38-55-57.27N / 77-27-8.47W
2.19.6 Site Elevation: 279.8 ft

ENGINE RUN-UPS BTW 2200L & 0700L REQUIRE PRIOR APPROVAL FM ARPT OPS.

B747-8 RESTRICTED TO MAXIMUM TAXI SPEED 17 KTS (20 MPH) ON TWY J.

RUNUP BLX FOR RWY 30 DSGND AS NON-MOVEMENT AREA.

ACR PUSH BACKS & PWR FM ALL APRON PSNS REQUIRE CLNC FM MWAA RAMP TWR.

DURING PERIODS OF ACFT SATURATION LONG TERM PARKING MAY NOT BE AVAILABLE. SERVICES FOR FUEL AND GO ONLY WILL BE AVAILABLE.

RY STATUS LGTS ARE IN OPN.

ALL AIRCRAFT WITH WINGSPAN EXCEEDING 118 FT ARE RESTRICTED FROM USING TAXILANE A BTN A1 & A5.

ALL 180 DEG TURNS OUT OF APRON POSITIONS SHALL BE MADE USING MINIMUM POWER.

RY 30 DEPARTURES USE UPPER ANTENNA FOR ATC COMMUNICATIONS.

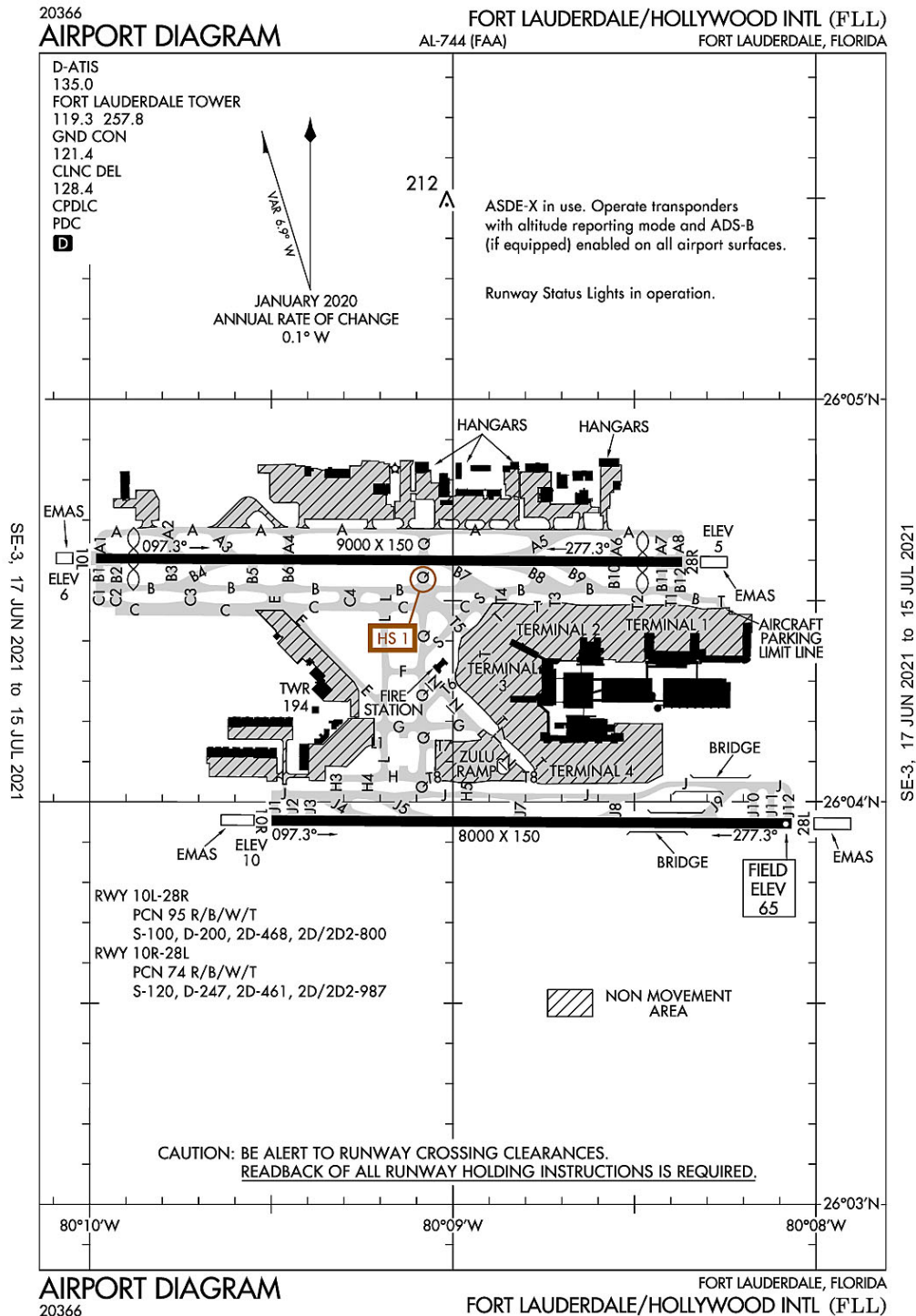
TWY E1 RESTRICTED TO ACFT WITH A WINGSPAN LESS THAN 79 FT.

FLIGHT TRAINING BETWEEN 2200-0700 IS PROHIBITED.

ITNRNT ACFT CTC FBO ON 122.95 OR 129.77 FOR SVCS.

LDG FEE. FLIGHT NOTIFICATION SERVICE (ADCUS) AVBL. NOTE: SEE SPECIAL NOTICES --CONTINUOUS POWER FACILITIES.

Fort Lauderdale, Florida
Fort Lauderdale-Hollywood International
ICAO Identifier KFL



Fort Lauderdale, FL
Fort Lauderdale/Hollywood Intl
ICAO Identifier KFLI

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 26-4-18N / 80-8-58.9W
2.2.2 From City: 3 miles SW of FORT LAUDERDALE, FL
2.2.3 Elevation: 65 ft
2.2.5 Magnetic Variation: 6W (2015)
2.2.6 Airport Contact: MARK GALE
320 TERMINAL DRIVE
SUITE 200
FORT LAUDERDALE, FL
33315 (954-359-6100)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/21/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 10L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 95 R/B/W/T
2.12.5 Coordinates: 26-4-37.0166N / 80-9-59.5381W
2.12.6 Threshold Elevation: 5.6 ft
2.12.6 Touchdown Zone Elevation: 7.1 ft

- 2.12.1 Designation: 28R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 95 R/B/W/T
2.12.5 Coordinates: 26-4-36.4507N / 80-8-20.835W
2.12.6 Threshold Elevation: 5.3 ft
2.12.6 Touchdown Zone Elevation: 6.7 ft

- 2.12.1 Designation: 10R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 8000 ft x 150 ft

- 2.12.4 PCN: 74 R/B/W/T
2.12.5 Coordinates: 26-3-57.1919N / 80-9-30.056W
2.12.6 Threshold Elevation: 10.1 ft
2.12.6 Touchdown Zone Elevation: 14.3 ft

- 2.12.1 Designation: 28L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 8000 ft x 150 ft
2.12.4 PCN: 74 R/B/W/T
2.12.5 Coordinates: 26-3-56.6718N / 80-8-2.3388W
2.12.6 Threshold Elevation: 65 ft
2.12.6 Touchdown Zone Elevation: 65 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 8424

- 2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 8394

- 2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

- 2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

AD 2.14 Approach and Runway Lighting

- 2.14.1 Designation: 10L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

- 2.14.1 Designation: 28R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

- 2.14.1 Designation: 10R
2.14.2 Approach Lighting System: MALSF

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 28L

2.14.2 Approach Lighting System: MALSF

2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ARKES DP

2.18.3 Channel: 126.05

2.18.5 Hours of Operation:

2.18.1 Service Designation: BAHMA DP

2.18.3 Channel: 126.05

2.18.5 Hours of Operation:

2.18.1 Service Designation: CD PRE TAXI CLNC

2.18.3 Channel: 128.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 135

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FORT LAUDERDALE DP
(FOR ARKES, PREDA, THNDR, AND ZAPPA TRANSITION)

2.18.3 Channel: 126.05

2.18.5 Hours of Operation:

2.18.1 Service Designation: FORT LAUDERDALE DP
(FOR MNATE TRANSITION)

2.18.3 Channel: 128.6

2.18.5 Hours of Operation:

2.18.1 Service Designation: FORT LAUDERDALE DP
(FOR BEECH TRANSITION)

2.18.3 Channel: 128.6

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S

2.18.3 Channel: 121.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 119.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/S

2.18.3 Channel: 120.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PREDA DP

2.18.3 Channel: 126.05

2.18.5 Hours of Operation:

2.18.1 Service Designation: RAMP CTL (NORTH)

2.18.3 Channel: 118.175

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (SOUTH)

2.18.3 Channel: 129.875

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: THNDR DP

2.18.3 Channel: 126.05

2.18.5 Hours of Operation:

2.18.1 Service Designation: ZAPPA DP

2.18.3 Channel: 126.05

2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 10L. Magnetic variation: 6W

2.19.2 ILS Identification: LHI

2.19.5 Coordinates: 26-4-40.1757N / 80-8-15.6721W

2.19.6 Site Elevation: 11.3 ft

2.19.1 ILS Type: Glide Slope for runway 10L. Magnetic variation: 6W

2.19.2 ILS Identification: LHI

2.19.5 Coordinates: 26-4-39.6411N / 80-9-42.3329W

2.19.6 Site Elevation: 2.9 ft

2.19.1 ILS Type: Localizer for runway 10L. Magnetic variation: 6W

2.19.2 ILS Identification: LHI

2.19.5 Coordinates: 26-4-36.4066N / 80-8-13.1434W

2.19.6 Site Elevation: 4.3 ft

2.19.1 ILS Type: DME for runway 28R. Magnetic varia-

tion: 6W
2.19.2 ILS Identification: UDL
2.19.5 Coordinates: 26-4-34.5346N / 80-10-2.4136W
2.19.6 Site Elevation: 10.4 ft

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic variation: 6W
2.19.2 ILS Identification: UDL
2.19.5 Coordinates: 26-4-39.627N / 80-8-39.0644W
2.19.6 Site Elevation: 5 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic variation: 6W
2.19.2 ILS Identification: UDL
2.19.5 Coordinates: 26-4-37.0351N / 80-10-2.8297W
2.19.6 Site Elevation: 4.6 ft

2.19.1 ILS Type: DME for runway 10R. Magnetic variation: 6W
2.19.2 ILS Identification: FLL
2.19.5 Coordinates: 26-3-58.8348N / 80-7-55.7162W
2.19.6 Site Elevation: 68.3 ft

2.19.1 ILS Type: Glide Slope for runway 10R. Magnetic variation: 6W
2.19.2 ILS Identification: FLL
2.19.5 Coordinates: 26-3-53.1134N / 80-9-18.5896W
2.19.6 Site Elevation: 5.7 ft

2.19.1 ILS Type: Localizer for runway 10R. Magnetic variation: 6W

2.19.2 ILS Identification: FLL
2.19.5 Coordinates: 26-3-56.6314N / 80-7-55.5666W
2.19.6 Site Elevation: 64.4 ft

2.19.1 ILS Type: DME for runway 28L. Magnetic variation: 6W
2.19.2 ILS Identification: ADI
2.19.5 Coordinates: 26-3-59.4802N / 80-9-40.4489W
2.19.6 Site Elevation: 14.7 ft

2.19.1 ILS Type: Glide Slope for runway 28L. Magnetic variation: 6W
2.19.2 ILS Identification: ADI
2.19.5 Coordinates: 26-3-52.7404N / 80-8-15.5298W
2.19.6 Site Elevation: 45 ft

2.19.1 ILS Type: Localizer for runway 28L. Magnetic variation: 6W
2.19.2 ILS Identification: ADI
2.19.5 Coordinates: 26-3-57.2361N / 80-9-37.7655W
2.19.6 Site Elevation: 7.5 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 6W
2.19.2 Navigation Aid Identification: FLL
2.19.5 Coordinates: 26-4-26.1833N / 80-9-59.1921W
2.19.6 Site Elevation: 5.6 ft

General Remarks:

PPR FOR ACFT WITH EXPLOSIVES.

ASDE-X IN USE; OPR PARROT WITH ALT RPRTG MODE & ADS-B (IF EQUIPPED) ENABLED ON ARPT SFCS.

ARR FM N & W MNTN 6000 FT UNTIL ABM RWY 28R ON DOWNWIND; ARR FM N MNTN 6000 FT UNTIL ABM RWY 10L ON DOWNWIND.

EAST SIDE OF CONCOURSE B AVBL TO ACFT WITH WINGSPAN LESS THAN 124.9 FT.

ALL RWYS NOISE SENSITIVE; NOISE ABATEMENT IN EFCT - 954-359-6181.

RWY STATUS LIGHTS IN OPRN.

NO VFR APCHS OR BASE LEGS UNTIL OFFSHORE.

TURB BLW 1000 FT OVR LANDFILL LCTD 2 NM W.

PPR FOR ACFT WITH WINGSPANS GTR THAN 118 FT ON TWY E BTN TWY C & TWY L.

JET RUNUPS NA 2300-0700.

ACFT OPRG FROM TRML 1, 2, 3, 4 MUST CTC RAMP CTL. RAMP CTL EFF – CTC ARPT OPS FOR HRS.

IR CARRIER ACFT USE RAMP PUSH BACK PROCS PRESCRIBED BY ARPT OPS.

TWY J BGN TO ELEV 900 FT EAST OF TWY Q. DUE TO ELEV ALL ACFT REMAIN ON CNTRLN; TWY T8 & TAXILANE T NOT ACCESSIBLE FM TWY J.

ACFT LDG RWY 10R & EXITING J9 FOLLOW TWY LEAD OFF LINE ONTO J9.

NMRS TREES SW QUADRANT OF ARPT.

BIRDS ON & INVOF ARPT; CONCENTRATION OF BIRDS BLW 500 FT 2.0 NM W OF 10L & 10R AER.

CLSD TO ACR TRAINING; LRG ACFT TRNG OVER 58000 LBS MAX CERTD GROSS TKOF WEIGHT; ALL TRNG 2300-0700.

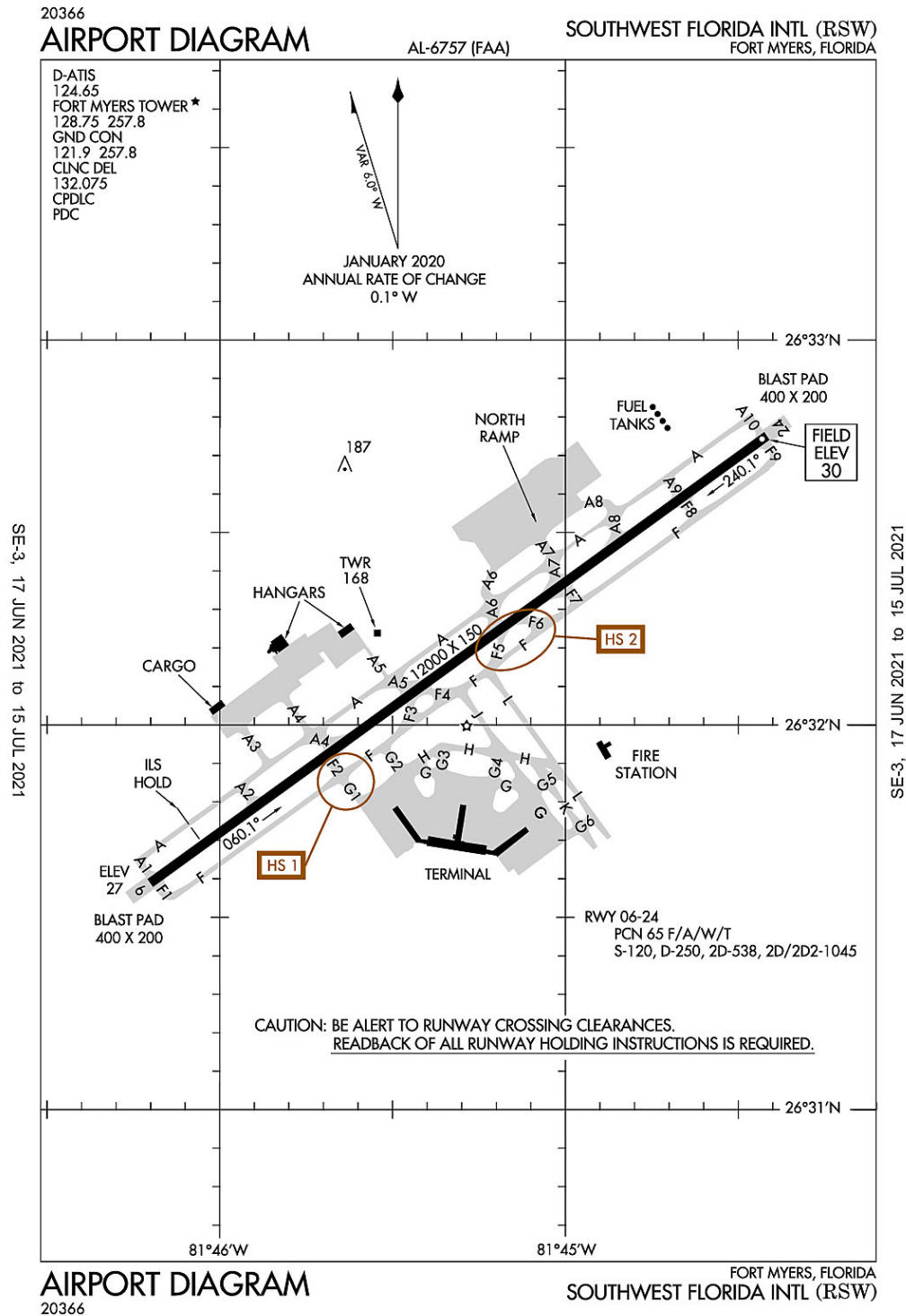
TWY B EAST OF TWY B12 & TAXILANE T EAST OF TWY T1 CLSD TO ACFT WITH WINGSPAN GTR THAN 126 FT & TAIL HGT GTR THAN 46 FT.

PREFERENTIAL RWY USE PROGRAM IN EFCT; CTC NOISE ABATEMENT OFFICE.

PPR FOR ACFT WITH WINGSPAN GTR THAN 171 FT & TAIL HGT GTR THAN 60 FT ON TWY N BTWN TWY Q & TWY T6

HIGH LIGHT MASTS WNW APCH END RWY 28L.

Fort Myers, Florida
Southwest Florida International
ICAO Identifier KRSW



Fort Myers, FL
Southwest Florida Intl
ICAO Identifier KRSW

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 26-32-10.2N / 81-45-18.6W
2.2.2 From City: 10 miles SE of FORT MYERS, FL
2.2.3 Elevation: 29.7 ft
2.2.5 Magnetic Variation: 4W (2000)
2.2.6 Airport Contact: BEN SIEGEL

11000 TERMINAL ACCESS
RD.
FORT MYERS, FL 33913
(239-590-4400)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL,A+
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 5/1/1983

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 24
2.12.2 True Bearing: 234
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 65 F/A/W/T
2.12.5 Coordinates: 26-32-45.0236N /
81-44-25.0345W
2.12.6 Threshold Elevation: 29.7 ft
2.12.6 Touchdown Zone Elevation: 29.7 ft

2.12.1 Designation: 06
2.12.2 True Bearing: 54
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 65 F/A/W/T
2.12.5 Coordinates: 26-31-35.3468N /
81-46-12.0693W
2.12.6 Threshold Elevation: 26.5 ft
2.12.6 Touchdown Zone Elevation: 26.8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 24
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 06
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 24
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 06
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ALICO DP (RWY 06)
2.18.3 Channel: 126.8
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: ALICO DP (RWY 24)
2.18.3 Channel: 134.425
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: ALICO DP (RWY 06/24)
2.18.3 Channel: 306.2
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P DEP/P (121-240)
2.18.3 Channel: 124.125
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P DEP/P (001-120)
2.18.3 Channel: 126.8
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P DEP/P (301-360)
2.18.3 Channel: 127.05
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P DEP/P (241-300)
2.18.3 Channel: 134.425

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P DEP/P (241-120)

2.18.3 Channel: 306.2

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P DEP/P (121-240)

2.18.3 Channel: 371.85

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P DEP/P IC

2.18.3 Channel: 306.2

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P IC (RWY 06)

2.18.3 Channel: 125.15

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: APCH/P IC (RWY 24)

2.18.3 Channel: 126.8

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CD/P

2.18.3 Channel: 132.075

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CLASS C (121-240)

2.18.3 Channel: 124.125

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CLASS C (001-120)

2.18.3 Channel: 126.8

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CLASS C (301-360)

2.18.3 Channel: 127.05

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CLASS C (241-300)

2.18.3 Channel: 134.425

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CLASS C (241-120)

2.18.3 Channel: 306.2

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CLASS C (121-240)

2.18.3 Channel: 371.85

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CSHEL DP (RWY 06)

2.18.3 Channel: 126.8

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CSHEL DP (RWY 24)

2.18.3 Channel: 134.425

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: CSHEL DP (RWY 06/24)

2.18.3 Channel: 306.2

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 124.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: GND/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: JOSFF STAR

2.18.3 Channel: 134.425

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: JOSFF STAR

2.18.3 Channel: 306.2

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 128.75

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: MOOKY DP (RWY 06)

2.18.3 Channel: 124.125

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: MOOKY DP (RWY 24)

2.18.3 Channel: 134.425

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: MOOKY DP (RWY 24)

2.18.3 Channel: 306.2

2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: MOOKY DP (RWY 06)
2.18.3 Channel: 371.85
2.18.5 Hours of Operation: 0600-0000

2.19.2 ILS Identification: RSW
2.19.5 Coordinates: 26-32-53.21N / 81-44-17.42W
2.19.6 Site Elevation: 26 ft

2.18.1 Service Designation: SCUBY DP
2.18.3 Channel: 124.125
2.18.5 Hours of Operation: 0600-0000

2.19.1 ILS Type: Glide Slope for runway 06. Magnetic variation: 4W
2.19.2 ILS Identification: RSW
2.19.5 Coordinates: 26-31-43.49N / 81-46-4.32W
2.19.6 Site Elevation: 26 ft

2.18.1 Service Designation: SCUBY DP
2.18.3 Channel: 371.85
2.18.5 Hours of Operation: 0600-0000

2.19.1 ILS Type: Localizer for runway 06. Magnetic variation: 4W
2.19.2 ILS Identification: RSW
2.19.5 Coordinates: 26-32-51.1216N / 81-44-15.6633W
2.19.6 Site Elevation: 27.6 ft

2.18.1 Service Designation: TYNEE STAR
2.18.3 Channel: 134.425
2.18.5 Hours of Operation: 0600-0000

2.18.1 Service Designation: TYNEE STAR
2.18.3 Channel: 306.2
2.18.5 Hours of Operation: 0600-0000

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 2W
2.19.2 Navigation Aid Identification: RSW
2.19.5 Coordinates: 26-31-47.5508N / 81-46-32.7643W
2.19.6 Site Elevation: 25 ft

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 06. Magnetic variation: 4W

General Remarks:

CAUTION: OPEN BAGGAGE BAYS & CONST WITHIN TERMINAL RAMP AREA. AIRCREWS USE MINIMUM THRUST SETTINGS IN THESE AREAS, SPCLY DURG SINGLE ENG TAXI. CROSS-BLEED STARTS ONLY ALLOWED AFT REACHING THE TUG RELEASE POINT.

ACR USE RAMP PROC PRESCRIBED BY ARPT OPS.

GND CLNC RQRD PRIOR TO ENTERING TWY G.

TWY F6 EXIT SIGN LCTD IMT BFR TWY F5.

DEP ACFT OBTAIN APVL FM GND CTL PRIOR TO PUSHBACK FM GATES B7, B9, C8, C9 & D10A. PILOTS ADVISE TUG OPR OF OBTAINED CLNC FM GND CTL PRIOR TO ENTERING TWY G. DEP CTC GND CTL PRIOR TO LEAVING THE COMMUTER RAMP FROM GATES D9A & D9B.

GATES B7 & B9 EXP CALL SPOT #7. GATES C8 & C9 EXP CALL SPOT #4. GATE D10A EXP CALL SPOT #2.

LGTS ON PARALLEL ROAD & PARKING LOT NW OF RWY 06/24 CAN BE MISTAKEN FOR RWY & APCH ENVIRONMENT.

ALL ACFT ON RAMP EXP CLOCKWISE FLOW. OUTBOUND TRAFFIC FROM GATES D2, D4, D6, D8 & D10 PROCEED TO CALL SPOT 1; OUTBOUND TRAFFIC FROM GATES C2, C4, C6, D1, D3, D5 & D7 PROCEED TO CALL SPOT 3; OUTBOUND TRAFFIC FROM GATES B2, B4, B6, B8, C1, C3, C5 & C7 PROCEED TO CALL SPOT 5; OUTBOUND TRAFFIC FROM GATES B1, B3 & B5 PROCEED TO CALL SPOT 9; ALL OUTBOUND TRAFFIC REQUEST TAXI INSTRUCTIONS.

NO HELI OPS PERMITTED ON TRML APRON.

TFC PROCD DRCTLY TO GATE UNLESS DRCTD BY ATC; ADVISE ATC IF GATE IS NOT AVBL.

RWY USE PROGRAM IN EFFECT; USE DISTANT NOISE ABATEMENT DEP PROFILE. VISUAL APCH TO RWY 06 W OF FORT MYERS BEACH MAINTAIN 3000 FT UNTIL CROSSING SHORELINE 12 NM SW OF ARPT. RWY 24 PREFERRED BTN 2200-0600. FOR NOISE ABATEMENT PROC CTC AMGR.

AIRPORT DIAGRAM

MIAMI INTL (MIA)
MIAMI, FLORIDA

203366

MIAMI, FLORIDA

MIAMI INTL (MIA)

Miami, FL
Miami Intl
ICAO Identifier KMIA

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 25-47-43.3N / 80-17-24.417W
- 2.2.2 From City: 8 miles NW of MIAMI, FL
- 2.2.3 Elevation: 9.3 ft
- 2.2.5 Magnetic Variation: 5W (2000)
- 2.2.6 Airport Contact: LESTER SOLA
MIAMI-DADE AVIATION
DEPARTMENT
MIAMI, FL 33102
(305-876-7077)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 08L
- 2.12.2 True Bearing: 87
- 2.12.3 Dimensions: 8600 ft x 150 ft
- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-48-10.432N / 80-18-5.5508W
- 2.12.6 Threshold Elevation: 8.9 ft
- 2.12.6 Touchdown Zone Elevation: 9.1 ft

- 2.12.1 Designation: 26R
- 2.12.2 True Bearing: 267
- 2.12.3 Dimensions: 8600 ft x 150 ft
- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-48-14.3204N / 80-16-31.5499W
- 2.12.6 Threshold Elevation: 8.8 ft
- 2.12.6 Touchdown Zone Elevation: 9 ft

- 2.12.1 Designation: 26L
- 2.12.2 True Bearing: 267
- 2.12.3 Dimensions: 10506 ft x 200 ft

- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-48-7.2652N / 80-16-10.3282W
- 2.12.6 Threshold Elevation: 8.9 ft
- 2.12.6 Touchdown Zone Elevation: 9 ft

- 2.12.1 Designation: 08R
- 2.12.2 True Bearing: 87
- 2.12.3 Dimensions: 10506 ft x 200 ft
- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-48-2.5177N / 80-18-5.1588W
- 2.12.6 Threshold Elevation: 8.5 ft
- 2.12.6 Touchdown Zone Elevation: 9.1 ft

- 2.12.1 Designation: 09
- 2.12.2 True Bearing: 87
- 2.12.3 Dimensions: 13016 ft x 150 ft
- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-47-9.9421N / 80-18-53.4173W
- 2.12.6 Threshold Elevation: 8.1 ft
- 2.12.6 Touchdown Zone Elevation: 8.2 ft

- 2.12.1 Designation: 27
- 2.12.2 True Bearing: 267
- 2.12.3 Dimensions: 13016 ft x 150 ft
- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-47-15.8328N / 80-16-31.1711W
- 2.12.6 Threshold Elevation: 9 ft
- 2.12.6 Touchdown Zone Elevation: 9.1 ft

- 2.12.1 Designation: 12
- 2.12.2 True Bearing: 119
- 2.12.3 Dimensions: 9360 ft x 150 ft
- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-47-57.4262N / 80-18-8.2439W
- 2.12.6 Threshold Elevation: 9.1 ft
- 2.12.6 Touchdown Zone Elevation: 9.2 ft

- 2.12.1 Designation: 30
- 2.12.2 True Bearing: 299
- 2.12.3 Dimensions: 9360 ft x 150 ft
- 2.12.4 PCN: 70 F/A/X/T
- 2.12.5 Coordinates: 25-47-11.8224N / 80-16-39.0805W
- 2.12.6 Threshold Elevation: 8.7 ft
- 2.12.6 Touchdown Zone Elevation: 9.3 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 08L
- 2.13.2 Take-off Run Available: 8600

2.13.3 Take-off Distance Available: 8600
2.13.4 Accelerate-Stop Distance Available: 8600
2.13.5 Landing Distance Available: 8600

2.13.1 Designation: 26R
2.13.2 Take-off Run Available: 8600
2.13.3 Take-off Distance Available: 8600
2.13.4 Accelerate-Stop Distance Available: 8600
2.13.5 Landing Distance Available: 8600

2.13.1 Designation: 26L
2.13.2 Take-off Run Available: 10506
2.13.3 Take-off Distance Available: 10506
2.13.4 Accelerate-Stop Distance Available: 10220
2.13.5 Landing Distance Available: 10220

2.13.1 Designation: 08R
2.13.2 Take-off Run Available: 10506
2.13.3 Take-off Distance Available: 10506
2.13.4 Accelerate-Stop Distance Available: 10506
2.13.5 Landing Distance Available: 10506

2.13.1 Designation: 09
2.13.2 Take-off Run Available: 13016
2.13.3 Take-off Distance Available: 13016
2.13.4 Accelerate-Stop Distance Available: 12755
2.13.5 Landing Distance Available: 11397

2.13.1 Designation: 27
2.13.2 Take-off Run Available: 13016
2.13.3 Take-off Distance Available: 13016
2.13.4 Accelerate-Stop Distance Available: 13016
2.13.5 Landing Distance Available: 12755

2.13.1 Designation: 12
2.13.2 Take-off Run Available: 9355
2.13.3 Take-off Distance Available: 9355
2.13.4 Accelerate-Stop Distance Available: 8579
2.13.5 Landing Distance Available: 8579

2.13.1 Designation: 30
2.13.2 Take-off Run Available: 9355
2.13.3 Take-off Distance Available: 9355
2.13.4 Accelerate-Stop Distance Available: 8853
2.13.5 Landing Distance Available: 7913

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 08L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 09
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 27
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 12
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 30
2.14.2 Approach Lighting System: MALS
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANNEY STAR
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ANNEY STAR
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ANNEY STAR
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ANNEY STAR
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (090-269)
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (090-269)
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (270-089)
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (270-089)
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (090-269)
2.18.3 Channel: 379.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (090-269)
2.18.3 Channel: 379.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (270-089)
2.18.3 Channel: 124.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (270-089)
2.18.3 Channel: 124.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (270-089)
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (270-089)
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S (270-089)
2.18.3 Channel: 263.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S (270-089)
2.18.3 Channel: 263.025

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLUFI STAR
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLUFI STAR
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLUFI STAR
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLUFI STAR
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 135.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 135.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (090-269)
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (090-269)
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (270-089)
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (270-089)
2.18.3 Channel: 125.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (270-089)
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (270-089)
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (090-269)

2.18.3 Channel: 379.9	2.18.1 Service Designation: D-ATIS (ARRIVAL)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 119.15
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CLASS B (090-269)	
2.18.3 Channel: 379.9	2.18.1 Service Designation: D-ATIS (DEPART)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 133.675
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CURSO STAR	
2.18.3 Channel: 125.75	2.18.1 Service Designation: D-ATIS (DEPART)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 133.675
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CURSO STAR	
2.18.3 Channel: 125.75	2.18.1 Service Designation: DEP/P (090-269)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 125.5
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CURSO STAR	
2.18.3 Channel: 322.3	2.18.1 Service Designation: DEP/P (090-269)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 125.5
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CURSO STAR	
2.18.3 Channel: 322.3	2.18.1 Service Designation: DEP/P (270-089)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 290.325
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CYPRESS STAR (WEST)	
2.18.3 Channel: 120.5	2.18.1 Service Designation: DEP/P (270-089)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 290.325
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CYPRESS STAR (WEST)	
2.18.3 Channel: 120.5	2.18.1 Service Designation: DEP/P (090-269)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 354.1
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CYPRESS STAR (EAST)	
2.18.3 Channel: 125.75	2.18.1 Service Designation: DEP/P (090-269)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 354.1
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CYPRESS STAR (EAST)	
2.18.3 Channel: 125.75	2.18.1 Service Designation: DEP/P IC (270-089)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 119.45
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CYPRESS STAR	
2.18.3 Channel: 350.225	2.18.1 Service Designation: DEP/P IC (270-089)
2.18.5 Hours of Operation: 24	2.18.3 Channel: 119.45
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: CYPRESS STAR	
2.18.3 Channel: 350.225	2.18.1 Service Designation: DVALL STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 120.5
	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: D-ATIS (ARRIVAL)	
2.18.3 Channel: 119.15	2.18.1 Service Designation: DVALL STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 120.5
	2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DVALL STAR
2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DVALL STAR
2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: FLIPR STAR
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FLIPR STAR
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FLIPR STAR
2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FLIPR STAR
2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOWEE STAR
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOWEE STAR
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOWEE STAR
2.18.3 Channel: 124.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOWEE STAR
2.18.3 Channel: 124.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOWEE STAR
2.18.3 Channel: 350.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOWEE STAR
2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC (RWY 08L/26R,
08R/26L, 12)
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC (RWY 08L/26R,
08R/26L, 12)
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC (RWY 09/27, 30)
2.18.3 Channel: 127.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC (RWY 09/27, 30)
2.18.3 Channel: 127.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HILEY STAR
2.18.3 Channel: 124.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HILEY STAR
2.18.3 Channel: 124.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HILEY STAR
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HILEY STAR
2.18.3 Channel: 322.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (090-269)
2.18.3 Channel: 123.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (090-269)	2.18.1 Service Designation: MIAMI DP (SKIPS, EONNS, MNATE TRANSITIONS)
2.18.3 Channel: 123.9	2.18.3 Channel: 354.1
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/P IC (270-089)	2.18.1 Service Designation: MIAMI DP (SKIPS, EONNS, MNATE TRANSITIONS)
2.18.3 Channel: 118.3	2.18.3 Channel: 354.1
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/P IC (270-089)	2.18.1 Service Designation: PALMZ STAR
2.18.3 Channel: 118.3	2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/P IC	2.18.1 Service Designation: PALMZ STAR
2.18.3 Channel: 256.9	2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/P IC	2.18.1 Service Designation: PALMZ STAR
2.18.3 Channel: 256.9	2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: MIAMI DP (WINCO, HED- LY, PADUS, BEECH TRANSITIONS)	2.18.1 Service Designation: PALMZ STAR
2.18.3 Channel: 119.45	2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: MIAMI DP (WINCO, HED- LY, PADUS, BEECH TRANSITIONS)	2.18.1 Service Designation: RAMP CTL
2.18.3 Channel: 119.45	2.18.3 Channel: 120.35
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: MIAMI DP (SKIPS, EONNS, MNATE TRANSITIONS)	2.18.1 Service Designation: RAMP CTL
2.18.3 Channel: 125.5	2.18.3 Channel: 120.35
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: MIAMI DP (SKIPS, EONNS, MNATE TRANSITIONS)	2.18.1 Service Designation: RTIS (120-300 WITHIN 25 NM)
2.18.3 Channel: 125.5	2.18.3 Channel: 125.25
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: MIAMI DP (WINCO, HED- LY, PADUS, BEECH TRANSITIONS)	2.18.1 Service Designation: RTIS (120-300 WITHIN 25 NM)
2.18.3 Channel: 290.325	2.18.3 Channel: 125.25
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: MIAMI DP (WINCO, HED- LY, PADUS, BEECH TRANSITIONS)	2.18.1 Service Designation: SSCOT STAR
2.18.3 Channel: 290.325	2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: MIAMI DP (WINCO, HED- LY, PADUS, BEECH TRANSITIONS)	2.18.1 Service Designation: SSCOT STAR
2.18.3 Channel: 290.325	2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SSCOT STAR
2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SSCOT STAR
2.18.3 Channel: 350.225
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 08L. Magnetic variation: 5W

2.19.2 ILS Identification: ROY
2.19.5 Coordinates: 25-48-16.3597N /
80-16-18.3104W
2.19.6 Site Elevation: 20.1 ft

2.19.1 ILS Type: Localizer for runway 08L. Magnetic variation: 5W
2.19.2 ILS Identification: ROY
2.19.5 Coordinates: 25-48-14.865N / 80-16-18.3941W
2.19.6 Site Elevation: 6.8 ft

2.19.1 ILS Type: DME for runway 26R. Magnetic variation: 5W
2.19.2 ILS Identification: CNV
2.19.5 Coordinates: 25-48-7.1241N / 80-18-16.4684W
2.19.6 Site Elevation: 20.3 ft

2.19.1 ILS Type: Localizer for runway 26R. Magnetic variation: 5W
2.19.2 ILS Identification: CNV
2.19.5 Coordinates: 25-48-9.969N / 80-18-16.6983W
2.19.6 Site Elevation: 7.4 ft

2.19.1 ILS Type: DME for runway 08R. Magnetic variation: 5W
2.19.2 ILS Identification: MFA
2.19.5 Coordinates: 25-48-5.0878N / 80-16-0.575W
2.19.6 Site Elevation: 15.6 ft

2.19.1 ILS Type: Glide Slope for runway 08R. Magnetic variation: 5W
2.19.2 ILS Identification: MFA
2.19.5 Coordinates: 25-48-6.1715N / 80-17-54.807W
2.19.6 Site Elevation: 5 ft

2.19.1 ILS Type: Localizer for runway 08R. Magnetic variation: 5W
2.19.2 ILS Identification: MFA

2.19.5 Coordinates: 25-48-7.688N / 80-16-0.0426W
2.19.6 Site Elevation: 6.3 ft

2.19.1 ILS Type: DME for runway 26L. Magnetic variation: 5W

2.19.2 ILS Identification: VIN
2.19.5 Coordinates: 25-48-5.8074N / 80-18-14.9415W
2.19.6 Site Elevation: 14.3 ft

2.19.1 ILS Type: Glide Slope for runway 26L. Magnetic variation: 5W

2.19.2 ILS Identification: VIN
2.19.5 Coordinates: 25-48-9.7347N / 80-16-22.5043W
2.19.6 Site Elevation: 5.9 ft

2.19.1 ILS Type: Localizer for runway 26L. Magnetic variation: 5W
2.19.2 ILS Identification: VIN
2.19.5 Coordinates: 25-48-2.1576N / 80-18-13.7966W
2.19.6 Site Elevation: 7.6 ft

2.19.1 ILS Type: DME for runway 09. Magnetic variation: 5W
2.19.2 ILS Identification: BUL
2.19.5 Coordinates: 25-47-15.8249N /
80-16-17.2451W
2.19.6 Site Elevation: 20.1 ft

2.19.1 ILS Type: Glide Slope for runway 09. Magnetic variation: 5W
2.19.2 ILS Identification: BUL
2.19.5 Coordinates: 25-47-7.8388N / 80-18-26.7053W
2.19.6 Site Elevation: 7.5 ft

2.19.1 ILS Type: Localizer for runway 09. Magnetic variation: 5W
2.19.2 ILS Identification: BUL
2.19.5 Coordinates: 25-47-16.4165N /
80-16-17.1006W
2.19.6 Site Elevation: 18.4 ft

2.19.1 ILS Type: Glide Slope for runway 27. Magnetic variation: 5W
2.19.2 ILS Identification: MIA
2.19.5 Coordinates: 25-47-11.7269N /
80-16-45.3981W
2.19.6 Site Elevation: 4.7 ft

2.19.1 ILS Type: Localizer for runway 27. Magnetic variation: 5W
2.19.2 ILS Identification: MIA

2.19.5 Coordinates: 25-47-9.3891N / 80-19-6.6406W

2.19.6 Site Elevation: 7.1 ft

2.19.1 ILS Type: DME for runway 12. Magnetic variation: 5W

2.19.2 ILS Identification: GEM

2.19.5 Coordinates: 25-47-11.2767N / 80-16-32.4152W

2.19.6 Site Elevation: 15.9 ft

2.19.1 ILS Type: Glide Slope for runway 12. Magnetic variation: 5W

2.19.2 ILS Identification: GEM

2.19.5 Coordinates: 25-47-50.78N / 80-17-58.58W

2.19.6 Site Elevation: 7 ft

2.19.1 ILS Type: Localizer for runway 12. Magnetic variation: 5W

2.19.2 ILS Identification: GEM

2.19.5 Coordinates: 25-47-9.6403N / 80-16-34.8108W

2.19.6 Site Elevation: 8.3 ft

2.19.1 ILS Type: DME for runway 30. Magnetic variation: 5W

2.19.2 ILS Identification: DCX

2.19.5 Coordinates: 25-47-57.7789N / 80-18-14.5127W

2.19.6 Site Elevation: 14.7 ft

2.19.1 ILS Type: Glide Slope for runway 30. Magnetic variation: 5W

2.19.2 ILS Identification: DCX

2.19.5 Coordinates: 25-47-17.643N / 80-16-59.572W

2.19.6 Site Elevation: 7.1 ft

2.19.1 ILS Type: Localizer for runway 30. Magnetic variation: 5W

2.19.2 ILS Identification: DCX

2.19.5 Coordinates: 25-47-59.8764N / 80-18-13.0372W

2.19.6 Site Elevation: 8.9 ft

General Remarks:

ACFT WITH A WINGSPAN GTR THAN 171 FT ARE PROHIBITED FM TXG ON TWY P EAST OF TWY U.

ALL MEDICAL EMERGENCIES ARRIVALS, WITH THE EXCEPTION OF AIR AMBULANCE FLIGHTS, MUST SECURE DOORS UNTIL ARFF IS ON SCENE.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

ALL DIVERSION CTC FREQ 130.5 UPON ARR.

ALL TURBOJET ACFT USE DSNT NOISE ABATEMENT DEP PROFILE FROM ALL RYS EXC A320, B727, B737-800, B767-400, AND DC9 WHICH SHOULD USE CLOSE-IN NOISE ABATEMENT ABATEMENT PROFILE.

B757, HEAVY AND SUPER ACFT ARE NOT AUTH INT DEP FOR ANY RWY UNLESS A PTN IS CLSD OR UNUNSL.

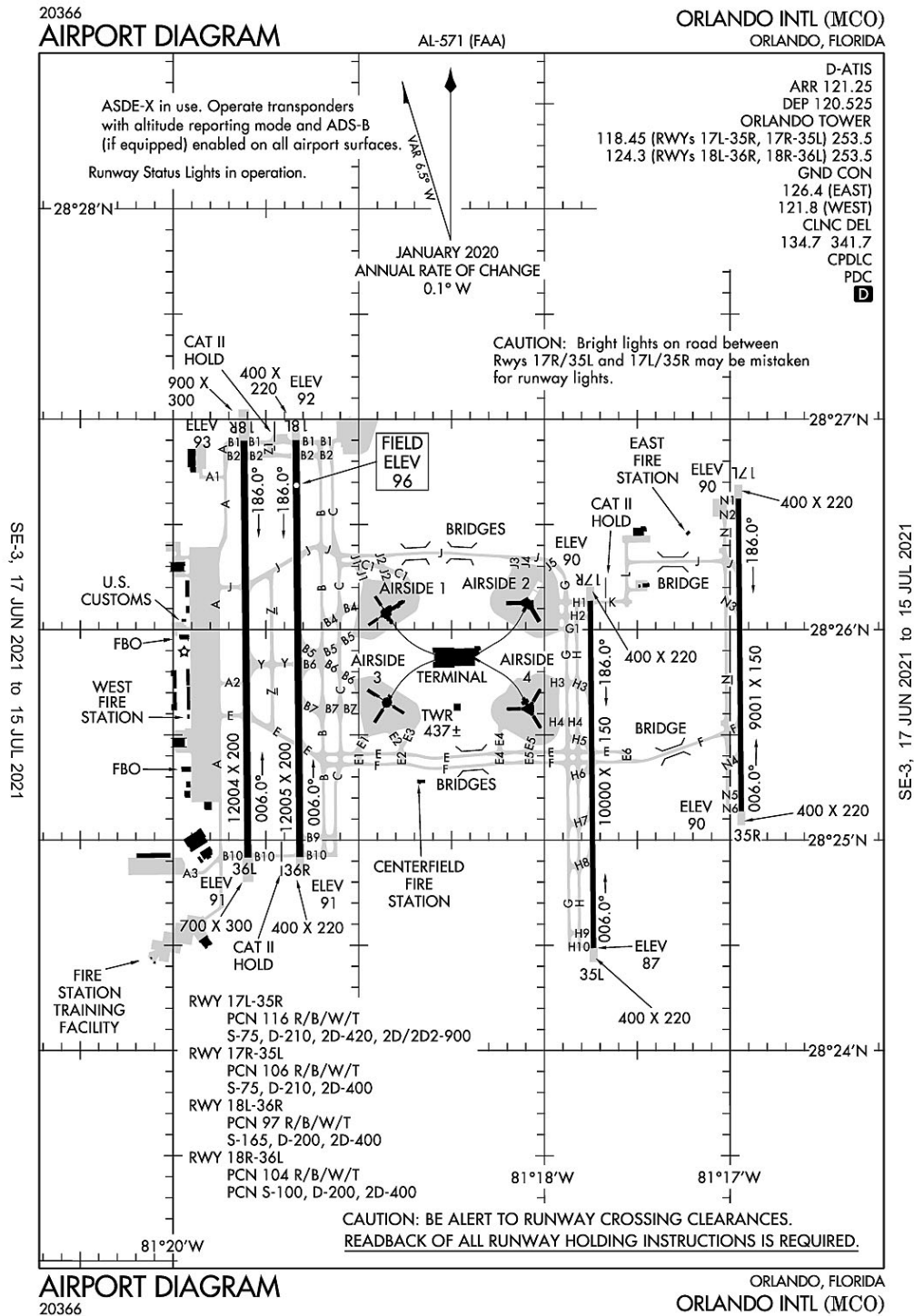
PPR 3 HRS PRIOR TO ALL ARRIVALS ON THE GENERAL AVIATION CENTER (GAC) RAMP 305-876-7550 CTC RAMP CONTROL UPON ARRIVAL ON FREQUENCY 131.600. ACFT WITH WINGSPAN GREATER THAN 78 FT ARE PROHIBITED FROM ENTERING THE GAC RAMP.

CLSD NON ENG ACFT.

BIRDS ON & INVOF ARPT.

PPR FOR INBOUND MILITARY FLIGHTS 100 NM ON FREQ 130.5.

Orlando, Florida
Orlando International
ICAO Identifier KMCO



Orlando, FL
Orlando Intl
ICAO Identifier KMCO

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 28-25-45.8N / 81-18-32.4W
- 2.2.2 From City: 6 miles SE of ORLANDO, FL
- 2.2.3 Elevation: 96.4 ft
- 2.2.5 Magnetic Variation: 6W (2015)
- 2.2.6 Airport Contact: PHILLIP N. BROWN, A.A.E.
1 JEFF FUQUA BLVD
ORLANDO, FL 32827
(407-825-7445)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/21/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 17L
- 2.12.2 True Bearing: 179
- 2.12.3 Dimensions: 9001 ft x 150 ft
- 2.12.4 PCN: 116 R/B/W/T
- 2.12.5 Coordinates: 28-26-37.308N / 81-16-57.2924W
- 2.12.6 Threshold Elevation: 89.7 ft
- 2.12.6 Touchdown Zone Elevation: 89.9 ft
- 2.12.1 Designation: 35R
- 2.12.2 True Bearing: 359
- 2.12.3 Dimensions: 9001 ft x 150 ft
- 2.12.4 PCN: 116 R/B/W/T
- 2.12.5 Coordinates: 28-25-8.1974N / 81-16-56.3802W
- 2.12.6 Threshold Elevation: 89.7 ft
- 2.12.6 Touchdown Zone Elevation: 89.8 ft
- 2.12.1 Designation: 17R
- 2.12.2 True Bearing: 179
- 2.12.3 Dimensions: 10000 ft x 150 ft
- 2.12.4 PCN: 106 R/B/W/T
- 2.12.5 Coordinates: 28-26-8.2029N / 81-17-45.1656W

- 2.12.6 Threshold Elevation: 90.1 ft
- 2.12.6 Touchdown Zone Elevation: 90.2 ft

- 2.12.1 Designation: 35L
- 2.12.2 True Bearing: 359
- 2.12.3 Dimensions: 10000 ft x 150 ft
- 2.12.4 PCN: 106 R/B/W/T
- 2.12.5 Coordinates: 28-24-29.1952N / 81-17-44.1335W
- 2.12.6 Threshold Elevation: 86.7 ft
- 2.12.6 Touchdown Zone Elevation: 88.3 ft

- 2.12.1 Designation: 18L
- 2.12.2 True Bearing: 179
- 2.12.3 Dimensions: 12005 ft x 200 ft
- 2.12.4 PCN: 97 R/B/W/T
- 2.12.5 Coordinates: 28-26-54.0038N / 81-19-20.3022W
- 2.12.6 Threshold Elevation: 92.4 ft
- 2.12.6 Touchdown Zone Elevation: 96.4 ft

- 2.12.1 Designation: 36R
- 2.12.2 True Bearing: 359
- 2.12.3 Dimensions: 12005 ft x 200 ft
- 2.12.4 PCN: 97 R/B/W/T
- 2.12.5 Coordinates: 28-24-55.1469N / 81-19-19.0358W
- 2.12.6 Threshold Elevation: 91 ft
- 2.12.6 Touchdown Zone Elevation: 92.3 ft

- 2.12.1 Designation: 18R
- 2.12.2 True Bearing: 179
- 2.12.3 Dimensions: 12004 ft x 200 ft
- 2.12.4 PCN: 104 R/B/W/T
- 2.12.5 Coordinates: 28-26-53.8569N / 81-19-37.1091W
- 2.12.6 Threshold Elevation: 92.5 ft
- 2.12.6 Touchdown Zone Elevation: 93.5 ft

- 2.12.1 Designation: 36L
- 2.12.2 True Bearing: 359
- 2.12.3 Dimensions: 12004 ft x 200 ft
- 2.12.4 PCN: 104 R/B/W/T
- 2.12.5 Coordinates: 28-24-55.007N / 81-19-35.8294W
- 2.12.6 Threshold Elevation: 91.1 ft
- 2.12.6 Touchdown Zone Elevation: 92.6 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 17L
- 2.13.2 Take-off Run Available: 9000

2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 35R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 17R
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 35L
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 18L
2.13.2 Take-off Run Available: 12005
2.13.3 Take-off Distance Available: 12005
2.13.4 Accelerate-Stop Distance Available: 12005
2.13.5 Landing Distance Available: 12005

2.13.1 Designation: 36R
2.13.2 Take-off Run Available: 12005
2.13.3 Take-off Distance Available: 12005
2.13.4 Accelerate-Stop Distance Available: 11601
2.13.5 Landing Distance Available: 11601

2.13.1 Designation: 18R
2.13.2 Take-off Run Available: 12004
2.13.3 Take-off Distance Available: 12004
2.13.4 Accelerate-Stop Distance Available: 12004
2.13.5 Landing Distance Available: 12004

2.13.1 Designation: 36L
2.13.2 Take-off Run Available: 12004
2.13.3 Take-off Distance Available: 12004
2.13.4 Accelerate-Stop Distance Available: 11621
2.13.5 Landing Distance Available: 11621

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 17L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 17R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 18L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: AR OPS
2.18.3 Channel: 41.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: AR OPS
2.18.3 Channel: 148.8
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P
2.18.3 Channel: 134.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 341.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)
2.18.3 Channel: 120.525
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 121.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (WEST)
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (EAST)
2.18.3 Channel: 126.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 17L/35R,
17R/35L)
2.18.3 Channel: 118.45
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 18L/36R,
18R/36L)
2.18.3 Channel: 124.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 253.5
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 17L. Magnetic varia-
tion: 6W
2.19.2 ILS Identification: ARK
2.19.5 Coordinates: 28-24-57.9921N / 81-16-51.737W
2.19.6 Site Elevation: 97 ft

2.19.1 ILS Type: Glide Slope for runway 17L. Magnetic
variation: 6W
2.19.2 ILS Identification: ARK
2.19.5 Coordinates: 28-26-27.0479N /
81-16-52.5933W
2.19.6 Site Elevation: 94.4 ft

2.19.1 ILS Type: Inner Marker for runway 17L. Magnet-

ic variation: 6W

2.19.2 ILS Identification: ARK
2.19.5 Coordinates: 28-26-45.819N / 81-16-57.3985W
2.19.6 Site Elevation: 89.6 ft

2.19.1 ILS Type: Localizer for runway 17L. Magnetic
variation: 6W
2.19.2 ILS Identification: ARK
2.19.5 Coordinates: 28-24-57.8892N /
81-16-56.2728W
2.19.6 Site Elevation: 89.1 ft

2.19.1 ILS Type: DME for runway 35R. Magnetic varia-
tion: 6W
2.19.2 ILS Identification: CER
2.19.5 Coordinates: 28-26-48.2377N /
81-16-52.8447W
2.19.6 Site Elevation: 98.3 ft

2.19.1 ILS Type: Glide Slope for runway 35R. Magnetic
variation: 6W
2.19.2 ILS Identification: CER
2.19.5 Coordinates: 28-25-18.6301N /
81-16-51.8726W
2.19.6 Site Elevation: 87.3 ft

2.19.1 ILS Type: Inner Marker for runway 35R. Magnet-
ic variation: 6W
2.19.2 ILS Identification: CER
2.19.5 Coordinates: 28-24-59.6772N /
81-16-56.2924W
2.19.6 Site Elevation: 89.2 ft

2.19.1 ILS Type: Localizer for runway 35R. Magnetic
variation: 6W
2.19.2 ILS Identification: CER
2.19.5 Coordinates: 28-26-47.6103N /
81-16-57.3979W
2.19.6 Site Elevation: 89.6 ft

2.19.1 ILS Type: DME for runway 17R. Magnetic varia-
tion: 6W
2.19.2 ILS Identification: DIZ
2.19.5 Coordinates: 28-24-18.9549N /
81-17-47.0755W
2.19.6 Site Elevation: 86.4 ft

2.19.1 ILS Type: Glide Slope for runway 17R. Magnetic
variation: 6W
2.19.2 ILS Identification: DIZ
2.19.5 Coordinates: 28-25-57.8375N /

81-17-40.5783W

2.19.6 Site Elevation: 92.7 ft

2.19.1 ILS Type: Inner Marker for runway 17R. Magnetic variation: 6W

2.19.2 ILS Identification: DIZ

2.19.5 Coordinates: 28-26-16.6991N /
81-17-45.2569W

2.19.6 Site Elevation: 84.9 ft

2.19.1 ILS Type: Localizer for runway 17R. Magnetic variation: 6W

2.19.2 ILS Identification: DIZ

2.19.5 Coordinates: 28-24-18.7729N /
81-17-44.0255W

2.19.6 Site Elevation: 81.6 ft

2.19.1 ILS Type: DME for runway 35L. Magnetic variation: 6W

2.19.2 ILS Identification: DDO

2.19.5 Coordinates: 28-26-18.3948N /
81-17-48.1528W

2.19.6 Site Elevation: 95.5 ft

2.19.1 ILS Type: Glide Slope for runway 35L. Magnetic variation: 6W

2.19.2 ILS Identification: DDO

2.19.5 Coordinates: 28-24-39.5307N /
81-17-39.7618W

2.19.6 Site Elevation: 83.7 ft

2.19.1 ILS Type: Inner Marker for runway 35L. Magnetic variation: 6W

2.19.2 ILS Identification: DDO

2.19.5 Coordinates: 28-24-20.5349N /
81-17-44.0395W

2.19.6 Site Elevation: 82.1 ft

2.19.1 ILS Type: Localizer for runway 35L. Magnetic variation: 6W

2.19.2 ILS Identification: DDO

2.19.5 Coordinates: 28-26-18.5959N /
81-17-45.2712W

2.19.6 Site Elevation: 87.7 ft

2.19.1 ILS Type: Middle Marker for runway 35L. Magnetic variation: 6W

2.19.2 ILS Identification: DDO

2.19.5 Coordinates: 28-24-1.5295N / 81-17-43.8604W
2.19.6 Site Elevation: 82.4 ft

2.19.1 ILS Type: DME for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: OJP

2.19.5 Coordinates: 28-27-0.7626N / 81-19-18.0064W
2.19.6 Site Elevation: 96.2 ft

2.19.1 ILS Type: Glide Slope for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: OJP

2.19.5 Coordinates: 28-25-5.5139N / 81-19-23.6289W
2.19.6 Site Elevation: 87.7 ft

2.19.1 ILS Type: Inner Marker for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: OJP

2.19.5 Coordinates: 28-24-46.6452N /
81-19-18.9395W

2.19.6 Site Elevation: 86.6 ft

2.19.1 ILS Type: Localizer for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: OJP

2.19.5 Coordinates: 28-27-1.4488N / 81-19-20.3839W
2.19.6 Site Elevation: 90.8 ft

2.19.1 ILS Type: Middle Marker for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: OJP

2.19.5 Coordinates: 28-24-31.8917N /
81-19-18.7794W

2.19.6 Site Elevation: 84.5 ft

2.19.1 ILS Type: DME for runway 18R. Magnetic variation: 6W

2.19.2 ILS Identification: TFE

2.19.5 Coordinates: 28-24-42.2043N /
81-19-38.5819W

2.19.6 Site Elevation: 94.7 ft

2.19.1 ILS Type: Glide Slope for runway 18R. Magnetic variation: 6W

2.19.2 ILS Identification: TFE

2.19.5 Coordinates: 28-26-43.5N / 81-19-32.21W
2.19.6 Site Elevation: 89 ft

2.19.1 ILS Type: Localizer for runway 18R. Magnetic variation: 6W

2.19.2 ILS Identification: TFE

2.19.5 Coordinates: 28-24-41.97N / 81-19-35.69W
2.19.6 Site Elevation: 86 ft

2.19.1 ILS Type: Middle Marker for runway 18R. Magnetic variation: 6W
2.19.2 ILS Identification: TFE

2.19.5 Coordinates: 28-27-20.0402N / 81-19-37.3925W
2.19.6 Site Elevation: 87.4 ft

General Remarks:

UNLESS ADV BY ATIS, DEP FLTS ON INITIAL CTC WITH GND CTL: ACFT ON WEST RAMP, AIRSIDE 1 & 3 (GATES 1-59) USE GND CTL 121.8. ACFT AT AIRSIDE 2 & 4 (GATES 60 AND HIGHER), USE GND CTL 126.4.

WHEN ORL ILS RY 7 AND MCO ILS RYS 17 & 18R SIMULTANEOUS OPERATIONS ARE CONDUCTED, ATC RADAR REQUIRED.

WEST RAMP CUSTOMS INSPECTION PRKG AREA RSTD TO ACFT WINGSPAN LESS THAN 118'

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

TWY A, BTN W RAMP S END AND TWY B10, RSTRD TO ACFT WINGSPAN LESS THAN 171 FT. PPR FOR ACFT WINGSPAN 171 FT OR GTR.

TWY J3 AND TWY J4 RSTD TO WINGSPAN OF LESS THAN 118 FT.

RUNWAY STATUS LIGHTS ARE IN OPERATION.

BRIGHT LGTS ON ROAD BTN RY 17R/35L AND RY 17L/35R MAY BE MISTAKEN FOR RY LGTS.

AVOID CONTACT WITH TAXIWAY EDGE LIGHTS; ALL AIRCRAFT DETERMINED TO BE FAA DESIGN GROUP IV AND ABOVE MUST PERFORM JUDGEMENTAL OVERSTEERING INSTEAD OF COCKPIT CENTERLINE STEERING WHEN TAXIING.

USE CAUTION IN VCNTY OF TWY "A" ALONG WEST RAMP.

TWY A, SOUTH OF TWY A3 RSTD TO WINGSPAN OF LESS THAN 118 FT. PPR REQUIRED FOR WINGSPAN 118 FT OR GREATER.

RY 17L-35R UNLIT 0400-1100Z.

BIRDS & DEER ON & INVOF ARPT.

ACFT WITH WINGSPAN GREATER THAN 214 FT MUST ADHERE TO SPECIFIC RY AND TAXI ROUTES. CONTACT AIRFIELD OPS AT 407-825-2036 FOR DETAILS.

AIRPORT DIAGRAM

AL-416 (FAA)

TAMPA INTL (TPA)
TAMPA, FLORIDA

D-ATIS
ARR 126.45
DEP 128.475
TAMPA TOWER
119.5 269.4
GND CON
121.7 269.4
CLNC DEL
133.6
CPDLC
PDC
D

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W

The diagram shows the following features:

- Runways:** RWY 01L-19R (PCN 85 R/B/W/T, S-60, D-210, 2D-358, 2D/2D2-850), RWY 01R-19L (PCN 76 R/B/W/T, S-60, D-210, 2D-358, 2D/2D2-850), RWY 10-28 (PCN 61 F/A/W/T, S-75, D-200, 2D-280, 2D/2D2-380).
- Taxiways:** LAHSO, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- Parking Areas:** AIRSIDE A SORT REMOTE AIRCRAFT PARKING, REMOTE AIRCRAFT PARKING, AIRSIDE B, AIRSIDE C, AIRSIDE D, AIRSIDE E, AIRSIDE F, AIRSIDE G, AIRSIDE H, AIRSIDE I, AIRSIDE J, AIRSIDE K, AIRSIDE L, AIRSIDE M, AIRSIDE N, AIRSIDE O, AIRSIDE P, AIRSIDE Q, AIRSIDE R, AIRSIDE S, AIRSIDE T, AIRSIDE U, AIRSIDE V, AIRSIDE W, AIRSIDE X, AIRSIDE Y, AIRSIDE Z.
- Buildings/Facilities:** TWR 233, FUEL FARM, NORTH HANGAR, MRO HANGAR, MAINTENANCE RUNUP AREA, SOUTH HANGAR, HANGARS, FIELD ELEV 26, GENERAL AVIATION PARKING, HANGAR, U.S. CUSTOMS, U.S. POST OFFICE, FIRE STATION, U.S. AIR FORCE, U.S. NAVY, U.S. MARINE CORPS, U.S. COAST GUARD, U.S. ARMY, U.S. AIR FORCE, U.S. NAVY, U.S. MARINE CORPS, U.S. COAST GUARD, U.S. ARMY.
- Elevations:** ELEV 21, ELEV 26, ELEV 15, ELEV 18, ELEV 11, ELEV 26.
- Angles:** 187.4°, 007.4°, 097.4°, 277.4°, 27°59'N, 27°58'N, 82°32'W, 82°31'W.

**CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.**

A₂₄₂

TAMPA, FLORIDA
TAMPA INTL (TPA)

Tampa, FL
Tampa Intl
ICAO Identifier KTPA

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 27-58-31.7N / 82-31-59.7W
 2.2.2 From City: 6 miles W of TAMPA, FL
 2.2.3 Elevation: 26.4 ft
 2.2.5 Magnetic Variation: 5W (2010)
 2.2.6 Airport Contact: JOHN TILIACOS
 PO BOX 22287
 TAMPA, FL 33622
 (813-870-8700)
 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
 2.4.2 Fuel Types: A,100LL
 2.4.5 Hangar Space: YES
 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
 I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 19R
 2.12.2 True Bearing: 182
 2.12.3 Dimensions: 11002 ft x 150 ft
 2.12.4 PCN: 85 R/B/W/T
 2.12.5 Coordinates: 27-59-36.7423N /
 82-32-28.7801W
 2.12.6 Threshold Elevation: 21 ft
 2.12.6 Touchdown Zone Elevation: 21 ft

2.12.1 Designation: 01L
 2.12.2 True Bearing: 2
 2.12.3 Dimensions: 11002 ft x 150 ft
 2.12.4 PCN: 85 R/B/W/T
 2.12.5 Coordinates: 27-57-47.8596N /
 82-32-32.4793W
 2.12.6 Threshold Elevation: 10.7 ft
 2.12.6 Touchdown Zone Elevation: 10.8 ft

2.12.1 Designation: 01R
 2.12.2 True Bearing: 2
 2.12.3 Dimensions: 8300 ft x 150 ft

2.12.4 PCN: 76 R/B/W/T
 2.12.5 Coordinates: 27-57-51.5169N /
 82-31-44.3687W
 2.12.6 Threshold Elevation: 17.7 ft
 2.12.6 Touchdown Zone Elevation: 20.5 ft

2.12.1 Designation: 19L
 2.12.2 True Bearing: 182
 2.12.3 Dimensions: 8300 ft x 150 ft
 2.12.4 PCN: 76 R/B/W/T
 2.12.5 Coordinates: 27-59-13.6607N /
 82-31-41.5739W
 2.12.6 Threshold Elevation: 26 ft
 2.12.6 Touchdown Zone Elevation: 26.1 ft

2.12.1 Designation: 28
 2.12.2 True Bearing: 272
 2.12.3 Dimensions: 6999 ft x 150 ft
 2.12.4 PCN: 61 F/A/W/T
 2.12.5 Coordinates: 27-58-12.8902N /
 82-30-51.8781W
 2.12.6 Threshold Elevation: 26.4 ft
 2.12.6 Touchdown Zone Elevation: 26.4 ft

2.12.1 Designation: 10
 2.12.2 True Bearing: 92
 2.12.3 Dimensions: 6999 ft x 150 ft
 2.12.4 PCN: 61 F/A/W/T
 2.12.5 Coordinates: 27-58-14.9917N / 82-32-9.9027W
 2.12.6 Threshold Elevation: 14.5 ft
 2.12.6 Touchdown Zone Elevation: 21.8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 19R
 2.13.2 Take-off Run Available: 11002
 2.13.3 Take-off Distance Available: 11002
 2.13.4 Accelerate-Stop Distance Available: 11002
 2.13.5 Landing Distance Available: 11002

2.13.1 Designation: 01L
 2.13.2 Take-off Run Available: 11002
 2.13.3 Take-off Distance Available: 11002
 2.13.4 Accelerate-Stop Distance Available: 10800
 2.13.5 Landing Distance Available: 10800

2.13.1 Designation: 01R
 2.13.2 Take-off Run Available: 8300
 2.13.3 Take-off Distance Available: 8300
 2.13.4 Accelerate-Stop Distance Available: 8300
 2.13.5 Landing Distance Available: 8300

2.13.1 Designation: 19L
2.13.2 Take-off Run Available: 8300
2.13.3 Take-off Distance Available: 8300
2.13.4 Accelerate-Stop Distance Available: 8300
2.13.5 Landing Distance Available: 8300

2.13.1 Designation: 28
2.13.2 Take-off Run Available: 6999
2.13.3 Take-off Distance Available: 6999
2.13.4 Accelerate-Stop Distance Available: 6501
2.13.5 Landing Distance Available: 6501

2.13.1 Designation: 10
2.13.2 Take-off Run Available: 6999
2.13.3 Take-off Distance Available: 6999
2.13.4 Accelerate-Stop Distance Available: 6999
2.13.5 Landing Distance Available: 6501

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 19R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 01L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 01R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 19L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P (001–150)
2.18.3 Channel: 118.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (220–360)
2.18.3 Channel: 118.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (151–219)
2.18.3 Channel: 119.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (220–360)
2.18.3 Channel: 269.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (001–150)
2.18.3 Channel: 285.625
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (151–219)
2.18.3 Channel: 353.575
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 118.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 307.175
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S
2.18.3 Channel: 353.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BAYPO DP
2.18.3 Channel: 118.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BAYPO DP
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLOND STAR
2.18.3 Channel: 118.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLOND STAR
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BRDGE STAR
2.18.3 Channel: 119.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BRDGE STAR

2.18.3 Channel: 353.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 133.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (151–219)

2.18.3 Channel: 119.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (001–150)

2.18.3 Channel: 119.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (220–360)

2.18.3 Channel: 125.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (001–150)

2.18.3 Channel: 290.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (220–360)

2.18.3 Channel: 316.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (151–219)

2.18.3 Channel: 353.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CROWD DP

2.18.3 Channel: 135.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CROWD DP

2.18.3 Channel: 279.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (ARR)

2.18.3 Channel: 126.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (DEP)

2.18.3 Channel: 128.475

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DADES STAR

2.18.3 Channel: 135.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DADES STAR

2.18.3 Channel: 279.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DARBS STAR

2.18.3 Channel: 118.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DARBS STAR

2.18.3 Channel: 239.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEAKK STAR

2.18.3 Channel: 119.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEAKK STAR

2.18.3 Channel: 353.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: ENDED DP

2.18.3 Channel: 118.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ENDED DP

2.18.3 Channel: 239.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOOXX STAR

2.18.3 Channel: 118.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FOOXX STAR

2.18.3 Channel: 239.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GANDY DP

2.18.3 Channel: 119.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GANDY DP
2.18.3 Channel: 353.575
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 269.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S
2.18.3 Channel: 121.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 119.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 269.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/S
2.18.3 Channel: 119.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LGTNG DP
2.18.3 Channel: 118.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LGTNG DP
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LZARD STAR
2.18.3 Channel: 135.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LZARD STAR
2.18.3 Channel: 279.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MAATY STAR
2.18.3 Channel: 118.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MAATY STAR
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAYZZ STAR
2.18.3 Channel: 118.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAYZZ STAR
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SYKES DP
2.18.3 Channel: 118.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SYKES DP
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TAMPA DP
2.18.3 Channel: 135.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TAMPA DP
2.18.3 Channel: 279.6
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 01L. Magnetic variation: 5W

2.19.2 ILS Identification: AMP

2.19.5 Coordinates: 27-59-43.4N / 82-32-25.65W

2.19.6 Site Elevation: 20 ft

2.19.1 ILS Type: Glide Slope for runway 01L. Magnetic variation: 5W

2.19.2 ILS Identification: AMP

2.19.5 Coordinates: 27-57-58.2392N /
82-32-36.5897W

2.19.6 Site Elevation: 7.6 ft

2.19.1 ILS Type: Inner Marker for runway 01L. Magnetic variation: 5W

2.19.2 ILS Identification: AMP

2.19.5 Coordinates: 27-57-39.6244N /
82-32-32.7564W

2.19.6 Site Elevation: 6.4 ft

2.19.1 ILS Type: Localizer for runway 01L. Magnetic variation: 5W

2.19.2 ILS Identification: AMP

2.19.5 Coordinates: 27-59-44.7869N /

82-32-28.5048W

2.19.6 Site Elevation: 20.6 ft

2.19.1 ILS Type: DME for runway 19R. Magnetic variation: 5W

2.19.2 ILS Identification: JRT

2.19.5 Coordinates: 27-57-37.34N / 82-32-31.94W

2.19.6 Site Elevation: 5 ft

2.19.1 ILS Type: Glide Slope for runway 19R. Magnetic variation: 5W

2.19.2 ILS Identification: JRT

2.19.5 Coordinates: 27-59-26.4582N /

82-32-33.5927W

2.19.6 Site Elevation: 17.2 ft

2.19.1 ILS Type: Localizer for runway 19R. Magnetic variation: 5W

2.19.2 ILS Identification: JRT

2.19.5 Coordinates: 27-57-37.46N / 82-32-32.84W

2.19.6 Site Elevation: 5 ft

2.19.1 ILS Type: DME for runway 01R. Magnetic variation: 5W

2.19.2 ILS Identification: TWJ

2.19.5 Coordinates: 27-59-22.9831N /

82-31-38.4291W

2.19.6 Site Elevation: 35.9 ft

2.19.1 ILS Type: Localizer for runway 01R. Magnetic

variation: 5W

2.19.2 ILS Identification: TWJ

2.19.5 Coordinates: 27-59-23.9328N /

82-31-41.2197W

2.19.6 Site Elevation: 25.6 ft

2.19.1 ILS Type: Glide Slope for runway 19L. Magnetic variation: 5W

2.19.2 ILS Identification: TPA

2.19.5 Coordinates: 27-59-3.1644N / 82-31-37.4636W

2.19.6 Site Elevation: 23.8 ft

2.19.1 ILS Type: Inner Marker for runway 19L. Magnetic variation: 5W

2.19.2 ILS Identification: TPA

2.19.5 Coordinates: 27-59-23.6601N /

82-31-41.2251W

2.19.6 Site Elevation: 25.7 ft

2.19.1 ILS Type: Localizer for runway 19L. Magnetic variation: 5W

2.19.2 ILS Identification: TPA

2.19.5 Coordinates: 27-57-40.972N / 82-31-44.7284W

2.19.6 Site Elevation: 13.7 ft

2.19.1 ILS Type: Outer Marker for runway 19L. Magnetic variation: 5W

2.19.2 ILS Identification: TPA

2.19.5 Coordinates: 28-5-7.2047N / 82-31-30.8942W

2.19.6 Site Elevation: 42.5 ft

General Remarks:

RWY 19L IS NOISE SENSITIVE TO TBJT DEPARTURES. RWY 01R IS NOISE SENSITIVE TO TBJT ARRIVALS. PUBLD NOISE ABATEMENT PROCS IN EFCT.

RSTRS TO DESIGN GROUP V OR LGR; TWY N WEST OF TWY L & TWY E NORTH OF TWY J UNAVBL; TAXILANE Z CLSD TO WINGSPAN GTR THAN 171 FT - PPR ARPT OPS.

BIRD ACT ON AND INVOF ARPT.

TWY F AND TWY R ARE NON-MOVEMENT AREAS. BOTH LOCATONS ARE UNAVBL FOR GROUP IV ACFT WITH A WINGSPAN GTR THAN 117 FT WO PPR FM ARPT OPS. TWY T PPR FROM ARPT OPS RQRD FOR ACFT WITH A WINGSPAN GTR THAN 90 FT.

ONLY ACFT WITH PRIOR PMSN MAY USE TRML APN; ALL OTRS USE GA APN.

[illegible]

West Palm Beach, FL
Palm Beach Intl
ICAO Identifier KPBI

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 26-40-59.382N / 80-5-44.131W
2.2.2 From City: 3 miles W of WEST PALM BEACH, FL
2.2.3 Elevation: 19.6 ft
2.2.5 Magnetic Variation: 6W (2010)
2.2.6 Airport Contact: LAURA BEEBE
846 PALM BEACH INTL
AIRPORT
WEST PALM BEACH, FL 33406
(561-471-7420)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/21/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 10L
2.12.2 True Bearing: 93
2.12.3 Dimensions: 10001 ft x 150 ft
2.12.4 PCN: 93 F/B/W/T
2.12.5 Coordinates: 26-40-59.5493N / 80-6-30.1296W
2.12.6 Threshold Elevation: 19.6 ft
2.12.6 Touchdown Zone Elevation: 16.3 ft

2.12.1 Designation: 28R
2.12.2 True Bearing: 273
2.12.3 Dimensions: 10001 ft x 150 ft
2.12.4 PCN: 93 F/B/W/T
2.12.5 Coordinates: 26-40-54.7438N / 80-4-40.0137W
2.12.6 Threshold Elevation: 16.4 ft
2.12.6 Touchdown Zone Elevation: 18.3 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 273
2.12.3 Dimensions: 3214 ft x 75 ft

2.12.4 PCN: 44 F/A/X/T
2.12.5 Coordinates: 26-40-50.7327N / 80-5-47.2501W
2.12.6 Threshold Elevation: 13.6 ft
2.12.6 Touchdown Zone Elevation: 16.9 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 93
2.12.3 Dimensions: 3214 ft x 75 ft
2.12.4 PCN: 44 F/A/X/T
2.12.5 Coordinates: 26-40-52.282N / 80-6-22.6416W
2.12.6 Threshold Elevation: 17.1 ft
2.12.6 Touchdown Zone Elevation: 17.2 ft

2.12.1 Designation: 32
2.12.2 True Bearing: 315
2.12.3 Dimensions: 6931 ft x 150 ft
2.12.4 PCN: 67 F/A/W/T
2.12.5 Coordinates: 26-40-41.913N / 80-5-20.622W
2.12.6 Threshold Elevation: 15.8 ft
2.12.6 Touchdown Zone Elevation: 15.9 ft

2.12.1 Designation: 14
2.12.2 True Bearing: 135
2.12.3 Dimensions: 6931 ft x 150 ft
2.12.4 PCN: 67 F/A/W/T
2.12.5 Coordinates: 26-41-30.596N / 80-6-14.482W
2.12.6 Threshold Elevation: 17 ft
2.12.6 Touchdown Zone Elevation: 17.3 ft

AD 2.13 Declared Distances

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 10001
2.13.3 Take-off Distance Available: 10001
2.13.4 Accelerate-Stop Distance Available: 10001
2.13.5 Landing Distance Available: 8800

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 10001
2.13.3 Take-off Distance Available: 10001
2.13.4 Accelerate-Stop Distance Available: 10001
2.13.5 Landing Distance Available: 9189

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 3214
2.13.3 Take-off Distance Available: 3214
2.13.4 Accelerate-Stop Distance Available: 3214
2.13.5 Landing Distance Available: 3214

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 3214

2.13.3 Take-off Distance Available: 3214
2.13.4 Accelerate-Stop Distance Available: 3214
2.13.5 Landing Distance Available: 3214

2.13.1 Designation: 32
2.13.2 Take-off Run Available: 6926
2.13.3 Take-off Distance Available: 6926
2.13.4 Accelerate-Stop Distance Available: 6926
2.13.5 Landing Distance Available: 6513

2.13.1 Designation: 14
2.13.2 Take-off Run Available: 6926
2.13.3 Take-off Distance Available: 6926
2.13.4 Accelerate-Stop Distance Available: 6000
2.13.5 Landing Distance Available: 6000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 10L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 28R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 10R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 32
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 14
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P (SOUTH)
2.18.3 Channel: 125.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (SOUTH)
2.18.3 Channel: 343.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 128.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 317.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BUFIT DP (SOUTH)
2.18.3 Channel: 125.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BUFIT DP (NORTH)
2.18.3 Channel: 128.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BUFIT DP (NORTH)
2.18.3 Channel: 317.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BUFIT DP (SOUTH)
2.18.3 Channel: 343.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 121.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 284.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (SOUTH)
2.18.3 Channel: 125.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (NORTH)
2.18.3 Channel: 128.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (NORTH)
2.18.3 Channel: 317.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (SOUTH)
2.18.3 Channel: 343.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 123.75 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: LMORE DP (NORTH) 2.18.3 Channel: 317.4 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: EMERG 2.18.3 Channel: 121.5 2.18.5 Hours of Operation:	2.18.1 Service Designation: LMORE DP (SOUTH) 2.18.3 Channel: 343.6 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: EMERG 2.18.3 Channel: 243 2.18.5 Hours of Operation:	2.18.1 Service Designation: MAHHI STAR 2.18.3 Channel: 125.2 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: FRWAY STAR 2.18.3 Channel: 128.3 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: MAHHI STAR 2.18.3 Channel: 343.6 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: FRWAY STAR 2.18.3 Channel: 317.4 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: MELBOURNE STAR 2.18.3 Channel: 124.6 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: GND/P 2.18.3 Channel: 121.9 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: MELBOURNE STAR 2.18.3 Channel: 317.4 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: GND/P 2.18.3 Channel: 284.6 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: MIXAE DP (SOUTH) 2.18.3 Channel: 125.2 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/P 2.18.3 Channel: 119.1 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: MIXAE DP (NORTH) 2.18.3 Channel: 128.3 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/P 2.18.3 Channel: 257.8 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: MIXAE DP (NORTH) 2.18.3 Channel: 317.4 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/S 2.18.3 Channel: 118.75 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: MIXAE DP (SOUTH) 2.18.3 Channel: 343.6 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LCL/S 2.18.3 Channel: 384.6 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: PALM BEACH DP (SOUTH) 2.18.3 Channel: 125.2 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LMORE DP (SOUTH) 2.18.3 Channel: 125.2 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: PALM BEACH DP (NORTH) 2.18.3 Channel: 128.3 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: LMORE DP (NORTH) 2.18.3 Channel: 128.3 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: PALM BEACH DP

(NORTH)

2.18.3 Channel: 317.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PALM BEACH DP

(SOUTH)

2.18.3 Channel: 343.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RASAE STAR

2.18.3 Channel: 124.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RASAE STAR

2.18.3 Channel: 317.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SLIDZ DP (SOUTH)

2.18.3 Channel: 125.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SLIDZ DP (NORTH)

2.18.3 Channel: 128.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SLIDZ DP (NORTH)

2.18.3 Channel: 317.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SLIDZ DP (SOUTH)

2.18.3 Channel: 343.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TBIRD DP (SOUTH)

2.18.3 Channel: 125.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TBIRD DP (NORTH)

2.18.3 Channel: 128.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TBIRD DP (NORTH)

2.18.3 Channel: 317.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TBIRD DP (SOUTH)

2.18.3 Channel: 343.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TUXXI STAR

2.18.3 Channel: 128.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TUXXI STAR

2.18.3 Channel: 317.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WLACE STAR

2.18.3 Channel: 128.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WLACE STAR

2.18.3 Channel: 317.4

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 10L. Magnetic variation: 6W

2.19.2 ILS Identification: PBI

2.19.5 Coordinates: 26-40-51.4319N / 80-4-29.0092W

2.19.6 Site Elevation: 23.3 ft

2.19.1 ILS Type: Glide Slope for runway 10L. Magnetic variation: 6W

2.19.2 ILS Identification: PBI

2.19.5 Coordinates: 26-40-55.9795N / 80-6-6.0748W

2.19.6 Site Elevation: 14.5 ft

2.19.1 ILS Type: Localizer for runway 10L. Magnetic variation: 6W

2.19.2 ILS Identification: PBI

2.19.5 Coordinates: 26-40-54.2434N / 80-4-28.6079W

2.19.6 Site Elevation: 13 ft

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic variation: 6W

2.19.2 ILS Identification: PWB

2.19.5 Coordinates: 26-40-53.0853N / 80-5-1.7298W

2.19.6 Site Elevation: 13.5 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic variation: 6W

2.19.2 ILS Identification: PWB

2.19.5 Coordinates: 26-40-59.9773N / 80-6-39.9822W

2.19.6 Site Elevation: 18.5 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 3W

2.19.2 Navigation Aid Identification: PBI

2.19.5 Coordinates: 26-40-48.198N / 80-5-11.3586W

2.19.6 Site Elevation: 15.7 ft

General Remarks:

BE ALERT: TWY L IS LCTD BTWN RYS 10L/28R & 10R/28L. TWY L IS WIDER AND LONGER THAN RY 10R/28L – DO NOT CONFUSE TWY L FOR RY. AIRCRAFT WITH WINGSPAN OF 118 FT OR GREATER IS PROHIBITED ON TWY L.

24 HR PPR FOR ACFT WITH WINGSPANS GTR THAN 171 FT.

RWY 10R/28L NOT AVBL FOR SKED ACR OPS WITH MORE THAN 9 PAX SEATS OR UNSKED ACR AT LEAST 31 PAX SEATS.

NO ACFT WILL CROSS HOLD LINE WITHOUT AUTHORIZATION.

NOISE ABATEMENT PROCEDURES IN EFFECT. MULTIENGINE FLIGHT TRAINING PROHIBITED SS TO SR SUN AND HOLIDAY; STRICT ENVIRONMENTAL OPERATING STAGE 2 ACFT 0300-1200Z CALL NOISE ABATEMENT OFFICER 561-471-7467.

BE ALERT; RYS 28L & 28R THLDS STAGGERED BY 5400 FT.

MIGRATORY BIRDS ON AND INVOF ARPT.

20366 AIRPORT DIAGRAM

HARTSFIELD - JACKSON ATLANTA INTL (ATL)

AL-26 (FAA) ATLANTA, GEORGIA



Atlanta, GA
Hartsfield – Jackson Atlanta Intl
ICAO Identifier KATL

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 33–38–12.1186N /
84–25–40.3104W
2.2.2 From City: 7 miles S of ATLANTA, GA
2.2.3 Elevation: 1026.2 ft
2.2.5 Magnetic Variation: 5W (2015)
2.2.6 Airport Contact: JOHN SELDEN
PO BOX 20509
ATLANTA, GA 30320
(404–530–6600)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 26R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 105 R/B/W/T
2.12.5 Coordinates: 33–38–58.3515N /
84–24–34.0341W
2.12.6 Threshold Elevation: 990 ft
2.12.6 Touchdown Zone Elevation: 990 ft

2.12.1 Designation: 08L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 105 R/B/W/T
2.12.5 Coordinates: 33–38–58.3238N /

84–26–20.4923W
2.12.6 Threshold Elevation: 1014.6 ft
2.12.6 Touchdown Zone Elevation: 1014.6 ft

2.12.1 Designation: 08R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 9999 ft x 150 ft
2.12.4 PCN: 74 R/A/W/T
2.12.5 Coordinates: 33–38–48.432N / 84–26–18.1035W
2.12.6 Threshold Elevation: 1023.7 ft
2.12.6 Touchdown Zone Elevation: 1023.8 ft

2.12.1 Designation: 26L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 9999 ft x 150 ft
2.12.4 PCN: 74 R/A/W/T
2.12.5 Coordinates: 33–38–48.4612N /
84–24–19.8313W
2.12.6 Threshold Elevation: 995.4 ft
2.12.6 Touchdown Zone Elevation: 995.5 ft

2.12.1 Designation: 27R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 12390 ft x 150 ft
2.12.4 PCN: 62 R/A/W/T
2.12.5 Coordinates: 33–38–4.929N / 84–24–26.158W
2.12.6 Threshold Elevation: 977.2 ft
2.12.6 Touchdown Zone Elevation: 984.6 ft

2.12.1 Designation: 09L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 12390 ft x 150 ft
2.12.4 PCN: 62 R/A/W/T
2.12.5 Coordinates: 33–38–4.936N / 84–26–52.6807W
2.12.6 Threshold Elevation: 1018.7 ft
2.12.6 Touchdown Zone Elevation: 1018.7 ft

2.12.1 Designation: 27L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 68 R/A/W/T
2.12.5 Coordinates: 33–37–54.5649N / 84–25–6.243W
2.12.6 Threshold Elevation: 984.7 ft
2.12.6 Touchdown Zone Elevation: 998.9 ft

2.12.1 Designation: 09R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 68 R/A/W/T
2.12.5 Coordinates: 33-37-54.5282N /
84-26-52.6768W
2.12.6 Threshold Elevation: 1026.1 ft
2.12.6 Touchdown Zone Elevation: 1026.2 ft

2.12.1 Designation: 28
2.12.2 True Bearing: 270
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 74 R/A/W/T
2.12.5 Coordinates: 33-37-13.0275N / 84-25-5.9358W
2.12.6 Threshold Elevation: 997.5 ft
2.12.6 Touchdown Zone Elevation: 997.5 ft

2.12.1 Designation: 10
2.12.2 True Bearing: 90
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 74 R/A/W/T
2.12.5 Coordinates: 33-37-12.9808N /
84-26-52.3574W
2.12.6 Threshold Elevation: 1000.3 ft
2.12.6 Touchdown Zone Elevation: 1000.3 ft

AD 2.13 Declared Distances

2.13.1 Designation: 26R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 8500
2.13.5 Landing Distance Available: 8500

2.13.1 Designation: 08L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 8800
2.13.5 Landing Distance Available: 8800

2.13.1 Designation: 08R
2.13.2 Take-off Run Available: 9999
2.13.3 Take-off Distance Available: 10999

2.13.4 Accelerate-Stop Distance Available: 9999
2.13.5 Landing Distance Available: 9999

2.13.1 Designation: 26L
2.13.2 Take-off Run Available: 9999
2.13.3 Take-off Distance Available: 9999
2.13.4 Accelerate-Stop Distance Available: 9999
2.13.5 Landing Distance Available: 9999

2.13.1 Designation: 27R
2.13.2 Take-off Run Available: 12390
2.13.3 Take-off Distance Available: 12390
2.13.4 Accelerate-Stop Distance Available: 12190
2.13.5 Landing Distance Available: 11690

2.13.1 Designation: 09L
2.13.2 Take-off Run Available: 12390
2.13.3 Take-off Distance Available: 12390
2.13.4 Accelerate-Stop Distance Available: 11730
2.13.5 Landing Distance Available: 11730

2.13.1 Designation: 27L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 8865
2.13.5 Landing Distance Available: 8865

2.13.1 Designation: 09R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 28
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 10
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 26R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 27R
2.14.2 Approach Lighting System: MALS
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 09L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 27L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 09R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 10
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 118.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 119.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)
2.18.3 Channel: 125.55
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (RWY 10/28)
2.18.3 Channel: 121.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 09L/27R,
09R/27L)
2.18.3 Channel: 121.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 08L/26R,
08R/26L)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 254.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08L/26R)
2.18.3 Channel: 119.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 09R/27L)
2.18.3 Channel: 119.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 10/28)
2.18.3 Channel: 119.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 09L/27R)
2.18.3 Channel: 123.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08R/26L)
2.18.3 Channel: 125.325
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 254.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 08L/26R,
08R/26L)
2.18.3 Channel: 126.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 09L/27R,
09R/27L)
2.18.3 Channel: 132.55
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 10/28)
2.18.3 Channel: 133.425
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 08L. Magnetic varia-
tion: 5W
2.19.2 ILS Identification: HFW
2.19.5 Coordinates: 33-39-1.782N / 84-24-24.7032W
2.19.6 Site Elevation: 977.2 ft

2.19.1 ILS Type: Glide Slope for runway 08L. Magnetic
variation: 5W

2.19.2 ILS Identification: HFW
2.19.5 Coordinates: 33-39-2.288N / 84-26-6.3042W
2.19.6 Site Elevation: 1001.7 ft

2.19.1 ILS Type: Inner Marker for runway 08L. Magnet-
ic variation: 5W
2.19.2 ILS Identification: HFW
2.19.5 Coordinates: 33-38-58.3145N /
84-26-30.5173W
2.19.6 Site Elevation: 1017.7 ft

2.19.1 ILS Type: Localizer for runway 08L. Magnetic
variation: 5W
2.19.2 ILS Identification: HFW
2.19.5 Coordinates: 33-38-58.3506N /
84-24-23.3901W
2.19.6 Site Elevation: 985.2 ft

2.19.1 ILS Type: DME for runway 26R. Magnetic varia-
tion: 5W
2.19.2 ILS Identification: GXZ
2.19.5 Coordinates: 33-38-53.87N / 84-26-32.61W
2.19.6 Site Elevation: 1008 ft

2.19.1 ILS Type: Glide Slope for runway 26R. Magnetic
variation: 5W
2.19.2 ILS Identification: GXZ
2.19.5 Coordinates: 33-39-2.3139N / 84-24-47.6304W
2.19.6 Site Elevation: 983.8 ft

2.19.1 ILS Type: Localizer for runway 26R. Magnetic
variation: 5W
2.19.2 ILS Identification: GXZ
2.19.5 Coordinates: 33-38-58.32N / 84-26-30.19W
2.19.6 Site Elevation: 1016 ft

2.19.1 ILS Type: DME for runway 08R. Magnetic varia-
tion: 5W
2.19.2 ILS Identification: ATL
2.19.5 Coordinates: 33-38-45.7727N / 84-24-7.5608W
2.19.6 Site Elevation: 992.1 ft

2.19.1 ILS Type: Glide Slope for runway 08R. Magnetic
variation: 5W

2.19.2 ILS Identification: ATL
2.19.5 Coordinates: 33-38-52.4042N / 84-26-3.334W
2.19.6 Site Elevation: 1005 ft

2.19.1 ILS Type: Localizer for runway 08R. Magnetic variation: 5W
2.19.2 ILS Identification: ATL
2.19.5 Coordinates: 33-38-48.4575N / 84-24-7.5394W
2.19.6 Site Elevation: 986.8 ft

2.19.1 ILS Type: DME for runway 26L. Magnetic variation: 5W
2.19.2 ILS Identification: BRU
2.19.5 Coordinates: 33-38-49.0988N / 84-26-30.1749W
2.19.6 Site Elevation: 1030.3 ft

2.19.1 ILS Type: Glide Slope for runway 26L. Magnetic variation: 5W
2.19.2 ILS Identification: BRU
2.19.5 Coordinates: 33-38-52.4111N / 84-24-32.8404W
2.19.6 Site Elevation: 993.7 ft

2.19.1 ILS Type: Localizer for runway 26L. Magnetic variation: 5W
2.19.2 ILS Identification: BRU
2.19.5 Coordinates: 33-38-48.4526N / 84-26-30.1664W
2.19.6 Site Elevation: 1021 ft

2.19.1 ILS Type: DME for runway 09L. Magnetic variation: 5W
2.19.2 ILS Identification: HZK
2.19.5 Coordinates: 33-38-7.48N / 84-24-44.38W
2.19.6 Site Elevation: 978 ft

2.19.1 ILS Type: Glide Slope for runway 09L. Magnetic variation: 5W
2.19.2 ILS Identification: HZK
2.19.5 Coordinates: 33-38-2.42N / 84-26-39.67W
2.19.6 Site Elevation: 1014.6 ft

2.19.1 ILS Type: Localizer for runway 09L. Magnetic variation: 5W

2.19.2 ILS Identification: HZK
2.19.5 Coordinates: 33-38-4.94N / 84-24-19.08W
2.19.6 Site Elevation: 949.5 ft

2.19.1 ILS Type: Outer Marker for runway 09L. Magnetic variation: 5W
2.19.2 ILS Identification: HZK
2.19.5 Coordinates: 33-37-57.073N / 84-32-3.073W
2.19.6 Site Elevation:

2.19.1 ILS Type: Glide Slope for runway 27R. Magnetic variation: 5W
2.19.2 ILS Identification: AFA
2.19.5 Coordinates: 33-38-7.45N / 84-24-44.13W
2.19.6 Site Elevation: 977.7 ft

2.19.1 ILS Type: Localizer for runway 27R. Magnetic variation: 5W
2.19.2 ILS Identification: AFA
2.19.5 Coordinates: 33-38-4.931N / 84-27-2.2719W
2.19.6 Site Elevation: 1019.5 ft

2.19.1 ILS Type: DME for runway 09R. Magnetic variation: 5W
2.19.2 ILS Identification: FUN
2.19.5 Coordinates: 33-37-56.6292N / 84-24-54.2376W
2.19.6 Site Elevation: 995.5 ft

2.19.1 ILS Type: Glide Slope for runway 09R. Magnetic variation: 5W
2.19.2 ILS Identification: FUN
2.19.5 Coordinates: 33-37-58.482N / 84-26-39.0507W
2.19.6 Site Elevation: 1019.1 ft

2.19.1 ILS Type: Inner Marker for runway 09R. Magnetic variation: 5W
2.19.2 ILS Identification: FUN
2.19.5 Coordinates: 33-37-54.5222N / 84-27-2.5364W
2.19.6 Site Elevation: 1029.2 ft

2.19.1 ILS Type: Localizer for runway 09R. Magnetic variation: 5W
2.19.2 ILS Identification: FUN

2.19.5 Coordinates: 33-37-54.5664N /
84-24-52.6064W

2.19.6 Site Elevation: 976.2 ft

2.19.1 ILS Type: DME for runway 27L. Magnetic varia-
tion: 5W

2.19.2 ILS Identification: FSQ

2.19.5 Coordinates: 33-37-53.7N / 84-27-3.53W

2.19.6 Site Elevation: 1003.8 ft

2.19.1 ILS Type: Glide Slope for runway 27L. Magnetic
variation: 5W

2.19.2 ILS Identification: FSQ

2.19.5 Coordinates: 33-37-58.5048N /

84-25-18.9643W

2.19.6 Site Elevation: 986.7 ft

2.19.1 ILS Type: Inner Marker for runway 27L. Magnet-
ic variation: 5W

2.19.2 ILS Identification: FSQ

2.19.5 Coordinates: 33-37-54.59N / 84-24-52.99W

2.19.6 Site Elevation: 983 ft

2.19.1 ILS Type: Localizer for runway 27L. Magnetic
variation: 5W

2.19.2 ILS Identification: FSQ

2.19.5 Coordinates: 33-37-54.53N / 84-27-3.03W

2.19.6 Site Elevation: 1015.7 ft

2.19.1 ILS Type: DME for runway 10. Magnetic varia-
tion: 5W

2.19.2 ILS Identification: OMO

2.19.5 Coordinates: 33-37-12.4476N /

84-24-53.9549W

2.19.6 Site Elevation: 999.7 ft

2.19.1 ILS Type: Glide Slope for runway 10. Magnetic
variation: 5W

2.19.2 ILS Identification: OMO

2.19.5 Coordinates: 33-37-8.9408N / 84-26-38.7669W

2.19.6 Site Elevation: 985.4 ft

2.19.1 ILS Type: Inner Marker for runway 10. Magnetic

variation: 5W

2.19.2 ILS Identification: OMO

2.19.5 Coordinates: 33-37-12.9816N / 84-27-2.5224W

2.19.6 Site Elevation: 1001 ft

2.19.1 ILS Type: Localizer for runway 10. Magnetic
variation: 5W

2.19.2 ILS Identification: OMO

2.19.5 Coordinates: 33-37-13.0192N /

84-24-53.9594W

2.19.6 Site Elevation: 991.1 ft

2.19.1 ILS Type: DME for runway 28. Magnetic varia-
tion: 5W

2.19.2 ILS Identification: PKU

2.19.5 Coordinates: 33-37-12.4016N / 84-27-5.3143W

2.19.6 Site Elevation: 1003.5 ft

2.19.1 ILS Type: Glide Slope for runway 28. Magnetic
variation: 5W

2.19.2 ILS Identification: PKU

2.19.5 Coordinates: 33-37-17.0569N /

84-25-18.9449W

2.19.6 Site Elevation: 989.2 ft

2.19.1 ILS Type: Inner Marker for runway 28. Magnetic
variation: 5W

2.19.2 ILS Identification: PKU

2.19.5 Coordinates: 33-37-13.0151N / 84-24-55.769W

2.19.6 Site Elevation: 982.2 ft

2.19.1 ILS Type: Localizer for runway 28. Magnetic
variation: 5W

2.19.2 ILS Identification: PKU

2.19.5 Coordinates: 33-37-12.9761N / 84-27-5.3149W

2.19.6 Site Elevation: 994.5 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 5W

2.19.2 Navigation Aid Identification: ATL

2.19.5 Coordinates: 33-37-44.6758N / 84-26-6.2343W

2.19.6 Site Elevation: 1040.3 ft

General Remarks:

ALL RWYS, TOUCH AND GO OPERATIONS, LOW APPROACHES, AND PRACTICE INSTRUMENT APPROACHES NOT PERMITTED.

ACFT WITH WINGSPAN GREATER THAN 214 FT SHOULD EXPECT TO USE RWYS 09L/27R AND 9R/27L.

NO ACFT WITH WINGSPAN GEATER THAN OR EQUAL TO 225 FT MAY TAXI ON TWY M BETWEEN L14 AND L16, TWY N BETWEEN P AND SC, AND TWY N BETWEEN U AND K.

ALL ACFT WITH WINGSPANS GREATER THAN 214 FT ARE REQUIRED TO USE TAXI SPEEDS NOT GREATER THAN 15 MPH ON TWYS A, L, M, AND SJ.

WHEN ACFT WITH WINGSPANS GREATER THAN 214 FT ARE PRESENT ON THE FIELD, ALL OTHER ACFT MUST ADHERE TO THE TWY CENTERLINE ON TWYS L AND M, TWYS E AND F, AND TWYS SC AND SJ BETWEEN SG AND R DUE TO SEPARATION BETWEEN THE PARALLEL TWYS.

RUNUPS ARE PERMITTED AT VARIOUS SITES; COORD USE OF CITY FACS, MOVEMENT AREAS, ALLOWABLE NON-MOVEMENT AREAS WITH DEPT OF AVN OPNS, 404-787-6095; AND COORD THE USE OF THE AIRLINES FACS WITH THEM.

NOISE & OPNS MONITORING SYSTEM (NOMS) PROGRAM IN EFFECT; CALL THE ATLANTA DEPT OF AVIATION 770-43-NOISE OR 770-436-6473 FOR MORE INFO.

BE ALERT TO RWY CROSSING CLEARANCES. READBACK OF ALL RWY HOLDING INSTRUCTIONS IS REQUIRED.

GROUP VI ACFT (LOCKHEED GALAXY C-5; ANTONOV AN-124 & AN-125) WITH A WINGSPAN OF GREATER THAN 214 FT ARE RESTRICTED FM USING TWY F EAST OF RAMP 5 NORTH AND WEST OF TWY D.

RWY 9L DEPARTURES CAN EXPECT INTERSECTION DEPARTURE FM M2 WITH RWY REMAINING 11,440 FT (TORA/TODA) AND 10,780 (ASDA).

TWO ACFT WITH WINGSPANS GREATER THAN OR EQUAL TO 225 FT MAY NOT TAXISIMULTANEOUSLY ON ADJACENT PARALLEL TWYS L/M EXCEPT WEST OF L7 AT SPEEDS LESS THAN 15 MPH.

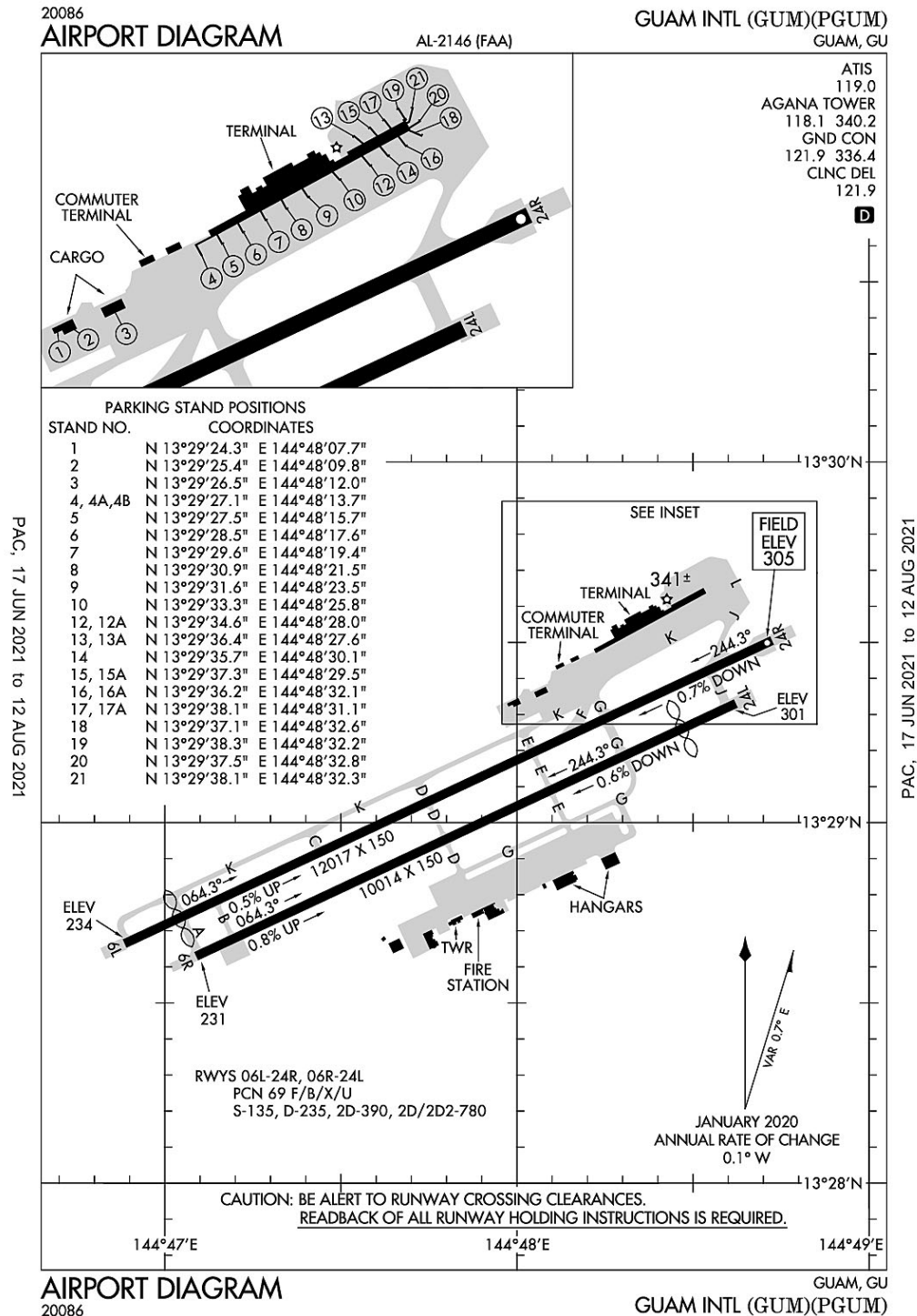
PREFERENTIAL RWY USE IN EFFECT, EXPECT TO USE RWYS 08R/26L, 09L/27R FOR DEPS; RWYS 08L/26R, 09R/27L ARE USED PRIMARILY FOR ARRIVALS.

NO ACFT WITH WINGSPAN GREATER THAN 213 FT MAY PASS ANOTHER ACFT WITH WINGSPAN GREATER THAN OR EQUAL TO 225 FT ON TWY L/M EAST OF L7.

ACFT WITH WINGSPAN GREATER THAN 171 FT ARE RSTRD FROM USING TWY V. ACFT WITH WINGSPAN GREATER THAN 171 FT ARE REQUIRED TO USE TAXI SPEEDS LESS THAN 15 MPH WHEN PASSING ACFT WITH WINGSPAN GREATER THAN 214FT ON TXWY L/M (EAST OF L7).

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

Agana, Guam
Guam International
ICAO Identifier PGUM



Agana, GU
Guam Intl
ICAO Identifier PGUM

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 13-29-2.2224N /
144-47-49.6576E
2.2.2 From City: 3 miles NE of GUAM, GU
2.2.3 Elevation: 304.5 ft
2.2.5 Magnetic Variation: 2E (2000)
2.2.6 Airport Contact: TOM ADA
P.O. BOX 8770
TAMUNING, GU 96931
(671-646-0300)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A1,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 4/1/1995

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 06L
2.12.2 True Bearing: 65
2.12.3 Dimensions: 12017 ft x 150 ft
2.12.4 PCN: 69 F/B/X/U
2.12.5 Coordinates: 13-28-39.8522N /
144-46-53.1231E
2.12.6 Threshold Elevation: 233.6 ft
2.12.6 Touchdown Zone Elevation: 256.3 ft

2.12.1 Designation: 24R
2.12.2 True Bearing: 245
2.12.3 Dimensions: 12017 ft x 150 ft
2.12.4 PCN: 69 F/B/X/U
2.12.5 Coordinates: 13-29-30.3057N /
144-48-43.4525E
2.12.6 Threshold Elevation: 304.5 ft
2.12.6 Touchdown Zone Elevation: 304.5 ft

2.12.1 Designation: 06R
2.12.2 True Bearing: 65

2.12.3 Dimensions: 10014 ft x 150 ft
2.12.4 PCN: 69 F/B/X/U
2.12.5 Coordinates: 13-28-37.7713N / 144-47-5.3307E
2.12.6 Threshold Elevation: 231.1 ft
2.12.6 Touchdown Zone Elevation: 258 ft

2.12.1 Designation: 24L
2.12.2 True Bearing: 245
2.12.3 Dimensions: 10014 ft x 150 ft
2.12.4 PCN: 69 F/B/X/U
2.12.5 Coordinates: 13-29-19.8177N /
144-48-37.2722E
2.12.6 Threshold Elevation: 300.7 ft
2.12.6 Touchdown Zone Elevation: 293.1 ft

AD 2.13 Declared Distances

2.13.1 Designation: 06L
2.13.2 Take-off Run Available: 12015
2.13.3 Take-off Distance Available: 12015
2.13.4 Accelerate-Stop Distance Available: 12015
2.13.5 Landing Distance Available: 11015

2.13.1 Designation: 24R
2.13.2 Take-off Run Available: 12015
2.13.3 Take-off Distance Available: 12015
2.13.4 Accelerate-Stop Distance Available: 12015
2.13.5 Landing Distance Available: 12015

2.13.1 Designation: 06R
2.13.2 Take-off Run Available: 10014
2.13.3 Take-off Distance Available: 10014
2.13.4 Accelerate-Stop Distance Available: 10014
2.13.5 Landing Distance Available: 10014

2.13.1 Designation: 24L
2.13.2 Take-off Run Available: 10014
2.13.3 Take-off Distance Available: 10014
2.13.4 Accelerate-Stop Distance Available: 10014
2.13.5 Landing Distance Available: 9014

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 06L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 06R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 24L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS
2.18.3 Channel: 119
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 336.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 340.2
2.18.5 Hours of Operation: 24

General Remarks:

<1000' OVRN S END & 450' OVRN N END RWY 6L-24R.

CLASS III ACFT ARE PROHIBITED FROM MAKING ANY TURNS ONTO OR OFF TWY GOLF (SOUTH) WHILE UTILIZING TWY ECHO.

THE FIRST 500 FT OF THE LEFT SHOULDER OF RWY 24L IS NOT VISIBLE FROM THE TWR. PILOTS ARE ADVISED TO CAUTION FOR ANY PRESENCE OF WILDLIFE IN THAT AREA.

2.18.1 Service Designation: RAMP CTL
2.18.3 Channel: 121.6
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 06L. Magnetic variation: 2E

2.19.2 ILS Identification: GUM
2.19.5 Coordinates: 13-29-38.0674N /
144-48-51.4932E
2.19.6 Site Elevation: 346.1 ft

2.19.1 ILS Type: Glide Slope for runway 06L. Magnetic variation: 2E

2.19.2 ILS Identification: GUM
2.19.5 Coordinates: 13-28-53.073N / 144-47-8.508E
2.19.6 Site Elevation: 246.1 ft

2.19.1 ILS Type: Localizer for runway 06L. Magnetic variation: 2E

2.19.2 ILS Identification: GUM
2.19.5 Coordinates: 13-29-34.7116N /
144-48-53.0934E
2.19.6 Site Elevation: 312.6 ft

2.19.1 ILS Type: DME for runway 06R. Magnetic variation: 2E

2.19.2 ILS Identification: AWD
2.19.5 Coordinates: 13-29-21.74N / 144-48-48.12E
2.19.6 Site Elevation: 315.9 ft

2.19.1 ILS Type: Glide Slope for runway 06R. Magnetic variation: 2E

2.19.2 ILS Identification: AWD
2.19.5 Coordinates: 13-28-38N / 144-47-15.4E
2.19.6 Site Elevation: 236.5 ft

2.19.1 ILS Type: Localizer for runway 06R. Magnetic variation: 2E

2.19.2 ILS Identification: AWD
2.19.5 Coordinates: 13-29-24.23N / 144-48-46.93E
2.19.6 Site Elevation: 310.6 ft

TRANSIENT ACFT PROVIDE 24 HRS ADVANCE INFORMATION TO EXEC MGR GUAM INTL ARPT AUTHORITY; 1-671-642-4455 MON-FRI 0800-1700 OR FAX 1-671-646-8823.

FOR PARKING INFORMATION ALL ACFT CTC RAMP CTL. ALL ACFT DEP TERMINAL PARKING CTC RAMP CTL FOR ENGINE START AND PUSHBACK.

ADG-VI AIRPLANES MAY DEPART ON RWY 6L AND RWY 24R WITH ACFT ON PARL TWY K AS LONG AS NO ADG-VI ACFT OCCUPIES THE PARL TWY BYD 1500 FT OF THE POINT OF TKOF ROLL.

FOR TAXG B747-8 ACFT ON TWY K FRONTING THE ACFT PRKG APN FROM GATES 5 - 16 AT THE MAIN TRML, MAX TAXG SPEED SHALL BE NO MORE THAN 15 MPH.

DRG TAXG OF THE B747-8 BTN GATES 5 - 16, ALL VEHICLES SHALL YIELD AND RMN CLEAR OF THE VEHICLE TFC PAT AND ARE RSTRD TO A MAX HGT OF 14 FT.

EFFECTIVE RY GRADIENT RY 06L 0.46% UP NE; RY 24R 0.70% DOWN SW; RY 06R 0.80 % UP NE; RY 24L 0.52% DOWN SW.

RISING TERRAIN 75 FT FM RY 24L THLD 140 FT EAST OF CNTRLN EXTENDED +8 FT.

DEP VFR ACFT MAINT RY HDG TIL PAST DEP END OF RY AND REACHING 1000 FT AGL; RGT PAT 24L/R DO NOT EXCEED 1500 FT AGL IN TFC PAT.

FOR ALL ARRS, THE B747-8 AIRLINE WILL TOW THE ACFT INTO GATES 4 OR 18 FROM TWY K AND AIRLINE TO PRVD WING-WALKERS AS THE ACFT IS BEING TOWED INTO GATES 4 OR 18.

LGTD TWR 780 FT 1.3 NM ENE OF RY 24L THLD .

FOR THE B747-8, DRG RWY 24L & 24R OPS AND DUE TO JET BLAST EFCTS AT GATES 14, 16 & 18, THE B747-8 WILL BE TOWED FROM GATE 4 ON TWY K TO TWY J WITH THE ACFT PSND ON TWY J FACING TWD RWY 24R.

AIRPORT DIAGRAM

AFD-2147 [USAF]

GUAM I., MARIANA ISLANDS

ANDERSEN AFB (PGUA)

ATIS 118.175 254.325
ANDERSEN TOWER
126.2 233.7
GND CON
121.7 275.8

FIELD ELEV 618

VAR 1.1°E

MAY 2013
ANNUAL RATE OF CHANGE 0.0°

ENGINE RUN-UP PADS

360 x 1000
TANKS

ELEV 557
ELEV 540
ELEV 515
ELEV 515 NORTH RAMP

BAK-12

SOUTH RAMP

FIRE STATION

AIRFIELD MANAGEMENT OPERATIONS

CONTROL TOWER

RWY 6L-24R
PCN 88 R/B/W/T
RWY 6R-24L
PCN 99 R/A/W/T

HOT CARGO

144°55'E

144°56'E

13°34'N

13°35'N

GUAM I., MARIANA ISLANDS
ANDERSEN AFB (PGUA)

Andersen, Mariana Island, GU
Andersen AFB
ICAO Identifier PGUA

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 13-35-1.99N / 144-55-48.2E
2.2.2 From City: 0 miles N of YIGO, GU
2.2.3 Elevation: 617.4 ft
2.2.5 Magnetic Variation: 2E (1980)
2.2.6 Airport Contact: MAJOR BILLY G TOWLES
3 AD
ANDERSEN AFB, GUAM,
69912 ()
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types:
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: None

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 06L
2.12.2 True Bearing:
2.12.3 Dimensions: 10528 ft x 200 ft
2.12.4 PCN: 98 R/A/W/T
2.12.5 Coordinates: 13-34-49.281N / 144-54-56.32E
2.12.6 Threshold Elevation: 539.1 ft
2.12.6 Touchdown Zone Elevation: 539.3 ft

2.12.1 Designation: 24R
2.12.2 True Bearing:
2.12.3 Dimensions: 10528 ft x 200 ft
2.12.4 PCN: 98 R/A/W/T
2.12.5 Coordinates: 13-35-31.93N / 144-56-33.74E
2.12.6 Threshold Elevation: 617.4 ft
2.12.6 Touchdown Zone Elevation: 617.4 ft

2.12.1 Designation: 06R
2.12.2 True Bearing:
2.12.3 Dimensions: 11200 ft x 200 ft
2.12.4 PCN: 98 R/A/W/T
2.12.5 Coordinates: 13-34-31.18N / 144-54-59.38E
2.12.6 Threshold Elevation: 556.8 ft

2.12.6 Touchdown Zone Elevation: 556.8 ft

2.12.1 Designation: 24L
2.12.2 True Bearing:
2.12.3 Dimensions: 11200 ft x 200 ft
2.12.4 PCN: 98 R/A/W/T
2.12.5 Coordinates: 13-35-16.59N / 144-56-43E
2.12.6 Threshold Elevation: 607.2 ft
2.12.6 Touchdown Zone Elevation: 607.2 ft

AD 2.13 Declared Distances

2.13.1 Designation: 06L
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 24R
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 06R
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 24L
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 06L
2.14.2 Approach Lighting System: SALS
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24R
2.14.2 Approach Lighting System: ALSF1
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 06R
2.14.2 Approach Lighting System: ALSF1
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24L

2.14.2 Approach Lighting System: SALS
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS
2.18.3 Channel: 118.175
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 254.325
2.18.5 Hours of Operation:

2.18.1 Service Designation: COMD POST (36 WG
BOONIE OPS)
2.18.3 Channel: 321
2.18.5 Hours of Operation:

2.18.1 Service Designation: COMD POST (36 WG
BOONIE OPS)
2.18.3 Channel: 349.4
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 275.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 126.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 233.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PMSV METRO
2.18.3 Channel: 344.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: PTD
2.18.3 Channel: 372.2
2.18.5 Hours of Operation:

2.18.1 Service Designation: SFA
2.18.3 Channel: 281.4
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 24R. Magnetic
variation: 2E

2.19.2 ILS Identification: YIG
2.19.5 Coordinates: 13-35-30.26N / 144-56-17.53E
2.19.6 Site Elevation: 593.6 ft

2.19.1 ILS Type: Localizer for runway 24R. Magnetic
variation: 2E

2.19.2 ILS Identification: YIG
2.19.5 Coordinates: 13-34-43.23N / 144-54-42.5E
2.19.6 Site Elevation: 533.6 ft

2.19.1 ILS Type: Glide Slope for runway 06R. Magnetic
variation: 2E

2.19.2 ILS Identification: UAM
2.19.5 Coordinates: 13-34-40.04N / 144-55-7.21E
2.19.6 Site Elevation: 544.6 ft

2.19.1 ILS Type: Localizer for runway 06R. Magnetic
variation: 2E

2.19.2 ILS Identification: UAM
2.19.5 Coordinates: 13-35-21.67N / 144-56-54.64E
2.19.6 Site Elevation: 606.6 ft

2.19.1 ILS Type: Glide Slope for runway 24L. Magnetic
variation: 2E

2.19.2 ILS Identification: PMY
2.19.5 Coordinates: 13-35-15.55N / 144-56-29.18E
2.19.6 Site Elevation: 596.1 ft

2.19.1 ILS Type: Localizer for runway 24L. Magnetic
variation: 2E

2.19.2 ILS Identification: PMY
2.19.5 Coordinates: 13-34-25.7N / 144-54-46.9E
2.19.6 Site Elevation: 568.8 ft

2.19.1 Navigation Aid Type: TACAN. Magnetic varia-
tion: 2E

2.19.2 Navigation Aid Identification: UAM

2.19.5 Coordinates: 13-35-28.39N / 144-56-47.69E

2.19.6 Site Elevation: 615.9 ft

General Remarks:

FREQUENT RAIN SHOWERS OF SHORT DURATION, EXPECT WET RWY BRAKEING ACTION.

CAUTION: NSTD DSPLCD THLD MARKINGS FOR RYS 06R, 06L, AND 24R.

RSTD: ALL ACFT CTC 36 WG COMD POST 90 MIN OUT AND AT 30 MIN OUT PRIOR TO ARR.

MISC: AIRCRAFT EXCEEDING AFLD WEIGHTS MUST REQUEST WEIGHT BEARING CAPACITY WAIVER WITH 24 HR NOTICE TO AIRFIELD OPS TO PROCESS ANY APPROVALS NEEDED. IF REQUESTS ARE NOT MADE WITHIN 24 HRS EXPECT DELAYS.

RSTD: ACFT MUST ADHERE TO PPR ARR +/- 30 MIN. ACFT WITH WINGSPANS GREATER THAN 261' NOT AUTHORIZED.

HAZUS AIR TURB FINAL APCH RWYS 24L/24R. NO VSBY REF AVBL ON NGT TKOF BYD END RWY 6.

SERVICE-LGT: RAMP LGT UNAVBL FOR NGT TIME OPS, AND UNSAFE ACFT MVMT COND EXIST ON NORTH RAMP 3; ACFT TAXI AT THEIR OWN RISK. ALL AFLD ILS STOP LGT UNSVC. VEGETATION OBST RWY 24R/L APCH LGT SYS.

ILS/RADAR-ILS: ILS CRITICAL AREAS NOT PROTECTED.

MISC: ANDERSEN AFB DOES NOT HAVE CAPABILITY TO STORE REFRIGERATED CARGO.

RSTD: RESTRICTIONS TO FLT OPNS DUR EA BWC. MOD: NO TOUCH AND GO LDG. RSTD LOW APPCH NO LOWER THAN 200' OR AS DETERMINED BY SOF. SEVERE: RSTD LOW APPCH NO LOWER THAN 200' OR AS DETERMINED BY SOF. EMERG LDG AND 36 OG/CC APV DEP ONLY. PHASE I: PHASE I:1 APR - 31 JUL. PHASE II: 1 AUG - 31 MAR.

MISC: "NO VHF CAPABILITIES WITH AFLD MGMT."

SERVICE-LGT: ARPT BCN 763 FT MSL LCTD 1.4 NM SSW OF AFLD.

A-GEAR BAK-12 RWYS 06L & 06R 30 MIN NTC RQR.

TWY B AND C BTN TWY J AND K CLSD DUE TO CONSTRUCTION.

CAUTION: TACAN CK PT SIGN ON TWY J SOUTH INCORRECT; CORRECT VERBIAGE: BRG 224 DIST 0.7 NM. ACFT WASH RACK ON NR 3 CLSD DUE TO CONST.

RSTD: PPR NR NOT RQRD FOR GDSS LOADED MSN. C130 MSNS LOADED IN GDSS RQR A PPR NR FROM AFLD MGMT. ALL AEROMEDICAL EVAC MSN ARE RQRD TO CTC COMD POST (DSN 366-2961, C671-366-2961) BY ANY MEANS AVAIL 3 HRS PRIOR TO ARR. ALL ACFT RQRD TO MAKE CALL 30 MIN PRIOR TO ARR.

RSTD: ALL OPR MUST OBTAIN APVL FR GND AND AMOPS PRIOR TO ENG START/RUN.

MISC: RWY 06L AND 06R UNDERRUNS 1000' AVBL FOR TWY/TKOF. RWY 24R UNDERRUN AVBL 500' FOR TAXI/TKOF.

BASE OPS V366-4188; FAX V366-6217.

CAUTION: USE EXTREME CAUTION FOR EXTV UAS OPS IN VCNTY OF ANDERSEN AFB.

CAUTION: POTENTIAL FOR REDUCED BRAKING CAPABILITY AND/OR DIRECT CONTROL EXISTS, PARTICULARLY DURING WET RSC FOR RWY 06L.

SERVICE-FLUID: C-5 NITROGEN SVC CAPABILITY UNAVAILABLE.

MAINT AVBL 0100-0400 WEEKDAY ONLY; CLOSED WEEKEND & HOL.

NO ARRESTING GEAR MARKERS LOCATED ON THE LEFT SIDE OF ALL APPROACH END BARRIERS.

MISC: ALL AIRCREWS TO RON MUST CHECK INTO AFLD MGT OPS AND PROVIDE POC INFO UPON ARR.

MISC: PAVEMENT PRIOR TO RWY 06R AND RWY 06L THRESHOLDS AVAILABLE FOR TAKEOFF RUN WHEN NECESSARY FOR MSN ACCOMPLISHMENT.

MISC: ATTN: ALL DRY ICE REQ MUST BE MADE THRU 734TH MS/ATOC DSN 315-366-3125/3137/3162 OR C671-366-3125/3137/3162. REQ MUST BE MADE AT LEAST 24 HR IN ADVANCE FOR ACFT LDG TUE-FRI AND 72 HR IN ADVANCE FOR ACFT LDG SAT-MON. DUR HOL, ADD 2 HR TO COORD TIME.

RSTD: PPR DSN 366-4188/1010.

MISC: AFLD MGT HAS NO COMSEC STORAGE AVAILABLE FOR TRANS AIRCREWS. TRANS AIRCREWS CAN STORE COMSEC UP TO TOP-SECRET AT 36 WG CP.

SERVICE-A-GEAR: CONTACT CONTROL TOWER 30 MIN PRIOR FOR DEPARTURE END BAK12 CABLE CONFIGURATION. 30 MIN PRIOR NOTICE REQ FOR CHANGE CONFIGURATION. BAK12 HOUSING LCTD 317' FROM RWY CENTERLINE, 217' FROM RWY EDGE, MAX HEIGHT 8'. NO ARRESTING-GEAR MARKER LCTD ON LEFT SIDE OF ALL APPROACH END BARRIERS.

NS ABTMT: QUIET HR 1200-2000Z (2200-0600L) DLY. NO AFTERBURNER, OR OVR FLT OF BASE AND LCL POPULATED AREAS. OTHER RESTRICTIONS BY NOTAM.

CAUTION: 47' TACAN ANTENNAE LCTD 1,300 FT NE OF RWY 24L & 1,300 FT SE OF RWY 24R THRESHOLDS.

RSTD 1 OF 2: THERE WILL BE NO OVFT OF MARIANA CROW TERRITORIES BLW 1,000 FT AGL FROM SEP-MAY. OVFT BLW 1,000 FT AGL IS ALLOWED BTN JUNE AND AUG, THE CROW NON-BREEDING SEASON.

MISC: WX OPR H24, DSN 315-366-5230. AUTOMATED SENSOR PRVDS OBSN; AUGMENTED DUR HAZ WX & SENSOR OUTAGES. HUMAN WX OBSN VIEW OBSTD BY BLDG N-SSE. WX STN PRVDS LTD WX BRIEF SUPPORT. REMOTE WX BRIEF AVBL H24 FR 17 OWS AT DSN 315-449-8333/7950, C808-448-3809; 2 HR NTC RQRD FOR TIMELY BRIEF.

RSTD: PPR REQ MUST BE MADE 24 HR PRIOR EXC FOR WX-EVAC OPS.

ANY CREW RQRG ASSISTANCE FR AGENCIES OUTSIDE OF AFLD SUPPORT, CTC WING RECEPTIONS DSN 315-366-3464, C671-366-3464.

AREA BTN 1000' ROLL BAR AND THU LGT RWY 06R AND 06L UNLGTD. LAST 642' PRIOR TO THU LGT 24R UNLGTD.

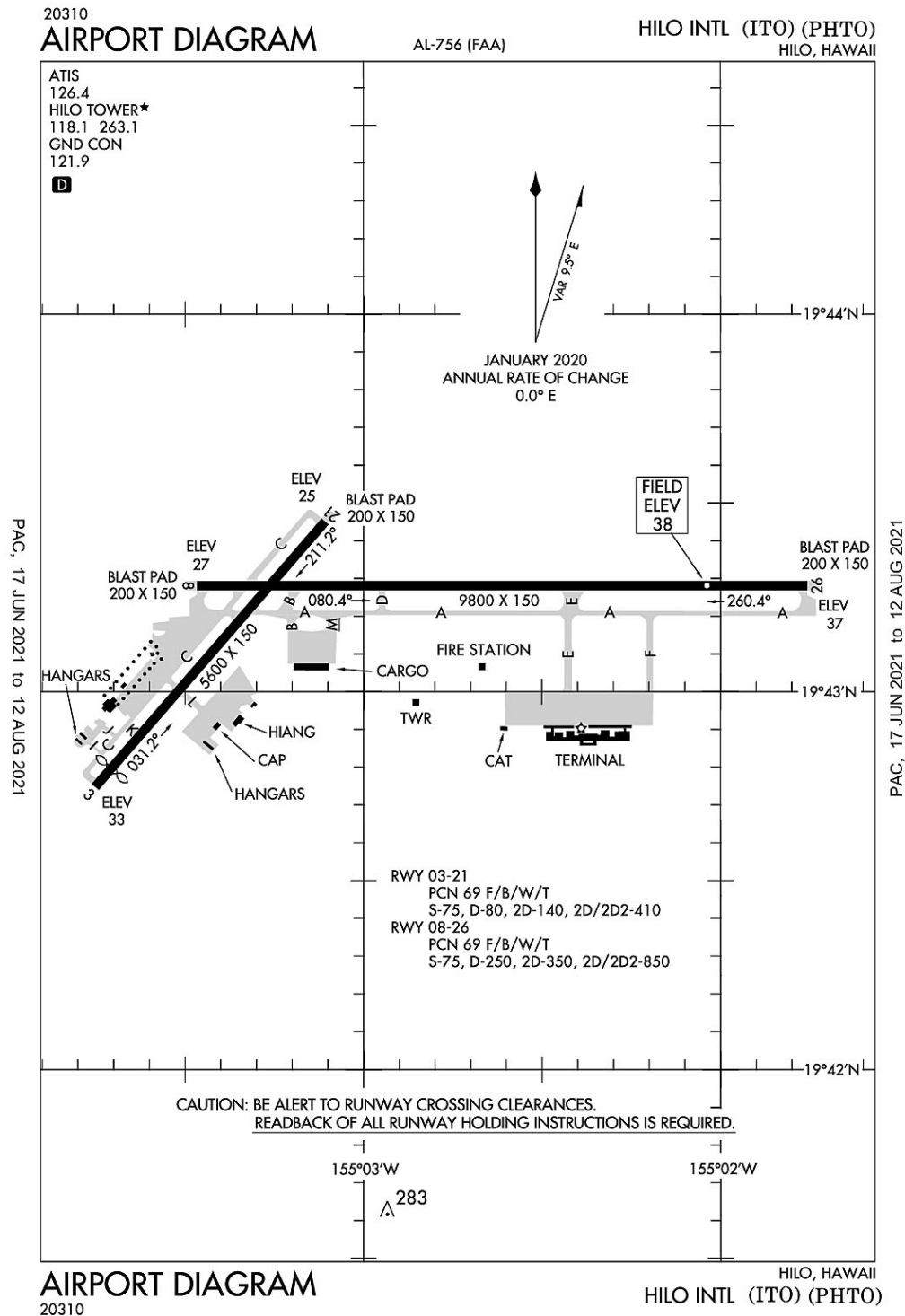
CAUTION: FAA SIZE 3 SIGNS LCTD GREATER THAN 60 FT FROM TWY EDGES TO ACCOM B-52 ACFT.

RSTD: BA ON BOTH RWYS MAY BE LESS THAN EXP DUE TO RUBBER BUILD-UP; PROBABILITY OF HYDROPLANING EXISTS.

RSTD: PPR NOT ISSUED MORE THAN 14 DAYS PRIOR TO ARR/DEP.

AFLD SIGNS ARE NOT FRANGIBLE.

Hilo, Hawaii
Hilo International
ICAO Identifier PHTO



Hilo, HI
Hilo Intl
ICAO Identifier PHTO

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 19-43-12.9468N / 155-2-54.4925W
2.2.2 From City: 2 miles E of HILO, HI
2.2.3 Elevation: 37.6 ft
2.2.5 Magnetic Variation: 11E (1985)
2.2.6 Airport Contact: STEVEN J. SANTIAGO
ASSISTANT AIRPORT
DISTRICT MANAGER
HILO, HI 96720 (808-961-9300)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, 0700-2030 Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: 100LL,A
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 03
2.12.2 True Bearing: 41
2.12.3 Dimensions: 5600 ft x 150 ft
2.12.4 PCN: 69 F/B/W/T
2.12.5 Coordinates: 19-42-44.9639N / 155-3-44.7803W
2.12.6 Threshold Elevation: 33.3 ft
2.12.6 Touchdown Zone Elevation: 33.7 ft

2.12.1 Designation: 21
2.12.2 True Bearing: 221
2.12.3 Dimensions: 5600 ft x 150 ft
2.12.4 PCN: 69 F/B/W/T
2.12.5 Coordinates: 19-43-26.9946N / 155-3-6.4865W
2.12.6 Threshold Elevation: 25.4 ft
2.12.6 Touchdown Zone Elevation: 31.4 ft

2.12.1 Designation: 08
2.12.2 True Bearing: 90
2.12.3 Dimensions: 9800 ft x 150 ft

2.12.4 PCN: 69 F/B/W/T
2.12.5 Coordinates: 19-43-16.9328N / 155-3-27.9882W
2.12.6 Threshold Elevation: 27.3 ft
2.12.6 Touchdown Zone Elevation: 30.1 ft

2.12.1 Designation: 26
2.12.2 True Bearing: 270
2.12.3 Dimensions: 9800 ft x 150 ft
2.12.4 PCN: 69 F/B/W/T
2.12.5 Coordinates: 19-43-16.9196N / 155-1-45.4051W
2.12.6 Threshold Elevation: 37 ft
2.12.6 Touchdown Zone Elevation: 37.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 03
2.13.2 Take-off Run Available: 5600
2.13.3 Take-off Distance Available: 5600
2.13.4 Accelerate-Stop Distance Available: 5600
2.13.5 Landing Distance Available: 5251

2.13.1 Designation: 21
2.13.2 Take-off Run Available: 5251
2.13.3 Take-off Distance Available: 5251
2.13.4 Accelerate-Stop Distance Available: 5510
2.13.5 Landing Distance Available: 5510

2.13.1 Designation: 08
2.13.2 Take-off Run Available: 9800
2.13.3 Take-off Distance Available: 9800
2.13.4 Accelerate-Stop Distance Available: 9800
2.13.5 Landing Distance Available: 9800

2.13.1 Designation: 26
2.13.2 Take-off Run Available: 9800
2.13.3 Take-off Distance Available: 9800
2.13.4 Accelerate-Stop Distance Available: 9800
2.13.5 Landing Distance Available: 9800

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 03
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: V4L

2.14.1 Designation: 21
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 08
2.14.2 Approach Lighting System: ODALS
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 26
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P
2.18.3 Channel: 119.7
2.18.5 Hours of Operation: 0600-2200

2.18.1 Service Designation: APCH/P DEP/P
2.18.3 Channel: 269.2
2.18.5 Hours of Operation: 0600-2200

2.18.1 Service Designation: APCH/S DEP/S
2.18.3 Channel: 120.25
2.18.5 Hours of Operation: 0600-2200

2.18.1 Service Designation: APCH/S DEP/S
2.18.3 Channel: 323
2.18.5 Hours of Operation: 0600-2200

2.18.1 Service Designation: ATIS
2.18.3 Channel: 126.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

General Remarks:

ATCT CTLS ENTRY/EXIT TFC ON TWYS F&E TO EAST TRML RAMP.

BE ALERT OCNL BIRD FLOCKS ON ARPT AND IN FLT ACROSS RWY 08/26 AND 03/21.

PPR FROM ARPT MGR FOR TRANSIENT PARKING.

FOR CD IF UNA TO CTC ON FSS FREQ, CTC HONOLULU CONTROL FACILITY AT 808-840-6262.

181' LGTD SMOKE STACK 1/2 SM SOUTH OF FLD.

RY 08/26 SINGLE-BELLY TWIN TANDEM (SBTT) GWT 450,000 LBS.

RY 03/21 SINGLE-BELLY TWIN TANDEM (SBTT) GWT 230,000 LBS.

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 0600-2200

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.1
2.18.5 Hours of Operation: 0600-2200

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 263.1
2.18.5 Hours of Operation: 0600-2200

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 26. Magnetic variation: 11E

2.19.2 ILS Identification: ITO

2.19.5 Coordinates: 19-43-13.742N / 155-3-39.505W

2.19.6 Site Elevation: 39 ft

2.19.1 ILS Type: Glide Slope for runway 26. Magnetic variation: 11E

2.19.2 ILS Identification: ITO

2.19.5 Coordinates: 19-43-20.887N / 155-1-58.099W

2.19.6 Site Elevation: 32.5 ft

2.19.1 ILS Type: Localizer for runway 26. Magnetic variation: 11E

2.19.2 ILS Identification: ITO

2.19.5 Coordinates: 19-43-16.933N / 155-3-38.784W

2.19.6 Site Elevation: 25.8 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 11E

2.19.2 Navigation Aid Identification: ITO

2.19.5 Coordinates: 19-43-16.862N / 155-0-39.435W

2.19.6 Site Elevation: 23 ft

NOISE ABATEMENT: AVOID OVERFLIGHT OF NOISE SENSITIVE RESIDENTIAL AREAS N, W AND SW OF AIRPORT.

RY 3/21 CLSD TO TURBINE ACFT 1800-0600.

TWY E BTN TWY A AND RWY 08/26 PONDING DRG HVY RAINS.

RWY 08 PVD 1325' MKD BY CHEVRONS, UNUSBL FOR LNDG/TKOF/OVRN/STY; CANNOT BE USED IN COMPUTING TKOF DATA.

DIVISION 1.1, 1.2, 1.3 EXPLOSIVES PROHIBITED.

RWYS 8, 21 AND 26 WIND CONES ARE LCTD IN THE ROFA.

(A70A) JET FUEL AVBL MON-SAT 0800-1700 CALL (808) 935-6881/6122 OR 961-6601.

(E93) NO MKD PAD, HEL OPER FM FBO HANGER AREA.

PPR FROM AIRPORT MANAGER FOR TRANSPORTATION OF DIVISION 1.4 EXPLOSIVES AND HAZARDOUS MATERIAL IN OR OUT OF AIRPORT.

[illegible]

Honolulu, HI
Honolulu Intl
ICAO Identifier PHNL

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 21-19-4.142N / 157-55-12.819W
2.2.2 From City: 3 miles NW of HONOLULU, HI
2.2.3 Elevation: 12.6 ft
2.2.5 Magnetic Variation: 11E (1990)
2.2.6 Airport Contact: ROY SAKATA
300 RODGERS BLVD. #12
HONOLULU, HI 96819
(808-836-6533)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,A1+,B,100
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 22R
2.12.2 True Bearing: 233
2.12.3 Dimensions: 6955 ft x 150 ft
2.12.4 PCN: 31 F/B/X/T
2.12.5 Coordinates: 21-19-47.4694N / 157-54-25.1972W
2.12.6 Threshold Elevation: 7.5 ft
2.12.6 Touchdown Zone Elevation: 9.6 ft

2.12.1 Designation: 04L
2.12.2 True Bearing: 53
2.12.3 Dimensions: 6955 ft x 150 ft
2.12.4 PCN: 31 F/B/X/T
2.12.5 Coordinates: 21-19-5.9954N / 157-55-23.9541W
2.12.6 Threshold Elevation: 9.8 ft
2.12.6 Touchdown Zone Elevation: 10.2 ft

2.12.1 Designation: 22L
2.12.2 True Bearing: 233

2.12.3 Dimensions: 9002 ft x 150 ft
2.12.4 PCN: 57 F/B/X/T
2.12.5 Coordinates: 21-19-43.7762N / 157-54-21.6299W
2.12.6 Threshold Elevation: 8.5 ft
2.12.6 Touchdown Zone Elevation: 8.6 ft

2.12.1 Designation: 04R
2.12.2 True Bearing: 53
2.12.3 Dimensions: 9002 ft x 150 ft
2.12.4 PCN: 57 F/B/X/T
2.12.5 Coordinates: 21-18-50.1044N / 157-55-37.685W
2.12.6 Threshold Elevation: 8.1 ft
2.12.6 Touchdown Zone Elevation: 8.4 ft

2.12.1 Designation: 22W
2.12.2 True Bearing: 231
2.12.3 Dimensions: 3000 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 21-19-11.7999N / 157-54-21.78W
2.12.6 Threshold Elevation: 0 ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: 04W
2.12.2 True Bearing: 51
2.12.3 Dimensions: 3000 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 21-18-53.09N / 157-54-46.44W
2.12.6 Threshold Elevation: 0 ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: 26R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 12312 ft x 150 ft
2.12.4 PCN: 79 R/B/W/T
2.12.5 Coordinates: 21-19-30.884N / 157-54-25.4326W
2.12.6 Threshold Elevation: 8.4 ft
2.12.6 Touchdown Zone Elevation: 8.8 ft

2.12.1 Designation: 08L
2.12.2 True Bearing: 89
2.12.3 Dimensions: 12312 ft x 150 ft
2.12.4 PCN: 79 R/B/W/T
2.12.5 Coordinates: 21-19-30.8826N / 157-56-35.6573W
2.12.6 Threshold Elevation: 11.8 ft
2.12.6 Touchdown Zone Elevation: 12.6 ft

2.12.1 Designation: 26L

2.12.2 True Bearing: 270
2.12.3 Dimensions: 12000 ft x 200 ft
2.12.4 PCN: 98 F/B/X/T
2.12.5 Coordinates: 21-18-24.4867N /
157-54-38.152W
2.12.6 Threshold Elevation: 9.8 ft
2.12.6 Touchdown Zone Elevation: 9.8 ft

2.12.1 Designation: 08R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 12000 ft x 200 ft
2.12.4 PCN: 98 F/B/X/T
2.12.5 Coordinates: 21-18-24.4938N /
157-56-45.061W
2.12.6 Threshold Elevation: 9.9 ft
2.12.6 Touchdown Zone Elevation: 10 ft

2.12.1 Designation: 08W
2.12.2 True Bearing: 91
2.12.3 Dimensions: 5090 ft x 300 ft
2.12.4 PCN:
2.12.5 Coordinates: 21-18-40.85N / 157-55-0W
2.12.6 Threshold Elevation: 0 ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: 26W
2.12.2 True Bearing: 271
2.12.3 Dimensions: 5090 ft x 300 ft
2.12.4 PCN:
2.12.5 Coordinates: 21-18-39.9794N /
157-54-6.1782W
2.12.6 Threshold Elevation: 0 ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 22R
2.13.2 Take-off Run Available: 6952
2.13.3 Take-off Distance Available: 6952
2.13.4 Accelerate-Stop Distance Available: 6952
2.13.5 Landing Distance Available: 6952

2.13.1 Designation: 04L
2.13.2 Take-off Run Available: 6952
2.13.3 Take-off Distance Available: 6952
2.13.4 Accelerate-Stop Distance Available: 6952
2.13.5 Landing Distance Available: 6952

2.13.1 Designation: 22L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000

2.13.4 Accelerate-Stop Distance Available: 8937
2.13.5 Landing Distance Available: 8937

2.13.1 Designation: 04R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 8950
2.13.5 Landing Distance Available: 8950

2.13.1 Designation: 22W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 04W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 26R
2.13.2 Take-off Run Available: 12300
2.13.3 Take-off Distance Available: 12300
2.13.4 Accelerate-Stop Distance Available: 12300
2.13.5 Landing Distance Available: 12300

2.13.1 Designation: 08L
2.13.2 Take-off Run Available: 12312
2.13.3 Take-off Distance Available: 12312
2.13.4 Accelerate-Stop Distance Available: 12312
2.13.5 Landing Distance Available: 12312

2.13.1 Designation: 26L
2.13.2 Take-off Run Available: 12000
2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 08R
2.13.2 Take-off Run Available: 12000
2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 08W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 26W
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 22R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 04L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22W
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 04W
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 26R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: V6L

2.14.1 Designation: 08W
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 26W
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: 15 AW COMD POST
2.18.3 Channel: 168
2.18.5 Hours of Operation:

2.18.1 Service Designation: 15 AW COMD POST
2.18.3 Channel: 295.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: ADZY (HONOLULU RAMP ADZY)
2.18.3 Channel: 121.8
2.18.5 Hours of Operation:

2.18.1 Service Designation: ADZY (HICKAM RAMP ADZY)
2.18.3 Channel: 133.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: ADZY (HICKAM RAMP ADZY)
2.18.3 Channel: 254.4
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 293.7
2.18.5 Hours of Operation:

2.18.1 Service Designation: APCH/P
2.18.3 Channel: 317.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC (WEST)
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC (WEST)
2.18.3 Channel: 269
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BANZI RNAV DP
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BANZI RNAV DP
2.18.3 Channel: 269
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 121.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 281.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (ARR E/NW DEP
NW)
2.18.3 Channel: 119.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (ARR E/NW DEP
NW)
2.18.3 Channel: 239.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: COMD POST
2.18.3 Channel: 141.8
2.18.5 Hours of Operation:

2.18.1 Service Designation: COMD POST
2.18.3 Channel: 292.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 127.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 251.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P CLASS B (EAST)
2.18.3 Channel: 124.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P CLASS B (EAST)
2.18.3 Channel: 317.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KEAHI DP (JOR-
DA,LANAI, UPOLU TRNS.)
2.18.3 Channel: 124.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KEAHI DP (JORDA,
LANAI, UPOLU TRNS.)
2.18.3 Channel: 317.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KEOLA DP (KATHS,LI-
HUE,LILIA,NONNI,PUPPI, SOUTH KAUAI TRNS.)
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KEOLA DP (KATHS,LI-
HUE,LILIA,PUPPI,SOUTH KAUAI TRNS.)
2.18.3 Channel: 269
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08R/26L)
2.18.3 Channel: 123.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08R/26L)
2.18.3 Channel: 273.575
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MOLOKAI DP (APACK,
CLUTS ,EBBER, FITES, PULPS, ZIGIE TRNS.)
2.18.3 Channel: 124.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MOLOKAI DP (APACK, CLUTS, EBBER, FITIES, PULPS, ZIGIE TRNS.)

2.18.3 Channel: 317.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OPS (SHAKA OPS)

2.18.3 Channel: 125.3

2.18.5 Hours of Operation:

2.18.1 Service Designation: OPS (SAC OPS)

2.18.3 Channel: 311

2.18.5 Hours of Operation:

2.18.1 Service Designation: OPS (SHAKA OPS)

2.18.3 Channel: 349.4

2.18.5 Hours of Operation:

2.18.1 Service Designation: PALAY DP (LANAI, MOLOKAI TRNS.)

2.18.3 Channel: 124.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PALAY DP (LANAI, MOLOKAI TRNS.)

2.18.3 Channel: 317.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PIPLN RNAV DP

2.18.3 Channel: 124.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PIPLN RNAV DP

2.18.3 Channel: 317.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PTD (HICKAM)

2.18.3 Channel: 133.6

2.18.5 Hours of Operation:

2.18.1 Service Designation: PTD

2.18.3 Channel: 372.2

2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 04R. Magnetic variation: 11E

2.19.2 ILS Identification: IUM

2.19.5 Coordinates: 21-19-47.9018N / 157-54-10.9794W

2.19.6 Site Elevation: 19.5 ft

2.19.1 ILS Type: Glide Slope for runway 04R. Magnetic variation: 11E

2.19.2 ILS Identification: IUM

2.19.5 Coordinates: 21-18-53.9933N / 157-55-26.9028W

2.19.6 Site Elevation: 5.6 ft

2.19.1 ILS Type: Localizer for runway 04R. Magnetic variation: 11E

2.19.2 ILS Identification: IUM

2.19.5 Coordinates: 21-19-49.8152N / 157-54-13.0662W

2.19.6 Site Elevation: 5.1 ft

2.19.1 ILS Type: DME for runway 08L. Magnetic variation: 11E

2.19.2 ILS Identification: HNL

2.19.5 Coordinates: 21-19-27.8674N / 157-54-17.1566W

2.19.6 Site Elevation: 21.2 ft

2.19.1 ILS Type: Glide Slope for runway 08L. Magnetic variation: 11E

2.19.2 ILS Identification: HNL

2.19.5 Coordinates: 21-19-26.6745N / 157-56-24.533W

2.19.6 Site Elevation: 6.7 ft

2.19.1 ILS Type: Localizer for runway 08L. Magnetic variation: 11E

2.19.2 ILS Identification: HNL

2.19.5 Coordinates: 21-19-30.8788N / 157-54-14.7214W

2.19.6 Site Elevation: 5.4 ft

2.19.1 ILS Type: Outer Marker for runway 08L. Magnetic variation: 11E

2.19.2 ILS Identification: HNL

2.19.5 Coordinates: 21-19-28.9934N / 158-2-56.1122W

2.19.6 Site Elevation: 43.5 ft

2.19.1 ILS Type: DME for runway 26L. Magnetic variation: 11E

2.19.2 ILS Identification: EPC

2.19.5 Coordinates: 21-19-37.0011N / 157-54-25.9888W

2.19.6 Site Elevation: 24 ft

2.19.1 ILS Type: Localizer for runway 26L. Magnetic variation: 11E
2.19.2 ILS Identification: EPC
2.19.5 Coordinates: 21-19-35.0845N / 157-54-28.3182W
2.19.6 Site Elevation: 6.5 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 11E
2.19.2 Navigation Aid Identification: HNL
2.19.5 Coordinates: 21-18-29.9581N / 157-55-49.4801W
2.19.6 Site Elevation: 5.1 ft

General Remarks:

MILITARY RSTD: JBPH-H IS PPR TO ALL NON-TFWC MSN, AMC TRNG MSN AND KC-135 8 UN & 8 EN MSN CALL 735TH MOC AT DSN (315) 499-6970 FOR PPR. ALL AMC PPR WILL BE COORD MON-FRI 1700-0400Z ONLY. ALL NON-AMC ACFT SUCH AS FOREIGN, SISTER SVC, TRAN ACFT OR KC-135 AND, QDN, QEN, PEN, KEN, CJZ, DV1, DV7, DC5, AND C-130 MSN MUST CTC 15 OSS/OSA (AMOPS) AT DSN (315) 449-0046 FOR PPR. ALL PPR WILL BE APVD NO EARLIER THAN 72 HR BUT NO LATER THAN 24 HR PRIOR.

CAUTION: RECREATIONAL BOATING ACTIVITIES ON AND INVOF WATERWAYS.

MILITARY: ALL MIL ACFT RQR CSTMS/AG/IMG INSPECTION MUST CTC 15WG COMMAND POST OR IF AMC CTC HICKAM AMCC, NLT 3 HRS PRIOR TO ARR WITH DEPARTURE LOCATION, EST BLOCK TIME, NR OF AIRCREW, CIV/MIL PAX, FOREIGN NATIONALS, AND DV CODES.*

CAUTION: DURING PERIODS OF REPEATED PRECIPITATION ANTICIPATE WET RY CONDTIONS, IF CURRENT CONDITIONS RQR CONFIRMATION CTC HONOLULU TWR ON INITIAL CONTACT.

MILITARY CAUTION: NO FIGHTER TRANSIENT SUPPORT AVAILABLE IN ACCORDANCE WITH ACC LSET FLASH SAFETY 06-02. TRANSIENT FIGHTER UNITS SHOULD PROVIDE THEIR OWN MAINTENANCE SUPPORT.

ALL JET ACFT CTC RAMP CONTROL PRIOR TO ENGINE START AT GATE OR HARD STAND.

BIRD STRIKE HAZARD ALL RUNWAYS.

MILITARY/COMMUNICATIONS: BEDTIME (ALL CORONET W TANKERS USE 311.0 FOR TANKER-FTR INTER-PLANE ON LAUNCH DAY. AFT DUTY HR DSN 448-8888 613AOC/AMD, FLT MGMT).

MILITARY RSTD: TWR APVL REQUIRED TO USE TWY KILO FROM RY 4R. TWY RA HOLD SHORT APCH ZONE RWY 04L/R AT HOLD LINE. TWY P CLSD TO ACFT OVER 12,500 LB.

MILITARY MISC: WX OPR H24, DSN 449-2251, C808-658-9961.

PPR FM AMGR FOR TRANSPORATION OF CLASS A OR B EXPLOS IN AND/OR OUT OF HNL.

TFC PAT OVHD ALT 2000 FT, RESTRICTED TO HIANG AND SENTRY ALOHA ACFT.

APRON TAXILANE 2 EAST END 360 FT CLSD.

MILITARY MISC: ANG - HI ANG AFLD OPS OPR 1500-0300Z MON-FRI AND UTA WKENDS; CLSD SAT, SUN AND HOL.

MILITARY CAUTION: FOD HAZARD EXISTS ON ALL MOVEMENT AREAS E OF TWY S. FIGHTER AIRCRAFT EXERCISE EXTREME CTN WHEN TAXIING.

MILITARY RSTD: MIL ACFT OPR DUR BIRD WATCH COND MODERATE (INITIAL TKOF OR FULL STOP LDG ONLY, NO MULTIPLE IFR/VFR APCH) AND SEVERE (TKOF AND LDG PROH WO 15 OG/CC APVL OR 154 OG/CC APVL FOR HIANG ACFT) CTC HIK RAMP, PTD, 15 WG COMD POST, 735 AMC COMD POST, 154 WG COMD POST FOR CURRENT COND.

MILITARY MISC 2 OF 2: WAIVERS WILL BE GRANTED ON EXTREME NEC. IF SHORT NOTICE MSN ESSENTIAL WAIVERS ARE NEC, CTC 15OG/CC BY FONE THRU 15 WG COMD POST(15 WG/CP) OR 154 OG/CC FOR HIANG AIRCRAFT. 15 WG COMMAND POST WILL PASS APVL TO HICKAM FLT SVC AND HICKAM RAMP ADZY.

MILITARY A-GEAR: HOOK MB100(B) LCTD 200 FT FM THLD RY 26R.

MILITARY TRAN ALERT: 15 WG CAN PROVIDE EQPT BUT CREWS MUST PROVIDE OWN PERS WHEN NEEDED.

TWYS G ADG V AND BELOW POWER IN W/PPR.

MILITARY: TO MINIMIZE FOD POTENTIAL, ALL AIRCRAFT SHOULD USE MINIMUM THRUST, SPCLY OUTBOARD ENGINES, WHEN TAXIING PAST THE F-22 ALERT FAC ON TWY T.

MILITARY: ALL ACFT INBD TO HICKAM SHOULD ADDRESS FLT PLAN TO PHIKYXYX.

MILITARY CAUTION: A FOD HAZARD EXISTS ON ALL TAXIWAYS AND RUNWAYS BUT ESPECIALLY ON RUNWAY 4L/22R AND TAXIWAYS NORTH OF RUNWAY 8L/26R.

MILITARY MISC: AFLD OPS DSN 449-0046/0048 FAX DSN 449-7624.

RYS 04W/22W AND 08W/26W RECREATIONAL BOATING ACTIVITIES ON AND INVOF WATERWAYS.

MILITARY RSTD: UPON ARRIVAL, CREWS WILL PROCEED DIRECTLY TO COMMAND POST (BLDG 2050) AND COMPLETE AN OUTBOUND SETUP SHEET TO FACILITATE DEPARTURE REQUIREMENTS.

MILITARY MISC 1 OF 2: DUE TO SENSITIVITIES OF CITIZENS, FTR ACFT DEP ONLY AUTHORIZED FR 1700-0700Z MON-SAT, AND 1800-0700Z SUN AND HOL. ALL REQ FOR WAIVERS WILL BE SENT TO THE 15/OG/CC OR 154 OG/CC FOR HIANG AIRCRAFT AT LEAST 5 WORKING DAYS IN ADVANCE.

MILITARY MISC: NO COMSEC MATERIAL AVBL THRU HICKAM AIRFIELD OPS.

DUE TO NON-VISIBILITY TWR UNABLE TO DETERMINE IF THE FLWG AREAS ARE CLEAR OF OBSTRUCTIONS AND/OR TFC: PORTIONS OF TWY RB BTN TWY B & RY 08R; PORTIONS OF INTER-ISLAND ACFT PARKING RAMP.

RMN AT LEAST 1 MILE OFF SHORE OF WAIKIKI DIAMOND HEAD KOKO HEAD & EWA BEACH. ARR RY 08L; FLY ILS APCH PROC OR A CLOSE-IN BASE LEG RMNG OVER CNTR OF PEARL HARBOR CHNL. ARR 26L/R; RNM AT TFC PAT ALTS AS LONG AS PSBL BFR BGNG DSCNT FOR LNDG.

MILITARY RSTD: ALL TRAN ACFT NOT ON AN AMC/TWCF MSN AND HOME STN ACFT TERMINATING AT JBPH-H, WILL PROVIDE A 3 HR OUT CALL (COMM 808-448-6900) AS WELL AS A 20-30 MIN OUT CALL ON 292.5 TO THE 15 WG/CP (KOA CONTROL).

DUE TO LOCATION OF ATCT, CONTROLLERS UNABLE TO DETERMINE WHETHER ACFT ARE ON CORRECT FINAL APCH TO RYS 04L-04R AND 22L-22R.

MILITARY SERVICE-FUEL: A++ (MIL; AVBL H24).

MILITARY SERVICE-A-GEAR: RY 4R/22L AND 8R/26L SFC GROOVED WITHIN 10 FT OF A-G SYSTEM. POTENTIAL FOR FTR ACFT TAIL HOOK SKIP EXISTS.

WIDE BODY AND 4 ENGINE TBJTS LDG ON RY 04R ROLL TO END OF RY, NO LEFT TURN AT TWY K WO APVL. ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF

EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

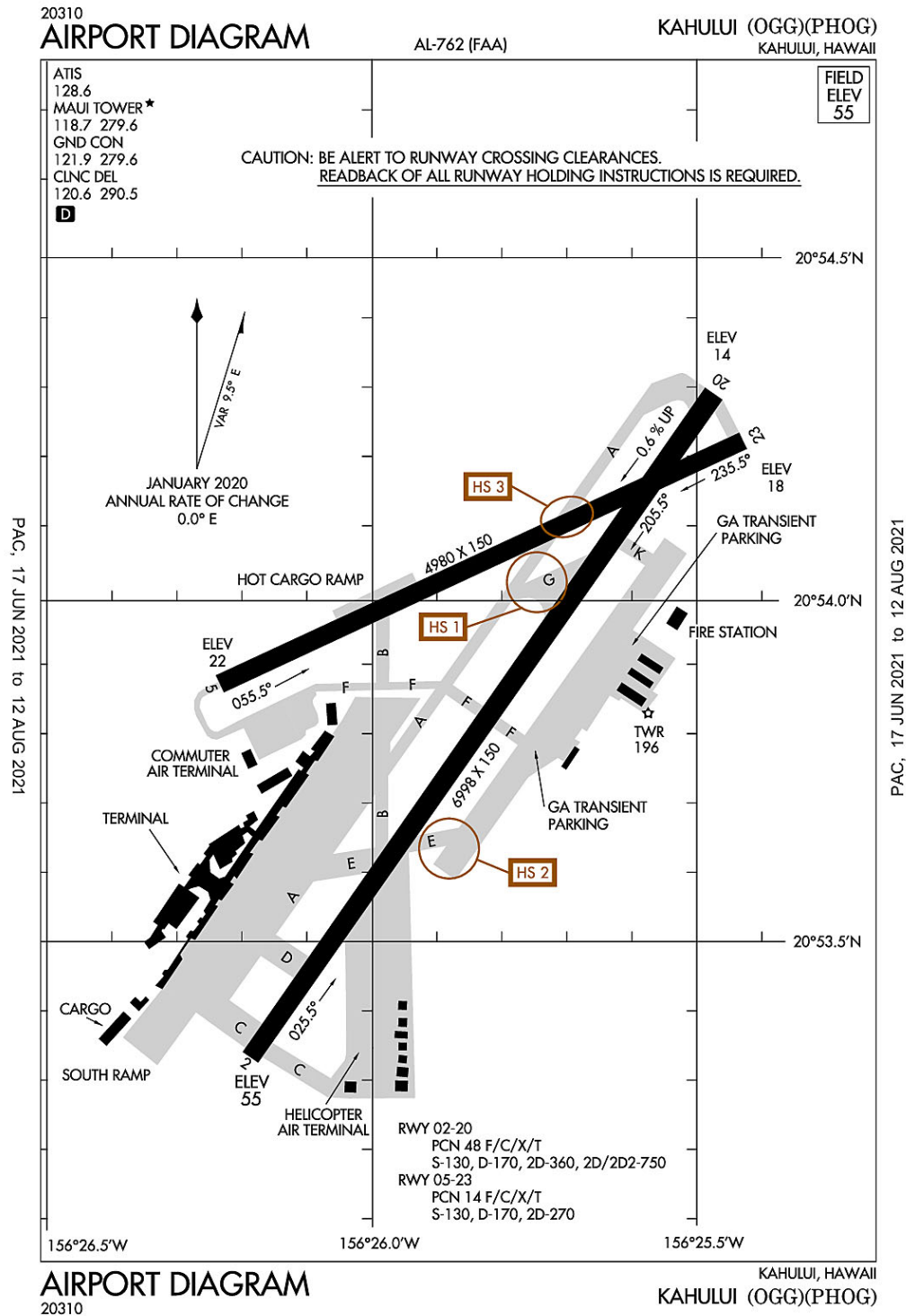
MILITARY: ALL MIL ACFT WITH VIP CODE 7 OR ABV CTC 15WG COMMAND POST OR RELAY THRU HF/SSB AWY 1 HR OUT TO CFM BLOCKTIME.

MILITARY REMARKS: SEE FLIP AP/3 SUPPLEMENTARY APRT INFO, RTE AND AREA RSTD, AND OAKLAND FIR FLT HAZ.

MILITARY MISC (2 OF 2 CONT'D): LTD WX BRIEF SUPPORT.REMOTE FLT WX BRIEFINGS CTC 17TH WX SQ H24, DSN 315-449-7950/8333, FAX DSN 315-449-8336; 2 HR PN RQR FOR TIMELY BRIEF.OFFICIAL OBSN TAKEN BY FAA. COOPERATIVE WX WATCH PROCEDURES DO NOT EXIST BTW WX AND ATC.

APRON TAXILANE 6 BTWN TWY C AND SOUTH RAMP CLSD EXCEPT GA/FIXED WING LOADING/UNLOADING ONLY.

Kahului, Hawaii
Kahului
ICAO Identifier PHOG



Kahului, HI
Kahului
ICAO Identifier PHOG

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 20-53-55.135N / 156-25-49.651W
2.2.2 From City: 3 miles E of KAHULUI, HI
2.2.3 Elevation: 55.4 ft
2.2.5 Magnetic Variation: 11E (1990)
2.2.6 Airport Contact: MARVIN MONIZ
1 KAHULUI AIRPORT ROAD,
UNIT 5
KAHULUI, HI 96732
(808-872-3808)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 02
2.12.2 True Bearing: 35
2.12.3 Dimensions: 6998 ft x 150 ft
2.12.4 PCN: 48 F/C/X/T
2.12.5 Coordinates: 20-53-20.9058N / 156-26-10.7497W
2.12.6 Threshold Elevation: 55.3 ft
2.12.6 Touchdown Zone Elevation: 55.4 ft

2.12.1 Designation: 20
2.12.2 True Bearing: 215
2.12.3 Dimensions: 6998 ft x 150 ft
2.12.4 PCN: 48 F/C/X/T
2.12.5 Coordinates: 20-54-17.7389N / 156-25-28.4443W
2.12.6 Threshold Elevation: 14.3 ft
2.12.6 Touchdown Zone Elevation: 27 ft

2.12.1 Designation: 23

2.12.2 True Bearing: 245
2.12.3 Dimensions: 4980 ft x 150 ft
2.12.4 PCN: 14 F/C/X/T
2.12.5 Coordinates: 20-54-13.7155N / 156-25-25.928W
2.12.6 Threshold Elevation: 17.6 ft
2.12.6 Touchdown Zone Elevation: 18.9 ft

2.12.1 Designation: 05
2.12.2 True Bearing: 65
2.12.3 Dimensions: 4980 ft x 150 ft
2.12.4 PCN: 14 F/C/X/T
2.12.5 Coordinates: 20-53-52.8965N / 156-26-13.521W
2.12.6 Threshold Elevation: 22.1 ft
2.12.6 Touchdown Zone Elevation: 22.2 ft

2.12.1 Designation: H1
2.12.2 True Bearing:
2.12.3 Dimensions: 125 ft x 125 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 02
2.13.2 Take-off Run Available: 6995
2.13.3 Take-off Distance Available: 6995
2.13.4 Accelerate-Stop Distance Available: 6995
2.13.5 Landing Distance Available: 6995

2.13.1 Designation: 20
2.13.2 Take-off Run Available: 6995
2.13.3 Take-off Distance Available: 6995
2.13.4 Accelerate-Stop Distance Available: 6995
2.13.5 Landing Distance Available: 6995

2.13.1 Designation: 23
2.13.2 Take-off Run Available: 4990
2.13.3 Take-off Distance Available: 4990
2.13.4 Accelerate-Stop Distance Available: 4990
2.13.5 Landing Distance Available: 4990

2.13.1 Designation: 05
2.13.2 Take-off Run Available: 4990
2.13.3 Take-off Distance Available: 4990
2.13.4 Accelerate-Stop Distance Available: 4990
2.13.5 Landing Distance Available: 4990

2.13.1 Designation: H1
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 02
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 20
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 23
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 05
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: H1
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P IC (SOUTH)
2.18.3 Channel: 119.5
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: APCH/P DEP/P IC (NORTH)
2.18.3 Channel: 120.2
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: APCH/P DEP/P IC (SOUTH)
2.18.3 Channel: 225.4
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: APCH/P DEP/P IC (NORTH)
2.18.3 Channel: 322.4
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: ATIS
2.18.3 Channel: 128.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 120.6
2.18.5 Hours of Operation: 0600-2300 (MAR-NOV)
0600-2400 (NOV-MAR)

2.18.1 Service Designation: CD/P
2.18.3 Channel: 290.5
2.18.5 Hours of Operation: 0600-2300 (MAR-NOV)
0600-2400 (NOV-MAR)

2.18.1 Service Designation: CLASS C (SOUTH)
2.18.3 Channel: 119.5
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: CLASS C (NORTH)
2.18.3 Channel: 120.2
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: CLASS C (SOUTH)
2.18.3 Channel: 225.4
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: CLASS C (NORTH)
2.18.3 Channel: 322.4
2.18.5 Hours of Operation: 0600-2300

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 0600-2300 (MAR-NOV)
0600-2400 (NOV-MAR)

2.18.1 Service Designation: GND/P
2.18.3 Channel: 279.6
2.18.5 Hours of Operation: 0600-2300 (MAR-NOV)
0600-2400 (NOV-MAR)

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.7
2.18.5 Hours of Operation: 0600-2300 (MAR-NOV)

0600-2400 (NOV-MAR)

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 279.6

2.18.5 Hours of Operation: 0600-2300 (MAR-NOV)
0600-2400 (NOV-MAR)

2.19.2 ILS Identification: OGG

2.19.5 Coordinates: 20-53-29.5489N /
156-25-59.2238W

2.19.6 Site Elevation: 49.5 ft

2.19.1 ILS Type: Localizer for runway 02. Magnetic
variation: 11E

2.19.2 ILS Identification: OGG

2.19.5 Coordinates: 20-54-25.9395N /
156-25-22.344W

2.19.6 Site Elevation: 11.1 ft

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 02. Magnetic varia-
tion: 11E

2.19.2 ILS Identification: OGG

2.19.5 Coordinates: 20-54-27.3859N /
156-25-23.7568W

2.19.6 Site Elevation: 22 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 11E

2.19.2 Navigation Aid Identification: OGG

2.19.5 Coordinates: 20-54-23.2995N /
156-25-15.4249W

2.19.6 Site Elevation: 24.3 ft

2.19.1 ILS Type: Glide Slope for runway 02. Magnetic
variation: 11E

General Remarks:

ACCESS TO HELIPAD FM TWY C ONLY.

ACFT OVR 30,000 LB LDG ON RY 02/20 UNA TO TURN OFF ONTO RY 05/23 DUE TO PAVEMENT COND.

MILITARY HELICOPTER OPS RESTRICTED TO THE SW CORNER OF HOT CARGO APRON (HAZMAT) N OF
RWY 05-23.

MIGRATORY BIRD ACTIVITY BLO 1500 FT WI 5 NM RADIUS OF ARPT DURG AUG-MAY.

570' LGTD TWR APRX 3 MI. W.

COMMUTER AIR TRML RSTRD TO PART 121 AND PART 135 OPRS ONLY. ACFT AT THE TRML SHALL CALL
THE TWR ON 121.9 PRIOR TO PUSHBACK.

RY 02/20 SINGLE-BELLY TWIN TANDEM (SBTT) GWT 460,000 LBS.

TSNT PARKING LCTD ON NE SECTION OF E RAMP.

PPR FOR FIXED WING ACFT OPNS ON HELIPAD DURG NON-OPERATIONAL HRS CALL (808) 872-3880
5:15A-10:00P.

COMMUTER TERMINAL RAMP RESTRICTED TO ACFT 140000 LBS OR LESS.

DUE TO NONVISIBILITY ATCT UNABLE TO DETERMINE IF FLWG AREA IS CLEAR OF OBSTNS AND/OR TFC:
PORTION OF TWY F BTN THE COMMUTER AIR TERMINAL & APCH END RY 05.

DUE TO NONVISIBILITY ATCT UNABLE TO PROVIDE ATC SVC BTN ACFT & GROUND VEHICLES ON THE
COMMUTER AIR TERMINAL S OF TWY F AND THE HELICOPTER AIR TERMINAL E OF APCH END RY 02.

AREA E OF APCH END RY 02 DESIGNATED AS HELICOPTER OPER AREA. NO FIXED WING ACFT MAY OPER
ON HELIPAD DURG OPNL HRS SR-SS.

RAMP AREA E SIDE RY 02 UNDER STATE AUTHORITY. FAA NOT RESPONSIBLE FOR DIRECTION & CTL GND
TFC IN AREA.

24 HRS PPR FOR DIVISION 1.1,1.2,1.3 EXPLOSIVES AND 4 HRS PPR FOR OTHER HAZARDOUS CARGO IN/OUT OF ARPT; CTC (808) 872-3830 0745-1630 OTHER TIMES (808) 872-3888.

AIRPORT DIAGRAM

CHICAGO O'HARE INTL (ORD)
CHICAGO, ILLINOIS

AL-166 (FAA)

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

21112

87°56'W 87°55'W 87°54'W

42°00'N 41°59'N 41°58'N

ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

JANUARY 2020
ANNUAL RATE OF CHANGE
0.0° W

87°53'W

41°57'N

ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

21112

AIRPORT DIAGRAM

CHICAGO O'HARE INTL (ORD)
CHICAGO, ILLINOIS

Chicago, IL
Chicago O’Hare Intl
ICAO Identifier KORD

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 41–58–35.864N /
87–54–26.111W
2.2.2 From City: 14 miles NW of CHICAGO, IL
2.2.3 Elevation: 680 ft
2.2.5 Magnetic Variation: 3W (2010)
2.2.6 Airport Contact: JAMIE RHEE
10510 WEST ZEMKE RO
CHICAGO, IL 60666
(773–686–8060)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 22R
2.12.2 True Bearing: 219
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 108 R/C/W/U
2.12.5 Coordinates: 41–59–51.1336N /
87–53–46.9364W
2.12.6 Threshold Elevation: 647.7 ft
2.12.6 Touchdown Zone Elevation: 651.5 ft

2.12.1 Designation: 04L
2.12.2 True Bearing: 39
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 108 R/C/W/U
2.12.5 Coordinates: 41–58–53.9601N /
87–54–50.1039W
2.12.6 Threshold Elevation: 655.7 ft
2.12.6 Touchdown Zone Elevation: 658.2 ft

2.12.1 Designation: 04R
2.12.2 True Bearing: 42

2.12.3 Dimensions: 8075 ft x 150 ft
2.12.4 PCN: 108 R/C/W/U
2.12.5 Coordinates: 41–57–11.9778N /
87–53–57.9066W
2.12.6 Threshold Elevation: 661.4 ft
2.12.6 Touchdown Zone Elevation: 661.4 ft

2.12.1 Designation: 22L
2.12.2 True Bearing: 222
2.12.3 Dimensions: 8075 ft x 150 ft
2.12.4 PCN: 108 R/C/W/U
2.12.5 Coordinates: 41–58–11.718N / 87–52–47.0759W
2.12.6 Threshold Elevation: 654.4 ft
2.12.6 Touchdown Zone Elevation: 654.4 ft

2.12.1 Designation: 09C
2.12.2 True Bearing: 90
2.12.3 Dimensions: 11245 ft x 200 ft
2.12.4 PCN: 131 R/C/W/T
2.12.5 Coordinates: 41–59–17.8928N /
87–55–53.6579W
2.12.6 Threshold Elevation: 673.2 ft
2.12.6 Touchdown Zone Elevation: 673.2 ft

2.12.1 Designation: 27C
2.12.2 True Bearing: 270
2.12.3 Dimensions: 11245 ft x 200 ft
2.12.4 PCN: 131 R/C/W/T
2.12.5 Coordinates: 41–59–17.9172N / 87–53–24.754W
2.12.6 Threshold Elevation: 652.4 ft
2.12.6 Touchdown Zone Elevation: 652.9 ft

2.12.1 Designation: 27R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 91 R/B/W/T
2.12.5 Coordinates: 42–0–10.1909N / 87–53–56.6997W
2.12.6 Threshold Elevation: 663.6 ft
2.12.6 Touchdown Zone Elevation: 663.6 ft

2.12.1 Designation: 09L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 91 R/B/W/T
2.12.5 Coordinates: 42–0–10.1954N / 87–55–36.0339W
2.12.6 Threshold Elevation: 668 ft
2.12.6 Touchdown Zone Elevation: 668 ft

2.12.1 Designation: 27L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 7967 ft x 150 ft

2.12.4 PCN: 108 R/C/W/U
2.12.5 Coordinates: 41-59-2.0405N / 87-53-20.5834W
2.12.6 Threshold Elevation: 650.1 ft
2.12.6 Touchdown Zone Elevation: 653.6 ft

2.12.1 Designation: 09R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 7967 ft x 150 ft
2.12.4 PCN: 108 R/C/W/U
2.12.5 Coordinates: 41-59-2.0302N / 87-55-6.0672W
2.12.6 Threshold Elevation: 659.8 ft
2.12.6 Touchdown Zone Elevation: 659.8 ft

2.12.1 Designation: 10C
2.12.2 True Bearing: 90
2.12.3 Dimensions: 10800 ft x 200 ft
2.12.4 PCN: 96 R/C/W/T
2.12.5 Coordinates: 41-57-56.5251N /
87-55-53.4778W
2.12.6 Threshold Elevation: 669.4 ft
2.12.6 Touchdown Zone Elevation: 669.4 ft

2.12.1 Designation: 28C
2.12.2 True Bearing: 270
2.12.3 Dimensions: 10800 ft x 200 ft
2.12.4 PCN: 96 R/C/W/T
2.12.5 Coordinates: 41-57-56.7568N /
87-53-30.5171W
2.12.6 Threshold Elevation: 650.1 ft
2.12.6 Touchdown Zone Elevation: 651.1 ft

2.12.1 Designation: 10L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 13000 ft x 150 ft
2.12.4 PCN: 120 R/B/W/T
2.12.5 Coordinates: 41-58-8.3816N / 87-55-53.5142W
2.12.6 Threshold Elevation: 672.1 ft
2.12.6 Touchdown Zone Elevation: 672.1 ft

2.12.1 Designation: 28R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 13000 ft x 150 ft
2.12.4 PCN: 120 R/B/W/T
2.12.5 Coordinates: 41-58-8.6529N / 87-53-1.4244W
2.12.6 Threshold Elevation: 651.4 ft
2.12.6 Touchdown Zone Elevation: 651.4 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 104 R/B/W/U

2.12.5 Coordinates: 41-57-25.924N / 87-55-40.3004W
2.12.6 Threshold Elevation: 680 ft
2.12.6 Touchdown Zone Elevation: 680 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 104 R/B/W/U
2.12.5 Coordinates: 41-57-26.0865N / 87-54-1.0355W
2.12.6 Threshold Elevation: 658 ft
2.12.6 Touchdown Zone Elevation: 666.8 ft

2.12.1 Designation: 10X
2.12.2 True Bearing:
2.12.3 Dimensions: 0 ft x 0 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: H1
2.12.2 True Bearing:
2.12.3 Dimensions: 200 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 22R
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available: 7300

2.13.1 Designation: 04L
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available:

2.13.1 Designation: 04R
2.13.2 Take-off Run Available: 8075
2.13.3 Take-off Distance Available: 8075
2.13.4 Accelerate-Stop Distance Available: 8075
2.13.5 Landing Distance Available: 8075

2.13.1 Designation: 22L
2.13.2 Take-off Run Available: 8075
2.13.3 Take-off Distance Available: 8075

2.13.4 Accelerate-Stop Distance Available: 8075
2.13.5 Landing Distance Available: 8075

2.13.1 Designation: 09C
2.13.2 Take-off Run Available: 11245
2.13.3 Take-off Distance Available: 11245
2.13.4 Accelerate-Stop Distance Available: 11245
2.13.5 Landing Distance Available: 11245

2.13.1 Designation: 27C
2.13.2 Take-off Run Available: 11245
2.13.3 Take-off Distance Available: 11245
2.13.4 Accelerate-Stop Distance Available: 11245
2.13.5 Landing Distance Available: 11245

2.13.1 Designation: 27R
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available: 7500

2.13.1 Designation: 09L
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available: 7500

2.13.1 Designation: 27L
2.13.2 Take-off Run Available: 7967
2.13.3 Take-off Distance Available: 7967
2.13.4 Accelerate-Stop Distance Available: 7782
2.13.5 Landing Distance Available: 7782

2.13.1 Designation: 09R
2.13.2 Take-off Run Available: 7967
2.13.3 Take-off Distance Available: 7967
2.13.4 Accelerate-Stop Distance Available: 7709
2.13.5 Landing Distance Available: 7709

2.13.1 Designation: 10C
2.13.2 Take-off Run Available: 10801
2.13.3 Take-off Distance Available: 10801
2.13.4 Accelerate-Stop Distance Available: 10540
2.13.5 Landing Distance Available: 10540

2.13.1 Designation: 28C
2.13.2 Take-off Run Available: 10801
2.13.3 Take-off Distance Available: 10801
2.13.4 Accelerate-Stop Distance Available: 10801
2.13.5 Landing Distance Available: 10801

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 13000
2.13.3 Take-off Distance Available: 13000
2.13.4 Accelerate-Stop Distance Available: 13000
2.13.5 Landing Distance Available: 12246

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 13000
2.13.3 Take-off Distance Available: 13000
2.13.4 Accelerate-Stop Distance Available: 13000
2.13.5 Landing Distance Available: 13000

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available: 7500

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available: 7500

2.13.1 Designation: 10X
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: H1
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 22R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 04R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 22L

2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 09C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 27C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 27R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 09L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 27L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 09R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 28L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 10X
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: H1
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ALCP
2.18.3 Channel: 252.1
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 121.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 121.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/S
2.18.3 Channel: 119.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 135.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 282.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND METERING
2.18.3 Channel: 121.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (TWR SOUTH)
2.18.3 Channel: 118.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (TWR CENTER
OUTBOUND)

2.18.3 Channel: 121.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (TWR CENTER
INBOUND)

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (TWR NORTH)

2.18.3 Channel: 124.125

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 226.675

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S (TWR CENTER)

2.18.3 Channel: 134.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (TWR CENTER)

2.18.3 Channel: 120.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (TWR CENTER)

2.18.3 Channel: 121.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (TWR CENTER)

2.18.3 Channel: 126.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (TWR NORTH
RWY 09L/27R)

2.18.3 Channel: 128.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (TWR CENTER)

2.18.3 Channel: 132.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (TWR SOUTH
RWY 10R/28L)

2.18.3 Channel: 133

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 348

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/S (TWR CENTER)

2.18.3 Channel: 127.925

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (TWR CENTER RWY
28C)

2.18.3 Channel: 119.625

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (TWR CENTER RWY
10C)

2.18.3 Channel: 119.625

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (TWR SOUTH RWY
28L)

2.18.3 Channel: 128.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (TWR SOUTH RWY
10R)

2.18.3 Channel: 128.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: VFR ADZY

2.18.3 Channel: 126.8

2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 22R. Magnetic
variation: 3W

2.19.2 ILS Identification: RXZ

2.19.5 Coordinates: 41-59-46.5114N / 87-53-59.027W

2.19.6 Site Elevation: 645.1 ft

2.19.1 ILS Type: Localizer for runway 22R. Magnetic
variation: 3W

2.19.2 ILS Identification: RXZ

2.19.5 Coordinates: 41-58-46.4888N /

87-54-58.3524W

2.19.6 Site Elevation: 655.5 ft

2.19.1 ILS Type: Glide Slope for runway 04R. Magnetic
variation: 3W

2.19.2 ILS Identification: FJU

2.19.5 Coordinates: 41-57-16.8552N /

87-53-44.3489W

2.19.6 Site Elevation: 654.1 ft

2.19.1 ILS Type: Localizer for runway 04R. Magnetic variation: 3W
2.19.2 ILS Identification: FJU
2.19.5 Coordinates: 41-58-16.1967N / 87-52-41.7631W
2.19.6 Site Elevation: 646.6 ft

2.19.1 ILS Type: Glide Slope for runway 22L. Magnetic variation: 3W
2.19.2 ILS Identification: LQQ
2.19.5 Coordinates: 41-58-0.7989N / 87-52-52.6077W
2.19.6 Site Elevation: 645.9 ft

2.19.1 ILS Type: Localizer for runway 22L. Magnetic variation: 3W
2.19.2 ILS Identification: LQQ
2.19.5 Coordinates: 41-57-5.6133N / 87-54-5.4506W
2.19.6 Site Elevation: 653 ft

2.19.1 ILS Type: DME for runway 09C. Magnetic variation: 3W
2.19.2 ILS Identification: OYG
2.19.5 Coordinates: 41-59-22.2017N / 87-56-7.1564W
2.19.6 Site Elevation: 673 ft

2.19.1 ILS Type: Glide Slope for runway 09C. Magnetic variation: 3W
2.19.2 ILS Identification: OYG
2.19.5 Coordinates: 41-59-21.8838N / 87-55-38.906W
2.19.6 Site Elevation: 666.9 ft

2.19.1 ILS Type: Inner Marker for runway 09C. Magnetic variation: 3W
2.19.2 ILS Identification: OYG
2.19.5 Coordinates: 41-59-17.8887N / 87-56-5.0459W
2.19.6 Site Elevation: 680.3 ft

2.19.1 ILS Type: Localizer for runway 09C. Magnetic variation: 3W
2.19.2 ILS Identification: OYG
2.19.5 Coordinates: 41-59-17.9166N / 87-53-10.9825W
2.19.6 Site Elevation: 656.2 ft

2.19.1 ILS Type: DME for runway 27C. Magnetic variation: 3W
2.19.2 ILS Identification: UYJ
2.19.5 Coordinates: 41-59-22.2017N / 87-56-7.1564W
2.19.6 Site Elevation: 673 ft

2.19.1 ILS Type: Glide Slope for runway 27C. Magnetic

variation: 3W
2.19.2 ILS Identification: UYJ
2.19.5 Coordinates: 41-59-21.9035N / 87-53-38.9229W
2.19.6 Site Elevation: 645.3 ft

2.19.1 ILS Type: Inner Marker for runway 27C. Magnetic variation: 3W
2.19.2 ILS Identification: UYJ
2.19.5 Coordinates: 41-59-17.9169N / 87-53-13.3661W
2.19.6 Site Elevation: 655.9 ft

2.19.1 ILS Type: Localizer for runway 27C. Magnetic variation: 3W
2.19.2 ILS Identification: UYJ
2.19.5 Coordinates: 41-59-17.888N / 87-56-7.0322W
2.19.6 Site Elevation: 681.9 ft

2.19.1 ILS Type: DME for runway 09L. Magnetic variation: 3W
2.19.2 ILS Identification: SAJ
2.19.5 Coordinates: 42-0-14.0985N / 87-55-48.2323W
2.19.6 Site Elevation: 669.5 ft

2.19.1 ILS Type: Glide Slope for runway 09L. Magnetic variation: 3W
2.19.2 ILS Identification: SAJ
2.19.5 Coordinates: 42-0-14.2182N / 87-55-20.6714W
2.19.6 Site Elevation: 651.3 ft

2.19.1 ILS Type: Inner Marker for runway 09L. Magnetic variation: 3W
2.19.2 ILS Identification: SAJ
2.19.5 Coordinates: 42-0-10.1934N / 87-55-47.4231W
2.19.6 Site Elevation: 668.8 ft

2.19.1 ILS Type: Localizer for runway 09L. Magnetic variation: 3W
2.19.2 ILS Identification: SAJ
2.19.5 Coordinates: 42-0-10.1874N / 87-53-43.3254W
2.19.6 Site Elevation: 660.9 ft

2.19.1 ILS Type: DME for runway 27R. Magnetic variation: 3W
2.19.2 ILS Identification: ABU
2.19.5 Coordinates: 42-0-14.0985N / 87-55-48.2323W
2.19.6 Site Elevation: 669.5 ft

2.19.1 ILS Type: Glide Slope for runway 27R. Magnetic variation: 3W

2.19.2 ILS Identification: ABU

2.19.5 Coordinates: 42-0-14.2137N / 87-54-11.7412W

2.19.6 Site Elevation: 648.4 ft

2.19.1 ILS Type: Inner Marker for runway 27R. Magnetic variation: 3W

2.19.2 ILS Identification: ABU

2.19.5 Coordinates: 42-0-9.9864N / 87-53-45.3008W

2.19.6 Site Elevation: 663.1 ft

2.19.1 ILS Type: Localizer for runway 27R. Magnetic variation: 3W

2.19.2 ILS Identification: ABU

2.19.5 Coordinates: 42-0-10.1939N / 87-55-50.1994W

2.19.6 Site Elevation: 668.1 ft

2.19.1 ILS Type: DME for runway 09R. Magnetic variation: 3W

2.19.2 ILS Identification: JAV

2.19.5 Coordinates: 41-59-4.7161N / 87-53-10.2316W

2.19.6 Site Elevation: 653.7 ft

2.19.1 ILS Type: Glide Slope for runway 09R. Magnetic variation: 3W

2.19.2 ILS Identification: JAV

2.19.5 Coordinates: 41-59-7.8117N / 87-54-51.2862W

2.19.6 Site Elevation: 658.2 ft

2.19.1 ILS Type: Localizer for runway 09R. Magnetic variation: 3W

2.19.2 ILS Identification: JAV

2.19.5 Coordinates: 41-59-2.0448N / 87-53-10.493W

2.19.6 Site Elevation: 642.8 ft

2.19.1 ILS Type: DME for runway 27L. Magnetic variation: 3W

2.19.2 ILS Identification: IAC

2.19.5 Coordinates: 41-59-4.7161N / 87-53-10.2316W

2.19.6 Site Elevation: 653.7 ft

2.19.1 ILS Type: Glide Slope for runway 27L. Magnetic variation: 3W

2.19.2 ILS Identification: IAC

2.19.5 Coordinates: 41-59-6.8111N / 87-53-34.3515W

2.19.6 Site Elevation: 646.5 ft

2.19.1 ILS Type: Inner Marker for runway 27L. Magnetic variation: 3W

2.19.2 ILS Identification: IAC

2.19.5 Coordinates: 41-59-1.8506N / 87-53-9.1944W

2.19.6 Site Elevation: 641.5 ft

2.19.1 ILS Type: Localizer for runway 27L. Magnetic variation: 3W

2.19.2 ILS Identification: IAC

2.19.5 Coordinates: 41-59-2.0278N / 87-55-17.975W

2.19.6 Site Elevation: 665 ft

2.19.1 ILS Type: DME for runway 10C. Magnetic variation: 3W

2.19.2 ILS Identification: SXH

2.19.5 Coordinates: 41-58-0.9714N / 87-56-9.15W

2.19.6 Site Elevation: 689.3 ft

2.19.1 ILS Type: Glide Slope for runway 10C. Magnetic variation: 3W

2.19.2 ILS Identification: SXH

2.19.5 Coordinates: 41-57-52.8465N / 87-55-39.0226W

2.19.6 Site Elevation: 663 ft

2.19.1 ILS Type: Inner Marker for runway 10C. Magnetic variation: 3W

2.19.2 ILS Identification: SXH

2.19.5 Coordinates: 41-57-56.5015N / 87-56-4.8681W

2.19.6 Site Elevation: 674.3 ft

2.19.1 ILS Type: Localizer for runway 10C. Magnetic variation: 3W

2.19.2 ILS Identification: SXH

2.19.5 Coordinates: 41-57-56.803N / 87-52-57.2925W

2.19.6 Site Elevation: 646.3 ft

2.19.1 ILS Type: DME for runway 28C. Magnetic variation: 3W

2.19.2 ILS Identification: VZE

2.19.5 Coordinates: 41-58-0.9714N / 87-56-9.15W

2.19.6 Site Elevation: 689.3 ft

2.19.1 ILS Type: Glide Slope for runway 28C. Magnetic variation: 3W

2.19.2 ILS Identification: VZE

2.19.5 Coordinates: 41-57-53.0321N / 87-53-44.3196W

2.19.6 Site Elevation: 642.4 ft

2.19.1 ILS Type: Inner Marker for runway 28C. Magnetic variation: 3W

2.19.2 ILS Identification: VZE

2.19.5 Coordinates: 41-57-58.7451N / 87-53-19.1677W

2.19.6 Site Elevation: 648 ft

2.19.1 ILS Type: Localizer for runway 28C. Magnetic variation: 3W
2.19.2 ILS Identification: VZE
2.19.5 Coordinates: 41-57-56.5013N / 87-56-6.8848W
2.19.6 Site Elevation: 676.4 ft

2.19.1 ILS Type: DME for runway 10L. Magnetic variation: 3W
2.19.2 ILS Identification: MED
2.19.5 Coordinates: 41-58-5.6721N / 87-52-41.6845W
2.19.6 Site Elevation: 656 ft

2.19.1 ILS Type: Glide Slope for runway 10L. Magnetic variation: 3W
2.19.2 ILS Identification: MED
2.19.5 Coordinates: 41-58-4.3877N / 87-55-38.7659W
2.19.6 Site Elevation: 665.3 ft

2.19.1 ILS Type: Inner Marker for runway 10L. Magnetic variation: 3W
2.19.2 ILS Identification: MED
2.19.5 Coordinates: 41-58-8.5523N / 87-56-4.8866W
2.19.6 Site Elevation: 676.8 ft

2.19.1 ILS Type: Localizer for runway 10L. Magnetic variation: 3W
2.19.2 ILS Identification: MED
2.19.5 Coordinates: 41-58-8.6818N / 87-52-39.6951W
2.19.6 Site Elevation: 644.9 ft

2.19.1 ILS Type: DME for runway 28R. Magnetic variation: 3W
2.19.2 ILS Identification: TSL
2.19.5 Coordinates: 41-58-5.6721N / 87-52-41.6845W
2.19.6 Site Elevation: 656 ft

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic variation: 3W
2.19.2 ILS Identification: TSL
2.19.5 Coordinates: 41-58-4.4701N / 87-53-15.0487W
2.19.6 Site Elevation: 648.2 ft

2.19.1 ILS Type: Inner Marker for runway 28R. Magnetic variation: 3W
2.19.2 ILS Identification: TSL
2.19.5 Coordinates: 41-58-6.1128N / 87-52-49.1235W
2.19.6 Site Elevation: 649.5 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic variation: 3W

2.19.2 ILS Identification: TSL
2.19.5 Coordinates: 41-58-8.356N / 87-56-6.8801W
2.19.6 Site Elevation: 679.1 ft

2.19.1 ILS Type: DME for runway 10R. Magnetic variation: 4W
2.19.2 ILS Identification: BYW
2.19.5 Coordinates: 41-57-28.3399N / 87-53-27.4609W
2.19.6 Site Elevation: 669.6 ft

2.19.1 ILS Type: Glide Slope for runway 10R. Magnetic variation: 4W
2.19.2 ILS Identification: BYW
2.19.5 Coordinates: 41-57-21.909N / 87-55-25.5702W
2.19.6 Site Elevation: 671.7 ft

2.19.1 ILS Type: Localizer for runway 10R. Magnetic variation: 4W
2.19.2 ILS Identification: BYW
2.19.5 Coordinates: 41-57-31.6045N / 87-53-26.3741W
2.19.6 Site Elevation: 649.9 ft

2.19.1 ILS Type: DME for runway 28L. Magnetic variation: 4W
2.19.2 ILS Identification: VQX
2.19.5 Coordinates: 41-57-22.2251N / 87-53-34.2417W
2.19.6 Site Elevation: 656.1 ft

2.19.1 ILS Type: Glide Slope for runway 28L. Magnetic variation: 4W
2.19.2 ILS Identification: VQX
2.19.5 Coordinates: 41-57-22.0258N / 87-54-14.1801W
2.19.6 Site Elevation: 654 ft

2.19.1 ILS Type: Inner Marker for runway 28L. Magnetic variation: 4W
2.19.2 ILS Identification: VQX
2.19.5 Coordinates: 41-57-26.9517N / 87-53-47.4584W
2.19.6 Site Elevation: 650.4 ft

2.19.1 ILS Type: Localizer for runway 28L. Magnetic variation: 4W
2.19.2 ILS Identification: VQX
2.19.5 Coordinates: 41-57-25.8994N / 87-55-53.7065W
2.19.6 Site Elevation: 680.2 ft

2.19.1 ILS Type: DME for runway 10X. Magnetic variation: 4W

2.19.2 ILS Identification: IZJ

2.19.5 Coordinates: 41-57-22.2251N /
87-53-34.2417W

2.19.6 Site Elevation: 656.1 ft

2.19.1 ILS Type: Inner Marker for runway 10X. Magnetic variation: 4W

2.19.2 ILS Identification: IZJ

2.19.5 Coordinates: 41-57-25.9088N /
87-55-51.6695W

2.19.6 Site Elevation: 680 ft

2.19.1 ILS Type: Glide Slope for runway 10X. Magnetic variation: 4W

2.19.2 ILS Identification: IZJ

2.19.5 Coordinates: 41-57-22.1087N /
87-55-25.5572W

2.19.6 Site Elevation: 671.8 ft

2.19.1 ILS Type: Localizer for runway 10X. Magnetic variation: 4W

2.19.2 ILS Identification: IZJ

2.19.5 Coordinates: 41-57-26.1287N /
87-53-32.5409W

2.19.6 Site Elevation: 652.2 ft

General Remarks:

TXL BB2 CLSD TO WINGSPAN MORE THAN 118 FT

A380-800 OPR CONSTRAINTS EXIST ON RWYS, TWYS, & RAMPS – CTC ARPT OPS FOR INFO 773-686-2255.

BIRDS ON & INVOF ARPT; PYROTECHNICS & BIRD CANNONS IN USE.

BE ALERT: THE NORTHEAST/SOUTHWEST PORTION OF TWY YY IS NOT VSBL FM THE CENTER ATCT.

RWY STATUS LGTS ARE IN OPN.

MAG DEVIATION PSBL IMT W OF TWY Y & RWY 22L APCH ON TWY N.

ACFT ARE NOT PMTD TO STOP ON EITHER TWY A OR B BRIDGES.

EAST AND WEST GATES ARE MANNED 24 HRS A DAY.

BE ALERT: TWY S-1 OUTBOUND OR EASTBOUND ONLY, TWY S-2 INBOUND OR WESTBOUND ONLY, TWYS P1, P2, P3, P5, AND P6 NORTHBOUND ONLY, TWY A1 SOUTHBOUND ONLY FROM RWY 09R-27L, TWYS E1, E2, AND E4 SOUTHBOUND ONLY, TWY E3 WESTBOUND ONLY FROM RWY 09C-27C.

ALERT: DUPE ALPHA-NUMERIC TWY DESIGNATORS & TRML GATE DESIGNATIONS INVOLVING THE LTRS B, C, G, H, K, L & M.

SEE LND & HOLD SHORT OPS SECTION.

B747-8, B747-400, B777-200LR(F), B777-300ER, A350-900, A350-1000, A340-500, A340-600 & A330-900 CANNOT PASS ON TWY A & TWY B DUE TO INSUFFICIENT WINGTIP CLNC

LINE UP AND WAIT AUTHORIZATION IN EFF BTWN SS AND SR AT THE FLWG INTS: RWY 28R AT TWY GG, TWY EE AND TWY N5; RWY 10L AT TWY DD AND TWY CC AND TWY BB; RWY 27C AT TWY TT; RWY 9C AT TWY FF. THESE RWYS WILL BE USED FOR DEPS ONLY WHEN EXERCISING THE PROVISIONS OF THIS AUTHORIZATION.

ATCT IS AUZD TO CONDUCT SIMUL DEPS FM RWY 4L/4R, RWY 22R/22L, RWY 9R WITH RWY 9L OR RWY 10L, RWY 27L WITH 28R OR RWY 27R, RWY 10C WITH RWY 9R AND RWY 28C WITH RWY 27L WITH COURSE DIVERGENCE BEGINNING NO LATER THAN 4 MILES FM RY END.

PAEW NEAR VARIOUS TWYS.

ACFT WITH WINGSPAN GREATER THAN 214 FT RQR 48 HRS PPR – 773-686-2255.

B747-8 OPS NOT AUTHORIZED ON RWY 09R/27L, 09L/27R & 10R/28L.

PERIODIC FIRE DEPT TRNG AT N SECTOR OF THE ARPT.

NOISE ABATEMENT PROC IN EFFECT FM 2200 TO 0700; CTC AMGR – 773-686-2255.

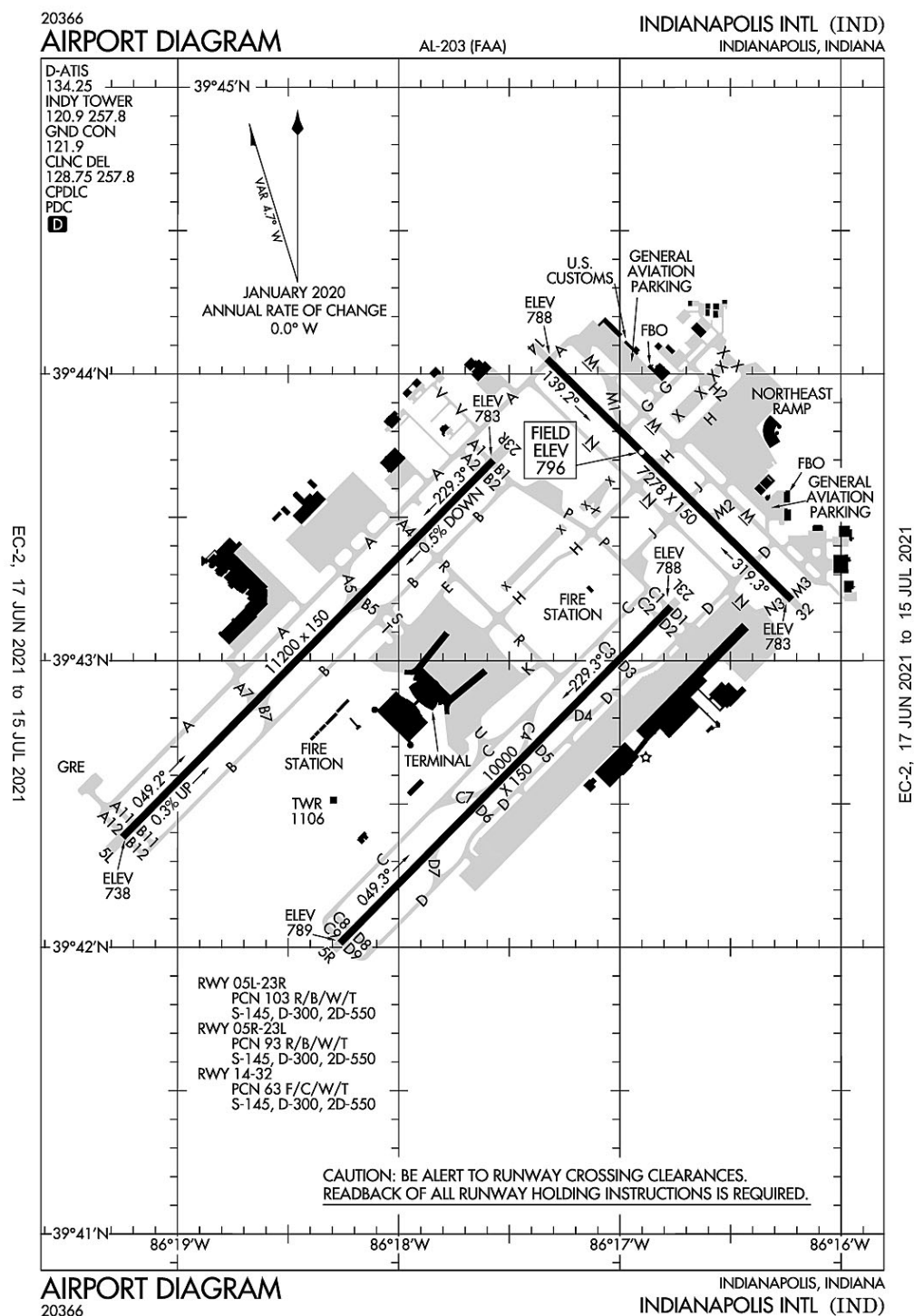
DVRSN ACRS WO A PRESENCE AT ORD SHOULD CTC ARPT OPNS 773-686-2255 PRIOR TO DIVERTING TO THE EXTENT PRACTICAL AND PRVD: CO, FLIGHT OPS CTC INFO, ACFT TYPE, PERSONS OB, INTL OR DOMESTIC, ANY GND HANDLER AGRMTS IN PLACE.

PRIM RUN-UP LOCATION GROUND RUN UP ENCLOSURE; SECONDARY RUN UP LOCATIONS AVBL UPON REQ – CTC CITY OPS 773-686-2255.

ALL PART 91 & UNSKED PART 125, 133 & 135 CHARTER OPERATORS CTC SIGNATURE FLIGHT SUPPORT AT 773-686-7000 REGARDING NEW SECURITY REGULATIONS PRIOR TO DEP.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

Indianapolis, Indiana
Indianapolis International
ICAO Identifier KIND



Indianapolis, IN
Indianapolis Intl
ICAO Identifier KIND

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 39-43-2.3N / 86-17-40.7W
2.2.2 From City: 7 miles SW of INDIANAPOLIS, IN
2.2.3 Elevation: 796.2 ft
2.2.5 Magnetic Variation: 5W (2015)
2.2.6 Airport Contact: MARIO RODRIGUEZ
7800 COL. H. WEIR COOK
MEMORIAL DR.
INDIANAPOLIS, IN 46241
(317-487-9594)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,A1+,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 05L
2.12.2 True Bearing: 45
2.12.3 Dimensions: 11200 ft x 150 ft
2.12.4 PCN: 103 R/B/W/T
2.12.5 Coordinates: 39-42-23.0337N /
86-19-14.9025W
2.12.6 Threshold Elevation: 738 ft
2.12.6 Touchdown Zone Elevation: 747.3 ft

2.12.1 Designation: 23R
2.12.2 True Bearing: 225
2.12.3 Dimensions: 11200 ft x 150 ft
2.12.4 PCN: 103 R/B/W/T
2.12.5 Coordinates: 39-43-41.9101N /
86-17-34.3591W
2.12.6 Threshold Elevation: 782.9 ft
2.12.6 Touchdown Zone Elevation: 782.9 ft

2.12.1 Designation: 23L
2.12.2 True Bearing: 225

2.12.3 Dimensions: 10000 ft x 150 ft
2.12.4 PCN: 93 R/B/W/T
2.12.5 Coordinates: 39-43-11.2875N /
86-16-46.1248W
2.12.6 Threshold Elevation: 787.6 ft
2.12.6 Touchdown Zone Elevation: 790.1 ft

2.12.1 Designation: 05R
2.12.2 True Bearing: 45
2.12.3 Dimensions: 10000 ft x 150 ft
2.12.4 PCN: 93 R/B/W/T
2.12.5 Coordinates: 39-42-0.873N / 86-18-15.906W
2.12.6 Threshold Elevation: 788.8 ft
2.12.6 Touchdown Zone Elevation: 790.7 ft

2.12.1 Designation: 32
2.12.2 True Bearing: 315
2.12.3 Dimensions: 7278 ft x 150 ft
2.12.4 PCN: 63 F/C/W/T
2.12.5 Coordinates: 39-43-12.7458N /
86-16-13.3895W
2.12.6 Threshold Elevation: 782.6 ft
2.12.6 Touchdown Zone Elevation: 792.9 ft

2.12.1 Designation: 14
2.12.2 True Bearing: 135
2.12.3 Dimensions: 7278 ft x 150 ft
2.12.4 PCN: 63 F/C/W/T
2.12.5 Coordinates: 39-44-3.2059N / 86-17-19.7638W
2.12.6 Threshold Elevation: 787.5 ft
2.12.6 Touchdown Zone Elevation: 796.2 ft

AD 2.13 Declared Distances

2.13.1 Designation: 05L
2.13.2 Take-off Run Available: 11200
2.13.3 Take-off Distance Available: 11200
2.13.4 Accelerate-Stop Distance Available: 11200
2.13.5 Landing Distance Available: 11200

2.13.1 Designation: 23R
2.13.2 Take-off Run Available: 11200
2.13.3 Take-off Distance Available: 11200
2.13.4 Accelerate-Stop Distance Available: 11200
2.13.5 Landing Distance Available: 11200

2.13.1 Designation: 23L
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 05R
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 32
2.13.2 Take-off Run Available: 7278
2.13.3 Take-off Distance Available: 7278
2.13.4 Accelerate-Stop Distance Available: 7278
2.13.5 Landing Distance Available: 7278

2.13.1 Designation: 14
2.13.2 Take-off Run Available: 7278
2.13.3 Take-off Distance Available: 7278
2.13.4 Accelerate-Stop Distance Available: 7278
2.13.5 Landing Distance Available: 7278

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 05L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 23R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 23L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 05R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 32
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 14
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P (WEST OF ACTIVE RWY)
2.18.3 Channel: 124.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (EAST OF ACTIVE RWY)

2.18.3 Channel: 127.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P

2.18.3 Channel: 317.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC

2.18.3 Channel: 128.175

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC

2.18.3 Channel: 128.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (WEST OF ACTIVE RWY)

2.18.3 Channel: 124.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (EAST)

2.18.3 Channel: 124.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (EAST OF ACTIVE RWY)

2.18.3 Channel: 127.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C

2.18.3 Channel: 317.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 134.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (WEST)

2.18.3 Channel: 119.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (EAST)

2.18.3 Channel: 124.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S

2.18.3 Channel: 121.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 120.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 05L. Magnetic variation: 5W

2.19.2 ILS Identification: IND

2.19.5 Coordinates: 39-43-51.3513N /
86-17-27.5671W

2.19.6 Site Elevation: 797.6 ft

2.19.1 ILS Type: Glide Slope for runway 05L. Magnetic variation: 5W

2.19.2 ILS Identification: IND

2.19.5 Coordinates: 39-42-32.7741N / 86-19-9.6768W

2.19.6 Site Elevation: 735.4 ft

2.19.1 ILS Type: Inner Marker for runway 05L. Magnetic variation: 5W

2.19.2 ILS Identification: IND

2.19.5 Coordinates: 39-42-15.7098N /
86-19-24.4367W

2.19.6 Site Elevation: 735.9 ft

2.19.1 ILS Type: Localizer for runway 05L. Magnetic variation: 5W

2.19.2 ILS Identification: IND

2.19.5 Coordinates: 39-43-49.0283N /
86-17-25.2797W

2.19.6 Site Elevation: 787.8 ft

2.19.1 ILS Type: DME for runway 23R. Magnetic variation: 5W

2.19.2 ILS Identification: UZK

2.19.5 Coordinates: 39-43-51.3513N /
86-17-27.5671W

2.19.6 Site Elevation: 797.6 ft

2.19.1 ILS Type: Glide Slope for runway 23R. Magnetic variation: 5W

2.19.2 ILS Identification: UZK

2.19.5 Coordinates: 39-43-36.5113N /
86-17-48.4342W

2.19.6 Site Elevation: 772.4 ft

2.19.1 ILS Type: Localizer for runway 23R. Magnetic variation: 5W

2.19.2 ILS Identification: UZK

2.19.5 Coordinates: 39-42-15.9186N /
86-19-23.9666W

2.19.6 Site Elevation: 736.6 ft

2.19.1 ILS Type: DME for runway 05R. Magnetic variation: 5W

2.19.2 ILS Identification: OQV

2.19.5 Coordinates: 39-43-20.1868N /
86-16-39.5353W

2.19.6 Site Elevation: 802 ft

2.19.1 ILS Type: Glide Slope for runway 05R. Magnetic variation: 5W

2.19.2 ILS Identification: OQV

2.19.5 Coordinates: 39-42-5.3627N / 86-18-2.9983W

2.19.6 Site Elevation: 788.5 ft

2.19.1 ILS Type: Inner Marker for runway 05R. Magnetic variation: 5W

2.19.2 ILS Identification: OQV

2.19.5 Coordinates: 39-41-52.0586N /
86-18-27.1359W

2.19.6 Site Elevation: 776.4 ft

2.19.1 ILS Type: Localizer for runway 05R. Magnetic variation: 5W

2.19.2 ILS Identification: OQV

2.19.5 Coordinates: 39-43-18.3778N /
86-16-37.0825W

2.19.6 Site Elevation: 785.5 ft

2.19.1 ILS Type: DME for runway 23L. Magnetic variation: 5W

2.19.2 ILS Identification: FVJ

2.19.5 Coordinates: 39-43-20.1868N / 86-16-39.5353W

2.19.6 Site Elevation: 802 ft

2.19.1 ILS Type: Glide Slope for runway 23L. Magnetic variation: 5W

2.19.2 ILS Identification: FVJ

2.19.5 Coordinates: 39-43-2.4585N / 86-16-54.2858W

2.19.6 Site Elevation: 785 ft

2.19.1 ILS Type: Localizer for runway 23L. Magnetic variation: 5W

2.19.2 ILS Identification: FVJ

2.19.5 Coordinates: 39-41-53.5322N / 86-18-25.2565W

2.19.6 Site Elevation: 777.3 ft

2.19.1 ILS Type: Glide Slope for runway 14. Magnetic variation: 5W

2.19.2 ILS Identification: BJP

2.19.5 Coordinates: 39-43-59.3065N / 86-17-7.3342W

2.19.6 Site Elevation: 790 ft

2.19.1 ILS Type: Localizer for runway 14. Magnetic variation: 5W

2.19.2 ILS Identification: BJP

2.19.5 Coordinates: 39-43-5.64N / 86-16-4.06W

2.19.6 Site Elevation: 768.5 ft

2.19.1 ILS Type: Glide Slope for runway 32. Magnetic variation: 5W

2.19.2 ILS Identification: COA

2.19.5 Coordinates: 39-43-16.2751N / 86-16-25.5096W

2.19.6 Site Elevation: 781.7 ft

2.19.1 ILS Type: Localizer for runway 32. Magnetic variation: 5W

2.19.2 ILS Identification: COA

2.19.5 Coordinates: 39-44-10.3487N / 86-17-29.1696W

2.19.6 Site Elevation: 782.3 ft

General Remarks:

TWY V IS NOT AVBL FOR ACR OPS.

TWY H RUNS CONTIGUOUS AT NORTHEAST RAMP.

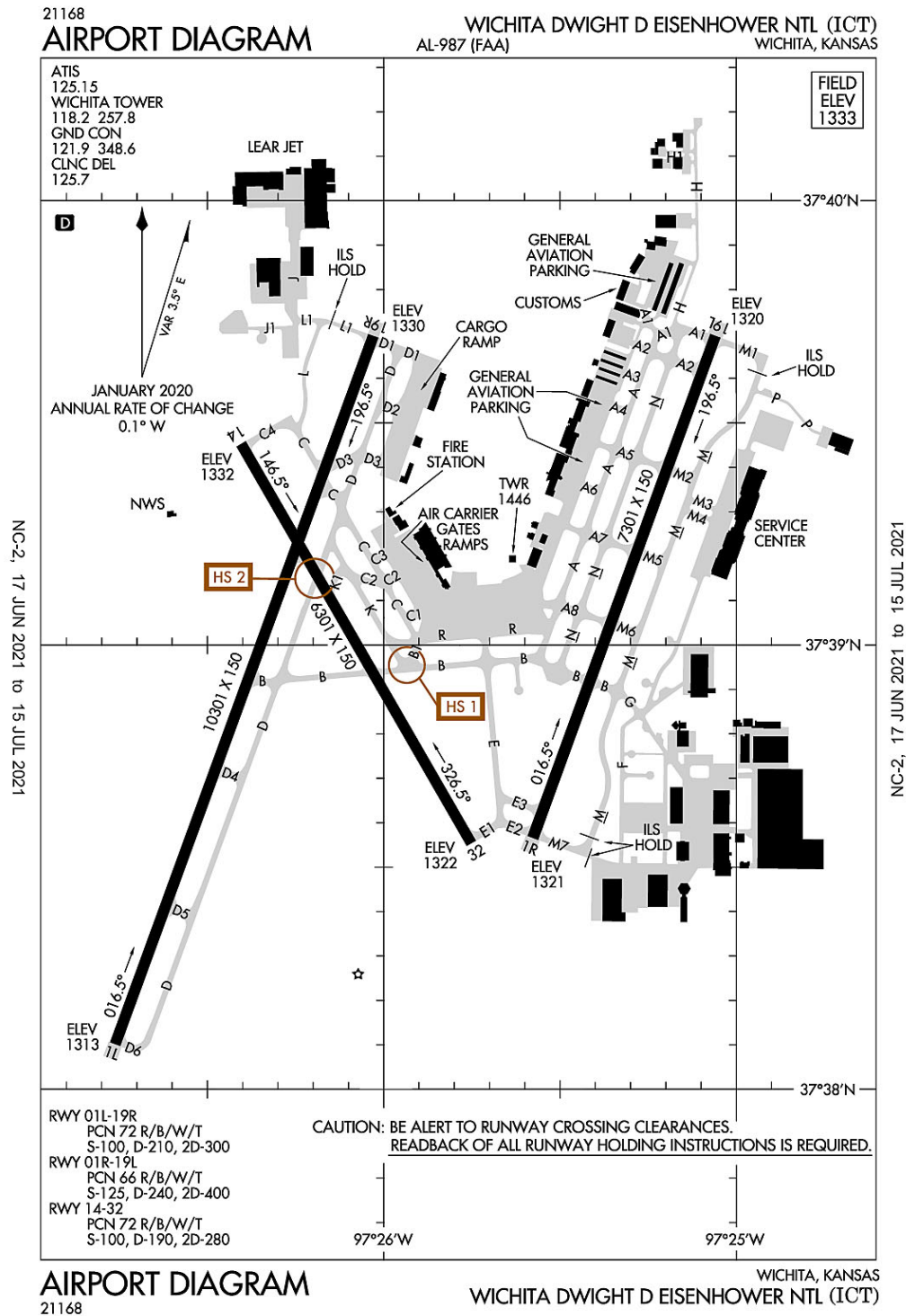
LARGE FLOCKS OF BIRDS ON & INVOF ARPT.

NOISE ABATEMENT PROCEDURES IN EFFECT CTC ARPT MGR.

PRIM STUDENT TGL NOT PMTD.

BE ALERT TO CLOSE PROXIMITY OF RWY 14/32 TO NORTHEAST RAMP.

Wichita, Kansas
Wichita Mid-Continent
ICAO Identifier KICT



Wichita, KS
Wichita Mid-Continent
ICAO Identifier KICT

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 37-38-59.8N / 97-25-59W
2.2.2 From City: 5 miles SW of WICHITA, KS
2.2.3 Elevation: 1332.5 ft
2.2.5 Magnetic Variation: 4E (2015)
2.2.6 Airport Contact: MR. VICTOR WHITE, A.A.E.
2173 AIR CARGO ROAD
WICHITA, KS 67209
(316-946-4700)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 01L
2.12.2 True Bearing: 20
2.12.3 Dimensions: 10301 ft x 150 ft
2.12.4 PCN: 72 R/B/W/T
2.12.5 Coordinates: 37-38-6.0674N / 97-26-45.5905W
2.12.6 Threshold Elevation: 1312.6 ft
2.12.6 Touchdown Zone Elevation: 1314.2 ft

2.12.1 Designation: 19R
2.12.2 True Bearing: 200
2.12.3 Dimensions: 10301 ft x 150 ft
2.12.4 PCN: 72 R/B/W/T
2.12.5 Coordinates: 37-39-41.763N / 97-26-1.7928W
2.12.6 Threshold Elevation: 1329.7 ft
2.12.6 Touchdown Zone Elevation: 1329.7 ft

2.12.1 Designation: 19L
2.12.2 True Bearing: 200
2.12.3 Dimensions: 7301 ft x 150 ft
2.12.4 PCN: 66 R/B/W/T
2.12.5 Coordinates: 37-39-41.7681N / 97-25-3.5639W

2.12.6 Threshold Elevation: 1319.8 ft
2.12.6 Touchdown Zone Elevation: 1319.9 ft

2.12.1 Designation: 01R
2.12.2 True Bearing: 20
2.12.3 Dimensions: 7301 ft x 150 ft
2.12.4 PCN: 66 R/B/W/T
2.12.5 Coordinates: 37-38-33.9452N /
97-25-34.6273W
2.12.6 Threshold Elevation: 1320.9 ft
2.12.6 Touchdown Zone Elevation: 1320.9 ft

2.12.1 Designation: 14
2.12.2 True Bearing: 150
2.12.3 Dimensions: 6301 ft x 150 ft
2.12.4 PCN: 72 R/B/W/T
2.12.5 Coordinates: 37-39-27.1616N /
97-26-24.2724W
2.12.6 Threshold Elevation: 1332.1 ft
2.12.6 Touchdown Zone Elevation: 1332.5 ft

2.12.1 Designation: 32
2.12.2 True Bearing: 330
2.12.3 Dimensions: 6301 ft x 150 ft
2.12.4 PCN: 72 R/B/W/T
2.12.5 Coordinates: 37-38-33.2158N /
97-25-45.1013W
2.12.6 Threshold Elevation: 1321.6 ft
2.12.6 Touchdown Zone Elevation: 1321.7 ft

AD 2.13 Declared Distances

2.13.1 Designation: 01L
2.13.2 Take-off Run Available: 10301
2.13.3 Take-off Distance Available: 10301
2.13.4 Accelerate-Stop Distance Available: 10301
2.13.5 Landing Distance Available: 10301

2.13.1 Designation: 19R
2.13.2 Take-off Run Available: 10301
2.13.3 Take-off Distance Available: 10301
2.13.4 Accelerate-Stop Distance Available: 10301
2.13.5 Landing Distance Available: 10301

2.13.1 Designation: 19L
2.13.2 Take-off Run Available: 7301
2.13.3 Take-off Distance Available: 7301
2.13.4 Accelerate-Stop Distance Available: 7301
2.13.5 Landing Distance Available: 7301

2.13.1 Designation: 01R

2.13.2 Take-off Run Available: 7301
2.13.3 Take-off Distance Available: 7301
2.13.4 Accelerate-Stop Distance Available: 7301
2.13.5 Landing Distance Available: 7301

2.13.1 Designation: 14
2.13.2 Take-off Run Available: 6301
2.13.3 Take-off Distance Available: 6301
2.13.4 Accelerate-Stop Distance Available: 6301
2.13.5 Landing Distance Available: 6301

2.13.1 Designation: 32
2.13.2 Take-off Run Available: 6301
2.13.3 Take-off Distance Available: 6301
2.13.4 Accelerate-Stop Distance Available: 6301
2.13.5 Landing Distance Available: 6301

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 01L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 19R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 19L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 01R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 14
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 32
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P (270–009 BLW 5000 FT & BYD 20 NM)
2.18.3 Channel: 125.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (E IAB BLW 5000 FT)
2.18.3 Channel: 269.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (270–009 BLW 5000 FT & BYD 20 NM)
2.18.3 Channel: 325.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (010–190)
2.18.3 Channel: 134.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (010–190)
2.18.3 Channel: 290.275
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC (191–009)
2.18.3 Channel: 126.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC (191–009)
2.18.3 Channel: 353.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S
2.18.3 Channel: 327.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS
2.18.3 Channel: 125.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 125.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (191–009)
2.18.3 Channel: 126.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (010–190 4000 FT & BLW)
2.18.3 Channel: 134.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (010–190 ABV 4000 FT)

2.18.3 Channel: 134.85

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (010-190 ABV
4000 FT)

2.18.3 Channel: 290.275

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (191-009)

2.18.3 Channel: 353.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 118.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 01L. Magnetic
variation: 4E

2.19.2 ILS Identification: TWI

2.19.5 Coordinates: 37-38-16.7093N /
97-26-46.0112W

2.19.6 Site Elevation: 1310.4 ft

2.19.1 ILS Type: Inner Marker for runway 01L. Magnet-
ic variation: 4E

2.19.2 ILS Identification: TWI

2.19.5 Coordinates: 37-37-57.1412N /
97-26-49.6885W

2.19.6 Site Elevation: 1317 ft

2.19.1 ILS Type: Localizer for runway 01L. Magnetic
variation: 4E

2.19.2 ILS Identification: TWI

2.19.5 Coordinates: 37-39-51.3419N /
97-25-57.4083W

2.19.6 Site Elevation: 1319.9 ft

2.19.1 ILS Type: Outer Marker for runway 01L. Magnet-
ic variation: 4E

2.19.2 ILS Identification: TWI

2.19.5 Coordinates: 37-33-33.9515N / 97-28-51.777W

2.19.6 Site Elevation: 1310 ft

2.19.1 ILS Type: Glide Slope for runway 19R. Magnetic
variation: 4E

2.19.2 ILS Identification: HOV

2.19.5 Coordinates: 37-39-33.86N / 97-26-10.83W

2.19.6 Site Elevation: 1325.7 ft

2.19.1 ILS Type: Localizer for runway 19R. Magnetic
variation: 4E

2.19.2 ILS Identification: HOV

2.19.5 Coordinates: 37-37-54.74N / 97-26-50.78W

2.19.6 Site Elevation: 1319.4 ft

2.19.1 ILS Type: Outer Marker for runway 19R. Magnet-
ic variation: 4E

2.19.2 ILS Identification: HOV

2.19.5 Coordinates: 37-44-16.6132N / 97-24-0.9938W

2.19.6 Site Elevation: 1325.7 ft

2.19.1 ILS Type: DME for runway 01R. Magnetic varia-
tion: 4E

2.19.2 ILS Identification: ICT

2.19.5 Coordinates: 37-39-52.0396N / 97-25-2.8177W

2.19.6 Site Elevation: 1326.6 ft

2.19.1 ILS Type: Glide Slope for runway 01R. Magnetic
variation: 4E

2.19.2 ILS Identification: ICT

2.19.5 Coordinates: 37-38-42.6371N /
97-25-24.6964W

2.19.6 Site Elevation: 1314.7 ft

2.19.1 ILS Type: Localizer for runway 01R. Magnetic
variation: 4E

2.19.2 ILS Identification: ICT

2.19.5 Coordinates: 37-39-51.99N / 97-24-58.88W

2.19.6 Site Elevation: 1307 ft

2.19.1 ILS Type: Outer Marker for runway 01R. Magnetic variation: 4E
2.19.2 ILS Identification: ICT
2.19.5 Coordinates: 37-34-41.4971N / 97-27-21.0931W
2.19.6 Site Elevation:

2.19.1 ILS Type: DME for runway 19L. Magnetic variation: 4E
2.19.2 ILS Identification: MVP
2.19.5 Coordinates: 37-38-21.53N / 97-25-43.26W
2.19.6 Site Elevation: 1320 ft

2.19.1 ILS Type: Glide Slope for runway 19L. Magnetic variation: 4E

2.19.2 ILS Identification: MVP
2.19.5 Coordinates: 37-39-30.78N / 97-25-3.17W
2.19.6 Site Elevation: 1312.1 ft

2.19.1 ILS Type: Localizer for runway 19L. Magnetic variation: 4E
2.19.2 ILS Identification: MVP
2.19.5 Coordinates: 37-38-21.32N / 97-25-40.42W
2.19.6 Site Elevation: 1318.3 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 7E
2.19.2 Navigation Aid Identification: ICT
2.19.5 Coordinates: 37-44-42.9245N / 97-35-1.79W
2.19.6 Site Elevation: 1470.5 ft

General Remarks:

CALL FOR PUSHBACK NOT REQUIRED.

TWY L AND L1 CLSD TO ACFT WITH WINGSPAN MORE THAN 118FT.

TWY H CLSD TO ACFT WITH WINGSPAN MORE THAN 75 FT. TWY H CONGESTED AND NOT VISIBLE FROM ATCT; USE CAUTION.

NOTE: SEE SPECIAL NOTICES-CONTINUOUS POWER FACILITIES.

ACFT ENG RUNS ABV IDLE NOT APPROVED ON ACFT PRKG RAMPS.

TWYS F, G, H, J, P AND ALL PARKING RAMPS ARE NON-MOVEMENT AREAS.

PPR REQUIRED FOR ACFT CARRYING CLASS 1 - DIVISION 1.1; 1.2 OR 1.3 EXPLOSIVES AS DEFINED BY 49 CFR 173.50 OR AS AMENDED.

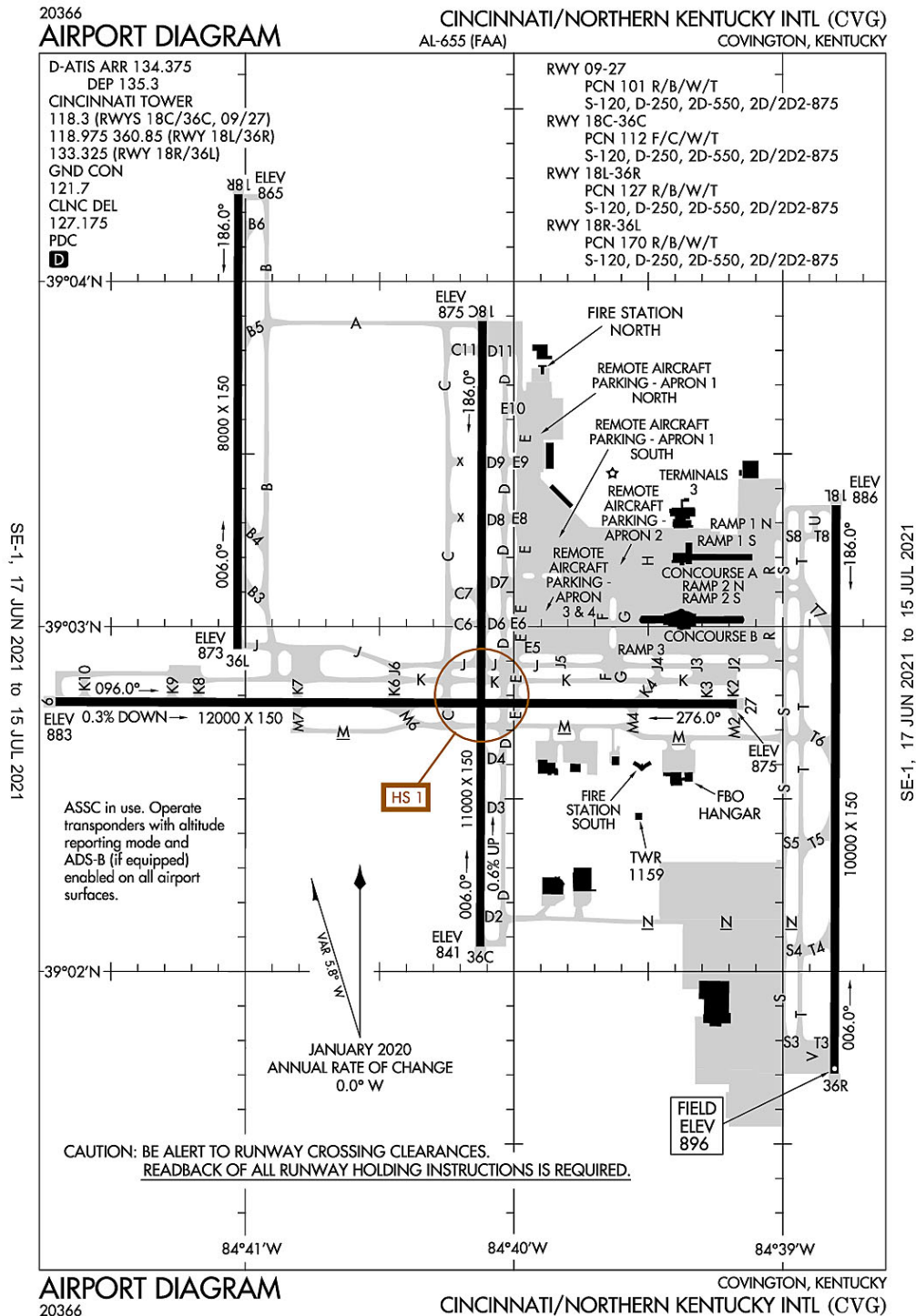
TWY P CLSD TO ACFT WITH WINGSPAN MORE THAN 79FT.

MIGRATORY BIRDS ON AND INVOF ARPT.

ATCT HAS LIMITED VISIBILITY OF TERMINAL GATES 1-8.

FLIGHT NOTIFICATION SERVICE (ADCUS) AVBL.

Covington, Kentucky
Cincinnati/Northern Kentucky International
ICAO Identifier KCVG



Covington, KY
Cincinnati/Northern Kentucky Intl
ICAO Identifier KCVG

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 39-2-55.812N / 84-40-4.16W
2.2.2 From City: 8 miles SW of COVINGTON, KY
2.2.3 Elevation: 896.2 ft
2.2.5 Magnetic Variation: 6W (2020)
2.2.6 Airport Contact: CANDACE MCGRAW

PO BOX 752000
CINCINNATI, OH 45275
(859-767-3151)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 09
2.12.2 True Bearing: 90
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 101 R/B/W/T
2.12.5 Coordinates: 39-2-46.9081N / 84-41-42.355W
2.12.6 Threshold Elevation: 883.3 ft
2.12.6 Touchdown Zone Elevation: 883.3 ft

2.12.1 Designation: 27
2.12.2 True Bearing: 270
2.12.3 Dimensions: 12000 ft x 150 ft
2.12.4 PCN: 101 R/B/W/T
2.12.5 Coordinates: 39-2-46.5432N / 84-39-10.2575W
2.12.6 Threshold Elevation: 874.9 ft
2.12.6 Touchdown Zone Elevation: 874.9 ft

2.12.1 Designation: 36C
2.12.2 True Bearing: 0
2.12.3 Dimensions: 11000 ft x 150 ft
2.12.4 PCN: 112 F/C/W/T
2.12.5 Coordinates: 39-2-4.355N / 84-40-7.4726W

2.12.6 Threshold Elevation: 840.9 ft
2.12.6 Touchdown Zone Elevation: 850.6 ft

2.12.1 Designation: 18C
2.12.2 True Bearing: 180
2.12.3 Dimensions: 11000 ft x 150 ft
2.12.4 PCN: 112 F/C/W/T
2.12.5 Coordinates: 39-3-53.0727N / 84-40-7.0232W
2.12.6 Threshold Elevation: 874.6 ft
2.12.6 Touchdown Zone Elevation: 874.6 ft

2.12.1 Designation: 18L
2.12.2 True Bearing: 180
2.12.3 Dimensions: 10000 ft x 150 ft
2.12.4 PCN: 127 R/B/W/T
2.12.5 Coordinates: 39-3-21.078N / 84-38-48.002W
2.12.6 Threshold Elevation: 886.2 ft
2.12.6 Touchdown Zone Elevation: 889.2 ft

2.12.1 Designation: 36R
2.12.2 True Bearing: 0
2.12.3 Dimensions: 10000 ft x 150 ft
2.12.4 PCN: 127 R/B/W/T
2.12.5 Coordinates: 39-1-42.243N / 84-38-48.4558W
2.12.6 Threshold Elevation: 896.2 ft
2.12.6 Touchdown Zone Elevation: 896.2 ft

2.12.1 Designation: 36L
2.12.2 True Bearing: 0
2.12.3 Dimensions: 8000 ft x 150 ft
2.12.4 PCN: 170 R/B/W/T
2.12.5 Coordinates: 39-2-56.1061N / 84-41-1.7599W
2.12.6 Threshold Elevation: 873.4 ft
2.12.6 Touchdown Zone Elevation: 873.4 ft

2.12.1 Designation: 18R
2.12.2 True Bearing: 180
2.12.3 Dimensions: 8000 ft x 150 ft
2.12.4 PCN: 170 R/B/W/T
2.12.5 Coordinates: 39-4-15.1761N / 84-41-1.4563W
2.12.6 Threshold Elevation: 865.4 ft
2.12.6 Touchdown Zone Elevation: 868.4 ft

AD 2.13 Declared Distances

2.13.1 Designation: 09
2.13.2 Take-off Run Available: 12000
2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 11640
2.13.5 Landing Distance Available: 11640

2.13.1 Designation: 27
2.13.2 Take-off Run Available: 12000
2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 36C
2.13.2 Take-off Run Available: 11000
2.13.3 Take-off Distance Available: 11000
2.13.4 Accelerate-Stop Distance Available: 11000
2.13.5 Landing Distance Available: 11000

2.13.1 Designation: 18C
2.13.2 Take-off Run Available: 11000
2.13.3 Take-off Distance Available: 11000
2.13.4 Accelerate-Stop Distance Available: 11000
2.13.5 Landing Distance Available: 11000

2.13.1 Designation: 18L
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 36R
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 36L
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

2.13.1 Designation: 18R
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 09
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 27
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18C
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 18L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 36L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 18R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P (090-269)
2.18.3 Channel: 119.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (270-089)
2.18.3 Channel: 123.875
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P
2.18.3 Channel: 363.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 127.175
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (001-180)
2.18.3 Channel: 121
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (181-360)
2.18.3 Channel: 128.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B
2.18.3 Channel: 254.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 134.375
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)
2.18.3 Channel: 135.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (001-180)
2.18.3 Channel: 126.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (181-360)
2.18.3 Channel: 128.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P
2.18.3 Channel: 254.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: JAKIE STAR
2.18.3 Channel: 119.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: JAKIE STAR
2.18.3 Channel: 254.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 09/27,
18C/36C)
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 18L/36R)

2.18.3 Channel: 118.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 18R/36L)
2.18.3 Channel: 133.325
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 18L/36R)
2.18.3 Channel: 360.85
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 09. Magnetic varia-
tion: 4W

2.19.2 ILS Identification: URN

2.19.5 Coordinates: 39-2-43.95N / 84-39-1.77W

2.19.6 Site Elevation: 872 ft

2.19.1 ILS Type: Glide Slope for runway 09. Magnetic
variation: 4W

2.19.2 ILS Identification: URN

2.19.5 Coordinates: 39-2-42.9214N / 84-41-28.2651W

2.19.6 Site Elevation: 873.6 ft

2.19.1 ILS Type: Localizer for runway 09. Magnetic
variation: 4W

2.19.2 ILS Identification: URN

2.19.5 Coordinates: 39-2-46.51N / 84-39-2.15W

2.19.6 Site Elevation: 873.7 ft

2.19.1 ILS Type: Glide Slope for runway 27. Magnetic
variation: 6W

2.19.2 ILS Identification: JDP

2.19.5 Coordinates: 39-2-42.6285N / 84-39-25.1641W

2.19.6 Site Elevation: 866.8 ft

2.19.1 ILS Type: Localizer for runway 27. Magnetic
variation: 6W

2.19.2 ILS Identification: JDP

2.19.5 Coordinates: 39-2-46.94N / 84-41-55.34W

2.19.6 Site Elevation: 884 ft

2.19.1 ILS Type: DME for runway 18C. Magnetic varia-
tion: 6W

2.19.2 ILS Identification: SIC

2.19.5 Coordinates: 39-1-54.15N / 84-40-8.21W

2.19.6 Site Elevation: 819 ft

2.19.1 ILS Type: Glide Slope for runway 18C. Magnetic
variation: 6W

2.19.2 ILS Identification: SIC

2.19.5 Coordinates: 39-3-42.6502N / 84-40-12.1375W

2.19.6 Site Elevation: 868 ft

2.19.1 ILS Type: Localizer for runway 18C. Magnetic variation: 6W

2.19.2 ILS Identification: SIC

2.19.5 Coordinates: 39-1-54.18N / 84-40-7.51W

2.19.6 Site Elevation: 819 ft

2.19.1 ILS Type: DME for runway 36C. Magnetic variation: 6W

2.19.2 ILS Identification: CVG

2.19.5 Coordinates: 39-4-3.9116N / 84-40-10.1714W

2.19.6 Site Elevation: 886 ft

2.19.1 ILS Type: Glide Slope for runway 36C. Magnetic variation: 6W

2.19.2 ILS Identification: CVG

2.19.5 Coordinates: 39-2-15.4818N / 84-40-12.4941W

2.19.6 Site Elevation: 834.3 ft

2.19.1 ILS Type: Inner Marker for runway 36C. Magnetic variation: 6W

2.19.2 ILS Identification: CVG

2.19.5 Coordinates: 39-1-54.0493N / 84-40-7.51W

2.19.6 Site Elevation: 818 ft

2.19.1 ILS Type: Localizer for runway 36C. Magnetic variation: 6W

2.19.2 ILS Identification: CVG

2.19.5 Coordinates: 39-4-3.6988N / 84-40-6.98W

2.19.6 Site Elevation: 882.2 ft

2.19.1 ILS Type: DME for runway 18L. Magnetic variation: 4W

2.19.2 ILS Identification: CIZ

2.19.5 Coordinates: 39-1-31.5754N / 84-38-45.4055W

2.19.6 Site Elevation: 915 ft

2.19.1 ILS Type: Glide Slope for runway 18L. Magnetic variation: 4W

2.19.2 ILS Identification: CIZ

2.19.5 Coordinates: 39-3-10.8816N / 84-38-42.9759W

2.19.6 Site Elevation: 881.3 ft

2.19.1 ILS Type: Localizer for runway 18L. Magnetic variation: 4W

2.19.2 ILS Identification: CIZ

2.19.5 Coordinates: 39-1-31.7864N / 84-38-48.5034W

2.19.6 Site Elevation: 899.1 ft

2.19.1 ILS Type: DME for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: EEI

2.19.5 Coordinates: 39-3-30.8783N / 84-38-51.1801W

2.19.6 Site Elevation: 905 ft

2.19.1 ILS Type: Glide Slope for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: EEI

2.19.5 Coordinates: 39-1-52.8046N / 84-38-43.3389W

2.19.6 Site Elevation: 889.9 ft

2.19.1 ILS Type: Inner Marker for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: EEI

2.19.5 Coordinates: 39-1-33.5638N / 84-38-48.4956W

2.19.6 Site Elevation: 899 ft

2.19.1 ILS Type: Localizer for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: EEI

2.19.5 Coordinates: 39-3-31.4852N / 84-38-47.9546W

2.19.6 Site Elevation: 892.1 ft

2.19.1 ILS Type: Middle Marker for runway 36R. Magnetic variation: 6W

2.19.2 ILS Identification: EEI

2.19.5 Coordinates: 39-1-16.5412N / 84-38-48.5766W

2.19.6 Site Elevation: 915 ft

2.19.1 ILS Type: DME for runway 18R. Magnetic variation: 6W

2.19.2 ILS Identification: CJN

2.19.5 Coordinates: 39-2-41.52N / 84-41-5.2W

2.19.6 Site Elevation: 869 ft

2.19.1 ILS Type: Glide Slope for runway 18R. Magnetic variation: 6W

2.19.2 ILS Identification: CJN

2.19.5 Coordinates: 39-4-3.91N / 84-41-6.57W

2.19.6 Site Elevation: 860.5 ft

2.19.1 ILS Type: Inner Marker for runway 18R. Magnetic variation: 6W

2.19.2 ILS Identification: CJN

2.19.5 Coordinates: 39-4-23.57N / 84-41-1.42W

2.19.6 Site Elevation: 856 ft

2.19.1 ILS Type: Localizer for runway 18R. Magnetic variation: 6W

2.19.2 ILS Identification: CJN
2.19.5 Coordinates: 39-2-41.27N / 84-41-1.83W
2.19.6 Site Elevation: 871 ft

2.19.1 ILS Type: DME for runway 36L. Magnetic variation: 6W
2.19.2 ILS Identification: VAC
2.19.5 Coordinates: 39-4-25.03N / 84-41-4.79W
2.19.6 Site Elevation: 848 ft

2.19.1 ILS Type: Glide Slope for runway 36L. Magnetic variation: 6W
2.19.2 ILS Identification: VAC
2.19.5 Coordinates: 39-3-6.56N / 84-41-6.79W
2.19.6 Site Elevation: 866.5 ft

2.19.1 ILS Type: Inner Marker for runway 36L. Magnet-

ic variation: 6W
2.19.2 ILS Identification: VAC
2.19.5 Coordinates: 39-2-44.31N / 84-41-1.8W
2.19.6 Site Elevation:

2.19.1 ILS Type: Localizer for runway 36L. Magnetic variation: 6W
2.19.2 ILS Identification: VAC
2.19.5 Coordinates: 39-4-25.49N / 84-41-1.4W
2.19.6 Site Elevation: 854.7 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 4W
2.19.2 Navigation Aid Identification: CVG
2.19.5 Coordinates: 39-0-57.5308N / 84-42-12.0468W
2.19.6 Site Elevation: 878 ft

General Remarks:

NOISE SENS AREA N & S OF ARPT; RWY ASGN 2200-0700 BASED ON NOISE ABATEMENT.

ALL TWYS RSTRD TO 15 MPH OR LESS WITH WINGSPAN 214 FT OR GREATER.

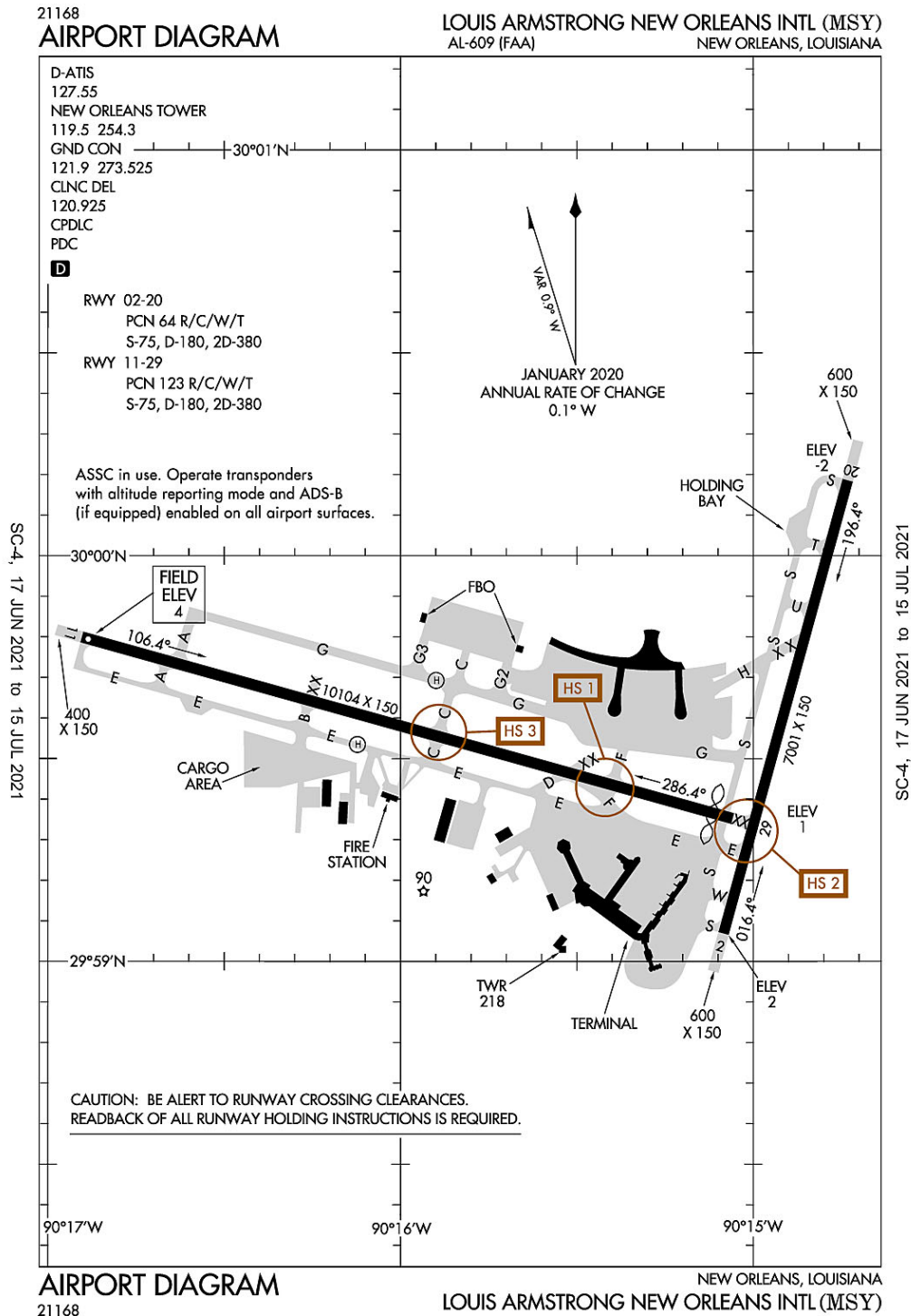
SUCCESSIVE OR SIMUL DEP FM RWY 18L, 18C, 36L, 36C & 36R APVD WITH COURSE DVRG BGN NO FURTHER THAN 2 MI FM EOR DUE TO NOISE ABATEMENT RSTR.

ASSC IN USE: OPR TRANSPONDERS WITH ALT REPORTING MODE & ADS-B IF EQUIPPED ENABLED ON ARPT SFCS.

BIRDS ON & INVOF THE ARPT.

RAMP CTL: RAMP 1N / 1S TXL & RAMP 2N / 2S TXL - 130.90; RAMP 3 TXL & N TXL - 130.375; DHL RAMP - 129.475.

New Orleans, Louisiana
Louis Armstrong New Orleans International
ICAO Identifier KMSY



New Orleans, LA
Louis Armstrong New Orleans Intl
ICAO Identifier KMSY

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 29-59-35.8N / 90-15-32.5W
2.2.2 From City: 10 miles W of NEW ORLEANS, LA
2.2.3 Elevation: 3.7 ft
2.2.5 Magnetic Variation: 1W (2020)
2.2.6 Airport Contact: KEVIN DOLLIOLÉ

PO BOX 20007
NEW ORLEANS, LA 70141
((504) 303-7652)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 02
2.12.2 True Bearing: 15
2.12.3 Dimensions: 7001 ft x 150 ft
2.12.4 PCN: 64 R/C/W/T
2.12.5 Coordinates: 29-59-4.2055N / 90-15-5.094W
2.12.6 Threshold Elevation: 1.8 ft
2.12.6 Touchdown Zone Elevation: 2.1 ft

2.12.1 Designation: 20
2.12.2 True Bearing: 195
2.12.3 Dimensions: 7001 ft x 150 ft
2.12.4 PCN: 64 R/C/W/T
2.12.5 Coordinates: 30-0-10.9924N / 90-14-43.8363W
2.12.6 Threshold Elevation: -2.4 ft
2.12.6 Touchdown Zone Elevation: -0.6 ft

2.12.1 Designation: 11
2.12.2 True Bearing: 105
2.12.3 Dimensions: 10104 ft x 150 ft
2.12.4 PCN: 123 R/C/W/T
2.12.5 Coordinates: 29-59-47.8556N /

90-16-54.2241W
2.12.6 Threshold Elevation: 3.7 ft
2.12.6 Touchdown Zone Elevation: 3.7 ft

2.12.1 Designation: 29
2.12.2 True Bearing: 285
2.12.3 Dimensions: 10104 ft x 150 ft
2.12.4 PCN: 123 R/C/W/T
2.12.5 Coordinates: 29-59-21.1654N / 90-15-3.4894W
2.12.6 Threshold Elevation: 1.3 ft
2.12.6 Touchdown Zone Elevation: 2 ft

AD 2.13 Declared Distances

2.13.1 Designation: 02
2.13.2 Take-off Run Available: 7001
2.13.3 Take-off Distance Available: 7001
2.13.4 Accelerate-Stop Distance Available: 7001
2.13.5 Landing Distance Available: 7001

2.13.1 Designation: 20
2.13.2 Take-off Run Available: 7001
2.13.3 Take-off Distance Available: 7001
2.13.4 Accelerate-Stop Distance Available: 7001
2.13.5 Landing Distance Available: 7001

2.13.1 Designation: 11
2.13.2 Take-off Run Available: 10104
2.13.3 Take-off Distance Available: 10104
2.13.4 Accelerate-Stop Distance Available: 9800
2.13.5 Landing Distance Available: 9800

2.13.1 Designation: 29
2.13.2 Take-off Run Available: 10104
2.13.3 Take-off Distance Available: 10104
2.13.4 Accelerate-Stop Distance Available: 10104
2.13.5 Landing Distance Available: 9800

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 02
2.14.2 Approach Lighting System: RLLS
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 20
2.14.2 Approach Lighting System: MALS
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 11
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 29
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P (WEST)
2.18.3 Channel: 125.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (EAST)
2.18.3 Channel: 133.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (EAST)
2.18.3 Channel: 290.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (WEST)
2.18.3 Channel: 350.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S
2.18.3 Channel: 269.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 120.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 120.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SE & SOUTH)
2.18.3 Channel: 123.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WEST)
2.18.3 Channel: 125.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NORTH & EAST)
2.18.3 Channel: 133.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SE & SOUTH)
2.18.3 Channel: 256.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NORTH & EAST)

2.18.3 Channel: 290.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WEST)

2.18.3 Channel: 350.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 127.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 273.525

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 119.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 254.3

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 02. Magnetic variation: 1W

2.19.2 ILS Identification: JFI

2.19.5 Coordinates: 30-0-21.6577N / 90-14-43.2465W

2.19.6 Site Elevation: 1.3 ft

2.19.1 ILS Type: Glide Slope for runway 02. Magnetic variation: 1W

2.19.2 ILS Identification: JFI

2.19.5 Coordinates: 29-59-13.6093N /

90-14-58.5588W

2.19.6 Site Elevation: -0.9 ft

2.19.1 ILS Type: Localizer for runway 02. Magnetic variation: 1W

2.19.2 ILS Identification: JFI

2.19.5 Coordinates: 30-0-20.5102N / 90-14-40.8078W

2.19.6 Site Elevation: -4.2 ft

2.19.1 ILS Type: DME for runway 20. Magnetic variation: 1W

2.19.2 ILS Identification: ONW

2.19.5 Coordinates: 30-0-21.6577N / 90-14-43.2465W

2.19.6 Site Elevation: 1.3 ft

2.19.1 ILS Type: Localizer for runway 20. Magnetic variation: 1W

2.19.2 ILS Identification: ONW

2.19.5 Coordinates: 29-58-55.148N / 90-15-7.973W

2.19.6 Site Elevation: 2.3 ft

2.19.1 ILS Type: DME for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: MSY

2.19.5 Coordinates: 29-59-17.2127N /

90-14-55.7209W

2.19.6 Site Elevation: 12.4 ft

2.19.1 ILS Type: Glide Slope for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: MSY

2.19.5 Coordinates: 29-59-48.6197N /

90-16-39.2497W

2.19.6 Site Elevation: -3.1 ft

General Remarks:

180 DEG & LOCKED WHEEL TURNS PROHIBITED ON ASPH SFC ACFT 12500 LBS & OVER.

FLOCKS OF BIRDS ON & IN VICINITY OF ARPT.

ASSC IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

TWY G BTN RWY 11/29 AND TWY S SFC MOV GUIDANCE AND CTL SYSTEM U/S PERM

RY 11 NOISE SENSITIVE FOR DEP; AVBL FOR OPNL NECESSITY. ALL RYS NOISE SENSITIVE FOR ARR. ARRIVING TURBOJETS MUST MAKE 5 MILE FINAL APCH TO MINIMIZE NOISE.

2.19.1 ILS Type: Inner Marker for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: MSY

2.19.5 Coordinates: 29-59-50.256N / 90-17-4.1742W

2.19.6 Site Elevation: 4.4 ft

2.19.1 ILS Type: Localizer for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: MSY

2.19.5 Coordinates: 29-59-19.3211N /

90-14-55.8537W

2.19.6 Site Elevation: -0.5 ft

2.19.1 ILS Type: DME for runway 29. Magnetic variation: 1W

2.19.2 ILS Identification: HOX

2.19.5 Coordinates: 29-59-17.2127N /

90-14-55.7209W

2.19.6 Site Elevation: 12.4 ft

2.19.1 ILS Type: Glide Slope for runway 29. Magnetic variation: 1W

2.19.2 ILS Identification: HOX

2.19.5 Coordinates: 29-59-27.9656N /

90-15-16.7865W

2.19.6 Site Elevation: 0.1 ft

2.19.1 ILS Type: Localizer for runway 29. Magnetic variation: 1W

2.19.2 ILS Identification: HOX

2.19.5 Coordinates: 29-59-50.5168N / 90-17-5.2703W

2.19.6 Site Elevation: 4.4 ft

20086

AIRPORT DIAGRAM

AL-39 (FAA)

BANGOR INTL (BGR)
BANGOR, MAINE

ATIS
127.75
BANGOR TOWER
120.7 233.7
GND CON
121.9 348.6
CLNC DEL
135.9 348.6

D

FIELD
ELEV
192

CAT 2 HOLD

1000 X 200

150.0°

0.4% DOWN

WHISKEY APRON

ANG APRON

FIRE STATION

TWR 322

INTL TERMINAL

DOMESTIC TERMINAL

COMMERCIAL APRON

AASF APRON

GENERAL AVIATION TERMINAL

327

ELEV 163

CAT 2 HOLD

1000 X 200

330.0°

339

322

11440 X 200

15-33

PCN 120 R/A/W/T

S-100, D-210, 2D-400

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

68°50'W

68°49'W

44°49'N

44°48'N

VAR 15.8° N

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° E

20086

AIRPORT DIAGRAM

BANGOR, MAINE
BANGOR INTL (BGR)

Bangor, ME
Bangor Intl
ICAO Identifier KBGR

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 44-48-26.8N / 68-49-41.3W
2.2.2 From City: 3 miles W of BANGOR, ME
2.2.3 Elevation: 192.1 ft
2.2.5 Magnetic Variation: 16W (2020)
2.2.6 Airport Contact: TONY CARUSO

BANGOR INTERNATIONAL
ARPT
BANGOR, ME 4401
(207-992-4600)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I B certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 15
2.12.2 True Bearing: 134
2.12.3 Dimensions: 11440 ft x 200 ft
2.12.4 PCN: 120 R/A/W/T
2.12.5 Coordinates: 44-49-6.1369N / 68-50-38.1522W
2.12.6 Threshold Elevation: 192.1 ft
2.12.6 Touchdown Zone Elevation: 192.1 ft

2.12.1 Designation: 33
2.12.2 True Bearing: 314
2.12.3 Dimensions: 11440 ft x 200 ft
2.12.4 PCN: 120 R/A/W/T
2.12.5 Coordinates: 44-47-47.4136N /
68-48-44.3618W
2.12.6 Threshold Elevation: 162.9 ft
2.12.6 Touchdown Zone Elevation: 162.9 ft

2.12.1 Designation: H1
2.12.2 True Bearing:
2.12.3 Dimensions: 100 ft x 100 ft

2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 15
2.13.2 Take-off Run Available: 11440
2.13.3 Take-off Distance Available: 11440
2.13.4 Accelerate-Stop Distance Available: 11440
2.13.5 Landing Distance Available: 11440

2.13.1 Designation: 33
2.13.2 Take-off Run Available: 11440
2.13.3 Take-off Distance Available: 11440
2.13.4 Accelerate-Stop Distance Available: 11440
2.13.5 Landing Distance Available: 11440

2.13.1 Designation: H1
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 15
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 33
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: H1
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 118.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S

2.18.3 Channel: 124.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS
2.18.3 Channel: 127.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 135.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C
2.18.3 Channel: 118.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C/S
2.18.3 Channel: 124.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 120.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 233.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: NG OPS
2.18.3 Channel: 41.2
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 15. Magnetic variation: 16W

2.19.2 ILS Identification: JVH
2.19.5 Coordinates: 44-47-42.4986N /
68-48-31.8082W
2.19.6 Site Elevation: 166.2 ft

2.19.1 ILS Type: Glide Slope for runway 15. Magnetic variation: 16W

2.19.2 ILS Identification: JVH
2.19.5 Coordinates: 44-49-2.1756N / 68-50-22.4761W
2.19.6 Site Elevation: 187.7 ft

2.19.1 ILS Type: Inner Marker for runway 15. Magnetic variation: 16W

2.19.2 ILS Identification: JVH
2.19.5 Coordinates: 44-49-12.0633N /
68-50-46.7197W
2.19.6 Site Elevation: 184 ft

2.19.1 ILS Type: Localizer for runway 15. Magnetic variation: 16W

2.19.2 ILS Identification: JVH
2.19.5 Coordinates: 44-47-40.3704N /
68-48-34.1931W
2.19.6 Site Elevation: 161.7 ft

2.19.1 ILS Type: Middle Marker for runway 15. Magnetic variation: 16W

2.19.2 ILS Identification: JVH
2.19.5 Coordinates: 44-49-23.6858N / 68-51-3.4639W
2.19.6 Site Elevation: 158 ft

2.19.1 ILS Type: DME for runway 33. Magnetic variation: 16W

2.19.2 ILS Identification: BGR
2.19.5 Coordinates: 44-47-42.4986N /
68-48-31.8082W
2.19.6 Site Elevation: 166.2 ft

2.19.1 ILS Type: Glide Slope for runway 33. Magnetic variation: 16W

2.19.2 ILS Identification: BGR
2.19.5 Coordinates: 44-47-53.7039N /
68-48-59.7081W

2.19.6 Site Elevation: 148.8 ft

2.19.1 ILS Type: Localizer for runway 33. Magnetic variation: 16W

2.19.2 ILS Identification: BGR

2.19.5 Coordinates: 44-49-13.6222N /

68-50-48.9786W

2.19.6 Site Elevation: 181.7 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 19W

2.19.2 Navigation Aid Identification: BGR

2.19.5 Coordinates: 44-50-30.4619N /

68-52-26.2752W

2.19.6 Site Elevation: 360.1 ft

General Remarks:

TRANSIENT ACFT MAY BE DIVERTED TO CIVILIAN SIDE DURING NON-DUTY HRS & WEEKENDS. FEE REQUIRED; NO ANG TRANSIENT ALERT.

ANG: PPR VALID +/- 1 HR UNLESS PRIOR CDN. 3 HR OUT CALL, 30 MIN OUT CALL 311.0 TO CFM CSTMS/AG AND TRAN SVC. COMMAND POST C207-404-7788 H24.

FUEL: A++ (MIL).

CAUTION: BASH PHASE II PERIOD SEP-NOV, APR-MAY. EXPECT INCREASED BIRD ACTIVITY. CONTACT BASE OPS/COMMAND POST/SOF FOR CURRENT BIRDWATCH COND.

ANG: OPR 1100-1930Z++ MON-FRI, CLSD WKEND AND HOL. PPR RQRD FOR ANG RAMP. CTC AFLD MGMT DSN 698-7232, C207-404-7232 FOR PPR DURG OPR HRS. PRE-COORD ALL TRNSPN RQMNTS AND HAZ CARGO WITH PPR REQ.

SVC TRAN ALERT: OPR 1130-0200Z++ MON-THU, 1130-1900Z++ FRI, CLSD WKEND AND HOL. UNAVBL OUTSIDE OF ANG TRAN ALERT OPR HRS WITHOUT PRIOR CDN.

SERVICE-FLUID: RMKS: FOREIGN MILITARY ONLY: ON BASE LOX SVC UNAVBL.

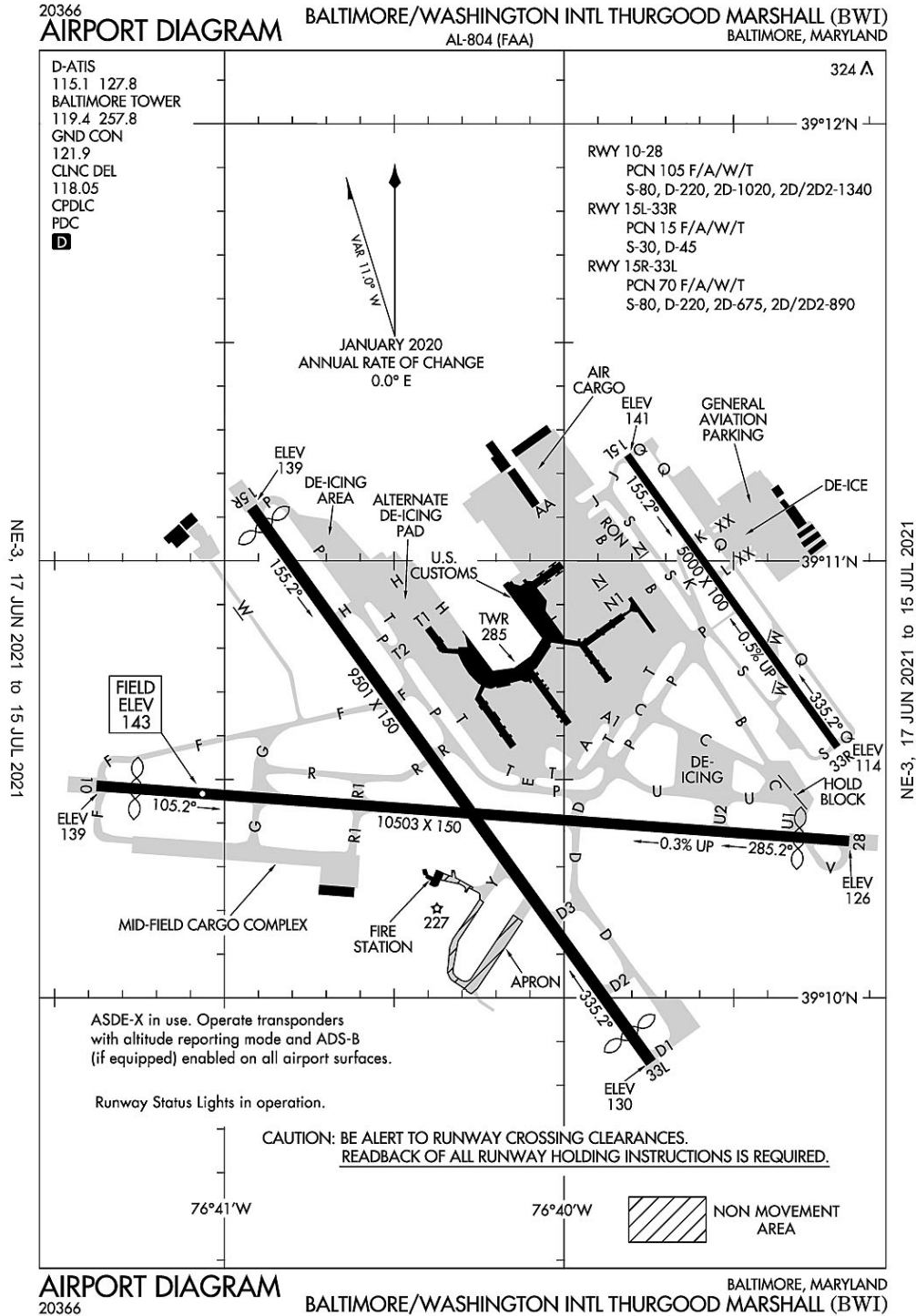
MISC: RWY 15-33 GROOVED.

SVC MIL-FLUID: OFF-BASE CONTRACTED LOX AVBL H24-RQR 24 HR NOTICE.

TFC PAT: RWY 33 LEFT TFC, TURBO JET TFC 2000' MSL UNLESS OTHERWISE INSTR.

ARNG: OPR 1230-2100Z++ MON-FRI EXC HOL. LTDMAINT. J8. PPR MAY-OCT SVC DSN 626-1100.

Baltimore, Maryland
Baltimore-Washington International Thurgood Marshall
ICAO Identifier KBWI



Baltimore, MD
Baltimore/Washington Intl Thurgood Marshal
ICAO Identifier KBWI

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 39-10-32.622N / 76-40-8.368W
- 2.2.2 From City: 9 miles S of BALTIMORE, MD
- 2.2.3 Elevation: 143.4 ft
- 2.2.5 Magnetic Variation: 11W (2000)
- 2.2.6 Airport Contact: JOHN STEWART
PO BOX 8766
BWI AIRPORT, MD 21240
(410-859-7018)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 10
- 2.12.2 True Bearing: 94
- 2.12.3 Dimensions: 10503 ft x 150 ft
- 2.12.4 PCN: 105 F/A/W/T
- 2.12.5 Coordinates: 39-10-29.0895N / 76-41-22.6248W
- 2.12.6 Threshold Elevation: 139 ft
- 2.12.6 Touchdown Zone Elevation: 143.4 ft
- 2.12.1 Designation: 28
- 2.12.2 True Bearing: 274
- 2.12.3 Dimensions: 10503 ft x 150 ft
- 2.12.4 PCN: 105 F/A/W/T
- 2.12.5 Coordinates: 39-10-21.4754N / 76-39-9.6234W
- 2.12.6 Threshold Elevation: 126.4 ft
- 2.12.6 Touchdown Zone Elevation: 142.7 ft
- 2.12.1 Designation: 33R
- 2.12.2 True Bearing: 324
- 2.12.3 Dimensions: 5000 ft x 100 ft
- 2.12.4 PCN: 15 F/A/W/T

- 2.12.5 Coordinates: 39-10-34.4468N / 76-39-11.6307W
- 2.12.6 Threshold Elevation: 114 ft
- 2.12.6 Touchdown Zone Elevation: 124.4 ft

- 2.12.1 Designation: 15L
- 2.12.2 True Bearing: 144
- 2.12.3 Dimensions: 5000 ft x 100 ft
- 2.12.4 PCN: 15 F/A/W/T
- 2.12.5 Coordinates: 39-11-14.5431N / 76-39-48.7441W
- 2.12.6 Threshold Elevation: 141.4 ft
- 2.12.6 Touchdown Zone Elevation: 141.5 ft

- 2.12.1 Designation: 33L
- 2.12.2 True Bearing: 324
- 2.12.3 Dimensions: 9501 ft x 150 ft
- 2.12.4 PCN: 70 F/A/W/T
- 2.12.5 Coordinates: 39-9-51.1311N / 76-39-44.6134W
- 2.12.6 Threshold Elevation: 129.6 ft
- 2.12.6 Touchdown Zone Elevation: 142.7 ft

- 2.12.1 Designation: 15R
- 2.12.2 True Bearing: 144
- 2.12.3 Dimensions: 9501 ft x 150 ft
- 2.12.4 PCN: 70 F/A/W/T
- 2.12.5 Coordinates: 39-11-7.3007N / 76-40-55.1704W
- 2.12.6 Threshold Elevation: 139 ft
- 2.12.6 Touchdown Zone Elevation: 138.3 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 10
- 2.13.2 Take-off Run Available: 10503
- 2.13.3 Take-off Distance Available: 10503
- 2.13.4 Accelerate-Stop Distance Available: 10503
- 2.13.5 Landing Distance Available: 9953

- 2.13.1 Designation: 28
- 2.13.2 Take-off Run Available: 10503
- 2.13.3 Take-off Distance Available: 10503
- 2.13.4 Accelerate-Stop Distance Available: 10503
- 2.13.5 Landing Distance Available: 9803

- 2.13.1 Designation: 33R
- 2.13.2 Take-off Run Available: 5000
- 2.13.3 Take-off Distance Available: 5000
- 2.13.4 Accelerate-Stop Distance Available: 5000
- 2.13.5 Landing Distance Available: 5000

- 2.13.1 Designation: 15L

2.13.2 Take-off Run Available: 5000
2.13.3 Take-off Distance Available: 5000
2.13.4 Accelerate-Stop Distance Available: 5000
2.13.5 Landing Distance Available: 5000

2.13.1 Designation: 33L
2.13.2 Take-off Run Available: 9501
2.13.3 Take-off Distance Available: 9501
2.13.4 Accelerate-Stop Distance Available: 8801
2.13.5 Landing Distance Available: 8301

2.13.1 Designation: 15R
2.13.2 Take-off Run Available: 9501
2.13.3 Take-off Distance Available: 9501
2.13.4 Accelerate-Stop Distance Available: 8601
2.13.5 Landing Distance Available: 8301

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 10
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 28
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 33R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 15L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 33L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 15R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 118.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 115.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 127.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 119.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 10. Magnetic variation: 11W

2.19.2 ILS Identification: BAL

2.19.5 Coordinates: 39-10-23.557N / 76-41-3.233W

2.19.6 Site Elevation: 137.6 ft

2.19.1 ILS Type: Localizer for runway 10. Magnetic variation: 11W

2.19.2 ILS Identification: BAL

2.19.5 Coordinates: 39-10-20.5919N /

76-38-54.2857W

2.19.6 Site Elevation: 137.5 ft

2.19.1 ILS Type: Glide Slope for runway 28. Magnetic variation: 11W

2.19.2 ILS Identification: OEH

2.19.5 Coordinates: 39-10-18.64N / 76-39-31.024W

2.19.6 Site Elevation: 129.2 ft

2.19.1 ILS Type: Localizer for runway 28. Magnetic variation: 11W

2.19.2 ILS Identification: OEH

2.19.5 Coordinates: 39-10-29.82N / 76-41-35.417W
2.19.6 Site Elevation: 134 ft

2.19.1 ILS Type: Glide Slope for runway 15L. Magnetic variation: 11W
2.19.2 ILS Identification: UQC
2.19.5 Coordinates: 39-11-3.6746N / 76-39-44.2376W
2.19.6 Site Elevation: 138.1 ft

2.19.1 ILS Type: Localizer for runway 15L. Magnetic variation: 11W
2.19.2 ILS Identification: UQC
2.19.5 Coordinates: 39-10-29.3978N / 76-39-6.9539W
2.19.6 Site Elevation: 94 ft

2.19.1 ILS Type: DME for runway 33R. Magnetic variation: 11W
2.19.2 ILS Identification: BWI
2.19.5 Coordinates: 39-11-18.9N / 76-39-48.5W
2.19.6 Site Elevation: 128.7 ft

2.19.1 ILS Type: Glide Slope for runway 33R. Magnetic variation: 11W
2.19.2 ILS Identification: BWI
2.19.5 Coordinates: 39-10-40.0486N / 76-39-21.1916W
2.19.6 Site Elevation: 110.3 ft

2.19.1 ILS Type: Localizer for runway 33R. Magnetic

variation: 11W
2.19.2 ILS Identification: BWI
2.19.5 Coordinates: 39-11-19.7555N / 76-39-53.5728W
2.19.6 Site Elevation: 133 ft

2.19.1 ILS Type: Glide Slope for runway 15R. Magnetic variation: 11W
2.19.2 ILS Identification: FND
2.19.5 Coordinates: 39-10-53.6N / 76-40-48.9W
2.19.6 Site Elevation: 130 ft

2.19.1 ILS Type: Localizer for runway 15R. Magnetic variation: 11W
2.19.2 ILS Identification: FND
2.19.5 Coordinates: 39-9-39.11N / 76-39-33.48W
2.19.6 Site Elevation: 116 ft

2.19.1 ILS Type: Glide Slope for runway 33L. Magnetic variation: 11W
2.19.2 ILS Identification: RUX
2.19.5 Coordinates: 39-10-0.53N / 76-39-59.72W
2.19.6 Site Elevation: 125 ft

2.19.1 ILS Type: Localizer for runway 33L. Magnetic variation: 11W
2.19.2 ILS Identification: RUX
2.19.5 Coordinates: 39-11-10.51N / 76-40-58.14W
2.19.6 Site Elevation: 133 ft

General Remarks:

ACFT ON VISUAL APCHS EXPECT TO MAINTAIN 3,000 FT UNTIL 10 DME FM BAL VORTAC; DEPART ACFT SHOULD EXPECT TURNS BASED ON BALTIMORE DME.

NO APRON PARKING FOR UNSKED ACR.

GENERAL AVIATION ACFT CTC UNICOM PRIOR TO ARRIVING AT GENERAL AVIATION RAMP FOR SECURITY PURPOSES.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

RWY STATUS LGTS IN OPN.

MAJOR CONSTRUCTION ON ARPT DLY; ACFT MOVEMENT & PARKING AREAS SUBJECT TO SHORT NOTICE CHANGE/CLOSURE. FOR CURRENT INFORMATION PHONE BWI OPNS CENTER 410-859-7018.

TWY "S", SOUTH OF TWY "P", RESTRICTED TO AIRCRAFT 60,000 LBS. & LESS.

RY 28 DE-ICE PAD LANE 1 RSTD TO ACFT WITH WINGSPAN 171 FT OR LESS, LANE 2 RSTD TO ACFT WITH WINGSPAN 135 FT OR LESS, LANE 3 IS USED BY LARGE ACFT MAX WINGSPAN 215 FT AND WHEN IN USE- LANES 2 AND 4 ARE UNAVBL. LANES 4, 5 & 6 ARE RSTD TO ACFT WINGSPAN 135 FT OR LESS.

ACFT DEPARTING RWY 28 EXP DEP FM TWY U1.

DEER & BIRDS OCNLLY ON & INVOF ARPT.

PRACTICE LNDG & APCH BY TURBO-PWRD ACFT PROHIBITED 2200-0600; PRACTICE LNDG & TKOF BY B-747 ACFT PROHIBITED RY 15R/33L.

TWY T BTN TWY H AND TWY E RSTD TO GROUP IV ACFT WITH WINGSPAN LESS THAN 171'. TWY T BTN TWY E AND TWY B RSTD TO GROUP V ACFT WITH WINGSPAN LESS THAN 214'; WHEN GROUP V ACFT ARE ON TWY T, TWY A IS RSTD TO MAX WINGSPANS OF 110'.

TAXILANES 'T-1' & 'H' RESTRICTED TO GROUP III ACFT WITH MAX WINGSPAN OF 118 FEET.

RWY LEN AVBL FOR RWY 28 DEPS FM TWY U1 IS 9802 FT.

TAXIING PROHIBITED BTN CONCOURSE C & ADJ BLDG STRUCTURE SW OF CONCOURSE C. ACCESS TO GATE C12 MUST BE VIA TWY A.

RY 15R DEICE PAD, POSITION # 1, RESTRICTED TO ACFT WITH WINGSPAN OF 156 FT 1 INCH OR LESS & LENGTH OF 180 FT 3 INCHES OR LESS. PSN'S #2 & #3 ARE RSTD TO ACFT WITH A WINGSPAN OF 156 FT 1 INCH OR LESS, POSITION #3 IS RSTD TO ACFT WITH A WINGSPAN OF 156 FT 1 INCH OR LESS & LENGTH OF 180 FT 3 INCHES OR LESS; POSITION 4 RESTRICTED TO ACFT WITH WINGSPAN OF 213 FT OR LESS & LENGTH OF 229 FT 2 INCHES OR LESS.

TWY 'A' IS RSTD TO GROUP IV ACFT WINGSPAN 171 FT OR LESS.

NOISE ABATEMENT PROCEDURES IN EFFECT – RESTRICTION FOR RY 15L/33R EXCEPT FOR EMERGENCIES OR MERCY FLIGHTS CTC AMGR FOR INFORMATION.

CONCOURSE A ALT DEICING AREA IS RSTD TO B737-800 SIZE ACFT WITH WINGLETS OR SMLR ON SPOTS 6, 7 AND 8.

DISTRACTING LGTS (GOLF DRIVING RANGE) RIGHT SIDE EXTDD CNTRLN RY 33L FM AER TO 1/4 MI FINAL.

CONT MOWING OPERATIONS ADJ ALL RYS & TXYS – APR THRU NOV.

DUAL PARALLEL TAXILANES HAVE BEEN ADDED TO THE 'D'/'E' ALLEYWAY; TAXILANE 'N' AND TAXILANE 'N1'. TAXILANE 'N' IS DESIGNATED A "GROUP V" TAXILANE WITH MAX WINGSPAN OF 213 FT. TAXILANE 'N1' IS DESIGNATED A "GROUP IV" TAXILANE WITH MAX WINGSPAN OF 170 FT.

20366

AIRPORT DIAGRAM

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

AL-58 (FAA) BOSTON, MASSACHUSETTS

US CUSTOMS

INTERNATIONAL TERMINAL

MAIN TERMINAL

TERMINAL B

TERMINAL C

PIER B

PIER C

TERMINAL E

TWR 317

SATELLITE TERMINAL

GENERAL AVIATION RAMP

NORTH CARGO

INTERNATIONAL TERMINAL A

SEE INSET

TWR 317

MAIN FIRE STATION

J PAD (PARKING)

4L-APCH

3000 X 100

320.1°

71°01'W

71°00'W

42°21'N

D-ATIS 135.0

BOSTON TOWER 128.8 (WEST) 132.225 (EAST) 257.8

Helicopters 124.725

GND CON 121.75 121.9

CLNC DEL 121.65 257.8

RAMP CON 134.05

CPDLC PDC

D

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

VAR 14.5° N

JANUARY 2020

ANNUAL RATE OF CHANGE 0.1° E

RWY 04L-22R, 04R-22L, 09-27, 15L-33R, 15R-33L

PCN 90 F/C/W/T

S-120, D-250, 2D-550

RWY 14-32

PCN 85 F/C/W/T

S-120, D-250, 2D-490

20366

AIRPORT DIAGRAM

GENERAL EDWARD LAWRENCE LOGAN INTL (BOS)

BOSTON, MASSACHUSETTS

Boston, MA
General Edward Lawrence Logan Intl
ICAO Identifier KBOS

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 42-21-46.6N / 71-0-23W

2.2.2 From City: 1 miles E of BOSTON, MA

2.2.3 Elevation: 19.1 ft

2.2.5 Magnetic Variation: 15W (2020)

2.2.6 Airport Contact: EDWARD FREN

LOGAN INTERNATIONAL
AIRPORT

EAST BOSTON, MA 02128

(617-567-5400)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES

2.4.2 Fuel Types: A,100LL

2.4.5 Hangar Space:

2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 9/1/1972

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 04L

2.12.2 True Bearing: 20

2.12.3 Dimensions: 7864 ft x 150 ft

2.12.4 PCN: 90 F/C/W/T

2.12.5 Coordinates: 42-21-28.7577N / 71-0-51.6187W

2.12.6 Threshold Elevation: 13.9 ft

2.12.6 Touchdown Zone Elevation: 13.9 ft

2.12.1 Designation: 22R

2.12.2 True Bearing: 200

2.12.3 Dimensions: 7864 ft x 150 ft

2.12.4 PCN: 90 F/C/W/T

2.12.5 Coordinates: 42-22-41.8759N / 71-0-16.2499W

2.12.6 Threshold Elevation: 14.9 ft

2.12.6 Touchdown Zone Elevation: 15.2 ft

2.12.1 Designation: 04R

2.12.2 True Bearing: 20

2.12.3 Dimensions: 10006 ft x 150 ft

2.12.4 PCN: 90 F/C/W/T

2.12.5 Coordinates: 42-21-3.8094N / 71-0-42.458W

2.12.6 Threshold Elevation: 18.8 ft

2.12.6 Touchdown Zone Elevation: 17.6 ft

2.12.1 Designation: 22L

2.12.2 True Bearing: 200

2.12.3 Dimensions: 10006 ft x 150 ft

2.12.4 PCN: 90 F/C/W/T

2.12.5 Coordinates: 42-22-36.8399N /
70-59-57.4473W

2.12.6 Threshold Elevation: 14.5 ft

2.12.6 Touchdown Zone Elevation: 15.6 ft

2.12.1 Designation: 09

2.12.2 True Bearing: 77

2.12.3 Dimensions: 7001 ft x 150 ft

2.12.4 PCN: 90 F/C/W/T

2.12.5 Coordinates: 42-21-20.715N / 71-0-46.4187W

2.12.6 Threshold Elevation: 16.7 ft

2.12.6 Touchdown Zone Elevation: 16.8 ft

2.12.1 Designation: 27

2.12.2 True Bearing: 257

2.12.3 Dimensions: 7001 ft x 150 ft

2.12.4 PCN: 90 F/C/W/T

2.12.5 Coordinates: 42-21-36.7767N /
70-59-15.7276W

2.12.6 Threshold Elevation: 14.8 ft

2.12.6 Touchdown Zone Elevation: 17.2 ft

2.12.1 Designation: 14

2.12.2 True Bearing: 125

2.12.3 Dimensions: 5000 ft x 100 ft

2.12.4 PCN: 85 F/C/W/T

2.12.5 Coordinates: 42-21-23.7521N / 71-1-23.7886W

2.12.6 Threshold Elevation: 16 ft

2.12.6 Touchdown Zone Elevation: 19.1 ft

2.12.1 Designation: 32

2.12.2 True Bearing: 305

2.12.3 Dimensions: 5000 ft x 100 ft

2.12.4 PCN: 85 F/C/W/T

2.12.5 Coordinates: 42-20-54.9565N / 71-0-29.6841W

2.12.6 Threshold Elevation: 19.1 ft

2.12.6 Touchdown Zone Elevation: 19.1 ft

2.12.1 Designation: 15L

2.12.2 True Bearing: 135

2.12.3 Dimensions: 2557 ft x 100 ft

2.12.4 PCN: 90 F/C/W/T

2.12.5 Coordinates: 42-22-23.5008N / 71-0-31.0047W

2.12.6 Threshold Elevation: 14.8 ft
2.12.6 Touchdown Zone Elevation: 15.8 ft

2.12.1 Designation: 33R
2.12.2 True Bearing: 315
2.12.3 Dimensions: 2557 ft x 100 ft
2.12.4 PCN: 90 F/C/W/T
2.12.5 Coordinates: 42-22-5.5791N / 71-0-7.0008W
2.12.6 Threshold Elevation: 14 ft
2.12.6 Touchdown Zone Elevation: 15.8 ft

2.12.1 Designation: 15R
2.12.2 True Bearing: 135
2.12.3 Dimensions: 10083 ft x 150 ft
2.12.4 PCN: 90 F/C/W/T
2.12.5 Coordinates: 42-22-27.3749N / 71-1-4.4117W
2.12.6 Threshold Elevation: 18.9 ft
2.12.6 Touchdown Zone Elevation: 17 ft

2.12.1 Designation: 33L
2.12.2 True Bearing: 315
2.12.3 Dimensions: 10083 ft x 150 ft
2.12.4 PCN: 90 F/C/W/T
2.12.5 Coordinates: 42-21-16.7428N /
70-59-29.7098W
2.12.6 Threshold Elevation: 15.7 ft
2.12.6 Touchdown Zone Elevation: 16.2 ft

AD 2.13 Declared Distances

2.13.1 Designation: 04L
2.13.2 Take-off Run Available: 7864
2.13.3 Take-off Distance Available: 7864
2.13.4 Accelerate-Stop Distance Available: 7864
2.13.5 Landing Distance Available: 7864

2.13.1 Designation: 22R
2.13.2 Take-off Run Available: 7864
2.13.3 Take-off Distance Available: 7864
2.13.4 Accelerate-Stop Distance Available: 7864
2.13.5 Landing Distance Available: 7046

2.13.1 Designation: 04R
2.13.2 Take-off Run Available: 10006
2.13.3 Take-off Distance Available: 10006
2.13.4 Accelerate-Stop Distance Available: 10006
2.13.5 Landing Distance Available: 8851

2.13.1 Designation: 22L
2.13.2 Take-off Run Available: 10006
2.13.3 Take-off Distance Available: 10006

2.13.4 Accelerate-Stop Distance Available: 10006
2.13.5 Landing Distance Available: 8806

2.13.1 Designation: 09
2.13.2 Take-off Run Available: 7001
2.13.3 Take-off Distance Available: 7001
2.13.4 Accelerate-Stop Distance Available: 7001
2.13.5 Landing Distance Available: 7001

2.13.1 Designation: 27
2.13.2 Take-off Run Available: 7001
2.13.3 Take-off Distance Available: 7001
2.13.4 Accelerate-Stop Distance Available: 7001
2.13.5 Landing Distance Available: 7001

2.13.1 Designation: 14
2.13.2 Take-off Run Available: 5000
2.13.3 Take-off Distance Available: 5000
2.13.4 Accelerate-Stop Distance Available: 5000
2.13.5 Landing Distance Available: 5000

2.13.1 Designation: 32
2.13.2 Take-off Run Available: 5000
2.13.3 Take-off Distance Available: 5000
2.13.4 Accelerate-Stop Distance Available: 5000
2.13.5 Landing Distance Available: 5000

2.13.1 Designation: 15L
2.13.2 Take-off Run Available: 2557
2.13.3 Take-off Distance Available: 2557
2.13.4 Accelerate-Stop Distance Available: 2557
2.13.5 Landing Distance Available: 2557

2.13.1 Designation: 33R
2.13.2 Take-off Run Available: 2557
2.13.3 Take-off Distance Available: 2557
2.13.4 Accelerate-Stop Distance Available: 2557
2.13.5 Landing Distance Available: 2557

2.13.1 Designation: 15R
2.13.2 Take-off Run Available: 10083
2.13.3 Take-off Distance Available: 10083
2.13.4 Accelerate-Stop Distance Available: 10083
2.13.5 Landing Distance Available: 9202

2.13.1 Designation: 33L
2.13.2 Take-off Run Available: 10083
2.13.3 Take-off Distance Available: 10083
2.13.4 Accelerate-Stop Distance Available: 10083
2.13.5 Landing Distance Available: 10083

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 04L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 09
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 27
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 14
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 32
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 15L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 33R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 15R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 33L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 121.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)
2.18.3 Channel: 135
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 135
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (HELICOPTERS)
2.18.3 Channel: 124.725
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (WEST)
2.18.3 Channel: 128.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (EAST)
2.18.3 Channel: 132.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL

2.18.3 Channel: 134.05
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 04R. Magnetic variation: 15W
2.19.2 ILS Identification: BOS
2.19.5 Coordinates: 42-22-57.4695N / 70-59-50.8873W
2.19.6 Site Elevation: 34.5 ft

2.19.1 ILS Type: Glide Slope for runway 04R. Magnetic variation: 15W
2.19.2 ILS Identification: BOS
2.19.5 Coordinates: 42-21-21.8231N / 71-0-24.5483W
2.19.6 Site Elevation: 10.1 ft

2.19.1 ILS Type: Localizer for runway 04R. Magnetic variation: 15W
2.19.2 ILS Identification: BOS
2.19.5 Coordinates: 42-22-55.9736N / 70-59-48.1884W
2.19.6 Site Elevation: 17.6 ft

2.19.1 ILS Type: DME for runway 22L. Magnetic variation: 15W
2.19.2 ILS Identification: LQN
2.19.5 Coordinates: 42-22-57.4695N / 70-59-50.8873W
2.19.6 Site Elevation: 34.5 ft

2.19.1 ILS Type: Glide Slope for runway 22L. Magnetic variation: 15W
2.19.2 ILS Identification: LQN
2.19.5 Coordinates: 42-22-17.0026N / 71-0-11.9878W
2.19.6 Site Elevation: 11.1 ft

2.19.1 ILS Type: Localizer for runway 22L. Magnetic variation: 15W
2.19.2 ILS Identification: LQN
2.19.5 Coordinates: 42-21-0.0409N / 71-0-44.2844W
2.19.6 Site Elevation: 14.6 ft

2.19.1 ILS Type: DME for runway 27. Magnetic variation: 15W
2.19.2 ILS Identification: DGU
2.19.5 Coordinates: 42-21-15.6955N / 71-0-55.7791W
2.19.6 Site Elevation: 30.5 ft

2.19.1 ILS Type: Glide Slope for runway 27. Magnetic

variation: 15W
2.19.2 ILS Identification: DGU
2.19.5 Coordinates: 42-21-31.2953N / 70-59-28.3545W
2.19.6 Site Elevation: 12.3 ft

2.19.1 ILS Type: Localizer for runway 27. Magnetic variation: 15W
2.19.2 ILS Identification: DGU
2.19.5 Coordinates: 42-21-18.4751N / 71-0-59.0489W
2.19.6 Site Elevation: 16.5 ft

2.19.1 ILS Type: DME for runway 15R. Magnetic variation: 15W
2.19.2 ILS Identification: MDC
2.19.5 Coordinates: 42-21-26.5111N / 70-59-35.0574W
2.19.6 Site Elevation: 26.4 ft

2.19.1 ILS Type: Glide Slope for runway 15R. Magnetic variation: 15W
2.19.2 ILS Identification: MDC
2.19.5 Coordinates: 42-22-14.6947N / 71-0-42.4209W
2.19.6 Site Elevation: 11.2 ft

2.19.1 ILS Type: Localizer for runway 15R. Magnetic variation: 15W
2.19.2 ILS Identification: MDC
2.19.5 Coordinates: 42-21-26.3592N / 70-59-37.052W
2.19.6 Site Elevation: 11.1 ft

2.19.1 ILS Type: DME for runway 33L. Magnetic variation: 15W
2.19.2 ILS Identification: LIP
2.19.5 Coordinates: 42-21-26.5111N / 70-59-35.0574W
2.19.6 Site Elevation: 26.4 ft

2.19.1 ILS Type: Glide Slope for runway 33L. Magnetic variation: 15W
2.19.2 ILS Identification: LIP
2.19.5 Coordinates: 42-21-26.6446N / 70-59-34.7132W
2.19.6 Site Elevation: 11.3 ft

2.19.1 ILS Type: Localizer for runway 33L. Magnetic variation: 15W
2.19.2 ILS Identification: LIP
2.19.5 Coordinates: 42-22-37.5624N / 71-1-18.0895W
2.19.6 Site Elevation: 15.9 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 16W

2.19.2 Navigation Aid Identification: BOS

70-59-22.3742W

2.19.5 Coordinates: 42-21-26.8197N /

2.19.6 Site Elevation: 18.4 ft

General Remarks:

RWY STATUS LGTS IN OPN.

NOISE SENSITIVE AREA – HELS OPNG WITHIN THE CTZL ARE REQD TO MAINT THE HIGHEST POSSIBLE ALT.

NO RON PARKING FOR NON-TENANT CHARTER AIRCRAFT WITHOUT PRIOR MASSPORT PERMISSION.

PILOTS SHOULD COMPLETE ALL CALCULATIONS PRIOR TO PUSHBACK FROM GATE.

BTN 0000-0600 LCL – RY 15R IS PREFERENTIAL NGT RY FOR TKOF & RY 33L IS PREFERENTIAL NGT RY FOR LNDG.

RWY 14/32 UNIDIRECTIONAL; NO LDGS RWY 14; NO TKOFS RWY 32.

NMRS CRANES ON AND INVOF ARPT.

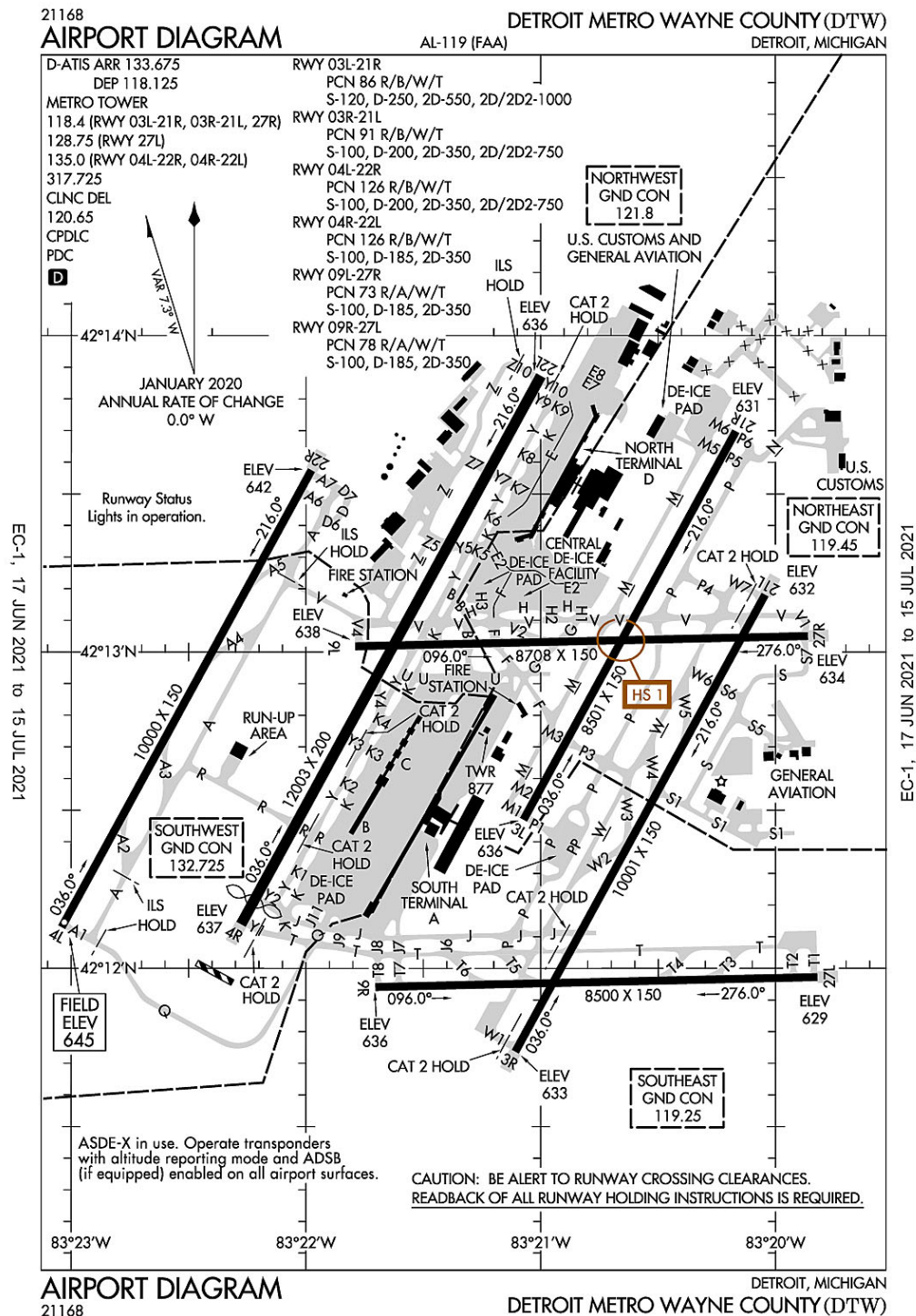
TERMINAL E; NORTH & SOUTH CARGO ARRIVALS CTC MASSPORT GATE CONTROL ON FREQ 131.1 BEFORE ENTERING/DEPARTING RAMP AREA.

FOR NOISE ABATEMENT PROCEDURES CALL 617-561-1636 0900-1700 MON-FRI.

BIRDS ON & INVOF ARPT.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

Detroit, Michigan
Detroit Metropolitan Wayne County
ICAO Identifier KDTW



Detroit, MI
Detroit Metropolitan Wayne County
ICAO Identifier KDTW

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 42-12-44.8N / 83-21-12.2W
 2.2.2 From City: 15 miles S of DETROIT, MI
 2.2.3 Elevation: 645.2 ft
 2.2.5 Magnetic Variation: 7W (2020)
 2.2.6 Airport Contact: CHAD NEWTON, INTERIM

AMGR
 11050 ROGELL DR #602
 DETROIT, MI 48242
 (734-942-3685)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
 2.4.2 Fuel Types: A,100LL
 2.4.5 Hangar Space: YES
 2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
 I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 03L
 2.12.2 True Bearing: 29
 2.12.3 Dimensions: 8501 ft x 150 ft
 2.12.4 PCN: 86 R/B/W/T
 2.12.5 Coordinates: 42-12-28.207N / 83-21-4.3869W
 2.12.6 Threshold Elevation: 635.7 ft
 2.12.6 Touchdown Zone Elevation: 636.8 ft

2.12.1 Designation: 21R
 2.12.2 True Bearing: 209
 2.12.3 Dimensions: 8501 ft x 150 ft
 2.12.4 PCN: 86 R/B/W/T
 2.12.5 Coordinates: 42-13-41.852N / 83-20-10.1125W
 2.12.6 Threshold Elevation: 631.4 ft
 2.12.6 Touchdown Zone Elevation: 634.4 ft

2.12.1 Designation: 03R
 2.12.2 True Bearing: 29
 2.12.3 Dimensions: 10001 ft x 150 ft
 2.12.4 PCN: 91 R/B/W/T

2.12.5 Coordinates: 42-11-44.2115N / 83-21-6.4868W
 2.12.6 Threshold Elevation: 632.8 ft
 2.12.6 Touchdown Zone Elevation: 633.1 ft

2.12.1 Designation: 21L
 2.12.2 True Bearing: 209
 2.12.3 Dimensions: 10001 ft x 150 ft
 2.12.4 PCN: 91 R/B/W/T
 2.12.5 Coordinates: 42-13-10.8552N / 83-20-2.6517W
 2.12.6 Threshold Elevation: 631.8 ft
 2.12.6 Touchdown Zone Elevation: 632.3 ft

2.12.1 Designation: 04L
 2.12.2 True Bearing: 29
 2.12.3 Dimensions: 10000 ft x 150 ft
 2.12.4 PCN: 126 R/B/W/T
 2.12.5 Coordinates: 42-12-7.8216N / 83-23-2.4003W
 2.12.6 Threshold Elevation: 645.2 ft
 2.12.6 Touchdown Zone Elevation: 645.2 ft

2.12.1 Designation: 22R
 2.12.2 True Bearing: 209
 2.12.3 Dimensions: 10000 ft x 150 ft
 2.12.4 PCN: 126 R/B/W/T
 2.12.5 Coordinates: 42-13-34.4821N /
 83-21-58.6115W
 2.12.6 Threshold Elevation: 642.1 ft
 2.12.6 Touchdown Zone Elevation: 642.1 ft

2.12.1 Designation: 22L
 2.12.2 True Bearing: 209
 2.12.3 Dimensions: 12003 ft x 200 ft
 2.12.4 PCN: 126 R/B/W/T
 2.12.5 Coordinates: 42-13-52.3644N /
 83-20-59.9655W
 2.12.6 Threshold Elevation: 635.8 ft
 2.12.6 Touchdown Zone Elevation: 637.4 ft

2.12.1 Designation: 04R
 2.12.2 True Bearing: 29
 2.12.3 Dimensions: 12003 ft x 200 ft
 2.12.4 PCN: 126 R/B/W/T
 2.12.5 Coordinates: 42-12-8.3656N / 83-22-16.5697W
 2.12.6 Threshold Elevation: 637 ft
 2.12.6 Touchdown Zone Elevation: 639.5 ft

2.12.1 Designation: 22X
 2.12.2 True Bearing: 209
 2.12.3 Dimensions: 0 ft x 0 ft
 2.12.4 PCN:
 2.12.5 Coordinates: -- / --

2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: 04X
2.12.2 True Bearing: 29
2.12.3 Dimensions: 0 ft x 0 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: 27R
2.12.2 True Bearing: 269
2.12.3 Dimensions: 8708 ft x 150 ft
2.12.4 PCN: 73 R/A/W/T
2.12.5 Coordinates: 42–13–3.0219N / 83–19–51.7146W
2.12.6 Threshold Elevation: 634.3 ft
2.12.6 Touchdown Zone Elevation: 634.7 ft

2.12.1 Designation: 09L
2.12.2 True Bearing: 89
2.12.3 Dimensions: 8708 ft x 150 ft
2.12.4 PCN: 73 R/A/W/T
2.12.5 Coordinates: 42–13–1.0821N / 83–21–47.4044W
2.12.6 Threshold Elevation: 638 ft
2.12.6 Touchdown Zone Elevation: 639.6 ft

2.12.1 Designation: 09R
2.12.2 True Bearing: 89
2.12.3 Dimensions: 8500 ft x 150 ft
2.12.4 PCN: 78 R/A/W/T
2.12.5 Coordinates: 42–11–56.4542N /
83–21–42.2248W
2.12.6 Threshold Elevation: 636 ft
2.12.6 Touchdown Zone Elevation: 636.1 ft

2.12.1 Designation: 27L
2.12.2 True Bearing: 269
2.12.3 Dimensions: 8500 ft x 150 ft
2.12.4 PCN: 78 R/A/W/T
2.12.5 Coordinates: 42–11–58.3372N /
83–19–49.3276W
2.12.6 Threshold Elevation: 629 ft
2.12.6 Touchdown Zone Elevation: 630.1 ft

AD 2.13 Declared Distances

2.13.1 Designation: 03L
2.13.2 Take-off Run Available: 8501
2.13.3 Take-off Distance Available: 8501
2.13.4 Accelerate–Stop Distance Available: 8501

2.13.5 Landing Distance Available: 8501

2.13.1 Designation: 21R
2.13.2 Take-off Run Available: 8501
2.13.3 Take-off Distance Available: 8501
2.13.4 Accelerate–Stop Distance Available: 8501
2.13.5 Landing Distance Available: 8501

2.13.1 Designation: 03R
2.13.2 Take-off Run Available: 10001
2.13.3 Take-off Distance Available: 10001
2.13.4 Accelerate–Stop Distance Available: 10001
2.13.5 Landing Distance Available: 10001

2.13.1 Designation: 21L
2.13.2 Take-off Run Available: 10001
2.13.3 Take-off Distance Available: 10001
2.13.4 Accelerate–Stop Distance Available: 10001
2.13.5 Landing Distance Available: 10001

2.13.1 Designation: 04L
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate–Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 22R
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate–Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 22L
2.13.2 Take-off Run Available: 12003
2.13.3 Take-off Distance Available: 12003
2.13.4 Accelerate–Stop Distance Available: 12003
2.13.5 Landing Distance Available: 12003

2.13.1 Designation: 04R
2.13.2 Take-off Run Available: 12003
2.13.3 Take-off Distance Available: 12003
2.13.4 Accelerate–Stop Distance Available: 12003
2.13.5 Landing Distance Available: 11494

2.13.1 Designation: 22X
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate–Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 04X

2.13.2 Take-off Run Available:

2.13.3 Take-off Distance Available:

2.13.4 Accelerate-Stop Distance Available:

2.13.5 Landing Distance Available:

2.13.1 Designation: 27R

2.13.2 Take-off Run Available: 8708

2.13.3 Take-off Distance Available: 8708

2.13.4 Accelerate-Stop Distance Available: 8708

2.13.5 Landing Distance Available: 8708

2.13.1 Designation: 09L

2.13.2 Take-off Run Available: 8708

2.13.3 Take-off Distance Available: 8708

2.13.4 Accelerate-Stop Distance Available: 8618

2.13.5 Landing Distance Available: 8618

2.13.1 Designation: 09R

2.13.2 Take-off Run Available: 8500

2.13.3 Take-off Distance Available: 8500

2.13.4 Accelerate-Stop Distance Available: 8500

2.13.5 Landing Distance Available: 8500

2.13.1 Designation: 27L

2.13.2 Take-off Run Available: 8500

2.13.3 Take-off Distance Available: 8500

2.13.4 Accelerate-Stop Distance Available: 8500

2.13.5 Landing Distance Available: 8500

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 03L

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 21R

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 03R

2.14.2 Approach Lighting System: ALSF2

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 21L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04L

2.14.2 Approach Lighting System: ALSF2

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22R

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 22L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 04R

2.14.2 Approach Lighting System: ALSF2

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 22X

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 04X

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 27R

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 09L

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 09R

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 27L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P (RWY 04L/22R, 04R/22L, 27L)

2.18.3 Channel: 124.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (RWY 03R, 21L, 27R)

2.18.3 Channel: 125.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P

2.18.3 Channel: 284

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BARII DP (RWY 04L/22R, 04R/22L)

2.18.3 Channel: 125.525

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BARII DP (RWY 03L/21R, 03R/21L, 27L, 27R)

2.18.3 Channel: 132.025

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BONZZ STAR

2.18.3 Channel: 126.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CCOBB DP (RWY 03L, 03R, 04L, 04R, 21L, 21R, 22L, 22R)

2.18.3 Channel: 125.525

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CCOBB DP (RWY 27L, 27R)

2.18.3 Channel: 132.025

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC

2.18.3 Channel: 120.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SW)

2.18.3 Channel: 118.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NW/NE)

2.18.3 Channel: 132.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SE)

2.18.3 Channel: 134.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLVIN DP (RWY 04L/22R, 04R/22L)

2.18.3 Channel: 125.525

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLVIN DP (RWY 03L/21R, 03R/21L, 27L, 27R)

2.18.3 Channel: 132.025

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CRAKN STAR

2.18.3 Channel: 126.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CUUGR STAR

2.18.3 Channel: 126.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)

2.18.3 Channel: 118.125

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)

2.18.3 Channel: 133.675

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (PROPS/TURBO-PROPS-WEST)

2.18.3 Channel: 118.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (TURBOJETS-WEST)

2.18.3 Channel: 125.525

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (TURBOJETS-EAST)

2.18.3 Channel: 132.025

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (PROPS/TURBO-PROPS-EAST)

2.18.3 Channel: 134.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: FERRL STAR

2.18.3 Channel: 126.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GEMNI STAR

2.18.3 Channel: 126.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (SOUTHEAST)
2.18.3 Channel: 119.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (NORTHEAST)
2.18.3 Channel: 119.45
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (NORTHWEST)
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (SOUTHWEST)
2.18.3 Channel: 132.725
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GRAYT STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HANBLSTAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HAYLL STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HHOWE DP (RWY 27L,
27R)
2.18.3 Channel: 125.525
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HHOWE DP (RWY
03L/21R, 03R/21L, 04L/22R, 04R/22L)
2.18.3 Channel: 132.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HTROD STAR
2.18.3 Channel: 126.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KAYLN DP
2.18.3 Channel: 125.525
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KKISS STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KLYNK STAR
2.18.3 Channel: 126.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LAYKS STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (ARRIVAL RWY
03R/21L, 27R)
2.18.3 Channel: 118.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (DEP, ARPT DIAG
RWY 03L/21R, 03R/21L, 27R)
2.18.3 Channel: 118.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (ARRIVAL RWY
04R/22L)
2.18.3 Channel: 128.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (DEP, ARPT DIAG
RWY 27L)
2.18.3 Channel: 128.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (ARRIVAL RWY
03L/21R, 27L)
2.18.3 Channel: 128.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (ARRIVAL RWY
04L/22R)
2.18.3 Channel: 135
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (DEP, ARPT DIAG
RWY 04L/22R, 04R/22L)
2.18.3 Channel: 135
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 317.725
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LECTR STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LIDDS DP
2.18.3 Channel: 132.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MEDEVAC
2.18.3 Channel: 259.6
2.18.5 Hours of Operation:

2.18.1 Service Designation: METRO DP (WEST-
BOUND)
2.18.3 Channel: 118.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: METRO DP (EAST-
BOUND)
2.18.3 Channel: 134.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MIGGY DP
2.18.3 Channel: 125.525
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MIZAR STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PAVYL DP
2.18.3 Channel: 132.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: POLAR STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 04L/22R)
2.18.3 Channel: 127.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 04R/22L)
2.18.3 Channel: 135.775
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RKCTY STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SNDRS DP (RWY
04L/22R, 04R/22L)
2.18.3 Channel: 125.525
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SNDRS DP (RWY
03L/21R, 03R/21L, 27L, 27R)
2.18.3 Channel: 132.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SPICA STAR
2.18.3 Channel: 126.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TPGUN STAR
2.18.3 Channel: 126.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TRMML DP (RWY 22L,
22R, 27L, 27R)
2.18.3 Channel: 125.525
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TRMML DP (RWY 03L,
03R, 04L, 04R, 21L, 21R)
2.18.3 Channel: 132.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: VCTRZ STAR
2.18.3 Channel: 124.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WEEDA STAR
2.18.3 Channel: 126.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WNGNT STAR
2.18.3 Channel: 126.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ZETTR DP (RWY 22L,
22R, 27L, 27R)
2.18.3 Channel: 125.525
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ZETTR DP (RWY 03L,
03R, 04L, 04R, 21L, 21R)
2.18.3 Channel: 132.025
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 03R. Magnetic varia-
tion: 7W

2.19.2 ILS Identification: HUU

2.19.5 Coordinates: 42-11-34.2185N / 83-21-9.5792W
2.19.6 Site Elevation: 638.7 ft

2.19.1 ILS Type: Glide Slope for runway 03R. Magnetic variation: 7W

2.19.2 ILS Identification: HUU

2.19.5 Coordinates: 42-11-51.1266N / 83-20-54.979W

2.19.6 Site Elevation: 630.1 ft

2.19.1 ILS Type: Inner Marker for runway 03R. Magnetic variation: 7W

2.19.2 ILS Identification: HUU

2.19.5 Coordinates: 42-11-36.5551N / 83-21-12.137W

2.19.6 Site Elevation: 631.1 ft

2.19.1 ILS Type: Localizer for runway 03R. Magnetic variation: 7W

2.19.2 ILS Identification: HUU

2.19.5 Coordinates: 42-13-20.4082N / 83-19-55.609W

2.19.6 Site Elevation: 634 ft

2.19.1 ILS Type: DME for runway 21L. Magnetic variation: 7W

2.19.2 ILS Identification: EJR

2.19.5 Coordinates: 42-11-34.2185N / 83-21-9.5792W

2.19.6 Site Elevation: 638.7 ft

2.19.1 ILS Type: Glide Slope for runway 21L. Magnetic variation: 7W

2.19.2 ILS Identification: EJR

2.19.5 Coordinates: 42-12-58.4945N / 83-20-5.1867W

2.19.6 Site Elevation: 628.9 ft

2.19.1 ILS Type: Localizer for runway 21L. Magnetic variation: 7W

2.19.2 ILS Identification: EJR

2.19.5 Coordinates: 42-11-34.9459N /
83-21-13.3158W

2.19.6 Site Elevation: 631.1 ft

2.19.1 ILS Type: DME for runway 04L. Magnetic variation: 7W

2.19.2 ILS Identification: HJT

2.19.5 Coordinates: 42-13-41.8988N /
83-21-48.7254W

2.19.6 Site Elevation: 649.7 ft

2.19.1 ILS Type: Glide Slope for runway 04L. Magnetic variation: 7W

2.19.2 ILS Identification: HJT

2.19.5 Coordinates: 42-12-18.9498N / 83-23-0.2665W

2.19.6 Site Elevation: 640.6 ft

2.19.1 ILS Type: Inner Marker for runway 04L. Magnetic variation: 7W

2.19.2 ILS Identification: HJT

2.19.5 Coordinates: 42-12-0.3838N / 83-23-7.8811W

2.19.6 Site Elevation: 645.2 ft

2.19.1 ILS Type: Localizer for runway 04L. Magnetic variation: 7W

2.19.2 ILS Identification: HJT

2.19.5 Coordinates: 42-13-43.2279N / 83-21-52.161W

2.19.6 Site Elevation: 642 ft

2.19.1 ILS Type: DME for runway 22R. Magnetic variation: 7W

2.19.2 ILS Identification: JKI

2.19.5 Coordinates: 42-13-41.8988N /
83-21-48.7254W

2.19.6 Site Elevation: 649.7 ft

2.19.1 ILS Type: Glide Slope for runway 22R. Magnetic variation: 7W

2.19.2 ILS Identification: JKI

2.19.5 Coordinates: 42-13-27.2272N /
83-22-10.0062W

2.19.6 Site Elevation: 636.7 ft

2.19.1 ILS Type: Localizer for runway 22R. Magnetic variation: 7W

2.19.2 ILS Identification: JKI

2.19.5 Coordinates: 42-11-59.0707N / 83-23-8.842W

2.19.6 Site Elevation: 644.6 ft

2.19.1 ILS Type: DME for runway 04R. Magnetic variation: 7W

2.19.2 ILS Identification: DTW

2.19.5 Coordinates: 42-13-59.7252N /
83-20-50.3339W

2.19.6 Site Elevation: 645.3 ft

2.19.1 ILS Type: Glide Slope for runway 04R. Magnetic variation: 7W

2.19.2 ILS Identification: DTW

2.19.5 Coordinates: 42-12-23.21N / 83-22-11.85W

2.19.6 Site Elevation: 633.1 ft

2.19.1 ILS Type: Inner Marker for runway 04R. Magnetic variation: 7W

2.19.2 ILS Identification: DTW

2.19.5 Coordinates: 42-12-4.547N / 83-22-19.3737W

2.19.6 Site Elevation: 637.1 ft

2.19.1 ILS Type: Localizer for runway 04R. Magnetic variation: 7W

2.19.2 ILS Identification: DTW

2.19.5 Coordinates: 42-14-1.3028N / 83-20-53.3772W

2.19.6 Site Elevation: 636.5 ft

2.19.1 ILS Type: DME for runway 22L. Magnetic variation: 7W

2.19.2 ILS Identification: DWC

2.19.5 Coordinates: 42-13-59.7252N /

83-20-50.3339W

2.19.6 Site Elevation: 645.3 ft

2.19.1 ILS Type: Glide Slope for runway 22L. Magnetic variation: 7W

2.19.2 ILS Identification: DWC

2.19.5 Coordinates: 42-13-43.8552N /

83-21-12.2894W

2.19.6 Site Elevation: 635.6 ft

2.19.1 ILS Type: Localizer for runway 22L. Magnetic variation: 7W

2.19.2 ILS Identification: DWC

2.19.5 Coordinates: 42-11-59.5406N /

83-22-23.0644W

2.19.6 Site Elevation: 636.1 ft

2.19.1 ILS Type: DME for runway 04X. Magnetic variation: 7W

2.19.2 ILS Identification: ALA

2.19.5 Coordinates: 42-11-57.1056N / 83-23-6.1821W

2.19.6 Site Elevation: 656.5 ft

2.19.1 ILS Type: Glide Slope for runway 04X. Magnetic variation: 7W

2.19.2 ILS Identification: ALA

2.19.5 Coordinates: 42-12-19.0378N / 83-23-0.5079W

2.19.6 Site Elevation: 640.7 ft

2.19.1 ILS Type: Localizer for runway 04X. Magnetic variation: 7W

2.19.2 ILS Identification: ALA

2.19.5 Coordinates: 42-13-33.4002N /

83-21-50.9401W

2.19.6 Site Elevation: 638.5 ft

2.19.1 ILS Type: DME for runway 22X. Magnetic variation: 7W

2.19.2 ILS Identification: BZB

2.19.5 Coordinates: 42-11-57.1056N / 83-23-6.1821W

2.19.6 Site Elevation: 656.6 ft

2.19.1 ILS Type: Glide Slope for runway 22X. Magnetic variation: 7W

2.19.2 ILS Identification: BZB

2.19.5 Coordinates: 42-13-27.3517N /

83-22-10.3013W

2.19.6 Site Elevation: 636.8 ft

2.19.1 ILS Type: Localizer for runway 22X. Magnetic variation: 7W

2.19.2 ILS Identification: BZB

2.19.5 Coordinates: 42-11-56.2259N / 83-23-1.9618W

2.19.6 Site Elevation: 646.3 ft

2.19.1 ILS Type: DME for runway 27R. Magnetic variation: 7W

2.19.2 ILS Identification: DMI

2.19.5 Coordinates: 42-12-47.2915N /

83-21-59.9856W

2.19.6 Site Elevation: 636.5 ft

2.19.1 ILS Type: Glide Slope for runway 27R. Magnetic variation: 7W

2.19.2 ILS Identification: DMI

2.19.5 Coordinates: 42-12-58.3552N / 83-20-4.8574W

2.19.6 Site Elevation: 629 ft

2.19.1 ILS Type: Localizer for runway 27R. Magnetic variation: 7W

2.19.2 ILS Identification: DMI

2.19.5 Coordinates: 42-13-0.7158N / 83-22-9.2988W

2.19.6 Site Elevation: 639.3 ft

2.19.1 ILS Type: DME for runway 27L. Magnetic variation: 7W

2.19.2 ILS Identification: EPA

2.19.5 Coordinates: 42-11-53.6723N /

83-21-55.0763W

2.19.6 Site Elevation: 634.8 ft

2.19.1 ILS Type: Glide Slope for runway 27L. Magnetic variation: 7W

2.19.2 ILS Identification: EPA

2.19.5 Coordinates: 42-11-54.6653N / 83-20-2.5117W

2.19.6 Site Elevation: 625.9 ft

2.19.1 ILS Type: Localizer for runway 27L. Magnetic variation: 7W

2.19.2 ILS Identification: EPA

2.19.5 Coordinates: 42-11-56.2294N /
83-21-55.6348W

2.19.6 Site Elevation: 634.1 ft

General Remarks:

BRIGHTLY LIGHTED PARKING LOT 2.6 NM SW OF ARPT.

RWY VISUAL SCREEN 20 FT AGL 1150 FT S. AER 04R

TURNING RESTRICTION TWY B TO TWY K RESTRICTED TO AIRCRAFT WITH WINGSPAN 171 FT OR LESS.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

PPR FOR B747-8 OPRS DUE TO CONSTRAINTS ON RWYS, TWYS AND RAMPS CTC AIRFIELD OPRS AT 734-942-3685.

TAXI ON RWY 09L/27R LTD TO: EXITING FM RWY 04R/22L, 03L/21R, & 03R/21L EXC NO TAXI BTN RWY 03L/21R & TWY W; TWO-WAY TAXI BTN TWY Y & TWY M WHEN RED STOP BAR LGTS ARE LGTD AT RWY 04R/22L & 03L/21R OR WHEN BARRICADES ARE USED INSTEAD AT THE RESPECTIVE INTS. TAXI BTN SS-SR OR IN CONDS WITH VIS LESS THAN 1 SM RQRS GREEN CNTRLN LGT TO BE OPR.

BE ALERT BIRDS, WATERFOWL, ON & INVOF ARPT.

RY STATUS LGTS ARE IN OPN.

ACFT WITH WINGSPAN GTR THAN 171 FT ARE RSTRD FM USING TWY P BTN TWY J & TWY P3.

TURNING RSTRD TO WINGSPAN 135 FT OR LESS TWY G NORTH TO TWY V EAST.

AIRCRAFT WITH WINGSPAN GREATER THAN 171 FT CANNOT PASS EACH OTHER ON TWYS Y AND K BETWEEN TWYS U AND K6 INSUFFICIENT WINGTIP CLEARANCE.

ACFT ON TWY 'F' AND TWY 'V' DO NOT BLOCK FIRE STATION EXITS.

DIVERSIONAIR CARRIERS WITHOUT A PRESENCE AT DTW SHOULD CTC AIRFIELD OPRS 734-942-3685 PRIOR TO DIVERTING TO THE EXTENT PRACTICAL AND PROVIDE COMPANY, FLT OPRS, CTC INFO, AIRCRAFT TYPE, PERSONS ONBOARD, INTERNATIONAL OR DOMESTIC, ANY GRND HANDLER AGREEMENTS IN PLACE.

ACFT WITH WINGSPAN GTR THAN 171 FT ARE RSTRD FM USING TWY H BTN TWY K & TWY F.

21168
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)
MINNEAPOLIS, MINNESOTA

AIRPORT DIAGRAM

D-ATIS ARR 135.35 239.275
 DEP 120.8
 MINNEAPOLIS TOWER
 123.95 273.55 (Rwy 12L-30R)
 126.7 273.55 (Rwys 12R-30L, 04-22)
 123.675 273.55 (Rwy 17-35)
 GND CON
 N 121.8 348.6
 S 121.9 348.6
 W 127.925 348.6
 CLNC DEL
 133.2
 GND METERING
 133.57
 CPDLC
 PDC

RWYS 04-22, 12L-30R
 PCN 105 R/B/W/T
 S-100, D-200, 2D-400, 2D/2D2-850
 RWY 12R-30L
 PCN 106 R/B/W/T
 S-100, D-200, 2D-400, 2D/2D2-850
 RWY 17-35
 PCN 118 R/B/W/T
 S-100, D-200, 2D-400, 2D/2D2-850

Runway Status Lights in operation.

FIELD ELEV 842

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

JANUARY 2020
 ANNUAL RATE OF CHANGE
 0.1° W

Minneapolis, MN
Minneapolis–St Paul Intl/Wold–Chamberlain
ICAO Identifier KMSP

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 44–52–55.1N / 93–13–18.4W
 2.2.2 From City: 6 miles S of MINNEAPOLIS, MN
 2.2.3 Elevation: 841.8 ft
 2.2.5 Magnetic Variation: 0E (2015)
 2.2.6 Airport Contact: BRIAN RYKS
 6040 28TH AVE SOUTH
 MINNEAPOLIS, MN 55450
 (612–726–8100)
 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
 2.4.2 Fuel Types: A,100LL,A++
 2.4.5 Hangar Space: YES
 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
 I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 22
 2.12.2 True Bearing: 225
 2.12.3 Dimensions: 11006 ft x 150 ft
 2.12.4 PCN: 105 R/B/W/T
 2.12.5 Coordinates: 44–53–36.9917N /
 93–12–29.8434W
 2.12.6 Threshold Elevation: 830.3 ft
 2.12.6 Touchdown Zone Elevation: 828.3 ft

2.12.1 Designation: 04
 2.12.2 True Bearing: 45
 2.12.3 Dimensions: 11006 ft x 150 ft
 2.12.4 PCN: 105 R/B/W/T
 2.12.5 Coordinates: 44–52–20.158N / 93–14–17.9427W
 2.12.6 Threshold Elevation: 833.5 ft
 2.12.6 Touchdown Zone Elevation: 831.7 ft

2.12.1 Designation: 12L
 2.12.2 True Bearing: 121
 2.12.3 Dimensions: 8200 ft x 150 ft
 2.12.4 PCN: 105 R/B/W/T

2.12.5 Coordinates: 44–53–34.6287N /
 93–13–15.5666W
 2.12.6 Threshold Elevation: 838.6 ft
 2.12.6 Touchdown Zone Elevation: 840.7 ft

2.12.1 Designation: 30R
 2.12.2 True Bearing: 301
 2.12.3 Dimensions: 8200 ft x 150 ft
 2.12.4 PCN: 105 R/B/W/T
 2.12.5 Coordinates: 44–52–52.5152N / 93–11–38.296W
 2.12.6 Threshold Elevation: 819.5 ft
 2.12.6 Touchdown Zone Elevation: 822.4 ft

2.12.1 Designation: 12R
 2.12.2 True Bearing: 121
 2.12.3 Dimensions: 10000 ft x 200 ft
 2.12.4 PCN: 106 R/B/W/T
 2.12.5 Coordinates: 44–53–16.0438N / 93–14–2.8731W
 2.12.6 Threshold Elevation: 841.8 ft
 2.12.6 Touchdown Zone Elevation: 841.8 ft

2.12.1 Designation: 30L
 2.12.2 True Bearing: 301
 2.12.3 Dimensions: 10000 ft x 200 ft
 2.12.4 PCN: 106 R/B/W/T
 2.12.5 Coordinates: 44–52–24.68N / 93–12–4.2689W
 2.12.6 Threshold Elevation: 814.4 ft
 2.12.6 Touchdown Zone Elevation: 823 ft

2.12.1 Designation: 17
 2.12.2 True Bearing: 170
 2.12.3 Dimensions: 8000 ft x 150 ft
 2.12.4 PCN: 118 R/B/W/T
 2.12.5 Coordinates: 44–53–15.9127N /
 93–14–32.1137W
 2.12.6 Threshold Elevation: 840.4 ft
 2.12.6 Touchdown Zone Elevation: 840.4 ft

2.12.1 Designation: 35
 2.12.2 True Bearing: 350
 2.12.3 Dimensions: 8000 ft x 150 ft
 2.12.4 PCN: 118 R/B/W/T
 2.12.5 Coordinates: 44–51–58.2366N /
 93–14–11.9205W
 2.12.6 Threshold Elevation: 833.3 ft
 2.12.6 Touchdown Zone Elevation: 834.4 ft

AD 2.13 Declared Distances

2.13.1 Designation: 22
 2.13.2 Take-off Run Available: 11006

2.13.3 Take-off Distance Available: 11006
2.13.4 Accelerate-Stop Distance Available: 11006
2.13.5 Landing Distance Available: 10006

2.13.1 Designation: 04
2.13.2 Take-off Run Available: 11006
2.13.3 Take-off Distance Available: 11006
2.13.4 Accelerate-Stop Distance Available: 11006
2.13.5 Landing Distance Available: 9456

2.13.1 Designation: 12L
2.13.2 Take-off Run Available: 8200
2.13.3 Take-off Distance Available: 8200
2.13.4 Accelerate-Stop Distance Available: 7620
2.13.5 Landing Distance Available: 7620

2.13.1 Designation: 30R
2.13.2 Take-off Run Available: 8200
2.13.3 Take-off Distance Available: 8200
2.13.4 Accelerate-Stop Distance Available: 8200
2.13.5 Landing Distance Available: 8000

2.13.1 Designation: 12R
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 30L
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 17
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

2.13.1 Designation: 35
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 22
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 12L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 30R
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 12R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 30L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 35
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 133.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)
2.18.3 Channel: 120.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 135.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 239.275
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND METERING
2.18.3 Channel: 133.575
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (N)
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (S)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (W)
2.18.3 Channel: 127.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 17/35)
2.18.3 Channel: 123.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 12L/30R)
2.18.3 Channel: 123.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 04/22,
12R/30L)
2.18.3 Channel: 126.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 273.55
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PTD
2.18.3 Channel: 282.675
2.18.5 Hours of Operation:

2.18.1 Service Designation: PTD
2.18.3 Channel: 324.1
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Localizer for runway 04. Magnetic
variation: 0E

2.19.2 ILS Identification: APL
2.19.5 Coordinates: 44-53-44.0038N /
93-12-19.9688W
2.19.6 Site Elevation: 832.1 ft

2.19.1 ILS Type: Localizer for runway 22. Magnetic
variation: 0E
2.19.2 ILS Identification: SIJ
2.19.5 Coordinates: 44-52-12.792N / 93-14-28.3006W
2.19.6 Site Elevation: 831.4 ft

2.19.1 ILS Type: DME for runway 12L. Magnetic varia-
tion: 0E
2.19.2 ILS Identification: PJL
2.19.5 Coordinates: 44-53-3.674N / 93-11-48.8687W
2.19.6 Site Elevation: 824 ft

2.19.1 ILS Type: Glide Slope for runway 12L. Magnetic
variation: 0E
2.19.2 ILS Identification: PJL
2.19.5 Coordinates: 44-53-31.1153N /
93-12-56.6941W
2.19.6 Site Elevation: 831 ft

2.19.1 ILS Type: Inner Marker for runway 12L. Magnet-
ic variation: 0E
2.19.2 ILS Identification: PJL
2.19.5 Coordinates: 44-53-39.694N / 93-13-25.8963W
2.19.6 Site Elevation: 845.3 ft

2.19.1 ILS Type: Localizer for runway 12L. Magnetic
variation: 0E
2.19.2 ILS Identification: PJL
2.19.5 Coordinates: 44-52-50.3312N /
93-11-33.2418W
2.19.6 Site Elevation: 813 ft

2.19.1 ILS Type: DME for runway 30R. Magnetic varia-
tion: 0E
2.19.2 ILS Identification: INN
2.19.5 Coordinates: 44-53-3.674N / 93-11-48.8687W
2.19.6 Site Elevation: 824 ft

2.19.1 ILS Type: Glide Slope for runway 30R. Magnetic
variation: 0E
2.19.2 ILS Identification: INN
2.19.5 Coordinates: 44-53-3.4471N / 93-11-48.8472W
2.19.6 Site Elevation: 813.2 ft

2.19.1 ILS Type: Localizer for runway 30R. Magnetic variation: 0E

2.19.2 ILS Identification: INN

2.19.5 Coordinates: 44-53-40.841N / 93-13-29.92W

2.19.6 Site Elevation: 843.1 ft

2.19.1 ILS Type: DME for runway 12R. Magnetic variation: 0E

2.19.2 ILS Identification: HKZ

2.19.5 Coordinates: 44-52-26.9244N /

93-12-20.5476W

2.19.6 Site Elevation: 825.4 ft

2.19.1 ILS Type: Glide Slope for runway 12R. Magnetic variation: 0E

2.19.2 ILS Identification: HKZ

2.19.5 Coordinates: 44-53-7.28N / 93-13-53.62W

2.19.6 Site Elevation: 835.1 ft

2.19.1 ILS Type: Inner Marker for runway 12R. Magnetic variation: 0E

2.19.2 ILS Identification: HKZ

2.19.5 Coordinates: 44-53-20.8698N /

93-14-12.7019W

2.19.6 Site Elevation: 840 ft

2.19.1 ILS Type: Localizer for runway 12R. Magnetic variation: 0E

2.19.2 ILS Identification: HKZ

2.19.5 Coordinates: 44-52-20.3796N /

93-11-54.3455W

2.19.6 Site Elevation: 812.8 ft

2.19.1 ILS Type: DME for runway 30L. Magnetic variation: 0E

2.19.2 ILS Identification: MSP

2.19.5 Coordinates: 44-52-26.9244N /

93-12-20.5476W

2.19.6 Site Elevation: 825.4 ft

2.19.1 ILS Type: Glide Slope for runway 30L. Magnetic variation: 0E

2.19.2 ILS Identification: MSP

2.19.5 Coordinates: 44-52-27.0021N /

93-12-20.2067W

2.19.6 Site Elevation: 812.1 ft

2.19.1 ILS Type: Inner Marker for runway 30L. Magnetic variation: 0E

2.19.2 ILS Identification: MSP

2.19.5 Coordinates: 44-52-19.4377N /

93-11-52.1826W

2.19.6 Site Elevation: 808.1 ft

2.19.1 ILS Type: Localizer for runway 30L. Magnetic variation: 0E

2.19.2 ILS Identification: MSP

2.19.5 Coordinates: 44-53-22.4589N / 93-14-17.688W

2.19.6 Site Elevation: 840 ft

2.19.1 ILS Type: DME for runway 17. Magnetic variation: 0E

2.19.2 ILS Identification: TJZ

2.19.5 Coordinates: 44-53-24.6166N /

93-14-38.0356W

2.19.6 Site Elevation: 832.5 ft

2.19.1 ILS Type: Localizer for runway 17. Magnetic variation: 0E

2.19.2 ILS Identification: TJZ

2.19.5 Coordinates: 44-51-48.4327N / 93-14-9.3727W

2.19.6 Site Elevation: 830.4 ft

2.19.1 ILS Type: DME for runway 35. Magnetic variation: 0E

2.19.2 ILS Identification: BMA

2.19.5 Coordinates: 44-53-24.6166N /

93-14-38.0356W

2.19.6 Site Elevation: 832.5 ft

2.19.1 ILS Type: Glide Slope for runway 35. Magnetic variation: 0E

2.19.2 ILS Identification: BMA

2.19.5 Coordinates: 44-52-7.7086N / 93-14-20.1127W

2.19.6 Site Elevation: 829.9 ft

2.19.1 ILS Type: Inner Marker for runway 35. Magnetic variation: 0E

2.19.2 ILS Identification: BMA

2.19.5 Coordinates: 44-51-49.9075N / 93-14-9.7433W

2.19.6 Site Elevation: 832.6 ft

2.19.1 ILS Type: Localizer for runway 35. Magnetic variation: 0E

2.19.2 ILS Identification: BMA

2.19.5 Coordinates: 44-53-25.7158N /

93-14-34.6512W

2.19.6 Site Elevation: 845.3 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 2E

2.19.2 Navigation Aid Identification: MSP

93-14-11.5137W

2.19.5 Coordinates: 44-53-47.3958N /

2.19.6 Site Elevation: 831.6 ft

General Remarks:

NOISE ABATEMENT PROCEDURES – 612-726-9411. NO STAGE 1 CAT CIVIL ACFT. NIGHT HR 2230-0600.

TRNG FLTS PROHIBITED. GA FLTS MUST TRMT AT THE FBO OR US CUSTOMS UNLESS APVD BY AMGR.

MILITARY RSTD: NO HAZ CL/DIV1.1 OR 1.2 EXPLOSIVES PERMITTED. LOADING OR UNLOADING OF HAZ CL/DIV 1.3, 1.4, 1.5 OR 1.6 MUST BE APV BY ARPT DRCT PRIOR TO FLT.

MILITARY: ARFC 934 AW OPS 1300-0400Z++ MON-FRI; CLSD WKEND AND HOL. UNIT TRNG ASSEMBLY WKEND 1330-2200Z++. ALL TRANS ACFT MUST RECEIVE PPR 48 HR PRIOR TO ETA – CTC AIRFIELD MGMT.

ASDE-X IN USE; OPR TRANSPONDERS WITH ALT RPRT MODE & ADS-B ENABLED ON ALL ARPT SFCS.

RWY STATUS LGTS IN OPRN.

TWY J CLSD TO ACFT WINGSPAN MORE THAN 85.5 FT.

133 AW AFLD MGMT – 324.1 REMARKS: CALL LIGHTHOUSE.

UNSKED ACFT AT TRML 2-HUMPHREY REQ TO CTC TRML 2 GATE CONTROL ON 122.95 OR CALL 612-726-5742 PRIOR TO ARR.

SIGNATURE FLIGHT SUPPORT 128.95

COMMUNICATIONS: MINNEAPOLIS AIR RESERVE STATION JOINT COMD POST – 252.1 REMARKS: CALL NORTHSTAR.

REMARKS: AFRC 934 AW CTC PTD VIKING OPS 20 MIN PRIOR LDG.

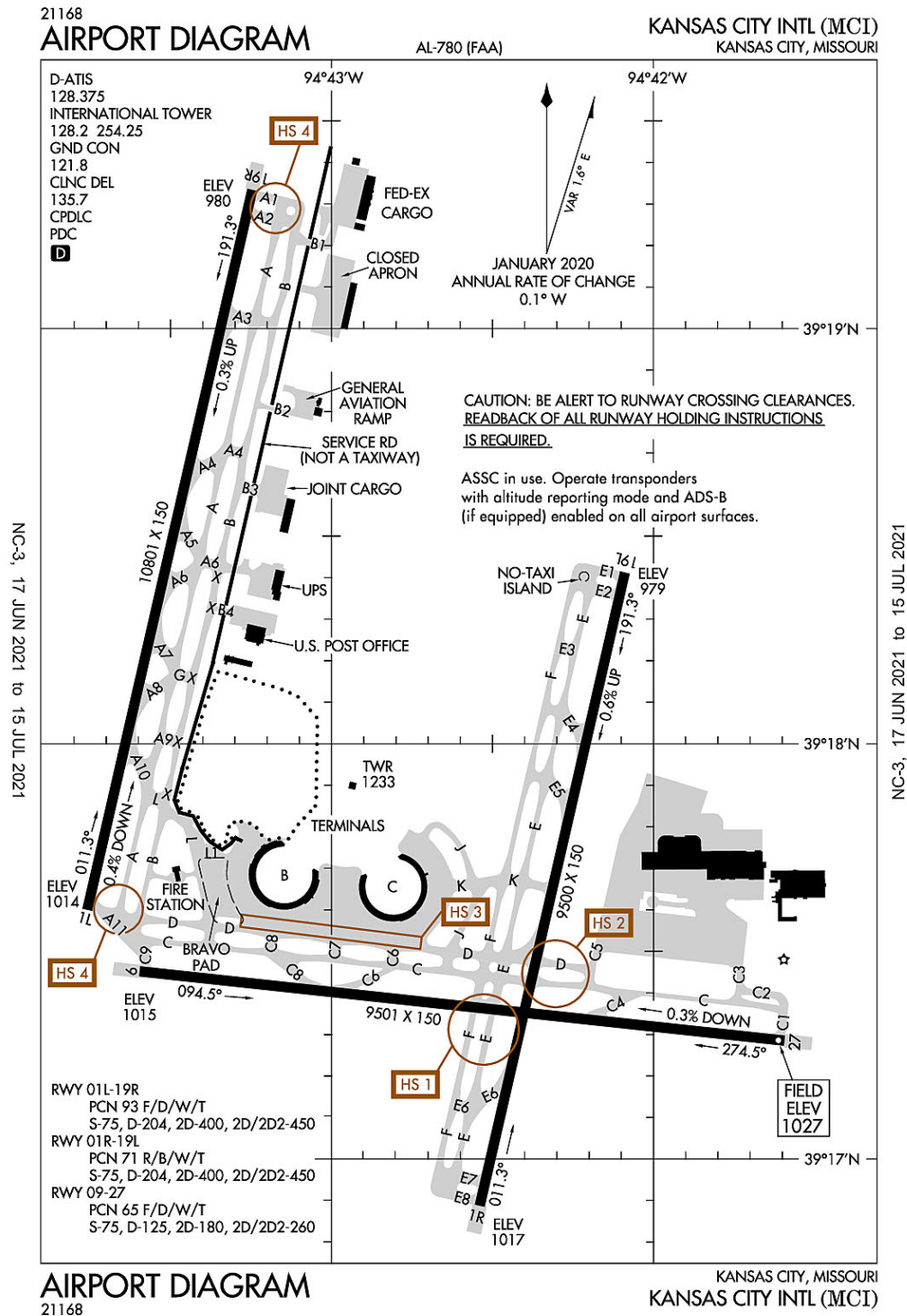
ALL GROUP VI ACFT WITH WINGSPAN GREATER THAN 214 FT PPR REQ PRIOR TO ARR – CTC AIRSIDE OPS 612-726-5111.

934 AW AFLD MGMT – PTD 282.675 REMARKS: CALL VIKING OPS.

BIRDS ON & INVOF ARPT.

ALL GA ACFT WITH LESS THAN 20 PAX THAT NEED TO CLEAR US CUSTOMS SHOULD CTC SIGNATURE FLT SUPPORT 128.95 OR 612-726-5700 PRIOR TO ARR.

Kansas City, Missouri
Kansas City International
ICAO Identifier KMCI



2.13.1 Designation: 01R
2.13.2 Take-off Run Available: 9500
2.13.3 Take-off Distance Available: 9500
2.13.4 Accelerate-Stop Distance Available: 9500
2.13.5 Landing Distance Available: 9500

2.13.1 Designation: 27
2.13.2 Take-off Run Available: 9501
2.13.3 Take-off Distance Available: 9501
2.13.4 Accelerate-Stop Distance Available: 9501
2.13.5 Landing Distance Available: 9501

2.13.1 Designation: 09
2.13.2 Take-off Run Available: 9501
2.13.3 Take-off Distance Available: 9501
2.13.4 Accelerate-Stop Distance Available: 9501
2.13.5 Landing Distance Available: 9501

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 01L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 19R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 19L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 01R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 27
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 09
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P
2.18.3 Channel: 120.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P
2.18.3 Channel: 318.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 135.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHIEF DP
2.18.3 Channel: 124.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHIEF DP
2.18.3 Channel: 284.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (EAST OF RWY 01/19)
2.18.3 Channel: 118.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (S OF A LINE FROM LWC ARPT TO 3GV ARPT)
2.18.3 Channel: 118.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WEST OF RWY 01/19)
2.18.3 Channel: 124.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (S OF A LINE FROM LWC ARPT TO 3GV ARPT)
2.18.3 Channel: 294.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (EAST OF RWY 01–19)
2.18.3 Channel: 294.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WEST OF RWY 01/19)
2.18.3 Channel: 318.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 128.375
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (010–190)

2.18.3 Channel: 123.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (191–009)

2.18.3 Channel: 124.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (191–009)

2.18.3 Channel: 284.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (010–190)

2.18.3 Channel: 318.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S

2.18.3 Channel: 121.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LAKES DP

2.18.3 Channel: 123.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LAKES DP

2.18.3 Channel: 318.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 128.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 254.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/S

2.18.3 Channel: 125.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RACER DP (BUTLER/
SPRINGFIELD TRANSITION)

2.18.3 Channel: 123.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RACER DP (DOSOA
TRANSITION)

2.18.3 Channel: 124.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RACER DP (DOSOA
TRANSITION)

2.18.3 Channel: 284.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RACER DP (BUTLER/
SPRINGFIELD TRANSITION)

2.18.3 Channel: 318.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ROYAL DP (ARENZ/BO-
DYN TRANSITION)

2.18.3 Channel: 123.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ROYAL DP (TONCE
TRANSITION)

2.18.3 Channel: 124.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ROYAL DP (TONCE
TRANSITION)

2.18.3 Channel: 284.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ROYAL DP (ARENZ/BO-
DYN TRANSITION)

2.18.3 Channel: 318.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TIFT0 DP

2.18.3 Channel: 124.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TIFT0 DP

2.18.3 Channel: 284.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WILDCAT DP

2.18.3 Channel: 124.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WILDCAT DP
2.18.3 Channel: 284.7
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 01L. Magnetic variation: 2E
2.19.2 ILS Identification: DOT
2.19.5 Coordinates: 39-19-30.0746N / 94-43-8.2388W
2.19.6 Site Elevation: 988.8 ft

2.19.1 ILS Type: Glide Slope for runway 01L. Magnetic variation: 2E
2.19.2 ILS Identification: DOT
2.19.5 Coordinates: 39-17-48.2654N / 94-43-47.1321W
2.19.6 Site Elevation: 1002.8 ft

2.19.1 ILS Type: Localizer for runway 01L. Magnetic variation: 2E
2.19.2 ILS Identification: DOT
2.19.5 Coordinates: 39-19-31.1181N / 94-43-11.5232W
2.19.6 Site Elevation: 972.3 ft

2.19.1 ILS Type: DME for runway 19R. Magnetic variation: 2E
2.19.2 ILS Identification: PAJ
2.19.5 Coordinates: 39-17-25.7846N / 94-43-51.9618W
2.19.6 Site Elevation: 1026 ft

2.19.1 ILS Type: Glide Slope for runway 19R. Magnetic variation: 2E
2.19.2 ILS Identification: PAJ
2.19.5 Coordinates: 39-19-11.0536N / 94-43-22.6772W
2.19.6 Site Elevation: 976.8 ft

2.19.1 ILS Type: Inner Marker for runway 19R. Magnetic variation: 2E
2.19.2 ILS Identification: PAJ
2.19.5 Coordinates: 39-19-30.1157N / 94-43-11.8201W
2.19.6 Site Elevation: 972.4 ft

2.19.1 ILS Type: Localizer for runway 19R. Magnetic variation: 2E
2.19.2 ILS Identification: PAJ
2.19.5 Coordinates: 39-17-23.1222N / 94-43-49.3464W

2.19.6 Site Elevation: 1017.6 ft

2.19.1 ILS Type: Middle Marker for runway 19R. Magnetic variation: 2E
2.19.2 ILS Identification: PAJ
2.19.5 Coordinates: 39-19-49.2587N / 94-43-6.2032W
2.19.6 Site Elevation: 965.1 ft

2.19.1 ILS Type: DME for runway 01R. Magnetic variation: 2E
2.19.2 ILS Identification: PVL
2.19.5 Coordinates: 39-18-35.6272N / 94-42-5.4664W
2.19.6 Site Elevation: 960 ft

2.19.1 ILS Type: Glide Slope for runway 01R. Magnetic variation: 2E
2.19.2 ILS Identification: PVL
2.19.5 Coordinates: 39-17-3.1905N / 94-42-24.2292W
2.19.6 Site Elevation: 1010.8 ft

2.19.1 ILS Type: Inner Marker for runway 01R. Magnetic variation: 2E
2.19.2 ILS Identification: PVL
2.19.5 Coordinates: 39-16-45.0995N / 94-42-34.8009W
2.19.6 Site Elevation: 1011.1 ft

2.19.1 ILS Type: Localizer for runway 01R. Magnetic variation: 2E
2.19.2 ILS Identification: PVL
2.19.5 Coordinates: 39-18-34.4013N / 94-42-2.4648W
2.19.6 Site Elevation: 963.3 ft

2.19.1 ILS Type: Middle Marker for runway 01R. Magnetic variation: 2E
2.19.2 ILS Identification: PVL
2.19.5 Coordinates: 39-16-27.6318N / 94-42-39.9693W
2.19.6 Site Elevation: 994.9 ft

2.19.1 ILS Type: DME for runway 19L. Magnetic variation: 2E
2.19.2 ILS Identification: DYH
2.19.5 Coordinates: 39-16-43.6236N / 94-42-38.5532W
2.19.6 Site Elevation: 1017.5 ft

2.19.1 ILS Type: Glide Slope for runway 19L. Magnetic variation: 2E
2.19.2 ILS Identification: DYH
2.19.5 Coordinates: 39-18-13.9534N / 94-42-3.2934W

2.19.6 Site Elevation: 977.9 ft

2.19.1 ILS Type: Localizer for runway 19L. Magnetic variation: 2E

2.19.2 ILS Identification: DYH

2.19.5 Coordinates: 39-16-43.575N / 94-42-35.2495W

2.19.6 Site Elevation: 1011.8 ft

2.19.1 ILS Type: DME for runway 09. Magnetic variation: 2E

2.19.2 ILS Identification: RNI

2.19.5 Coordinates: 39-17-18.904N / 94-41-21.7047W

2.19.6 Site Elevation: 1032.1 ft

2.19.1 ILS Type: Glide Slope for runway 09. Magnetic variation: 2E

2.19.2 ILS Identification: RNI

2.19.5 Coordinates: 39-17-21.0763N / 94-43-22.949W

2.19.6 Site Elevation: 1010.7 ft

2.19.1 ILS Type: Localizer for runway 09. Magnetic variation: 2E

2.19.2 ILS Identification: RNI

2.19.5 Coordinates: 39-17-16.0109N /

94-41-22.9272W

2.19.6 Site Elevation: 1020.2 ft

2.19.1 ILS Type: DME for runway 27. Magnetic variation: 2E

2.19.2 ILS Identification: UQY

2.19.5 Coordinates: 39-17-25.6745N /

94-43-54.5943W

2.19.6 Site Elevation: 1024.3 ft

2.19.1 ILS Type: Glide Slope for runway 27. Magnetic variation: 2E

2.19.2 ILS Identification: UQY

2.19.5 Coordinates: 39-17-15.7129N /

94-41-50.2717W

2.19.6 Site Elevation: 1021.4 ft

2.19.1 ILS Type: Localizer for runway 27. Magnetic variation: 2E

2.19.2 ILS Identification: UQY

2.19.5 Coordinates: 39-17-28.6283N /

94-43-54.0717W

2.19.6 Site Elevation: 1015.3 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 5E

2.19.2 Navigation Aid Identification: MCI

2.19.5 Coordinates: 39-17-7.02N / 94-44-13.42W

2.19.6 Site Elevation: 1017 ft

General Remarks:

PPR TO PARK AT AIRLINE GATES CTC RESPECTIVE AIRLINE.

WHEN USING HIGH-SPEED EXITS C5 & C6 CONTINUE UNTIL FIRST PARALLEL TWY, THEN USE EXTREME CARE WHEN TURNING IN EXCESS OF 90 DEGREES.

NOISE ABATEMENT PROCEDURES IN EFFECT 2200-0600 WITH LANDING ON RYS 01L & 19L; TAKEOFFS ON RYS 01R & 19R.

PUSHBACK CLNC RQRD AT GATES 43 THRU 57 IN TRML B AND GATES 68 THRU 77 IN TRML C, PUSHBACK FROM THESE GATES ENTERS TWY D.

DESIGN GROUP V AND VI ACFT RQR AN ARPT ESCORT ON TWY DELTA BTN TWYS JULIET AND LIMA.

ASSC IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

NO ACFT PARKING ON POSTAL APRON.

MIL ACFT MAY BE CHARGED RAMP/PARKING FEES.

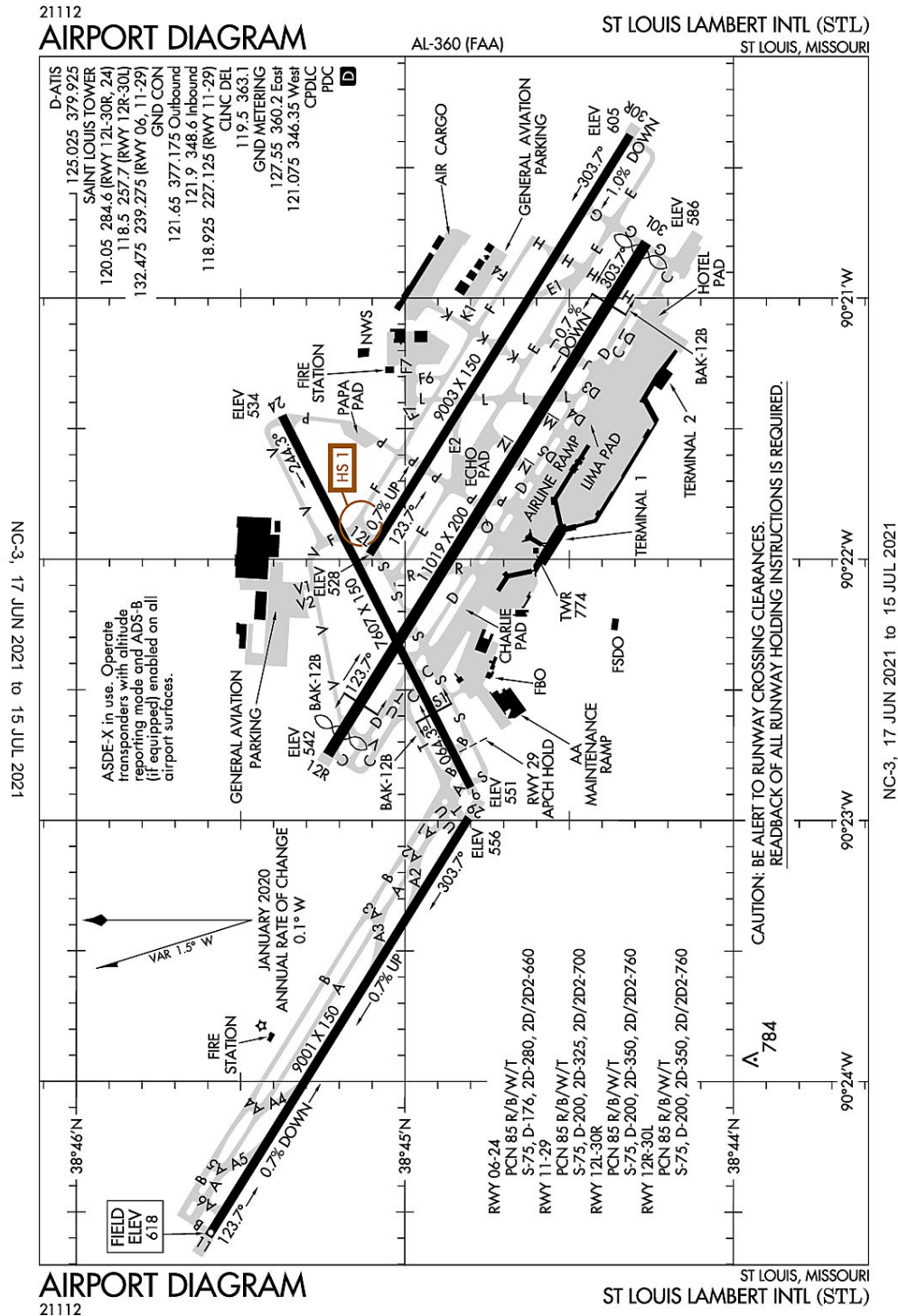
TWY B1 BTN TWY B AND FEDEX APN COCKPIT OVER CNTRLN STEERING RQRD

WINDSHEAR ALERT SYSTEM ON ARPT.

WATERFOWL ON AND INVOF ARPT.

FLIGHT NOTIFICATION SVC (ADCUS) AVBL AT GATE 90.

St. Louis, Missouri
Lambert-St. Louis International
ICAO Identifier KSTL



St Louis, MO
Lambert–St Louis Intl
ICAO Identifier KSTL

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 38–44–55.31N / 90–22–12.104W
2.2.2 From City: 10 miles NW of ST LOUIS, MO
2.2.3 Elevation: 618 ft
2.2.5 Magnetic Variation: 1W (2020)
2.2.6 Airport Contact: MS. RHONDA
Hamm–Niebruegge
Box 10212
ST LOUIS, MO 63145
(314–426–8000)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 06
2.12.2 True Bearing: 63
2.12.3 Dimensions: 7607 ft x 150 ft
2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–44–48.041N / 90–22–52.4335W
2.12.6 Threshold Elevation: 550.9 ft
2.12.6 Touchdown Zone Elevation: 550.9 ft

2.12.1 Designation: 24
2.12.2 True Bearing: 243
2.12.3 Dimensions: 7607 ft x 150 ft
2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–45–22.3823N /
90–21–27.0159W
2.12.6 Threshold Elevation: 533.7 ft
2.12.6 Touchdown Zone Elevation: 533.7 ft

2.12.1 Designation: 11
2.12.2 True Bearing: 122
2.12.3 Dimensions: 9001 ft x 150 ft

2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–45–35.8293N / 90–24–35.549W
2.12.6 Threshold Elevation: 618 ft
2.12.6 Touchdown Zone Elevation: 618 ft

2.12.1 Designation: 29
2.12.2 True Bearing: 302
2.12.3 Dimensions: 9001 ft x 150 ft
2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–44–48.456N / 90–22–59.3881W
2.12.6 Threshold Elevation: 556 ft
2.12.6 Touchdown Zone Elevation: 580 ft

2.12.1 Designation: 30R
2.12.2 True Bearing: 302
2.12.3 Dimensions: 9003 ft x 150 ft
2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–44–18.9854N /
90–20–22.5072W
2.12.6 Threshold Elevation: 604.5 ft
2.12.6 Touchdown Zone Elevation: 604.5 ft

2.12.1 Designation: 12L
2.12.2 True Bearing: 122
2.12.3 Dimensions: 9003 ft x 150 ft
2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–45–6.4062N / 90–21–58.6574W
2.12.6 Threshold Elevation: 528.3 ft
2.12.6 Touchdown Zone Elevation: 540.6 ft

2.12.1 Designation: 12R
2.12.2 True Bearing: 122
2.12.3 Dimensions: 11019 ft x 200 ft
2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–45–14.0486N /
90–22–44.9667W
2.12.6 Threshold Elevation: 541.6 ft
2.12.6 Touchdown Zone Elevation: 539.8 ft

2.12.1 Designation: 30L
2.12.2 True Bearing: 302
2.12.3 Dimensions: 11019 ft x 200 ft
2.12.4 PCN: 85 R/B/W/T
2.12.5 Coordinates: 38–44–16.0148N /
90–20–47.2732W
2.12.6 Threshold Elevation: 585.8 ft
2.12.6 Touchdown Zone Elevation: 582.8 ft

2.12.1 Designation: 30X
2.12.2 True Bearing:
2.12.3 Dimensions: 0 ft x 0 ft

2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 06
2.13.2 Take-off Run Available: 7602
2.13.3 Take-off Distance Available: 7602
2.13.4 Accelerate-Stop Distance Available: 7352
2.13.5 Landing Distance Available: 7352

2.13.1 Designation: 24
2.13.2 Take-off Run Available: 7602
2.13.3 Take-off Distance Available: 7602
2.13.4 Accelerate-Stop Distance Available: 7602
2.13.5 Landing Distance Available: 7602

2.13.1 Designation: 11
2.13.2 Take-off Run Available: 9001
2.13.3 Take-off Distance Available: 9001
2.13.4 Accelerate-Stop Distance Available: 9001
2.13.5 Landing Distance Available: 9001

2.13.1 Designation: 29
2.13.2 Take-off Run Available: 9001
2.13.3 Take-off Distance Available: 9001
2.13.4 Accelerate-Stop Distance Available: 9001
2.13.5 Landing Distance Available: 9001

2.13.1 Designation: 30R
2.13.2 Take-off Run Available: 9003
2.13.3 Take-off Distance Available: 9003
2.13.4 Accelerate-Stop Distance Available: 9003
2.13.5 Landing Distance Available: 9003

2.13.1 Designation: 12L
2.13.2 Take-off Run Available: 9003
2.13.3 Take-off Distance Available: 9003
2.13.4 Accelerate-Stop Distance Available: 9003
2.13.5 Landing Distance Available: 9003

2.13.1 Designation: 12R
2.13.2 Take-off Run Available: 11019
2.13.3 Take-off Distance Available: 11019
2.13.4 Accelerate-Stop Distance Available: 11019
2.13.5 Landing Distance Available: 10552

2.13.1 Designation: 30L
2.13.2 Take-off Run Available: 11019

2.13.3 Take-off Distance Available: 11019
2.13.4 Accelerate-Stop Distance Available: 11019
2.13.5 Landing Distance Available: 10819

2.13.1 Designation: 30X
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 06
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 24
2.14.2 Approach Lighting System: MALS
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 11
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 29
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 30R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 12L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 12R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 30L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 30X
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 119.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 363.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 125.025
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 379.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND METERING (WEST)
2.18.3 Channel: 121.075
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND METERING (EAST)
2.18.3 Channel: 127.55
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND METERING (WEST)
2.18.3 Channel: 346.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND METERING (EAST)
2.18.3 Channel: 360.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 11/29)
2.18.3 Channel: 118.925
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (OUTBOUND)
2.18.3 Channel: 121.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (INBOUND)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 11/29)
2.18.3 Channel: 227.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (INBOUND)
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (OUTBOUND)
2.18.3 Channel: 377.175
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 12R/30L)
2.18.3 Channel: 118.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 12L/30R, 24)
2.18.3 Channel: 120.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 06, 11/29)
2.18.3 Channel: 132.475
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 06, 11/29)
2.18.3 Channel: 239.275
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 12R/30L)
2.18.3 Channel: 257.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 12L/30R, 24)
2.18.3 Channel: 284.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 30R)
2.18.3 Channel: 278.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 30L)
2.18.3 Channel: 351.9
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 06. Magnetic variation: 1W

2.19.2 ILS Identification: JAK

2.19.5 Coordinates: 38-44-39.67N / 90-23-0.61W

2.19.6 Site Elevation: 556.2 ft

2.19.1 ILS Type: Glide Slope for runway 06. Magnetic variation: 1W

2.19.2 ILS Identification: JAK

2.19.5 Coordinates: 38-44-54.72N / 90-22-40.02W

2.19.6 Site Elevation: 536.2 ft

2.19.1 ILS Type: Localizer for runway 06. Magnetic variation: 1W

2.19.2 ILS Identification: JAK

2.19.5 Coordinates: 38-45-27.26N / 90-21-14.89W

2.19.6 Site Elevation: 541 ft

2.19.1 ILS Type: DME for runway 24. Magnetic variation: 1W

2.19.2 ILS Identification: STL

2.19.5 Coordinates: 38-44-39.67N / 90-23-0.61W

2.19.6 Site Elevation: 556.2 ft

2.19.1 ILS Type: Glide Slope for runway 24. Magnetic variation: 1W

2.19.2 ILS Identification: STL

2.19.5 Coordinates: 38-45-13.621N / 90-21-37.587W

2.19.6 Site Elevation: 527.9 ft

2.19.1 ILS Type: Localizer for runway 24. Magnetic variation: 1W

2.19.2 ILS Identification: STL

2.19.5 Coordinates: 38-44-43.52N / 90-23-3.73W

2.19.6 Site Elevation: 545 ft

2.19.1 ILS Type: DME for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: OGZ

2.19.5 Coordinates: 38-44-36.71N / 90-22-41.69W

2.19.6 Site Elevation: 548 ft

2.19.1 ILS Type: Glide Slope for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: OGZ

2.19.5 Coordinates: 38-45-26.0354N / 90-24-25.3798W

2.19.6 Site Elevation: 598.2 ft

2.19.1 ILS Type: Inner Marker for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: OGZ

2.19.5 Coordinates: 38-45-40.3454N / 90-24-44.7433W

2.19.6 Site Elevation: 614 ft

2.19.1 ILS Type: Localizer for runway 11. Magnetic variation: 1W

2.19.2 ILS Identification: OGZ

2.19.5 Coordinates: 38-44-38.7157N / 90-22-39.6272W

2.19.6 Site Elevation: 544.7 ft

2.19.1 ILS Type: DME for runway 29. Magnetic variation: 1W

2.19.2 ILS Identification: RQN

2.19.5 Coordinates: 38-45-43.83N / 90-24-44.64W

2.19.6 Site Elevation: 608 ft

2.19.1 ILS Type: Glide Slope for runway 29. Magnetic variation: 1W

2.19.2 ILS Identification: RQN

2.19.5 Coordinates: 38-44-49.83N / 90-23-11.86W

2.19.6 Site Elevation: 556 ft

2.19.1 ILS Type: Localizer for runway 29. Magnetic variation: 1W

2.19.2 ILS Identification: RQN

2.19.5 Coordinates: 38-45-41.3541N / 90-24-46.7698W

2.19.6 Site Elevation: 612.7 ft

2.19.1 ILS Type: DME for runway 12L. Magnetic variation: 1W

2.19.2 ILS Identification: LDZ

2.19.5 Coordinates: 38-44-10.39N / 90-20-12.05W

2.19.6 Site Elevation: 616.4 ft

2.19.1 ILS Type: Glide Slope for runway 12L. Magnetic variation: 1W

2.19.2 ILS Identification: LDZ

2.19.5 Coordinates: 38-44-58.2177N / 90-21-50.3421W

2.19.6 Site Elevation: 533.6 ft

2.19.1 ILS Type: Inner Marker for runway 12L. Magnetic variation: 1W

2.19.2 ILS Identification: LDZ

2.19.5 Coordinates: 38-45-11.9285N / 90-22-9.896W

2.19.6 Site Elevation: 530 ft

2.19.1 ILS Type: Localizer for runway 12L. Magnetic variation: 1W

2.19.2 ILS Identification: LDZ

2.19.5 Coordinates: 38-44-13.67N / 90-20-11.72W

2.19.6 Site Elevation: 602 ft

2.19.1 ILS Type: DME for runway 30R. Magnetic variation: 1W
2.19.2 ILS Identification: SJW
2.19.5 Coordinates: 38-45-14.124N / 90-22-7.9128W
2.19.6 Site Elevation: 545.7 ft

2.19.1 ILS Type: Glide Slope for runway 30R. Magnetic variation: 1W
2.19.2 ILS Identification: SJW
2.19.5 Coordinates: 38-44-21.9628N / 90-20-38.0158W
2.19.6 Site Elevation: 592.4 ft

2.19.1 ILS Type: Inner Marker for runway 30R. Magnetic variation: 1W
2.19.2 ILS Identification: SJW
2.19.5 Coordinates: 38-44-14.6593N / 90-20-13.73W
2.19.6 Site Elevation: 602 ft

2.19.1 ILS Type: Localizer for runway 30R. Magnetic variation: 1W
2.19.2 ILS Identification: SJW
2.19.5 Coordinates: 38-45-12.1N / 90-22-10.2W
2.19.6 Site Elevation: 533 ft

2.19.1 ILS Type: DME for runway 12R. Magnetic variation: 1W
2.19.2 ILS Identification: LMR
2.19.5 Coordinates: 38-44-7.69N / 90-20-39.9W
2.19.6 Site Elevation: 592 ft

2.19.1 ILS Type: Glide Slope for runway 12R. Magnetic variation: 1W
2.19.2 ILS Identification: LMR
2.19.5 Coordinates: 38-45-8.96N / 90-22-24.9W
2.19.6 Site Elevation: 531.6 ft

2.19.1 ILS Type: Localizer for runway 12R. Magnetic variation: 1W
2.19.2 ILS Identification: LMR
2.19.5 Coordinates: 38-44-10.22N / 90-20-35.52W
2.19.6 Site Elevation: 595 ft

2.19.1 ILS Type: Glide Slope for runway 30L. Magnetic variation: 1W
2.19.2 ILS Identification: BKY
2.19.5 Coordinates: 38-44-28.1N / 90-21-1.81W
2.19.6 Site Elevation: 563.9 ft

2.19.1 ILS Type: Localizer for runway 30L. Magnetic variation: 1W
2.19.2 ILS Identification: BKY
2.19.5 Coordinates: 38-45-19.34N / 90-22-55.7W
2.19.6 Site Elevation: 551 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 1E
2.19.2 Navigation Aid Identification: STL
2.19.5 Coordinates: 38-51-38.4802N / 90-28-56.5247W
2.19.6 Site Elevation: 450 ft

General Remarks:

TWY DELTA OR TAXILANE CHARLIE FM TWY SIERRA TO TWY GOLF, B-747S ARE NOT AUTH TO PASS OR BE PASSED BY B767 OR OTR LRGR ACFT OPRG ON THE PARL TWY/TAXILANE.

TWY ALPHA EAST OF TWY TANGO, TWY SIERRA AND RWY 6/24 SOUTH OF TWY BRAVO, NO ACFT OR VEHICLE OPNS WHEN ARRIVING OR DEPG RWY 11 OR ARRIVING RWY 29.

TWY LIMA, NORTH OF RWY 12L/30R, ACFT LRGR THAN A GULFSTREAM VI TAX NBND ARE PROHIBITED FM MAKING A RIGHT TURN EBND ON TWY FOXTROT.

TWY KILO 1 IS UNAVBL TO B-767 OR LRGR ACFT (WINGSPAN 118 FT OR GTR).

WG TIP CLNC WITH GND VEH NOT ADEQUATE ALONG N SIDE OF MAIN TRML APN.

TWY VICTOR 2 IS UNAVBL TO B-767 OR LRGR ACFT (WINGSPAN 118 FT OR GTR).

WAIVER TO CONDUCT SIMULTANEOUS APCHS TO PARALLEL RYS SEPARATED BY 1,300 FT IN EFFECT.

TAXILANE CHARLIE, FM TWY SIERRA TO TWY ROMEO, RSTRD TO B-767 OR SMLR ACFT (156 FT AVBL) WHEN ACFT ARE PARKED IN THE CHARLIE PAD. RSTRN IS FOR TAX ACFT, LRGR ACFT MAY BE TOWED THRU THE AREA.

MISC: MIL ACFT PLANNING TO ARR WHEN WX IS ANTICIPATED TO BE LESS THAN 1200'/5 MUST FILE F;T PLAN BEFORE 0900Z++.

TWY VICTOR, UNDERLYING THE RWY 12L FNA CRS, IS RSTRD TO ACFT WITH A TAIL HGT OF 25 FT OR LESS (CRJ-700 OR SMLR) WHEN ACFT ARE LNDG ON RWY 12L.

TWY ECHO, BTN TWY PAPA AND TWY NOVEMBER, RSTRD TO B-767 OR SMLR ACFT (WINGSPAN LESS THAN 171 FT) WHEN ACFT ARE PARKED ON THE ECHO PAD.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

A-GEAR: A-G ARE KEPT IN RECESSED POSN TIL REQ FOR USE. TWR MUST BE NOTIFIED AT LEAST 5 SEC PRIOR TO ENGAGEMENT SO THAT CABLE MAY BE RAISED.

TWY PAPA, EAST OF THE PAPA PAD TO TWY FOXTROT, RSTRD TO ACFT WITH A WINGSPAN OF LESS THAN 79 FT (CRJ-900 OR SMLR), WHEN ACFT ARE PARKED ON THE PAPA PAD. THIS AREA IS RSTRD TO ALL OPNS WHEN ACFT ARE PERFORMING ENG RUN-UPS IN THE PAPA PAD

TAXILANE/TWY CHARLIE, EAST OF TWY DELTA ONE TO THE AER 30L, RSTRD TO B-737 OR SMLR ACFT (WINGSPAN LESS THAN 118 FT) WHEN ACFT ARE PARKED ON THE HOTEL PAD.

TAXILANE CHARLIE, FROM TWY PAPA TO TWY QUEBEC, RSTRD TO A B757-300 SERIES OR SMLR.

TAXILANE CHARLIE, FROM TWY PAPA TO TWY DELTA FOUR, RSTRD TO B757-300 SERIES OR SMLR WHEN PASSING BHND ACFT THAT HAVE MADE THE INITIAL 10 FT PUSHBACK.

TWY VICTOR 2, B-737 (WINGSPAN GTR THAN 79 FT BUT LESS THAN 118 FT) MUST PERFORM JUDGMENTAL OVERSTEERING INSTEAD OF COCKPIT OVR CNTRLN STEERING WHEN TAX.

[illegible]

2.13.1 Designation: 19R
2.13.2 Take-off Run Available: 8988
2.13.3 Take-off Distance Available: 9400
2.13.4 Accelerate-Stop Distance Available: 8417
2.13.5 Landing Distance Available: 8417

2.13.1 Designation: 01R
2.13.2 Take-off Run Available: 9771
2.13.3 Take-off Distance Available: 10168
2.13.4 Accelerate-Stop Distance Available: 9276
2.13.5 Landing Distance Available: 8785

2.13.1 Designation: 19L
2.13.2 Take-off Run Available: 9771
2.13.3 Take-off Distance Available: 10171
2.13.4 Accelerate-Stop Distance Available: 9686
2.13.5 Landing Distance Available: 8808

2.13.1 Designation: 26R
2.13.2 Take-off Run Available: 14515
2.13.3 Take-off Distance Available: 15037
2.13.4 Accelerate-Stop Distance Available: 14037
2.13.5 Landing Distance Available: 12638

2.13.1 Designation: 08L
2.13.2 Take-off Run Available: 14515
2.13.3 Take-off Distance Available: 15099
2.13.4 Accelerate-Stop Distance Available: 14099
2.13.5 Landing Distance Available: 11960

2.13.1 Designation: 08R
2.13.2 Take-off Run Available: 10526
2.13.3 Take-off Distance Available: 10526
2.13.4 Accelerate-Stop Distance Available: 10526
2.13.5 Landing Distance Available: 10526

2.13.1 Designation: 26L
2.13.2 Take-off Run Available: 10526
2.13.3 Take-off Distance Available: 10526
2.13.4 Accelerate-Stop Distance Available: 10526
2.13.5 Landing Distance Available: 10526

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 01L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 19R
2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 01R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 19L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26R
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 118
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR/DEP)
2.18.3 Channel: 132.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (E OF RWY
01R/19L)
2.18.3 Channel: 121.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (W OF RWY

01R/19L)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (W OF RWY
01L/19R)
2.18.3 Channel: 254.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (E OF RWY
01R/19L)
2.18.3 Channel: 270.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 01L/19R,
01R/19L)
2.18.3 Channel: 118.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08L/26R,
08R/26L)
2.18.3 Channel: 119.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP ALTERNATE FRE-
QUENCY
2.18.3 Channel: 130
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (A, B, C
GATES & GA, CUSTOMS.)
2.18.3 Channel: 124.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (D, E GATES
& CARGO.)
2.18.3 Channel: 127.9
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 01L. Magnetic varia-
tion: 11E
2.19.2 ILS Identification: CUA
2.19.5 Coordinates: 36-6-1.7244N / 115-9-25.0625W
2.19.6 Site Elevation: 2089.4 ft

2.19.1 ILS Type: Glide Slope for runway 01L. Magnetic
variation: 11E
2.19.2 ILS Identification: CUA
2.19.5 Coordinates: 36-4-49.142N / 115-10-6.5151W
2.19.6 Site Elevation: 2158.4 ft

2.19.1 ILS Type: Localizer for runway 01L. Magnetic
variation: 11E
2.19.2 ILS Identification: CUA
2.19.5 Coordinates: 36-6-0.8259N / 115-9-22W
2.19.6 Site Elevation: 2078.9 ft

2.19.1 ILS Type: DME for runway 26R. Magnetic varia-
tion: 11E
2.19.2 ILS Identification: LAS
2.19.5 Coordinates: 36-4-30.5228N /
115-10-19.1659W
2.19.6 Site Elevation: 2201.5 ft

2.19.1 ILS Type: Glide Slope for runway 26R. Magnetic
variation: 11E
2.19.2 ILS Identification: LAS
2.19.5 Coordinates: 36-4-32.0826N / 115-7-46.6759W
2.19.6 Site Elevation: 2046.5 ft

2.19.1 ILS Type: Localizer for runway 26R. Magnetic
variation: 11E
2.19.2 ILS Identification: LAS
2.19.5 Coordinates: 36-4-34.9114N / 115-10-19.1797W
2.19.6 Site Elevation: 2186.3 ft

2.19.1 ILS Type: DME for runway 26L. Magnetic varia-
tion: 11E
2.19.2 ILS Identification: RLE
2.19.5 Coordinates: 36-4-22.2517N / 115-9-53.2672W
2.19.6 Site Elevation: 2182.2 ft

2.19.1 ILS Type: Glide Slope for runway 26L. Magnetic
variation: 11E
2.19.2 ILS Identification: RLE
2.19.5 Coordinates: 36-4-21.996N / 115-7-46.6672W
2.19.6 Site Elevation: 2050.4 ft

2.19.1 ILS Type: Localizer for runway 26L. Magnetic
variation: 11E
2.19.2 ILS Identification: RLE
2.19.5 Coordinates: 36-4-25.0515N / 115-9-53.3413W
2.19.6 Site Elevation: 2168.2 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 15E

2.19.2 Navigation Aid Identification: LAS

2.19.6 Site Elevation: 2136 ft

2.19.5 Coordinates: 36-4-46.9253N / 115-9-35.2725W

General Remarks:

ACFT WITH WINGSPAN GTR THAN 135 FT PPR FM DEPT OF AVN TO USE TWY H.

ACFT OPER NEAR THE INT OF TWYS S, D, G AND THE N END OF TWY Z SHOULD BE ALERT AS THERE ARE CLOSELY ALIGNED TWY CNTRLN AND RADIUS TURNS.

ACFT THAT DEP FULL LENGTH OF RWYS 01L AND 08L MUST HOLD AT THE SAME HOLD LINE AS THERE IS NO ROOM TO HOLD BTN THE RWY ENDS AND SUCH ACFT SHOULD VERIFY THAT THEY ARE ON THE CORRECT RWY.

GA CUST AND IMG LCTD WEST SIDE OF AFLD BTWN FBO'S.

ACFT TAX WB ON TWY B NEAR TWY E USE CARE NOT TO ENTER THE RWY ON TWY Y, ACFT TAX WB ON TWY W NEAR TWY E USE CARE NOT TO ENTER THE RWY ON TWY U.

RWY STS LGTS ARE IN OPN.

ACFT MAY EXPERIENCE REFLECTION OF SUN FM GLASS HOTELS LCTD NW OF ARPT. REFLECTION MAY OCCUR AT VARIOUS ALTS, HDGS, & DSTCS FM ARPT.

ALL NON-STD RWY OPNS PPR FM DEPT OF AVN.

ACFT DEPG RWY 19R USE MINIMAL PWR UNTIL PASSING THE RWY THLD. RWY 19R THLD HAS STD RWY MARKINGS AND IS 780 FT S OF THE BLAST PAD.

LGTD GOLF RANGE 1400 FT S OF RWYS 01L/19R AND 01R/19L.

RWY 08L 589 FT CWY; RWY 26R 645 FT CWY.

ALL ACFT CTC RAMP CTL ON FREQ 124.4 FOR OPNS AT A,B, AND C GATES; CTC RAMP CTL ON 127.9 FOR OPNS AT D AND E GATES AND CARGO RAMP PRIOR TO ENTERING RAMP OR PUSHING BACK FROM GATE OR PRKG SPOT.

LRG NR OF BIRDS AND BATS INVOF OF ARPT BTWN SS AND SR.

TBJT DEPS NOT PMTD ON RWY 01R/19L OR RWY 01L/19R 2000-0800. XCPNS FOR WX OR OPNL NECESSITY.

EXTSV GLDR/SOARING OPNS WKENDS & HOLDS; SR-SS; LAS R187/020; ALTS UP TO BUT NOT INCLG FL180. GLDRS RMN CLEAR OF THE TCA BUT OTHERWISE OPR WI THE ENTIRE SW QUAD OF THE TCA VEIL.

(E98) PLUS 64 SHELTERS & 24 SHEDS.

GA CBP RSVNS ARE RQRD TO BE SMTD A MIN OF 12 HOURS IN ADVN (OTHER CONDS APPLY). RSVNS MUST BE MADE ONLINE AT WWW.MCCARRAN.COM/GACBP. QNS CAN BE DCTD TO CBP559@MCCARRAN.COM. GA ACFT USING THE WEST SIDE CUST FAC MUST CTC RAMP CONTROL 124.4.

TIEDOWN FEE.

GA PRKG VERY LTD. FOR PRKG AVAILABILITY CTC EITHER FBO (702) 736-1830 OR (702) 739-1100.

ACFT USING FULL LEN DEP ON RWY 08L USE MINIMAL PWR TIL PASSING THE PWR-UP POINT ON RWY. PWR-UP POINT IS 348 FT EAST OF BLAST PAD AND MKD WITH SIGN AND STD MARKINGS FOR BGNG OF RWY.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

NMRS HOP ON WEST SIDE OF ARPT.

21056

AIRPORT DIAGRAM

RENO/TAHOE INTL (RNO)

RENO, NEVADA

AL-346 (FAA)

39°31'N

D-ATIS

135.8 363.0

RENO TOWER

118.7 257.8

GND CON

121.9 348.6

CLNC DEL

124.9 370.85

CPDLC

PDC

400 X 220

ELEV 4415

891

191

ELEV 4415

166.8°

4545 ±

TANKS

RWY 07-25

PCN 72 R/B/W/T

S-60, D-170, 2D-260

RWY 16L-34R

PCN 88 R/B/W/T

S-75, D-209, 2D-407, 2D/2D2-850

RWY 16R-34L

PCN 88 R/B/W/T

S-75, D-185, 2D-350, 2D/2D2-850

11001 X 150

9000 X 150

ANG1

ANG2

ANG3

ANG4

DECOMMISSIONED TWR

ELEV 4409

076.9°

6102 X 150

ELEV 4400

257.0°

HS 2

FIRE STATION

346.8°

ELEV 4408

400 X 220

346.8°

34L

ELEV 4415

1150 X 150

34L

HS 1

VAR 13.3° E

JANUARY 2020

ANNUAL RATE OF CHANGE

0.1° W

CAUTION: BE ALERT TO

RUNWAY CROSSING CLEARANCES.

READBACK OF ALL RUNWAY

HOLDING INSTRUCTIONS IS REQUIRED.

39°30'N

39°29'N

119°47'W

119°46'W

AIRPORT DIAGRAM

RENO, NEVADA

RENO/TAHOE INTL (RNO)

21056

Reno, NV
Reno/Tahoe Intl
ICAO Identifier KRNO

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 39-29-56.8N / 119-46-5.2W
 2.2.2 From City: 3 miles SE of RENO, NV
 2.2.3 Elevation: 4414.9 ft
 2.2.5 Magnetic Variation: 16E (1985)
 2.2.6 Airport Contact: DAREN GRIFFIN, A.A.E.
 P O BOX 12490
 RENO, NV 89510
 (775-328-6550)
 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
 2.4.2 Fuel Types: A1+,100LL
 2.4.5 Hangar Space:
 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index
 I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 25
 2.12.2 True Bearing: 270
 2.12.3 Dimensions: 6102 ft x 150 ft
 2.12.4 PCN: 72 R/B/W/T
 2.12.5 Coordinates: 39-29-46.3739N /
 119-45-25.9978W
 2.12.6 Threshold Elevation: 4399.6 ft
 2.12.6 Touchdown Zone Elevation: 4401.8 ft

- 2.12.1 Designation: 07
 2.12.2 True Bearing: 90
 2.12.3 Dimensions: 6102 ft x 150 ft
 2.12.4 PCN: 72 R/B/W/T
 2.12.5 Coordinates: 39-29-46.6299N /
 119-46-43.822W
 2.12.6 Threshold Elevation: 4409.2 ft
 2.12.6 Touchdown Zone Elevation: 4409.3 ft

- 2.12.1 Designation: 16L
 2.12.2 True Bearing: 180
 2.12.3 Dimensions: 9000 ft x 150 ft

- 2.12.4 PCN: 88 R/B/W/T
 2.12.5 Coordinates: 39-30-49.8258N / 119-46-0.266W
 2.12.6 Threshold Elevation: 4414.8 ft
 2.12.6 Touchdown Zone Elevation: 4414.8 ft

- 2.12.1 Designation: 34R
 2.12.2 True Bearing: 0
 2.12.3 Dimensions: 9000 ft x 150 ft
 2.12.4 PCN: 88 R/B/W/T
 2.12.5 Coordinates: 39-29-20.8949N /
 119-46-0.4971W
 2.12.6 Threshold Elevation: 4408.3 ft
 2.12.6 Touchdown Zone Elevation: 4408.3 ft

- 2.12.1 Designation: 34L
 2.12.2 True Bearing: 0
 2.12.3 Dimensions: 11001 ft x 150 ft
 2.12.4 PCN: 88 R/B/W/T
 2.12.5 Coordinates: 39-29-1.1337N / 119-46-9.475W
 2.12.6 Threshold Elevation: 4414.5 ft
 2.12.6 Touchdown Zone Elevation: 4410.2 ft

- 2.12.1 Designation: 16R
 2.12.2 True Bearing: 180
 2.12.3 Dimensions: 11001 ft x 150 ft
 2.12.4 PCN: 88 R/B/W/T
 2.12.5 Coordinates: 39-30-49.8381N /
 119-46-9.1937W
 2.12.6 Threshold Elevation: 4414.8 ft
 2.12.6 Touchdown Zone Elevation: 4414.8 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 25
 2.13.2 Take-off Run Available: 6102
 2.13.3 Take-off Distance Available: 6102
 2.13.4 Accelerate-Stop Distance Available: 6102
 2.13.5 Landing Distance Available: 6102

- 2.13.1 Designation: 07
 2.13.2 Take-off Run Available: 5854
 2.13.3 Take-off Distance Available: 5854
 2.13.4 Accelerate-Stop Distance Available: 6102
 2.13.5 Landing Distance Available: 5854

- 2.13.1 Designation: 16L
 2.13.2 Take-off Run Available: 9000
 2.13.3 Take-off Distance Available: 9000
 2.13.4 Accelerate-Stop Distance Available: 9000
 2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 34R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 34L
2.13.2 Take-off Run Available: 11001
2.13.3 Take-off Distance Available: 11001
2.13.4 Accelerate-Stop Distance Available: 11001
2.13.5 Landing Distance Available: 10011

2.13.1 Designation: 16R
2.13.2 Take-off Run Available: 11001
2.13.3 Take-off Distance Available: 11001
2.13.4 Accelerate-Stop Distance Available: 11001
2.13.5 Landing Distance Available: 10001

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 25
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 07
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG COMD POST
(CALLSIGN-ROLLER OPS.)
2.18.3 Channel: 378.4
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG COMD POST
(CALLSIGN-ROLLER OPS.)

2.18.3 Channel: 8780
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 280
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS (CALLSIGN-
ROLLER OPS.)

2.18.3 Channel: 378.4
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS (CALLSIGN-
ROLLER OPS.)

2.18.3 Channel: 8780
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P
2.18.3 Channel: 124.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 370.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 135.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 363
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.7
2.18.5 Hours of Operation: 24

variation: 16E
2.19.2 ILS Identification: RNO
2.19.5 Coordinates: 39-28-49.5342N / 119-46-9.505W
2.19.6 Site Elevation: 4419.7 ft

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.19.1 ILS Type: DME for runway 34L. Magnetic variation: 16E
2.19.2 ILS Identification: AGY
2.19.5 Coordinates: 39-31-0.2724N / 119-46-12.5676W
2.19.6 Site Elevation: 4434.8 ft

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 16R. Magnetic variation: 16E
2.19.2 ILS Identification: RNO
2.19.5 Coordinates: 39-28-48.3183N / 119-46-6.1675W
2.19.6 Site Elevation: 4433.4 ft

2.19.1 ILS Type: Glide Slope for runway 34L. Magnetic variation: 16E
2.19.2 ILS Identification: AGY
2.19.5 Coordinates: 39-29-19.6039N / 119-46-5.3446W
2.19.6 Site Elevation: 4403.3 ft

2.19.1 ILS Type: Glide Slope for runway 16R. Magnetic variation: 16E
2.19.2 ILS Identification: RNO
2.19.5 Coordinates: 39-30-28.0958N / 119-46-5.6655W
2.19.6 Site Elevation: 4408.4 ft

2.19.1 ILS Type: Localizer for runway 34L. Magnetic variation: 16E
2.19.2 ILS Identification: AGY
2.19.5 Coordinates: 39-30-59.9826N / 119-46-9.1647W
2.19.6 Site Elevation: 4433.1 ft

2.19.1 ILS Type: Localizer for runway 16R. Magnetic

General Remarks:

INTENSIVE GLIDER ACTIVITY INVOF ARPT AND SURROUNDING AREAS UP TO 18000 FT.

MIL ACFT: TSNT ACFT EXECUTE STRAIGHT-IN FULL STOP APCH. OVERHEAD PAT NOT AUTH FOR TSNT ACFT.

MILITARY: ANG OPS 1500-0100Z++ MON-FRI EXC HOL, OTHER TIMES BY NOTAM; DSN 830-4709.

NOISE SENSITIVE AREA ALL QUADS. PILOTS OF TBJT ACFT USE RCMD D NOISE ABATEMENT PROCS; AVBL ON REQ.

TWY C BTN TWY L & TWY D RESTRICTED TO ACFT 100000 LBS OR LESS.

WATERFOWL ALL QUADRANTS ALL SEASONS. CONCENTRATED NW OF RWY 16R AND E OF RWY 16L.

TWY A BETWEEN NORTH TWY B AND TWY D CLSD TO ACFT WITH WINGSPAN GREATER THAN 149 FT.

MIL ACFT: NOISE ABTMT CRITICAL TERMINATE AFTERBURNER ASAP THEN CLIMB TO 6500 FT MSL ASAP.

TWY M CLSD TO AIR CARRIER ACFT.

ALL COMMERCIAL AIRCRAFT CONTACT GROUND CONTROL FOR ADVISORIES PRIOR TO PUSH BACK ON THE TERMINAL RAMP.

NOISE NOTE CONT: PILOTS OF NON-TBJT ACFT USE BEST ABATEMENT PROCS AND SETTINGS. AVOID AS MUCH AS FEASIBLE FLYING OVER POPULATED AREAS.

TWY J EAST OF RY 16L/34R CLSD TO AIR CARRIER ACFT.

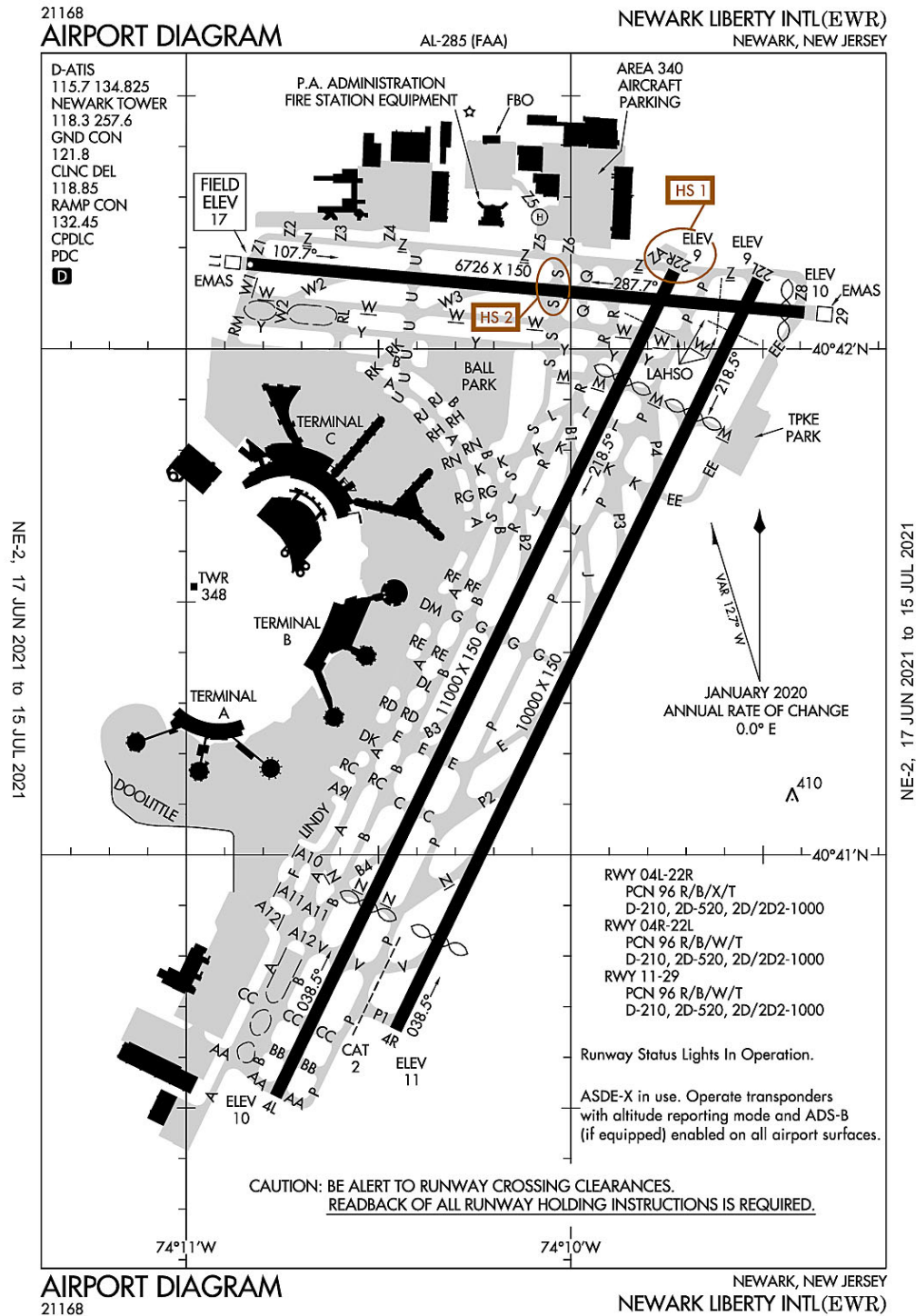
ACFT OVR 12500 LBS: WRITTEN PPR FOR TRG FLIGHTS; FOR FTHR INFO CTC ARPT OPS 1-877-736-6359.

TWY C BETWEEN TWY L AND TWY D CLSD TO AIR CARRIER ACFT.

24 HRS PPR FOR TSNT ACFT PARKING WITH WINGSPANS GREATER THAN 75 FT.

GLIDER/SOARING OPER 30-50 MILES SOUTH OF ARPT DURING VFR WEATHER & MOUNTAIN WAVE WIND CONDITIONS 1100 TO SS.

Newark, New Jersey
Newark Liberty International
ICAO Identifier KEWR



Newark, NJ
Newark Liberty Intl
ICAO Identifier KEWR

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 40–41–32.9274N /
74–10–7.2724W

2.2.2 From City: 3 miles S of NEWARK, NJ

2.2.3 Elevation: 17.4 ft

2.2.5 Magnetic Variation: 13W (1985)

2.2.6 Airport Contact: JAMES GILL

BUILDING #1– CONRAD
ROAD
NEWARK, NJ 7114
(973–961–6161)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES

2.4.2 Fuel Types: A,100LL

2.4.5 Hangar Space: YES

2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 22R

2.12.2 True Bearing: 206

2.12.3 Dimensions: 11000 ft x 150 ft

2.12.4 PCN: 96 R/B/X/T

2.12.5 Coordinates: 40–42–9.2091N / 74–9–43.8255W

2.12.6 Threshold Elevation: 8.9 ft

2.12.6 Touchdown Zone Elevation: 10.4 ft

2.12.1 Designation: 04L

2.12.2 True Bearing: 26

2.12.3 Dimensions: 11000 ft x 150 ft

2.12.4 PCN: 96 R/B/X/T

2.12.5 Coordinates: 40–40–31.3716N /

74–10–46.0209W

2.12.6 Threshold Elevation: 10.1 ft

2.12.6 Touchdown Zone Elevation: 10.4 ft

2.12.1 Designation: 04R

2.12.2 True Bearing: 26

2.12.3 Dimensions: 10000 ft x 150 ft

2.12.4 PCN: 96 R/B/W/T

2.12.5 Coordinates: 40–40–39.2984N /
74–10–27.2835W

2.12.6 Threshold Elevation: 11.1 ft

2.12.6 Touchdown Zone Elevation: 11.3 ft

2.12.1 Designation: 22L

2.12.2 True Bearing: 206

2.12.3 Dimensions: 10000 ft x 150 ft

2.12.4 PCN: 96 R/B/W/T

2.12.5 Coordinates: 40–42–8.2438N / 74–9–30.7308W

2.12.6 Threshold Elevation: 9.4 ft

2.12.6 Touchdown Zone Elevation: 10.7 ft

2.12.1 Designation: 11

2.12.2 True Bearing: 95

2.12.3 Dimensions: 6726 ft x 150 ft

2.12.4 PCN: 96 R/B/W/T

2.12.5 Coordinates: 40–42–10.0955N /
74–10–50.5467W

2.12.6 Threshold Elevation: 17.4 ft

2.12.6 Touchdown Zone Elevation: 17.4 ft

2.12.1 Designation: 29

2.12.2 True Bearing: 275

2.12.3 Dimensions: 6726 ft x 150 ft

2.12.4 PCN: 96 R/B/W/T

2.12.5 Coordinates: 40–42–4.3181N / 74–9–23.5515W

2.12.6 Threshold Elevation: 9.7 ft

2.12.6 Touchdown Zone Elevation: 9.8 ft

2.12.1 Designation: H1

2.12.2 True Bearing:

2.12.3 Dimensions: 54 ft x 54 ft

2.12.4 PCN:

2.12.5 Coordinates: 40–42–15.85N / 74–10–5W

2.12.6 Threshold Elevation: 8 ft

2.12.6 Touchdown Zone Elevation: ft

2.13.5 Landing Distance Available:

AD 2.13 Declared Distances

2.13.1 Designation: 22R

2.13.2 Take-off Run Available: 11000

2.13.3 Take-off Distance Available: 11000

2.13.4 Accelerate-Stop Distance Available: 11000

2.13.5 Landing Distance Available: 9560

2.13.1 Designation: 04L

2.13.2 Take-off Run Available: 11000

2.13.3 Take-off Distance Available: 11000

2.13.4 Accelerate-Stop Distance Available: 11000

2.13.5 Landing Distance Available: 8460

2.13.1 Designation: 04R

2.13.2 Take-off Run Available: 10000

2.13.3 Take-off Distance Available: 10000

2.13.4 Accelerate-Stop Distance Available: 10000

2.13.5 Landing Distance Available: 8810

2.13.1 Designation: 22L

2.13.2 Take-off Run Available: 10000

2.13.3 Take-off Distance Available: 10000

2.13.4 Accelerate-Stop Distance Available: 10000

2.13.5 Landing Distance Available: 8207

2.13.1 Designation: 11

2.13.2 Take-off Run Available: 6726

2.13.3 Take-off Distance Available: 6726

2.13.4 Accelerate-Stop Distance Available: 6726

2.13.5 Landing Distance Available: 6726

2.13.1 Designation: 29

2.13.2 Take-off Run Available: 6726

2.13.3 Take-off Distance Available: 6726

2.13.4 Accelerate-Stop Distance Available: 6726

2.13.5 Landing Distance Available: 6502

2.13.1 Designation: H1

2.13.2 Take-off Run Available:

2.13.3 Take-off Distance Available:

2.13.4 Accelerate-Stop Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 22R

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04R

2.14.2 Approach Lighting System: ALSF2

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22L

2.14.2 Approach Lighting System: ALSF2

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 11

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: V4L

2.14.1 Designation: 29

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: H1

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD PRE TAXI CLNC

2.18.3 Channel: 118.85

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WITHIN 6.5 NM ARE TWR CONTROLLED FREQS)

2.18.3 Channel: 127.85

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (WITHIN 6.5 NM ARE TWR CONTROLLED FREQS)

2.18.3 Channel: 257.6

2.18.5 Hours of Operation:

2.18.1 Service Designation: D-ATIS (ARR)

2.18.3 Channel: 115.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 134.825

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S

2.18.3 Channel: 126.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 118.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (WITHIN 6.5 NM ARE TWR CONTROLLED FREQS)

2.18.3 Channel: 257.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/S

2.18.3 Channel: 134.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL

2.18.3 Channel: 132.45

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 04L. Magnetic variation: 13W

2.19.2 ILS Identification: EWR

2.19.5 Coordinates: 40-42-15.686N / 74-9-33.736W

2.19.6 Site Elevation: 34.3 ft

2.19.1 ILS Type: Glide Slope for runway 04L. Magnetic variation: 13W

2.19.2 ILS Identification: EWR

2.19.5 Coordinates: 40-41-2.167N / 74-10-22.759W

2.19.6 Site Elevation: 7.4 ft

2.19.1 ILS Type: Localizer for runway 04L. Magnetic variation: 13W

2.19.2 ILS Identification: EWR

2.19.5 Coordinates: 40-42-18.192N / 74-9-38.112W

2.19.6 Site Elevation: 8.7 ft

2.19.1 ILS Type: DME for runway 22R. Magnetic variation: 13W

2.19.2 ILS Identification: JNN

2.19.5 Coordinates: 40-42-15.686N / 74-9-33.736W

2.19.6 Site Elevation: 34.3 ft

2.19.1 ILS Type: Glide Slope for runway 22R. Magnetic variation: 13W

2.19.2 ILS Identification: JNN

2.19.5 Coordinates: 40-41-47.5592N / 74-9-53.883W

2.19.6 Site Elevation: 8 ft

2.19.1 ILS Type: Localizer for runway 22R. Magnetic variation: 13W

2.19.2 ILS Identification: JNN

2.19.5 Coordinates: 40-40-22.392N / 74-10-51.726W

2.19.6 Site Elevation: 9.1 ft

2.19.1 ILS Type: DME for runway 04R. Magnetic variation: 13W

2.19.2 ILS Identification: EZA

2.19.5 Coordinates: 40-41-43.5471N / 74-9-41.6275W

2.19.6 Site Elevation: 33.5 ft

2.19.1 ILS Type: Glide Slope for runway 04R. Magnetic variation: 13W

2.19.2 ILS Identification: EZA

2.19.5 Coordinates: 40-40-57.598N / 74-10-9.8776W

2.19.6 Site Elevation: 6 ft

2.19.1 ILS Type: Localizer for runway 04R. Magnetic variation: 13W

2.19.2 ILS Identification: EZA

2.19.5 Coordinates: 40-42-15.9432N / 74-9-25.8352W

2.19.6 Site Elevation: 8.1 ft

2.19.1 ILS Type: DME for runway 22L. Magnetic variation: 13W

2.19.2 ILS Identification: LSQ

2.19.5 Coordinates: 40-41-43.5471N / 74-9-41.6275W

2.19.6 Site Elevation: 33.5 ft

2.19.1 ILS Type: Glide Slope for runway 22L. Magnetic variation: 13W

2.19.2 ILS Identification: LSQ

2.19.5 Coordinates: 40-41-43.6732N / 74-9-41.7368W

2.19.6 Site Elevation: 7.4 ft

2.19.1 ILS Type: Localizer for runway 22L. Magnetic variation: 13W

2.19.2 ILS Identification: LSQ

2.19.5 Coordinates: 40-40-28.9529N /

74-10-33.8654W

2.19.6 Site Elevation: 9.4 ft

2.19.1 ILS Type: DME for runway 11. Magnetic variation: 13W

2.19.2 ILS Identification: GPR

2.19.5 Coordinates: 40-42-9.5406N / 74-10-4.0694W

2.19.6 Site Elevation: 7.1 ft

2.19.1 ILS Type: Glide Slope for runway 11. Magnetic variation: 13W

2.19.2 ILS Identification: GPR

2.19.5 Coordinates: 40-42-10.837N / 74-10-35.03W

2.19.6 Site Elevation: 9.5 ft

2.19.1 ILS Type: Localizer for runway 11. Magnetic variation: 13W

2.19.2 ILS Identification: GPR

2.19.5 Coordinates: 40-42-9.2938N / 74-10-4.9852W

2.19.6 Site Elevation: 7 ft

2.19.1 Navigation Aid Type: FAN MARKER. Magnetic variation: 11W

2.19.2 Navigation Aid Identification: EWR

2.19.5 Coordinates: 40-42-12.1824N / 74-11-14.7211W

2.19.6 Site Elevation: 9.5 ft

General Remarks:

HIGH VOLUME OF LOW LEVEL HEL TFC ARR AND DEP HELO KEARNY HELI (65NJ) LCTD 3.5 MILES NE OF ARPT.

TWY Z5 CLSD TO ACFT WITH WINGSPANS IN EXCESS OF 118 FT.

TWY Z BTN TWY Z2 & Z4 CLSD TO ACFT WITH WINGSPANS IN EXCESS OF 171 FT.

ADG IV ACFT RSTR FM PSG TWY Z3 ON Z

TWY EE BTN RWY 4R-22L AND RWY 11-29 CLSD TO ACFT WITH WINGSPANS IN EXCESS OF 171 FT.

NOISE RSTR CALL 212-435-3784 DRG NML BUS HRS.

FLOCKS OF BIRDS ON & INVOF ARPT.

RWY STATUS LIGHTS IN OPR

TWY Y BTN RM AND TWY U, SPEED RESTRICTION OF 17KT (20MPH).

PARA-SAIL & BANNER TOWING OPS 1000 FT & BLO IN UPPER & LOWER NY BAYS INCLUDING ROCKAWAY INLET INDEF.

TWY PA BTN TWY AA AND RAMP CLSD TO ACFT WITH WINGSPANS IN EXCESS OF 171 FT.

ALL TWYS SURROUNDING "BALLPARK" PRKG AREA (TWY Y BTN TWY S AND TWY U, TWY S BTN TWY Y AND TWY K, TWAY K BTN TWY S AND TWY B, TWY B BTN TWY K AND TWY U, AND TWY U BTN TWY B AND TWY Y) ACFT SPEED RSTR OF 17KTS/20MPH FOR ALL AFCT WITH WINGSPANS IN EXCESS OF 171 FT.

CPDLC DEPARTURE CLEARANCE SERVICE AVAILABLE.

RWY 4R & 4L DEP USE UPPER ANT FOR ATC COM.

ASDE-X IN USE. OPER TRANSPONDER WITH ALT REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL ARPT SFCS.

TWY Z EAST OF TWY U ACFT SPEED RSTR OF 17 KTS/20 MPH MAX FOR ALL ACFT WITH WINGSPANS IN EXCESS OF 171 FT.

New York, NY
John F Kennedy Intl
ICAO Identifier KJFK

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 40-38-23.74N / 73-46-43.293W
2.2.2 From City: 13 miles SE of NEW YORK, NY
2.2.3 Elevation: 13 ft
2.2.5 Magnetic Variation: 13W (2020)
2.2.6 Airport Contact: CHARLES EVERETT
BLDG 14
JAMAICA, NY 11430
((718) 244-3501)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 04L
2.12.2 True Bearing: 31
2.12.3 Dimensions: 12079 ft x 200 ft
2.12.4 PCN: 90 R/B/W/T
2.12.5 Coordinates: 40-37-19.2759N / 73-47-8.1038W
2.12.6 Threshold Elevation: 11.9 ft
2.12.6 Touchdown Zone Elevation: 12.7 ft

2.12.1 Designation: 22R
2.12.2 True Bearing: 211
2.12.3 Dimensions: 12079 ft x 200 ft
2.12.4 PCN: 90 R/B/W/T
2.12.5 Coordinates: 40-39-1.8337N / 73-45-47.9596W
2.12.6 Threshold Elevation: 12.7 ft
2.12.6 Touchdown Zone Elevation: 12.7 ft

2.12.1 Designation: 04R
2.12.2 True Bearing: 31
2.12.3 Dimensions: 8400 ft x 200 ft
2.12.4 PCN: 90 F/B/W/T
2.12.5 Coordinates: 40-37-31.532N / 73-46-13.25W

2.12.6 Threshold Elevation: 11.8 ft
2.12.6 Touchdown Zone Elevation: 11.9 ft

2.12.1 Designation: 22L
2.12.2 True Bearing: 211
2.12.3 Dimensions: 8400 ft x 200 ft
2.12.4 PCN: 90 F/B/W/T
2.12.5 Coordinates: 40-38-42.849N / 73-45-17.509W
2.12.6 Threshold Elevation: 11.8 ft
2.12.6 Touchdown Zone Elevation: 11.9 ft

2.12.1 Designation: 13L
2.12.2 True Bearing: 121
2.12.3 Dimensions: 10000 ft x 200 ft
2.12.4 PCN: 148 R/A/W/T
2.12.5 Coordinates: 40-39-27.9533N / 73-47-24.86W
2.12.6 Threshold Elevation: 13 ft
2.12.6 Touchdown Zone Elevation: 13 ft

2.12.1 Designation: 31R
2.12.2 True Bearing: 301
2.12.3 Dimensions: 10000 ft x 200 ft
2.12.4 PCN: 148 R/A/W/T
2.12.5 Coordinates: 40-38-37.4079N /
73-45-33.3832W
2.12.6 Threshold Elevation: 12.7 ft
2.12.6 Touchdown Zone Elevation: 13 ft

2.12.1 Designation: 13R
2.12.2 True Bearing: 121
2.12.3 Dimensions: 14511 ft x 200 ft
2.12.4 PCN: 98 R/B/W/T
2.12.5 Coordinates: 40-38-54.102N / 73-49-0.173W
2.12.6 Threshold Elevation: 12.5 ft
2.12.6 Touchdown Zone Elevation: 12.6 ft

2.12.1 Designation: 31L
2.12.2 True Bearing: 301
2.12.3 Dimensions: 14511 ft x 200 ft
2.12.4 PCN: 98 R/B/W/T
2.12.5 Coordinates: 40-37-40.781N / 73-46-18.413W
2.12.6 Threshold Elevation: 12.5 ft
2.12.6 Touchdown Zone Elevation: 12.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 04L
2.13.2 Take-off Run Available: 11351
2.13.3 Take-off Distance Available: 11351
2.13.4 Accelerate-Stop Distance Available: 11470
2.13.5 Landing Distance Available: 11010

2.13.1 Designation: 22R
2.13.2 Take-off Run Available: 12079
2.13.3 Take-off Distance Available: 12079
2.13.4 Accelerate-Stop Distance Available: 11219
2.13.5 Landing Distance Available: 7794

2.13.1 Designation: 04R
2.13.2 Take-off Run Available: 8400
2.13.3 Take-off Distance Available: 8400
2.13.4 Accelerate-Stop Distance Available: 8400
2.13.5 Landing Distance Available: 8400

2.13.1 Designation: 22L
2.13.2 Take-off Run Available: 8400
2.13.3 Take-off Distance Available: 8400
2.13.4 Accelerate-Stop Distance Available: 8400
2.13.5 Landing Distance Available: 8400

2.13.1 Designation: 13L
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 9093

2.13.1 Designation: 31R
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 9513
2.13.5 Landing Distance Available: 8486

2.13.1 Designation: 13R
2.13.2 Take-off Run Available: 14511
2.13.3 Take-off Distance Available: 14511
2.13.4 Accelerate-Stop Distance Available: 14511
2.13.5 Landing Distance Available: 12468

2.13.1 Designation: 31L
2.13.2 Take-off Run Available: 14511
2.13.3 Take-off Distance Available: 14511
2.13.4 Accelerate-Stop Distance Available: 14511
2.13.5 Landing Distance Available: 11248

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 04L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22R
2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 04R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 22L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 13L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 31R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 13R
2.14.2 Approach Lighting System: RLLS
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 31L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P
2.18.3 Channel: 125.7
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 135.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC
(NORTH & SOUTH)
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (FREQS 2000 FT
& BLW W/N 8 NM ARE TWR CNTRLD FREQS)
2.18.3 Channel: 125.25
2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (FREQS 2000 FT
& BLW W/N 8 NM ARE TWR CNTRLD FREQS)
2.18.3 Channel: 281.55
2.18.5 Hours of Operation:

2.18.1 Service Designation: D-ATIS (ARR-SW)
2.18.3 Channel: 115.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR-NE)
2.18.3 Channel: 117.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR/DEP)
2.18.3 Channel: 128.725
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S
2.18.3 Channel: 121.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 04R/22L,
13L/31R)
2.18.3 Channel: 119.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 04L/22R,
13R/31L)
2.18.3 Channel: 123.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 04L/22R,
13R/31L)
2.18.3 Channel: 281.55
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 04R/22L,
13L/31R)
2.18.3 Channel: 281.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PARCH STAR
2.18.3 Channel: 125.7
2.18.5 Hours of Operation:

2.18.1 Service Designation: RAMP CTL
2.18.3 Channel: 125.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ROBER STAR
2.18.3 Channel: 125.7
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 04L. Magnetic varia-
tion: 13W

2.19.2 ILS Identification: HIQ

2.19.5 Coordinates: 40-37-43.82N / 73-46-40.578W

2.19.6 Site Elevation: 24 ft

2.19.1 ILS Type: Glide Slope for runway 04L. Magnetic
variation: 13W

2.19.2 ILS Identification: HIQ

2.19.5 Coordinates: 40-37-31.0826N /

73-46-54.9123W

2.19.6 Site Elevation: 9.3 ft

2.19.1 ILS Type: Localizer for runway 04L. Magnetic
variation: 13W

2.19.2 ILS Identification: HIQ

2.19.5 Coordinates: 40-39-6.9659N / 73-45-43.9469W

2.19.6 Site Elevation: 10.5 ft

2.19.1 ILS Type: DME for runway 22R. Magnetic varia-
tion: 13W

2.19.2 ILS Identification: JOC

2.19.5 Coordinates: 40-38-53.286N / 73-45-13.179W

2.19.6 Site Elevation: 29 ft

2.19.1 ILS Type: Glide Slope for runway 22R. Magnetic
variation: 13W

2.19.2 ILS Identification: JOC

2.19.5 Coordinates: 40-38-21.2797N /

73-46-13.9085W

2.19.6 Site Elevation: 8.6 ft

2.19.1 ILS Type: Localizer for runway 22R. Magnetic
variation: 13W

2.19.2 ILS Identification: JOC

2.19.5 Coordinates: 40-37-44.5024N /
73-46-43.0851W
2.19.6 Site Elevation: 9.5 ft

2.19.1 ILS Type: DME for runway 04R. Magnetic varia-
tion: 13W
2.19.2 ILS Identification: JFK
2.19.5 Coordinates: 40-38-53.286N / 73-45-13.179W
2.19.6 Site Elevation: 29 ft

2.19.1 ILS Type: Glide Slope for runway 04R. Magnetic
variation: 13W
2.19.2 ILS Identification: JFK
2.19.5 Coordinates: 40-37-42.1007N /
73-46-11.0535W
2.19.6 Site Elevation: 12.2 ft

2.19.1 ILS Type: Inner Marker for runway 04R. Magnet-
ic variation: 13W
2.19.2 ILS Identification: JFK
2.19.5 Coordinates: 40-37-23.9N / 73-46-19.1W
2.19.6 Site Elevation: 12 ft

2.19.1 ILS Type: Localizer for runway 04R. Magnetic
variation: 13W
2.19.2 ILS Identification: JFK
2.19.5 Coordinates: 40-38-51.57N / 73-45-10.684W
2.19.6 Site Elevation: 12.7 ft

2.19.1 ILS Type: DME for runway 22L. Magnetic varia-
tion: 13W
2.19.2 ILS Identification: IWY
2.19.5 Coordinates: 40-37-43.82N / 73-46-40.578W
2.19.6 Site Elevation: 24 ft

2.19.1 ILS Type: Glide Slope for runway 22L. Magnetic
variation: 13W
2.19.2 ILS Identification: IWY
2.19.5 Coordinates: 40-38-32.9529N /
73-45-19.9899W
2.19.6 Site Elevation: 13.1 ft

2.19.1 ILS Type: Inner Marker for runway 22L. Magnet-
ic variation: 13W
2.19.2 ILS Identification: IWY
2.19.5 Coordinates: 40-38-51.13N / 73-45-11.04W
2.19.6 Site Elevation: 12 ft

2.19.1 ILS Type: Localizer for runway 22L. Magnetic
variation: 13W
2.19.2 ILS Identification: IWY

2.19.5 Coordinates: 40-37-27.513N / 73-46-16.387W
2.19.6 Site Elevation: 10.5 ft

2.19.1 ILS Type: DME for runway 13L. Magnetic varia-
tion: 13W
2.19.2 ILS Identification: TLK
2.19.5 Coordinates: 40-38-33.543N / 73-45-18.237W
2.19.6 Site Elevation: 31 ft

2.19.1 ILS Type: Glide Slope for runway 13L. Magnetic
variation: 13W
2.19.2 ILS Identification: TLK
2.19.5 Coordinates: 40-39-14.7571N / 73-47-4.857W
2.19.6 Site Elevation: 10.5 ft

2.19.1 ILS Type: Localizer for runway 13L. Magnetic
variation: 13W
2.19.2 ILS Identification: TLK
2.19.5 Coordinates: 40-38-30.687N / 73-45-18.566W
2.19.6 Site Elevation: 14.1 ft

2.19.1 ILS Type: DME for runway 31R. Magnetic varia-
tion: 13W
2.19.2 ILS Identification: RTH
2.19.5 Coordinates: 40-38-33.543N / 73-45-18.237W
2.19.6 Site Elevation: 31 ft

2.19.1 ILS Type: Glide Slope for runway 31R. Magnetic
variation: 13W
2.19.2 ILS Identification: RTH
2.19.5 Coordinates: 40-38-50.3237N /
73-45-51.0237W
2.19.6 Site Elevation: 9.5 ft

2.19.1 ILS Type: Localizer for runway 31R. Magnetic
variation: 13W
2.19.2 ILS Identification: RTH
2.19.5 Coordinates: 40-39-30.778N / 73-47-31.088W
2.19.6 Site Elevation: 11.9 ft

2.19.1 ILS Type: Glide Slope for runway 31L. Magnetic
variation: 13W
2.19.2 ILS Identification: MOH
2.19.5 Coordinates: 40-37-59.8702N / 73-47-9.4213W
2.19.6 Site Elevation: 8.7 ft

2.19.1 ILS Type: Localizer for runway 31L. Magnetic
variation: 13W
2.19.2 ILS Identification: MOH
2.19.5 Coordinates: 40-38-59.645N / 73-49-12.422W
2.19.6 Site Elevation: 13.7 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 12W

2.19.2 Navigation Aid Identification: JFK

2.19.5 Coordinates: 40-37-58.4N / 73-46-17W

2.19.6 Site Elevation: 11 ft

General Remarks:

PERIODIC FIRE DEPT TRNG ADJACENT APCH END OF RWYS 22L & 22R.

CONTINUOUS TAXIWAY MAINTENANCE ACTIVITIES AT NUMEROUS LOCATIONS

NON-STD MARKINGS IN GA APN, CTC SHELTAIR/FBO ON UNICOM OR 347-566-6620 FOR WING WALKERS.

RY 13R HAS TWO (2) PAPI - P4L SYSTEMS. (RY 13R) OFFSET PAPI SUPPORTS VOR OR GPS RWY 13R & PARKWAY VISUAL RY 13R.

TWY 'H' CL LGTS BTN TWY 'A' & RY 4L/22R OTS.

METERING PROCEDURES IN EFFECT- CONTACT RAMP CONTROL PRIOR TO PUSHBACK 1200Z-1500Z DAILY/1900Z-0300Z DAILY.

FOR NOISE ABATEMENT RESTRICTIONS CALL 212-435-3747 DURING NORMAL BUSINESS HOURS.

ACFT ARE NOT PMTD TO STOP ON EITHER TWY A OR B BRIDGES.

TWY Q3 CNTRLN LGTS OTS.

CONVERGING OPNS ON RYS 13R AND 22L CONDUCTED VIA ARRIVAL DISTANCE WINDOW.

NON-STANDARD ENGINEERED MATERIALS ARRESTING SYSTEM (EMAS) 393 FT IN LENGTH BY 226 FT IN WIDTH LCTD AT THE DER 4R.

PARA-SAIL & BANNER TOWING OPNS 1000 FT & BLO IN UPPER & LOWER NEW YORK BAYS INCLUDING ROCKAWAY INLET INDEFLY.

FLOCKS OF BIRDS ON & INVOF ARPT.

NON-STANDARD ENGINEERED MATERIALS ARRESTING SYSTEM (EMAS) 405 FT IN LENGTH BY 226 FT IN WIDTH LCTD AT THE DER 22L.

A380 AND B747-800 ACFT TAX SPD RESTRICTED TO MAX 17KTS/20MPH ON ALL TWYS.

GAT HELIPAD NON-STANDARD MARKINGS & LIGHTING.

HIGH VOLUME OF LOW LEVEL VFR TRAFFIC, 500 FT AND BLO, ALONG SHORELINE SOUTH OF JFK.

SPECIAL AIR TFC RULES-PART 93 HIGH DENSITY ARPT. PROR RESERVATION REQUIRED. SEE AERONAUTICAL INFORMATION MANUAL.

TWY 'H' CL LGTS BTN TERMINAL 4 RAMP AND TWY A OTS.

RY 31R HOLDING POSITION MARKINGS AT RY 4L/22R 'SE' SIDE OBSC.

TWY NB CLSD TO SB TURNS AT TWY A.

OBST BLDG LGT OTS 6.3 NM ESE JFK 222 FT MSL (220 FT AGL).

UFN TWY 'D' BTN TWY 'C' AND HANGAR 7 CLOSED.

OBST PARKED ACFT (ASN 2020-AEA-1302-NRA) 403933 N0734749W (1.4NM NW JFK) 74 (64FT AGL) U/S 1200-0100 DLY.

RWY 31R 1000 FT DIST REMAINING SIGN MISG.

RWY STATUS LGTS IN OPS.

RLLS RY 13L USES 1000 FT LGT STN OF THE ALS ONLY WITH CRI VOR APCHS & IS ANGLED TOWARD AQUEDUCT; ALSO 5 SFL FM 1200-2000 FT & A 5 SFL GROUPING APROXLY 1 MI FM RY +1 ADJ FORMING APCH. APCH GATE ANGLED 35 DEGS S OF RY 13L CNTRLN DESIGNED TO PRVD EARLIER IDENT OF RY ENVI.

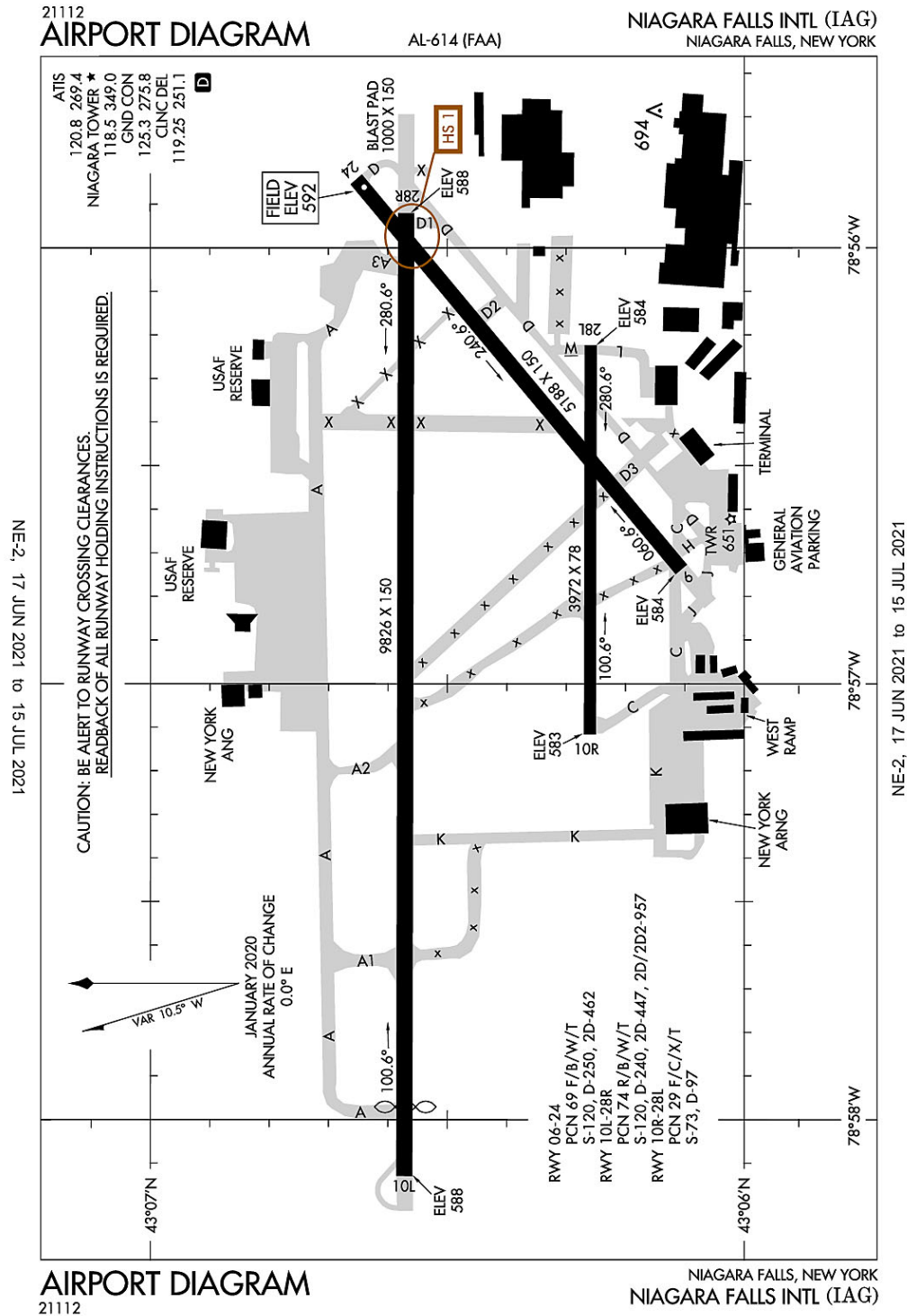
ACFT OPS & TWY RESTRICTIONS EXIST FOR A380, B747-800, B777-300ER, A340-600 AND A350-1000. PLEASE CTC JFK ARPT OPS FOR MORE INFO.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

TWY 'A' BTN TWY 'NA' & TWY 'NB' ARCFT SPEED RESTRICTION OF 17KTS/20MPH MAXIMUM FOR A380, B747-800, B747-400, B777-300ER, B777-200, A340, A330, B787, AND A350

RY 13L HOLDING POSITION MARKINGS AT RY 4L/22R 'NW' SIDE OBSC.

Niagara Falls, New York
Niagara Falls International
ICAO Identifier KIAG



Niagara Falls, NY
Niagara Falls Intl
ICAO Identifier KIAG

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 43–6–27.2065N /
78–56–45.048W
2.2.2 From City: 4 miles E of NIAGARA FALLS, NY
2.2.3 Elevation: 592.3 ft
2.2.5 Magnetic Variation: 10W (1985)
2.2.6 Airport Contact: MR. ROBERT STONE
2035 NIAGARA FALLS BLVD
NIAGARA FALLS, NY 14304
((716) 297–4494)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A+,A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I B certified on 7/1/1974

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 06
2.12.2 True Bearing: 50
2.12.3 Dimensions: 5188 ft x 150 ft
2.12.4 PCN: 69 F/B/W/T
2.12.5 Coordinates: 43–6–6.3587N / 78–56–44.2955W
2.12.6 Threshold Elevation: 584.3 ft
2.12.6 Touchdown Zone Elevation: 585.8 ft

2.12.1 Designation: 24
2.12.2 True Bearing: 230
2.12.3 Dimensions: 5188 ft x 150 ft
2.12.4 PCN: 69 F/B/W/T
2.12.5 Coordinates: 43–6–39.1997N / 78–55–50.6072W
2.12.6 Threshold Elevation: 592.2 ft

2.12.6 Touchdown Zone Elevation: 592.3 ft

2.12.1 Designation: 10L
2.12.2 True Bearing: 90
2.12.3 Dimensions: 9826 ft x 150 ft
2.12.4 PCN: 74 R/B/W/T
2.12.5 Coordinates: 43–6–34.3453N / 78–58–7.7703W
2.12.6 Threshold Elevation: 588.2 ft
2.12.6 Touchdown Zone Elevation: 588.8 ft

2.12.1 Designation: 28R
2.12.2 True Bearing: 270
2.12.3 Dimensions: 9826 ft x 150 ft
2.12.4 PCN: 74 R/B/W/T
2.12.5 Coordinates: 43–6–34.1594N / 78–55–55.3156W
2.12.6 Threshold Elevation: 587.9 ft
2.12.6 Touchdown Zone Elevation: 588.3 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 90
2.12.3 Dimensions: 3972 ft x 78 ft
2.12.4 PCN: 29 F/C/X/T
2.12.5 Coordinates: 43–6–15.6025N / 78–57–7.0063W
2.12.6 Threshold Elevation: 582.6 ft
2.12.6 Touchdown Zone Elevation: 584.1 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 270
2.12.3 Dimensions: 3972 ft x 78 ft
2.12.4 PCN: 29 F/C/X/T
2.12.5 Coordinates: 43–6–15.507N / 78–56–13.4609W
2.12.6 Threshold Elevation: 584.2 ft
2.12.6 Touchdown Zone Elevation: 584.8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 06
2.13.2 Take–off Run Available: 5188
2.13.3 Take–off Distance Available: 5188
2.13.4 Accelerate–Stop Distance Available: 5188
2.13.5 Landing Distance Available: 5188

2.13.1 Designation: 24
2.13.2 Take–off Run Available: 5188

2.13.3 Take-off Distance Available: 5188
2.13.4 Accelerate-Stop Distance Available: 5108
2.13.5 Landing Distance Available: 5108

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 9829
2.13.3 Take-off Distance Available: 10829
2.13.4 Accelerate-Stop Distance Available: 9829
2.13.5 Landing Distance Available: 9129

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 9829
2.13.3 Take-off Distance Available: 10529
2.13.4 Accelerate-Stop Distance Available: 9129
2.13.5 Landing Distance Available: 9129

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 3973
2.13.3 Take-off Distance Available: 3973
2.13.4 Accelerate-Stop Distance Available: 3973
2.13.5 Landing Distance Available: 3973

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 3973
2.13.3 Take-off Distance Available: 3973
2.13.4 Accelerate-Stop Distance Available: 3973
2.13.5 Landing Distance Available: 3973

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 06
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: V4L

2.14.1 Designation: 28R
2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P2L

2.14.1 Designation: 28L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P2L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: AFRC OPS
2.18.3 Channel: 340.24
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 120.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS
2.18.3 Channel: 269.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 119.25
2.18.5 Hours of Operation: 0700-2300

2.18.1 Service Designation: CD/P
2.18.3 Channel: 251.1
2.18.5 Hours of Operation: 0700-2300

2.18.1 Service Designation: COMD POST (914 AW
COMD POST/AFLD MGMT)
2.18.3 Channel: 340.025
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243

2.18.5 Hours of Operation:	2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic variation: 10W
2.18.1 Service Designation: GND/P	2.19.2 ILS Identification: IAG
2.18.3 Channel: 125.3	2.19.5 Coordinates: 43-6-30.0921N / 78-56-16.6451W
2.18.5 Hours of Operation: 0700-2300	2.19.6 Site Elevation: 582.8 ft
2.18.1 Service Designation: GND/P	2.19.1 ILS Type: Localizer for runway 28R. Magnetic variation: 10W
2.18.3 Channel: 275.8	2.19.2 ILS Identification: IAG
2.18.5 Hours of Operation: 0700-2300	2.19.5 Coordinates: 43-6-34.3589N / 78-58-18.8146W
2.18.1 Service Designation: LCL/P	2.19.6 Site Elevation: 585.1 ft
2.18.3 Channel: 118.5	2.19.1 ILS Type: Outer Marker for runway 28R. Magnetic variation: 10W
2.18.5 Hours of Operation: 0700-2300	2.19.2 ILS Identification: IAG
2.18.1 Service Designation: LCL/P	2.19.5 Coordinates: 43-6-32.5184N / 78-50-18.2195W
2.18.3 Channel: 349	2.19.6 Site Elevation: 614.9 ft
2.18.5 Hours of Operation: 0700-2300	2.19.1 Navigation Aid Type: TACAN. Magnetic variation: 10W
2.18.1 Service Designation: NG OPS	2.19.2 Navigation Aid Identification: IAG
2.18.3 Channel: 41	2.19.5 Coordinates: 43-6-45.1638N / 78-57-36.8623W
2.18.5 Hours of Operation:	2.19.6 Site Elevation: 591.5 ft

AD 2.19 Radio Navigation and Landing Aids

General Remarks:

CAUTION: HEAVY CONCENTRATIONS OF GULLS-BLACKBIRDS-STARLINGS UP TO 5000 AGL ON & INVOF ARPT. BASH PHASE II OPERATIONS AT KIAG MAR-MAY AND SEP-NOV.

FLUID: SP.

JASU: 2(A/M32A-86) 1(AM32A-60) 1(MA-1A).

FUEL: J8, A++ (MIL).

MISC: LOCAL MISSION AIRCRAFT HAVE PRIORITY FOR DEICING; FULL AIRCRAFT DEICING FOR C-17 AND C-5 AIRCRAFT NOT AVAILABLE.

ALL MIL ACFT ONLY MINIMAL CLASSIFIED MATERIALS AVBL; AIRCREWS SHOULD ARRIVE WITH APPROPRIATE AMOUNT TO COMPLETE THEIR MISSION.

EXTSV ACFT ACTIVITY OPERATING INVOF US/CANADIAN FALLS ALL ALTS.

RWY 28R 1000 FT BY 150 FT BLAST PAD

AFLD MGMT DOES NOT ISSUE OR STORE COMSEC, FOR COMSEC STORAGE CTC COMMAND POST DSN 238-2150, C716-236-2150.

TWY "E" CLSD INDEFINITE FM RY 10L/28R TO RY 06/24.

OIL: O-148(MIL).

BEARING STRENGTH RWY 06/24: ST110 TT145 SBTT281TDT415 TRT252.

REMARKS – MISC: FOR CURRENT MIL RY CONDITION READING (RCR) CALL OR CTC 914 AW COMD POST OR 914TH AW AFLD MGMT.

REMARKS: SEE FLIP AP/1 SUPPLEMENTARY ARPT RMK.

AFRC/ANG: NSTD OPS APN MRKS IDENTIFYING PRKG ROW AND PRKG LCTN. NSTD MAIN APN MRKS PRKG STOP BAR AND ACFT GND EQPT (AGE) BOX.

ALL MIL ACFT ONLY OPNS RESTRICTED DURING BIRD WATCH CONDITIONS. MODERATE – TKOF & LDG PERMISSION ONLY WHEN DEP/ARR RTE AVOIDS IDENTIFIED BIRD ACTIVITY; NO LCL IFR/VFR TFC PAT ACTIVITY. SEVERE – TKOF & LDG PROHIBITED WO OG/CC APPROVAL; CTC COMMAND POST FOR CURRENT BIRD WATCH CONDITIONS.

TWY D3 RSTRD TO 12500 LBS OR LESS.

AFRC/ANG: CSTMS/AG/IMG SVC NOT LCTD ON NIAGARA FALLS ARS. RQR COORD 72 HR ADVANCE NTC TO ARRANGE U.S. CSTMS PERS FM ONE OF CROSSING BRIDGES TO PROVIDE SVC. SVC AVBL H24.

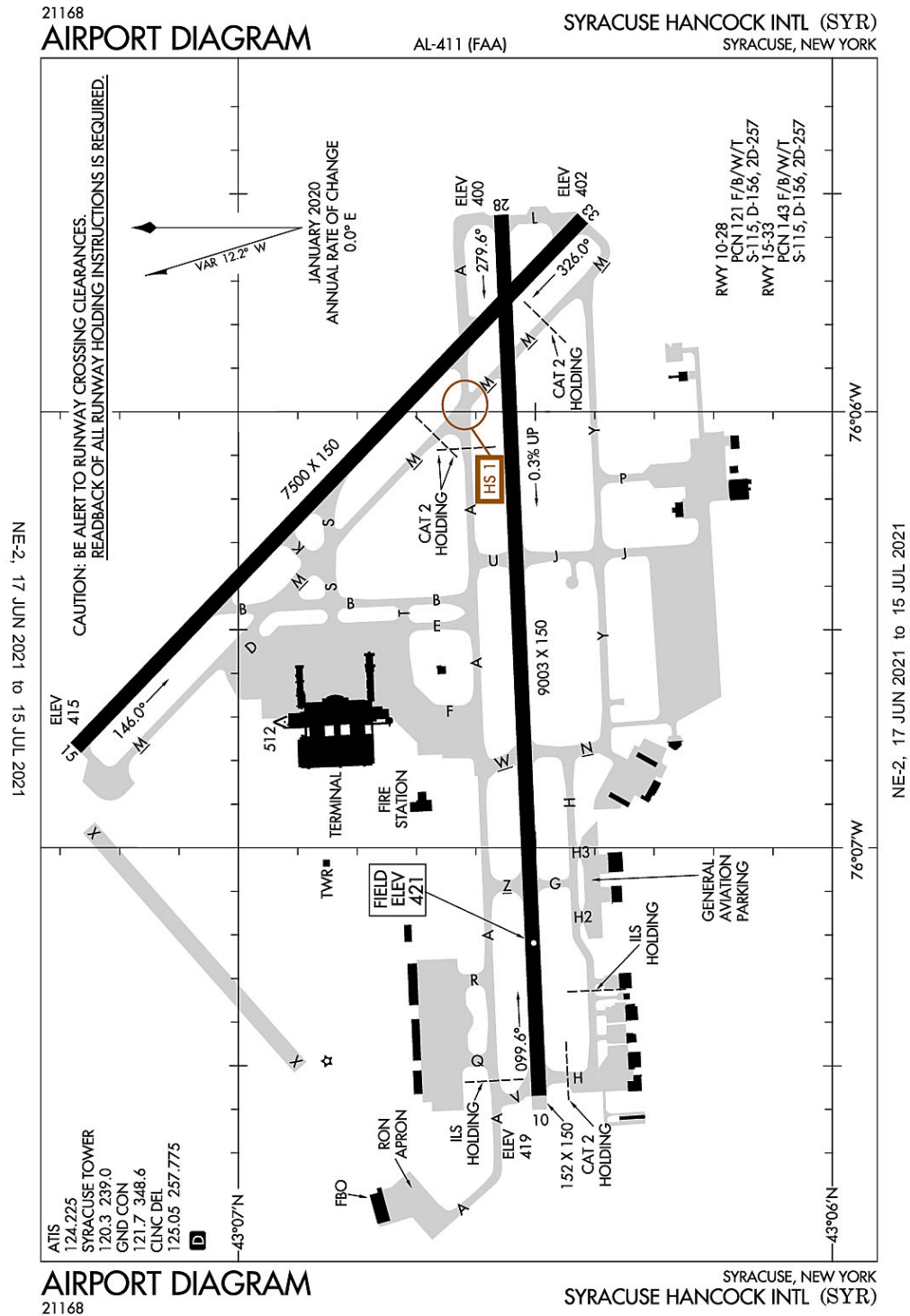
TWY "E" CLSD PERMLY BETWEEN TWY'S "C" AND "D".

RWY 10R/28L CLSD TO SKED ACR OPS MORE THAN 9 PAX SEATS AND NON SKED ACR OPS MORE THAN 30 PAX SEATS EXC TAX.

PPR CTC AFLD MGT DSN: 238-2175, C716-236-2175.

MILITARY: AFRC/ANG: AIRFIELD OPS SVC 1200-0400Z++ MON-FRI EXC HOL.

Syracuse, New York
Syracuse Hancock International
ICAO Identifier KSYR



Syracuse, NY
Syracuse Hancock Intl
ICAO Identifier KSYR

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 43-6-40.3N / 76-6-22.7W
2.2.2 From City: 4 miles NE of SYRACUSE, NY
2.2.3 Elevation: 421.4 ft
2.2.5 Magnetic Variation: 13W (2000)
2.2.6 Airport Contact: JASON TERRERI

1000 COL EILEEN COLLINS
BLVD
SYRACUSE, NY 13212
(315-454-3263)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 10
2.12.2 True Bearing: 87
2.12.3 Dimensions: 9003 ft x 150 ft
2.12.4 PCN: 121 F/B/W/T
2.12.5 Coordinates: 43-6-29.5196N / 76-7-34.1499W
2.12.6 Threshold Elevation: 419.2 ft
2.12.6 Touchdown Zone Elevation: 421.4 ft

2.12.1 Designation: 28
2.12.2 True Bearing: 267
2.12.3 Dimensions: 9003 ft x 150 ft
2.12.4 PCN: 121 F/B/W/T
2.12.5 Coordinates: 43-6-33.5075N / 76-5-32.9118W
2.12.6 Threshold Elevation: 400.4 ft
2.12.6 Touchdown Zone Elevation: 412.7 ft

2.12.1 Designation: 15
2.12.2 True Bearing: 134
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 143 F/B/W/T

2.12.5 Coordinates: 43-7-16.4186N / 76-6-46.2014W
2.12.6 Threshold Elevation: 415.4 ft
2.12.6 Touchdown Zone Elevation: 416.8 ft

2.12.1 Designation: 33
2.12.2 True Bearing: 314
2.12.3 Dimensions: 7500 ft x 150 ft
2.12.4 PCN: 143 F/B/W/T
2.12.5 Coordinates: 43-6-25.1093N / 76-5-33.2759W
2.12.6 Threshold Elevation: 401.7 ft
2.12.6 Touchdown Zone Elevation: 409.3 ft

AD 2.13 Declared Distances

2.13.1 Designation: 10
2.13.2 Take-off Run Available: 9003
2.13.3 Take-off Distance Available: 9003
2.13.4 Accelerate-Stop Distance Available: 9003
2.13.5 Landing Distance Available: 9003

2.13.1 Designation: 28
2.13.2 Take-off Run Available: 9003
2.13.3 Take-off Distance Available: 9003
2.13.4 Accelerate-Stop Distance Available: 9003
2.13.5 Landing Distance Available: 9003

2.13.1 Designation: 15
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available: 7500

2.13.1 Designation: 33
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available: 7500

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 10
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: V4L

2.14.1 Designation: 28
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 15
2.14.2 Approach Lighting System: MAL S
2.14.4 Visual Approach Slope Indicator System: V4L

2.14.1 Designation: 33
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 379.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: APCH/P DEP/P
2.18.3 Channel: 134.275
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P
2.18.3 Channel: 279.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 126.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
2.18.3 Channel: 269.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: AR OPS
2.18.3 Channel: 245.3
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 124.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 125.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 257.775
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C
2.18.3 Channel: 126.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C
2.18.3 Channel: 269.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 120.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 239
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 10. Magnetic variation: 13W

2.19.2 ILS Identification: MRZ

2.19.5 Coordinates: 43-6-31.27N / 76-5-20.92W

2.19.6 Site Elevation: 390.5 ft

2.19.1 ILS Type: Glide Slope for runway 10. Magnetic variation: 13W

2.19.2 ILS Identification: MRZ

2.19.5 Coordinates: 43-6-26.02N / 76-7-20.146W

2.19.6 Site Elevation: 422.6 ft

2.19.1 ILS Type: Localizer for runway 10. Magnetic variation: 13W

2.19.2 ILS Identification: MRZ

2.19.5 Coordinates: 43-6-33.96N / 76-5-19.01W

2.19.6 Site Elevation: 395.6 ft

2.19.1 ILS Type: DME for runway 28. Magnetic variation: 13W

2.19.2 ILS Identification: SYR

2.19.5 Coordinates: 43-6-31.27N / 76-5-20.92W

2.19.6 Site Elevation: 390.5 ft

2.19.1 ILS Type: Glide Slope for runway 28. Magnetic variation: 13W
2.19.2 ILS Identification: SYR
2.19.5 Coordinates: 43-6-39.474N / 76-5-46.433W
2.19.6 Site Elevation: 404.1 ft

2.19.1 ILS Type: Localizer for runway 28. Magnetic variation: 13W
2.19.2 ILS Identification: SYR
2.19.5 Coordinates: 43-6-28.943N / 76-7-51.655W
2.19.6 Site Elevation: 416.8 ft

2.19.1 ILS Type: Inner Marker for runway 28. Magnetic variation: 13W
2.19.2 ILS Identification: SYR
2.19.5 Coordinates: 43-6-34.1N / 76-5-18.52W
2.19.6 Site Elevation: 395 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 11W
2.19.2 Navigation Aid Identification: SYR
2.19.5 Coordinates: 43-9-37.8684N / 76-12-16.4106W
2.19.6 Site Elevation: 453.2 ft

General Remarks:

DEER/COYOTE/BIRDS ON INVOF ARPT.

NON-STD MKG ON MIL RAMP.

ANG: HVY ACFT CTC ARPT COMMISSIONER FOR PRK AVBL AT C315-455-3666. ALL TRAN ACFT RQR NS ABTMT BRIEFING.

UAS OPS IN SYRACUSE APCH/DEP AIRSPACE WILL BE CONTROLLED BY SYR ATC AT ALL TIMES.

NO TSNT ACFT PARKING ON MAIN TERMINAL RAMP.

DIRECT CUSTOM NOTIFICATION IS REQUIRED. HOURS OF NOTIFICATION ARE MON-SAT 0800-1700. ARRIVALS OUTSIDE OF THESE HRS MUST MAKE ARRANGEMENTS DURING REGULAR WORK HRS; CALL 315-455-2271.

HVY ACFT CTC ARPT COMMISSIONER FOR PRK AVBL AT C315-455-3263. LIMITED METRO AVAIL AT DSN 243-2185. C315-233-2185 OR CTC OWS DSN 576-9755/9702. ALL TRAN ACFT REQ NOISE ABATEMENT BRIEFING.

NO CHARTER OPER THRU PASSENGER TERMINAL BLDG WITHOUT PRIOR PERMISSION.

RSTD: TWY J AND P SOUTH OF TWY Y CLSD TO CIV OPS.

NOISE ABATEMENT PROCEDURES IN EFFECT.

FIELD CONDITION REPORTS RECORDING AVAILABLE CALL 315-455-3444.

MILITARY: COMMUNICATIONS - ANG - OPS - 140.425 379.5 REMARKS: (COBRA OPS) CTC ANG OPS 15 MIN PRIOR TO ARR.

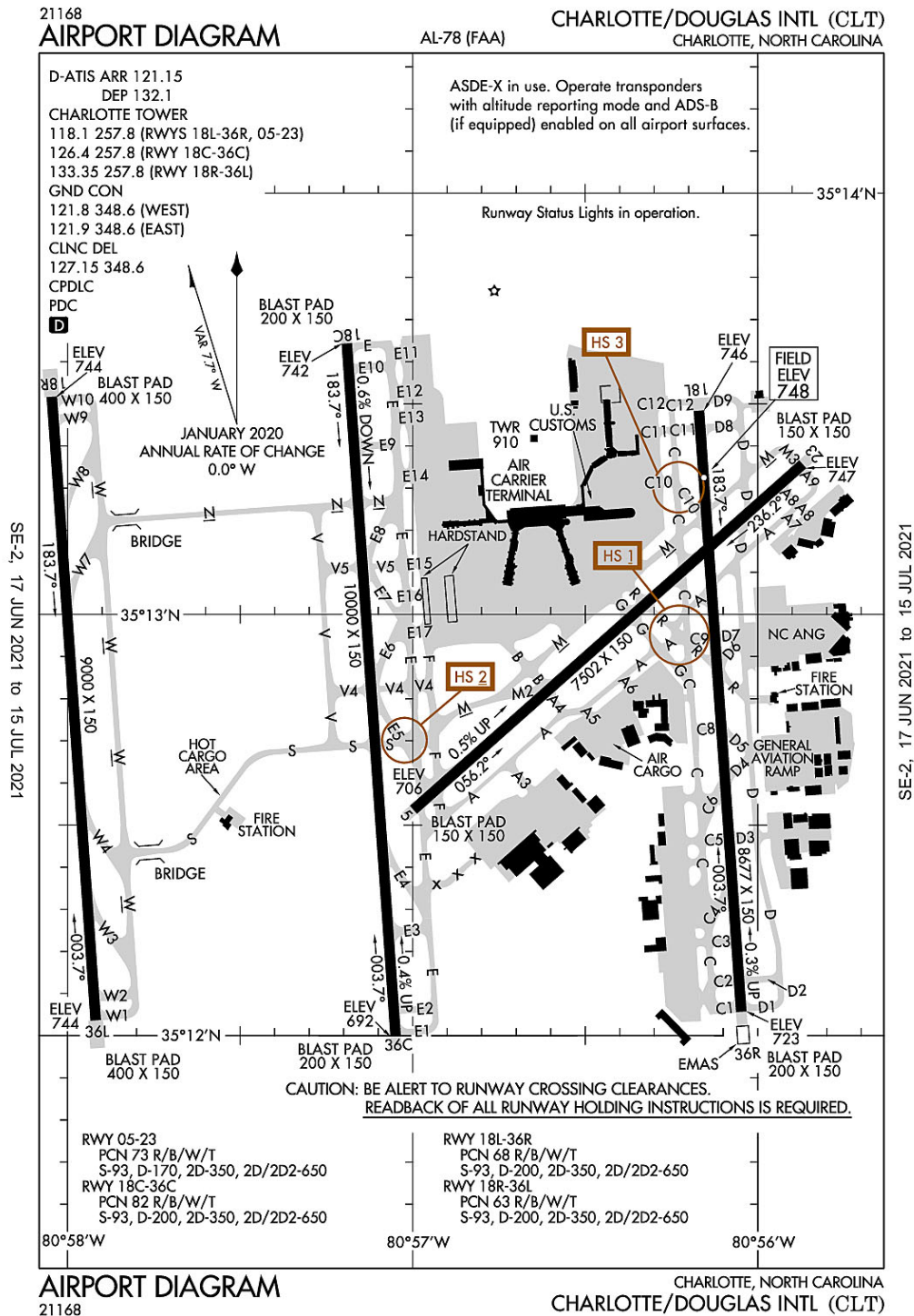
NO JET ENGINE MAINT RUNS ABOVE IDLE BTWN 2300-0600.

CAUTION: TWY J AND P SOUTH OF TWY Y AND ANG RAMP HAVE UNCTL VEH AND EQPT TFC.

UAS OPERATE WITHIN THE CONFINES OF THE SYRACUSE CLASS C, TIMES VARY.

MILITARY: ANG: OPR 1030-2100Z++ MON-THUR EXC HOL. PPR TRANS ACFT OFFL BUS ONLY. AFLD MGR DSN 243-2398, C315-233-2398, AFT DUTY HR CTC C315-233-2398. PPR REQ FOR ALL TRAN ACFT DUE LTD TRANS SVC. NTFY AFLD MGR OF ETA DELAY OVER 30 MIN OR MSN CNL IS RQR.

Charlotte, North Carolina
Charlotte/Douglas International
ICAO Identifier KCLT



Charlotte, NC
Charlotte/Douglas Intl
ICAO Identifier KCLT

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 35-12-49.5N / 80-56-56.6W
2.2.2 From City: 5 miles W of CHARLOTTE, NC
2.2.3 Elevation: 747.9 ft
2.2.5 Magnetic Variation: 7W (2000)
2.2.6 Airport Contact: HALEY GENTRY
5601 WILKINSON BLVD.
CHARLOTTE, NC 28208
(704-359-4000)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 05
2.12.2 True Bearing: 48
2.12.3 Dimensions: 7502 ft x 150 ft
2.12.4 PCN: 73 R/B/W/T
2.12.5 Coordinates: 35-12-32.2287N /
80-56-59.8045W
2.12.6 Threshold Elevation: 705.9 ft
2.12.6 Touchdown Zone Elevation: 715.6 ft

2.12.1 Designation: 23
2.12.2 True Bearing: 228
2.12.3 Dimensions: 7502 ft x 150 ft
2.12.4 PCN: 73 R/B/W/T
2.12.5 Coordinates: 35-13-21.4183N /
80-55-52.1235W
2.12.6 Threshold Elevation: 746.7 ft
2.12.6 Touchdown Zone Elevation: 746.7 ft

2.12.1 Designation: 18C
2.12.2 True Bearing: 176
2.12.3 Dimensions: 10000 ft x 150 ft

2.12.4 PCN: 82 R/B/W/T
2.12.5 Coordinates: 35-13-38.6269N /
80-57-11.4094W
2.12.6 Threshold Elevation: 742 ft
2.12.6 Touchdown Zone Elevation: 742 ft
2.12.1 Designation: 36C
2.12.2 True Bearing: 356
2.12.3 Dimensions: 10000 ft x 150 ft
2.12.4 PCN: 82 R/B/W/T
2.12.5 Coordinates: 35-11-59.9721N / 80-57-2.9217W
2.12.6 Threshold Elevation: 692.2 ft
2.12.6 Touchdown Zone Elevation: 706.7 ft

2.12.1 Designation: 18L
2.12.2 True Bearing: 176
2.12.3 Dimensions: 8677 ft x 150 ft
2.12.4 PCN: 68 R/B/W/T
2.12.5 Coordinates: 35-13-29.0474N /
80-56-10.1652W
2.12.6 Threshold Elevation: 746 ft
2.12.6 Touchdown Zone Elevation: 747.9 ft

2.12.1 Designation: 36R
2.12.2 True Bearing: 356
2.12.3 Dimensions: 8677 ft x 150 ft
2.12.4 PCN: 68 R/B/W/T
2.12.5 Coordinates: 35-12-3.4456N / 80-56-2.822W
2.12.6 Threshold Elevation: 723.4 ft
2.12.6 Touchdown Zone Elevation: 726.9 ft

2.12.1 Designation: 18R
2.12.2 True Bearing: 176
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 63 R/B/W/T
2.12.5 Coordinates: 35-13-31.0182N / 80-58-2.707W
2.12.6 Threshold Elevation: 744 ft
2.12.6 Touchdown Zone Elevation: 744 ft

2.12.1 Designation: 36L
2.12.2 True Bearing: 356
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 63 R/B/W/T
2.12.5 Coordinates: 35-12-2.2277N / 80-57-55.0671W
2.12.6 Threshold Elevation: 743.9 ft
2.12.6 Touchdown Zone Elevation: 743.9 ft

AD 2.13 Declared Distances

2.13.1 Designation: 05
2.13.2 Take-off Run Available: 7502

2.13.3 Take-off Distance Available: 7502
2.13.4 Accelerate–Stop Distance Available: 7092
2.13.5 Landing Distance Available: 7092

2.13.1 Designation: 23
2.13.2 Take-off Run Available: 7502
2.13.3 Take-off Distance Available: 7502
2.13.4 Accelerate–Stop Distance Available: 7502
2.13.5 Landing Distance Available: 7502

2.13.1 Designation: 18C
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate–Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 36C
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate–Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 18L
2.13.2 Take-off Run Available: 8676
2.13.3 Take-off Distance Available: 8676
2.13.4 Accelerate–Stop Distance Available: 8676
2.13.5 Landing Distance Available: 8676

2.13.1 Designation: 36R
2.13.2 Take-off Run Available: 8676
2.13.3 Take-off Distance Available: 8676
2.13.4 Accelerate–Stop Distance Available: 8390
2.13.5 Landing Distance Available: 8390

2.13.1 Designation: 18R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate–Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 36L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate–Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 05
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 23
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 18C
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 36C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 18R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 36L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ALCP
2.18.3 Channel: 292.25
2.18.5 Hours of Operation:

2.18.1 Service Designation: APCH/P
2.18.3 Channel: 126.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(120–295 8000 FT & BLW)
2.18.3 Channel: 120.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(246–074 ABV 8000 FT)
2.18.3 Channel: 120.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC

(075-245 ABV 8000 FT)

2.18.3 Channel: 124

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(001-119 8000 FT & BLW)

2.18.3 Channel: 128.325

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(296-360 8000 FT & BLW)

2.18.3 Channel: 134.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(180-359)

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(360-179)

2.18.3 Channel: 307.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BANKR STAR

2.18.3 Channel: 135.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BANKR STAR

2.18.3 Channel: 377.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BARMY DP

2.18.3 Channel: 124

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BARMY DP

2.18.3 Channel: 307.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BEAVY DP (RWY 36L,
36C)

2.18.3 Channel: 120.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BEAVY DP (RWY 05, 18L,
18R, 18C, 23, 36R)

2.18.3 Channel: 124

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BEAVY DP (RWY 36L,

36C)

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BEAVY DP (RWY 05, 18R,
18L, 18C, 23, 36R)

2.18.3 Channel: 307.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOBZY DP

2.18.3 Channel: 120.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOBZY DP

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BTSEY STAR

2.18.3 Channel: 125.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 127.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHARLOTTE DP
(BUCKL, HARAY & PITY TRANSITIONS. RWY
36L, 36C)

2.18.3 Channel: 120.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHARLOTTE DP

(BUCKL, GANTS, LILLS & RUNIE TRANSITIONS.)

2.18.3 Channel: 124

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHARLOTTE DP (RWY
05, 18L, 18R, 18C, 23, 36R)

2.18.3 Channel: 124

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHARLOTTE DP
(BUCKL, HARAY & PITY TRANSITION. RWY 36L,
36C)

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHARLOTTE DP (BUCKL
TRANSITION, RWY 05, 18L, 18R, 18C, 23, 36R)

2.18.3 Channel: 307.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHARLOTTE DP
(GANTS, LILLS & RUNIE TRANSITIONS)

2.18.3 Channel: 307.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHPTR STAR

2.18.3 Channel: 135.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHPTR STAR

2.18.3 Channel: 377.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHSLY STAR

2.18.3 Channel: 126.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CHSLY STAR

2.18.3 Channel: 282.325

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (120–295 8000
FT & BLW)

2.18.3 Channel: 120.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (246–074 ABV
8000 FT)

2.18.3 Channel: 120.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (075–245 ABV
8000 FT)

2.18.3 Channel: 124

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (001–119 8000
FT & BLW)

2.18.3 Channel: 128.325

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (296–360 8000
FT & BLW)

2.18.3 Channel: 134.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (180–359)

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (360–179)

2.18.3 Channel: 307.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (ARR)

2.18.3 Channel: 121.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (DEP)

2.18.3 Channel: 132.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: ESTRR DP

2.18.3 Channel: 120.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ESTRR DP

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FILPZ STAR

2.18.3 Channel: 125.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FILPZ STAR

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (WEST)

2.18.3 Channel: 121.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (EAST)

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ICONS DP (RWY 36L, 36C) 2.18.3 Channel: 120.5 2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
2.18.1 Service Designation: ICONS DP (RWY 05, 18L, 18R, 18C, 23, 36R) 2.18.3 Channel: 124 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KERMIT DP (235–055) 2.18.3 Channel: 257.2 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: ICONS DP (RWY 36L, 36C) 2.18.3 Channel: 257.2 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KERMIT DP (055–235) 2.18.3 Channel: 307.8 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: ICONS DP (RWY 05, 18R, 18L, 18C, 23, 36R) 2.18.3 Channel: 307.8 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KILNS DP 2.18.3 Channel: 124 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: JOJJO DP 2.18.3 Channel: 120.5 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KILNS DP 2.18.3 Channel: 307.8 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: JOJJO DP 2.18.3 Channel: 257.2 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KNIGHTS DP (FLYYN, CEGAL TRANSITIONS, RWY 23, 18L, 18C, 18R) 2.18.3 Channel: 120.05 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: JONZE STAR 2.18.3 Channel: 135.6 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KNIGHTS DP (DEBIE, NEANO TRANSITIONS) 2.18.3 Channel: 120.05 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: JONZE STAR 2.18.3 Channel: 377.15 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KNIGHTS DP (FLYYN, CEGAL TRANSITIONS RWY 05, 36L, 36C, 36R) 2.18.3 Channel: 120.5 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: KABEE STAR 2.18.3 Channel: 126.15 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KNIGHTS DP (055–235) 2.18.3 Channel: 128.325 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: KABEE STAR 2.18.3 Channel: 282.325 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KNIGHTS DP (PEKNN, LILLS, HAMLN, ANDYS TRANSITIONS) 2.18.3 Channel: 128.325 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: KERMIT DP (235–055) 2.18.3 Channel: 120.5 2.18.5 Hours of Operation: 24	2.18.1 Service Designation: KNIGHTS DP (235–055) 2.18.3 Channel: 257.2 2.18.5 Hours of Operation: 24
2.18.1 Service Designation: KERMIT DP (055–235) 2.18.3 Channel: 124	2.18.1 Service Designation: KNIGHTS DP (055–235) 2.18.3 Channel: 307.8 2.18.5 Hours of Operation: 24
	2.18.1 Service Designation: KRITR DP

2.18.3 Channel: 120.5	2.18.1 Service Designation: LIINN STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 257.2
2.18.1 Service Designation: KRITR DP	2.18.5 Hours of Operation: 24
2.18.3 Channel: 257.2	2.18.1 Service Designation: LILLS DP
2.18.5 Hours of Operation: 24	2.18.3 Channel: 307.8
2.18.1 Service Designation: KWEEN DP (RWY 36L, 36C)	2.18.5 Hours of Operation: 24
2.18.3 Channel: 120.5	2.18.1 Service Designation: MAJIC STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 126.15
2.18.1 Service Designation: KWEEN DP (RWY 05, 18L, 18R, 18C, 23, 36R)	2.18.5 Hours of Operation: 24
2.18.3 Channel: 124	2.18.1 Service Designation: MAJIC STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 282.325
2.18.1 Service Designation: KWEEN DP (RWY 36L, 36C)	2.18.5 Hours of Operation: 24
2.18.3 Channel: 257.2	2.18.1 Service Designation: MLLET STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 126.15
2.18.1 Service Designation: KWEEN DP (RWY 05, 18R, 18L, 18C, 23, 36R)	2.18.5 Hours of Operation: 24
2.18.3 Channel: 307.8	2.18.1 Service Designation: MLLET STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 282.325
2.18.1 Service Designation: LCL/P (RWY 05/23, 18L/36R)	2.18.5 Hours of Operation: 24
2.18.3 Channel: 118.1	2.18.1 Service Designation: PARQR STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 125.35
2.18.1 Service Designation: LCL/P (RWY 18C/36C)	2.18.5 Hours of Operation: 24
2.18.3 Channel: 126.4	2.18.1 Service Designation: PARQR STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 257.2
2.18.1 Service Designation: LCL/P (RWY 18R/36L)	2.18.5 Hours of Operation: 24
2.18.3 Channel: 133.35	2.18.1 Service Designation: RASLN STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 126.15
2.18.1 Service Designation: LCL/P	2.18.5 Hours of Operation: 24
2.18.3 Channel: 257.8	2.18.1 Service Designation: STOCR STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 126.15
2.18.1 Service Designation: LIILS DP	2.18.5 Hours of Operation: 24
2.18.3 Channel: 124	2.18.1 Service Designation: STOCR STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 282.325
2.18.1 Service Designation: LIINN STAR	2.18.5 Hours of Operation: 24
2.18.3 Channel: 125.35	2.18.1 Service Designation: UNARM STAR
2.18.5 Hours of Operation: 24	2.18.3 Channel: 135.6
	2.18.5 Hours of Operation: 24
	2.18.1 Service Designation: UNARM STAR
	2.18.3 Channel: 377.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WEAZL DP

2.18.3 Channel: 120.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: WEAZL DP

2.18.3 Channel: 257.2

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 05. Magnetic variation: 7W

2.19.2 ILS Identification: CLT

2.19.5 Coordinates: 35-12-43.05N / 80-56-52.18W

2.19.6 Site Elevation: 695.1 ft

2.19.1 ILS Type: Localizer for runway 05. Magnetic variation: 7W

2.19.2 ILS Identification: CLT

2.19.5 Coordinates: 35-13-26.34N / 80-55-45.36W

2.19.6 Site Elevation: 738.2 ft

2.19.1 ILS Type: DME for runway 23. Magnetic variation: 7W

2.19.2 ILS Identification: APU

2.19.5 Coordinates: 35-12-21.2833N / 80-57-10.052W

2.19.6 Site Elevation: 699.4 ft

2.19.1 ILS Type: Glide Slope for runway 23. Magnetic variation: 7W

2.19.2 ILS Identification: APU

2.19.5 Coordinates: 35-13-12.1531N / 80-56-0.0758W

2.19.6 Site Elevation: 737.7 ft

2.19.1 ILS Type: Localizer for runway 23. Magnetic variation: 7W

2.19.2 ILS Identification: APU

2.19.5 Coordinates: 35-12-23.38N / 80-57-11.99W

2.19.6 Site Elevation: 704 ft

2.19.1 ILS Type: DME for runway 18C. Magnetic variation: 7W

2.19.2 ILS Identification: PEP

2.19.5 Coordinates: 35-11-50.2369N / 80-56-58.6363W

2.19.6 Site Elevation: 684.4 ft

2.19.1 ILS Type: Glide Slope for runway 18C. Magnetic variation: 7W

2.19.2 ILS Identification: PEP

2.19.5 Coordinates: 35-13-26.9102N / 80-57-15.2356W

2.19.6 Site Elevation: 731.4 ft

2.19.1 ILS Type: Localizer for runway 18C. Magnetic variation: 7W

2.19.2 ILS Identification: PEP

2.19.5 Coordinates: 35-11-48.5979N / 80-57-1.9439W

2.19.6 Site Elevation: 683.3 ft

2.19.1 ILS Type: Glide Slope for runway 36C. Magnetic variation: 7W

2.19.2 ILS Identification: DQG

2.19.5 Coordinates: 35-12-9.1687N / 80-57-8.5431W

2.19.6 Site Elevation: 691.1 ft

2.19.1 ILS Type: Inner Marker for runway 36C. Magnetic variation: 7W

2.19.2 ILS Identification: DQG

2.19.5 Coordinates: 35-11-48.7253N / 80-57-1.9507W

2.19.6 Site Elevation: 682.9 ft

2.19.1 ILS Type: Localizer for runway 36C. Magnetic variation: 7W

2.19.2 ILS Identification: DQG

2.19.5 Coordinates: 35-13-53.9477N / 80-57-12.7316W

2.19.6 Site Elevation: 749.4 ft

2.19.1 ILS Type: DME for runway 18L. Magnetic variation: 7W

2.19.2 ILS Identification: VKQ

2.19.5 Coordinates: 35-11-50.25N / 80-56-4.63W

2.19.6 Site Elevation: 710 ft

2.19.1 ILS Type: Glide Slope for runway 18L. Magnetic variation: 7W

2.19.2 ILS Identification: VKQ

2.19.5 Coordinates: 35-13-19.2609N / 80-56-5.097W

2.19.6 Site Elevation: 743.5 ft

2.19.1 ILS Type: Localizer for runway 18L. Magnetic variation: 7W

2.19.2 ILS Identification: VKQ

2.19.5 Coordinates: 35-11-50.5994N / 80-56-1.7186W

2.19.6 Site Elevation: 719.2 ft

2.19.1 ILS Type: DME for runway 36R. Magnetic variation: 7W

2.19.2 ILS Identification: BQC

2.19.5 Coordinates: 35-13-33.1089N / 80-56-6.903W
2.19.6 Site Elevation: 752.3 ft

2.19.1 ILS Type: Glide Slope for runway 36R. Magnetic variation: 7W

2.19.2 ILS Identification: BQC
2.19.5 Coordinates: 35-12-14.0034N /
80-55-58.8923W
2.19.6 Site Elevation: 717.3 ft

2.19.1 ILS Type: Localizer for runway 36R. Magnetic variation: 7W

2.19.2 ILS Identification: BQC
2.19.5 Coordinates: 35-13-33.7034N /
80-56-10.5664W
2.19.6 Site Elevation: 741.2 ft

2.19.1 ILS Type: DME for runway 18R. Magnetic variation: 7W

2.19.2 ILS Identification: RGS
2.19.5 Coordinates: 35-12-13.2565N / 80-58-1.0908W
2.19.6 Site Elevation: 743.8 ft

2.19.1 ILS Type: Glide Slope for runway 18R. Magnetic variation: 7W

2.19.2 ILS Identification: RGS
2.19.5 Coordinates: 35-13-20.0955N / 80-58-6.7207W
2.19.6 Site Elevation: 733.9 ft

2.19.1 ILS Type: Inner Marker for runway 18R. Magnetic variation: 7W

2.19.2 ILS Identification: RGS
2.19.5 Coordinates: 35-13-38.8124N / 80-58-3.3825W
2.19.6 Site Elevation: 738.6 ft

2.19.1 ILS Type: Localizer for runway 18R. Magnetic

variation: 7W

2.19.2 ILS Identification: RGS
2.19.5 Coordinates: 35-11-51.8431N /
80-57-54.1735W
2.19.6 Site Elevation: 738.1 ft

2.19.1 ILS Type: DME for runway 36L. Magnetic variation: 7W

2.19.2 ILS Identification: XUU
2.19.5 Coordinates: 35-13-19.8318N / 80-58-6.8193W
2.19.6 Site Elevation: 738.9 ft

2.19.1 ILS Type: Glide Slope for runway 36L. Magnetic variation: 7W

2.19.2 ILS Identification: XUU
2.19.5 Coordinates: 35-12-12.9817N / 80-58-0.9403W
2.19.6 Site Elevation: 732.3 ft

2.19.1 ILS Type: Inner Marker for runway 36L. Magnetic variation: 7W

2.19.2 ILS Identification: XUU
2.19.5 Coordinates: 35-11-54.4339N /
80-57-54.3965W
2.19.6 Site Elevation: 738.8 ft

2.19.1 ILS Type: Localizer for runway 36L. Magnetic variation: 7W

2.19.2 ILS Identification: XUU
2.19.5 Coordinates: 35-13-41.4048N / 80-58-3.6016W
2.19.6 Site Elevation: 737.3 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 5W

2.19.2 Navigation Aid Identification: CLT
2.19.5 Coordinates: 35-11-25.0392N / 80-57-6.3124W
2.19.6 Site Elevation: 731.7 ft

General Remarks:

TWY C10 RSTRD TO ACFT WITH WINGSPAN LESS THAN 171 FT WHEN EXITING RWY.

CLT RAMP, NON-MOVMT AREA, IS CTLD RAMP; CTC RAMP CTL PRIOR TO ENTERING.

TWY C10 UNUSBL FOR TXG ONTO RWY 18L/36R.

SUCCESSIVE OR SIMULTANEOUS DEPARTURES FROM RWY 18L AND RWY 18C ARE APPROVED WITH COURSE DIVERGENCE BEGINNING NO FURTHER THAN 4 MILES FROM END OF RWY.

DUAL TAXI BTN DEP CALL SPOTS 11/12 AND 13N/13S RSTRD TO ONE ACFT LESS THAN 214 FT AND ONE ACFT LESS THAN 118 FT OR TWO ACFT LESS THAN 171 FT.

NOISE ABATEMENT PROCEDURE IN EFFECT 2300-0700; LAND ON RY 05 TKOF RY 23.

DUAL TAXI BTN DEP CALL SPOTS 22/23 AND 24N/24S RSTRD TO ACFT WITH WINGSPANS LESS THAN 118

FT.

RY SFC COND INFO DURG DUTY HRS PHONE ANG OPS V583-9177/9144 OR AIRBORNE 292.2.

GROUP V ACFT WITH A WINGSPAN GTR THAN 171 FT ARE PROHIBITED FM EXITING RWY 18L/36R AT TWY C10.

RWY STATUS LGTS IN OPR.

TWY C4 AND C6: WHEN TAXIING AIRCRAFT WITH COCKPIT TO MAIN GEAR DISTANCE GREATER THAN 90 FT, PILOT MUST PERFORM JUDGEMENTAL OVERSTEERING INSTEAD OF COCKPIT OVER CENTERLINE STEERING.

TWY D, RESTRICTED TO 15 MPH OR LESS WITH WINGSPAN 171 FT AND GREATER.

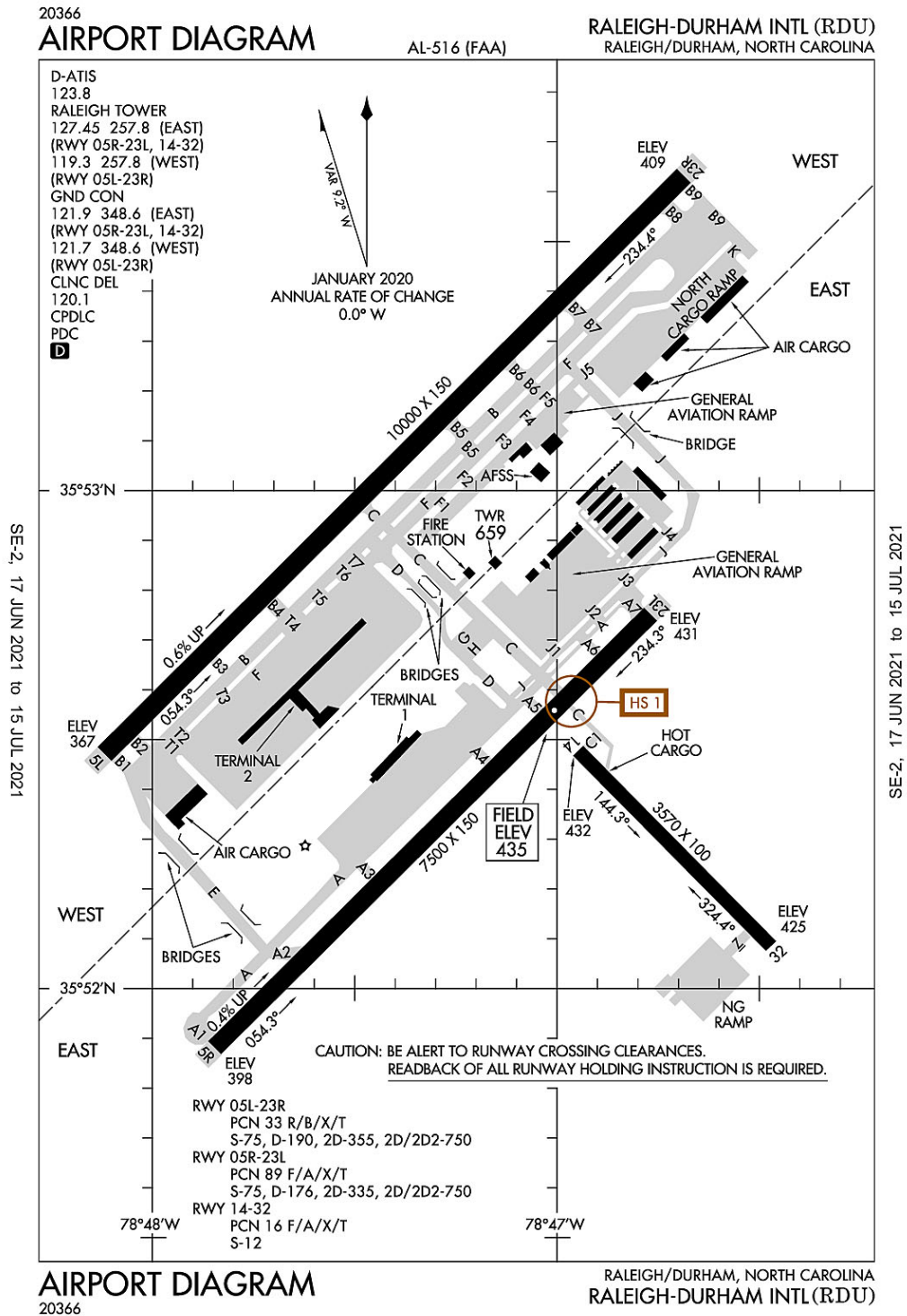
ANG: CTC NEWSREEL 292.25 30 MIN PRIOR LDG. AMOPS/COMD POST – 292.25 (CALL NEWSREEL).

GROUP III ACFT WITH A WINGSPAN GTR THAN 79 FT ARE PROHIBITED FM MAKING A NBND TURN ONTO TWY C WHEN TAXIING WB ON TWY A.

BE ALERT FOR FLOCKS OF MIGRATORY BIRDS ON & INVOF ARPT.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

Raleigh-Durham, North Carolina
Raleigh-Durham International
ICAO Identifier KRDU



Raleigh/Durham, NC
Raleigh–Durham Intl
ICAO Identifier KRDU

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 35–52–39.5N / 78–47–14.9W
- 2.2.2 From City: 9 miles NW of RALEIGH/DURHAM, NC
- 2.2.3 Elevation: 435.2 ft
- 2.2.5 Magnetic Variation: 9W (2020)
- 2.2.6 Airport Contact: MICHAEL LANDGUTH
RALEIGH–DURHAM ARPT
AUTH
RDU AIRPORT, NC 27623
((919) 840–7701)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I D certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 05L
- 2.12.2 True Bearing: 45
- 2.12.3 Dimensions: 10000 ft x 150 ft
- 2.12.4 PCN: 33 R/B/X/T
- 2.12.5 Coordinates: 35–52–28.016N / 78–48–7.069W
- 2.12.6 Threshold Elevation: 366.8 ft
- 2.12.6 Touchdown Zone Elevation: 384.3 ft

- 2.12.1 Designation: 23R
- 2.12.2 True Bearing: 225
- 2.12.3 Dimensions: 10000 ft x 150 ft
- 2.12.4 PCN: 33 R/B/X/T
- 2.12.5 Coordinates: 35–53–37.7657N / 78–46–40.9198W
- 2.12.6 Threshold Elevation: 408.6 ft
- 2.12.6 Touchdown Zone Elevation: 408.6 ft

- 2.12.1 Designation: 05R
- 2.12.2 True Bearing: 45

- 2.12.3 Dimensions: 7500 ft x 150 ft
- 2.12.4 PCN: 89 F/A/X/T
- 2.12.5 Coordinates: 35–51–52.6684N / 78–47–50.4174W
- 2.12.6 Threshold Elevation: 397.5 ft
- 2.12.6 Touchdown Zone Elevation: 419.8 ft

- 2.12.1 Designation: 23L
- 2.12.2 True Bearing: 225
- 2.12.3 Dimensions: 7500 ft x 150 ft
- 2.12.4 PCN: 89 F/A/X/T
- 2.12.5 Coordinates: 35–52–44.9832N / 78–46–45.8171W
- 2.12.6 Threshold Elevation: 430.7 ft
- 2.12.6 Touchdown Zone Elevation: 435.2 ft

- 2.12.1 Designation: 14
- 2.12.2 True Bearing: 135
- 2.12.3 Dimensions: 3570 ft x 100 ft
- 2.12.4 PCN: 16 F/A/X/T
- 2.12.5 Coordinates: 35–52–30.1119N / 78–46–57.6427W
- 2.12.6 Threshold Elevation: 432.1 ft
- 2.12.6 Touchdown Zone Elevation: 432.1 ft

- 2.12.1 Designation: 32
- 2.12.2 True Bearing: 315
- 2.12.3 Dimensions: 3570 ft x 100 ft
- 2.12.4 PCN: 16 F/A/X/T
- 2.12.5 Coordinates: 35–52–5.0792N / 78–46–27.0499W
- 2.12.6 Threshold Elevation: 424.7 ft
- 2.12.6 Touchdown Zone Elevation: 428.7 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 05L
- 2.13.2 Take–off Run Available: 10000
- 2.13.3 Take–off Distance Available: 10000
- 2.13.4 Accelerate–Stop Distance Available: 10000
- 2.13.5 Landing Distance Available: 10000

- 2.13.1 Designation: 23R
- 2.13.2 Take–off Run Available: 10000
- 2.13.3 Take–off Distance Available: 10000
- 2.13.4 Accelerate–Stop Distance Available: 10000
- 2.13.5 Landing Distance Available: 10000

- 2.13.1 Designation: 05R
- 2.13.2 Take–off Run Available: 7500
- 2.13.3 Take–off Distance Available: 7500
- 2.13.4 Accelerate–Stop Distance Available: 7500
- 2.13.5 Landing Distance Available: 7500

2.13.1 Designation: 23L
2.13.2 Take-off Run Available: 7500
2.13.3 Take-off Distance Available: 7500
2.13.4 Accelerate-Stop Distance Available: 7500
2.13.5 Landing Distance Available: 7500

2.13.1 Designation: 14
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 32
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 05L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 23R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 05R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 23L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 14
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 32
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P (055-229)
2.18.3 Channel: 124.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (055-229)
2.18.3 Channel: 318.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (230-054)
2.18.3 Channel: 127.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (230-054)
2.18.3 Channel: 307.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ARGAL STAR
2.18.3 Channel: 124.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ARGAL STAR
2.18.3 Channel: 318.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BEXGO DP
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BEXGO DP
2.18.3 Channel: 256.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLOGS STAR
2.18.3 Channel: 124.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BLOGS STAR
2.18.3 Channel: 318.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BRADE STAR
2.18.3 Channel: 124.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BRADE STAR
2.18.3 Channel: 318.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BUZZY STAR
2.18.3 Channel: 127.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BUZZY STAR
2.18.3 Channel: 307.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 120.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (055-229)

2.18.3 Channel: 125.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (230-054)

2.18.3 Channel: 132.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (230-054)

2.18.3 Channel: 256.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (055-229)

2.18.3 Channel: 353.675

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 123.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (055-229)

2.18.3 Channel: 125.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (230-054)

2.18.3 Channel: 132.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (230-054)

2.18.3 Channel: 256.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (SOUTH)

2.18.3 Channel: 353.675

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (055-229)

2.18.3 Channel: 353.675

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: FINAL (EAST)

2.18.3 Channel: 285.425

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: FINAL CTL

2.18.3 Channel: 124.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (WEST, RWY 05L/23R)

2.18.3 Channel: 121.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (EAST, RWY 05R/23L, 14/32)

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HOOKZ DP

2.18.3 Channel: 125.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HOOKZ DP

2.18.3 Channel: 353.675

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HURIC DP

2.18.3 Channel: 125.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: HURIC DP

2.18.3 Channel: 353.675

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (WEST, RWY 05L/23R)

2.18.3 Channel: 119.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (EAST, RWY 05R/23L, 14/32)

2.18.3 Channel: 127.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LWOOD DP
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LWOOD DP
2.18.3 Channel: 256.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MALNR STAR
2.18.3 Channel: 127.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MALNR STAR
2.18.3 Channel: 307.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OXFRD DP
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OXFRD DP
2.18.3 Channel: 256.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PACKK DP (055-229)
2.18.3 Channel: 125.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PACKK DP (230-054)
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PACKK DP (230-054)
2.18.3 Channel: 256.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PACKK DP (055-229)
2.18.3 Channel: 353.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RALEIGH DP (055-229)
2.18.3 Channel: 125.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RALEIGH DP (230-054)
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RALEIGH DP (230-054)
2.18.3 Channel: 256.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RALEIGH DP (055-229)
2.18.3 Channel: 353.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ROZBO DP
2.18.3 Channel: 125.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ROZBO DP
2.18.3 Channel: 353.675
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SHPRD DP
2.18.3 Channel: 132.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SHPRD DP
2.18.3 Channel: 256.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TAQLE STAR
2.18.3 Channel: 124.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: TAQLE STAR
2.18.3 Channel: 318.2
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 05L. Magnetic variation: 9W

2.19.2 ILS Identification: GKK

2.19.5 Coordinates: 35-53-46.25N / 78-46-25.87W

2.19.6 Site Elevation: 403 ft

2.19.1 ILS Type: Glide Slope for runway 05L. Magnetic variation: 9W

2.19.2 ILS Identification: GKK

2.19.5 Coordinates: 35-52-37.7972N / 78-48-1.884W

2.19.6 Site Elevation: 365.5 ft

2.19.1 ILS Type: Localizer for runway 05L. Magnetic variation: 9W

2.19.2 ILS Identification: GKK

2.19.5 Coordinates: 35-53-48.0693N /
78-46-28.1855W

2.19.6 Site Elevation: 408.6 ft

2.19.1 ILS Type: DME for runway 23R. Magnetic varia-

tion: 9W

2.19.2 ILS Identification: DMP

2.19.5 Coordinates: 35-52-20.25N / 78-48-15.21W

2.19.6 Site Elevation: 358 ft

2.19.1 ILS Type: Glide Slope for runway 23R. Magnetic variation: 9W

2.19.2 ILS Identification: DMP

2.19.5 Coordinates: 35-53-32.4744N /

78-46-54.3483W

2.19.6 Site Elevation: 396.2 ft

2.19.1 ILS Type: Inner Marker for runway 23R. Magnetic variation: 9W

2.19.2 ILS Identification: DMP

2.19.5 Coordinates: 35-53-43.7552N /

78-46-33.5065W

2.19.6 Site Elevation: 402.1 ft

2.19.1 ILS Type: Localizer for runway 23R. Magnetic variation: 9W

2.19.2 ILS Identification: DMP

2.19.5 Coordinates: 35-52-20.84N / 78-48-15.93W

2.19.6 Site Elevation: 358.8 ft

2.19.1 ILS Type: Middle Marker for runway 23R. Magnetic variation: 9W

2.19.2 ILS Identification: DMP

2.19.5 Coordinates: 35-53-54.7234N /

78-46-19.9522W

2.19.6 Site Elevation: 410 ft

2.19.1 ILS Type: DME for runway 05R. Magnetic variation: 9W

2.19.2 ILS Identification: RDU

2.19.5 Coordinates: 35-52-54.38N / 78-46-41.19W

2.19.6 Site Elevation: 412 ft

2.19.1 ILS Type: Glide Slope for runway 05R. Magnetic variation: 9W

2.19.2 ILS Identification: RDU

2.19.5 Coordinates: 35-51-57.0189N /

78-47-38.1689W

2.19.6 Site Elevation: 400.1 ft

2.19.1 ILS Type: Localizer for runway 05R. Magnetic variation: 9W

2.19.2 ILS Identification: RDU

2.19.5 Coordinates: 35-52-52.1055N /

78-46-37.0152W

2.19.6 Site Elevation: 423.6 ft

2.19.1 ILS Type: DME for runway 23L. Magnetic variation: 9W

2.19.2 ILS Identification: LEI

2.19.5 Coordinates: 35-51-43.52N / 78-47-54.49W

2.19.6 Site Elevation: 386 ft

2.19.1 ILS Type: Glide Slope for runway 23L. Magnetic variation: 9W

2.19.2 ILS Identification: LEI

2.19.5 Coordinates: 35-52-36.18N / 78-46-52.21W

2.19.6 Site Elevation: 430.2 ft

2.19.1 ILS Type: Localizer for runway 23L. Magnetic variation: 9W

2.19.2 ILS Identification: LEI

2.19.5 Coordinates: 35-51-45.6108N /

78-47-59.1266W

2.19.6 Site Elevation: 381 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 9W

2.19.2 Navigation Aid Identification: RDU

2.19.5 Coordinates: 35-52-21.0761N / 78-47-0.0316W

2.19.6 Site Elevation: 429.2 ft

General Remarks:

NO APPROVAL REQUIRED FOR PUSHBACK AT TERMINAL GATES UNLESS ACFT REQUIRES USE OF TWY. CTC ATC PRIOR TO PUSHING ONTO TWY.

TWY B BTN TWY C AND TWY B5 CLSD.

TWY F2 AND F5 CLOSED UNTIL FURTHER NOTICE.

ALL TDG V AIRCRAFT TXG ON TWY A ARE RSTD TO TAXI SPD OF 15 MPH

NG 24 HR PPR FOR JET ACFT & TRANS MIL ACFT - 919-840-7510.

TWY E BEHIND SOUTH CARGO 4 & TWY J BEHIND CORPORATE HANGARS NOT VSBL FM ATCT.

RSTD: PPR FOR ALL MILITARY AIRCRAFT F/W - R/W & UNSCHEDULED CHARTER FLIGHTS WITH 30 OR MORE PASSENGERS. 24 HR PN RQR FOR MIL PRACTICE APCH. CTC ARPT OPS 919-840-7510 OR RDU APP C919-380-3125. 24 HR PPR FOR ALL F/W AND R/W MIL ACFT GOING TO ARNG RAMP. POC DSN 582-9000, EXTN 16200, C919-804-5300, EXTN 16200. OSACOM FLT DET DSN 582-9000, EXTN 16202, C919-804-5300, EXTN 16202.

NO JET ENGINE MAINTENANCE RUNS BETWEEN 0000-0600.

ARPT CLSD TO AIRSHIPS.

NG PPR FOR LDG CTC V582-9181 C(919)664-9181.

TAXIWAY F1 IS CLOSED UNTIL FURTHER NOTICE.

ARNG: LTD PRK. ARNG OPS DSN 582-9000, EXTN 16200, C919-804-5300 EXTN 16200, DSN 582-9000,X16200, C919-804-5300,X16200 CTC FORECAST BASE 10 MIN PRIOR LDG. RAMP CLSD TO ALL F/W EXCEPT ARMY & MIL TRANSPORT WITH PPR, FACILITY HRS 1300-2130Z++ MON-FRI EXC HOL. MAKE APPT FOR AFTER DUTY HRS. NO FUEL EXCARNG FERRY ACFT. OSACOM FLT DET DSN 582-9248, C919-664-6248.

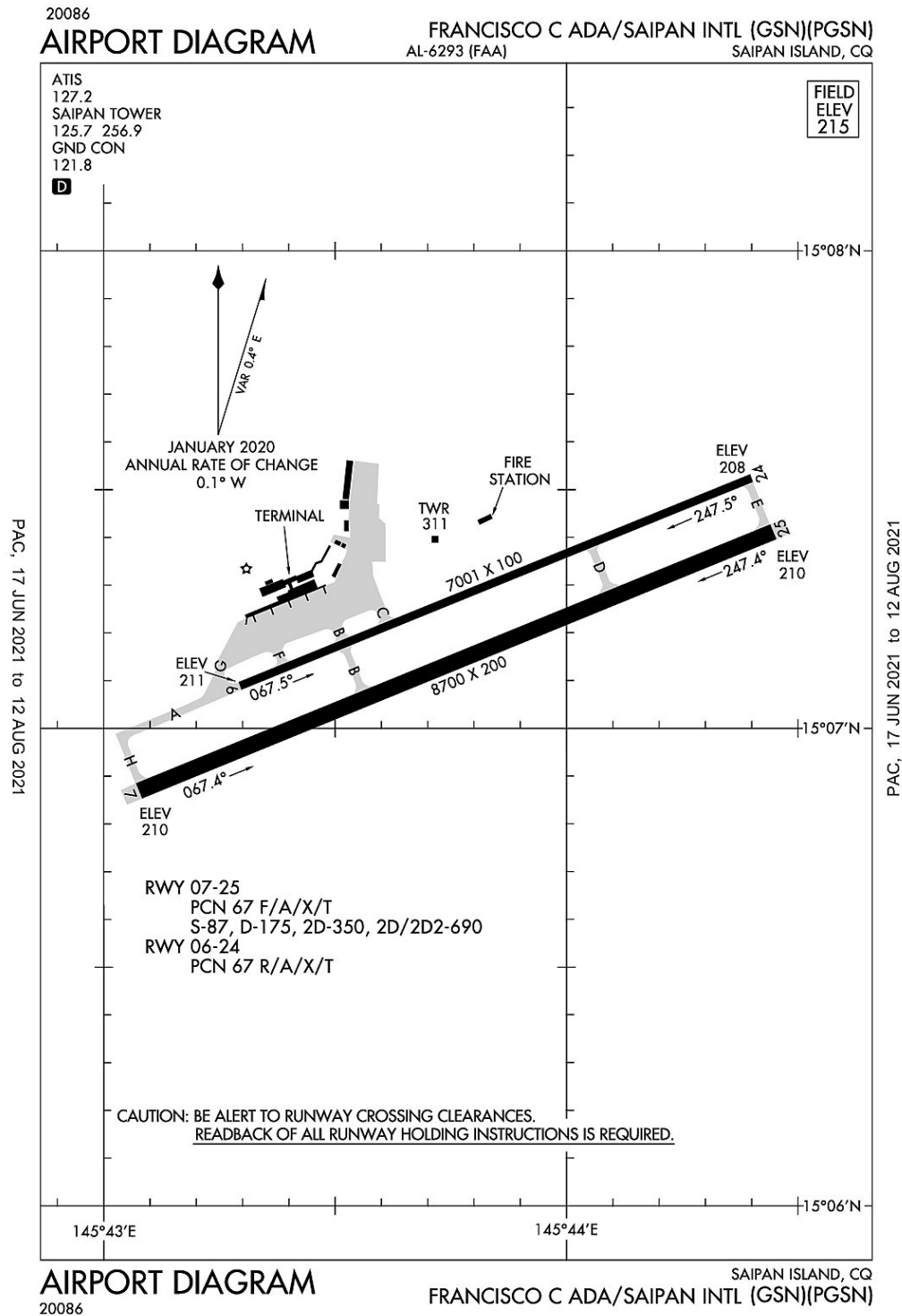
TWY D CLSD TO ACFT WITH WINGSPAN MORE THAN 171 FT WHEN TWY G AND H ARE OCCUPIED.

APN TXL F BTN TWY T1 AND TWY T7 CLSD TO ACFT WITH WINGSPAN MORE THAN 171 FT.

CRAN 75 FT AGL .76 NM FM AER 05R.

TWY C BTN TWY G AND TWY F CLSD TO ACFT WINGSPAN MORE THAN 118 FT.

North Mariana Islands, Saipan Island
Francisco C. Ada/Saipan International
ICAO Identifier PGSN



Saipan Island, CQ
Francisco C. Ada/Saipan Intl
ICAO Identifier PGSN

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 15-7-12.918N /
145-43-47.9427E
2.2.2 From City: 4 miles SW of SAIPAN ISLAND, MP
2.2.3 Elevation: 215.1 ft
2.2.5 Magnetic Variation: 2E (1985)
2.2.6 Airport Contact: CHRISTOPHER S. TENORIO
PO BOX 501055
SAIPAN, MP 96950
((670) 483-2447)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A1+,100,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 1/1/1978

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 24
2.12.2 True Bearing: 248
2.12.3 Dimensions: 7001 ft x 100 ft
2.12.4 PCN: 67 R/A/X/T
2.12.5 Coordinates: 15-7-31.5709N / 145-44-23.8646E
2.12.6 Threshold Elevation: 207.6 ft
2.12.6 Touchdown Zone Elevation: 207.8 ft

2.12.1 Designation: 06
2.12.2 True Bearing: 68
2.12.3 Dimensions: 7001 ft x 100 ft
2.12.4 PCN: 67 R/A/X/T
2.12.5 Coordinates: 15-7-5.4841N / 145-43-17.6384E
2.12.6 Threshold Elevation: 210.9 ft

2.12.6 Touchdown Zone Elevation: 210.9 ft

2.12.1 Designation: 07
2.12.2 True Bearing: 68
2.12.3 Dimensions: 8700 ft x 200 ft
2.12.4 PCN: 67 F/A/X/T
2.12.5 Coordinates: 15-6-52.106N / 145-43-4.571E
2.12.6 Threshold Elevation: 210 ft
2.12.6 Touchdown Zone Elevation: 215.1 ft

2.12.1 Designation: 25
2.12.2 True Bearing: 248
2.12.3 Dimensions: 8700 ft x 200 ft
2.12.4 PCN: 67 F/A/X/T
2.12.5 Coordinates: 15-7-24.702N / 145-44-26.794E
2.12.6 Threshold Elevation: 210 ft
2.12.6 Touchdown Zone Elevation: 210.1 ft

AD 2.13 Declared Distances

2.13.1 Designation: 24
2.13.2 Take-off Run Available: 6400
2.13.3 Take-off Distance Available: 7000
2.13.4 Accelerate-Stop Distance Available: 6302
2.13.5 Landing Distance Available:

2.13.1 Designation: 06
2.13.2 Take-off Run Available: 7000
2.13.3 Take-off Distance Available: 6800
2.13.4 Accelerate-Stop Distance Available: 6645
2.13.5 Landing Distance Available:

2.13.1 Designation: 07
2.13.2 Take-off Run Available: 8700
2.13.3 Take-off Distance Available: 8700
2.13.4 Accelerate-Stop Distance Available: 8520
2.13.5 Landing Distance Available: 8700

2.13.1 Designation: 25
2.13.2 Take-off Run Available: 8500
2.13.3 Take-off Distance Available: 8500
2.13.4 Accelerate-Stop Distance Available: 8250
2.13.5 Landing Distance Available: 8700

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 24
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: PSIL

2.14.1 Designation: 06
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: PSIL

2.14.1 Designation: 07
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: PSIL

2.14.1 Designation: 25
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS
2.18.3 Channel: 127.2
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

General Remarks:

FOR ARPT SECURITY CALL (670) 237-6529.

RWY 06/24 OPEN FOR TAXIING ONLY (NOT AVBL FOR LDG AND TKOF). OPEN FOR LDG AND TKOF WHEN RWY 7/25 CLSD.

PPR FM EXECUTIVE DIRECTOR COMMONWEALTH PORTS AUTHORITY SAIPAN CALL (670) 237-6500 MON-FRI 0730-1630 OTHER TIMES CALL (670) 237-6535.

IMMIGRATION & CUSTOMS AVBL DURG SCHEDULED OPNS. OTHER TIMES PRIOR ARRANGEMENTS MUST BE MADE WITH CBP PORT DIRECTOR CALL (670)288-0025/26.

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 125.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 256.9
2.18.5 Hours of Operation: 24

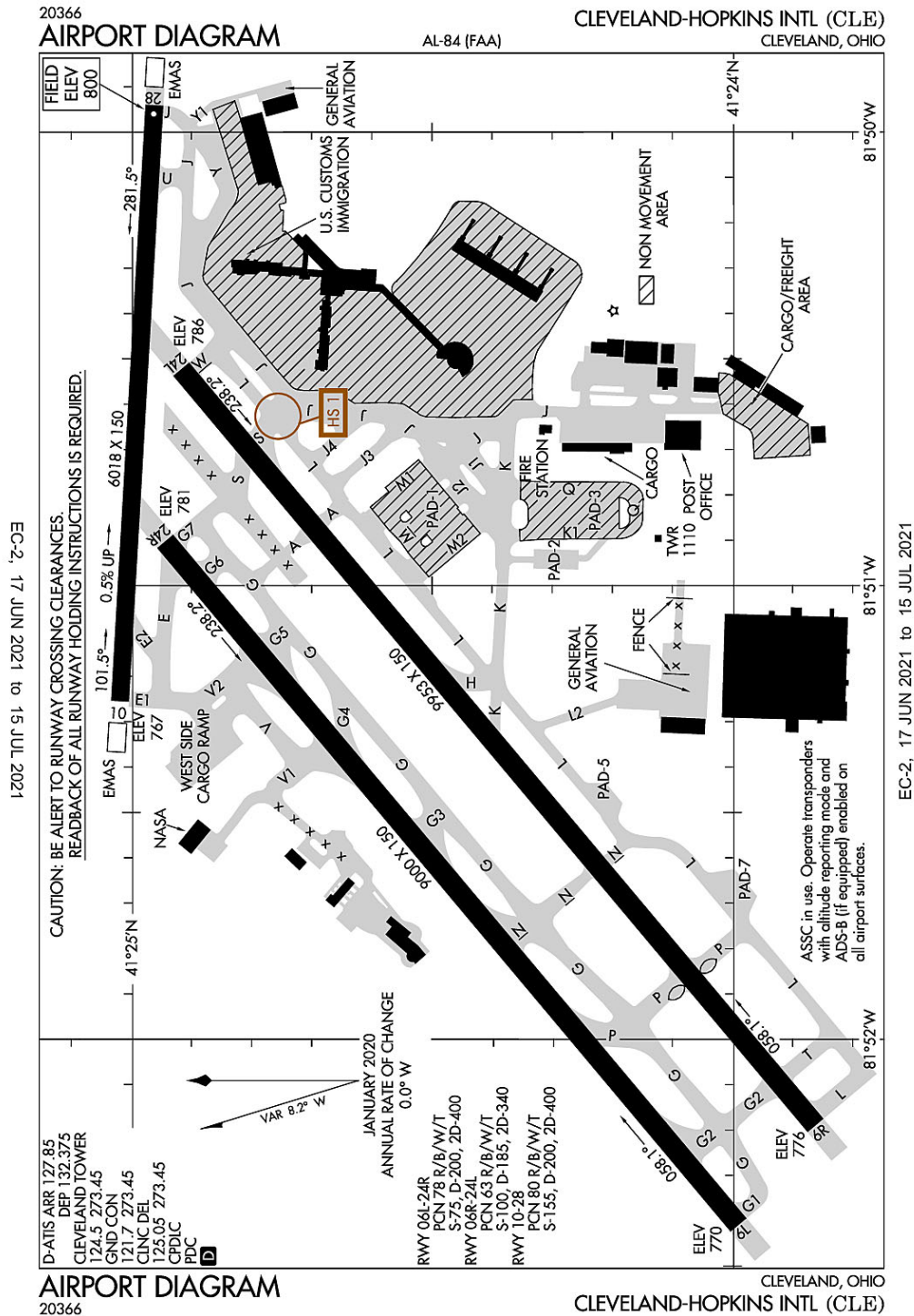
AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 07. Magnetic variation: 2E
2.19.2 ILS Identification: GSN
2.19.5 Coordinates: 15-7-30.4928N / 145-44-34.108E
2.19.6 Site Elevation: 220 ft

2.19.1 ILS Type: Glide Slope for runway 07. Magnetic variation: 2E
2.19.2 ILS Identification: GSN
2.19.5 Coordinates: 15-6-58.69N / 145-43-13.05E
2.19.6 Site Elevation: 207.6 ft

2.19.1 ILS Type: Localizer for runway 07. Magnetic variation: 2E
2.19.2 ILS Identification: GSN
2.19.5 Coordinates: 15-7-28.4671N / 145-44-36.2932E
2.19.6 Site Elevation: 207 ft

Cleveland, Ohio
Cleveland-Hopkins International
ICAO Identifier KCLE



Cleveland, OH
Cleveland–Hopkins Intl
ICAO Identifier KCLE

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 41–24–33.865N / 81–51–16.888W
- 2.2.2 From City: 9 miles SW of CLEVELAND, OH
- 2.2.3 Elevation: 799.5 ft
- 2.2.5 Magnetic Variation: 8W (2020)
- 2.2.6 Airport Contact: KHALID BAHHUR
PO BOX 81009
CLEVELAND, OH 44181
(216–664–5030)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: NO
- 2.4.2 Fuel Types: A1+,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 06L
- 2.12.2 True Bearing: 50
- 2.12.3 Dimensions: 9000 ft x 150 ft
- 2.12.4 PCN: 78 R/B/W/T
- 2.12.5 Coordinates: 41–23–59.5393N / 81–52–24.5622W
- 2.12.6 Threshold Elevation: 770.1 ft
- 2.12.6 Touchdown Zone Elevation: 772.6 ft

- 2.12.1 Designation: 24R
- 2.12.2 True Bearing: 230
- 2.12.3 Dimensions: 9000 ft x 150 ft
- 2.12.4 PCN: 78 R/B/W/T
- 2.12.5 Coordinates: 41–24–56.7503N / 81–50–54.1515W
- 2.12.6 Threshold Elevation: 781.1 ft
- 2.12.6 Touchdown Zone Elevation: 781.1 ft

- 2.12.1 Designation: 24L
- 2.12.2 True Bearing: 230

- 2.12.3 Dimensions: 9953 ft x 150 ft
- 2.12.4 PCN: 63 R/B/W/T
- 2.12.5 Coordinates: 41–24–55.141N / 81–50–31.3701W
- 2.12.6 Threshold Elevation: 785.7 ft
- 2.12.6 Touchdown Zone Elevation: 785.8 ft

- 2.12.1 Designation: 06R
- 2.12.2 True Bearing: 50
- 2.12.3 Dimensions: 9953 ft x 150 ft
- 2.12.4 PCN: 63 R/B/W/T
- 2.12.5 Coordinates: 41–23–51.8742N / 81–52–11.3519W
- 2.12.6 Threshold Elevation: 775.5 ft
- 2.12.6 Touchdown Zone Elevation: 776.5 ft

- 2.12.1 Designation: 28
- 2.12.2 True Bearing: 273
- 2.12.3 Dimensions: 6018 ft x 150 ft
- 2.12.4 PCN: 80 R/B/W/T
- 2.12.5 Coordinates: 41–24–57.8208N / 81–49–56.4392W
- 2.12.6 Threshold Elevation: 799.5 ft
- 2.12.6 Touchdown Zone Elevation: 799.5 ft

- 2.12.1 Designation: 10
- 2.12.2 True Bearing: 93
- 2.12.3 Dimensions: 6018 ft x 150 ft
- 2.12.4 PCN: 80 R/B/W/T
- 2.12.5 Coordinates: 41–25–1.2562N / 81–51–15.2842W
- 2.12.6 Threshold Elevation: 767.1 ft
- 2.12.6 Touchdown Zone Elevation: 782.8 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 06L
- 2.13.2 Take–off Run Available: 9000
- 2.13.3 Take–off Distance Available: 9000
- 2.13.4 Accelerate–Stop Distance Available: 9000
- 2.13.5 Landing Distance Available: 9000

- 2.13.1 Designation: 24R
- 2.13.2 Take–off Run Available: 9000
- 2.13.3 Take–off Distance Available: 9000
- 2.13.4 Accelerate–Stop Distance Available: 9000
- 2.13.5 Landing Distance Available: 9000

- 2.13.1 Designation: 24L
- 2.13.2 Take–off Run Available: 9956
- 2.13.3 Take–off Distance Available: 9956
- 2.13.4 Accelerate–Stop Distance Available: 9956
- 2.13.5 Landing Distance Available: 9956

2.13.1 Designation: 06R
2.13.2 Take-off Run Available: 9956
2.13.3 Take-off Distance Available: 9956
2.13.4 Accelerate-Stop Distance Available: 9956
2.13.5 Landing Distance Available: 8029

2.13.1 Designation: 28
2.13.2 Take-off Run Available: 6018
2.13.3 Take-off Distance Available: 6018
2.13.4 Accelerate-Stop Distance Available: 6018
2.13.5 Landing Distance Available: 6018

2.13.1 Designation: 10
2.13.2 Take-off Run Available: 6018
2.13.3 Take-off Distance Available: 6018
2.13.4 Accelerate-Stop Distance Available: 6018
2.13.5 Landing Distance Available: 6018

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 06L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 24R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 24L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 06R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 10
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P
2.18.3 Channel: 124
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P
2.18.3 Channel: 346.325
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CAVVS DP
2.18.3 Channel: 135.875
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 125.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 273.45
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (340–200)
2.18.3 Channel: 125.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (201–339)
2.18.3 Channel: 126.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (ARR)
2.18.3 Channel: 127.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)
2.18.3 Channel: 132.375
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P
2.18.3 Channel: 128.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P
2.18.3 Channel: 135.875
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 273.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GTLKE DP

2.18.3 Channel: 128.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: KKIDS DP

2.18.3 Channel: 135.875

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 124.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 273.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PFLYD DP

2.18.3 Channel: 128.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ZAAPA DP

2.18.3 Channel: 128.25

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 06L. Magnetic variation: 8W

2.19.2 ILS Identification: LIZ

2.19.5 Coordinates: 41-25-11.9443N / 81-50-35.682W

2.19.6 Site Elevation: 783.4 ft

2.19.1 ILS Type: Glide Slope for runway 06L. Magnetic variation: 8W

2.19.2 ILS Identification: LIZ

2.19.5 Coordinates: 41-24-9.1461N / 81-52-17.5279W

2.19.6 Site Elevation: 764.3 ft

2.19.1 ILS Type: Inner Marker for runway 06L. Magnetic variation: 8W

2.19.2 ILS Identification: LIZ

2.19.5 Coordinates: 41-23-53.9363N /

81-52-33.3994W

2.19.6 Site Elevation: 761.5 ft

2.19.1 ILS Type: Localizer for runway 06L. Magnetic variation: 8W

2.19.2 ILS Identification: LIZ

2.19.5 Coordinates: 41-25-10.1943N /

81-50-32.8939W

2.19.6 Site Elevation: 778.7 ft

2.19.1 ILS Type: DME for runway 24R. Magnetic variation: 8W

2.19.2 ILS Identification: PVY

2.19.5 Coordinates: 41-25-11.9443N / 81-50-35.682W

2.19.6 Site Elevation: 783.4 ft

2.19.1 ILS Type: Glide Slope for runway 24R. Magnetic variation: 8W

2.19.2 ILS Identification: PVY

2.19.5 Coordinates: 41-24-53.0116N / 81-51-8.214W

2.19.6 Site Elevation: 768.4 ft

2.19.1 ILS Type: Inner Marker for runway 24R. Magnetic variation: 8W

2.19.2 ILS Identification: PVY

2.19.5 Coordinates: 41-25-3.7844N / 81-50-47.3046W

2.19.6 Site Elevation: 777.9 ft

2.19.1 ILS Type: Localizer for runway 24R. Magnetic variation: 8W

2.19.2 ILS Identification: PVY

2.19.5 Coordinates: 41-23-53.0789N /

81-52-34.7494W

2.19.6 Site Elevation: 760.6 ft

2.19.1 ILS Type: DME for runway 06R. Magnetic variation: 8W

2.19.2 ILS Identification: CLE

2.19.5 Coordinates: 41-25-4.0601N / 81-50-11.0982W

2.19.6 Site Elevation: 794.1 ft

2.19.1 ILS Type: Glide Slope for runway 06R. Magnetic variation: 8W

2.19.2 ILS Identification: CLE

2.19.5 Coordinates: 41-24-13.6551N /

81-51-45.2101W

2.19.6 Site Elevation: 766 ft

2.19.1 ILS Type: Localizer for runway 06R. Magnetic variation: 8W

2.19.2 ILS Identification: CLE

2.19.5 Coordinates: 41-25-5.1773N / 81-50-15.5025W

2.19.6 Site Elevation: 785.5 ft

2.19.1 ILS Type: DME for runway 24L. Magnetic variation: 8W
2.19.2 ILS Identification: HPI
2.19.5 Coordinates: 41-23-44.3404N / 81-52-18.0729W
2.19.6 Site Elevation: 778.9 ft

2.19.1 ILS Type: Glide Slope for runway 24L. Magnetic variation: 8W
2.19.2 ILS Identification: HPI
2.19.5 Coordinates: 41-24-51.9504N / 81-50-45.3186W
2.19.6 Site Elevation: 782.2 ft

2.19.1 ILS Type: Localizer for runway 24L. Magnetic variation: 8W
2.19.2 ILS Identification: HPI
2.19.5 Coordinates: 41-23-45.4329N / 81-52-21.5252W
2.19.6 Site Elevation: 771.7 ft

General Remarks:

NASA GLENN RESEARCH CENTER; NASA RAMP PPR CALL 216-433-2031; 0800-1730 MON-FRI. CONTACT NASA OPNS ON FREQ 122.925 WITHIN 50 NM.

RAMP AREA CONCOURSE D BTN GATES D1, D28 CLSD EXC ACFT WINGSPAN LESS THAN 86 FT.

DEER & BIRDS INCLUDING WATERFOWL ON & INVOF ARPT.

PAD 2 AND TAXILANE Y1 RSTRD TO GROUP II ACFT LESS THAN 79 FT WINGSPAN.

PAD 3 BAYS 1-5 CLOSED TO ACFT WITH WINGSPAN OVER 134 FT.

ASSC IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

PAD 3 BAY 6 CLOSED TO ACFT WITH WINGSPAN OVER 94 FT.

ALL APCHS ARE OVR NOISE SENSITIVE AREAS. ARPT LATE NGT NOISE ABATEMENT PROCEDURES ARE IN EFFECT 2300-0600. ADDITIONAL NOISE ABATEMENT PROCEDURES ARE IN EFFECT CALL AMGR NORMAL BUSINESS HRS AT 216-265-6090.

ADCUS AVBL MON-SUN 0800-1800; ALL REQ FOR SVC MUST BE MADE WITH THE U.S. CUST SVC OFC LCTD AT GATE A-14 CALL (216) 267-3600 DURG LISTED HRS.

TWY M; TWY M1 BTN TWY L & TWY J1; TWY M2 BTN TWY L & TWY J1; TWY J2 BTN TWY J3 & TWY K; CLSD FM 15 OCT THRU 15 APR FOR DEICING OPNS.

2.19.1 ILS Type: DME for runway 28. Magnetic variation: 8W
2.19.2 ILS Identification: PXP
2.19.5 Coordinates: 41-24-58.7198N / 81-51-23.8351W
2.19.6 Site Elevation: 766.3 ft

2.19.1 ILS Type: Glide Slope for runway 28. Magnetic variation: 8W
2.19.2 ILS Identification: PXP
2.19.5 Coordinates: 41-25-3.4337N / 81-50-9.415W
2.19.6 Site Elevation: 786.3 ft

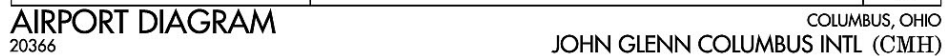
2.19.1 ILS Type: Localizer for runway 28. Magnetic variation: 8W
2.19.2 ILS Identification: PXP
2.19.5 Coordinates: 41-25-1.5177N / 81-51-21.2475W
2.19.6 Site Elevation: 756.3 ft

20366

AIRPORT DIAGRAM

AL-94 (FAA)

JOHN GLENN COLUMBUS INTL (CMH)
COLUMBUS, OHIO



Columbus, OH
Port Columbus Intl
ICAO Identifier KCMH

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 39–59–49.008N / 82–53–31.773W
2.2.2 From City: 6 miles E of COLUMBUS, OH
2.2.3 Elevation: 815 ft
2.2.5 Magnetic Variation: 7W (2015)
2.2.6 Airport Contact: JOE NARDONE
COLUMBUS REGIONAL
AIRPORT AUTHORITY
COLUMBUS, OH 43219
(614–239–4000)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A1+,100
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 10L
2.12.2 True Bearing: 94
2.12.3 Dimensions: 8000 ft x 150 ft
2.12.4 PCN: 74 F/C/X/T
2.12.5 Coordinates: 40–0–11.5307N / 82–54–27.4941W
2.12.6 Threshold Elevation: 814.7 ft
2.12.6 Touchdown Zone Elevation: 814.8 ft

2.12.1 Designation: 28R
2.12.2 True Bearing: 274
2.12.3 Dimensions: 8000 ft x 150 ft
2.12.4 PCN: 74 F/C/X/T
2.12.5 Coordinates: 40–0–5.7308N / 82–52–44.9692W
2.12.6 Threshold Elevation: 812.3 ft
2.12.6 Touchdown Zone Elevation: 813.1 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 94
2.12.3 Dimensions: 10114 ft x 150 ft

2.12.4 PCN: 77 F/C/W/T
2.12.5 Coordinates: 39–59–37.1453N / 82–54–33.0422W
2.12.6 Threshold Elevation: 804.9 ft
2.12.6 Touchdown Zone Elevation: 809.2 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 274
2.12.3 Dimensions: 10114 ft x 150 ft
2.12.4 PCN: 77 F/C/W/T
2.12.5 Coordinates: 39–59–29.8102N / 82–52–23.4543W
2.12.6 Threshold Elevation: 815 ft
2.12.6 Touchdown Zone Elevation: 815 ft

AD 2.13 Declared Distances

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate–Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate–Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 10113
2.13.3 Take-off Distance Available: 10113
2.13.4 Accelerate–Stop Distance Available: 10113
2.13.5 Landing Distance Available: 10113

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 10113
2.13.3 Take-off Distance Available: 10113
2.13.4 Accelerate–Stop Distance Available: 10113
2.13.5 Landing Distance Available: 10113

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 10L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 10R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

**AD 2.18 Air Traffic Services Communication
Facilities**

2.18.1 Service Designation: APCH/P DEP/P
2.18.3 Channel: 129.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (100-279)
2.18.3 Channel: 134
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (100-279)
2.18.3 Channel: 279.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (280-099)
2.18.3 Channel: 317.775
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (100-279)
2.18.3 Channel: 338.225
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(280-099)
2.18.3 Channel: 125.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(280-099)
2.18.3 Channel: 371.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S
2.18.3 Channel: 118.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S
2.18.3 Channel: 119.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S
2.18.3 Channel: 353.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S
2.18.3 Channel: 118
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S (100-279)
2.18.3 Channel: 132.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S
2.18.3 Channel: 324.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S
2.18.3 Channel: 353.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 126.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (280-099)
2.18.3 Channel: 125.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (100-279)
2.18.3 Channel: 134
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (100-279)
2.18.3 Channel: 279.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (280-099)
2.18.3 Channel: 317.775
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 124.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: FINAL

2.18.3 Channel: 327.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 132.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OPS (DEICE PAD CONTROL)

2.18.3 Channel: 122.775

2.18.5 Hours of Operation:

2.18.1 Service Designation: RADAR

2.18.3 Channel: 294.7

2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 10L. Magnetic variation: 7W

2.19.2 ILS Identification: CBP

2.19.5 Coordinates: 40–0–9.698N / 82–54–41.0247W

2.19.6 Site Elevation: 822.2 ft

2.19.1 ILS Type: Glide Slope for runway 10L. Magnetic variation: 7W

2.19.2 ILS Identification: CBP

2.19.5 Coordinates: 40–0–14.2837N / 82–54–14.862W

2.19.6 Site Elevation: 809.9 ft

2.19.1 ILS Type: Localizer for runway 10L. Magnetic variation: 7W

2.19.2 ILS Identification: CBP

2.19.5 Coordinates: 40–0–4.9978N / 82–52–32.0266W

2.19.6 Site Elevation: 799.2 ft

2.19.1 ILS Type: DME for runway 28R. Magnetic variation: 7W

2.19.2 ILS Identification: ONB

2.19.5 Coordinates: 40–0–9.698N / 82–54–41.0247W

2.19.6 Site Elevation: 822.2 ft

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic variation: 7W

2.19.2 ILS Identification: ONB

2.19.5 Coordinates: 40–0–9.1363N / 82–52–56.9903W

2.19.6 Site Elevation: 808.4 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic variation: 7W

2.19.2 ILS Identification: ONB

2.19.5 Coordinates: 40–0–12.2661N / 82–54–40.558W

2.19.6 Site Elevation: 811.7 ft

2.19.1 ILS Type: DME for runway 10R. Magnetic variation: 7W

2.19.2 ILS Identification: AQI

2.19.5 Coordinates: 39–59–33.7337N / 82–54–45.9278W

2.19.6 Site Elevation: 814.8 ft

2.19.1 ILS Type: Glide Slope for runway 10R. Magnetic variation: 7W

2.19.2 ILS Identification: AQI

2.19.5 Coordinates: 39–59–32.3813N / 82–54–20.6176W

2.19.6 Site Elevation: 802.7 ft

2.19.1 ILS Type: Localizer for runway 10R. Magnetic variation: 7W

2.19.2 ILS Identification: AQI

2.19.5 Coordinates: 39–59–29.072N / 82–52–10.4143W

2.19.6 Site Elevation: 814.1 ft

2.19.1 ILS Type: DME for runway 28L. Magnetic variation: 7W

2.19.2 ILS Identification: CMH

2.19.5 Coordinates: 39–59–33.7337N / 82–54–45.9278W

2.19.6 Site Elevation: 814.8 ft

2.19.1 ILS Type: Glide Slope for runway 28L. Magnetic variation: 7W

2.19.2 ILS Identification: CMH

2.19.5 Coordinates: 39–59–26.4974N / 82–52–36.6536W

2.19.6 Site Elevation: 810.7 ft

2.19.1 ILS Type: Localizer for runway 28L. Magnetic variation: 7W

2.19.2 ILS Identification: CMH
2.19.5 Coordinates: 39-59-37.8812N /

82-54-46.0853W
2.19.6 Site Elevation: 806 ft

General Remarks:

TWY D-5 PAVEMENT (NORTH OF TWY D) IS RSTRD TO ACFT WITH WINGSPAN LESS THAN 79 FT.

TAXILANE CONCOURSE A BTN TWY D3 AND TWY D4 CLSD TO ACFT WINGSPAN MORE THAN 130 FT.

ALL SURFACES AROUND TERMINAL; NORTH OF TWY 'D' & SOUTH OF TWY 'E' ARE NON-MOVEMENT AREAS.

TO REQ LDG RIGHTS CTC US CUSTOMS BETWEEN 1230-0300Z, MON-FRI AT 614-497-1865.

BIRDS INVOF ARPT.

TWYS R2, R3, R4, R5 AND R6 RSTRD TO WINGSPAN LESS THAN 118 FT.

TWY F1 RSTRD TO AIRCRAFT WITH WINGSPAN LESS THAN 120 FT.

HOLD PAD FOR RWY 28L RSTRD TO ACFT WITH WINGSPAN LESS THAN 118 FT.

NOISE BARRIER LOCATED AT SE SIDE OF AIRFIELD RESTRICTED TO ACFT WITH WINGSPAN LESS THAN 79 FT.

BE ALERT: RY 10L/28R RESTRICTIONS ON STAGE I & II TURBOJET ACFT 2200-0800 & ON STAGE III TURBOJET ACFT 2200-0700. PRACTICE APCHS FOR HIGH NOISE LEVEL TYPE ACFT INCLUDING NON-STAGE III MIL JET ACFT SHALL NOT BE APPROVED UNLESS RY 10R/28L IS IN USE & THE APCH TERMINATES IN A FULL STOP TAXI-BACK OPN.

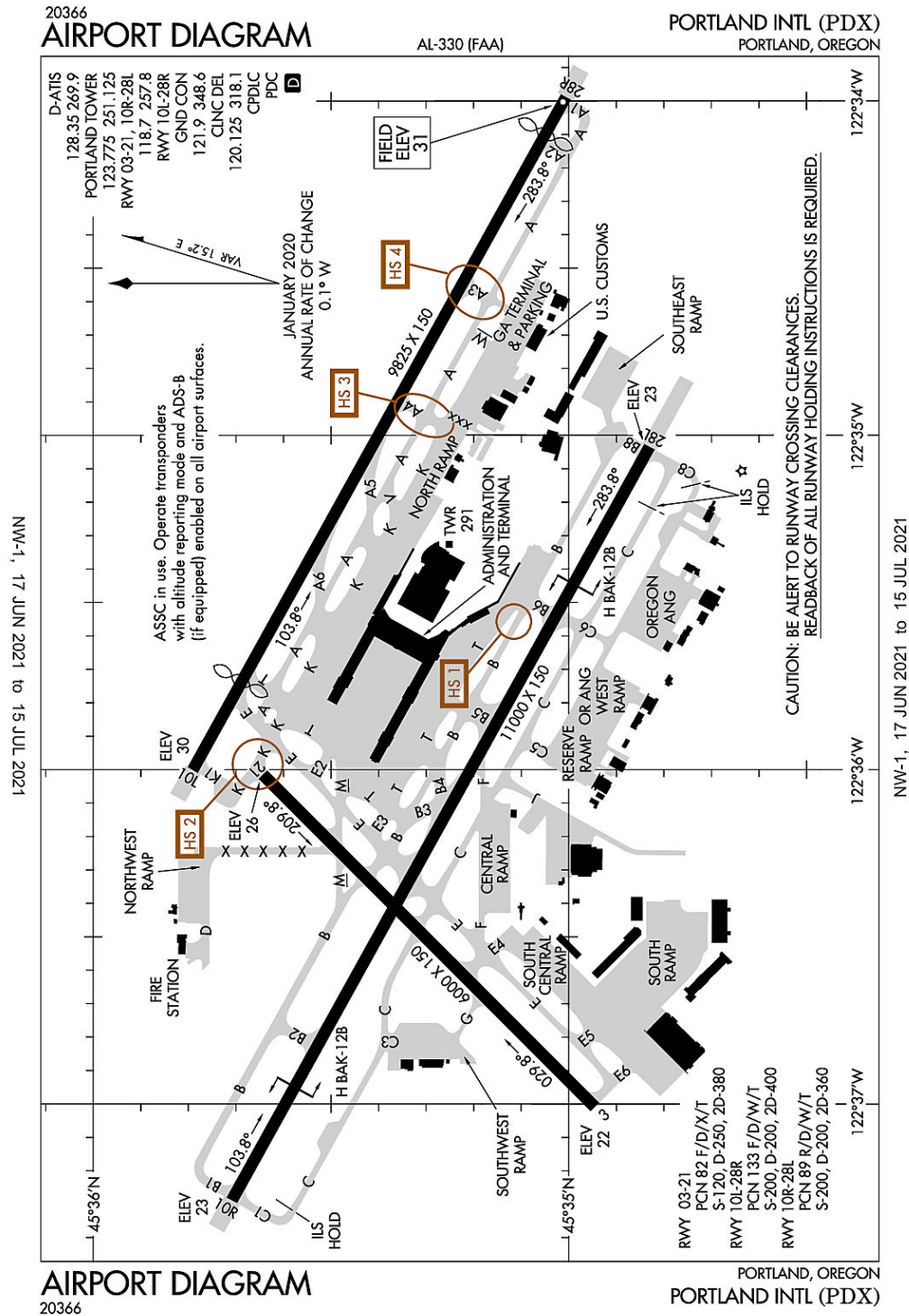
MODEL ACFT TFC WITHIN A 1 NM RDS OF A POINT 8 NM ON A 010 DEG BRG FM THE ARPT; SFC - 5000 FT AGL; SR-SS DLY.

TAXILANE CONCOURSE C BTN TWY J AND TWY K CLSD TO ACFT WINGSPAN MORE THAN 135 FT.

FLIGHT NOTIFICATION SERVICE (ADCUS) AVBL.

TWY R1 RSTRD TO ACFT WITH WINGSPAN LESS THAN 79 FT.

Portland, Oregon
Portland International
ICAO Identifier KPDX



Portland, OR
Portland Intl
ICAO Identifier KPDX

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 45-35-19.3519N / 122-35-48.7299W
2.2.2 From City: 4 miles NE of PORTLAND, OR
2.2.3 Elevation: 30.8 ft
2.2.5 Magnetic Variation: 16E (2010)
2.2.6 Airport Contact: STEPHEN NAGY
7200 NE AIRPORT WAY
PORTLAND, OR 97218
(503-415-6195)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 21
2.12.2 True Bearing: 225
2.12.3 Dimensions: 6000 ft x 150 ft
2.12.4 PCN: 82 F/D/X/T
2.12.5 Coordinates: 45-35-38.605N / 122-36-0.8463W
2.12.6 Threshold Elevation: 26.4 ft
2.12.6 Touchdown Zone Elevation: 26.4 ft

2.12.1 Designation: 03
2.12.2 True Bearing: 45
2.12.3 Dimensions: 6000 ft x 150 ft
2.12.4 PCN: 82 F/D/X/T
2.12.5 Coordinates: 45-34-56.73N / 122-37-0.5188W
2.12.6 Threshold Elevation: 22.2 ft
2.12.6 Touchdown Zone Elevation: 22.9 ft

2.12.1 Designation: 10L
2.12.2 True Bearing: 119
2.12.3 Dimensions: 9825 ft x 150 ft
2.12.4 PCN: 133 F/D/W/T

2.12.5 Coordinates: 45-35-47.454N / 122-36-0.0581W
2.12.6 Threshold Elevation: 29.5 ft
2.12.6 Touchdown Zone Elevation: 30.2 ft

2.12.1 Designation: 28R
2.12.2 True Bearing: 299
2.12.3 Dimensions: 9825 ft x 150 ft
2.12.4 PCN: 133 F/D/W/T
2.12.5 Coordinates: 45-35-0.3785N / 122-33-59.2636W
2.12.6 Threshold Elevation: 30.8 ft
2.12.6 Touchdown Zone Elevation: 30.8 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 299
2.12.3 Dimensions: 11000 ft x 150 ft
2.12.4 PCN: 89 R/D/W/T
2.12.5 Coordinates: 45-34-49.8531N / 122-35-2.0463W
2.12.6 Threshold Elevation: 22.7 ft
2.12.6 Touchdown Zone Elevation: 22.7 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 119
2.12.3 Dimensions: 11000 ft x 150 ft
2.12.4 PCN: 89 R/D/W/T
2.12.5 Coordinates: 45-35-42.5347N / 122-37-17.3022W
2.12.6 Threshold Elevation: 22.7 ft
2.12.6 Touchdown Zone Elevation: 23.7 ft

AD 2.13 Declared Distances

2.13.1 Designation: 21
2.13.2 Take-off Run Available: 6000
2.13.3 Take-off Distance Available: 6000
2.13.4 Accelerate-Stop Distance Available: 6000
2.13.5 Landing Distance Available: 6000

2.13.1 Designation: 03
2.13.2 Take-off Run Available: 6000
2.13.3 Take-off Distance Available: 6000
2.13.4 Accelerate-Stop Distance Available: 6000
2.13.5 Landing Distance Available: 6000

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 9825
2.13.3 Take-off Distance Available: 9825
2.13.4 Accelerate-Stop Distance Available: 9825
2.13.5 Landing Distance Available: 8535

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 9825
2.13.3 Take-off Distance Available: 9825
2.13.4 Accelerate-Stop Distance Available: 9825
2.13.5 Landing Distance Available: 9290

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 11000
2.13.3 Take-off Distance Available: 11000
2.13.4 Accelerate-Stop Distance Available: 11000
2.13.5 Landing Distance Available: 11000

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 11000
2.13.3 Take-off Distance Available: 11000
2.13.4 Accelerate-Stop Distance Available: 11000
2.13.5 Landing Distance Available: 11000

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 21
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 03
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 28L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: AFRC OPS
2.18.3 Channel: 138.45
2.18.5 Hours of Operation:

2.18.1 Service Designation: AFRC OPS
2.18.3 Channel: 252.8
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG COMD POST (CALL STUMP TOWN)
2.18.3 Channel: 288.9
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 280.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 281.2
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD/P
2.18.3 Channel: 120.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 318.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 128.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 269.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S
2.18.3 Channel: 132.275

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 10L/28R)

2.18.3 Channel: 118.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 03/21,
10R/28L)

2.18.3 Channel: 123.775

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 03/21,
10R/28L)

2.18.3 Channel: 251.125

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 10L/28R)

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 21. Magnetic varia-
tion: 16E

2.19.2 ILS Identification: GPO

2.19.5 Coordinates: 45-34-47.97N / 122-37-7.94W

2.19.6 Site Elevation: 31 ft

2.19.1 ILS Type: Localizer for runway 21. Magnetic
variation: 16E

2.19.2 ILS Identification: GPO

2.19.5 Coordinates: 45-34-49.75N / 122-37-10.47W

2.19.6 Site Elevation: 11.4 ft

2.19.1 ILS Type: DME for runway 10L. Magnetic varia-
tion: 16E

2.19.2 ILS Identification: VDG

2.19.5 Coordinates: 45-35-47.9502N /

122-36-13.551W

2.19.6 Site Elevation: 25.5 ft

2.19.1 ILS Type: Glide Slope for runway 10L. Magnetic
variation: 16E

2.19.2 ILS Identification: VDG

2.19.5 Coordinates: 45-35-39.7602N /

122-35-30.1707W

2.19.6 Site Elevation: 30.8 ft

2.19.1 ILS Type: Localizer for runway 10L. Magnetic
variation: 16E

2.19.2 ILS Identification: VDG

2.19.5 Coordinates: 45-34-55.53N / 122-33-46.85W

2.19.6 Site Elevation: 28.9 ft

2.19.1 ILS Type: DME for runway 28R. Magnetic varia-
tion: 16E

2.19.2 ILS Identification: IAP

2.19.5 Coordinates: 45-35-47.95N / 122-36-13.551W

2.19.6 Site Elevation: 25.5 ft

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic
variation: 16E

2.19.2 ILS Identification: IAP

2.19.5 Coordinates: 45-35-10.93N / 122-34-16.4W

2.19.6 Site Elevation: 30.1 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic
variation: 16E

2.19.2 ILS Identification: IAP

2.19.5 Coordinates: 45-35-52.3N / 122-36-12.47W

2.19.6 Site Elevation: 25.6 ft

2.19.1 ILS Type: DME for runway 10R. Magnetic varia-
tion: 16E

2.19.2 ILS Identification: PDX

2.19.5 Coordinates: 45-34-46.7386N /

122-34-45.2294W

2.19.6 Site Elevation: 36 ft

2.19.1 ILS Type: Glide Slope for runway 10R. Magnetic
variation: 16E

2.19.2 ILS Identification: PDX

2.19.5 Coordinates: 45-35-33.9026N /

122-37-7.2471W

2.19.6 Site Elevation: 16.1 ft

2.19.1 ILS Type: Inner Marker for runway 10R. Magnet-
ic variation: 16E

2.19.2 ILS Identification: PDX

2.19.5 Coordinates: 45-35-46.7091N /

122-37-28.0266W

2.19.6 Site Elevation: 17 ft

2.19.1 ILS Type: Localizer for runway 10R. Magnetic
variation: 16E

2.19.2 ILS Identification: PDX

2.19.5 Coordinates: 45-34-43.5268N /

122-34-45.8188W

2.19.6 Site Elevation: 19.5 ft

2.19.1 ILS Type: DME for runway 28L. Magnetic varia-
tion: 16E

2.19.2 ILS Identification: JMJ

122-35-16.7121W

2.19.5 Coordinates: 45-34-46.7386N /
122-34-45.2294W

2.19.6 Site Elevation: 19.9 ft

2.19.6 Site Elevation: 36 ft

2.19.1 ILS Type: Localizer for runway 28L. Magnetic
variation: 16E2.19.1 ILS Type: Glide Slope for runway 28L. Magnetic
variation: 16E

2.19.2 ILS Identification: JMJ

2.19.2 ILS Identification: JMJ

2.19.5 Coordinates: 45-35-50.5155N /

2.19.5 Coordinates: 45-34-52.6331N /

122-37-37.8096W

2.19.6 Site Elevation: 24.8 ft

General Remarks:

FUEL - A (AIR BP - ATLANTIC AVIATION SVCS. C503-331-4220) J8(MIL) (NC-100LL, A)

BEARING STRENGTH: RWY 03-21 ST 175, RY 10L-28R ST175, RY 10R-28L ST175.

ACFT WITH WINGSPAN GREATER THAN 118 FEET ARE PROHIBITED FROM TURNING EASTBOUND ON
TWY C FROM SOUTHWESTBOUND ON TWY F UNLESS UNDER TOW.

TWY T BTN EXITS B5 & B6 CLSD TO ACFT WITH WINGSPAN GTR THAN 118 FT.

OIL - O-128-133-148(MIL).

MISC: FLT NOTIFICATION SVC, ADCUS, AVBL.

NOISE ABATEMENT PROCEDURES IN EFFECT; CALL NOISE OFFICE AT 503-460-4100. RY 28L ARRIVALS
ARE NOISE SENSITIVE, EXPECT APCH TO 28R WITH TRANSITION TO 28L.

AREA OF TWY T BTN M & E3 NOT VSB FM TWR.

MIGRATORY & WINTERING FLOCKS OF LRG WATERFOWL ON & INVOF APRT. HEAVY SEAGULL ACTIVITY
SEP THRU APR; EXPECT HIGH NMBR OF BIRDS YEAR AROUND; CK LCL ADVISORIES.ANG: SEE FLIP AP/1 FOR SUPPLEMENTARY ARPT INFO. HAZARDOUS BIRD COND EXIST. PHASE 1
MAY-OCT, PHASE II NOV-APR. CURRENT BIRD WATCH CONDITIONS ARE NOT REPORTED ON ATIS.

ACFT AUTHORIZED TO UTILIZE THE NORTHWEST RAMP WILL BE TOWED TO/FROM THIS RAMP.

TWY T BTN TWY E3 & TWY B5 CLSD TO ACFT WITH WINGSPAN GTR THAN 198 FT.

ASSC IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED)
ENABLED ON ALL AIRPORT SURFACES.

TWY K BTN TWY V & TWY A4 CLSD TO ACFT WINGSPAN MORE THAN 118 FT.

ANG : PPR/OFFL BUS ONLY. BASE OPS OPR 1500-2300Z++ MON-FRI EXC HOL.; DSN 638-4390,
C503-335-4390. CTC BASE OPS 15 MIN PRIOR TO LDG AND AFTER DEP ON 281.2. TRAN QUARTERS NOT
AVBL. CAUTION: OBST LIGHTING IS NOT NVD COMPATIBLE. NVD NOT AUTHORIZED WHILE AIRBORNE
IN VCNTY OF AFLD.180 DEGREE TURNS BY ACFT WEIGHING IN EXCESS OF 12500 LBS PROHIBITED ON RY 10L/28R, RY 03/21
AND ALL TWYS.

TWY K BTN TWY A5 & TWY V CLSD TO ACFT WINGSPAN MORE THAN 168 FT.

JASU - 4(A/M32A-86) (MC-11) 1(MA-1A).

FLUID – LHOXRB.

(E94) WSFO/WSO/FW/RFC.

TWY M BTN TWY E & TWY T CLSD TO ACFT WINGSPAN MORE THAN 118 FT.

TWY V CLSD TO ACFT WITH WINGSPAN GREATER THAN 168 FT. ACFT WITH WINGSPAN GREATER THAN 118 FT PROHIBITED FM TURNING WB ONTO TWY A FM TWY V UNLESS UNDER TOW.

TWY C BTN TWY C6 AND TWY C8 CLSD TO ACFT WITH WINGSPAN GTR THAN 180 FEET.

TWY A3 BTN TWY A & THE GA RAMP CLSD TO ACFT WITH WINGSPAN GTR THAN 135 FEET UNLESS UNDER TOW.

ARPT CLSD TO NON-POWERED ACFT EXCP IN EMERG.

UNCONTROLLED TFC AT PEARSON FIELD VANCOUVER WA 3 NM W OF RY 10L THLD ON EXTDD CNTRLN.

AT THE WEST END ARM/DEARM AREA ON TWY C NO ACFT OF ANY TYPE MAY TAXI PAST THE ARM/DEARM AREA WHILE IT IS BEING USED.

TWY C3 CLSD TO ACFT WITH WINGSPAN EQUAL TO OR GTR THAN 79 FT.

TWY T BTN TWY E2 & TWY E3 CLSD TO ACFT WINGSPAN MORE THAN 118 FT.

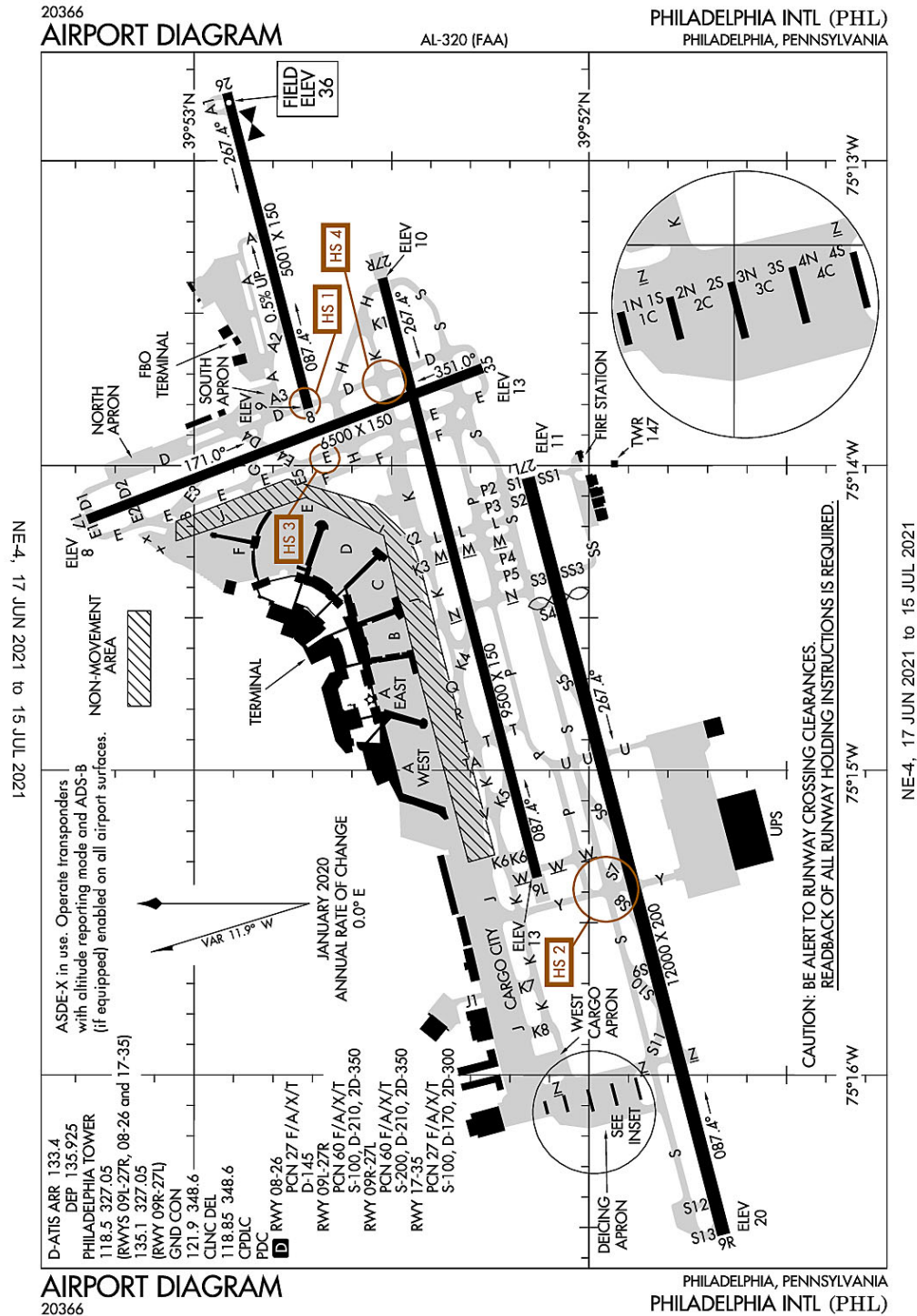
TWY E3 CLSD TO ACFT WITH WINGSPAN GTR THAN 198 FEET.

TWY W CLSD TO ACFT WITH WINGSPAN GTR THAN 118 FT UNLESS UNDER TOW.

PDX HAS FAC CONSTRAINTS THAT LMT ITS ABILITY TO ACCOMMODATE DIVD FLTS & MNTN THE ARPT SAFE OPN DUR IREG OPS. ACFT OPRS SHUD CTC THE ARPT DUTY MGR AT (503) 460-4236 TO COORD DIVD FLTS EXC IN THE CASE OF A DECLARED IN-FLT EMERG.

NSTD YELLOW PRK SPOT DESIGNATORS AND EQPT TOOL BOX LCTN PAINTED ON RAMP. PLEASE CTC BASE OPS OR REQ FOLLOW ME IF NOT FAMILIAR WITH PANGB PRK PROCEDURES.

Philadelphia, Pennsylvania
Philadelphia International
ICAO Identifier KPHL



Philadelphia, PA
Philadelphia Intl
ICAO Identifier KPHL

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 39-52-19.502N / 75-14-26.387W
2.2.2 From City: 5 miles SW of PHILADELPHIA, PA
2.2.3 Elevation: 35.9 ft
2.2.5 Magnetic Variation: 12W (2020)
2.2.6 Airport Contact: ROCHELLE CAMERON
DIV OF AVIATION
TERMINAL E
PHILADELPHIA, PA 19153
(215-937-6914)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 08
2.12.2 True Bearing: 75
2.12.3 Dimensions: 5001 ft x 150 ft
2.12.4 PCN: 27 F/A/X/T
2.12.5 Coordinates: 39-52-42.0147N / 75-13-48.05W
2.12.6 Threshold Elevation: 9.3 ft
2.12.6 Touchdown Zone Elevation: 20.3 ft

2.12.1 Designation: 26
2.12.2 True Bearing: 256
2.12.3 Dimensions: 5001 ft x 150 ft
2.12.4 PCN: 27 F/A/X/T
2.12.5 Coordinates: 39-52-54.3825N / 75-12-45.9478W
2.12.6 Threshold Elevation: 35.9 ft
2.12.6 Touchdown Zone Elevation: 35.9 ft

2.12.1 Designation: 27R
2.12.2 True Bearing: 255

2.12.3 Dimensions: 9500 ft x 150 ft
2.12.4 PCN: 60 F/A/X/T
2.12.5 Coordinates: 39-52-30.7933N / 75-13-22.4291W
2.12.6 Threshold Elevation: 10.4 ft
2.12.6 Touchdown Zone Elevation: 10.5 ft

2.12.1 Designation: 09L
2.12.2 True Bearing: 75
2.12.3 Dimensions: 9500 ft x 150 ft
2.12.4 PCN: 60 F/A/X/T
2.12.5 Coordinates: 39-52-7.2582N / 75-15-20.3809W
2.12.6 Threshold Elevation: 13.2 ft
2.12.6 Touchdown Zone Elevation: 13.3 ft

2.12.1 Designation: 09R
2.12.2 True Bearing: 75
2.12.3 Dimensions: 12000 ft x 200 ft
2.12.4 PCN: 60 F/A/X/T
2.12.5 Coordinates: 39-51-38.9141N / 75-16-30.7061W
2.12.6 Threshold Elevation: 20.3 ft
2.12.6 Touchdown Zone Elevation: 20.6 ft

2.12.1 Designation: 27L
2.12.2 True Bearing: 255
2.12.3 Dimensions: 12000 ft x 200 ft
2.12.4 PCN: 60 F/A/X/T
2.12.5 Coordinates: 39-52-8.65N / 75-14-1.72W
2.12.6 Threshold Elevation: 10.6 ft
2.12.6 Touchdown Zone Elevation: 10.2 ft

2.12.1 Designation: 17
2.12.2 True Bearing: 159
2.12.3 Dimensions: 6500 ft x 150 ft
2.12.4 PCN: 27 F/A/X/T
2.12.5 Coordinates: 39-53-15.5714N / 75-14-9.9268W
2.12.6 Threshold Elevation: 8.2 ft
2.12.6 Touchdown Zone Elevation: 10.5 ft

2.12.1 Designation: 35
2.12.2 True Bearing: 339
2.12.3 Dimensions: 6500 ft x 150 ft
2.12.4 PCN: 27 F/A/X/T
2.12.5 Coordinates: 39-52-15.5777N / 75-13-40.1314W
2.12.6 Threshold Elevation: 12.9 ft
2.12.6 Touchdown Zone Elevation: 12.9 ft

AD 2.13 Declared Distances

2.13.1 Designation: 08
2.13.2 Take-off Run Available: 5001
2.13.3 Take-off Distance Available: 5001
2.13.4 Accelerate-Stop Distance Available: 5001
2.13.5 Landing Distance Available: 5001

2.13.1 Designation: 26
2.13.2 Take-off Run Available: 5001
2.13.3 Take-off Distance Available: 5001
2.13.4 Accelerate-Stop Distance Available: 5001
2.13.5 Landing Distance Available: 5001

2.13.1 Designation: 27R
2.13.2 Take-off Run Available: 9500
2.13.3 Take-off Distance Available: 9500
2.13.4 Accelerate-Stop Distance Available: 9500
2.13.5 Landing Distance Available: 8864

2.13.1 Designation: 09L
2.13.2 Take-off Run Available: 9500
2.13.3 Take-off Distance Available: 9500
2.13.4 Accelerate-Stop Distance Available: 9500
2.13.5 Landing Distance Available: 9500

2.13.1 Designation: 09R
2.13.2 Take-off Run Available: 12000
2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 27L
2.13.2 Take-off Run Available: 12000
2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 11825
2.13.5 Landing Distance Available: 9912

2.13.1 Designation: 17
2.13.2 Take-off Run Available: 6500
2.13.3 Take-off Distance Available: 6500
2.13.4 Accelerate-Stop Distance Available: 6500
2.13.5 Landing Distance Available: 6500

2.13.1 Designation: 35
2.13.2 Take-off Run Available: 6500
2.13.3 Take-off Distance Available: 6500
2.13.4 Accelerate-Stop Distance Available: 6500
2.13.5 Landing Distance Available: 6500

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 08

2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 26
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 27R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 09L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 09R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 27L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: 5500 & BLO (NORTH)
2.18.3 Channel: 123.8
2.18.5 Hours of Operation:

2.18.1 Service Designation: 5500 & BLO (NORTH)
2.18.3 Channel: 291.7
2.18.5 Hours of Operation:

2.18.1 Service Designation: APCH/P (001-089, 5000 FT & BLW)
2.18.3 Channel: 123.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (270-360, 5000 FT & BLW)
2.18.3 Channel: 126.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (090-269, 5000 FT & BLW)	2.18.3 Channel: 319.15
2.18.3 Channel: 127.35	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
2.18.1 Service Designation: APCH/P (270-089, ABV 5000 FT)	2.18.1 Service Designation: BUNTS STAR
2.18.3 Channel: 128.4	2.18.3 Channel: 128.4
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
	2.18.1 Service Designation: BUNTS STAR
2.18.1 Service Designation: APCH/P (090-269, 6000-8000 FT)	2.18.3 Channel: 272.575
2.18.3 Channel: 133.875	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
2.18.1 Service Designation: APCH/P (270-360, 5000 FT & BLW)	2.18.1 Service Designation: CD/P
2.18.3 Channel: 263.125	2.18.3 Channel: 118.85
2.18.5 Hours of Operation: 24	2.18.5 Hours of Operation: 24
	2.18.1 Service Designation: CD/P
2.18.1 Service Designation: APCH/P (270-089, ABV 5000 FT)	2.18.3 Channel: 348.6
2.18.3 Channel: 272.575	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
	2.18.1 Service Designation: CEDAR LAKE STAR
2.18.1 Service Designation: APCH/P (270-089, ABV 5000 FT)	2.18.3 Channel: 133.875
2.18.3 Channel: 272.575	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
	2.18.1 Service Designation: CEDAR LAKE STAR
2.18.1 Service Designation: APCH/P (270-089, ABV 5000 FT)	2.18.3 Channel: 317.55
2.18.3 Channel: 273.575	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
	2.18.1 Service Designation: CLASS B (SW 6000 FT & BLW)
2.18.1 Service Designation: APCH/P (001-089, 5000 FT & BLW)	2.18.3 Channel: 118.35
2.18.3 Channel: 291.7	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
	2.18.1 Service Designation: CLASS B (SE RWY 09 ACTIVE 10000 FT & BLW)
2.18.1 Service Designation: APCH/P (090-269, 5000 FT & BLW)	2.18.3 Channel: 119.75
2.18.3 Channel: 317.55	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
	2.18.1 Service Designation: CLASS B (SE RWY 27 ACTIVE 8500-10000 FT)
2.18.1 Service Designation: APCH/P (090-269 6000-8000 FT)	2.18.3 Channel: 119.75
2.18.3 Channel: 317.55	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
	2.18.1 Service Designation: CLASS B (SOUTH/ SOUTHWEST RWY 27 8500-10000 FT)
2.18.1 Service Designation: APCH/P (090-269 6000-8000 FT)	2.18.3 Channel: 119.75
2.18.3 Channel: 317.55	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
	2.18.1 Service Designation: CLASS B (NE 6500 FT & BLW)
2.18.1 Service Designation: APCH/P DEP/P IC	2.18.3 Channel: 123.8
2.18.3 Channel: 124.35	2.18.5 Hours of Operation: 24
2.18.5 Hours of Operation: 24	
2.18.1 Service Designation: APCH/P DEP/P IC	

2.18.1 Service Designation: CLASS B (W RWY 09 ACTIVE 8500-10000 FT)

2.18.3 Channel: 124.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NE 7000-10000 FT)

2.18.3 Channel: 124.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NW 8000-10000 FT)

2.18.3 Channel: 124.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (W RWY 27 ACTIVE 10000 FT & BLW)

2.18.3 Channel: 124.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (5500 FT & BLW)

2.18.3 Channel: 126.85

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SE-SW 5000 FT & BLW)

2.18.3 Channel: 127.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WEST RWY 09 ACTIVE 8000 FT & BLW)

2.18.3 Channel: 128.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NORTH 6500-7500)

2.18.3 Channel: 128.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SOUTHEAST RWY 27 5500-7500)

2.18.3 Channel: 133.875

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (6000-8000 FT)

2.18.3 Channel: 133.875

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (5500 FT &

BLW)

2.18.3 Channel: 263.125

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SOUTH/SOUTHWEST RWY 27 8500-10000 FT)

2.18.3 Channel: 269.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SE RWY 27 ACTIVE 8500-10000 FT)

2.18.3 Channel: 269.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SE RWY 09 ACTIVE 10000 FT & BLW)

2.18.3 Channel: 269.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NORTH 6500-7500)

2.18.3 Channel: 272.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WEST RWY 09 ACTIVE 8000 FT & BLW)

2.18.3 Channel: 272.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (N NE 6500-7500)

2.18.3 Channel: 273.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (W RWY 09 ACTIVE 8000 FT & BLW)

2.18.3 Channel: 273.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NE RWY 27 ACTIVE 5000 FT & BLW)

2.18.3 Channel: 291.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (RWY 27, 5500-7500 FT)

2.18.3 Channel: 317.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (6000-8000 FT)

2.18.3 Channel: 317.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SE–SW 5000 FT & BLW)

2.18.3 Channel: 317.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (WEST RWY 09 ACTIVE 8500–10000 FT)

2.18.3 Channel: 319.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NW 8000–10000 FT)

2.18.3 Channel: 319.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NE 7000–10000 FT)

2.18.3 Channel: 319.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (SW 6000 FT & BLW)

2.18.3 Channel: 323.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (ARR)

2.18.3 Channel: 133.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS (DEP)

2.18.3 Channel: 135.925

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (090–269)

2.18.3 Channel: 119.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (270–089)

2.18.3 Channel: 124.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (090–269)

2.18.3 Channel: 269.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (270–089)

2.18.3 Channel: 319.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: FINAL APCH

2.18.3 Channel: 125.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/S

2.18.3 Channel: 121.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: JIIMS STAR

2.18.3 Channel: 133.875

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: JIIMS STAR

2.18.3 Channel: 317.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08/26, 09L/27R, 17/35)

2.18.3 Channel: 118.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 09R/27L)

2.18.3 Channel: 135.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 327.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PAATS STAR

2.18.3 Channel: 133.875

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PAATS STAR

2.18.3 Channel: 317.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PHL ONE DP

2.18.3 Channel: 124.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PHL ONE DP

2.18.3 Channel: 319.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 27L)

2.18.3 Channel: 120.425

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: PRM (RWY 26)

2.18.3 Channel: 123.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RADAR

2.18.3 Channel: 126.6

2.18.5 Hours of Operation:

2.18.1 Service Designation: SPUDS STAR

2.18.3 Channel: 128.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: SPUDS STAR

2.18.3 Channel: 272.575

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 26. Magnetic variation: 12W

2.19.2 ILS Identification: LLH

2.19.5 Coordinates: 39-52-42.2207N /

75-13-32.3765W

2.19.6 Site Elevation: 28.9 ft

2.19.1 ILS Type: Glide Slope for runway 26. Magnetic variation: 12W

2.19.2 ILS Identification: LLH

2.19.5 Coordinates: 39-52-49.3706N /

75-12-58.3473W

2.19.6 Site Elevation: 21.3 ft

2.19.1 ILS Type: Localizer for runway 26. Magnetic variation: 12W

2.19.2 ILS Identification: LLH

2.19.5 Coordinates: 39-52-42.383N / 75-13-31.8279W

2.19.6 Site Elevation: 5.4 ft

2.19.1 ILS Type: DME for runway 09L. Magnetic variation: 12W

2.19.2 ILS Identification: VII

2.19.5 Coordinates: 39-52-35.4715N /

75-13-11.5053W

2.19.6 Site Elevation: 19.4 ft

2.19.1 ILS Type: Glide Slope for runway 09L. Magnetic variation: 12W

2.19.2 ILS Identification: VII

2.19.5 Coordinates: 39-52-6.03N / 75-15-6.06W

2.19.6 Site Elevation: 8.9 ft

2.19.1 ILS Type: Localizer for runway 09L. Magnetic variation: 12W

2.19.2 ILS Identification: VII

2.19.5 Coordinates: 39-52-33.52N / 75-13-8.777W

2.19.6 Site Elevation: 7.2 ft

2.19.1 ILS Type: DME for runway 27R. Magnetic variation: 12W

2.19.2 ILS Identification: PDP

2.19.5 Coordinates: 39-52-35.4715N /

75-13-11.5053W

2.19.6 Site Elevation: 19.4 ft

2.19.1 ILS Type: Glide Slope for runway 27R. Magnetic variation: 12W

2.19.2 ILS Identification: PDP

2.19.5 Coordinates: 39-52-24.0466N /

75-13-35.8144W

2.19.6 Site Elevation: 7.5 ft

2.19.1 ILS Type: Localizer for runway 27R. Magnetic variation: 12W

2.19.2 ILS Identification: PDP

2.19.5 Coordinates: 39-52-4.7498N / 75-15-32.9263W

2.19.6 Site Elevation: 8.8 ft

2.19.1 ILS Type: DME for runway 09R. Magnetic variation: 12W

2.19.2 ILS Identification: PHL

2.19.5 Coordinates: 39-52-7.3027N / 75-13-47.0541W

2.19.6 Site Elevation: 23.5 ft

2.19.1 ILS Type: Glide Slope for runway 09R. Magnetic variation: 12W

2.19.2 ILS Identification: PHL

2.19.5 Coordinates: 39-51-37.8234N /

75-16-15.7274W

2.19.6 Site Elevation: 13.3 ft

2.19.1 ILS Type: Inner Marker for runway 09R. Magnetic variation: 12W

2.19.2 ILS Identification: PHL

2.19.5 Coordinates: 39-51-36.7356N / 75-16-41.589W

2.19.6 Site Elevation: 7.2 ft

2.19.1 ILS Type: Localizer for runway 09R. Magnetic variation: 12W

2.19.2 ILS Identification: PHL

2.19.5 Coordinates: 39-52-11.1563N /
75-13-49.1425W

2.19.6 Site Elevation: 9 ft

2.19.1 ILS Type: DME for runway 27L. Magnetic variation: 12W

2.19.2 ILS Identification: GLC

2.19.5 Coordinates: 39-52-7.3027N / 75-13-47.0541W

2.19.6 Site Elevation: 23.5 ft

2.19.1 ILS Type: Glide Slope for runway 27L. Magnetic variation: 12W

2.19.2 ILS Identification: GLC

2.19.5 Coordinates: 39-51-57.2838N /
75-14-37.7318W

2.19.6 Site Elevation: 8.4 ft

2.19.1 ILS Type: Localizer for runway 27L. Magnetic variation: 12W

2.19.2 ILS Identification: GLC

2.19.5 Coordinates: 39-51-36.2572N /
75-16-43.9517W

2.19.6 Site Elevation: 6.8 ft

2.19.1 ILS Type: DME for runway 17. Magnetic variation: 12W

2.19.2 ILS Identification: MYY

2.19.5 Coordinates: 39-52-6.7468N / 75-13-39.3372W

2.19.6 Site Elevation: 24.5 ft

2.19.1 ILS Type: Glide Slope for runway 17. Magnetic variation: 12W

2.19.2 ILS Identification: MYY

2.19.5 Coordinates: 39-53-5.9004N / 75-14-8.6899W

2.19.6 Site Elevation: 6.2 ft

2.19.1 ILS Type: Localizer for runway 17. Magnetic variation: 12W

2.19.2 ILS Identification: MYY

2.19.5 Coordinates: 39-52-6.3204N / 75-13-35.5323W

2.19.6 Site Elevation: 12 ft

General Remarks:

ARPT IS LCTD IN A NOISE SENSITIVE AREA. AIRPORT NOISE ABATEMENT TAKEOFF PROCEDURES ARE TO BE USED.

ONLY NOSE-IN PRKG PERMITTED ON NORTH REMOTE APNS. PPR FM ARPT OPS FOR ALL ACFT PRKG ON REMOTE APNS; CTC 215-937-6914/6800.

RY 09R ROLLOUT RVR USED FOR RY 09L MIDPOINT RVR.

RYS 27L, 27R & 35 SHIP CHNL (DELAWARE RIVER) MAX HEIGHT OF SHIPS 189 FT. RY 26 SHIP CHNL (SCHUYLKILL) MAX HEIGHT OF SHIPS 149 FT.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

ALL ACFT TRAVELING ON TWY J MUST USE MINIMUM POWER WHEN TURNING SOUTH DUE TO JETBLAST CONCERNS.

UNLGTD STACK 288 FT MSL (271 FT AGL) 2.3 NM SW OF ARPT.

TCAS EQUIPPED ACFT-TCAS ALERT MAY BE CAUSED BY TRANSPONDER EQUIPPED SHIPS LCTD PHL NAVAL BASE 3 NM E.

TWY J BTN TWYS K3 AND Q RESTRICTED TO ACFT WITH WINGSPANS 171 FT AND LESS.

ALL ENGINE RUNUPS REQUIRE PPR FM DUTY OPNS OFFICER AT 937-6914/6800; RUNUPS 20 MIN MAXIMUM.

POSSIBLE UNMARKED SHIP OBSTRUCTION TRANSITING EAST OR WESTBOUND ALONG THE DELAWARE RIVER REACHING HEIGHTS OF 189' – BE ALERT WHEN APPROACHING PHL RUNWAY 35 AND WHENEVER CIRCLING OR VISUALLY APPROACHING ALL OTHER RUNWAYS.

BIRDS ON & INVOF ARPT.

21112
21112
PITTSBURGH, PENNSYLVANIA

AIRPORT DIAGRAM

D-ATIS ARR 127.25
 DEP 135.9
 PITTSBURGH TOWER
 128.3 291.7
 GND CON
 121.9 348.6 SOUTH
 127.8 348.6 NORTH
 CLNC DEL
 126.75 353.7
 CPDLC
 PDC

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

ASSC in use. Operate transponders
 with altitude reporting mode and
 ADS-B (if equipped) enabled on
 all airport surfaces.

VAR 9.1° W
 JANUARY 2020
 ANNUAL RATE OF CHANGE
 0.0° W

NON-MOVEMENT AREA

CARGO 1 AND 2 APRON
 CARGO 3 APRON
 CARGO A APRON
 DEICE PAD GENERAL AVIATION
 DEICE PAD FIRE
 DEICE PAD C
 DEICE PAD E
 DEICE PAD F
 DEICE PAD G
 DEICE PAD H
 DEICE PAD I
 DEICE PAD J
 DEICE PAD K
 DEICE PAD L
 DEICE PAD M
 DEICE PAD N
 DEICE PAD O
 DEICE PAD P
 DEICE PAD Q
 DEICE PAD R
 DEICE PAD S
 DEICE PAD T
 DEICE PAD U
 DEICE PAD V
 DEICE PAD W
 DEICE PAD X
 DEICE PAD Y
 DEICE PAD Z

PASSENGER TERMINAL
 PASSENGER ELEV 1140
 PASSENGER ELEV 1135
 PASSENGER ELEV 1130
 PASSENGER ELEV 1125
 PASSENGER ELEV 1120
 PASSENGER ELEV 1115
 PASSENGER ELEV 1110
 PASSENGER ELEV 1105
 PASSENGER ELEV 1100
 PASSENGER ELEV 1095
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 PASSENGER ELEV 5
 PASSENGER ELEV 0

AL-570 (FAA)

PITTSBURGH, PENNSYLVANIA

PITTSBURGH INTL (PIT)

D-ATIS ARR 127.25
 DEP 135.9
 PITTSBURGH TOWER
 128.3 291.7
 GND CON

Pittsburgh, PA
Pittsburgh Intl
ICAO Identifier KPIT

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 40-29-29.1N / 80-13-57.7W
2.2.2 From City: 12 miles NW of PITTSBURGH, PA
2.2.3 Elevation: 1202.9 ft
2.2.5 Magnetic Variation: 9W (2020)
2.2.6 Airport Contact: CHRISTINA A. CASSOTIS
PO BOX 12370, SUITE 4000
PITTSBURGH, PA 15231
(412) 472-3509
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 10C
2.12.2 True Bearing: 92
2.12.3 Dimensions: 10775 ft x 150 ft
2.12.4 PCN: 68 R/B/X/T
2.12.5 Coordinates: 40-29-23.6989N /
80-14-52.5475W
2.12.6 Threshold Elevation: 1140.2 ft
2.12.6 Touchdown Zone Elevation: 1141.4 ft

2.12.1 Designation: 28C
2.12.2 True Bearing: 272
2.12.3 Dimensions: 10775 ft x 150 ft
2.12.4 PCN: 68 R/B/X/T
2.12.5 Coordinates: 40-29-20.0419N /
80-12-33.1754W
2.12.6 Threshold Elevation: 1136.6 ft
2.12.6 Touchdown Zone Elevation: 1133.5 ft

2.12.1 Designation: 10L
2.12.2 True Bearing: 92
2.12.3 Dimensions: 10502 ft x 150 ft

2.12.4 PCN: 65 R/B/X/T
2.12.5 Coordinates: 40–30–8.4012N / 80–16–16.2687W
2.12.6 Threshold Elevation: 1202.9 ft
2.12.6 Touchdown Zone Elevation: 1202.9 ft

2.12.1 Designation: 28R
2.12.2 True Bearing: 272
2.12.3 Dimensions: 10502 ft x 150 ft
2.12.4 PCN: 65 R/B/X/T
2.12.5 Coordinates: 40-30-4.8667N / 80-14-0.4048W
2.12.6 Threshold Elevation: 1174.1 ft
2.12.6 Touchdown Zone Elevation: 1174.1 ft

2.12.1 Designation: 28L
2.12.2 True Bearing: 272
2.12.3 Dimensions: 11500 ft x 200 ft
2.12.4 PCN: 80 R/B/X/T
2.12.5 Coordinates: 40–29–8.3238N / 80–12–38.1249W
2.12.6 Threshold Elevation: 1121.9 ft
2.12.6 Touchdown Zone Elevation: 1125 ft

2.12.1 Designation: 10R
2.12.2 True Bearing: 92
2.12.3 Dimensions: 11500 ft x 200 ft
2.12.4 PCN: 80 R/B/X/T
2.12.5 Coordinates: 40–29–12.2249N / 80–15–6.8568W
2.12.6 Threshold Elevation: 1134.8 ft
2.12.6 Touchdown Zone Elevation: 1134.8 ft

2.12.1 Designation: 32
2.12.2 True Bearing: 316
2.12.3 Dimensions: 8101 ft x 150 ft
2.12.4 PCN: 71 R/B/X/T
2.12.5 Coordinates: 40-28-47.69N / 80-12-17.2183W
2.12.6 Threshold Elevation: 1113.4 ft
2.12.6 Touchdown Zone Elevation: 1123.6 ft

2.12.1 Designation: 14
2.12.2 True Bearing: 136
2.12.3 Dimensions: 8101 ft x 150 ft
2.12.4 PCN: 71 R/B/X/T
2.12.5 Coordinates: 40–29–45.6544N /
80–13–29.5187W
2.12.6 Threshold Elevation: 1147.6 ft
2.12.6 Touchdown Zone Elevation: 1147.6 ft

2.12.1 Designation: H1
2.12.2 True Bearing:
2.12.3 Dimensions: 53 ft x 53 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --

2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 10C
2.13.2 Take-off Run Available: 10775
2.13.3 Take-off Distance Available: 10775
2.13.4 Accelerate-Stop Distance Available: 10173
2.13.5 Landing Distance Available: 9708

2.13.1 Designation: 28C
2.13.2 Take-off Run Available: 10775
2.13.3 Take-off Distance Available: 10775
2.13.4 Accelerate-Stop Distance Available: 10310
2.13.5 Landing Distance Available: 9708

2.13.1 Designation: 10L
2.13.2 Take-off Run Available: 10502
2.13.3 Take-off Distance Available: 10502
2.13.4 Accelerate-Stop Distance Available: 10502
2.13.5 Landing Distance Available: 10502

2.13.1 Designation: 28R
2.13.2 Take-off Run Available: 10502
2.13.3 Take-off Distance Available: 10502
2.13.4 Accelerate-Stop Distance Available: 10102
2.13.5 Landing Distance Available: 10102

2.13.1 Designation: 28L
2.13.2 Take-off Run Available: 11500
2.13.3 Take-off Distance Available: 11500
2.13.4 Accelerate-Stop Distance Available: 11500
2.13.5 Landing Distance Available: 11500

2.13.1 Designation: 10R
2.13.2 Take-off Run Available: 11500
2.13.3 Take-off Distance Available: 11500
2.13.4 Accelerate-Stop Distance Available: 11492
2.13.5 Landing Distance Available: 11492

2.13.1 Designation: 32
2.13.2 Take-off Run Available: 8101
2.13.3 Take-off Distance Available: 8101
2.13.4 Accelerate-Stop Distance Available: 7801
2.13.5 Landing Distance Available: 7466

2.13.1 Designation: 14
2.13.2 Take-off Run Available: 8101
2.13.3 Take-off Distance Available: 8101
2.13.4 Accelerate-Stop Distance Available: 7366

2.13.5 Landing Distance Available: 7366

2.13.1 Designation: H1
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 10C
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28C
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 10R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 32
2.14.2 Approach Lighting System: MALS
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 14
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: H1
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG OPS
2.18.3 Channel: 311

2.18.5 Hours of Operation:

2.18.1 Service Designation: APCH/P (271-360)

2.18.3 Channel: 121.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (001-090)

2.18.3 Channel: 124.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (181-270)

2.18.3 Channel: 133.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (270-089)

2.18.3 Channel: 279.625

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (090-269)

2.18.3 Channel: 360.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P

2.18.3 Channel: 336.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (091-180)

2.18.3 Channel: 123.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC

2.18.3 Channel: 126.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 353.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (271-360)

2.18.3 Channel: 121.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (091-180)

2.18.3 Channel: 123.95

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (001-090)

2.18.3 Channel: 124.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (181-270)

2.18.3 Channel: 133.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (270-089)

2.18.3 Channel: 279.625

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (090-269)

2.18.3 Channel: 360.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: COMD POST

2.18.3 Channel: 252.1

2.18.5 Hours of Operation:

2.18.1 Service Designation: D-ATIS (ARR)

2.18.3 Channel: 127.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)

2.18.3 Channel: 135.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (SOUTH)

2.18.3 Channel: 119.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (NORTH)

2.18.3 Channel: 124.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (090-269)

2.18.3 Channel: 285.575

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (NORTH)

2.18.3 Channel: 338.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/S

2.18.3 Channel: 125.275

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (SOUTH)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (NORTH)
2.18.3 Channel: 127.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 128.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 291.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OPS
2.18.3 Channel: 36.35
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 10L. Magnetic variation: 9W
2.19.2 ILS Identification: LXB
2.19.5 Coordinates: 40-30-11.9236N / 80-15-59.9044W
2.19.6 Site Elevation: 1195 ft

2.19.1 ILS Type: Inner Marker for runway 10L. Magnetic variation: 9W
2.19.2 ILS Identification: LXB
2.19.5 Coordinates: 40-30-8.7927N / 80-16-27.004W
2.19.6 Site Elevation: 1175.5 ft

2.19.1 ILS Type: Localizer for runway 10L. Magnetic variation: 9W
2.19.2 ILS Identification: LXB
2.19.5 Coordinates: 40-30-4.5231N / 80-13-47.1428W
2.19.6 Site Elevation: 1160.8 ft

2.19.1 ILS Type: Glide Slope for runway 28R. Magnetic variation: 9W
2.19.2 ILS Identification: HFE
2.19.5 Coordinates: 40-30-8.7192N / 80-14-14.6252W
2.19.6 Site Elevation: 1170.6 ft

2.19.1 ILS Type: Localizer for runway 28R. Magnetic variation: 9W
2.19.2 ILS Identification: HFE
2.19.5 Coordinates: 40-30-8.7888N / 80-16-31.3335W
2.19.6 Site Elevation: 1214.2 ft

2.19.1 ILS Type: Glide Slope for runway 10R. Magnetic variation: 9W
2.19.2 ILS Identification: GUT
2.19.5 Coordinates: 40-29-15.3464N / 80-14-53.775W
2.19.6 Site Elevation: 1129.2 ft

2.19.1 ILS Type: Inner Marker for runway 10R. Magnetic variation: 9W
2.19.2 ILS Identification: GUT
2.19.5 Coordinates: 40-29-12.5381N / 80-15-18.8824W
2.19.6 Site Elevation: 1144.8 ft

2.19.1 ILS Type: Localizer for runway 10R. Magnetic variation: 9W
2.19.2 ILS Identification: GUT
2.19.5 Coordinates: 40-29-8.2188N / 80-12-34.1165W
2.19.6 Site Elevation: 1116.6 ft

2.19.1 ILS Type: Glide Slope for runway 28L. Magnetic variation: 9W
2.19.2 ILS Identification: PFS
2.19.5 Coordinates: 40-29-4.7301N / 80-12-51.2688W
2.19.6 Site Elevation: 1120.3 ft

2.19.1 ILS Type: Localizer for runway 28L. Magnetic variation: 9W
2.19.2 ILS Identification: PFS
2.19.5 Coordinates: 40-29-12.6437N / 80-15-23.0275W
2.19.6 Site Elevation: 1141.2 ft

2.19.1 ILS Type: DME for runway 32. Magnetic variation: 9W
2.19.2 ILS Identification: TQW
2.19.5 Coordinates: 40-29-48.847N / 80-13-37.583W
2.19.6 Site Elevation: 1134 ft

2.19.1 ILS Type: Glide Slope for runway 32. Magnetic variation: 9W
2.19.2 ILS Identification: TQW
2.19.5 Coordinates: 40-28-52.663N / 80-12-29.1403W
2.19.6 Site Elevation: 1112.2 ft

2.19.1 ILS Type: Localizer for runway 32. Magnetic

variation: 9W
2.19.2 ILS Identification: TQW
2.19.5 Coordinates: 40-29-50.4118N /

80-13-35.4629W
2.19.6 Site Elevation: 1139.1 ft

General Remarks:

TWY AA NO TURN-OFF ONTO TWY A FOR ACFT WINGSPAN 171 FT OR GREATER EXC PPR (412) 472-5630.

[MILITARY]: CAUTION: BASH PHASE II OPS IN EFFECT 1 JUL - 31 AUG ANNUALLY. UNLESS MSN REQUIREMENTS DIRECT OTHERWISE, FLIGHTS SHOULD NOT BE SKED WITHIN +/-1HR OF SS/SR. TRAN AIRCREW SHOULD REQ BIRD WATCH COND FR AFRC (PITT OPS) ON 252.1 OR ANG OPS (STEEL CTL) ON 311.0. AIRCREW WILL BE INFORMED BY STEEL CONTROL OR PITT OPS (AS APPLICABLE) IF CURRENT BWC IS OTHER THAN LOW REGARDLESS OF BASH PHASE.

SERVICE-OIL: O-156.

TERML TAXILANES E OF CONCOURSES A & B RESTRD TO GROUP 3 ACFT & SMALLER.

ACFT USING TWY 'N' PROHIBITED TO STOP ON OVERPASS AREA DUE TO POSSIBLE EMERGENCY EVACUATION HAZARD.

ALL JETS DEPARTING RY 28R MUST BE ALIGNED WI RY PRIOR TO APPLYING TKOF POWER.

DEER & BIRDS ON & INVOF ARPT.

ANG: OPR 1130-2030Z++MON-FRI EXCP HOL. (CLSD EV OTH MON.)

ANG ACFT MUST CTC TANKER 303.0/FTR OPNS 293.7 BEFORE CROSSING RWY 28L TO OBTAIN CLNC TO ENTER.

ASSC IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

SERVICE-TRAN ALERT: NO PRIORITY BASIS.

FUEL: A++ PROVIDED BY ANG AND AFRC.(MIL).

PPR/OFFL BUS MIN 48 HR CTC AFLD MGMT DSN 277 8163, C412 474 8163. LTD TRAN SVC. AFLD MGT NML DUTY HRS 1300 0100++ MON, WED, FRI, 1300-0500++ TUE, THU, EXC HOL. UNIT TRAINING ASSEMBLY 1300 2100Z++SAT SUN. TRAN ACFT MUST HAVE APPVL OF 911OG/CC FOR PPR DUR OFF DUTY HR. NO SVC AVBL FOR SPACE AVBL PAX DUR OFF DUTY HR. CALL PITT COMD POST (IRON CITY) BY RDO PRIOR TO ENTRY TO AFRC RAMP. ALFD MGMT DOES NOT ISSUE OR STOR COMSEC. COMSEC STOR CTC COMD POST DSN 277 8146.

LDG FEE.

TRML APN UNCONTROLLED. PUSHBACK PILOT DESCRETION. DO NOT EXIT TRML APN AT TWY C1, C4, V3, V4, D1, W. CTC GC WHEN HLDG AT TWY C2, C3, V1, V2, V5, V6, D2, D3.

PUSHBACK CLNC REQUIRED FR GATES A100 AND A101 AT CARGO A. CTC GC. PUSHBACK FM THESE GATES ENTERS TWY N.

SERVICE-JASU: (ANG) (A/M32A-86) (AM 32-95; (AFRC - 2(A/M32-86 (AM32-95).

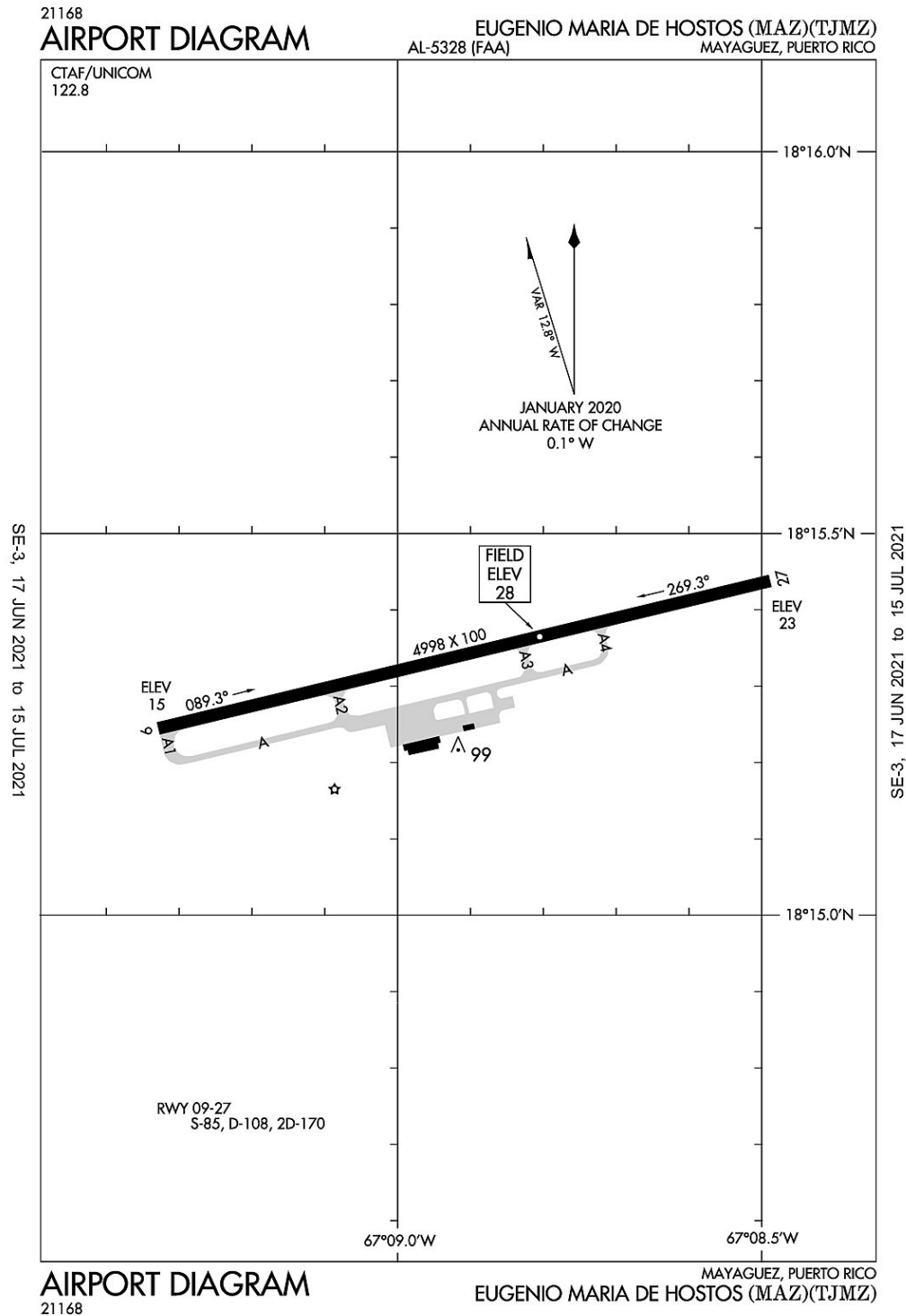
SERVICE-FLUID: LPOX LHNIT.

ATCT IS AUTHORIZED TO HAVE ACFT LINE-UP & WAIT ON RYS 28L AT TWY 'P' DURG HRS OF DARKNESS.

THE SPECIFIC RY SHALL BE USED ONLY FOR DEPARTURES & THE INTXN MUST BE VSB FM ATCT.

TWY G INTXN AT RY 10L/28R RIGHT TURN NA.

Mayaguez, Puerto Rico
Eugenio Maria De Hostos
ICAO Identifier TJMZ



Mayaguez, PR
Eugenio Maria De Hostos
ICAO Identifier TJMZ

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 18-15-20.5N / 67-8-54.5W
2.2.2 From City: 3 miles N of MAYAGUEZ, PR
2.2.3 Elevation: 27.7 ft
2.2.5 Magnetic Variation: 10W (1985)
2.2.6 Airport Contact: EDGAR SIERRA

BOX 710
MAYAGUEZ, PR 709
(787-832-3390)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, MON-FRI Days, 0730-1600 Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types:
2.4.5 Hangar Space: NO
2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: None

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 27
2.12.2 True Bearing: 256
2.12.3 Dimensions: 4998 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 18-15-26.2517N / 67-8-29.2981W
2.12.6 Threshold Elevation: 23.2 ft
2.12.6 Touchdown Zone Elevation: 27.7 ft

2.12.1 Designation: 09
2.12.2 True Bearing: 76
2.12.3 Dimensions: 4998 ft x 100 ft
2.12.4 PCN:
2.12.5 Coordinates: 18-15-14.6817N / 67-9-19.728W
2.12.6 Threshold Elevation: 15.3 ft

General Remarks:

1200' TWR /1207' MSL/ 9 NM NNW.

2.12.6 Touchdown Zone Elevation: 27.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 27
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: 09
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 27
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 09
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

AD 2.19 Radio Navigation and Landing Aids

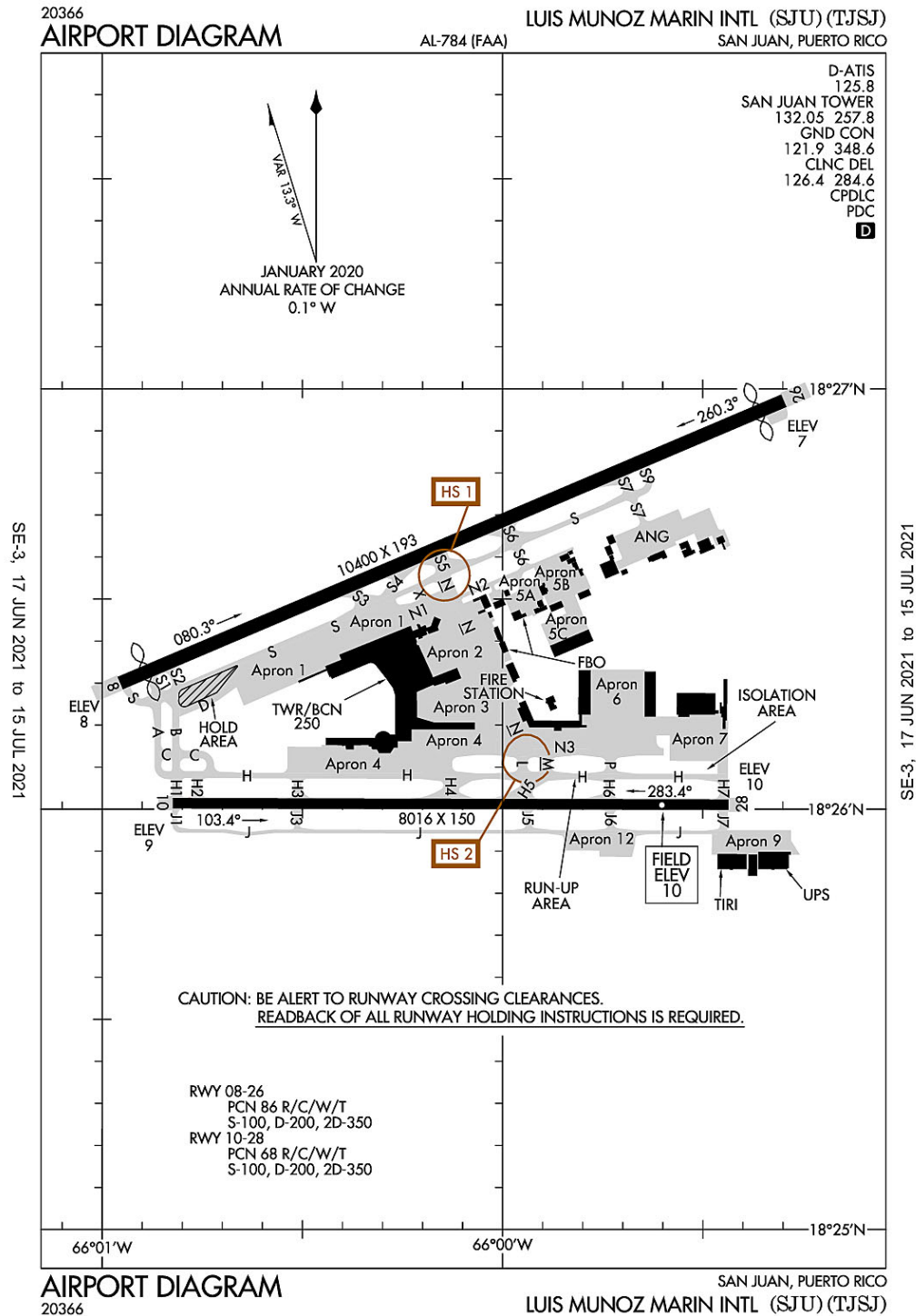
2.19.1 Navigation Aid Type: NDB. Magnetic variation: 10W
2.19.2 Navigation Aid Identification: MAZ
2.19.5 Coordinates: 18-15-13.529N / 67-9-8.947W
2.19.6 Site Elevation:

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 10W
2.19.2 Navigation Aid Identification: MAZ
2.19.5 Coordinates: 18-15-23.2293N / 67-9-3.7215W
2.19.6 Site Elevation: 18 ft

FOR CD IF FREQ ARE OTS CTC SAN JUAN CERAP AT 787-253-8664/8667

BIRDS ON AND INVOF ARPT.

San Juan, Puerto Rico
Luis Munoz Marin International
ICAO Identifier TJSJ



San Juan, PR
Luis Munoz Marin Intl
ICAO Identifier TJSJ

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 18-26-21.837N / 66-0-7.68W
2.2.2 From City: 3 miles SE of SAN JUAN, PR
2.2.3 Elevation: 9.6 ft
2.2.5 Magnetic Variation: 11W (1985)
2.2.6 Airport Contact: MR. JORGE HERNANDEZ

P. O. BOX 38085
SAN JUAN, PR 937
((787) 289-7240)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A+,100,115,A++
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I D certified on 5/1/2005

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 08
2.12.2 True Bearing: 67
2.12.3 Dimensions: 10400 ft x 193 ft
2.12.4 PCN: 86 R/C/W/T
2.12.5 Coordinates: 18-26-17.9673N / 66-0-57.3115W
2.12.6 Threshold Elevation: 8.2 ft
2.12.6 Touchdown Zone Elevation: 9.3 ft

2.12.1 Designation: 26
2.12.2 True Bearing: 247
2.12.3 Dimensions: 10400 ft x 193 ft
2.12.4 PCN: 86 R/C/W/T
2.12.5 Coordinates: 18-26-58.2684N /
65-59-17.8783W
2.12.6 Threshold Elevation: 6.9 ft

2.12.6 Touchdown Zone Elevation: 7.4 ft

2.12.1 Designation: 10
2.12.2 True Bearing: 90
2.12.3 Dimensions: 8016 ft x 150 ft
2.12.4 PCN: 68 R/C/W/T
2.12.5 Coordinates: 18-26-0.8092N / 66-0-49.4179W
2.12.6 Threshold Elevation: 9.3 ft
2.12.6 Touchdown Zone Elevation: 9.3 ft

2.12.1 Designation: 28
2.12.2 True Bearing: 270
2.12.3 Dimensions: 8016 ft x 150 ft
2.12.4 PCN: 68 R/C/W/T
2.12.5 Coordinates: 18-26-0.6107N / 65-59-26.159W
2.12.6 Threshold Elevation: 9.5 ft
2.12.6 Touchdown Zone Elevation: 9.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 08
2.13.2 Take-off Run Available: 10400
2.13.3 Take-off Distance Available: 10400
2.13.4 Accelerate-Stop Distance Available: 9784
2.13.5 Landing Distance Available: 9384

2.13.1 Designation: 26
2.13.2 Take-off Run Available: 10400
2.13.3 Take-off Distance Available: 10400
2.13.4 Accelerate-Stop Distance Available: 10308
2.13.5 Landing Distance Available: 9908

2.13.1 Designation: 10
2.13.2 Take-off Run Available: 8016
2.13.3 Take-off Distance Available: 8016
2.13.4 Accelerate-Stop Distance Available: 8016
2.13.5 Landing Distance Available: 8016

2.13.1 Designation: 28
2.13.2 Take-off Run Available: 8016
2.13.3 Take-off Distance Available: 8016
2.13.4 Accelerate-Stop Distance Available: 8016
2.13.5 Landing Distance Available: 8016

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 08

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 10

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 28

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P (WEST & SW)

2.18.3 Channel: 119.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (NORTH & EAST)

2.18.3 Channel: 120.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (WEST & SW)

2.18.3 Channel: 269.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (NORTH & EAST)

2.18.3 Channel: 290.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC

2.18.3 Channel: 126.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 284.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (WEST & SW)

2.18.3 Channel: 119.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (NORTH & EAST)

2.18.3 Channel: 120.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (WEST & SW)

2.18.3 Channel: 269.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (NORTH & EAST)

2.18.3 Channel: 290.2

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 125.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 132.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 08. Magnetic variation: 11W
2.19.2 ILS Identification: SJU
2.19.5 Coordinates: 18-26-27.0397N / 66-0-45.5699W
2.19.6 Site Elevation: 4.2 ft

2.19.1 ILS Type: Localizer for runway 08. Magnetic variation: 11W
2.19.2 ILS Identification: SJU
2.19.5 Coordinates: 18-26-59.7947N / 65-59-14.1228W
2.19.6 Site Elevation: 5.6 ft

2.19.1 ILS Type: Outer Marker for runway 08. Magnetic variation: 11W
2.19.2 ILS Identification: SJU
2.19.5 Coordinates: 18-24-31.8227N / 66-5-21.8301W
2.19.6 Site Elevation: 66.5 ft

General Remarks:

MILITARY: ANG: CAUTION – MUNIZ ANG APN HGR OBST LGTS PARTIALLY OTS.

TWY J BTN J1 AND J5 (NOT INCLUDING J5) CLSD TO ACFT WITH GREATER THAN 118 FT WINGSPAN.

ACFT 180 TURNS ON TWYS REQUIRES OPS COORDINATIONS.

FBO/GROUND HANDLER MUST SUBMIT 72 HRS PPR FOR ALL MIL ACFT TO: CCO@AEROSTARAIRPORTS.-COM OR BY PHONE TO: 787-253-0979

MILITARY: ANG: RSTD – RD CD WING TIP CLNC FOR WIDE BODY ACFT SW SIDE OF MUNIZ ANGB APN DUE TO TEMPO MOBILE OBST.

MILITARY: ANG: INBD ACFT ORIGINATING FR OCONUS WITH A PPR FOR MUNIZ ANGB APN MUST CLEAR CUSTOMS AND BORDER PROTECTION AT CIV SIDE. PRIOR COORD MUST BE MADE WITH ANG AMOPS, FONE 740-9629 AT LEAST ONE BUS DAY PRIOR TO ARRIVAL.

ALL PVT AND CORPORATE AIRCRAFT MUST CONTACT ARPT OPS, BEFORE ARRIVAL, FOR FBOS & GROUND HANDLING INFO AT 787-253-0979.

MILITARY: ANG: CAUTION – UNLGTD ROLLING GATE AT ENTRANCE OF MUNIZ ANGB APN; GATE MUST BE FULLY EXTDD PRIOR TO ACFT TRSN INTO ANG APN.

ENGINE RUNUPS PROHIBITED ON GATES AREA.

2.19.1 ILS Type: DME for runway 10. Magnetic variation: 11W
2.19.2 ILS Identification: CLA
2.19.5 Coordinates: 18-26-2.5352N / 65-59-15.6282W
2.19.6 Site Elevation: 18.2 ft

2.19.1 ILS Type: Glide Slope for runway 10. Magnetic variation: 11W
2.19.2 ILS Identification: CLA
2.19.5 Coordinates: 18-25-57.5628N / 66-0-39.041W
2.19.6 Site Elevation: 4.5 ft

2.19.1 ILS Type: Localizer for runway 10. Magnetic variation: 11W
2.19.2 ILS Identification: CLA
2.19.5 Coordinates: 18-26-0.5899N / 65-59-15.5192W
2.19.6 Site Elevation: 9 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 11W
2.19.2 Navigation Aid Identification: SJU
2.19.5 Coordinates: 18-26-46.6101N / 65-59-22.2272W
2.19.6 Site Elevation: 5.7 ft

APRON 12 AVBL FOR GA ACFT ONLY.

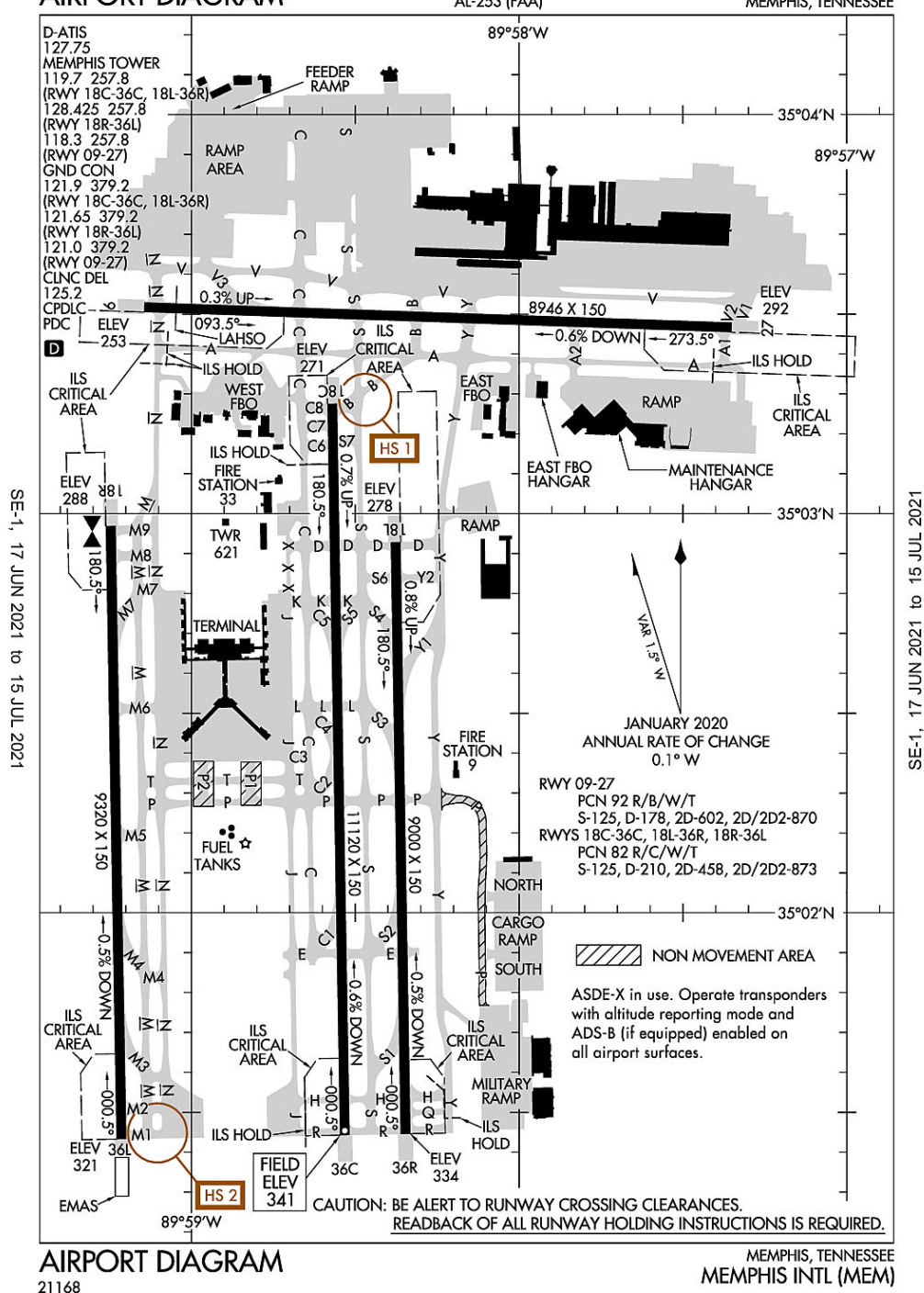
BASE OPS 1130-2000Z MON-FRI, CLSD WKEND AND HOL.

TWY N IS UNDER CONSTRUCTION. PLEASE, CONTACT ARPT OPS AT 787-253-0979 FOR FURTHER DETAILS AND RESTRICTIONS.

TWY S BTN TWY S2 AND TWY S5 CLSD LGTD AND BARRICADED.

21168
AIRPORT DIAGRAM

MEMPHIS INTL (MEM)
MEMPHIS, TENNESSEE



Memphis, TN
Memphis Intl
ICAO Identifier KMEM

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 35-2-32.681N / 89-58-36.045W
2.2.2 From City: 3 miles S of MEMPHIS, TN
2.2.3 Elevation: 340.9 ft
2.2.5 Magnetic Variation: 1W (2020)
2.2.6 Airport Contact: SCOTT A BROCKMAN
2491 WINCHESTER RD.
MEMPHIS, TN 38116
(901-922-8000)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A++,A,100LL,A+
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/21/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 09
2.12.2 True Bearing: 92
2.12.3 Dimensions: 8946 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 35-3-31.046N / 89-59-8.6536W
2.12.6 Threshold Elevation: 253.2 ft
2.12.6 Touchdown Zone Elevation: 258.7 ft

2.12.1 Designation: 27
2.12.2 True Bearing: 272
2.12.3 Dimensions: 8946 ft x 150 ft
2.12.4 PCN: 92 R/B/W/T
2.12.5 Coordinates: 35-3-28.0128N / 89-57-21.0816W
2.12.6 Threshold Elevation: 292 ft
2.12.6 Touchdown Zone Elevation: 292 ft

2.12.1 Designation: 36C
2.12.2 True Bearing: 359
2.12.3 Dimensions: 11120 ft x 150 ft
2.12.4 PCN: 82 R/C/W/T
2.12.5 Coordinates: 35-1-26.5803N / 89-58-31.8977W

2.12.6 Threshold Elevation: 340.9 ft
2.12.6 Touchdown Zone Elevation: 340.9 ft

2.12.1 Designation: 18C
2.12.2 True Bearing: 179
2.12.3 Dimensions: 11120 ft x 150 ft
2.12.4 PCN: 82 R/C/W/T
2.12.5 Coordinates: 35-3-16.5411N / 89-58-34.2156W
2.12.6 Threshold Elevation: 270.6 ft
2.12.6 Touchdown Zone Elevation: 290.1 ft

2.12.1 Designation: 18L
2.12.2 True Bearing: 179
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 82 R/C/W/T
2.12.5 Coordinates: 35-2-55.7402N / 89-58-22.6229W
2.12.6 Threshold Elevation: 277.6 ft
2.12.6 Touchdown Zone Elevation: 300.9 ft

2.12.1 Designation: 36R
2.12.2 True Bearing: 359
2.12.3 Dimensions: 9000 ft x 150 ft
2.12.4 PCN: 82 R/C/W/T
2.12.5 Coordinates: 35-1-26.7376N / 89-58-20.7544W
2.12.6 Threshold Elevation: 334.3 ft
2.12.6 Touchdown Zone Elevation: 334.7 ft

2.12.1 Designation: 36L
2.12.2 True Bearing: 359
2.12.3 Dimensions: 9320 ft x 150 ft
2.12.4 PCN: 82 R/C/W/T
2.12.5 Coordinates: 35-1-25.9852N / 89-59-12.8121W
2.12.6 Threshold Elevation: 320.8 ft
2.12.6 Touchdown Zone Elevation: 320.8 ft

2.12.1 Designation: 18R
2.12.2 True Bearing: 179
2.12.3 Dimensions: 9320 ft x 150 ft
2.12.4 PCN: 82 R/C/W/T
2.12.5 Coordinates: 35-2-58.1489N / 89-59-14.7913W
2.12.6 Threshold Elevation: 288.4 ft
2.12.6 Touchdown Zone Elevation: 294.7 ft

AD 2.13 Declared Distances

2.13.1 Designation: 09
2.13.2 Take-off Run Available: 8946
2.13.3 Take-off Distance Available: 8946
2.13.4 Accelerate-Stop Distance Available: 8946
2.13.5 Landing Distance Available: 8946

2.13.1 Designation: 27
2.13.2 Take-off Run Available: 8946
2.13.3 Take-off Distance Available: 8946
2.13.4 Accelerate-Stop Distance Available: 8946
2.13.5 Landing Distance Available: 8946

2.13.1 Designation: 36C
2.13.2 Take-off Run Available: 11120
2.13.3 Take-off Distance Available: 11120
2.13.4 Accelerate-Stop Distance Available: 10715
2.13.5 Landing Distance Available: 10715

2.13.1 Designation: 18C
2.13.2 Take-off Run Available: 11120
2.13.3 Take-off Distance Available: 11120
2.13.4 Accelerate-Stop Distance Available: 11120
2.13.5 Landing Distance Available: 11120

2.13.1 Designation: 18L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 36R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 36L
2.13.2 Take-off Run Available: 9320
2.13.3 Take-off Distance Available: 9320
2.13.4 Accelerate-Stop Distance Available: 9320
2.13.5 Landing Distance Available: 9320

2.13.1 Designation: 18R
2.13.2 Take-off Run Available: 9320
2.13.3 Take-off Distance Available: 9320
2.13.4 Accelerate-Stop Distance Available: 9320
2.13.5 Landing Distance Available: 9320

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 09
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 27
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18C
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 18L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 36L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG COMD POST
2.18.3 Channel: 138.1
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG COMD POST
2.18.3 Channel: 353.45
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 125.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 127.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (RWY 09/27)
2.18.3 Channel: 121
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 18R/36L)
2.18.3 Channel: 121.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 18L/36R,
18C/36C)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 379.2
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 09/27)
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 18L/36R,
18C/36C)
2.18.3 Channel: 119.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 18R/36L)
2.18.3 Channel: 128.425
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 09. Magnetic
variation: 1W
2.19.2 ILS Identification: MEM
2.19.5 Coordinates: 35-3-27.2174N / 89-58-56.2128W
2.19.6 Site Elevation: 252.5 ft

2.19.1 ILS Type: Localizer for runway 09. Magnetic
variation: 1W
2.19.2 ILS Identification: MEM
2.19.5 Coordinates: 35-3-27.6511N / 89-57-7.9461W
2.19.6 Site Elevation: 296.5 ft

2.19.1 ILS Type: Glide Slope for runway 27. Magnetic
variation: 1W

2.19.2 ILS Identification: JIM
2.19.5 Coordinates: 35-3-24.4908N / 89-57-36.2529W
2.19.6 Site Elevation: 277.2 ft

2.19.1 ILS Type: Localizer for runway 27. Magnetic
variation: 1W

2.19.2 ILS Identification: JIM
2.19.5 Coordinates: 35-3-31.3982N / 89-59-20.811W
2.19.6 Site Elevation: 252.2 ft

2.19.1 ILS Type: Glide Slope for runway 18C. Magnetic
variation: 1W

2.19.2 ILS Identification: SDU
2.19.5 Coordinates: 35-3-7.6024N / 89-58-37.5142W
2.19.6 Site Elevation: 273.1 ft

2.19.1 ILS Type: Localizer for runway 18C. Magnetic
variation: 1W

2.19.2 ILS Identification: SDU
2.19.5 Coordinates: 35-1-10.2462N / 89-58-31.5613W
2.19.6 Site Elevation: 345.5 ft

2.19.1 ILS Type: DME for runway 36C. Magnetic varia-
tion: 1W

2.19.2 ILS Identification: TSE
2.19.5 Coordinates: 35-3-22.0479N / 89-58-37.3452W
2.19.6 Site Elevation: 268.9 ft

2.19.1 ILS Type: Glide Slope for runway 36C. Magnetic
variation: 1W

2.19.2 ILS Identification: TSE
2.19.5 Coordinates: 35-1-38.095N / 89-58-36.9423W
2.19.6 Site Elevation: 329.5 ft

2.19.1 ILS Type: Localizer for runway 36C. Magnetic
variation: 1W

2.19.2 ILS Identification: TSE
2.19.5 Coordinates: 35-3-22.514N / 89-58-34.3391W
2.19.6 Site Elevation: 261.2 ft

2.19.1 ILS Type: DME for runway 18L. Magnetic varia-
tion: 1W

2.19.2 ILS Identification: EXS
2.19.5 Coordinates: 35-1-16.8761N / 89-58-19.3033W
2.19.6 Site Elevation: 328.2 ft

2.19.1 ILS Type: Glide Slope for runway 18L. Magnetic
variation: 1W

2.19.2 ILS Identification: EXS
2.19.5 Coordinates: 35-2-46.7849N / 89-58-17.6254W
2.19.6 Site Elevation: 278.6 ft

2.19.1 ILS Type: Localizer for runway 18L. Magnetic variation: 1W
2.19.2 ILS Identification: EXS
2.19.5 Coordinates: 35-1-16.6952N / 89-58-20.5424W
2.19.6 Site Elevation: 344.5 ft

2.19.1 ILS Type: DME for runway 36R. Magnetic variation: 1W
2.19.2 ILS Identification: MYO
2.19.5 Coordinates: 35-3-5.9229N / 89-58-19.6804W
2.19.6 Site Elevation: 282.5 ft

2.19.1 ILS Type: Glide Slope for runway 36R. Magnetic variation: 1W
2.19.2 ILS Identification: MYO
2.19.5 Coordinates: 35-1-38.0016N / 89-58-16.1795W
2.19.6 Site Elevation: 324.2 ft

2.19.1 ILS Type: Localizer for runway 36R. Magnetic variation: 1W
2.19.2 ILS Identification: MYO
2.19.5 Coordinates: 35-3-6.1649N / 89-58-22.8431W
2.19.6 Site Elevation: 278.7 ft

2.19.1 ILS Type: Glide Slope for runway 18R. Magnetic variation: 1W
2.19.2 ILS Identification: OOI
2.19.5 Coordinates: 35-2-48.6497N / 89-59-18.4713W
2.19.6 Site Elevation: 287.1 ft

2.19.1 ILS Type: Localizer for runway 18R. Magnetic variation: 1W
2.19.2 ILS Identification: OOI
2.19.5 Coordinates: 35-1-17.2969N / 89-59-12.6028W
2.19.6 Site Elevation: 321.4 ft

2.19.1 ILS Type: DME for runway 36L. Magnetic variation: 1W
2.19.2 ILS Identification: OHN
2.19.5 Coordinates: 35-3-6.901N / 89-59-10.0928W
2.19.6 Site Elevation: 285.7 ft

2.19.1 ILS Type: Glide Slope for runway 36L. Magnetic variation: 1W
2.19.2 ILS Identification: OHN
2.19.5 Coordinates: 35-1-38.7288N / 89-59-17.8741W
2.19.6 Site Elevation: 308.9 ft

2.19.1 ILS Type: Localizer for runway 36L. Magnetic variation: 1W
2.19.2 ILS Identification: OHN
2.19.5 Coordinates: 35-3-8.5885N / 89-59-14.9936W
2.19.6 Site Elevation: 277.6 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 1E
2.19.2 Navigation Aid Identification: MEM
2.19.5 Coordinates: 35-0-54.3808N / 89-58-59.5258W
2.19.6 Site Elevation: 363.4 ft

General Remarks:

TWY P1, TWY P2, TWY N NORTH OF TWY V, TWY C NORTH OF TWY V & TWY S NORTH OF TWY V DESIGNATED NON-MOVEMENT AREA.

ANG: PPR 24 HR PN RQR; OFFL BUS ONLY.

COMMUNICATIONS-ANG COMD POST: RADIO CALL GRACELAND OPS.

HELI OPS TO/FROM TRML BLDG NA.

ANG-PPR DSN 726-7131/7505, C901-291-7131/7505. MIL RAMP OPS 1230-0430Z++ MON-FRI; CLSD ALTN MON & HOL. MIL RAMP CLSD OUTSIDE OF PUB HR WITHOUT OG/CC APVL DSN 726-7557, C901-291-7557. TSNT ACFT MAINT NOT AVBL. REFUEL SVC FOR OTR THAN C17 ACFT RQR QUALIFIED CREW CHIEF OR CREWMEMBERS. NON-C17 ACFT SUPPORT PRVDD BY CONTRACT FBO ON FLD. SECURITY AVBL 24 HRS, DSN 726-7101, C901-291-7101. COMD POST DSN 726-7148/7311/7312, C901-291-7148/7311/7312. OPR 1230-0430Z++ MON-FRI, CLSD ALTN MON AND HOL DUE TO ALTN WORK SCHED. AFLD MGR DOES NOT ISSUE OR STORE COMSEC FOR TRAN CRES. TMPRY STOR OF CLASSIFIED MATERIALS UP TO TOP SECRET AT COMD POST.

CONDUCT GND OPS WITH TRANSPONDERS ON.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF

EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

BASH PHASE II APR-MAY & AUG-OCT; CURRENT BIRD WATCH COND NOT ON ATIS.

MILITARY: MIL RAMP OPS AT REDUCED ARFF, DOWNGRADED TO YELLOW.

BIRDS INVOF ARPT.

APRON J & N RUNUP PAD CLSD.

TWY V BTN TWY S & Y RSTR TO ACFT WITH TAIL HEIGHT 65 FT 10 IN OR LESS.

TWY P1 BTN TWY T & TRML RAMP & TWY P2 BTN TWY T & TRML RAMP CLSD.

ACFT WITH WINGSPAN MORE THAN 118 FT RSTR FM TAXI ON TWY J NORTH OF C3.

HOLD SHORT INSTRUCTION READ BACK RQR.

NOISE ABATEMENT PROCEDURES IN EFFECT. SUCCESSIVE AND/OR SIMULTANEOUS DEP APVD ON RWY 36L-18R & RWY 36C-18C OR RWY 36L-18R & RWY 36R-18L WITH COURSE DIVERGENCE NO LATER THAN 2.27 NM FROM RWY END.

LARGE & HEAVY EASTBOUND ACFT ON TWY V FOR RWY 27 HOLD SHORT AT MINIMUM THRUST AREA SIGN.

ANG RAMP OFFICIAL BUSINESS ONLY; PPR - V966-8131. TRANSIENT ACFT RQR FOLLOW ME ASSIST ENTERING ANG RAMP.

TWY J BTN TWY P & R RSTR TO 15 MPH FOR ACFT WITH WINGSPAN MORE THAN 171 FT.

TWY V BTN SPOT 7W & RWY 27 RSTR TO ACFT WITH WINGSPAN OF 171 FT 6 IN OR LESS.

ACFT WITH WINGSPAN MORE THAN 171 FT 6 IN RSTR FM TAXI ON TWY N BTN TWY M7 & T.

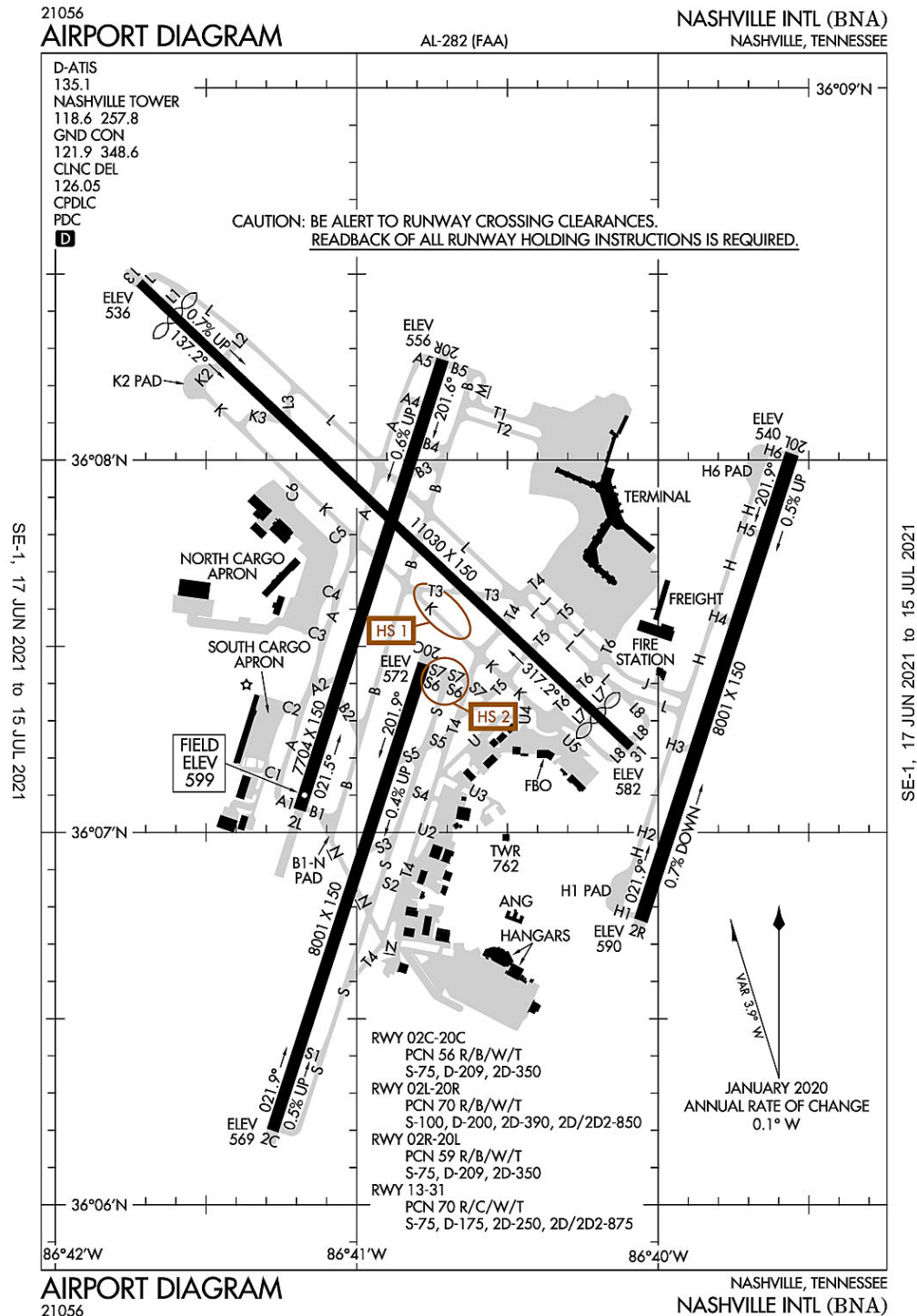
ANG-ATIS INFO REPORTS BIRD ACT H24 IN AREA

PPR RQR FOR TAXI CLNC ON TWY N NORTH OF TWY V, TWY S NORTH TWY V & AND TWY C NORTH OF TWY V - FEDEX RAMP ATCT 131.5.

CTC RAMP CONTROL 121.8 FOR ENTRY ON ANG RAMP. ANG FREQS 138.95 353.45. AFT HR CTC COMMAND POST - DSN 726-7148; C901-291-7311/7312 OR SECURITY FORCES - DSN 726-7101; C901-291-7101/7133.

PPR FOR TAXI CLNC FM N & S CARGO RAMP PRKG - 121.9.

Nashville, Tennessee
Nashville International
ICAO Identifier KBNA



Nashville, TN
Nashville Intl
ICAO Identifier KBNA

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 36-7-28.11N / 86-40-41.45W
2.2.2 From City: 5 miles SE of NASHVILLE, TN
2.2.3 Elevation: 599 ft
2.2.5 Magnetic Variation: 3W (2010)
2.2.6 Airport Contact: DOUG KREULEN

ONE TERMINAL DR.
SUITE 501
NASHVILLE, TN 37214
(615-275-1668)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 02C
2.12.2 True Bearing: 18
2.12.3 Dimensions: 8001 ft x 150 ft
2.12.4 PCN: 56 R/B/W/T
2.12.5 Coordinates: 36-6-11.9899N / 86-41-16.6591W
2.12.6 Threshold Elevation: 569.1 ft
2.12.6 Touchdown Zone Elevation: 586.7 ft

2.12.1 Designation: 20C
2.12.2 True Bearing: 198
2.12.3 Dimensions: 8001 ft x 150 ft
2.12.4 PCN: 56 R/B/W/T
2.12.5 Coordinates: 36-7-27.2406N / 86-40-46.55W
2.12.6 Threshold Elevation: 571.8 ft
2.12.6 Touchdown Zone Elevation: 587.7 ft

2.12.1 Designation: 02L
2.12.2 True Bearing: 18
2.12.3 Dimensions: 7704 ft x 150 ft
2.12.4 PCN: 70 R/B/W/T

2.12.5 Coordinates: 36-7-3.6342N / 86-41-11.3105W
2.12.6 Threshold Elevation: 598.7 ft
2.12.6 Touchdown Zone Elevation: 599 ft

2.12.1 Designation: 20R
2.12.2 True Bearing: 198
2.12.3 Dimensions: 7704 ft x 150 ft
2.12.4 PCN: 70 R/B/W/T
2.12.5 Coordinates: 36-8-16.2324N / 86-40-42.8335W
2.12.6 Threshold Elevation: 555.6 ft
2.12.6 Touchdown Zone Elevation: 578 ft

2.12.1 Designation: 02R
2.12.2 True Bearing: 18
2.12.3 Dimensions: 8001 ft x 150 ft
2.12.4 PCN: 59 R/B/W/T
2.12.5 Coordinates: 36-6-45.767N / 86-40-3.5138W
2.12.6 Threshold Elevation: 589.8 ft
2.12.6 Touchdown Zone Elevation: 589.8 ft

2.12.1 Designation: 20L
2.12.2 True Bearing: 198
2.12.3 Dimensions: 8001 ft x 150 ft
2.12.4 PCN: 59 R/B/W/T
2.12.5 Coordinates: 36-8-1.0116N / 86-39-33.3955W
2.12.6 Threshold Elevation: 540 ft
2.12.6 Touchdown Zone Elevation: 550.6 ft

2.12.1 Designation: 13
2.12.2 True Bearing: 133
2.12.3 Dimensions: 11030 ft x 150 ft
2.12.4 PCN: 70 R/C/W/T
2.12.5 Coordinates: 36-8-28.5991N / 86-41-43.2788W
2.12.6 Threshold Elevation: 535.9 ft
2.12.6 Touchdown Zone Elevation: 567.5 ft

2.12.1 Designation: 31
2.12.2 True Bearing: 313
2.12.3 Dimensions: 11030 ft x 150 ft
2.12.4 PCN: 70 R/C/W/T
2.12.5 Coordinates: 36-7-13.7852N / 86-40-5.4384W
2.12.6 Threshold Elevation: 582.3 ft
2.12.6 Touchdown Zone Elevation: 577.5 ft

AD 2.13 Declared Distances

2.13.1 Designation: 02C
2.13.2 Take-off Run Available: 8001
2.13.3 Take-off Distance Available: 8001
2.13.4 Accelerate-Stop Distance Available: 7601
2.13.5 Landing Distance Available: 7601

2.13.1 Designation: 20C
2.13.2 Take-off Run Available: 8001
2.13.3 Take-off Distance Available: 8001
2.13.4 Accelerate-Stop Distance Available: 8001
2.13.5 Landing Distance Available: 8001

2.13.1 Designation: 02L
2.13.2 Take-off Run Available: 7702
2.13.3 Take-off Distance Available: 7702
2.13.4 Accelerate-Stop Distance Available: 7702
2.13.5 Landing Distance Available: 7702

2.13.1 Designation: 20R
2.13.2 Take-off Run Available: 7702
2.13.3 Take-off Distance Available: 7702
2.13.4 Accelerate-Stop Distance Available: 7702
2.13.5 Landing Distance Available: 7702

2.13.1 Designation: 02R
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

2.13.1 Designation: 20L
2.13.2 Take-off Run Available: 8000
2.13.3 Take-off Distance Available: 8000
2.13.4 Accelerate-Stop Distance Available: 8000
2.13.5 Landing Distance Available: 8000

2.13.1 Designation: 13
2.13.2 Take-off Run Available: 10288
2.13.3 Take-off Distance Available: 11029
2.13.4 Accelerate-Stop Distance Available: 10288
2.13.5 Landing Distance Available: 9487

2.13.1 Designation: 31
2.13.2 Take-off Run Available: 10228
2.13.3 Take-off Distance Available: 11029
2.13.4 Accelerate-Stop Distance Available: 10228
2.13.5 Landing Distance Available: 9487

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 02C
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 20C
2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 02L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 20R
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 02R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 20L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 13
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 31
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ALCP
2.18.3 Channel: 314.4
2.18.5 Hours of Operation:

2.18.1 Service Designation: APCH/P (WEST)
2.18.3 Channel: 372
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (EAST)
2.18.3 Channel: 118.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (EAST)
2.18.3 Channel: 360.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 126.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (EAST)
2.18.3 Channel: 118.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (WEST)

2.18.3 Channel: 119.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (EAST)

2.18.3 Channel: 360.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (WEST)

2.18.3 Channel: 372

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D–ATIS

2.18.3 Channel: 135.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (EAST)

2.18.3 Channel: 118.4

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (WEST)

2.18.3 Channel: 119.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (EAST)

2.18.3 Channel: 360.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (WEST)

2.18.3 Channel: 372

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 118.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 02C. Magnetic variation: 3W

2.19.2 ILS Identification: EZN

2.19.5 Coordinates: 36–6–22.6382N / 86–41–16.8861W

2.19.6 Site Elevation: 570.5 ft

2.19.1 ILS Type: Localizer for runway 02C. Magnetic variation: 3W

2.19.2 ILS Identification: EZN

2.19.5 Coordinates: 36–7–32.9571N / 86–40–44.2611W

2.19.6 Site Elevation: 574.3 ft

2.19.1 ILS Type: DME for runway 02L. Magnetic variation: 3W

2.19.2 ILS Identification: BNA

2.19.5 Coordinates: 36–8–26.4864N / 86–40–42.3692W

2.19.6 Site Elevation: 554 ft

2.19.1 ILS Type: Glide Slope for runway 02L. Magnetic variation: 3W

2.19.2 ILS Identification: BNA

2.19.5 Coordinates: 36–7–12.9535N / 86–41–2.539W

2.19.6 Site Elevation: 589.7 ft

2.19.1 ILS Type: Inner Marker for runway 02L. Magnetic variation: 3W

2.19.2 ILS Identification: BNA

2.19.5 Coordinates: 36–6–54.829N / 86–41–14.7612W

2.19.6 Site Elevation: 594.5 ft

2.19.1 ILS Type: Localizer for runway 02L. Magnetic variation: 3W

2.19.2 ILS Identification: BNA

2.19.5 Coordinates: 36–8–25.7779N / 86–40–39.0927W

2.19.6 Site Elevation: 545.4 ft

2.19.1 ILS Type: Glide Slope for runway 20R. Magnetic variation: 3W

2.19.2 ILS Identification: VIY

2.19.5 Coordinates: 36–8–5.8196N / 86–40–42.7621W

2.19.6 Site Elevation: 554.9 ft

2.19.1 ILS Type: Localizer for runway 20R. Magnetic variation: 3W
2.19.2 ILS Identification: VIY
2.19.5 Coordinates: 36-6-49.6756N / 86-41-16.7814W
2.19.6 Site Elevation: 598.1 ft

2.19.1 ILS Type: DME for runway 02R. Magnetic variation: 3W
2.19.2 ILS Identification: UQU
2.19.5 Coordinates: 36-8-9.8916N / 86-39-35.7867W
2.19.6 Site Elevation: 537.1 ft

2.19.1 ILS Type: Glide Slope for runway 02R. Magnetic variation: 3W
2.19.2 ILS Identification: UQU
2.19.5 Coordinates: 36-6-56.0152N / 86-39-54.7364W
2.19.6 Site Elevation: 576.7 ft

2.19.1 ILS Type: Inner Marker for runway 02R. Magnetic variation: 3W
2.19.2 ILS Identification: UQU
2.19.5 Coordinates: 36-6-37.6961N / 86-40-6.7484W
2.19.6 Site Elevation: 569 ft

2.19.1 ILS Type: Localizer for runway 02R. Magnetic variation: 3W
2.19.2 ILS Identification: UQU
2.19.5 Coordinates: 36-8-10.5404N / 86-39-29.5803W
2.19.6 Site Elevation: 531 ft

2.19.1 ILS Type: DME for runway 20L. Magnetic variation: 3W
2.19.2 ILS Identification: SSX

2.19.5 Coordinates: 36-6-30.9674N / 86-40-12.8854W
2.19.6 Site Elevation: 622.2 ft

2.19.1 ILS Type: Glide Slope for runway 20L. Magnetic variation: 3W
2.19.2 ILS Identification: SSX
2.19.5 Coordinates: 36-7-50.0286N / 86-39-33.1134W
2.19.6 Site Elevation: 534.5 ft

2.19.1 ILS Type: Localizer for runway 20L. Magnetic variation: 3W
2.19.2 ILS Identification: SSX
2.19.5 Coordinates: 36-6-30.0253N / 86-40-9.8136W
2.19.6 Site Elevation: 613.4 ft

2.19.1 ILS Type: Glide Slope for runway 31. Magnetic variation: 3W
2.19.2 ILS Identification: PNO
2.19.5 Coordinates: 36-7-28.2722N / 86-40-18.5978W
2.19.6 Site Elevation: 566.4 ft

2.19.1 ILS Type: Localizer for runway 31. Magnetic variation: 3W
2.19.2 ILS Identification: PNO
2.19.5 Coordinates: 36-8-30.6518N / 86-41-45.9626W
2.19.6 Site Elevation: 539.6 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 2W
2.19.2 Navigation Aid Identification: BNA
2.19.5 Coordinates: 36-8-13.0573N / 86-41-5.1762W
2.19.6 Site Elevation: 566.4 ft

General Remarks:

BIRD ACTIVITY ON & INVOF ARPT.

READ BACK OF ALL RWY HLDG INSTRUCTIONS RQR.

NO FLIGHT OVER MAIN TERMINAL BLDG PERMITTED.

ARNG: PPR CTC 615-367-5579.

NO UNAUTHORIZED 180 DEG TURNS FOR ACFT OVR 12500 LBS ON ASPH SFCS.

DO NOT CONFUSE TWY S FOR RWY 20C.

ALL TURBOJET RWYS HAVE NOISE ABATEMENT PROC. MIL FIGHTER/ATTACK/TRAINER TURBOJETS USE RWY 13/31 FOR ARR & DEP.

ANG: CALL SIGN MUSIC CITY OPS.

C CONCOURSE TAXILANES ARE INNER TAXILANE FOR OUBD TFC & OUTER TAXILANE FOR INBD TFC.

PILOTS COMPLY WITH ALL HOLD SHORT INSTRUCTIONS PARTICULARLY AT TWY K & RWY 20 C APCH; TWY L AT RWY 13 APCH; AND TWY H AT RWY 31 APCH.

LGTD JET BLAST FENCE 568 FT MSL 1167 FT NW RWY 13 THR; 598 MSL 1100 FT SE OF RWY 31 THR.

FLT NOTIFICATION SVC (ADCUS) AVBL.

TERMINAL RAMP UNCONTROLLED. MONITOR 122.95 FOR RAMP ADVISORIES.

[illegible]

Dallas–Fort Worth, TX
Dallas/Fort Worth Intl
ICAO Identifier KDFW

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 32–53–50.039N / 97–2–15.701W
2.2.2 From City: 12 miles NW of DALLAS–FORT WORTH, TX
2.2.3 Elevation: 606.4 ft
2.2.5 Magnetic Variation: 4E (2015)
2.2.6 Airport Contact: SEAN DONOHUE
PO BOX 619428
DALLAS–FT WORTH, TX 75261
(972–973–3112)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space:
2.4.6 Repair Facilities: None

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 7/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 31R
2.12.2 True Bearing: 315
2.12.3 Dimensions: 9000 ft x 200 ft
2.12.4 PCN: 95 R/B/W/T
2.12.5 Coordinates: 32–53–41.932N / 97–0–3.0376W
2.12.6 Threshold Elevation: 508.4 ft
2.12.6 Touchdown Zone Elevation: 523.4 ft

2.12.1 Designation: 13L
2.12.2 True Bearing: 135
2.12.3 Dimensions: 9000 ft x 200 ft
2.12.4 PCN: 95 R/B/W/T
2.12.5 Coordinates: 32–54–45.197N / 97–1–17.3221W
2.12.6 Threshold Elevation: 553.1 ft

2.12.6 Touchdown Zone Elevation: 550 ft

2.12.1 Designation: 13R
2.12.2 True Bearing: 139
2.12.3 Dimensions: 9300 ft x 150 ft
2.12.4 PCN: 76 R/B/W/T
2.12.5 Coordinates: 32–54–34.4723N / 97–4–59.276W
2.12.6 Threshold Elevation: 591 ft
2.12.6 Touchdown Zone Elevation: 591 ft

2.12.1 Designation: 31L
2.12.2 True Bearing: 319
2.12.3 Dimensions: 9300 ft x 150 ft
2.12.4 PCN: 76 R/B/W/T
2.12.5 Coordinates: 32–53–24.9716N / 97–3–47.7953W
2.12.6 Threshold Elevation: 577.2 ft
2.12.6 Touchdown Zone Elevation: 581.4 ft

2.12.1 Designation: 35C
2.12.2 True Bearing: 0
2.12.3 Dimensions: 13400 ft x 150 ft
2.12.4 PCN: 93 R/B/W/T
2.12.5 Coordinates: 32–52–43.9636N / 97–1–34.218W
2.12.6 Threshold Elevation: 563.1 ft
2.12.6 Touchdown Zone Elevation: 563.2 ft

2.12.1 Designation: 17C
2.12.2 True Bearing: 180
2.12.3 Dimensions: 13400 ft x 150 ft
2.12.4 PCN: 93 R/B/W/T
2.12.5 Coordinates: 32–54–56.5441N / 97–1–33.5097W
2.12.6 Threshold Elevation: 562.2 ft
2.12.6 Touchdown Zone Elevation: 563.2 ft

2.12.1 Designation: 17L
2.12.2 True Bearing: 180
2.12.3 Dimensions: 8500 ft x 150 ft
2.12.4 PCN: 91 R/B/W/T
2.12.5 Coordinates: 32–53–53.9534N / 97–0–35.203W
2.12.6 Threshold Elevation: 524.3 ft
2.12.6 Touchdown Zone Elevation: 545.2 ft

2.12.1 Designation: 35R
2.12.2 True Bearing: 0

2.12.3 Dimensions: 8500 ft x 150 ft
2.12.4 PCN: 91 R/B/W/T
2.12.5 Coordinates: 32-52-29.8535N / 97-0-35.6686W
2.12.6 Threshold Elevation: 575.6 ft
2.12.6 Touchdown Zone Elevation: 575.6 ft

2.12.1 Designation: 35L
2.12.2 True Bearing: 0
2.12.3 Dimensions: 13400 ft x 200 ft
2.12.4 PCN: 81 R/B/W/T
2.12.5 Coordinates: 32-52-44.0203N / 97-1-48.2888W
2.12.6 Threshold Elevation: 563.4 ft
2.12.6 Touchdown Zone Elevation: 564 ft

2.12.1 Designation: 17R
2.12.2 True Bearing: 180
2.12.3 Dimensions: 13400 ft x 200 ft
2.12.4 PCN: 81 R/B/W/T
2.12.5 Coordinates: 32-54-56.5996N / 97-1-47.5806W
2.12.6 Threshold Elevation: 566.6 ft
2.12.6 Touchdown Zone Elevation: 566.7 ft

2.12.1 Designation: 18L
2.12.2 True Bearing: 180
2.12.3 Dimensions: 13401 ft x 200 ft
2.12.4 PCN: 83 R/B/W/T
2.12.5 Coordinates: 32-54-56.8785N / 97-3-2.6511W
2.12.6 Threshold Elevation: 601.5 ft
2.12.6 Touchdown Zone Elevation: 601.6 ft

2.12.1 Designation: 36R
2.12.2 True Bearing: 0
2.12.3 Dimensions: 13401 ft x 200 ft
2.12.4 PCN: 83 R/B/W/T
2.12.5 Coordinates: 32-52-44.2972N / 97-3-3.3332W
2.12.6 Threshold Elevation: 575.3 ft
2.12.6 Touchdown Zone Elevation: 580.7 ft

2.12.1 Designation: 18R
2.12.2 True Bearing: 180
2.12.3 Dimensions: 13400 ft x 150 ft
2.12.4 PCN: 90 R/C/W/T
2.12.5 Coordinates: 32-54-56.9275N / 97-3-16.7239W
2.12.6 Threshold Elevation: 606.4 ft

2.12.6 Touchdown Zone Elevation: 606.4 ft

2.12.1 Designation: 36L
2.12.2 True Bearing: 0
2.12.3 Dimensions: 13400 ft x 150 ft
2.12.4 PCN: 90 R/C/W/T
2.12.5 Coordinates: 32-52-44.3493N / 97-3-17.4003W
2.12.6 Threshold Elevation: 582.2 ft
2.12.6 Touchdown Zone Elevation: 587.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 31R
2.13.2 Take-off Run Available: 8373
2.13.3 Take-off Distance Available: 8373
2.13.4 Accelerate-Stop Distance Available: 8373
2.13.5 Landing Distance Available: 8373

2.13.1 Designation: 13L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 8373

2.13.1 Designation: 13R
2.13.2 Take-off Run Available: 9300
2.13.3 Take-off Distance Available: 9300
2.13.4 Accelerate-Stop Distance Available: 9300
2.13.5 Landing Distance Available: 9300

2.13.1 Designation: 31L
2.13.2 Take-off Run Available: 9300
2.13.3 Take-off Distance Available: 9300
2.13.4 Accelerate-Stop Distance Available: 9300
2.13.5 Landing Distance Available: 9300

2.13.1 Designation: 35C
2.13.2 Take-off Run Available: 13400
2.13.3 Take-off Distance Available: 13400
2.13.4 Accelerate-Stop Distance Available: 13400
2.13.5 Landing Distance Available: 13400

2.13.1 Designation: 17C
2.13.2 Take-off Run Available: 13400

2.13.3 Take-off Distance Available: 13400
2.13.4 Accelerate-Stop Distance Available: 13400
2.13.5 Landing Distance Available: 13400

2.13.1 Designation: 17L
2.13.2 Take-off Run Available: 8500
2.13.3 Take-off Distance Available: 8500
2.13.4 Accelerate-Stop Distance Available: 8500
2.13.5 Landing Distance Available: 8500

2.13.1 Designation: 35R
2.13.2 Take-off Run Available: 8500
2.13.3 Take-off Distance Available: 8500
2.13.4 Accelerate-Stop Distance Available: 8500
2.13.5 Landing Distance Available: 8500

2.13.1 Designation: 35L
2.13.2 Take-off Run Available: 13400
2.13.3 Take-off Distance Available: 13400
2.13.4 Accelerate-Stop Distance Available: 13400
2.13.5 Landing Distance Available: 13400

2.13.1 Designation: 17R
2.13.2 Take-off Run Available: 13400
2.13.3 Take-off Distance Available: 13400
2.13.4 Accelerate-Stop Distance Available: 13400
2.13.5 Landing Distance Available: 13400

2.13.1 Designation: 18L
2.13.2 Take-off Run Available: 13401
2.13.3 Take-off Distance Available: 13401
2.13.4 Accelerate-Stop Distance Available: 13401
2.13.5 Landing Distance Available: 13401

2.13.1 Designation: 36R
2.13.2 Take-off Run Available: 13401
2.13.3 Take-off Distance Available: 13401
2.13.4 Accelerate-Stop Distance Available: 13401
2.13.5 Landing Distance Available: 13401

2.13.1 Designation: 18R
2.13.2 Take-off Run Available: 13400
2.13.3 Take-off Distance Available: 13400
2.13.4 Accelerate-Stop Distance Available: 13400

2.13.5 Landing Distance Available: 13400

2.13.1 Designation: 36L
2.13.2 Take-off Run Available: 13400
2.13.3 Take-off Distance Available: 13400
2.13.4 Accelerate-Stop Distance Available: 13400
2.13.5 Landing Distance Available: 13400

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 31R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 13L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 13R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 31L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 35L
2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17R

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36R

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18R

2.14.2 Approach Lighting System: ALSF2

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P

2.18.3 Channel: 128.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS B (NW)

2.18.3 Channel: 118.1

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (NE)

2.18.3 Channel: 124.3

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (SE)

2.18.3 Channel: 125.2

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (SW)

2.18.3 Channel: 135.975

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (NE)

2.18.3 Channel: 282.275

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (NW)

2.18.3 Channel: 306.95

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (SE)

2.18.3 Channel: 343.65

2.18.5 Hours of Operation:

2.18.1 Service Designation: CLASS B (SW)

2.18.3 Channel: 379.9

2.18.5 Hours of Operation:

2.18.1 Service Designation: D-ATIS (ARR)

2.18.3 Channel: 123.775

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS (DEP)

2.18.3 Channel: 135.925

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (WEST)

2.18.3 Channel: 121.85

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC (EAST)

2.18.3 Channel: 121.65

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P IC (EAST)

2.18.3 Channel: 121.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (WEST)

2.18.3 Channel: 124.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (EAST)
2.18.3 Channel: 126.55
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (EAST)
2.18.3 Channel: 127.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P IC (WEST)
2.18.3 Channel: 134.9
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 31R. Magnetic variation: 4E
2.19.2 ILS Identification: RRA
2.19.5 Coordinates: 32-54-49.6375N / 97-1-18.3123W
2.19.6 Site Elevation: 558.1 ft

2.19.1 ILS Type: Glide Slope for runway 31R. Magnetic variation: 4E
2.19.2 ILS Identification: RRA
2.19.5 Coordinates: 32-53-51.7482N / 97-0-7.9558W
2.19.6 Site Elevation: 509 ft

2.19.1 ILS Type: Localizer for runway 31R. Magnetic variation: 4E
2.19.2 ILS Identification: RRA
2.19.5 Coordinates: 32-54-48.1182N / 97-1-20.7551W
2.19.6 Site Elevation: 551.5 ft

2.19.1 ILS Type: DME for runway 13R. Magnetic variation: 4E
2.19.2 ILS Identification: LWN
2.19.5 Coordinates: 32-53-16.0647N / 97-3-42.7672W
2.19.6 Site Elevation: 588.7 ft

2.19.1 ILS Type: Glide Slope for runway 13R. Magnetic variation: 4E
2.19.2 ILS Identification: LWN
2.19.5 Coordinates: 32-54-24.1329N / 97-4-54.0746W
2.19.6 Site Elevation: 587.6 ft

2.19.1 ILS Type: Localizer for runway 13R. Magnetic variation: 4E
2.19.2 ILS Identification: LWN
2.19.5 Coordinates: 32-53-17.4371N / 97-3-40.0471W
2.19.6 Site Elevation: 575 ft

2.19.1 ILS Type: DME for runway 17C. Magnetic variation: 4E
2.19.2 ILS Identification: FLQ
2.19.5 Coordinates: 32-52-34.123N / 97-1-39.6491W
2.19.6 Site Elevation: 573.6 ft

2.19.1 ILS Type: Glide Slope for runway 17C. Magnetic variation: 4E
2.19.2 ILS Identification: FLQ
2.19.5 Coordinates: 32-54-45.6425N / 97-1-28.781W
2.19.6 Site Elevation: 555.8 ft

2.19.1 ILS Type: Inner Marker for runway 17C. Magnetic variation: 4E
2.19.2 ILS Identification: FLQ
2.19.5 Coordinates: 32-55-4.09N / 97-1-33.46W
2.19.6 Site Elevation: 562 ft

2.19.1 ILS Type: Localizer for runway 17C. Magnetic variation: 4E
2.19.2 ILS Identification: FLQ
2.19.5 Coordinates: 32-52-33.1505N / 97-1-34.2781W
2.19.6 Site Elevation: 562.7 ft

2.19.1 ILS Type: DME for runway 35C. Magnetic variation: 4E
2.19.2 ILS Identification: PKQ
2.19.5 Coordinates: 32-52-34.123N / 97-1-39.6491W
2.19.6 Site Elevation: 573.6 ft

2.19.1 ILS Type: Glide Slope for runway 35C. Magnetic variation: 4E
2.19.2 ILS Identification: PKQ
2.19.5 Coordinates: 32-52-54.3357N / 97-1-29.4713W
2.19.6 Site Elevation: 557.2 ft

2.19.1 ILS Type: Inner Marker for runway 35C. Magnetic

ic variation: 4E

2.19.2 ILS Identification: PKQ

2.19.5 Coordinates: 32-52-35.3015N / 97-1-34.258W

2.19.6 Site Elevation: 562.5 ft

2.19.1 ILS Type: Localizer for runway 35C. Magnetic variation: 4E

2.19.2 ILS Identification: PKQ

2.19.5 Coordinates: 32-55-7.0371N / 97-1-33.452W

2.19.6 Site Elevation: 561.2 ft

2.19.1 ILS Type: DME for runway 17L. Magnetic variation: 4E

2.19.2 ILS Identification: PPZ

2.19.5 Coordinates: 32-52-18.7175N / 97-0-40.2982W

2.19.6 Site Elevation: 591.2 ft

2.19.1 ILS Type: Glide Slope for runway 17L. Magnetic variation: 4E

2.19.2 ILS Identification: PPZ

2.19.5 Coordinates: 32-53-45.2247N / 97-0-31.1329W

2.19.6 Site Elevation: 526.4 ft

2.19.1 ILS Type: Inner Marker for runway 17L. Magnetic variation: 4E

2.19.2 ILS Identification: PPZ

2.19.5 Coordinates: 32-54-5.3333N / 97-0-35.2536W

2.19.6 Site Elevation: 521.7 ft

2.19.1 ILS Type: Localizer for runway 17L. Magnetic variation: 4E

2.19.2 ILS Identification: PPZ

2.19.5 Coordinates: 32-52-19.4359N / 97-0-35.7267W

2.19.6 Site Elevation: 584.2 ft

2.19.1 ILS Type: DME for runway 35R. Magnetic variation: 4E

2.19.2 ILS Identification: AJQ

2.19.5 Coordinates: 32-52-18.7175N / 97-0-40.2982W

2.19.6 Site Elevation: 591.2 ft

2.19.1 ILS Type: Glide Slope for runway 35R. Magnetic variation: 4E

2.19.2 ILS Identification: AJQ

2.19.5 Coordinates: 32-52-43.4402N / 97-0-30.9032W

2.19.6 Site Elevation: 559.2 ft

2.19.1 ILS Type: Inner Marker for runway 35R. Magnetic variation: 4E

2.19.2 ILS Identification: AJQ

2.19.5 Coordinates: 32-52-22.6082N / 97-0-35.7029W

2.19.6 Site Elevation: 581.2 ft

2.19.1 ILS Type: Localizer for runway 35R. Magnetic variation: 4E

2.19.2 ILS Identification: AJQ

2.19.5 Coordinates: 32-54-4.1916N / 97-0-35.1492W

2.19.6 Site Elevation: 519.5 ft

2.19.1 ILS Type: DME for runway 17R. Magnetic variation: 4E

2.19.2 ILS Identification: JHZ

2.19.5 Coordinates: 32-52-33.6523N / 97-1-53.6029W

2.19.6 Site Elevation: 556.9 ft

2.19.1 ILS Type: Glide Slope for runway 17R. Magnetic variation: 4E

2.19.2 ILS Identification: JHZ

2.19.5 Coordinates: 32-54-45.8213N / 97-1-43.0635W

2.19.6 Site Elevation: 561.3 ft

2.19.1 ILS Type: Localizer for runway 17R. Magnetic variation: 4E

2.19.2 ILS Identification: JHZ

2.19.5 Coordinates: 32-52-33.207N / 97-1-48.3488W

2.19.6 Site Elevation: 558.2 ft

2.19.1 ILS Type: DME for runway 35L. Magnetic variation: 4E

2.19.2 ILS Identification: UWX

2.19.5 Coordinates: 32-52-33.6523N / 97-1-53.6029W

2.19.6 Site Elevation: 556.9 ft

2.19.1 ILS Type: Glide Slope for runway 35L. Magnetic variation: 4E

2.19.2 ILS Identification: UWX

2.19.5 Coordinates: 32-52-54.9854N / 97-1-43.5413W

2.19.6 Site Elevation: 559 ft

2.19.1 ILS Type: Localizer for runway 35L. Magnetic variation: 4E
2.19.2 ILS Identification: UWX
2.19.5 Coordinates: 32-55-7.3142N / 97-1-47.5225W
2.19.6 Site Elevation: 567.6 ft

2.19.1 ILS Type: DME for runway 18L. Magnetic variation: 4E
2.19.2 ILS Identification: CIX
2.19.5 Coordinates: 32-55-8.6708N / 97-3-7.2741W
2.19.6 Site Elevation: 594.7 ft

2.19.1 ILS Type: Glide Slope for runway 18L. Magnetic variation: 4E
2.19.2 ILS Identification: CIX
2.19.5 Coordinates: 32-54-45.2198N / 97-3-6.8173W
2.19.6 Site Elevation: 594.3 ft

2.19.1 ILS Type: Localizer for runway 18L. Magnetic variation: 4E
2.19.2 ILS Identification: CIX
2.19.5 Coordinates: 32-52-33.5835N / 97-3-3.3873W
2.19.6 Site Elevation: 570.1 ft

2.19.1 ILS Type: DME for runway 36R. Magnetic variation: 4E
2.19.2 ILS Identification: FJN
2.19.5 Coordinates: 32-55-8.6708N / 97-3-7.2741W
2.19.6 Site Elevation: 594.7 ft

2.19.1 ILS Type: Glide Slope for runway 36R. Magnetic variation: 4E
2.19.2 ILS Identification: FJN
2.19.5 Coordinates: 32-52-54.8518N / 97-3-7.9662W
2.19.6 Site Elevation: 577.2 ft

2.19.1 ILS Type: Localizer for runway 36R. Magnetic variation: 4E
2.19.2 ILS Identification: FJN
2.19.5 Coordinates: 32-55-6.8486N / 97-3-2.5997W
2.19.6 Site Elevation: 597.2 ft

2.19.1 ILS Type: DME for runway 18R. Magnetic variation: 4E
2.19.2 ILS Identification: VYN
2.19.5 Coordinates: 32-52-34.0875N / 97-3-12.5854W
2.19.6 Site Elevation: 582.3 ft

2.19.1 ILS Type: Glide Slope for runway 18R. Magnetic variation: 4E
2.19.2 ILS Identification: VYN
2.19.5 Coordinates: 32-54-45.4683N / 97-3-21.5693W
2.19.6 Site Elevation: 598.5 ft

2.19.1 ILS Type: Inner Marker for runway 18R. Magnetic variation: 4E
2.19.2 ILS Identification: VYN
2.19.5 Coordinates: 32-55-4.5483N / 97-3-16.6916W
2.19.6 Site Elevation: 602.6 ft

2.19.1 ILS Type: Localizer for runway 18R. Magnetic variation: 4E
2.19.2 ILS Identification: VYN
2.19.5 Coordinates: 32-52-33.9326N / 97-3-17.4526W
2.19.6 Site Elevation: 580.4 ft

2.19.1 ILS Type: DME for runway 36L. Magnetic variation: 4E
2.19.2 ILS Identification: BXN
2.19.5 Coordinates: 32-52-34.0875N / 97-3-12.5854W
2.19.6 Site Elevation: 582.3 ft

2.19.1 ILS Type: Glide Slope for runway 36L. Magnetic variation: 4E
2.19.2 ILS Identification: BXN
2.19.5 Coordinates: 32-52-54.4087N / 97-3-22.0405W
2.19.6 Site Elevation: 579.9 ft

2.19.1 ILS Type: Localizer for runway 36L. Magnetic variation: 4E
2.19.2 ILS Identification: BXN
2.19.5 Coordinates: 32-55-6.9002N / 97-3-16.6717W
2.19.6 Site Elevation: 601.9 ft

General Remarks:

TKOF DSTC FOR RY 35L FM TWY EQ IS 13084 FT & FM TWY EP IS 12811 FT.

ARPT UNDER CONSTRUCTION; PAEW IN MOVEMENT AREAS.

PPR ACFT WITH WINGSPAN 215 FT OR GREATER (GROUP VI) CALL ARPT OPNS 972-973-3112 FOR FOLLOW-ME SERVICES WHILE TAXIING TO & FROM RAMP & RYS.

TWY A6 CLSD TO ACFT WITH WINGSPAN 171 FT AND GREATER.

RY VISUAL SCREEN 20 FT AGL 1180 FT S AER 35C.

TKOF DSTC FOR RY 18R FM TWY WG IS 13,082 FT.

ACFT AT EAST AIR FREIGHT MUST CONTACT DFW TWR AT 127.5 PRIOR TO TAXI OUT.

APRON ENTRANCE/EXIT POINTS 22, 24, 105, AND 107 CLSD TO ACFT WITH WINGSPAN GREATER THAN 125 FT.

TKOF DSTC FOR RY 17L FM TWY Q2 IS 8196 FT.

PPR GA OPERATIONS 0000-0500; CALL ARPT OPNS 972-973-3112.

APRON ENTRANCE/EXIT POINT 124 CLSD TO ACFT WITH WINGSPAN GREATER THAN 213 FT.

RY STATUS LGTS IN OPN.

TKOF DSTC FOR RY 35R FM TWY Q9 IS 8196 FT.

ACFT USING TERMINAL D GATES OR APRON ENTRANCE/EXIT POINTS 122 THRU 150 MUST OBTAIN APPROVAL FROM DFW RAMP TOWER 129.825 PRIOR TO ENTERING RAMP AND PRIOR TO PUSHBACK.

TERMINAL B APRON TAXILANE BTN APRON ENTRANCE/EXIT POINT TAXILANES 107 & 117 CLSD TO ACFT WITH WINGSPAN 94 FT AND GREATER.

TKOF DSTC FOR RY 17C FM TWY EG IS 13,082 FT.

APRON ENTRANCE/EXIT POINTS 110, 111, 112, 113, 114, 115, AND 116 CLSD TO ACFT WITH WINGSPAN GREATER THAN 94 FT.

TKOF DSTC FOR RY 18L FM TWY WG IS 13,082; FM TWY WH IS 12,815.

UNLESS OTHERWISE SPECIFIED, ALL APRON ENTRANCE/EXIT POINTS CLSD TO ACFT WITH WINGSPAN GREATER THAN 214 FT EXCEPT PPR.

PPR FROM ARPT OPNS FOR GEN AVN ACFT TO PROCD TO AIRLINE TRML GATE EXCP GEN AVN FAC.

PPR FM THE PRIMARY TENANT AIRLINES TO OPERATE WITHIN THE CENTRAL TERMINAL AREA. PROPER MINIMUM OBJECT FREE AREA DISTANCES MAY NOT BE MAINTAINED FOR RAMP/APRON TAXILANES.

TWY EDGE REFLECTORS ALONG ALL TWYS.

APRON ENTRANCE/EXIT POINTS 1 AND 2 CLSD TO ACFT WITH WINGSPAN GREATER THAN 89' EXCEPT PPR.

APRON ENTRANCE/EXIT POINTS 3 AND 4 CLSD TO ACFT WITH WINGSPAN GREATER THAN 118 FT EXCEPT PPR.

TKOF DSTC FOR RY 36R FM TWY WP IS 12,815 FT; FM TWY WQ IS 13,082 FT.

TKOF DSTC FOR RY 17R FM TWY EG IS 13082 FT & FM TWY EH IS 12816 FT.

LAND & HOLD SHORT SIGNS ON RY 17C AT TWY 'B' 10,460 FT S OF RY 17C THLD; RY 18R AT TWY 'B' 10,100 FT S OF RY 18R THLD; RY 35C AT TWY 'EJ' 9050 FT N OF RY 35C THLD; RY 36L AT TWY 'Z' 10,650 FT N OF RY 36L THLD; LGTD & MKD WITH IN-PAVEMENT PULSATING WHITE LGTS.

ACFT USING TWY HA NORTH OF TWY B MUST OBTAIN APPROVAL FROM RAMP 129.825 PRIOR TO ENTERING RAMP.

APRON ENTRANCE/EXIT POINTS 9, 32, 33, 34, 35, 36, 37, 38, & 53 CLSD TO ACFT WITH WINGSPAN GREATER THAN 135 FT.

APRON ENTRANCE/EXIT POINTS 5, 7, 42, 44, 48, 49, 51, 52, 117, 118 AND 122 CLSD TO ACFT WITH WINGSPAN GREATER THAN 118 FT.

APRON ENTRANCE/EXIT POINTS 31 AND 39 CLSD TO ACFT WITH WINGSPAN GREATER THAN 167 FT.

TWYS MAY REQUIRE JUDGMENTAL OVERSTEERING FOR LARGE ACFT.

STD SAWED GROOVING 160 FT WIDE FULL LENGTH RYS 13L/31R; 18L/36R & 17R/35L. STD GROOVING 130 FTWIDE FULL LENGTH RYS 17L/35R; 18R/36L; 13R/31L & 17C/35C.

BIRDS ON & INVOF ARPT.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

RY VISUAL SCREEN 22 FT AGL 1179 FT S AER 35L.

ACFT USING TERMINAL E GATES E2-E17 MUST OBTAIN APPROVAL FROM RAMP 131.0 PRIOR TO ENTERING RAMP AND PRIOR TO PUSHBACK. ACFT USING TERMINAL E GATES E-18-E38 MUST OBTAIN APPROVAL FROM RAMP 128.825 PRIOR TO ENTERING RAMP AND PRIOR TO PUSHBACK.

A380 OPNS ONLY AUZD ON RWYS 18R/36L AND 18L/36R. B747-8 OPNS ONLY AUZD ON RWYS 18R/36L, 18L/36R AND 17R/35L. CTC ARPT OPNS FOR ADDNL INFO.

El Paso, TX
El Paso Intl
ICAO Identifier KELP

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 31–48–26.4N / 106–22–34.9W
2.2.2 From City: 4 miles NE of EL PASO, TX
2.2.3 Elevation: 3961.6 ft
2.2.5 Magnetic Variation: 8E (2015)
2.2.6 Airport Contact: SAM RODRIGUEZ
6701 CONVAIR RD
EL PASO, TX 79925
(915–212–0333)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A1+,B+,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 22
2.12.2 True Bearing: 230
2.12.3 Dimensions: 12020 ft x 150 ft
2.12.4 PCN: 55 F/C/X/T
2.12.5 Coordinates: 31–49–22.0112N /
106–22–12.7821W
2.12.6 Threshold Elevation: 3949.5 ft
2.12.6 Touchdown Zone Elevation: 3949.5 ft

2.12.1 Designation: 04
2.12.2 True Bearing: 50
2.12.3 Dimensions: 12020 ft x 150 ft
2.12.4 PCN: 55 F/C/X/T
2.12.5 Coordinates: 31–48–5.5605N /
106–23–59.4625W

2.12.6 Threshold Elevation: 3916.9 ft
2.12.6 Touchdown Zone Elevation: 3923.2 ft

2.12.1 Designation: 08L
2.12.2 True Bearing: 93
2.12.3 Dimensions: 5499 ft x 75 ft
2.12.4 PCN: 10 R/C/W/T
2.12.5 Coordinates: 31–48–25.3326N /
106–22–11.3796W
2.12.6 Threshold Elevation: 3952.6 ft
2.12.6 Touchdown Zone Elevation: 3952.7 ft

2.12.1 Designation: 26R
2.12.2 True Bearing: 273
2.12.3 Dimensions: 5499 ft x 75 ft
2.12.4 PCN: 10 R/C/W/T
2.12.5 Coordinates: 31–48–22.1849N /
106–21–7.7768W
2.12.6 Threshold Elevation: 3949.2 ft
2.12.6 Touchdown Zone Elevation: 3949.5 ft

2.12.1 Designation: 26L
2.12.2 True Bearing: 273
2.12.3 Dimensions: 9025 ft x 150 ft
2.12.4 PCN: 75 F/B/W/T
2.12.5 Coordinates: 31–48–2.195N / 106–21–34.7505W
2.12.6 Threshold Elevation: 3961.6 ft
2.12.6 Touchdown Zone Elevation: 3961.6 ft

2.12.1 Designation: 08R
2.12.2 True Bearing: 93
2.12.3 Dimensions: 9025 ft x 150 ft
2.12.4 PCN: 75 F/B/W/T
2.12.5 Coordinates: 31–48–7.3509N /
106–23–19.1333W
2.12.6 Threshold Elevation: 3927.1 ft
2.12.6 Touchdown Zone Elevation: 3940.3 ft

AD 2.13 Declared Distances

2.13.1 Designation: 22
2.13.2 Take–off Run Available: 12020
2.13.3 Take–off Distance Available: 12020
2.13.4 Accelerate–Stop Distance Available: 12020

2.13.5 Landing Distance Available: 12020

2.13.1 Designation: 04

2.13.2 Take-off Run Available: 12020

2.13.3 Take-off Distance Available: 12020

2.13.4 Accelerate-Stop Distance Available: 12020

2.13.5 Landing Distance Available: 12020

2.13.1 Designation: 08L

2.13.2 Take-off Run Available: 5499

2.13.3 Take-off Distance Available: 5499

2.13.4 Accelerate-Stop Distance Available: 5499

2.13.5 Landing Distance Available: 5499

2.13.1 Designation: 26R

2.13.2 Take-off Run Available: 5499

2.13.3 Take-off Distance Available: 5499

2.13.4 Accelerate-Stop Distance Available: 5499

2.13.5 Landing Distance Available: 5499

2.13.1 Designation: 26L

2.13.2 Take-off Run Available: 9025

2.13.3 Take-off Distance Available: 9025

2.13.4 Accelerate-Stop Distance Available: 9025

2.13.5 Landing Distance Available: 9025

2.13.1 Designation: 08R

2.13.2 Take-off Run Available: 9025

2.13.3 Take-off Distance Available: 9025

2.13.4 Accelerate-Stop Distance Available: 9025

2.13.5 Landing Distance Available: 9025

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 22

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 04

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08L

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 26R

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 26L

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 08R

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P (SOUTH-V16)

2.18.3 Channel: 119.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (SOUTH-V16)

2.18.3 Channel: 353.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (NORTH-V16)

2.18.3 Channel: 124.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (NORTH-V16)

2.18.3 Channel: 298.85

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC

2.18.3 Channel: 125

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 379.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C

2.18.3 Channel: 119.15

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (SOUTH-V16)
2.18.3 Channel: 119.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (NORTH-V16)
2.18.3 Channel: 124.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (NORTH-V16)
2.18.3 Channel: 298.85
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (SOUTH-V16)
2.18.3 Channel: 353.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 120
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 254.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P
2.18.3 Channel: 119.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P
2.18.3 Channel: 263
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 239.275
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 04. Magnetic variation: 8E

2.19.2 ILS Identification: ETF
2.19.5 Coordinates: 31-47-58.7232N /
106-24-13.5201W
2.19.6 Site Elevation: 3926 ft

2.19.1 ILS Type: Localizer for runway 04. Magnetic variation: 8E

2.19.2 ILS Identification: ETF
2.19.5 Coordinates: 31-49-28.4448N /
106-22-3.7979W
2.19.6 Site Elevation: 3950.4 ft

2.19.1 ILS Type: DME for runway 22. Magnetic variation: 8E

2.19.2 ILS Identification: ELP
2.19.5 Coordinates: 31-47-58.7232N /
106-24-13.5201W
2.19.6 Site Elevation: 3926 ft

2.19.1 ILS Type: Glide Slope for runway 22. Magnetic variation: 8E

2.19.2 ILS Identification: ELP
2.19.5 Coordinates: 31-49-17.2839N /
106-22-26.5917W
2.19.6 Site Elevation: 3940.3 ft

2.19.1 ILS Type: Localizer for runway 22. Magnetic

variation: 8E

2.19.2 ILS Identification: ELP

2.19.5 Coordinates: 31-47-55.923N /

106-24-12.9005W

2.19.6 Site Elevation: 3910.9 ft

2.19.1 ILS Type: Outer Marker for runway 22. Magnetic variation: 8E

2.19.2 ILS Identification: ELP

2.19.5 Coordinates: 31-51-37.0342N /

106-19-4.2497W

2.19.6 Site Elevation: 3992.8 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 12E

2.19.2 Navigation Aid Identification: ELP

2.19.5 Coordinates: 31-48-57.277N /

106-16-54.7782W

2.19.6 Site Elevation: 4023 ft

General Remarks:

COMPASS ROSE CLSD INDEFLY.

ENGINE POWER IS RSTRD TO IDLE POWER ON ONE ENGINE AT A TIME FOR MAX 5 MIN ON ANY TERMINAL OR PARKING APRONS, CROSS-BLEED STARTS OR OTHER PRE DEP ACTIVITY ON MOVEMENT AREAS ONLY, MAINT OR OTR RQRMNT NEEDING LONGER OR HIGHER POWER CTC TWR FOR DIRECTIONS TO DESIGNATED RUNUP AREAS.

CTN: BIGGS AAF 2NM NW RWY 21 CAN BE MISTAKEN FOR ELP RWY 22.

TWY J NE OF TWY K1; TWY K NE OF TWY K1 BTN TWY J & NORTH CARGO RAMP; TWYS U & V SOUTH OF TWY L; & TWY K2 NOT VISIBLE FM ATCT.

NOISE ABATEMENT PROCEDURES IN EFFECT, CTC ATCT FOR DETAILS.

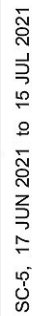
HOLDING POSITION MARKINGS FOR RUNWAY 8R APPROACH AND RUNWAY 4/22 ARE IN CLOSE PROXIMITY TO THE TERMINAL APRON; REVIEW AIRPORT DIAGRAM PRIOR TO PUSHBACK FROM THE GATE.

MILITARY USERS SHOULD REVIEW NOISE ABATEMENT PROCEDURES LISTED FOR BIGGS AAF.

NORTH BOUND TFC PROHIBITED ON TWY F SOUTH OF APCH END RWY 08R.

24 HR PPR CLASS A EXPLOSIVES CTC 915-212-0333.

21112 GEORGE BUSH INTCNL/HOUSTON (IAH) AL-5461 (FAA) HOUSTON, TEXAS AIRPORT DIAGRAM



Houston, TX**George Bush Intercontinental/Houston
ICAO Identifier KIAH****AD 2.2 Aerodrome geographical and administrative data**

2.2.1 Reference Point: 29-59-3.967N / 95-20-29.193W

2.2.2 From City: 15 miles N of HOUSTON, TX

2.2.3 Elevation: 95.8 ft

2.2.5 Magnetic Variation: 3E (2015)

2.2.6 Airport Contact: STEVEN HENNIGAN

PO BOX 60106

HOUSTON, TX 77205

(281-230-3100)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES

2.4.2 Fuel Types: A,100LL

2.4.5 Hangar Space: YES

2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index

I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 26R

2.12.2 True Bearing: 270

2.12.3 Dimensions: 9000 ft x 150 ft

2.12.4 PCN: 72 R/A/W/T

2.12.5 Coordinates: 30-0-25.8612N / 95-19-49.2891W

2.12.6 Threshold Elevation: 94.2 ft

2.12.6 Touchdown Zone Elevation: 95.3 ft

2.12.1 Designation: 08L

2.12.2 True Bearing: 90

2.12.3 Dimensions: 9000 ft x 150 ft

2.12.4 PCN: 72 R/A/W/T

2.12.5 Coordinates: 30-0-25.7816N / 95-21-31.6473W

2.12.6 Threshold Elevation: 90.6 ft

2.12.6 Touchdown Zone Elevation: 94 ft

2.12.1 Designation: 08R

2.12.2 True Bearing: 90

2.12.3 Dimensions: 9402 ft x 150 ft

2.12.4 PCN: 72 R/A/W/T

2.12.5 Coordinates: 29-59-36.3028N /

95-21-17.8703W

2.12.6 Threshold Elevation: 94.3 ft

2.12.6 Touchdown Zone Elevation: 95.3 ft

2.12.1 Designation: 26L

2.12.2 True Bearing: 270

2.12.3 Dimensions: 9402 ft x 150 ft

2.12.4 PCN: 72 R/A/W/T

2.12.5 Coordinates: 29-59-36.3817N /

95-19-30.9539W

2.12.6 Threshold Elevation: 92.3 ft

2.12.6 Touchdown Zone Elevation: 94.6 ft

2.12.1 Designation: 09

2.12.2 True Bearing: 90

2.12.3 Dimensions: 10000 ft x 150 ft

2.12.4 PCN: 67 R/A/W/T

2.12.5 Coordinates: 29-58-39.3363N / 95-20-2.7891W

2.12.6 Threshold Elevation: 89.9 ft

2.12.6 Touchdown Zone Elevation: 90.1 ft

2.12.1 Designation: 27

2.12.2 True Bearing: 270

2.12.3 Dimensions: 10000 ft x 150 ft

2.12.4 PCN: 67 R/A/W/T

2.12.5 Coordinates: 29-58-39.4071N / 95-18-9.0948W

2.12.6 Threshold Elevation: 84.3 ft

2.12.6 Touchdown Zone Elevation: 86.2 ft

2.12.1 Designation: 33R

2.12.2 True Bearing: 332

2.12.3 Dimensions: 12001 ft x 150 ft

2.12.4 PCN: 72 R/A/W/T

2.12.5 Coordinates: 29-57-31.5505N / 95-20-24.189W

2.12.6 Threshold Elevation: 84.9 ft

2.12.6 Touchdown Zone Elevation: 88 ft

2.12.1 Designation: 15L

2.12.2 True Bearing: 152

2.12.3 Dimensions: 12001 ft x 150 ft

2.12.4 PCN: 72 R/A/W/T

2.12.5 Coordinates: 29-59-16.4026N /

95-21-28.3335W

2.12.6 Threshold Elevation: 94.6 ft

2.12.6 Touchdown Zone Elevation: 95.2 ft

2.12.1 Designation: 33L

2.12.2 True Bearing: 332

2.12.3 Dimensions: 10000 ft x 150 ft

2.12.4 PCN: 94 R/B/W/T

2.12.5 Coordinates: 29-57-48.7474N /

95-20-47.5811W
2.12.6 Threshold Elevation: 86.5 ft
2.12.6 Touchdown Zone Elevation: 89.3 ft

2.12.1 Designation: 15R
2.12.2 True Bearing: 152
2.12.3 Dimensions: 10000 ft x 150 ft
2.12.4 PCN: 94 R/B/W/T
2.12.5 Coordinates: 29-59-16.1082N /
95-21-41.0384W
2.12.6 Threshold Elevation: 94.8 ft
2.12.6 Touchdown Zone Elevation: 94.8 ft

AD 2.13 Declared Distances

2.13.1 Designation: 26R
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 08L
2.13.2 Take-off Run Available: 9000
2.13.3 Take-off Distance Available: 9000
2.13.4 Accelerate-Stop Distance Available: 9000
2.13.5 Landing Distance Available: 9000

2.13.1 Designation: 08R
2.13.2 Take-off Run Available: 9402
2.13.3 Take-off Distance Available: 9402
2.13.4 Accelerate-Stop Distance Available: 9402
2.13.5 Landing Distance Available: 9402

2.13.1 Designation: 26L
2.13.2 Take-off Run Available: 9402
2.13.3 Take-off Distance Available: 9402
2.13.4 Accelerate-Stop Distance Available: 9402
2.13.5 Landing Distance Available: 9402

2.13.1 Designation: 09
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 27
2.13.2 Take-off Run Available: 10000
2.13.3 Take-off Distance Available: 10000
2.13.4 Accelerate-Stop Distance Available: 10000
2.13.5 Landing Distance Available: 10000

2.13.1 Designation: 33R
2.13.2 Take-off Run Available: 12001
2.13.3 Take-off Distance Available: 12001
2.13.4 Accelerate-Stop Distance Available: 12001
2.13.5 Landing Distance Available: 12001

2.13.1 Designation: 15L
2.13.2 Take-off Run Available: 12001
2.13.3 Take-off Distance Available: 12001
2.13.4 Accelerate-Stop Distance Available: 12001
2.13.5 Landing Distance Available: 12001

2.13.1 Designation: 33L
2.13.2 Take-off Run Available: 9999
2.13.3 Take-off Distance Available: 9999
2.13.4 Accelerate-Stop Distance Available: 9999
2.13.5 Landing Distance Available: 9999

2.13.1 Designation: 15R
2.13.2 Take-off Run Available: 9999
2.13.3 Take-off Distance Available: 9999
2.13.4 Accelerate-Stop Distance Available: 9999
2.13.5 Landing Distance Available: 9999

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 26R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 08L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 08R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 26L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 09
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 27
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 33R

2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 15L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 33L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 15R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 128.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 124.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND METERING
2.18.3 Channel: 119.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 08L/26R,
08R/26L, 09/27)
2.18.3 Channel: 118.575
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 15L/33R,
15R/33L)
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08L/26R)
2.18.3 Channel: 120.725
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08R/26L)
2.18.3 Channel: 125.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 15L/33R,
15R/33L)
2.18.3 Channel: 127.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 09/27)
2.18.3 Channel: 135.15
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 15L/33R,
15R/33L)
2.18.3 Channel: 288.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 08L/26R,
08R/26L, 09/27)
2.18.3 Channel: 290.2
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 08L. Magnetic varia-
tion: 3E
2.19.2 ILS Identification: BZU
2.19.5 Coordinates: 30-0-21.9187N / 95-21-44.0405W
2.19.6 Site Elevation: 87.5 ft

2.19.1 ILS Type: Glide Slope for runway 08L. Magnetic
variation: 3E
2.19.2 ILS Identification: BZU
2.19.5 Coordinates: 30-0-29.7528N / 95-21-18.6875W
2.19.6 Site Elevation: 86 ft

2.19.1 ILS Type: Inner Marker for runway 08L. Magnet-
ic variation: 3E
2.19.2 ILS Identification: BZU
2.19.5 Coordinates: 30-0-25.764N / 95-21-40.8592W
2.19.6 Site Elevation: 90.8 ft

2.19.1 ILS Type: Localizer for runway 08L. Magnetic
variation: 3E
2.19.2 ILS Identification: BZU
2.19.5 Coordinates: 30-0-25.8701N / 95-19-36.9727W
2.19.6 Site Elevation: 94.4 ft

2.19.1 ILS Type: DME for runway 26R. Magnetic varia-
tion: 3E
2.19.2 ILS Identification: OND
2.19.5 Coordinates: 30-0-21.9187N / 95-21-44.0405W
2.19.6 Site Elevation: 87.5 ft

2.19.1 ILS Type: Glide Slope for runway 26R. Magnetic variation: 3E
2.19.2 ILS Identification: OND
2.19.5 Coordinates: 30-0-29.8117N / 95-20-2.26W
2.19.6 Site Elevation: 89.7 ft

2.19.1 ILS Type: Inner Marker for runway 26R. Magnetic variation: 3E
2.19.2 ILS Identification: OND
2.19.5 Coordinates: 30-0-25.8755N / 95-19-40.4195W
2.19.6 Site Elevation: 94.4 ft

2.19.1 ILS Type: Localizer for runway 26R. Magnetic variation: 3E
2.19.2 ILS Identification: OND
2.19.5 Coordinates: 30-0-25.7696N / 95-21-43.9647W
2.19.6 Site Elevation: 90.8 ft

2.19.1 ILS Type: DME for runway 08R. Magnetic variation: 3E
2.19.2 ILS Identification: IAH
2.19.5 Coordinates: 29-59-38.9211N / 95-21-31.3127W
2.19.6 Site Elevation: 92.5 ft

2.19.1 ILS Type: Glide Slope for runway 08R. Magnetic variation: 3E
2.19.2 ILS Identification: IAH
2.19.5 Coordinates: 29-59-40.3184N / 95-21-6.0476W
2.19.6 Site Elevation: 88.8 ft

2.19.1 ILS Type: Localizer for runway 08R. Magnetic variation: 3E
2.19.2 ILS Identification: IAH
2.19.5 Coordinates: 29-59-36.3913N / 95-19-19.5749W
2.19.6 Site Elevation: 89.6 ft

2.19.1 ILS Type: DME for runway 26L. Magnetic variation: 3E
2.19.2 ILS Identification: JYV
2.19.5 Coordinates: 29-59-38.9211N / 95-21-31.3127W
2.19.6 Site Elevation: 92.5 ft

2.19.1 ILS Type: Glide Slope for runway 26L. Magnetic variation: 3E
2.19.2 ILS Identification: JYV
2.19.5 Coordinates: 29-59-39.5388N / 95-19-42.8056W

2.19.6 Site Elevation: 86.8 ft

2.19.1 ILS Type: Inner Marker for runway 26L. Magnetic variation: 3E
2.19.2 ILS Identification: JYV
2.19.5 Coordinates: 29-59-36.3841N / 95-19-20.5992W
2.19.6 Site Elevation: 89.2 ft

2.19.1 ILS Type: Localizer for runway 26L. Magnetic variation: 3E
2.19.2 ILS Identification: JYV
2.19.5 Coordinates: 29-59-36.2865N / 95-21-31.2791W
2.19.6 Site Elevation: 92.2 ft

2.19.1 ILS Type: DME for runway 09. Magnetic variation: 3E
2.19.2 ILS Identification: UYO
2.19.5 Coordinates: 29-58-35.3774N / 95-20-13.5882W
2.19.6 Site Elevation: 87.3 ft

2.19.1 ILS Type: Glide Slope for runway 09. Magnetic variation: 3E
2.19.2 ILS Identification: UYO
2.19.5 Coordinates: 29-58-35.3875N / 95-19-50.679W
2.19.6 Site Elevation: 85.3 ft

2.19.1 ILS Type: Localizer for runway 09. Magnetic variation: 3E
2.19.2 ILS Identification: UYO
2.19.5 Coordinates: 29-58-39.4132N / 95-17-57.578W
2.19.6 Site Elevation: 81 ft

2.19.1 ILS Type: DME for runway 27. Magnetic variation: 3E
2.19.2 ILS Identification: GHI
2.19.5 Coordinates: 29-58-35.3774N / 95-20-13.5882W
2.19.6 Site Elevation: 87.3 ft

2.19.1 ILS Type: Glide Slope for runway 27. Magnetic variation: 3E
2.19.2 ILS Identification: GHI
2.19.5 Coordinates: 29-58-35.4434N / 95-18-20.8578W
2.19.6 Site Elevation: 80 ft

2.19.1 ILS Type: Inner Marker for runway 27. Magnetic variation: 3E

2.19.2 ILS Identification: GHI
2.19.5 Coordinates: 29-58-39.4166N /
95-17-59.1664W
2.19.6 Site Elevation: 81.1 ft

2.19.1 ILS Type: Localizer for runway 27. Magnetic
variation: 3E
2.19.2 ILS Identification: GHI
2.19.5 Coordinates: 29-58-39.3268N /
95-20-15.3338W
2.19.6 Site Elevation: 87.4 ft

2.19.1 ILS Type: Glide Slope for runway 33R. Magnetic
variation: 3E
2.19.2 ILS Identification: CDG
2.19.5 Coordinates: 29-57-38.8144N /
95-20-33.4594W
2.19.6 Site Elevation: 80.4 ft

2.19.1 ILS Type: Localizer for runway 33R. Magnetic
variation: 3E
2.19.2 ILS Identification: CDG
2.19.5 Coordinates: 29-59-31.6238N /

95-21-37.6444W
2.19.6 Site Elevation: 91.9 ft

2.19.1 ILS Type: Glide Slope for runway 15R. Magnetic
variation: 3E
2.19.2 ILS Identification: LKM
2.19.5 Coordinates: 29-59-4.4118N / 95-21-39.0331W
2.19.6 Site Elevation: 89.9 ft

2.19.1 ILS Type: Localizer for runway 15R. Magnetic
variation: 3E
2.19.2 ILS Identification: LKM
2.19.5 Coordinates: 29-57-39.3739N /
95-20-41.8496W
2.19.6 Site Elevation: 82.7 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 5E
2.19.2 Navigation Aid Identification: IAH
2.19.5 Coordinates: 29-57-24.9013N /
95-20-44.5885W
2.19.6 Site Elevation: 80.6 ft

General Remarks:

TWY WC WEST OF RY 15R/33L RSTRD TO ACFT WITH 118 FT WING SPAN AND BLO.

RY 09/27 CLSD TO ACFT WITH WINGSPAN 215 FT & ABOVE.

TXLN 'RA', 'RB', 'RC', 'R2', AND TWY 'SC' NORTH OF TWY 'SB' ARE DSGND NON-MOVEMENT AREAS
OPRD BY UAL RAMP CTL.

DUAL TWY OPNS TWY NK BTN TWY NB & NORTH RAMP; WEST CNTRLN RSTRD TO ACFT MAX WING
SPANS 125 FT & EAST CNTRLN MAX WING SPANS 214 FT.

NORTH RAMP TAXILANE BTN TWYS NF & NR RSTRD TO ACFT WITH WING SPAN 125 FT & BLO.

TWY WW BTN TWY NR AND TWY WB CLSD TO ACFT WINGSPAN MORE THAN 214 FT.

BIRDS ON & IN VCNTY OF ARPT.

GBAS APCH SVC VOL 20NM FR THLD, ALL GLS APCHS.

TWY 'NR' CLSD TO ACFT WITH WING SPANS GREATER THAN 125 FT BTN TWY 'WD' & TWY 'WB'.

RY 15L/33R MAGNETIC ANOMALIES MAY AFFECT COMPASS HDG FOR TKOF.

HELICOPTER HOVER/TAXI RSTRD TO HARD SFC MOVEMENT AREAS ONLY.

TWY SF BTN RY 09/27 UP TO AND INCLUDING THE EAST BRIDGE CLSD TO ACFT WITH WINGSPAN 215 FT
& OVER.

TWY NR BTN TWY NC AND TWY WW CLSD TO ACFT WINGSPAN MORE THAN 214 FT.

TWY NR BTN WW AND TWY WB DSGND NON-MOVEMENT AREA.

HEL HOVER/TAXI RSTRD TO HARD SFC MOVEMENT AREAS ONLY.

TWY NA LGT ALL BTN TWY WP AND TWY NP NOT STD

TWY 'SF' BTN TWY 'NB' AND TXLN 'RA' IS DSGND NON-MOVEMENT AREA.

9 FT AGL UNMKD SECURITY FENCE ADJ TO FBO & CORPORATE BASE OPERATOR RAMPS AND NONMOVEMENT AREA TAXILANES.

PILOTS & CREWS SHOULD BE AWARE OF DEP TURNS ON CRS IN EXCESS OF 180 DEGS. PILOT READ BACK OF DRCTN OF TURN IS HIGHLY ENCOURAGED.

TWYS WA & WB MAGNETIC ANOMALIES MAY AFFECT COMPASS HDG.

RY STATUS LGTS ARE IN OPN.

THE FLWG MOVEMENT AREAS ARE NOT VSB FM THE ATCT: PORTIONS OF TWYS 'WA' & 'WB' FM TWY 'WH' TO THE AER 33R; TWYS 'WA' & 'WB' FM TWY 'WD' NORTH FOR 400 FT; TWY 'WD' FM TWY 'WA' TO TWY 'NR'; TWY 'NR'; TWY 'WL' FM RY 15L TO TWY 'WB' & TWY 'WM'.

NORTH RAMP NORTH & SOUTH TAXI LANES CLSD TO ACFT WITH WING SPANS GREATER THAN 125 FT.

TXLN RC CLSD TO ACFT WITH WINGSPAN GREATER THAN 135 FT.

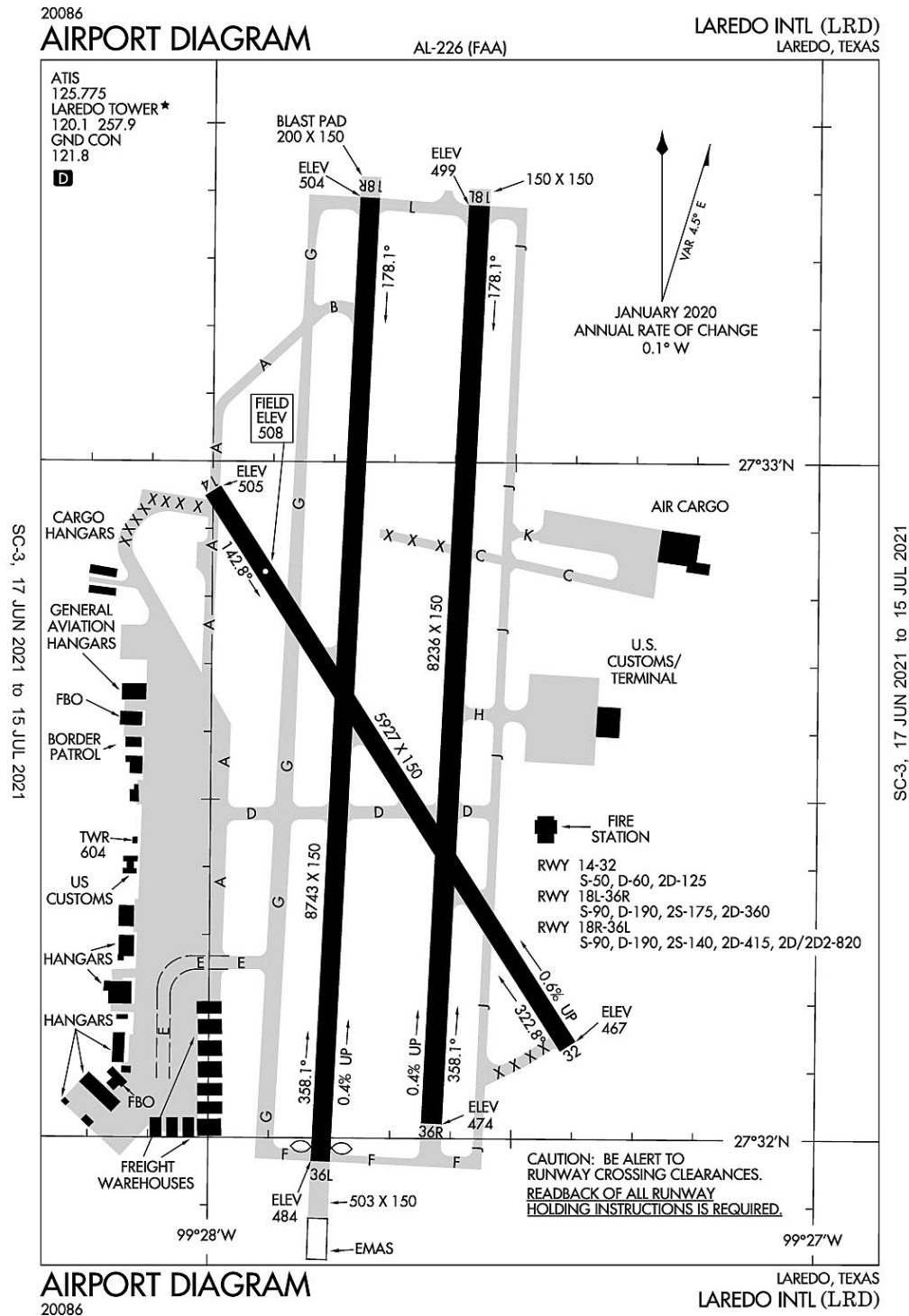
ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

NOISE SENSITIVE AREA N, E AND W OF ARPT.

TWY WW RUN UP PAD FOR RY 15L CLSD TO ACFT WITH WINGSPAN 135 FT & OVER.

TWY NK BTN TWY NB AND TERMINAL D RAMP SIMULTANEOUS ACFT OPS PROHIBITED WHEN MIDDLE TAXILANE IN USE.

Laredo, Texas
Laredo International
ICAO Identifier KLRD



Laredo, TX
Laredo Intl
ICAO Identifier KLRD

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 27-32-39.1N / 99-27-41.7W
2.2.2 From City: 3 miles NE of LAREDO, TX
2.2.3 Elevation: 508 ft
2.2.5 Magnetic Variation: 5E (2020)
2.2.6 Airport Contact: JEFF MILLER

5210 BOB BULLOCK LOOP
LAREDO, TX 78041
(956-795-2000)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: None

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index I
B certified on 7/1/1975

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 32
2.12.2 True Bearing: 327
2.12.3 Dimensions: 5927 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 27-32-8.635N / 99-27-24.668W
2.12.6 Threshold Elevation: 467.4 ft
2.12.6 Touchdown Zone Elevation: 493.6 ft

2.12.1 Designation: 14
2.12.2 True Bearing: 147
2.12.3 Dimensions: 5927 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 27-32-58.0248N / 99-28-0.2242W
2.12.6 Threshold Elevation: 505.4 ft
2.12.6 Touchdown Zone Elevation: 508 ft

2.12.1 Designation: 18L
2.12.2 True Bearing: 183
2.12.3 Dimensions: 8236 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 27-33-22.9267N / 99-27-33.5988W
2.12.6 Threshold Elevation: 499.2 ft
2.12.6 Touchdown Zone Elevation: 499.2 ft

2.12.1 Designation: 36R
2.12.2 True Bearing: 3
2.12.3 Dimensions: 8236 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 27-32-1.4547N / 99-27-37.6934W
2.12.6 Threshold Elevation: 474.2 ft
2.12.6 Touchdown Zone Elevation: 486.7 ft

2.12.1 Designation: 36L
2.12.2 True Bearing: 3
2.12.3 Dimensions: 8743 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 27-31-56.8817N / 99-27-49.0449W
2.12.6 Threshold Elevation: 483.7 ft
2.12.6 Touchdown Zone Elevation: 497 ft

2.12.1 Designation: 18R
2.12.2 True Bearing: 183
2.12.3 Dimensions: 8743 ft x 150 ft
2.12.4 PCN:
2.12.5 Coordinates: 27-33-23.3681N / 99-27-44.7128W
2.12.6 Threshold Elevation: 503.7 ft
2.12.6 Touchdown Zone Elevation: 503.7 ft

AD 2.13 Declared Distances

2.13.1 Designation: 32
2.13.2 Take-off Run Available: 5927
2.13.3 Take-off Distance Available: 5927
2.13.4 Accelerate-Stop Distance Available: 5927
2.13.5 Landing Distance Available: 5927

2.13.1 Designation: 14
2.13.2 Take-off Run Available: 5927
2.13.3 Take-off Distance Available: 5927

2.13.4 Accelerate-Stop Distance Available: 5927

2.13.5 Landing Distance Available: 5927

2.13.1 Designation: 18L

2.13.2 Take-off Run Available: 8236

2.13.3 Take-off Distance Available: 8236

2.13.4 Accelerate-Stop Distance Available: 8236

2.13.5 Landing Distance Available: 8236

2.13.1 Designation: 36R

2.13.2 Take-off Run Available: 8236

2.13.3 Take-off Distance Available: 8236

2.13.4 Accelerate-Stop Distance Available: 8236

2.13.5 Landing Distance Available: 8236

2.13.1 Designation: 36L

2.13.2 Take-off Run Available: 8743

2.13.3 Take-off Distance Available: 8743

2.13.4 Accelerate-Stop Distance Available: 8743

2.13.5 Landing Distance Available: 8623

2.13.1 Designation: 18R

2.13.2 Take-off Run Available: 8743

2.13.3 Take-off Distance Available: 8743

2.13.4 Accelerate-Stop Distance Available: 8743

2.13.5 Landing Distance Available: 8743

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 32

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: V4L

2.14.1 Designation: 14

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: V4L

2.14.1 Designation: 18L

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 36R

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 36L

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 18R

2.14.2 Approach Lighting System: MALSR

2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ATIS

2.18.3 Channel: 125.775

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.8

2.18.5 Hours of Operation: 0600-2400

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 120.1

2.18.5 Hours of Operation: 0600-2400

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.9

2.18.5 Hours of Operation: 0600-2400

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 18R. Magnetic variation: 5E

2.19.2 ILS Identification: LRD

2.19.5 Coordinates: 27-31-50.8814N / 99-27-46.6673W

2.19.6 Site Elevation: 477 ft

2.19.1 ILS Type: Glide Slope for runway 18R. Magnetic variation: 5E

2.19.2 ILS Identification: LRD

2.19.5 Coordinates: 27-33-12.4993N / 99-27-40.6967W

2.19.6 Site Elevation: 497 ft

2.19.1 ILS Type: Localizer for runway 18R. Magnetic variation: 5E

2.19.2 ILS Identification: LRD

2.19.5 Coordinates: 27-31-51.7421N / 99-27-49.3028W

2.19.6 Site Elevation: 477 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 9E

2.19.2 Navigation Aid Identification: LRD

2.19.5 Coordinates: 27-28-43.4544N / 99-25-3.6441W

2.19.6 Site Elevation: 583 ft

General Remarks:

RWY 14/32 RSTRD TO ACFT LESS THAN 60000 LBS DTW.

BIRDS ON AND INVOF ARPT.

FEDERAL INSPECTION STATION FEE.

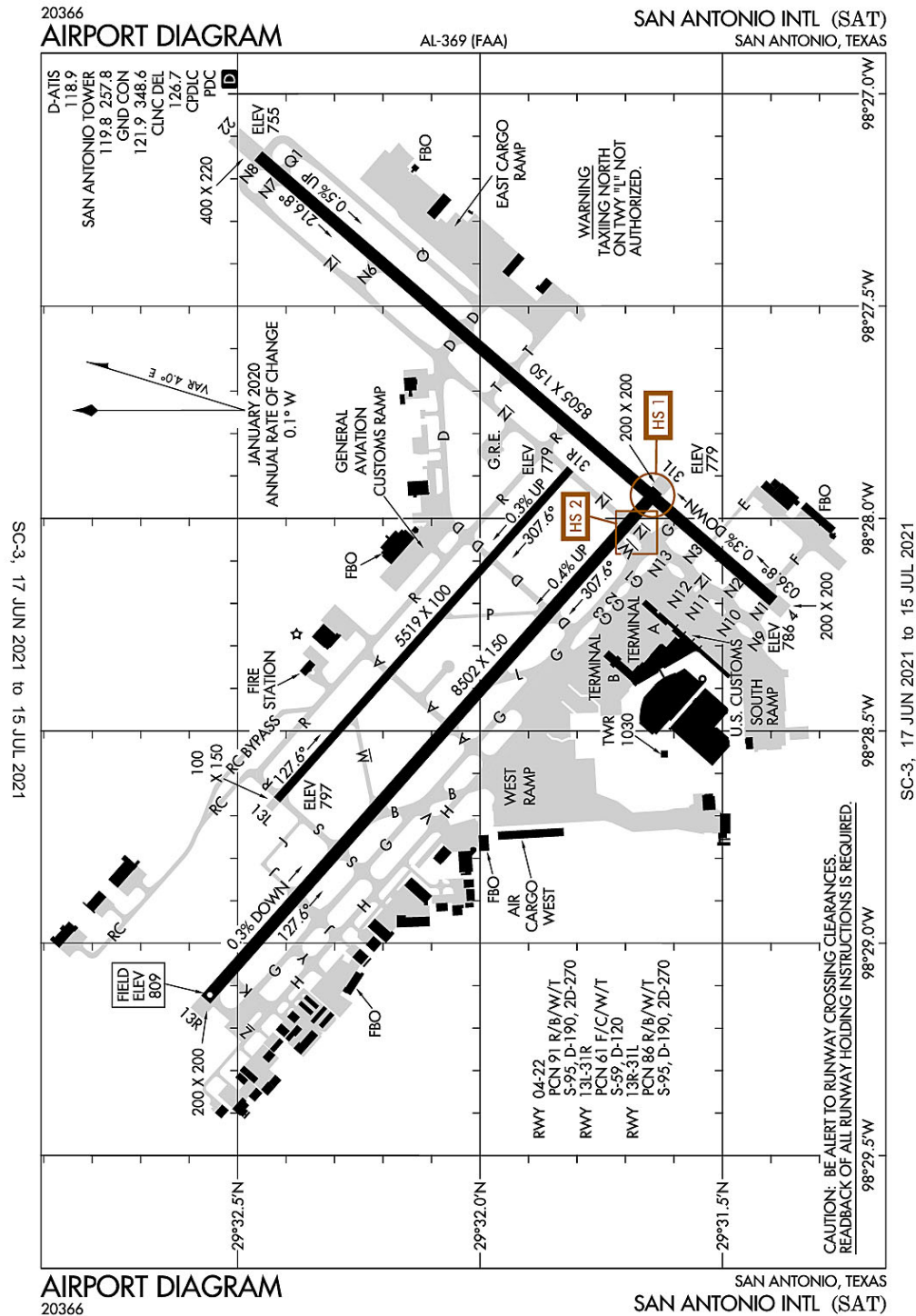
FOR CD IF UNA TO CTC ON FSS FREQ, CTC HOUSTON ARTCC AT 281-230-5622.

TWY C CLSD BTN RWY 18L/36R & RWY 18R INDEFLY.

FEDERAL INSPECTION STATION IS LCTD ON THE WEST GENERAL AVIATION/CARGO APRON.

LNDG FEE ASSESSED FOR ANY "FOR HIRE" ACFT.

San Antonio, Texas
San Antonio International
ICAO Identifier KSAT



San Antonio, TX
San Antonio Intl
ICAO Identifier KSAT

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 29-32-2.25N / 98-28-8.605W
- 2.2.2 From City: 7 miles N of SAN ANTONIO, TX
- 2.2.3 Elevation: 809.1 ft
- 2.2.5 Magnetic Variation: 4E (2020)
- 2.2.6 Airport Contact: JESUS H. SAENZ, JR.
9800 AIRPORT BLVD
SAN ANTONIO, TX 78216
(210-207-3444)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 04
- 2.12.2 True Bearing: 41
- 2.12.3 Dimensions: 8505 ft x 150 ft
- 2.12.4 PCN: 91 R/B/W/T
- 2.12.5 Coordinates: 29-31-23.6409N / 98-28-11.6562W
- 2.12.6 Threshold Elevation: 786 ft
- 2.12.6 Touchdown Zone Elevation: 786 ft

- 2.12.1 Designation: 22
- 2.12.2 True Bearing: 221
- 2.12.3 Dimensions: 8505 ft x 150 ft
- 2.12.4 PCN: 91 R/B/W/T
- 2.12.5 Coordinates: 29-32-27.3928N / 98-27-8.7715W
- 2.12.6 Threshold Elevation: 754.5 ft

- 2.12.6 Touchdown Zone Elevation: 770 ft

- 2.12.1 Designation: 31R
- 2.12.2 True Bearing: 312
- 2.12.3 Dimensions: 5519 ft x 100 ft
- 2.12.4 PCN: 61 F/C/W/T
- 2.12.5 Coordinates: 29-31-48.7812N / 98-27-53.0202W
- 2.12.6 Threshold Elevation: 779.2 ft
- 2.12.6 Touchdown Zone Elevation: 788.1 ft

- 2.12.1 Designation: 13L
- 2.12.2 True Bearing: 132
- 2.12.3 Dimensions: 5519 ft x 100 ft
- 2.12.4 PCN: 61 F/C/W/T
- 2.12.5 Coordinates: 29-32-25.0764N / 98-28-39.714W
- 2.12.6 Threshold Elevation: 797.3 ft
- 2.12.6 Touchdown Zone Elevation: 797.3 ft

- 2.12.1 Designation: 31L
- 2.12.2 True Bearing: 312
- 2.12.3 Dimensions: 8502 ft x 150 ft
- 2.12.4 PCN: 86 R/B/W/T
- 2.12.5 Coordinates: 29-31-38.0038N / 98-27-55.9932W
- 2.12.6 Threshold Elevation: 778.5 ft
- 2.12.6 Touchdown Zone Elevation: 790 ft

- 2.12.1 Designation: 13R
- 2.12.2 True Bearing: 132
- 2.12.3 Dimensions: 8502 ft x 150 ft
- 2.12.4 PCN: 86 R/B/W/T
- 2.12.5 Coordinates: 29-32-33.8853N / 98-29-7.9481W
- 2.12.6 Threshold Elevation: 809.1 ft
- 2.12.6 Touchdown Zone Elevation: 809.1 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 04
- 2.13.2 Take-off Run Available: 8505
- 2.13.3 Take-off Distance Available: 8505
- 2.13.4 Accelerate-Stop Distance Available: 8505
- 2.13.5 Landing Distance Available: 8505

2.13.1 Designation: 22
2.13.2 Take-off Run Available: 8505
2.13.3 Take-off Distance Available: 8505
2.13.4 Accelerate-Stop Distance Available: 8505
2.13.5 Landing Distance Available: 8505

2.13.1 Designation: 31R
2.13.2 Take-off Run Available: 5519
2.13.3 Take-off Distance Available: 5519
2.13.4 Accelerate-Stop Distance Available: 5519
2.13.5 Landing Distance Available: 5519

2.13.1 Designation: 13L
2.13.2 Take-off Run Available: 5519
2.13.3 Take-off Distance Available: 5519
2.13.4 Accelerate-Stop Distance Available: 5519
2.13.5 Landing Distance Available: 5519

2.13.1 Designation: 31L
2.13.2 Take-off Run Available: 8502
2.13.3 Take-off Distance Available: 8502
2.13.4 Accelerate-Stop Distance Available: 8502
2.13.5 Landing Distance Available: 8502

2.13.1 Designation: 13R
2.13.2 Take-off Run Available: 8502
2.13.3 Take-off Distance Available: 8502
2.13.4 Accelerate-Stop Distance Available: 8502
2.13.5 Landing Distance Available: 8502

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 04
2.14.2 Approach Lighting System: MALS
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 22
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 31R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 13L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 31L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 13R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ALAMO DP (RWY 04, 22, 31)
2.18.3 Channel: 125.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ALAMO DP (RWY 13)
2.18.3 Channel: 127.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ALAMO DP (RWY 13)
2.18.3 Channel: 269.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ALAMO DP (RWY 04, 22, 31)
2.18.3 Channel: 307
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ALISS DP (RWY 04, 22, 31)
2.18.3 Channel: 125.1
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ALISS DP (RWY 13)
2.18.3 Channel: 125.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ALISS DP (RWY 13)
2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P

2.18.3 Channel: 121.375

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P (SAT 115R-154R
35-56 DME)

2.18.3 Channel: 257.625

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (141-270)

2.18.3 Channel: 118.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (360-090)

2.18.3 Channel: 124.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (091-140)

2.18.3 Channel: 128.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (091-140)

2.18.3 Channel: 318.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (360-090)

2.18.3 Channel: 335.625

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (141-270)

2.18.3 Channel: 353.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(271-359)

2.18.3 Channel: 125.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(271-359)

2.18.3 Channel: 307

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S

2.18.3 Channel: 127.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S

2.18.3 Channel: 251.125

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOWIE DP (RWY 04 LRD
TRANSITION)

2.18.3 Channel: 125.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOWIE DP (RWY 13, 22,
31)

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOWIE DP (RWY 04 CRP
TRANSITION)

2.18.3 Channel: 127.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOWIE DP (RWY 04 CRP
TRANSITION)

2.18.3 Channel: 269.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOWIE DP (RWY 04, 13,
31)

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BOWIE DP (RWY 04 LRD
TRANSITION)

2.18.3 Channel: 307

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BRAUN STAR

2.18.3 Channel: 127.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: BRAUN STAR

2.18.3 Channel: 269.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 126.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CENTERPOINT STAR
(RWY 13R, 22)

2.18.3 Channel: 125.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CENTERPOINT STAR
(RWY 04, 31L)

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CENTERPOINT STAR
(RWY 04, 31L)

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CENTERPOINT STAR
(RWY 13R, 22)

2.18.3 Channel: 307

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (141-270)

2.18.3 Channel: 118.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (360-090)

2.18.3 Channel: 124.45

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (271-359)

2.18.3 Channel: 125.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (091-140)

2.18.3 Channel: 128.05

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (271-359)

2.18.3 Channel: 307

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (091-140)

2.18.3 Channel: 318.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (360-090)

2.18.3 Channel: 335.625

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (141-270)

2.18.3 Channel: 353.5

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS

2.18.3 Channel: 118.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 119.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.8

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LEJON DP (RWY 04, 22, 31)

2.18.3 Channel: 125.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LEJON DP (RWY 13)

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LEJON DP (RWY 12)

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LEJON DP (RWY 13)

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LEJON DP (RWY 04, 22, 31)

2.18.3 Channel: 307

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LEMIG STAR

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LEMIG STAR

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MARCS STAR

2.18.3 Channel: 127.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MARCS STAR

2.18.3 Channel: 269.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MILET DP (RWY 04)

2.18.3 Channel: 125.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MILET DP (RWY 13, 22, 31)

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MILET DP (RWY 13, 22, 31)

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: MILET DP (RWY 04)

2.18.3 Channel: 307

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: STONEWALL STAR

2.18.3 Channel: 125.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: STONEWALL STAR

2.18.3 Channel: 307

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: THREE RIVERS DP (RWY 13, 22, 31)

2.18.3 Channel: 125.7

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: THREE RIVERS DP (RWY 04)

2.18.3 Channel: 127.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: THREE RIVERS DP (RWY 04)

2.18.3 Channel: 269.1

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: THREE RIVERS DP (RWY 13, 22, 31)

2.18.3 Channel: 290.225

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 04. Magnetic variation: 4E

2.19.2 ILS Identification: SAT

2.19.5 Coordinates: 29-32-32.9486N /
98-26-58.6881W

2.19.6 Site Elevation: 746.3 ft

2.19.1 ILS Type: Glide Slope for runway 04. Magnetic variation: 4E

2.19.2 ILS Identification: SAT

2.19.5 Coordinates: 29-31-30.2202N /
98-27-58.0715W

2.19.6 Site Elevation: 774.8 ft

2.19.1 ILS Type: Localizer for runway 04. Magnetic variation: 4E

2.19.2 ILS Identification: SAT

2.19.5 Coordinates: 29-32-35.0937N / 98-27-1.1714W

2.19.6 Site Elevation: 748.9 ft

2.19.1 ILS Type: DME for runway 13R. Magnetic variation: 4E

2.19.2 ILS Identification: ANT

2.19.5 Coordinates: 29-31-29.0932N /
98-27-49.9584W

2.19.6 Site Elevation: 790.7 ft

2.19.1 ILS Type: Glide Slope for runway 13R. Magnetic variation: 4E

2.19.2 ILS Identification: ANT

2.19.5 Coordinates: 29-32-28.9928N /
98-28-54.8202W

2.19.6 Site Elevation: 801.3 ft

2.19.1 ILS Type: Inner Marker for runway 13R. Magnetic variation: 4E

2.19.2 ILS Identification: ANT

2.19.5 Coordinates: 29-32-39.0383N / 98-29-14.595W

2.19.6 Site Elevation: 807.6 ft

2.19.1 ILS Type: Localizer for runway 13R. Magnetic variation: 4E

2.19.2 ILS Identification: ANT

2.19.5 Coordinates: 29-31-31.3122N /
98-27-47.3799W

2.19.6 Site Elevation: 771 ft

2.19.1 ILS Type: Outer Marker for runway 13R. Magnetic variation: 4E

2.19.2 ILS Identification: ANT

2.19.5 Coordinates: 29-36-27.2991N / 98-34-11.0119W

2.19.6 Site Elevation: 1054.4 ft

2.19.1 ILS Type: DME for runway 31L. Magnetic variation: 4E

2.19.2 ILS Identification: IZR

2.19.5 Coordinates: 29-31-29.0932N /
98-27-49.9584W

2.19.6 Site Elevation: 790.7 ft

2.19.1 ILS Type: Glide Slope for runway 31L. Magnetic variation: 4E

2.19.2 ILS Identification: IZR

2.19.5 Coordinates: 29-31-47.9039N / 98-28-1.9173W

2.19.6 Site Elevation: 777.5 ft

2.19.1 ILS Type: Localizer for runway 31L. Magnetic variation: 4E

2.19.2 ILS Identification: IZR

2.19.5 Coordinates: 29-32-43.1182N / 98-29-19.835W

2.19.6 Site Elevation: 813.4 ft

2.19.1 ILS Type: Outer Marker for runway 31L. Magnetic variation: 4E

2.19.2 ILS Identification: IZR

2.19.5 Coordinates: 29-28-6.3844N / 98-23-19.119W

2.19.6 Site Elevation: 693.9 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic variation: 8E

2.19.2 Navigation Aid Identification: SAT

2.19.5 Coordinates: 29-38-38.508N / 98-27-40.7369W

2.19.6 Site Elevation: 1158.8 ft

General Remarks:

TWY L CLSD NORTHBOUND.

FREQUENT RUBBER ACCUMULATION NW 2500 RY 13R/31L.

GLIDER/SOARING OPNS APRXLY 17 MILES NW OF ARPT DURG VFR.

ARPT RSTD TO ACFT WITH WINGSPAN GTR THAN 171 FT, PPR WITH 24HR OPS 210-207-3433. RQRD FOR AUTH.

ALL INTL GENERAL AVIATION CLEAR U.S. CSTMS AT NORTH FIXED BASE OPERATOR RAMP EAST SIDE, CALL U.S. CSTMS 210-821-6965 UPON ARR.

TWY S BTN APCH END RWY 13L AND RWY 13R/31L CLSD TO ACFT WITH WINGSPAN MORE THAN 100 FT. TWY R BTN APCH END RWY 13L AND TWY D CLSD TO ACFT WINGSPAN MORE THAN 100 FT.

NOISE SENSITIVE AREAS EXIST ON ALL SIDES OF ARPT, AT PILOTS DISCRETION CLIMB AS QUICKLY AND QUIETLY AS SAFELY POSSIBLE ON DEPARTURE AND USE CONSIDERATION WHEN FLYING OVER POPULATED AREAS BY MINIMIZING FLT AND HIGH PWR SETTINGS. MILITARY AIRCRAFT: DEPARTING AND ARRIVING AIRCRAFT WILL USE MINIMUM POWER SETTINGS CONSISTENT WITH AIRCRAFT FLIGHT MANUALS, AFTERBURNER TAKEOFF IS PROHIBITED UNLESS REQUIRED FOR SAFETY OF FLIGHT. ENGINE-UPS ARE PERMITTED BTN 0600-2300.

ACFT TAXIING ON RY 04 NE BOUND LOOK FOR HOLD SHORT TO RY 31L.

INNER RAMP TAXILANE NORTH OF TRML A AND B IS CLSD TO ACFT WITH WINGSPAN GTR THAN 135 FT.

TWY D NON-MOVEMENT AREA FM TWY N TO 500 FT W OF TWY N.

PPR WITH ARPT OPNS FOR ACFT POWERING BACK FM TERMINAL GATES.

COMPASS DEVIATION MAY OCCUR AT THE NW PORTION OF TWY R DUE TO REBAR RE-ENFORCED CONC BRIDGE LCTD UNDER THE TWY.

WORK IN PROGRESS SCHEDULED MAINTENANCE ON & ALONG TWYS AND RAMPS AREAS AT VARIOUS TIMES.

GROUND RUN-UP ENCLOSURE AVBL 24 HRS.

A BARRICADED PAVEMENT ELEVATION CHANGE EXISTS ALONG THE EASTERN SIDE OF THE WEST RAMP.

NUMEROUS FLOCKS OF BIRDS INVOF ARPT.

FOREIGN MIL ACFT WITH WINGSPAN LESS THAN 100 FT MUST REP TO GA RAMP FED INSPECTION STATION FOR CUST PROCESSING, CTC AP MANAGEMENT AT 210-207-3433.

RY 13L/31R NOT AVBL FOR PART 121 ACR OPNS.

ALL ACFT AFTER LDG ON RWY 13R/31L EXITING SOUTHWEST BOUND ON TWY DELTA TO MAKE 90 DEG TURN ON TWY GOLF TO AVOID UNUSBL SFC.

TERMINAL GATES A1, A5, A6, A7 & A8 USE ONLY WITH PPR CALL OPNS 210-207-3433.

C130 AND C17 TYPE ACFT MUST PARK ON WEST RAMP TO CLR CUST.

ACFT TAXIING ON TWY N SW BOUND LOOK FOR HOLD SHORT TO RY 31R.

TWY Z CLSD TO ACFT WITH WINGSPAN GREATER THAN 118 FT.

AERODROME ALL SFC WIP CONST FOR CURRENT INFO CTC OPS. 210-207-3433.

APRON EAST CARGO RAMP INT OF RWY 04/22 AND TWY DELTA ACFT ARE REQ TO APPLY THE MNM THRUST WHEN XNG THE RWY TO AVOID DMG DUE TO JET BLAST.

THE FOLLOWING TWYS ARE NOT AVBL FOR ACFT 59,000 LBS OR OVER: TWY A & TWY J NORTH OF RY 13R-31L, TWY M & TWY P, TWY H NORTHWEST OF TWY Z AND TWY E EAST OF RY 04/22.

SAT TWY R BTN APCH END RWY 13L AND TWY D CLSD TO ACFT MORE THAN 99600 LB.

TWYS L & B CLSD TO ACFT WITH WINGSPANS GREATER THAN 118 FT EXITING RY 31L.

ACFT AT TERMINAL A & B ADVISE GND CTL PRIOR TO PUSH.

21112

AIRPORT DIAGRAM

AL-365 (FAA)

SALT LAKE CITY INTL (SLC)
SALT LAKE CITY, UTAH

D-ATIS
124.75 125.625
SALT LAKE CITY TOWER
119.05 257.8 (RWY 16L-34R)
118.3 257.8 (RWYS 14-32, 17-35)
132.65 336.4 (RWY 16R-34L)
GND CON
121.9 348.6 (RWYS 14-32, 17-35)
123.775 348.6 (RWYS 16L-34R, 16R-34L)
CLNC DEL
127.3 379.975
CPDLC
PDC

ASDE-X in use. Operate transponders with altitude reporting mode and ADS-B (if equipped) enabled on all airport surfaces.

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W

40°49'N

40°48'N

40°47'N

40°46'N

112°00'W

111°59'W

111°58'W

111°57'W

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

21112

SALT LAKE CITY, UTAH
SALT LAKE CITY INTL (SLC)

Salt Lake City, UT
Salt Lake City Intl
ICAO Identifier KSLC

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 40-47-18.216N /
 111-58-39.984W
 2.2.2 From City: 3 miles W of SALT LAKE CITY, UT
 2.2.3 Elevation: 4230.9 ft
 2.2.5 Magnetic Variation: 11E (2020)
 2.2.6 Airport Contact: BILL WYATT
 P.O. BOX 145550
 SALT LAKE CITY, UT 84114
 ((801) 575-2408)
 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
 2.4.2 Fuel Types: A1+,100LL
 2.4.5 Hangar Space: YES
 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
 I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 14
 2.12.2 True Bearing: 153
 2.12.3 Dimensions: 4893 ft x 150 ft
 2.12.4 PCN:
 2.12.5 Coordinates: 40-47-8.5848N / 111-58-16.4661W
 2.12.6 Threshold Elevation: 4224.7 ft
 2.12.6 Touchdown Zone Elevation: 4224.8 ft

2.12.1 Designation: 32
 2.12.2 True Bearing: 333
 2.12.3 Dimensions: 4893 ft x 150 ft
 2.12.4 PCN:
 2.12.5 Coordinates: 40-46-25.5192N /
 111-57-47.5915W
 2.12.6 Threshold Elevation: 4226.8 ft
 2.12.6 Touchdown Zone Elevation: 4226.8 ft

2.12.1 Designation: 16L
 2.12.2 True Bearing: 175
 2.12.3 Dimensions: 12002 ft x 150 ft

2.12.4 PCN:
 2.12.5 Coordinates: 40-48-26.8298N /
 111-58-36.9557W
 2.12.6 Threshold Elevation: 4229.1 ft
 2.12.6 Touchdown Zone Elevation: 4230.9 ft

2.12.1 Designation: 34R
 2.12.2 True Bearing: 355
 2.12.3 Dimensions: 12002 ft x 150 ft
 2.12.4 PCN:
 2.12.5 Coordinates: 40-46-28.7185N /
 111-58-23.2566W
 2.12.6 Threshold Elevation: 4224.3 ft
 2.12.6 Touchdown Zone Elevation: 4224.7 ft

2.12.1 Designation: 16R
 2.12.2 True Bearing: 175
 2.12.3 Dimensions: 12000 ft x 150 ft
 2.12.4 PCN:
 2.12.5 Coordinates: 40-48-28.0035N /
 111-59-57.4282W
 2.12.6 Threshold Elevation: 4223.4 ft
 2.12.6 Touchdown Zone Elevation: 4225.8 ft

2.12.1 Designation: 34L
 2.12.2 True Bearing: 355
 2.12.3 Dimensions: 12000 ft x 150 ft
 2.12.4 PCN:
 2.12.5 Coordinates: 40-46-29.9171N /
 111-59-43.6913W
 2.12.6 Threshold Elevation: 4228.8 ft
 2.12.6 Touchdown Zone Elevation: 4228.8 ft

2.12.1 Designation: 35
 2.12.2 True Bearing: 360
 2.12.3 Dimensions: 9596 ft x 150 ft
 2.12.4 PCN:
 2.12.5 Coordinates: 40-46-21.3022N /
 111-57-43.4496W
 2.12.6 Threshold Elevation: 4226.8 ft
 2.12.6 Touchdown Zone Elevation: 4226.9 ft

2.12.1 Designation: 17
 2.12.2 True Bearing: 180
 2.12.3 Dimensions: 9596 ft x 150 ft
 2.12.4 PCN:
 2.12.5 Coordinates: 40-47-56.1043N /
 111-57-43.4552W
 2.12.6 Threshold Elevation: 4221.7 ft
 2.12.6 Touchdown Zone Elevation: 4222.2 ft

2.12.1 Designation: HB
2.12.2 True Bearing:
2.12.3 Dimensions: 60 ft x 60 ft
2.12.4 PCN:
2.12.5 Coordinates: 40-46-27.0827N /
111-57-24.0562W
2.12.6 Threshold Elevation: 4220.4 ft
2.12.6 Touchdown Zone Elevation: ft

2.12.1 Designation: HF
2.12.2 True Bearing:
2.12.3 Dimensions: 60 ft x 60 ft
2.12.4 PCN:
2.12.5 Coordinates: -- / --
2.12.6 Threshold Elevation: ft
2.12.6 Touchdown Zone Elevation: ft

AD 2.13 Declared Distances

2.13.1 Designation: 14
2.13.2 Take-off Run Available: 4892
2.13.3 Take-off Distance Available: 4892
2.13.4 Accelerate-Stop Distance Available: 4892
2.13.5 Landing Distance Available: 4892

2.13.1 Designation: 32
2.13.2 Take-off Run Available: 4892
2.13.3 Take-off Distance Available: 4892
2.13.4 Accelerate-Stop Distance Available: 4892
2.13.5 Landing Distance Available: 4892

2.13.1 Designation: 16L
2.13.2 Take-off Run Available: 12002
2.13.3 Take-off Distance Available: 12002
2.13.4 Accelerate-Stop Distance Available: 12002
2.13.5 Landing Distance Available: 12002

2.13.1 Designation: 34R
2.13.2 Take-off Run Available: 12002
2.13.3 Take-off Distance Available: 12002
2.13.4 Accelerate-Stop Distance Available: 12002
2.13.5 Landing Distance Available: 12002

2.13.1 Designation: 16R
2.13.2 Take-off Run Available: 12000
2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 34L
2.13.2 Take-off Run Available: 12000

2.13.3 Take-off Distance Available: 12000
2.13.4 Accelerate-Stop Distance Available: 12000
2.13.5 Landing Distance Available: 12000

2.13.1 Designation: 35
2.13.2 Take-off Run Available: 9597
2.13.3 Take-off Distance Available: 9597
2.13.4 Accelerate-Stop Distance Available: 9597
2.13.5 Landing Distance Available: 9273

2.13.1 Designation: 17
2.13.2 Take-off Run Available: 9597
2.13.3 Take-off Distance Available: 9597
2.13.4 Accelerate-Stop Distance Available: 9597
2.13.5 Landing Distance Available: 9597

2.13.1 Designation: HB
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

2.13.1 Designation: HF
2.13.2 Take-off Run Available:
2.13.3 Take-off Distance Available:
2.13.4 Accelerate-Stop Distance Available:
2.13.5 Landing Distance Available:

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 14
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 32
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34L

2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 35
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 17
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: HB
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: HF
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: ANG COMD POST
2.18.3 Channel: 303.15
2.18.5 Hours of Operation:

2.18.1 Service Designation: ANG COMD POST
2.18.3 Channel: 311
2.18.5 Hours of Operation:

2.18.1 Service Designation: CD PRE DEP CLNC
2.18.3 Channel: 127.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD PRE TAXI CLNC
2.18.3 Channel: 127.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 379.975
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 124.75
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 125.625
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P (RWY 14/32, 17/35)
2.18.3 Channel: 121.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P (RWY 16L/34R,
16R/34L)
2.18.3 Channel: 123.775
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 348.6
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 14/32, 17/35)
2.18.3 Channel: 118.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16L/34R)
2.18.3 Channel: 119.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16R/34L)
2.18.3 Channel: 132.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 14/32,
16L/34R, 17/35)
2.18.3 Channel: 257.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16R/34L)
2.18.3 Channel: 336.4
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 16L. Magnetic variation: 11E

2.19.2 ILS Identification: MOY

2.19.5 Coordinates: 40-46-18.724N / 111-58-18.1254W

2.19.6 Site Elevation: 4239.9 ft

2.19.1 ILS Type: Glide Slope for runway 16L. Magnetic variation: 11E

2.19.2 ILS Identification: MOY

2.19.5 Coordinates: 40-48-17.0756N /
111-58-30.6172W

2.19.6 Site Elevation: 4225 ft

2.19.1 ILS Type: Inner Marker for runway 16L. Magnetic
variation: 11E

2.19.2 ILS Identification: MOY

2.19.5 Coordinates: 40-48-35.7038N /
111-58-38.0115W

2.19.6 Site Elevation: 4222.8 ft

2.19.1 ILS Type: Localizer for runway 16L. Magnetic
variation: 11E

2.19.2 ILS Identification: MOY

2.19.5 Coordinates: 40-46-18.5061N /
111-58-22.0717W

2.19.6 Site Elevation: 4226.5 ft

2.19.1 ILS Type: DME for runway 34R. Magnetic varia-
tion: 11E

2.19.2 ILS Identification: SLC

2.19.5 Coordinates: 40-46-18.724N / 111-58-18.1254W
2.19.6 Site Elevation: 4239.9 ft

2.19.1 ILS Type: Glide Slope for runway 34R. Magnetic
variation: 11E

2.19.2 ILS Identification: SLC

2.19.5 Coordinates: 40-46-39.3436N /
111-58-19.2908W

2.19.6 Site Elevation: 4220 ft

2.19.1 ILS Type: Inner Marker for runway 34R. Magnet-
ic variation: 11E

2.19.2 ILS Identification: SLC

2.19.5 Coordinates: 40-46-20.3855N /
111-58-22.2947W

2.19.6 Site Elevation: 4225.1 ft

2.19.1 ILS Type: Localizer for runway 34R. Magnetic
variation: 11E

2.19.2 ILS Identification: SLC

2.19.5 Coordinates: 40-48-37.6811N /
111-58-38.2145W

2.19.6 Site Elevation: 4224.5 ft

2.19.1 ILS Type: DME for runway 16R. Magnetic varia-
tion: 11E

2.19.2 ILS Identification: UAT

2.19.5 Coordinates: 40-46-19.627N / 111-59-46.3581W
2.19.6 Site Elevation: 4233.6 ft

2.19.1 ILS Type: Glide Slope for runway 16R. Magnetic
variation: 11E

2.19.2 ILS Identification: UAT

2.19.5 Coordinates: 40-48-17.3028N / 112-0-1.6005W

2.19.6 Site Elevation: 4218.7 ft

2.19.1 ILS Type: Localizer for runway 16R. Magnetic
variation: 11E

2.19.2 ILS Identification: UAT

2.19.5 Coordinates: 40-46-19.9476N /
111-59-42.5324W

2.19.6 Site Elevation: 4227.2 ft

2.19.1 ILS Type: DME for runway 34L. Magnetic varia-
tion: 11E

2.19.2 ILS Identification: UUH

2.19.5 Coordinates: 40-46-19.627N / 111-59-46.3581W
2.19.6 Site Elevation: 4233.6 ft

2.19.1 ILS Type: Glide Slope for runway 34L. Magnetic
variation: 11E

2.19.2 ILS Identification: UUH

2.19.5 Coordinates: 40-46-39.8998N /
111-59-50.2673W

2.19.6 Site Elevation: 4222.6 ft

2.19.1 ILS Type: Localizer for runway 34L. Magnetic
variation: 11E

2.19.2 ILS Identification: UUH

2.19.5 Coordinates: 40-48-37.9731N /
111-59-58.5893W

2.19.6 Site Elevation: 4220 ft

2.19.1 ILS Type: DME for runway 17. Magnetic varia-
tion: 11E

2.19.2 ILS Identification: BNT

2.19.5 Coordinates: 40-46-9.7838N / 111-57-47.5356W
2.19.6 Site Elevation: 4242.7 ft

2.19.1 ILS Type: Glide Slope for runway 17. Magnetic
variation: 11E

2.19.2 ILS Identification: BNT

2.19.5 Coordinates: 40-47-45.7497N /
111-57-50.0372W

2.19.6 Site Elevation: 4216.4 ft

2.19.1 ILS Type: Localizer for runway 17. Magnetic
variation: 11E

2.19.2 ILS Identification: BNT

2.19.5 Coordinates: 40-46-10.0541N /

111-57-43.4502W

2.19.6 Site Elevation: 4227.9 ft

2.19.1 ILS Type: DME for runway 35. Magnetic variation: 11E

2.19.2 ILS Identification: UTJ

2.19.5 Coordinates: 40-46-9.7838N / 111-57-47.5356W

2.19.6 Site Elevation: 4242.7 ft

2.19.1 ILS Type: Glide Slope for runway 35. Magnetic variation: 11E

2.19.2 ILS Identification: UTJ

2.19.5 Coordinates: 40-46-35.1583N /
111-57-48.6413W

2.19.6 Site Elevation: 4229.2 ft

2.19.1 ILS Type: Localizer for runway 35. Magnetic variation: 11E

2.19.2 ILS Identification: UTJ

2.19.5 Coordinates: 40-47-8.3329N / 111-57-51.5557W

2.19.6 Site Elevation: 4220.8 ft

General Remarks:

SEE CURRENT NOTAMS FOR DATES AND ADDITIONAL INFO.

MILITARY: ANG RAMP: NSTD PAVEMENT MARK ON RAMP.

SVFR IS NOT RCMD AT THE ARPT, IF REQD, EXPT DLAS.

TWY Y RSTD TO WINGSPANS LESS THAN 171 FT BTWN TWY H3 AND H4.

MILITARY: ANG RAMP: OPR 1430-2230Z++ MON-THU. CLSD FRI-SUN AND HOL. OFFL BUS ONLY. PPR REQ 48 HR ALL ACFT, VALID 1 HR +/- ETA. TRAN PRK/SVC EXTREMELY LTD. BASE OPS DSN 245-2274, C801-245-2274. MIL ALT HILL AFB (KHIF) 25 NM N. ALL ACFT CTC UTAH CTL (COMD POST) 20 MIN OUT WITH ETA AND REQ.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

SPOTS 22 AND 23 TO BE RENAMED 1WEST ON 15 SEP 2020.

SURFACE MOVEMENT GUIDANCE CONTROL SYSTEM & LOW VISIBILITY TAXI PROCEDURES.

HELIPADS B AND F LOCATED ON GENERAL AVIATION APRONS.

USE CAUTION FOR EXTENSIVE PARAGLIDING OPS INVOF POINT OF THE MOUNTAIN.

SEE FLIP AP/1 SUPPLEMENTARY ARPT INFO.

MILITARY: COMMUNICATIONS: ANG COMD POST - CALL UTAH CONTROL.

USE MINIMUM THRUST IN CONSTRUCTION AREAS.

CONTACT GROUND ON 123.775 BEFORE TAXIING OUT OF NORTH CARGO.

DUE TO TFC VOL, LCL DEPARTURE AND ARR OPNS ARE DISCOURAGED AND DLAS CAN BE EXPCD BTN 1500-1730Z++ AND 0130-0300Z++.

MILITARY: SVC: FUEL A++.

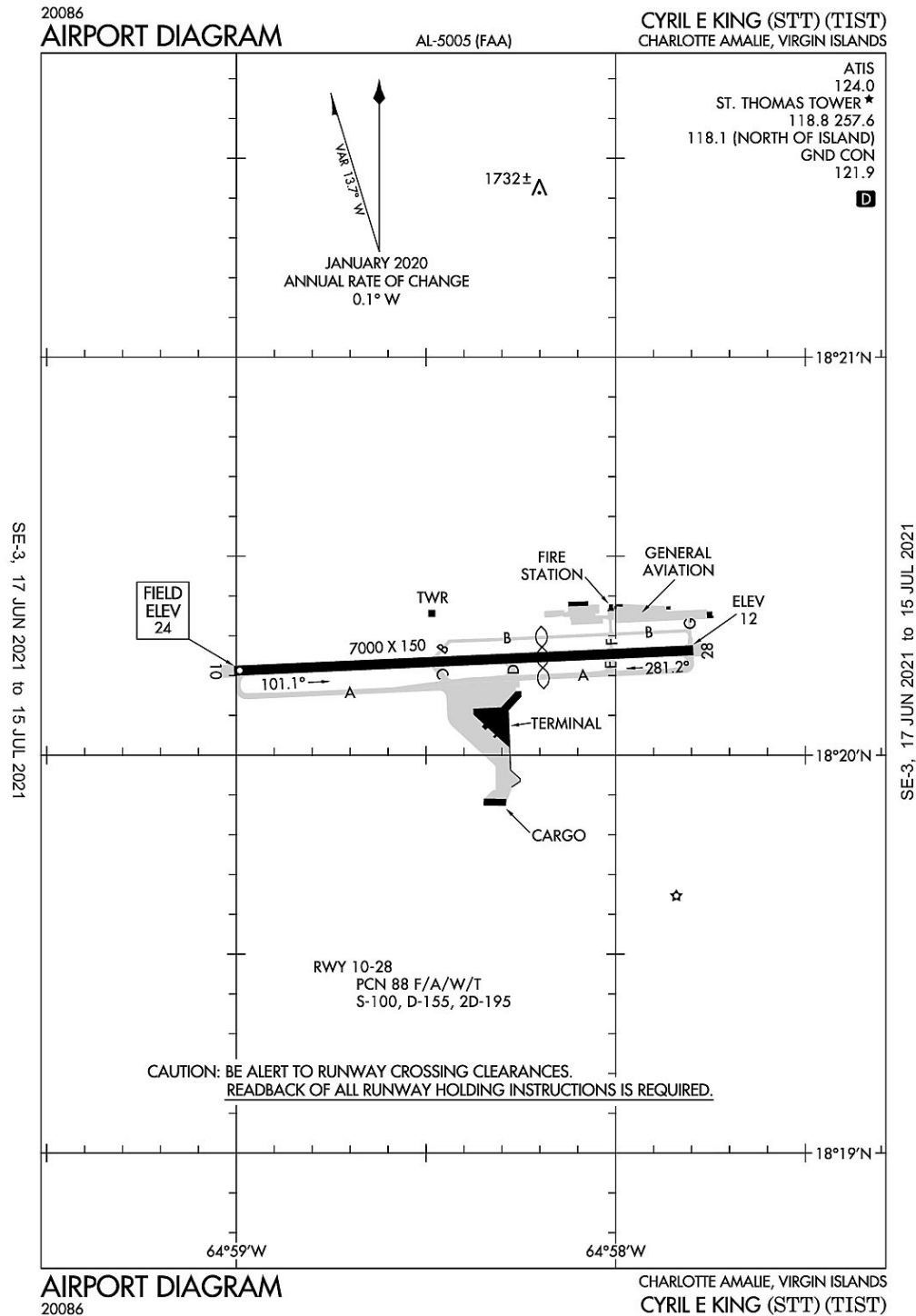
FLOCK OF BIRDS ON AND IN VICINITY OF ARPT.

SPOTS 20 AND 21 TO BE RENAMED 2WEST ON 15 SEP 2020.

MILITARY: ANG RAMP: ALL ACFT CTC UTAH CONTROL WITH LDG & DEP TIMES. COMD POST DSN:

245-2416/2417; C801-245-2416/2417. PHASE II WILDLIFE ACT DURING MIGRATION/MORNING/EVENING
HRS FR OCT-APR. CTC UTAH CTL FOR CURRENT BIRD-WATCH COND.

Charlotte Amalie St. Thomas, Virgin Islands
Cyril E King
ICAO Identifier TIST



**Charlotte Amalie, VI
Cyril E King
ICAO Identifier TIST**

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 18-20-14.3N / 64-58-24W
- 2.2.2 From City: 2 miles W of CHARLOTTE AMALIE, VI
- 2.2.3 Elevation: 23.6 ft
- 2.2.5 Magnetic Variation: 13W (2000)
- 2.2.6 Airport Contact: JEROME SHERIDAN
CYRIL E. KING AIRPORT
ST THOMAS, VI 802
((340) 714-6667)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, 0700-2300 Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,100LL
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MINOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 28
- 2.12.2 True Bearing: 267
- 2.12.3 Dimensions: 7000 ft x 150 ft
- 2.12.4 PCN: 88 F/A/W/T
- 2.12.5 Coordinates: 18-20-15.8124N / 64-57-47.7382W
- 2.12.6 Threshold Elevation: 11.7 ft
- 2.12.6 Touchdown Zone Elevation: 16.5 ft
- 2.12.1 Designation: 10
- 2.12.2 True Bearing: 87
- 2.12.3 Dimensions: 7000 ft x 150 ft
- 2.12.4 PCN: 88 F/A/W/T
- 2.12.5 Coordinates: 18-20-12.7247N / 64-59-0.3371W

- 2.12.6 Threshold Elevation: 23.5 ft
- 2.12.6 Touchdown Zone Elevation: 23.6 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 28
- 2.13.2 Take-off Run Available: 7000
- 2.13.3 Take-off Distance Available: 7000
- 2.13.4 Accelerate-Stop Distance Available: 6000
- 2.13.5 Landing Distance Available: 3700
- 2.13.1 Designation: 10
- 2.13.2 Take-off Run Available: 7000
- 2.13.3 Take-off Distance Available: 7000
- 2.13.4 Accelerate-Stop Distance Available: 7000
- 2.13.5 Landing Distance Available: 7000

AD 2.14 Approach and Runway Lighting

- 2.14.1 Designation: 28
- 2.14.2 Approach Lighting System:
- 2.14.4 Visual Approach Slope Indicator System:
- 2.14.1 Designation: 10
- 2.14.2 Approach Lighting System:
- 2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

- 2.18.1 Service Designation: ATIS
- 2.18.3 Channel: 124
- 2.18.5 Hours of Operation: 24
- 2.18.1 Service Designation: EMERG
- 2.18.3 Channel: 121.5
- 2.18.5 Hours of Operation:
- 2.18.1 Service Designation: EMERG
- 2.18.3 Channel: 243
- 2.18.5 Hours of Operation:
- 2.18.1 Service Designation: GND/P
- 2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 0700–2230, ATCT CLOS
1 HR EARLIER DRG DALGT SAVINGS TIME.

2.18.1 Service Designation: LCL/P (NORTH OF IS-
LAND)

2.18.3 Channel: 118.1

2.18.5 Hours of Operation: 0700–2230, ATCT CLOS
1 HR EARLIER DRG DALGT SAVINGS TIME.

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 118.8

2.18.5 Hours of Operation: 0700–2230, ATCT CLOS
1 HR EARLIER DRG DALGT SAVINGS TIME.

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 257.6

2.18.5 Hours of Operation: 0700–2230, ATCT CLOS
1 HR EARLIER DRG DALGT SAVINGS TIME.

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 10. Magnetic varia-

tion: 13W

2.19.2 ILS Identification: TMN

2.19.5 Coordinates: 18–20–18.78N / 64–57–39.88W

2.19.6 Site Elevation: 22.6 ft

2.19.1 ILS Type: Glide Slope for runway 10. Magnetic
variation: 13W

2.19.2 ILS Identification: TMN

2.19.5 Coordinates: 18–20–10.62N / 64–58–48.29W

2.19.6 Site Elevation: 15.1 ft

2.19.1 ILS Type: Localizer for runway 10. Magnetic
variation: 13W

2.19.2 ILS Identification: TMN

2.19.5 Coordinates: 18–20–16.26N / 64–57–37.22W

2.19.6 Site Elevation: 17 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic vari-
ation: 10W

2.19.2 Navigation Aid Identification: STT

2.19.5 Coordinates: 18–21–20.9431N / 65–1–28.3968W

2.19.6 Site Elevation: 679.2 ft

General Remarks:

LGTS ON HILL 4 NM SE OF ARPT MAY BE MISTAKEN FOR RY 10/28 WHEN MAKING A VISUAL APCH FROM THE SOUTH.

ACFT THAT BACK TAXI FOR DEP ON RY 28 SHALL MAKE THEIR 180 DEG TURN CCLKWS.

NOISE SENSITIVE AREA: AVOID OVERFLIGHTS OF WATER ISLAND LOCATED 2 MI SE OF ARPT.

ARFF UNAVBL 2300–0630.

RY 10 DEPS MAINTAIN RY HDG UNTIL REACHING DEP END OF RY BFR TURNING ON COURSE OR ASSIGNED HDG UNLESS OTRW AUZD BY ATCT.

WHEN TWR CLSD CTC SAN JUAN CERAP AT 787–253–8664/8665

PILOTS CTC GND CTL PRIOR TO PUSHBACK.

PILOTS MAY ENCTR FALSE ILLUSORY INDICATIONS DURG NGT VISUAL APCHS TO RY 10 WHEN USING VISUAL CUES FOR VERTICAL GUIDANCE; RCMD USE OF THE ILS GS & FQT CROSS REF WITH THE ACFT ALTM TO MAINT THE PROPER APCH PROFILE.

OBSTRUCTION SAILBOAT MAST 100FT WEST OF APPROACH END OF RWY 10 50FT AGL

20086

AIRPORT DIAGRAM

HENRY E ROHLSSEN (STX)(TISX)

CHRISTIANSTED, ST. CROIX, VIRGIN ISLANDS

AL-5008 (FAA)

FIELD ELEV 74

**CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.**

**ATIS
135.65
ST. CROIX TOWER ★
118.6 239.3
GND CON
121.7**

D

**RWY 10-28
PCN 62 F/C/W/T
S-100, D-175, 2D-300**

ELEV 23

→ 0.4% UP →

→ 277.8° →

100 X 200

10004 X 150

0.6% DOWN →

ELEV 74

→ 097.8° →

100 X 200

TERMINAL

FIRE STATION

TWR

**VAR 13.8° W
JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W**

253 ☆

17°42.5'N

17°41.5'N

64°49.0'W

64°48.5'W

64°48.0'W

64°47.5'W

64°47.0'W

20086

AIRPORT DIAGRAM

CHRISTIANSTED, ST. CROIX, VIRGIN ISLANDS

HENRY E ROHLSSEN (STX)(TISX)

Christiansted, VI
Henry E Rohlsen
ICAO Identifier TISX

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 17-42-5.416N / 64-48-6.9945W
- 2.2.2 From City: 6 miles SW of CHRISTIANSTED, VI
- 2.2.3 Elevation: 74.1 ft
- 2.2.5 Magnetic Variation: 13W (2000)
- 2.2.6 Airport Contact: JEROME SHERIDAN
P.O. BOX 1134
ST CROIX, VI 821
(340-714-6660)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, 0500-2300 Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: NO
- 2.4.2 Fuel Types: 100LL,A1+
- 2.4.5 Hangar Space: YES
- 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 28
- 2.12.2 True Bearing: 264
- 2.12.3 Dimensions: 10004 ft x 150 ft
- 2.12.4 PCN: 62 F/C/W/T
- 2.12.5 Coordinates: 17-42-10.62N / 64-47-15.544W
- 2.12.6 Threshold Elevation: 22.5 ft
- 2.12.6 Touchdown Zone Elevation: 40 ft

- 2.12.1 Designation: 10
- 2.12.2 True Bearing: 84
- 2.12.3 Dimensions: 10004 ft x 150 ft
- 2.12.4 PCN: 62 F/C/W/T
- 2.12.5 Coordinates: 17-42-0.212N / 64-48-58.445W
- 2.12.6 Threshold Elevation: 73.7 ft
- 2.12.6 Touchdown Zone Elevation: 74.1 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 28
- 2.13.2 Take-off Run Available: 10004
- 2.13.3 Take-off Distance Available: 10004

- 2.13.4 Accelerate-Stop Distance Available: 10004
- 2.13.5 Landing Distance Available: 9003

- 2.13.1 Designation: 10
- 2.13.2 Take-off Run Available: 10004
- 2.13.3 Take-off Distance Available: 10004
- 2.13.4 Accelerate-Stop Distance Available: 9003
- 2.13.5 Landing Distance Available: 9003

AD 2.14 Approach and Runway Lighting

- 2.14.1 Designation: 28
- 2.14.2 Approach Lighting System:
- 2.14.4 Visual Approach Slope Indicator System: P4L
- 2.14.1 Designation: 10
- 2.14.2 Approach Lighting System: MALSR
- 2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

- 2.18.1 Service Designation: ATIS
- 2.18.3 Channel: 135.65
- 2.18.5 Hours of Operation: 24

- 2.18.1 Service Designation: EMERG
- 2.18.3 Channel: 121.5
- 2.18.5 Hours of Operation:

- 2.18.1 Service Designation: EMERG
- 2.18.3 Channel: 243
- 2.18.5 Hours of Operation:

- 2.18.1 Service Designation: GND/P
- 2.18.3 Channel: 121.7
- 2.18.5 Hours of Operation: 0700-2200

- 2.18.1 Service Designation: LCL/P
- 2.18.3 Channel: 118.6
- 2.18.5 Hours of Operation: 0700-2200

- 2.18.1 Service Designation: LCL/P
- 2.18.3 Channel: 239.3
- 2.18.5 Hours of Operation: 0700-2200

AD 2.19 Radio Navigation and Landing Aids

- 2.19.1 ILS Type: Glide Slope for runway 10. Magnetic variation: 13W
- 2.19.2 ILS Identification: STX

2.19.5 Coordinates: 17-41-58.77N / 64-48-45.5W
2.19.6 Site Elevation: 63.5 ft

2.19.1 ILS Type: Localizer for runway 10. Magnetic
variation: 13W

2.19.2 ILS Identification: STX

2.19.5 Coordinates: 17-42-11.36N / 64-47-8.28W

2.19.6 Site Elevation: 26.4 ft

2.19.1 ILS Type: Outer Marker for runway 10. Magnetic
variation: 13W

2.19.2 ILS Identification: STX

2.19.5 Coordinates: 17-41-30.92N / 64-53-4.74W

2.19.6 Site Elevation: 40 ft

General Remarks:

APCH TO RY 28 SMTMS OBSCD BY SMOKE FM LANDFILL LCTD E OF ARPT.

TAXI INTO POSITION AND HOLD PROCEDURES NO LONGER IN EFFECT.

BIRDS & WILDLIFE ON & INVOF ARPT.

AP SFC COND UNMON DLY 2300 – 0600 AST.

WHEN TWR CLSD CTC SAN JUAN CERAP AT 787-253-8664/8665

RY 10 AND 28 100' X 200' BLAST PAD.

Everett, WA
Snohomish County (Paine Fld)
ICAO Identifier KPAE

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 47-54-26.3425N /
122-16-55.5384W
2.2.2 From City: 6 miles SW of EVERETT, WA
2.2.3 Elevation: 607.5 ft
2.2.5 Magnetic Variation: 16E (2020)
2.2.6 Airport Contact: ARIF GHOUSE
3220 100TH ST SW
EVERETT, WA 98204
((425) 388-5100)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 NOV-APR Months, All Days, 0700-2100 Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I B certified on 11/1/1974

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 16L
2.12.2 True Bearing: 180
2.12.3 Dimensions: 3004 ft x 75 ft
2.12.4 PCN: 4 F/B/Y/T
2.12.5 Coordinates: 47-54-23.1294N /
122-16-18.0937W
2.12.6 Threshold Elevation: 602.8 ft
2.12.6 Touchdown Zone Elevation: 606.9 ft

2.12.1 Designation: 34R
2.12.2 True Bearing: 360
2.12.3 Dimensions: 3004 ft x 75 ft
2.12.4 PCN: 4 F/B/Y/T
2.12.5 Coordinates: 47-53-53.4884N /

122-16-17.7654W
2.12.6 Threshold Elevation: 599.7 ft
2.12.6 Touchdown Zone Elevation: 606.9 ft

2.12.1 Designation: 16R
2.12.2 True Bearing: 179
2.12.3 Dimensions: 9010 ft x 150 ft
2.12.4 PCN: 83 F/A/W/T
2.12.5 Coordinates: 47-55-16.8075N /
122-17-9.0638W
2.12.6 Threshold Elevation: 562.6 ft
2.12.6 Touchdown Zone Elevation: 570 ft

2.12.1 Designation: 34L
2.12.2 True Bearing: 359
2.12.3 Dimensions: 9010 ft x 150 ft
2.12.4 PCN: 83 F/A/W/T
2.12.5 Coordinates: 47-53-47.9027N /
122-17-7.0912W
2.12.6 Threshold Elevation: 577.7 ft
2.12.6 Touchdown Zone Elevation: 583.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 16L
2.13.2 Take-off Run Available: 3004
2.13.3 Take-off Distance Available: 3004
2.13.4 Accelerate-Stop Distance Available: 3004
2.13.5 Landing Distance Available: 3004

2.13.1 Designation: 34R
2.13.2 Take-off Run Available: 3004
2.13.3 Take-off Distance Available: 3004
2.13.4 Accelerate-Stop Distance Available: 3004
2.13.5 Landing Distance Available: 3004

2.13.1 Designation: 16R
2.13.2 Take-off Run Available: 9010
2.13.3 Take-off Distance Available: 9010
2.13.4 Accelerate-Stop Distance Available: 9010
2.13.5 Landing Distance Available: 9010

2.13.1 Designation: 34L
2.13.2 Take-off Run Available: 9010

2.13.3 Take-off Distance Available: 9010
2.13.4 Accelerate-Stop Distance Available: 9010
2.13.5 Landing Distance Available: 9010

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 16L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 34R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 16R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 34L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: AR OPS
2.18.3 Channel: 34.1
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 128.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 127.175
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: GND/P
2.18.3 Channel: 339.8
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P (RWY 16L/34R)
2.18.3 Channel: 120.2
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 256.7
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P IC (RWY 16R/34L)
2.18.3 Channel: 132.95
2.18.5 Hours of Operation: 0700-2100

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 16R. Magnetic variation: 16E

2.19.2 ILS Identification: PAE
2.19.5 Coordinates: 47-55-7.3457N /
122-17-13.6176W
2.19.6 Site Elevation: 566.6 ft

2.19.1 ILS Type: Localizer for runway 16R. Magnetic variation: 16E

2.19.2 ILS Identification: PAE
2.19.5 Coordinates: 47-53-34.0274N /
122-17-6.7862W
2.19.6 Site Elevation: 569.6 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 20E

2.19.2 Navigation Aid Identification: PAE
2.19.5 Coordinates: 47-55-11.4015N /
122-16-40.0844W
2.19.6 Site Elevation: 669.2 ft

General Remarks

RWY 16L/34R LTD TO HEL 8000 LBS OR LESS.
AVOID INT DEPS FM RWY 16L/34R
IT IS REQ THAT PILOTS ADHERE TO THE FLW
NOISE ABATEMENT PROC UNLESS OTRW IN-
STRD BY ATCT, ITNRNT ARR AND LOW APCH OF
SML ACFT OVER 250 HORSEPOWER AUZ ON

RWYS 16L AND 34R.
NOISE SENSITIVE ARPT; FOR NOISE ABATE-
MENT PROC & TFC PROC CALL ARPT OPS
425-388-5125.
TSNT HEL EXP LNDG/TKOF ON TWY B.
RWY 16R/34 TGL PROHIBITED MON-FRI FM
0700-0900.
ITNRNT DEP OF SML ACFT OVER 250 HORSE-
POWER ON RWY 34R.
TRNG FLTS DISCOURAGED AFT 2200.
FOR NOISE ABATEMENT FROM 0500-1500Z++ IF
ACFT PERFORMANCE/WIND ALLOWS, USE RY
16R FOR ARRIVALS AND RY 34L FOR DEPAR-
TURES.
TWY C BTN TRML RAMP AND CNTRL RAMP
RSTRD TO WINGSPAN OF 68 FT OR LESS. TWY D,
E, G AND L RSTRD TO WINGSPAN LESS THAN 49
FT. TWY A4, A5, K7 & B RSTRD TO WINGSPAN
LESS THAN 118 FT. TAXILANE H RSTRD TO
WINGSPAN LESS THAN 49 FT.
LRG ACFT FLY W PAT OVR WTR; SML ACFT FLY
E PAT OVR ARPT.
AVOID LOW LVL OVRFLT OF BOEING RAMP; NE
CORNER OF ARPT DUE TO JET BLAST.
FLOCKS OF LRG & SML BIRDS INVOF ARPT.
BE ALERT TO CNVG TFC ON BASE TO FINAL
LEGS RWY 16R/34L 2100-0700.
FOR CD WHEN ATCT IS CLSD CTC SEATTLE
APCH AT 206-214-4722.
PAE HAS FAC CONSTRAINTS THAT LMT ITS
ABILITY TO ACCOMMODATE DIVD FLTS AND
MNTN THE ARPTS SAFE OPN DUR IREG OPS.
ACFT OPR SHOULD CTCT THE ON-DUTY ARPT
OPS PSNL (425-388-5125) TO COORD DIVD FLTS
EXC IN THE CASE OF A DECLARED IN-FLT
EMERG.
PPR RQRD FOR ACES ON BOEING RAMP. CTC
BOEING FLT DISPATCH 206-544-5900 FOR APVL.
PRIOR TO TAXI ONTO BOEING RAMP CTC BOE-
ING RADIO TWR 123.475 OR CALL 425-342-5900.
TWY K1 CLSD TO ACFT UNDER 30000 LBS.
TKOF CLNC RWY 16R FULL LEN; ENT RWY VIA
TWY A1 UNLESS TWY AA SPECIFIED.
USE CTN FOR 80 FT AGL LGT POLES SW EDGE

OF BRAVO RAMP.
RWY 16L/34R CLSD BTN 0500-1500Z.
TWY A-2 RSTRD TO 30000 LBS.
EMERG FREQ 121.5 NOT MNT AT TWR. SEATTLE
APP CON-TRACON MNT 121.5 FOR EVERETT
(PAE).
AREAS NOT VSB FM ATCT INCL E EDGE OF S
1200 FT OF TWY A, TAXILANE E FM SE CORNER
OF W HNGRS TO TWY A, TAXILANE H FROM NW
EDGE OF W HNGRS TO TAXILANE E.
TAXILANE E RSTD TO WINGSPAN LESS THAN
171 FT. ACFT WINGSPAN OF 171 FT OR GREATER
ON TAXILANE E, TUG OPS ONLY. EAST 500 FT OF
TAXILANE E RSTD TO WINGSPAN LESS THAN 49
FT.
AIRFIELD CONDS NOT MNTD BTN 0000-0630.
EVERETT, WA
SNOHOMISH COUNTY (PAINE FLD)
ICAO Identifier: KPAE

AD 2.2 Aerodrome Geographical and Administrative Data

2.2.1 Reference Point: 47-54-26.3425N /
122-16-55.5384W
2.2.2 From City: 6 miles SW of EVERETT, WA
2.2.3 Elevation: 607.5 ft
2.2.5 Magnetic Variation: 16E (2020)
2.2.6 Airport Contact: ARIF GHOUSE
3220 100TH ST SW
EVERETT, WA 98204 ((425) 388-5100)
2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 MAY-OCT Months, All Days, 0700-2100 Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: NO
2.4.2 Fuel Types: A,100LL
2.4.5 Hangar Space: YES
2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
I B certified on 11/1/1974

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 16L
2.12.2 True Bearing: 180
2.12.3 Dimensions: 3004 ft x 75 ft
2.12.4 PCN: 4 F/B/Y/T
2.12.5 Coordinates: 47-54-23.1294N /
122-16-18.0937W
2.12.6 Threshold Elevation: 602.8 ft
2.12.6 Touchdown Zone Elevation: 606.9 ft

2.12.1 Designation: 34R
2.12.2 True Bearing: 360
2.12.3 Dimensions: 3004 ft x 75 ft
2.12.4 PCN: 4 F/B/Y/T
2.12.5 Coordinates: 47-53-53.4884N /
122-16-17.7654W
2.12.6 Threshold Elevation: 599.7 ft
2.12.6 Touchdown Zone Elevation: 606.9 ft

2.12.1 Designation: 16R
2.12.2 True Bearing: 179
2.12.3 Dimensions: 9010 ft x 150 ft
2.12.4 PCN: 83 F/A/W/T
2.12.5 Coordinates: 47-55-16.8075N /
122-17-9.0638W
2.12.6 Threshold Elevation: 562.6 ft
2.12.6 Touchdown Zone Elevation: 570 ft

2.12.1 Designation: 34L
2.12.2 True Bearing: 359
2.12.3 Dimensions: 9010 ft x 150 ft
2.12.4 PCN: 83 F/A/W/T
2.12.5 Coordinates: 47-53-47.9027N /
122-17-7.0912W
2.12.6 Threshold Elevation: 577.7 ft
2.12.6 Touchdown Zone Elevation: 583.6 ft

AD 2.13 Declared Distances

2.13.1 Designation: 16L
2.13.2 Take-off Run Available: 3004
2.13.3 Take-off Distance Available: 3004
2.13.4 Accelerate-Stop Distance Available: 3004

2.13.5 Landing Distance Available: 3004

2.13.1 Designation: 34R
2.13.2 Take-off Run Available: 3004
2.13.3 Take-off Distance Available: 3004
2.13.4 Accelerate-Stop Distance Available: 3004
2.13.5 Landing Distance Available: 3004

2.13.1 Designation: 16R
2.13.2 Take-off Run Available: 9010
2.13.3 Take-off Distance Available: 9010
2.13.4 Accelerate-Stop Distance Available: 9010
2.13.5 Landing Distance Available: 9010

2.13.1 Designation: 34L
2.13.2 Take-off Run Available: 9010
2.13.3 Take-off Distance Available: 9010
2.13.4 Accelerate-Stop Distance Available: 9010
2.13.5 Landing Distance Available: 9010

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 16L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 34R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 16R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 34L
2.14.2 Approach Lighting System: MALSF
2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: AR OPS
2.18.3 Channel: 34.1
2.18.5 Hours of Operation:

2.18.1 Service Designation: ATIS
2.18.3 Channel: 128.65
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 127.175
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: GND/P
2.18.3 Channel: 339.8
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P (RWY 16L/34R)
2.18.3 Channel: 120.2
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 256.7
2.18.5 Hours of Operation: 0700-2100

2.18.1 Service Designation: LCL/P IC (RWY 16R/34L)

General Remarks:

RWY 16L/34R LTD TO HEL 8000 LBS OR LESS.

AVOID INT DEPS FM RWY 16L/34R

IT IS REQ THAT PILOTS ADHERE TO THE FLW NOISE ABATEMENT PROC UNLESS OTRW INSTRD BY ATCT, ITNRNT ARR AND LOW APCH OF SML ACFT OVER 250 HORSEPOWER AUZ ON RWYS 16L AND 34R.

NOISE SENSITIVE ARPT; FOR NOISE ABATEMENT PROC & TFC PROC CALL ARPT OPS 425-388-5125.

TSNT HEL EXP LNDG/TKOF ON TWY B.

RWY 16R/34 TGL PROHIBITED MON-FRI FM 0700-0900.

ITNRNT DEP OF SML ACFT OVER 250 HORSEPOWER ON RWY 34R.

TRNG FLT'S DISCOURAGED AFT 2200.

FOR NOISE ABATEMENT FROM 0500-1500Z++ IF ACFT PERFORMANCE/WIND ALLOWS, USE RY 16R FOR ARRIVALS AND RY 34L FOR DEPARTURES.

TWY C BTN TRML RAMP AND CNTRL RAMP RSTRD TO WINGSPAN OF 68 FT OR LESS. TWY D, F, G AND L RSTRD TO WINGSPAN LESS THAN 49 FT. TWY A4, A5, K7 & B RSTRD TO WINGSPAN LESS THAN 118 FT.

2.18.3 Channel: 132.95
2.18.5 Hours of Operation: 0700-2100

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: Glide Slope for runway 16R. Magnetic variation: 16E

2.19.2 ILS Identification: PAE

2.19.5 Coordinates: 47-55-7.3457N /
122-17-13.6176W

2.19.6 Site Elevation: 566.6 ft

2.19.1 ILS Type: Localizer for runway 16R. Magnetic variation: 16E

2.19.2 ILS Identification: PAE

2.19.5 Coordinates: 47-53-34.0274N /
122-17-6.7862W

2.19.6 Site Elevation: 569.6 ft

2.19.1 Navigation Aid Type: VOR/DME. Magnetic variation: 20E

2.19.2 Navigation Aid Identification: PAE

2.19.5 Coordinates: 47-55-11.4015N /
122-16-40.0844W

2.19.6 Site Elevation: 669.2 ft

TAXILANE H RSTRD TO WINGSPAN LESS THAN 49 FT.

LRG ACFT FLY W PAT OVR WTR; SML ACFT FLY E PAT OVR ARPT.

AVOID LOW LVL OVRFLT OF BOEING RAMP; NE CORNER OF ARPT DUE TO JET BLAST.

FLOCKS OF LRG & SML BIRDS INVOF ARPT.

BE ALERT TO CNVG TFC ON BASE TO FINAL LEGS RWY 16R/34L 2100-0700.

FOR CD WHEN ATCT IS CLSD CTC SEATTLE APCH AT 206-214-4722.

PAE HAS FAC CONSTRAINTS THAT LMT ITS ABILITY TO ACCOMMODATE DIVD FLTS AND MNTN THE ARPTS SAFE OPN DUR IREG OPS. ACFT OPR SHOULD CTCT THE ON-DUTY ARPT OPS PSNL (425-388-5125) TO COORD DIVD FLTS EXC IN THE CASE OF A DECLARED IN-FLT EMERG.

PPR RQRD FOR ACES ON BOEING RAMP. CTC BOEING FLT DISPATCH 206-544-5900 FOR APVL. PRIOR TO TAXI ONTO BOEING RAMP CTC BOEING RADIO TWR 123.475 OR CALL 425-342-5900.

TWY K1 CLSD TO ACFT UNDER 30000 LBS.

TKOF CLNC RWY 16R FULL LEN; ENT RWY VIA TWY A1 UNLESS TWY AA SPECIFIED.

USE CTN FOR 80 FT AGL LGT POLES SW EDGE OF BRAVO RAMP.

RWY 16L/34R CLSD BTN 0500-1500Z.

TWY A-2 RSTRD TO 30000 LBS.

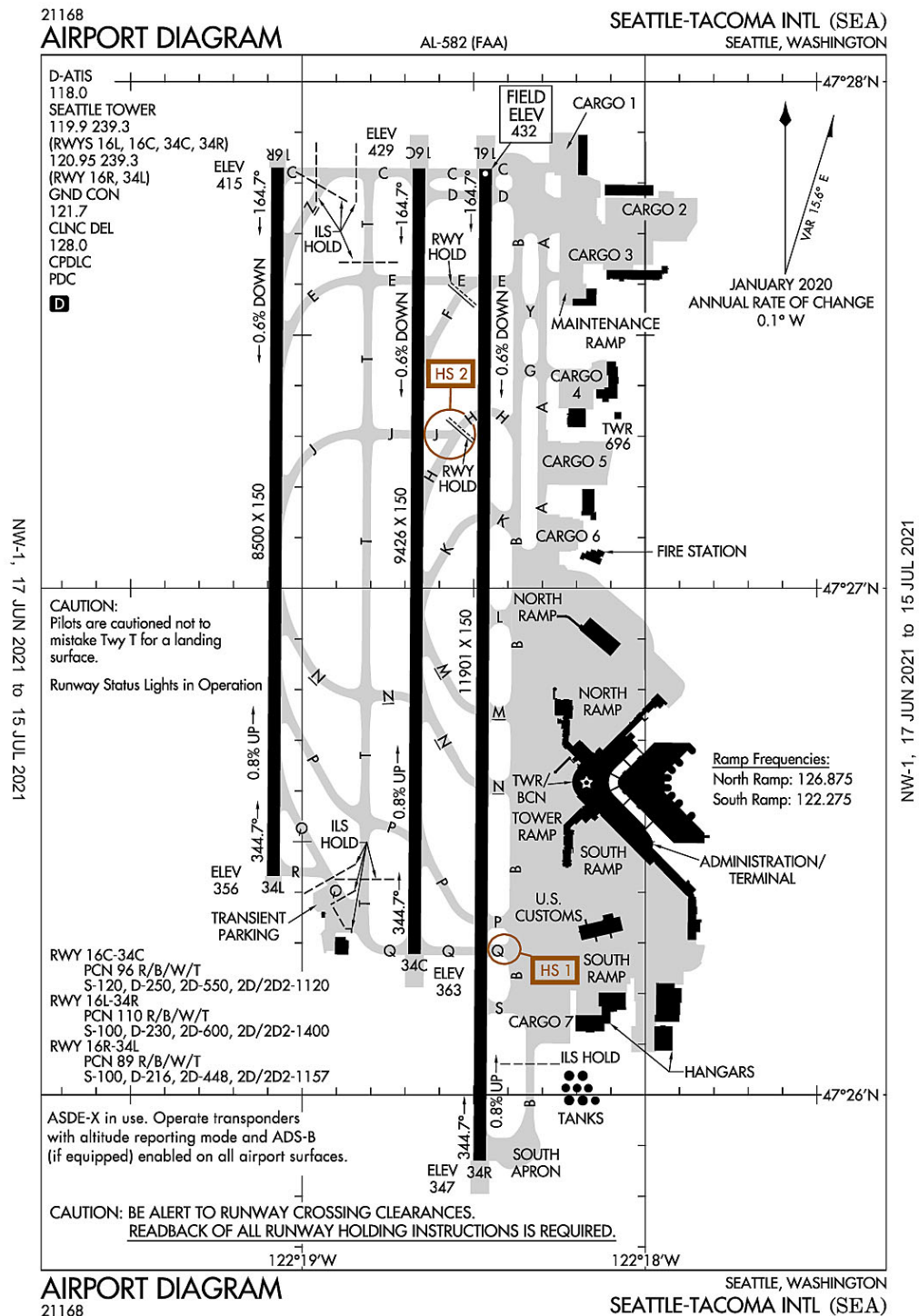
EMERG FREQ 121.5 NOT MNT AT TWR. SEATTLE APP CON-TRACON MNT 121.5 FOR EVERETT (PAE).

AREAS NOT VSB FM ATCT INCL E EDGE OF S 1200 FT OF TWY A, TAXILANE E FM SE CORNER OF W HNGRS TO TWY A, TAXILANE H FROM NW EDGE OF W HNGRS TO TAXILANE E.

TAXILANE E RSTD TO WINGSPAN LESS THAN 171 FT. ACFT WINGSPAN OF 171 FT OR GREATER ON TAXILANE E, TUG OPS ONLY. EAST 500 FT OF TAXILANE E RSTD TO WINGSPAN LESS THAN 49 FT.

AIRFIELD CONDS NOT MNTD BTN 0000-0630.

Seattle, Washington
Seattle-Tacoma International
ICAO Identifier KSEA



Seattle, WA
Seattle-Tacoma Intl
ICAO Identifier KSEA

AD 2.2 Aerodrome geographical and administrative data

- 2.2.1 Reference Point: 47-26-59.6N / 122-18-42.4W
- 2.2.2 From City: 10 miles S of SEATTLE, WA
- 2.2.3 Elevation: 432.3 ft
- 2.2.5 Magnetic Variation: 16E (2020)
- 2.2.6 Airport Contact: LANCE LYTTLE
 BOX 68727
 SEATTLE, WA 98168
 ((206) 787-5229)
- 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

- 2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

- 2.4.1 Cargo Handling Facilities: YES
- 2.4.2 Fuel Types: A,A1
- 2.4.5 Hangar Space:
- 2.4.6 Repair Facilities: NONE

AD 2.6 Rescue and Firefighting Services

- 2.6.1 Aerodrome Category for Firefighting: ARFF Index I E certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

- 2.12.1 Designation: 16C
- 2.12.2 True Bearing: 180
- 2.12.3 Dimensions: 9426 ft x 150 ft
- 2.12.4 PCN: 96 R/B/W/T
- 2.12.5 Coordinates: 47-27-49.7155N / 122-18-39.5415W
- 2.12.6 Threshold Elevation: 429.4 ft
- 2.12.6 Touchdown Zone Elevation: 429.5 ft

- 2.12.1 Designation: 34C
- 2.12.2 True Bearing: 0
- 2.12.3 Dimensions: 9426 ft x 150 ft
- 2.12.4 PCN: 96 R/B/W/T
- 2.12.5 Coordinates: 47-26-16.6966N / 122-18-40.3554W
- 2.12.6 Threshold Elevation: 362.9 ft
- 2.12.6 Touchdown Zone Elevation: 387 ft

- 2.12.1 Designation: 34R
- 2.12.2 True Bearing: 0
- 2.12.3 Dimensions: 11901 ft x 150 ft

- 2.12.4 PCN: 110 R/B/W/T
- 2.12.5 Coordinates: 47-25-52.2202N / 122-18-28.9377W
- 2.12.6 Threshold Elevation: 346.7 ft
- 2.12.6 Touchdown Zone Elevation: 371.5 ft

- 2.12.1 Designation: 16L
- 2.12.2 True Bearing: 180
- 2.12.3 Dimensions: 11901 ft x 150 ft
- 2.12.4 PCN: 110 R/B/W/T
- 2.12.5 Coordinates: 47-27-49.6628N / 122-18-27.9008W
- 2.12.6 Threshold Elevation: 432.3 ft
- 2.12.6 Touchdown Zone Elevation: 432.3 ft

- 2.12.1 Designation: 34L
- 2.12.2 True Bearing: 0
- 2.12.3 Dimensions: 8500 ft x 150 ft
- 2.12.4 PCN: 89 R/B/W/T
- 2.12.5 Coordinates: 47-26-25.9217N / 122-19-5.009W
- 2.12.6 Threshold Elevation: 356.2 ft
- 2.12.6 Touchdown Zone Elevation: 379.3 ft

- 2.12.1 Designation: 16R
- 2.12.2 True Bearing: 180
- 2.12.3 Dimensions: 8500 ft x 150 ft
- 2.12.4 PCN: 89 R/B/W/T
- 2.12.5 Coordinates: 47-27-49.8109N / 122-19-4.2846W
- 2.12.6 Threshold Elevation: 414.8 ft
- 2.12.6 Touchdown Zone Elevation: 414.8 ft

AD 2.13 Declared Distances

- 2.13.1 Designation: 16C
- 2.13.2 Take-off Run Available: 9426
- 2.13.3 Take-off Distance Available: 9426
- 2.13.4 Accelerate-Stop Distance Available: 9426
- 2.13.5 Landing Distance Available: 9426

- 2.13.1 Designation: 34C
- 2.13.2 Take-off Run Available: 9426
- 2.13.3 Take-off Distance Available: 9426
- 2.13.4 Accelerate-Stop Distance Available: 9426
- 2.13.5 Landing Distance Available: 9426

- 2.13.1 Designation: 34R
- 2.13.2 Take-off Run Available: 11901
- 2.13.3 Take-off Distance Available: 11901
- 2.13.4 Accelerate-Stop Distance Available: 11901
- 2.13.5 Landing Distance Available: 11901

2.13.1 Designation: 16L
2.13.2 Take-off Run Available: 11901
2.13.3 Take-off Distance Available: 11901
2.13.4 Accelerate-Stop Distance Available: 11901
2.13.5 Landing Distance Available: 11901

2.13.1 Designation: 34L
2.13.2 Take-off Run Available: 8500
2.13.3 Take-off Distance Available: 8500
2.13.4 Accelerate-Stop Distance Available: 8500
2.13.5 Landing Distance Available: 8500

2.13.1 Designation: 16R
2.13.2 Take-off Run Available: 8500
2.13.3 Take-off Distance Available: 8500
2.13.4 Accelerate-Stop Distance Available: 8500
2.13.5 Landing Distance Available: 8500

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 16C
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34C
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 34L
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 16R
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: CD/P
2.18.3 Channel: 128
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 118
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.7
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16L/34R,
16C/34C)
2.18.3 Channel: 119.9
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16R/34L)
2.18.3 Channel: 120.95
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16R/34L)
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P (RWY 16L/34R,
16C/34C)
2.18.3 Channel: 239.3
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (SOUTH
RAMP)
2.18.3 Channel: 122.275
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (GATE HOLD)
2.18.3 Channel: 126.25
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: RAMP CTL (NORTH
RAMP)
2.18.3 Channel: 126.875
2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 16C. Magnetic variation: 16E

2.19.2 ILS Identification: SZI

2.19.5 Coordinates: 47-26-6.28N / 122-18-39.51W

2.19.6 Site Elevation: 359 ft

2.19.1 ILS Type: Glide Slope for runway 16C. Magnetic variation: 16E

2.19.2 ILS Identification: SZI

2.19.5 Coordinates: 47-27-38.687N / 122-18-45.462W

2.19.6 Site Elevation: 417.6 ft

2.19.1 ILS Type: Localizer for runway 16C. Magnetic variation: 16E

2.19.2 ILS Identification: SZI

2.19.5 Coordinates: 47-26-6.703N / 122-18-40.4438W

2.19.6 Site Elevation: 355.7 ft

2.19.1 ILS Type: DME for runway 34C. Magnetic variation: 16E

2.19.2 ILS Identification: TUC

2.19.5 Coordinates: 47-26-6.28N / 122-18-39.51W

2.19.6 Site Elevation: 359 ft

2.19.1 ILS Type: Glide Slope for runway 34C. Magnetic variation: 16E

2.19.2 ILS Identification: TUC

2.19.5 Coordinates: 47-26-25.6028N /

122-18-46.1679W

2.19.6 Site Elevation: 366.8 ft

2.19.1 ILS Type: Localizer for runway 34C. Magnetic variation: 16E

2.19.2 ILS Identification: TUC

2.19.5 Coordinates: 47-27-54.3525N /

122-18-39.5018W

2.19.6 Site Elevation: 421.8 ft

2.19.1 ILS Type: DME for runway 16L. Magnetic variation: 16E

2.19.2 ILS Identification: SNQ

2.19.5 Coordinates: 47-26-3.5974N /

122-18-22.6779W

2.19.6 Site Elevation: 369.4 ft

2.19.1 ILS Type: Glide Slope for runway 16L. Magnetic variation: 16E

2.19.2 ILS Identification: SNQ

2.19.5 Coordinates: 47-27-38.9362N /

122-18-33.8193W

2.19.6 Site Elevation: 425.2 ft

2.19.1 ILS Type: Localizer for runway 16L. Magnetic variation: 16E

2.19.2 ILS Identification: SNQ

2.19.5 Coordinates: 47-25-42.224N /

122-18-29.0263W

2.19.6 Site Elevation: 335.5 ft

2.19.1 ILS Type: DME for runway 34R. Magnetic variation: 16E

2.19.2 ILS Identification: SEA

2.19.5 Coordinates: 47-26-3.5974N /

122-18-22.6779W

2.19.6 Site Elevation: 369.4 ft

2.19.1 ILS Type: Glide Slope for runway 34R. Magnetic variation: 16E

2.19.2 ILS Identification: SEA

2.19.5 Coordinates: 47-26-3.3996N /

122-18-23.0248W

2.19.6 Site Elevation: 355.1 ft

2.19.1 ILS Type: Localizer for runway 34R. Magnetic variation: 16E

2.19.2 ILS Identification: SEA

2.19.5 Coordinates: 47-27-54.2762N /

122-18-27.8613W

2.19.6 Site Elevation: 428.1 ft

2.19.1 ILS Type: DME for runway 16R. Magnetic variation: 16E

2.19.2 ILS Identification: CJL

2.19.5 Coordinates: 47-26-15.6195N /

122-18-59.9408W

2.19.6 Site Elevation: 344.8 ft

2.19.1 ILS Type: Glide Slope for runway 16R. Magnetic variation: 16E

2.19.2 ILS Identification: CJL

2.19.5 Coordinates: 47-27-38.4647N /

122-19-0.5973W

2.19.6 Site Elevation: 405.5 ft

2.19.1 ILS Type: Localizer for runway 16R. Magnetic variation: 16E

2.19.2 ILS Identification: CJL

2.19.5 Coordinates: 47-26-15.9249N /

122-19-5.0962W

2.19.6 Site Elevation: 343.7 ft

2.19.1 ILS Type: DME for runway 34L. Magnetic varia-

tion: 16E

2.19.2 ILS Identification: BEJ

2.19.5 Coordinates: 47-26-15.6195N /
122-18-59.9408W

2.19.6 Site Elevation: 344.8 ft

2.19.1 ILS Type: Glide Slope for runway 34L. Magnetic
variation: 16E

2.19.2 ILS Identification: BEJ

2.19.5 Coordinates: 47-26-34.9351N /
122-18-59.9836W

2.19.6 Site Elevation: 358.5 ft

2.19.1 ILS Type: Localizer for runway 34L. Magnetic
variation: 16E

2.19.2 ILS Identification: BEJ

2.19.5 Coordinates: 47-27-59.7764N /
122-19-4.1986W

2.19.6 Site Elevation: 409.5 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 19E

2.19.2 Navigation Aid Identification: SEA

2.19.5 Coordinates: 47-26-7.3434N / 122-18-34.618W

2.19.6 Site Elevation: 348.4 ft

General Remarks:

(E94) WSO/WSFO.

RWY 16L/34R RSTD TO ACFT WITH WINGSPAN 260 FT OR LESS.

TAXILANE W RSTD TO ACFT WITH WINGSPAN 135 FT OR LESS N OF TWY N AND 167 FT OR LESS SOUTH
OF TWY N. SEATTLE RAMP TWR PRVDS ADZY CTL ONLY.

AIR CARGO 5 RAMP DUAL ENG TAX ONLY

TWYS J & H E OF TWY T RSTD TO ACFT WITH WINGSPAN 167 FT OR LESS.

BTN THE HRS OF 2200-0700 THE USE OF EXTDD REVERSE THRUST IS DISCOURAGED BYD WHAT IS
NECESSARY FOR OPNL OR SAFETY REASONS. NOISE ABATEMENT PROCEDURES IN EFFECT BTN
2200-0600. FOR FURTHER INFO CONTACT SEA NOISE ABATEMENT OFFICE AT 206-787-7496.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF
EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

TWY H E OF RWY 16L/34R RSTD TO ACFT WITH WINGSPAN 118 FT OR LESS WHEN EXITING RWY 16L/34R.

DO NOT MISTAKE TWY T FOR LNDG SFC.

ACES TO AIR CARGO 4 PRKG AND CARGO AREAS RSTD TO ACFT WITH WINGSPAN 170 FT OR LESS.

HELICOPTERS LANDING & DEPARTING AVOID OVERFLYING FUEL FARM LCTD AT THE SE CORNER OF
THE ARPT.

(E110) CONTINUOUS POWER ARPT.

TWY B SOUTH OF AIR CARGO 7 RAMP RSTD TO ACFT WITH WINGSPAN 260 FT OR LESS.

TWY FOR CORPORATE HNGR RAMP RSTD TO ACFT WITH WINGSPAN 62 FT OR LESS FOR TAXI OPS. GA
CUST PKNG IS VERY LTD.

RY STATUS LGTS ARE IN OPN.

TWY A SOUTH OF TWY G RSTD TO ACFT WITH WINGSPAN 225 FT OR LESS.

100LL FUEL NOT AVBL.

TWY B S OF TWY Q RSTD TO ACFT WITH WINGSPAN 260 FT OR LESS.

BIRD FLOCKS WITHIN ARPT VCNTY – CHECK LCL ADZYS.

TAXILANE ON N SIDE OF N STLT RSTD TO ACFT WITH WINGSPAN 118 FT OR LESS. TRI-TAXILANES AT N STLT: CNTR (GREEN) TAXILANE RSTD TO ACFT WITH WINGSPAN 135 FT OR LESS. WHEN AN ACFT IS ON THE CNTR (GREEN) OR OTR (ORANGE/BLUE) TAXILANES, NO OTR ACFT CAN SIMUL USE THE ADJ TAXILANE(S). ORANGE & BLUE TAXILANES ARE RSTD TO ACFT WITH WINGSPAN 118 FT OR LESS. TWO

ACFT CAN SIMUL USE THE OUTER TAXILANES.

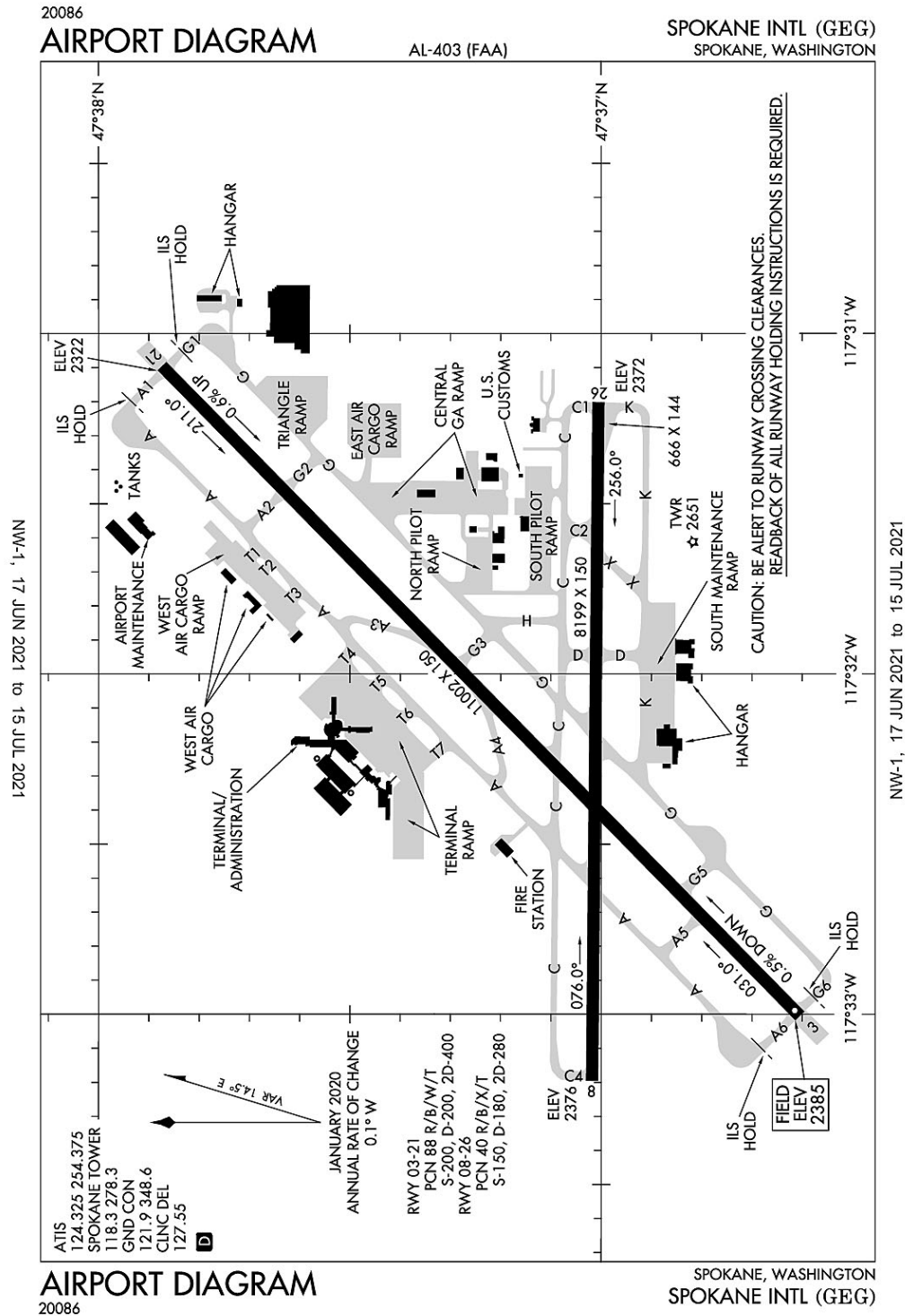
GA LANDING FEES PAYABLE BY MAJOR CREDIT CARDS ONLY.

ACFT WITH WINGSPANS OF 171 FT. OR MORE PARKED AT PAX GATES OR CARGO 7 MUST PROVIDE 30 MIN PPR PRIOR TO PUSHBACK TO SEATTLE RAMP TWR WHEN VSBY LESS THAN 2400 RVR

FLIGHT NOTIFICATION SERVICE (ADCUS) AVBL.

PPR FOR ALL GA PRKG AND SVC. CTC 206-433-5481. OPR HRS 0530L – 2300L, WITH A CALL OUT AVBL UPON REQ.

Spokane, Washington
Spokane International
ICAO Identifier KEGG



Spokane, WA
Spokane Intl
ICAO Identifier KEGG

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 47-37-8.5N / 117-32-6.8W
 2.2.2 From City: 5 miles SW of SPOKANE, WA
 2.2.3 Elevation: 2385 ft
 2.2.5 Magnetic Variation: 14E (2020)
 2.2.6 Airport Contact: LAWRENCE J KRAUTER
 9000 W AIRPORT DR.
 SPOKANE, WA 99224
 ((509) 455-6418)

2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
 2.4.2 Fuel Types: A,100,100LL
 2.4.5 Hangar Space: YES
 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
 I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 03
 2.12.2 True Bearing: 45
 2.12.3 Dimensions: 11002 ft x 150 ft
 2.12.4 PCN: 88 R/B/W/T
 2.12.5 Coordinates: 47-36-36.2909N /
 117-33-0.2876W
 2.12.6 Threshold Elevation: 2385 ft
 2.12.6 Touchdown Zone Elevation: 2385 ft

2.12.1 Designation: 21
 2.12.2 True Bearing: 225
 2.12.3 Dimensions: 11002 ft x 150 ft
 2.12.4 PCN: 88 R/B/W/T
 2.12.5 Coordinates: 47-37-52.3811N / 117-31-5.7573W
 2.12.6 Threshold Elevation: 2322.4 ft
 2.12.6 Touchdown Zone Elevation: 2346.1 ft

2.12.1 Designation: 08
 2.12.2 True Bearing: 90
 2.12.3 Dimensions: 8199 ft x 150 ft
 2.12.4 PCN: 40 R/B/X/T

2.12.5 Coordinates: 47-37-1.0687N / 117-33-11.7639W
 2.12.6 Threshold Elevation: 2376.2 ft
 2.12.6 Touchdown Zone Elevation: 2376.2 ft

2.12.1 Designation: 26
 2.12.2 True Bearing: 270
 2.12.3 Dimensions: 8199 ft x 150 ft
 2.12.4 PCN: 40 R/B/X/T
 2.12.5 Coordinates: 47-37-0.3642N /
 117-31-12.1045W
 2.12.6 Threshold Elevation: 2371.5 ft
 2.12.6 Touchdown Zone Elevation: 2371.5 ft

AD 2.13 Declared Distances

2.13.1 Designation: 03
 2.13.2 Take-off Run Available: 11002
 2.13.3 Take-off Distance Available: 11002
 2.13.4 Accelerate-Stop Distance Available: 11002
 2.13.5 Landing Distance Available: 11002

2.13.1 Designation: 21
 2.13.2 Take-off Run Available: 11002
 2.13.3 Take-off Distance Available: 11002
 2.13.4 Accelerate-Stop Distance Available: 11002
 2.13.5 Landing Distance Available: 11002

2.13.1 Designation: 08
 2.13.2 Take-off Run Available: 8199
 2.13.3 Take-off Distance Available: 8199
 2.13.4 Accelerate-Stop Distance Available: 8199
 2.13.5 Landing Distance Available: 8199

2.13.1 Designation: 26
 2.13.2 Take-off Run Available: 8199
 2.13.3 Take-off Distance Available: 8199
 2.13.4 Accelerate-Stop Distance Available: 8199
 2.13.5 Landing Distance Available: 8199

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 03
 2.14.2 Approach Lighting System: ALSF2
 2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 21
 2.14.2 Approach Lighting System: ALSF2
 2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 08
 2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 26

2.14.2 Approach Lighting System:

2.14.4 Visual Approach Slope Indicator System: P4L

AD 2.18 Air Traffic Services Communication Facilities

2.18.1 Service Designation: APCH/P DEP/P IC
(205-025)

2.18.3 Channel: 123.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(026-204)

2.18.3 Channel: 133.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(026-204)

2.18.3 Channel: 263

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC
(205-025)

2.18.3 Channel: 282.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/S DEP/S

2.18.3 Channel: 372.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS

2.18.3 Channel: 124.325

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: ATIS

2.18.3 Channel: 254.375

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P

2.18.3 Channel: 127.55

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (205-025)

2.18.3 Channel: 123.75

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (026-204)

2.18.3 Channel: 133.35

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (026-204)

2.18.3 Channel: 263

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (205-025)

2.18.3 Channel: 282.25

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG

2.18.3 Channel: 121.5

2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG

2.18.3 Channel: 243

2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P

2.18.3 Channel: 121.9

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P

2.18.3 Channel: 348.6

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 118.3

2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P

2.18.3 Channel: 278.3

2.18.5 Hours of Operation: 24

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 03. Magnetic variation: 14E

2.19.2 ILS Identification: OLJ

2.19.5 Coordinates: 47-36-32.05N / 117-33-15.1W

2.19.6 Site Elevation: 2380.2 ft

2.19.1 ILS Type: Glide Slope for runway 03. Magnetic variation: 14E

2.19.2 ILS Identification: OLJ

2.19.5 Coordinates: 47-36-47.5569N /
117-32-51.8755W

2.19.6 Site Elevation: 2372 ft

2.19.1 ILS Type: Localizer for runway 03. Magnetic variation: 14E

2.19.2 ILS Identification: OIJ
2.19.5 Coordinates: 47-37-59.6757N /
117-30-54.7682W
2.19.6 Site Elevation: 2315.7 ft

2.19.1 ILS Type: DME for runway 21. Magnetic varia-
tion: 14E
2.19.2 ILS Identification: GEG
2.19.5 Coordinates: 47-36-32.05N / 117-33-15.1W
2.19.6 Site Elevation: 2380.2 ft

2.19.1 ILS Type: Glide Slope for runway 21. Magnetic
variation: 14E
2.19.2 ILS Identification: GEG
2.19.5 Coordinates: 47-37-48.959N /

117-31-19.4519W
2.19.6 Site Elevation: 2324.3 ft

2.19.1 ILS Type: Localizer for runway 21. Magnetic
variation: 14E

2.19.2 ILS Identification: GEG
2.19.5 Coordinates: 47-36-29.2008N /
117-33-10.9524W
2.19.6 Site Elevation: 2380.1 ft

2.19.1 Navigation Aid Type: VORTAC. Magnetic varia-
tion: 21E

2.19.2 Navigation Aid Identification: GEG
2.19.5 Coordinates: 47-33-53.805N / 117-37-36.789W
2.19.6 Site Elevation: 2756.3 ft

General Remarks:

PORTIONS OF TWY K NOT VISIBLE FM ATCT.

TWY K UNLGTD ON RAMP SIDE ALONG MAINTENANCE RAMP AND IS UNAVBL BELOW 1200 RVR UNLESS
UNDER ESCORT BY "FOLLOW ME".

BE ALERT TO TURBULENCE OVER SMOKE STACKS 1 MILE EAST OF ARPT.

WATERFOWL & BIRDS ON & INVOF ARPT.

[illegible]

Milwaukee, WI
General Mitchell Intl
ICAO Identifier KMKE

AD 2.2 Aerodrome geographical and administrative data

2.2.1 Reference Point: 42-56-48.955N / 87-53-49.432W
 2.2.2 From City: 5 miles S of MILWAUKEE, WI
 2.2.3 Elevation: 728.4 ft
 2.2.5 Magnetic Variation: 4W (2020)
 2.2.6 Airport Contact: BRIAN DRANZIK
 5300 S HOWELL AVE
 MILWAUKEE, WI 53207
 (414-747-5300)
 2.2.7 Traffic: IFR/VFR

AD 2.3 Attendance Schedule

2.3.1 All Months, All Days, All Hours

AD 2.4 Handling Services and Facilities

2.4.1 Cargo Handling Facilities: YES
 2.4.2 Fuel Types: A,100LL
 2.4.5 Hangar Space: YES
 2.4.6 Repair Facilities: MAJOR

AD 2.6 Rescue and Firefighting Services

2.6.1 Aerodrome Category for Firefighting: ARFF Index
 I C certified on 5/1/1973

AD 2.12 Runway Physical Characteristics

2.12.1 Designation: 01L
 2.12.2 True Bearing: 7
 2.12.3 Dimensions: 9990 ft x 200 ft
 2.12.4 PCN: 64 R/A/W/T
 2.12.5 Coordinates: 42-55-49.7963N / 87-53-51.516W
 2.12.6 Threshold Elevation: 705.8 ft
 2.12.6 Touchdown Zone Elevation: 703.5 ft

2.12.1 Designation: 19R
 2.12.2 True Bearing: 187
 2.12.3 Dimensions: 9990 ft x 200 ft
 2.12.4 PCN: 64 R/A/W/T
 2.12.5 Coordinates: 42-57-27.699N / 87-53-34.7753W
 2.12.6 Threshold Elevation: 672.7 ft
 2.12.6 Touchdown Zone Elevation: 671.9 ft

2.12.1 Designation: 01R
 2.12.2 True Bearing: 7
 2.12.3 Dimensions: 4182 ft x 150 ft
 2.12.4 PCN: 23 R/B/W/T

2.12.5 Coordinates: 42-56-21.766N / 87-53-32.5016W
 2.12.6 Threshold Elevation: 677.7 ft
 2.12.6 Touchdown Zone Elevation: 677.7 ft

2.12.1 Designation: 19L
 2.12.2 True Bearing: 187
 2.12.3 Dimensions: 4182 ft x 150 ft
 2.12.4 PCN: 23 R/B/W/T
 2.12.5 Coordinates: 42-57-2.7448N / 87-53-25.4878W
 2.12.6 Threshold Elevation: 669.6 ft
 2.12.6 Touchdown Zone Elevation: 674.2 ft

2.12.1 Designation: 07L
 2.12.2 True Bearing: 72
 2.12.3 Dimensions: 4797 ft x 100 ft
 2.12.4 PCN: 20 F/A/X/T
 2.12.5 Coordinates: 42-57-9.8896N / 87-54-19.1101W
 2.12.6 Threshold Elevation: 671.5 ft
 2.12.6 Touchdown Zone Elevation: 672 ft

2.12.1 Designation: 25R
 2.12.2 True Bearing: 252
 2.12.3 Dimensions: 4797 ft x 100 ft
 2.12.4 PCN: 20 F/A/X/T
 2.12.5 Coordinates: 42-57-24.8031N / 87-53-17.893W
 2.12.6 Threshold Elevation: 674.6 ft
 2.12.6 Touchdown Zone Elevation: 674.6 ft

2.12.1 Designation: 07R
 2.12.2 True Bearing: 72
 2.12.3 Dimensions: 8300 ft x 150 ft
 2.12.4 PCN: 58 R/A/W/T
 2.12.5 Coordinates: 42-56-20.6652N / 87-55-3.9117W
 2.12.6 Threshold Elevation: 728.4 ft
 2.12.6 Touchdown Zone Elevation: 728.4 ft

2.12.1 Designation: 25L
 2.12.2 True Bearing: 252
 2.12.3 Dimensions: 8300 ft x 150 ft
 2.12.4 PCN: 58 R/A/W/T
 2.12.5 Coordinates: 42-56-46.473N / 87-53-18.0003W
 2.12.6 Threshold Elevation: 669.9 ft
 2.12.6 Touchdown Zone Elevation: 683.1 ft

2.12.1 Designation: 13
 2.12.2 True Bearing: 132
 2.12.3 Dimensions: 5537 ft x 150 ft
 2.12.4 PCN: 48 R/B/W/T
 2.12.5 Coordinates: 42-57-29.2767N / 87-54-12.2946W
 2.12.6 Threshold Elevation: 671.4 ft

2.12.6 Touchdown Zone Elevation: 670.5 ft

2.12.1 Designation: 31
2.12.2 True Bearing: 312
2.12.3 Dimensions: 5537 ft x 150 ft
2.12.4 PCN: 48 R/B/W/T
2.12.5 Coordinates: 42-56-52.5074N /
87-53-17.1839W
2.12.6 Threshold Elevation: 668.6 ft
2.12.6 Touchdown Zone Elevation: 670.1 ft

AD 2.13 Declared Distances

2.13.1 Designation: 01L
2.13.2 Take-off Run Available: 9990
2.13.3 Take-off Distance Available: 9990
2.13.4 Accelerate-Stop Distance Available: 9380
2.13.5 Landing Distance Available: 9080

2.13.1 Designation: 19R
2.13.2 Take-off Run Available: 9990
2.13.3 Take-off Distance Available: 9990
2.13.4 Accelerate-Stop Distance Available: 9990
2.13.5 Landing Distance Available: 9205

2.13.1 Designation: 01R
2.13.2 Take-off Run Available: 4182
2.13.3 Take-off Distance Available: 4182
2.13.4 Accelerate-Stop Distance Available: 4182
2.13.5 Landing Distance Available: 4182

2.13.1 Designation: 19L
2.13.2 Take-off Run Available: 4182
2.13.3 Take-off Distance Available: 4182
2.13.4 Accelerate-Stop Distance Available: 4182
2.13.5 Landing Distance Available: 4182

2.13.1 Designation: 07L
2.13.2 Take-off Run Available: 4797
2.13.3 Take-off Distance Available: 4797
2.13.4 Accelerate-Stop Distance Available: 4797
2.13.5 Landing Distance Available: 4797

2.13.1 Designation: 25R
2.13.2 Take-off Run Available: 4797
2.13.3 Take-off Distance Available: 4797
2.13.4 Accelerate-Stop Distance Available: 4797
2.13.5 Landing Distance Available: 4797

2.13.1 Designation: 07R
2.13.2 Take-off Run Available: 8300

2.13.3 Take-off Distance Available: 8300
2.13.4 Accelerate-Stop Distance Available: 8012
2.13.5 Landing Distance Available: 8012

2.13.1 Designation: 25L
2.13.2 Take-off Run Available: 8300
2.13.3 Take-off Distance Available: 8300
2.13.4 Accelerate-Stop Distance Available: 8300
2.13.5 Landing Distance Available: 7867

2.13.1 Designation: 13
2.13.2 Take-off Run Available: 5537
2.13.3 Take-off Distance Available: 5537
2.13.4 Accelerate-Stop Distance Available: 5537
2.13.5 Landing Distance Available: 4797

2.13.1 Designation: 31
2.13.2 Take-off Run Available: 5537
2.13.3 Take-off Distance Available: 5537
2.13.4 Accelerate-Stop Distance Available: 5537
2.13.5 Landing Distance Available: 5152

AD 2.14 Approach and Runway Lighting

2.14.1 Designation: 01L
2.14.2 Approach Lighting System: ALSF2
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 19R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 01R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 19L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System:

2.14.1 Designation: 07L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 25R
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

2.14.1 Designation: 07R
2.14.2 Approach Lighting System: MALSR
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 25L
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 13
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4L

2.14.1 Designation: 31
2.14.2 Approach Lighting System:
2.14.4 Visual Approach Slope Indicator System: P4R

**AD 2.18 Air Traffic Services Communication
Facilities**

2.18.1 Service Designation: APCH/P (B SE)
2.18.3 Channel: 118
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P (B SE)
2.18.3 Channel: 317.725
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P DEP/P IC (A NW)
2.18.3 Channel: 307
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: APCH/P IC (A NW)
2.18.3 Channel: 126.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CD/P
2.18.3 Channel: 120.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (B SE)
2.18.3 Channel: 118
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (A NW)
2.18.3 Channel: 126.5
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (A NW)
2.18.3 Channel: 307
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: CLASS C (B SE)
2.18.3 Channel: 317.725
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: COMD POST (128 ARW
ANG UPSET CTL)
2.18.3 Channel: 321
2.18.5 Hours of Operation:

2.18.1 Service Designation: COMD POST (28 ARW
ANG UPSET CON)
2.18.3 Channel: 6761
2.18.5 Hours of Operation:

2.18.1 Service Designation: D-ATIS
2.18.3 Channel: 126.4
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (A NW)
2.18.3 Channel: 125.35
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: DEP/P (B SE)
2.18.3 Channel: 135.875
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: EMERG
2.18.3 Channel: 121.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: EMERG
2.18.3 Channel: 243
2.18.5 Hours of Operation:

2.18.1 Service Designation: GND/P
2.18.3 Channel: 121.8
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: GND/P
2.18.3 Channel: 263.125
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 124.575
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: LCL/P
2.18.3 Channel: 269.05
2.18.5 Hours of Operation: 24

2.18.1 Service Designation: OPS
2.18.3 Channel: 139.5
2.18.5 Hours of Operation:

2.18.1 Service Designation: OPS
2.18.3 Channel: 311
2.18.5 Hours of Operation:

AD 2.19 Radio Navigation and Landing Aids

2.19.1 ILS Type: DME for runway 01L. Magnetic variation: 4W

2.19.2 ILS Identification: MKE

2.19.5 Coordinates: 42-57-50.9407N /
87-53-27.4465W

2.19.6 Site Elevation: 725 ft

2.19.1 ILS Type: Glide Slope for runway 01L. Magnetic variation: 4W

2.19.2 ILS Identification: MKE

2.19.5 Coordinates: 42-56-4.4522N / 87-53-43.0463W

2.19.6 Site Elevation: 691.4 ft

2.19.1 ILS Type: Inner Marker for runway 01L. Magnetic variation: 4W

2.19.2 ILS Identification: MKE

2.19.5 Coordinates: 42-55-44.6539N /
87-53-52.3948W

2.19.6 Site Elevation: 706 ft

2.19.1 ILS Type: Localizer for runway 01L. Magnetic variation: 4W

2.19.2 ILS Identification: MKE

2.19.5 Coordinates: 42-57-49.9549N / 87-53-30.968W

2.19.6 Site Elevation: 713 ft

2.19.1 ILS Type: DME for runway 19R. Magnetic variation: 4W

2.19.2 ILS Identification: BLY

2.19.5 Coordinates: 42-57-50.9407N /
87-53-27.4465W

2.19.6 Site Elevation: 725 ft

2.19.1 ILS Type: Glide Slope for runway 19R. Magnetic variation: 4W

2.19.2 ILS Identification: BLY

2.19.5 Coordinates: 42-57-9.1784N / 87-53-32.5226W

2.19.6 Site Elevation: 666.4 ft

2.19.1 ILS Type: Localizer for runway 19R. Magnetic variation: 4W

2.19.2 ILS Identification: BLY

2.19.5 Coordinates: 42-55-38.3041N /
87-53-53.4819W

2.19.6 Site Elevation: 709.2 ft

2.19.1 ILS Type: DME for runway 07R. Magnetic variation: 4W

2.19.2 ILS Identification: GMF

2.19.5 Coordinates: 42-56-18.5074N /
87-55-23.6562W

2.19.6 Site Elevation: 743.1 ft

2.19.1 ILS Type: Glide Slope for runway 07R. Magnetic variation: 4W

2.19.2 ILS Identification: GMF

2.19.5 Coordinates: 42-56-20.4949N / 87-54-47.122W

2.19.6 Site Elevation: 707.3 ft

2.19.1 ILS Type: Localizer for runway 07R. Magnetic variation: 4W

2.19.2 ILS Identification: GMF

2.19.5 Coordinates: 42-56-49.0939N / 87-53-7.2369W

2.19.6 Site Elevation: 668.3 ft

2.19.1 ILS Type: DME for runway 25L. Magnetic variation: 4W

2.19.2 ILS Identification: PXY

2.19.5 Coordinates: 42-56-18.5074N /
87-55-23.6562W

2.19.6 Site Elevation: 743.1 ft

2.19.1 ILS Type: Localizer for runway 25L. Magnetic variation: 4W

2.19.2 ILS Identification: PXY

2.19.5 Coordinates: 42-56-16.0665N /
87-55-22.7833W

2.19.6 Site Elevation: 728 ft

General Remarks:

TWY B BTN TWY V AND TWY P CLSD TO AFCT WITH WINGSPAN GREATER THAN 170 FT.

ANG: PPR ALL ACFT, 48HR PN, CTC AFLD OPS DSN 580-8241, C414-944-8241. 128 ARW IS A FULLY OPERATIONAL KC-135R BASE WITH HRS OF OPERATION MON-FRI 1200Z-1930Z++ TUE-FRI, CLSD HOL, SAT-SUN EXC UNIT TMG, CALL FOR AVBL.

RY 19R TODA 8,750 FT FROM INT TWY V.

RY 07L/25R NO ACFT 65,000 LBS OR GREATER ALLOWED TO TAXI BTN TWY D & RY 13/31 AND EAST OF RY 19R.

TWY C CLSD BTWN APCH END OF RWY 7L AND TWY D1 TO ACFT WITH WINGSPAN GTR THAN OR EQUAL TO 118 FT UNLESS PMSN FM ARPT MGR 414-747-5325.

ANG: END OF RUNWAY FACILITIES, AIRCRAFT SHELTERS/REVENEMENTS, AND ALERT FACILITIES ARE NOT AVAILABLE. AFLD/ACFT PARKING CONCERNS INCLUDE: LIMITED STATIC GROUNDING POINTS AND NO AIRCRAFT TIE DOWN POINTS.

TWY A CLSD BTN TWY A4 AND TWY A5 TO ACFT WITH WINGSPAN GREATER THAN OR EQUAL TO 214' UNLESS PERMISSION FROM ARPT MGR 414-747-5325

ALL AIRCRAFT PUSHBACKS FROM GATES C20, C21, C22, C23, D39 D41 D43, D45, D48, D51, D53, D54, D55, E65, E66, & E67 REQUIRE CLEARANCE FROM GROUND CONTROL. PUSHBACKS FROM ALL OTHER GATES ARE AT RAMP/ PILOT DISCRETION; CONTACT GROUND CONTROL WHEN READY TO TAXI.

TWY S & TWY T BTN TWY R & RY 07R/25L AND RY 07R/25L BTN RY 1R/19L & TWY R CLSD DURG CAT II & III OPNS.

ANG: ANY MDS'S (OTHER THAN KC-135) IS LIMITED TO STANDARD TRANSIENT MARSHALLING AND PARKING. NO TECHNICAL DATA AVAILABLE FOR TRANSIENT MAINTENANCE. FUEL AND AGE EQUIPMENT SUPPORT AVAILABLE FOR SELF-SERVICE. THERE ARE NO ADDITIONAL CONFIGURATION ITEMS SUPPORTED SUCH AS LANTIRN PODS, EDM PODS, ETC.

HOLDING BAY AT RY 01L CLSD EXCP ACFT WITH WINGSPAN LESS THAN 118 FT.

PREFERRED USAGE BY ACFT BTN 2200-0600 IS TKOF RY 19R & LNDG RY 01L.

RY 07L/25R CLSD TO ALL JET ACFT.

DEICE PAD FOR RWY 07R NOT AUTH FOR THRU TAXI.

TRNG FLGTS INVOLVING SUCCESSIVE USE OF ANY RY PROHIBITED 2200-0600.

ANG: NSTD MRK ON PRK APRON FOR WINGTIP CLNC; SEE AFLD MGT FOR DETAILED MAP.

ACFT WITH WINGSPAN GREATER THAN 175 FT CANNOT PASS SIMULTANEOUSLY ON TWY 'E' & TWY 'Z'.

RY 13/31 CLSD JET ACFT, UNLESS PMSN FROM TWR OR AMGR 414-747-5325.

HOLDING BAY AT RY 19R WHEN IN USE, TWY Z ADJACENT TO BAY IS LIMITED TO ACFT WITH WINGSPAN UP TO 170 FT.

TWY A CLSD FROM TWY R TO TWY E AND TWY E CLSD FROM TWY T TO TWY M AND TWY T NORTH OF RWY 07R-25L CLSD TO ACFT WITH TAIL HEIGHT GREATER THAN 54.5 FT DURING CAT II AND CAT III OPS.

RY 01R-19L AVAILABLE TO AIR CARRIERS FOR TAXI ONLY.

TWYS D1, F2, H, J, F1, P AND F (EAST OF RWY 19R) AND TWY K (EAST OF RWY 19L) CLSD TO ACFT WITH WINGSPAN GREATER THAN 78 FT.

TWY F (WEST OF TWY Z) CLSD TO ACFT WITH WINGSPAN GREATER THAN OR EQUAL TO 118 FT UNLESS PERMISSION FROM ARPT DIR AT 414-747-5325.

ANG: NO FLEET SVC/HOT CARGO PARKING AVAILABLE. CTC UPSET CTRL 20 MIN PRIOR TO ARR TO RCV

CURRENT BIRD WATCH COND AND PARKING INFO.

ALL APCHS ARE OVER NOISE SENSITIVE AREAS; ALL TURBOJET ACFT SHOULD REFRAIN FM CONDUCTING MULTI VFR TFC PATTERN APCHS & DEPS WO PRIOR APVL FM AMGR CALL C414-747-5325.

BIRDS ON & INVOF ARPT.

RYS 13/31 & 01R/19L & 07L/25R CLSD EXCP LGT WT SINGLE ENG ACFT 0400-1200Z DLY.

TWY V BTN TWY D AND RY 7L/25R CLSD TO ACFT WITH WINGSPAN GREATER THAN 170 FT WHEN RY 7L/25R IN USE.

ASDE-X IN USE. OPERATE TRANSPONDERS WITH ALTITUDE REPORTING MODE AND ADS-B (IF EQUIPPED) ENABLED ON ALL AIRPORT SURFACES.

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Appendix 1. ATS Routes

MINIMUM ENROUTE IFR ALTITUDES OVER PARTICULAR ROUTES AND INTERSECTIONS

1. This is an annual consolidation of all data in Subparts C and D of Part 95 – Subchapter F, which were in effect February 25, 2021, Amendment 557 included.

2. It is not an amendment to Part 95; therefore, it will not appear in the Federal Register.

For updates to these routes and access to additional data products, please visit
http://faa.gov/air_traffic/flight_info/aeronav/.

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FROM	TO	MEA
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95.0040 COLORED FEDERAL AIRWAYS

95.101 AMBER FEDERAL AIRWAY A1

U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	2800
U.S. CANADIAN BORDER	SITKA, AK NDB	*5200
*2300 - MOCA		
SITKA, AK NDB	SPARL, AK FIX	5200
SPARL, AK FIX	OCEAN CAPE, AK NDB	*6000
*2200 - MOCA		
OCEAN CAPE, AK NDB	CAPEM, AK FIX	*6000
*2000 - MOCA		
CAPEM, AK FIX	CORVA, AK FIX	*6000
*4400 - MOCA		
CORVA, AK FIX	EGGER, AK FIX	2000
EGGER, AK FIX	ORCA BAY, AK NDB	5000
TAKOTNA RIVER, AK NDB	NORTH RIVER, AK NDB	*7000
*6000 - MOCA		
NORTH RIVER, AK NDB	FORT DAVIS, AK NDB	3000

95.102 AMBER FEDERAL AIRWAY A2

U.S. CANADIAN BORDER	NABESNA, AK NDB	*9600
*9000 - MOCA		
NABESNA, AK NDB	DELTA JUNCTION, AK NDB	8000

95.103 AMBER FEDERAL AIRWAY A3

EVANSVILLE, AK NDB	PUT RIVER, AK NDB	10000
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95.104 AMBER FEDERAL AIRWAY A4

EVANSVILLE, AK NDB	ANAKTUVUK PASS, AK NDB	*10000
*8300 - MOCA		

95.105 AMBER FEDERAL AIRWAY A5

AMBLER, AK NDB	EVANSVILLE, AK NDB	*7500
*6600 - MOCA		

95.106 AMBER FEDERAL AIRWAY A6

ST MARYS, AK NDB	NORTH RIVER, AK NDB	5000
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95.109 AMBER FEDERAL AIRWAY A9

CHENA, AK NDB	EVANSVILLE, AK NDB	5500
EVANSVILLE, AK NDB	BROWERVILLE, AK NDB	*10000
*9100 - MOCA		

95.115 AMBER FEDERAL AIRWAY A15

U.S. CANADIAN BORDER	NICHOLS, AK NDB	5000
NICHOLS, AK NDB	SUMNER STRAIT, AK NDB	*7000
*5100 - MOCA		
*6000 - GNSS MEA		
SUMNER STRAIT, AK NDB	COGHLAN ISLAND, AK NDB	7000
COGHLAN ISLAND, AK NDB	HAINES, AK NDB	*9000
*8300 - MOCA		

FROM	TO	MEA
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95.115 AMBER FEDERAL AIRWAY A15 - CONTINUED

HAINES, AK NDB	MAGNM, AK WP	11000
U.S. CANADIAN BORDER	NABESNA, AK NDB	*9600
*9000 - MOCA		
NABESNA, AK NDB	DELTA JUNCTION, AK NDB	8000

95.116 AMBER FEDERAL AIRWAY A16

ACTIVE PASS, CA NDB	WHITE ROCK, CA NDB	#*3000
*2100 - MOCA		
#FOR THAT AIRSPACE OVER U.S. TERRITORY		

95.117 AMBER FEDERAL AIRWAY A17

CHENA, AK NDB	CHANDALAR LAKE, AK NDB	7000
*CHANDALAR LAKE, AK NDB	PUT RIVER, AK NDB	10000
*10000 - MCA CHANDALAR LAKE, AK NDB , NW BND		

95.201 RED FEDERAL AIRWAY R1

ST PAUL ISLAND, AK NDB/DME	GARRS, AK FIX	*4600
*2700 - MOCA		
GARRS, AK FIX	CHINOOK, AK NDB	4600

95.202 RED FEDERAL AIRWAY R2

ELFEE, AK NDB	PORT HEIDEN, AK NDB/DME	6000
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95.204 RED FEDERAL AIRWAY R4

CHENA, AK NDB	BEAR CREEK, AK NDB	5000
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95.239 RED FEDERAL AIRWAY R39

OSCARVILLE, AK NDB	*ANIAK, AK NDB	**2000
*3500 - MCA ANIAK, AK NDB , NE BND		
**1400 - MOCA		
ANIAK, AK NDB	TAKOTNA RIVER, AK NDB	*6000
*5400 - MOCA		
TAKOTNA RIVER, AK NDB	MINCHUMINA, AK NDB	5000
MINCHUMINA, AK NDB	ICE POOL, AK NDB	4000

95.250 RED FEDERAL AIRWAY R50

NANWAK, AK NDB/DME	OSCARVILLE, AK NDB	3000
OSCARVILLE, AK NDB	ANVIK, AK NDB	4100

95.251 RED FEDERAL AIRWAY R51

SUMNER STRAIT, AK NDB	SITKA, AK NDB	7000
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95.299 RED FEDERAL AIRWAY R99

ST PAUL ISLAND, AK NDB/DME	DUTCH HARBOR, AK NDB/DME	#4800
#HF COMMS REQUIRED BELOW 8000 MSL.		
DUTCH HARBOR, AK NDB/DME	CHINOOK, AK NDB	*9000
*6300 - MOCA		
CHINOOK, AK NDB	ILIAMNA, AK NDB/DME	*5000
*4400 - MOCA		

FROM	TO	MEA
95.299 RED FEDERAL AIRWAY R99 - CONTINUED		
ILIAMNA, AK NDB/DME	KACHEMAK, AK NDB	6100
95.401 GREEN FEDERAL AIRWAY G1		
MOUNT MOFFETT, AK NDB/DME	HORTH, AK FIX	8000
HORTH, AK FIX	MORDI, AK FIX	*8000
*2500 - MOCA		
*5000 - GNSS MEA		
MORDI, AK FIX	ELFEE, AK NDB	*8000
*5300 - MOCA		
*7000 - GNSS MEA		
95.402 GREEN FEDERAL AIRWAY G2		
BORLAND, AK NDB/DME	WOODY ISLAND, AK NDB	*10000
*6600 - MOCA		
95.404 GREEN FEDERAL AIRWAY G4		
WOOD RIVER, AK NDB	ILIAMNA, AK NDB/DME	*4500
*3000 - MOCA		
95.406 GREEN FEDERAL AIRWAY G6		
ST MARYS, AK NDB	ANIAK, AK NDB	4000
95.407 GREEN FEDERAL AIRWAY G7		
GAMBELL, AK NDB/DME	FORT DAVIS, AK NDB	3000
FORT DAVIS, AK NDB	NORTON BAY, AK NDB	*5000
*4200 - MOCA		
95.408 GREEN FEDERAL AIRWAY G8		
SHEMYA, AK NDB	MOUNT MOFFETT, AK NDB/DME	#*8000
*6300 - MOCA		
#HF COMMS REQUIRED.		
MOUNT MOFFETT, AK NDB/DME	DUTCH HARBOR, AK NDB/DME	#*9000
*8000 - MOCA		
#HF COMMUNICATIONS REQUIRED		
DUTCH HARBOR, AK NDB/DME	MORDI, AK FIX	*9000
*5700 - MOCA		
*6000 - GNSS MEA		
MORDI, AK FIX	ELFEE, AK NDB	*8000
*5300 - MOCA		
*7000 - GNSS MEA		
ELFEE, AK NDB	CRACK, AK FIX	#*5000
*4100 - MOCA		
#HF COMMS ONLY BELOW 5000 MSL		
CRACK, AK FIX	CHINOOK, AK NDB	#*3000
*2300 - MOCA		
#HF COMMS ONLY BELOW 9000 MSL		
CHINOOK, AK NDB	NOSKY, AK FIX	*6000
*4900 - MOCA		
NOSKY, AK FIX	KACHEMAK, AK NDB	6100
95.409 GREEN FEDERAL AIRWAY G9		
OSCARVILLE, AK NDB	ZEKEG, AK FIX	
	NE BND	*6000
	SW BND	*3000
*2100 - MOCA		

FROM	TO	MEA
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95.409 GREEN FEDERAL AIRWAY G9 - CONTINUED

ZEKEG, AK FIX	CAIRN MOUNTAIN, AK NDB	6000
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95.410 GREEN FEDERAL AIRWAY G10

CAPE NEWENHAM, AK NDB/DME	ST PAUL ISLAND, AK NDB/DME	4600
ST PAUL ISLAND, AK NDB/DME	BILBE, AK FIX	3000
BILBE, AK FIX	ELFEE, AK NDB	*6000
*3800 - MOCA		
ELFEE, AK NDB	PORT HEIDEN, AK NDB/DME	*5000
*4100 - MOCA		
PORT HEIDEN, AK NDB/DME	WIDTH, AK FIX	9000
WIDTH, AK FIX	WOODY ISLAND, AK NDB	*9000
*6300 - MOCA		
WOODY ISLAND, AK NDB	KACHEMAK, AK NDB	6000

95.412 GREEN FEDERAL AIRWAY G12

ELFEE, AK NDB	BORLAND, AK NDB/DME	10000
BORLAND, AK NDB/DME	PORT HEIDEN, AK NDB/DME	10000
PORT HEIDEN, AK NDB/DME	CHINOOK, AK NDB	2500

95.413 GREEN FEDERAL AIRWAY G13

ZOLMN, NC FIX	MANTEO, NC NDB	2000
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95.415 GREEN FEDERAL AIRWAY G15

ST MARYS, AK NDB	ANVIK, AK NDB	4000
ANVIK, AK NDB	TAKOTNA RIVER, AK NDB	*9000
*6000 - MOCA		
*7000 - GNSS MEA		

95.416 GREEN FEDERAL AIRWAY G16

POINT LAY, AK NDB	WAINWRIGHT VILLAGE, AK NDB	*1700
*1200 - MOCA		
WAINWRIGHT VILLAGE, AK NDB	BROWERVILLE, AK NDB	*1600
*1100 - MOCA		
BROWERVILLE, AK NDB	NUIQSUT VILLAGE, AK NDB	1600
NUIQSUT VILLAGE, AK NDB	PUT RIVER, AK NDB	*1700
*1200 - MOCA		

95.417 GREEN FEDERAL AIRWAY G17

WAINWRIGHT VILLAGE, AK NDB	ATQASUK, AK NDB	*1600
*1100 - MOCA		

95.418 GREEN FEDERAL AIRWAY G18

HOTHAM, AK NDB	POINT LAY, AK NDB	*10000
*6000 - MOCA		
POINT LAY, AK NDB	ATQASUK, AK NDB	2300

95.602 BLUE FEDERAL AIRWAY B2

POINT LAY, AK NDB	CAPE LISBURNE, AK NDB/DME	4000
CAPE LISBURNE, AK NDB/DME	HOTHAM, AK NDB	*8000
*4100 - MOCA		

FROM	TO	MEA
95.602 BLUE FEDERAL AIRWAY B2 - CONTINUED		
HOTHAM, AK NDB *4300 - MOCA	TIN CITY, AK NDB/DME	*5000
TIN CITY, AK NDB/DME *5900 - MOCA *6000 - GNSS MEA	FORT DAVIS, AK NDB	*7000
95.603 BLUE FEDERAL AIRWAY B3		
ANIAK, AK NDB	ANVIK, AK NDB	3700
ANVIK, AK NDB	NORTH RIVER, AK NDB	4600
NORTH RIVER, AK NDB	NORTON BAY, AK NDB	3000
NORTON BAY, AK NDB	HOTHAM, AK NDB	4500
HOTHAM, AK NDB	NOATAK, AK NDB/DME	3300
95.604 BLUE FEDERAL AIRWAY B4		
UTOPIA CREEK, AK NDB/DME *6200 - MOCA	EVANSVILLE, AK NDB	*8000
EVANSVILLE, AK NDB *6600 - MOCA	YUKON RIVER, AK NDB	*8000
95.605 BLUE FEDERAL AIRWAY B5		
CAPE LISBURNE, AK NDB/DME	POINT HOPE, AK NDB	4000
95.607 BLUE FEDERAL AIRWAY B7		
CAPE NEWENHAM, AK NDB/DME	OSCARVILLE, AK NDB	4600
95.608 BLUE FEDERAL AIRWAY B8		
TIN CITY, AK NDB/DME	SHISHMAREF, AK NDB	4000
95.609 BLUE FEDERAL AIRWAY B9		
*DEEDS, FL FIX *4000 - MRA **1500 - MOCA	MARATHON, FL NDB	**2000
95.612 BLUE FEDERAL AIRWAY B12		
WOODY ISLAND, AK NDB *9300 - MOCA	ILIAMNA, AK NDB/DME	*10000
95.625 BLUE FEDERAL AIRWAY B25		
ORCA BAY, AK NDB *6600 - MCA SHOPE, AK FIX , N BND	*SHOPE, AK FIX	4900
SHOPE, AK FIX	GLENNALLEN, AK NDB	10000
GLENNALLEN, AK NDB *8000 - MCA DELTA JUNCTION, AK NDB , SE BND **11500 - MOCA	*DELTA JUNCTION, AK NDB	**12000
95.626 BLUE FEDERAL AIRWAY B26		
CHENA, AK NDB	YUKON RIVER, AK NDB	7000
95.627 BLUE FEDERAL AIRWAY B27		
WOODY ISLAND, AK NDB	CHINOOK, AK NDB	10000

FROM	TO	MEA
95.627 BLUE FEDERAL AIRWAY B27 - CONTINUED		
CHINOOK, AK NDB	WANIX, AK FIX	*8000
*7500 - MOCA		
WANIX, AK FIX	OSCARVILLE, AK NDB	
	NW BND	4000
	SE BND	8000
OSCARVILLE, AK NDB	ST MARYS, AK NDB	3000
ST MARYS, AK NDB	FORT DAVIS, AK NDB	3000
FORT DAVIS, AK NDB	HOTHAM, AK NDB	6000
95.628 BLUE FEDERAL AIRWAY B28		
U.S. CANADIAN BORDER	NICHOLS, AK NDB	5000
NICHOLS, AK NDB	SITKA, AK NDB	*6900
*6000 - MOCA		
*6000 - GNSS MEA		
95.637 BLUE FEDERAL AIRWAY B37		
SUMNER STRAIT, AK NDB	ELEPHANT, AK NDB	*7000
*6400 - MOCA		
ELEPHANT, AK NDB	SPARL, AK FIX	*6000
*5000 - MOCA		
*5000 - GNSS MEA		
95.638 BLUE FEDERAL AIRWAY B38		
ELEPHANT, AK NDB	CHILL, AK FIX	7300
CHILL, AK FIX	HAINES, AK NDB	9000
95.640 BLUE FEDERAL AIRWAY B40		
HAINES, AK NDB	U.S. CANADIAN BORDER	*10000
*9800 - MOCA		
95.679 BLUE FEDERAL AIRWAY B79		
U.S. CANADIAN BORDER	NICHOLS, AK NDB	5000

FROM

TO

MEA

95.1001 DIRECT ROUTES-U.S.

ABILENE, TX VORTAC	WACO, TX VORTAC	*6500
*3300 - MOCA		
ABILENE, TX VORTAC	LLANO, TX VORTAC	7000
ALEXANDRIA, MN VOR/DME	JAMESTOWN, ND VOR/DME	18000
		MAA - 22000
ALLENTOWN, PA VORTAC	STILLWATER, NJ VOR/DME	*3300
*3000 - MOCA		
ALLENTOWN, PA VORTAC	POTTSTOWN, PA VORTAC	*2700
*2500 - MOCA		
APPIN, TX FIX	LAKE CHARLES, LA VORTAC	*8000
*1500 - MOCA		
BATTLE MOUNTAIN, NV VORTAC	TWIN FALLS, ID VORTAC	#18000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
BIG SUR, CA VORTAC	AVENAL, CA VOR/DME	*11000
*7900 - MOCA		MAA - 35000
BISMARCK, ND VOR/DME	HUMBOLDT, MN VORTAC	18000
BISMARCK, ND VOR/DME	DICKINSON, ND VORTAC	18000
		MAA - 24000
BOZEMAN, MT VOR/DME	DUBOIS, ID VORTAC	18000
		MAA - 25000
BOZEMAN, MT VOR/DME	BOYSEN RESERVOIR, WY VOR/DME	19000
		MAA - 35000
BRADFORD, IL VORTAC	DES MOINES, IA VORTAC	18000
		MAA - 41000
BRILO, CA FIX	YAGER, CA FIX	7000
BULLION, NV VOR/DME	BOISE, ID VORTAC	18000
CAJON, CA FIX	HITOP, CA FIX	8000
CALBE, CA FIX	PALMDALE, CA VORTAC	10000
		MAA - 17500
*CAMARILLO, CA VOR/DME	SANTA MONICA, CA VOR/DME	5000
*3600 - MCA CAMARILLO, CA VOR/DME , E BND		
*CHARM, CO FIX	PUEBLO, CO VORTAC	8000
*10000 - MCA CHARM, CO FIX , S BND		
		MAA - 45000
COALDALE, NV VORTAC	WOODSIDE, CA VOR/DME	*18000
*15100 - MOCA		MAA - 45000
COALDALE, NV VORTAC	SQUAW VALLEY, CA VOR/DME	15000
		MAA - 39000
COLLI, CA FIX	SCAGGS ISLAND, CA VORTAC	3500
COLOM, CA FIX	MINA, NV VORTAC	28000
COLOM, CA FIX	FRIANT, CA VORTAC	18000
		MAA - 45000
COLUMBIA, SC VORTAC	CHARLESTON, WV VOR/DME	18000
		MAA - 45000
CORTEZ, CO VOR/DME	PUEBLO, CO VORTAC	#22000
		MAA - 45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
COVEX, LA FIX	APPIN, TX FIX	*8000
*1800 - MOCA		
COVEX, LA FIX	BELCHER, LA VORTAC	*3500
*1900 - MOCA		
DAGGETT, CA VORTAC	PALMDALE, CA VORTAC	7000
DAYTON, OH VOR/DME	GUNNE, OH FIX	18000
		MAA - 39000
DAYTON, OH VOR/DME	FORT WAYNE, IN VORTAC	18000
		MAA - 43000
DAYTON, OH VOR/DME	APPLETON, OH VORTAC	18000
		MAA - 45000
DELLS, WI VORTAC	EAU CLAIRE, WI VORTAC	18000
		MAA - 29000
DES MOINES, IA VORTAC	IOWA CITY, IA VOR/DME	2700
		MAA - 35000
DETROIT LAKES, MN VOR/DME	THIEF RIVER FALLS, MN VOR/DME	*3300
*2700 - MOCA		
DICKINSON, ND VORTAC	U.S. CANADIAN BORDER	18000
DICKINSON, ND VORTAC	MINOT, ND VOR/DME	18000
		MAA - 35000
DILLON, MT VOR/DME	SHERIDAN, WY VOR/DME	#33000
		MAA - 45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		

FROM	TO	MEA
DUBOIS, ID VORTAC	BOZEMAN, MT VOR/DME	18000
DULUTH, MN VORTAC	U.S. CANADIAN BORDER	MAA - 35000
*3100 - MOCA		**18000
#FOR THAT AIRSPACE OVER U.S. TERRITORY		
DULUTH, MN VORTAC	TRAVERSE CITY, MI VOR/DME	24000
*DUNOIR, WY VOR/DME	WORLAND, WY VOR/DME	**16000
*12200 - MCA DUNOIR, WY VOR/DME , E BND		
**15200 - MOCA		
DUNOIR, WY VOR/DME	BILLINGS, MT VORTAC	18000
DUPREE, SD VOR/DME	BISMARCK, ND VOR/DME	MAA - 45000
		18000
		MAA - 35000
EAU CLAIRE, WI VORTAC	DULUTH, MN VORTAC	18000
EEDEN, AK FIX	FRIED, OP FIX	MAA - 29000
		10000
		MAA - 45000
EVELETH, MN VOR/DME	ELY, MN DME	3400
FARGO, ND VOR/DME	WILLISTON, ND VOR/DME	23000
FELLOWS, CA VOR/DME	GAVIOTA, CA VORTAC	8000
FELLOWS, CA VOR/DME	GUADALUPE, CA VOR	7000
FELLOWS, CA VOR/DME	FILLMORE, CA VORTAC	9500
FELLOWS, CA VOR/DME	SAN MARCUS, CA VORTAC	9000
FELLOWS, CA VOR/DME	SHAFTER, CA VORTAC	6400
FELLOWS, CA VOR/DME	GORMAN, CA VORTAC	11000
FILLMORE, CA VORTAC	FELLOWS, CA VOR/DME	9500
FLYING CLOUD, MN VOR/DME	SIOUX FALLS, SD VORTAC	17000
		MAA - 25000
FORT DODGE, IA VORTAC	BRADFORD, IL VORTAC	18000
		MAA - 45000
FORT WAYNE, IN VORTAC	KALAMAZOO, MI VOR/DME	18000
		MAA - 43000
GINNA, CA FIX	CAMARILLO, CA VOR/DME	4000
GIPPER, MI VORTAC	LITCHFIELD, MI VOR/DME	#18000
		MAA - 41000
#MAXIMUM CROSSING ALT SBN 075/49 33000.		
GLINA, NM WP	BOLES, NM DME	#*13000
*9900 - MOCA		MAA - 24000
#RADAR REQUIRED WHEN IN HOLLOMAN APCH CTL ARSPC.		
GOOCH SPRINGS, TX VORTAC	COLLEGE STATION, TX VORTAC	*4000
*3000 - MOCA		
GOPHER, MN VORTAC	MOLINE, IL VOR/DME	13000
		MAA - 35000
GOPHER, MN VORTAC	CEDAR RAPIDS, IA VOR/DME	14500
		MAA - 35000
GRAND ISLAND, NE VOR/DME	LINCOLN, NE VORTAC	*4000
*2900 - MOCA		MAA - 35000
GRAND ISLAND, NE VOR/DME	SALINA, KS VORTAC	*7000
*3800 - MOCA		MAA - 17500
GROTON, CT VOR/DME	FLIBB, CT FIX	*2000
*1500 - MOCA		MAA - 17500
GUADALUPE, CA VOR	HABUT, CA FIX	5000
GULFPORT, MS VORTAC	*PLUGG, MS FIX	**2000
*5000 - MRA		
**1700 - MOCA		
HOMEE, PA WP	REVLOC, PA VOR/DME	4000
HONEZ, CA FIX	MODESTO, CA VOR/DME	2200
HUMBLE, TX VORTAC	QUITMAN, TX DME	*9000
*2200 - MOCA		MAA - 41000
JAMESTOWN, ND VOR/DME	BISMARCK, ND VOR/DME	18000
		MAA - 24000
JAMESTOWN, ND VOR/DME	GRAND FORKS, ND VOR/DME	18000
		MAA - 35000
JULIAN, CA VORTAC	PARADISE, CA VORTAC	8000
		MAA - 41000
KALAMAZOO, MI VOR/DME	VICTORY, MI VOR/DME	18000
		MAA - 43000
KALISPELL, MT VOR/DME	U.S. CANADIAN BORDER	18000
		MAA - 45000
KALISPELL, MT VOR/DME	HELENA, MT VORTAC	*15500
*11400 - MOCA		
KEARNEY, NE VOR	MANKATO, KS VORTAC	4200
LAFAYETTE, LA VORTAC	ORICH, LA FIX	1600
LAKE CHARLES, LA VORTAC	LUFKIN, TX VORTAC	*3000
*1600 - MOCA		MAA - 1700

FROM	TO	MEA
LAKE CHARLES, LA VORTAC *1600 - MOCA	APPIN, TX FIX	*8000
LAKE HUGHES, CA VORTAC	FILLMORE, CA VORTAC	8000
LAMONI, IA VOR/DME	IOWA CITY, IA VOR/DME	18000
LAUGHLIN, TX VORTAC *3000 - MOCA	SAN ANTONIO, TX VORTAC	MAA - 42000 *5000
LEONA, TX VORTAC *1900 - MOCA	GREGG COUNTY, TX VORTAC	*2500
LINCOLN, NE VORTAC	OMAHA, IA VORTAC	3700
LINCOLN, NE VORTAC *2700 - MOCA	DES MOINES, IA VORTAC	MAA - 35000 *5000
LONDON, KY VOR/DME	HOLSTON MOUNTAIN, TN VORTAC	MAA - 45000 18000
LUFKIN, TX VORTAC *2100 - MOCA	PALESTINE, TX NDB	MAA - 43000 *3200
LUFKIN, TX VORTAC *2000 - MOCA	MONROE, LA VORTAC	*8000
MADISON, WI VORTAC	DELLS, WI VORTAC	18000
MANKATO, KS VORTAC *3100 - MOCA	SALINA, KS VORTAC	MAA - 29000 *3400
*MARIC, CA FIX *3400 - MCA MARIC, CA FIX , E BND	LAKE HUGHES, CA VORTAC	7800
MEEKER, CO VOR/DME *16500 - MRA **15500 - MOCA	*FUNDS, CO FIX	**24000
MENDOCINO, CA VORTAC	POINT REYES, CA VOR/DME	MAA - 37000 5000
MENDOCINO, CA VORTAC *7500 - MOCA	BRILLO, CA FIX	MAA - 39000 *11000
MINA, NV VORTAC	BATTLE MOUNTAIN, NV VORTAC	MAA - 24000 18000
MINOT, ND VOR/DME	U.S. CANADIAN BORDER	18000
MISSOULA, MT VOR/DME	KALISPELL, MT VOR/DME	MAA - 45000 18000
MISSOULA, MT VOR/DME	BOZEMAN, MT VOR/DME	MAA - 45000 20000
MISSOULA, MT VOR/DME	GREAT FALLS, MT VORTAC	MAA - 35000 18000
MISSOULA, MT VOR/DME	DILLON, MT VOR/DME	MAA - 24000 16500
MORMON MESA, NV VORTAC	WILSON CREEK, NV VORTAC	MAA - 35000 18000
MORRO BAY, CA VORTAC	FILLMORE, CA VORTAC	9500
MORRO BAY, CA VORTAC	SHAFTER, CA VORTAC	6000
MORRO BAY, CA VORTAC	FELLOWS, CA VOR/DME	6400
MUDDY MOUNTAIN, WY VOR/DME	DICKINSON, ND VORTAC	18000
MUSTANG, NV VORTAC	TROSE, CA FIX	MAA - 35000 22000
NORTH BEND, OR VOR/DME	EUGENE, OR VORTAC	18000
NORTH BEND, OR VOR/DME	NEWPORT, OR VORTAC	MAA - 41000 18000
NORTH PLATTE, NE VOR/DME *4200 - MOCA	KEARNEY, NE VOR	MAA - 45000 *5000
NORTHBROOK, IL VOR/DME	DES MOINES, IA VORTAC	18000
O NEILL, NE VORTAC	MASON CITY, IA VOR/DME	MAA - 41000 24000
OAKLAND, CA VOR/DME	SCAGGS ISLAND, CA VORTAC	MAA - 41000 4000
OMAHA, IA VORTAC	HILL CITY, KS VORTAC	18000
PACIF, CA FIX	SEAL BEACH, CA VORTAC	MAA - 45000 3000
PANOCHE, CA VORTAC *9000 - MCA HENCE, CA FIX , E BND **5800 - MOCA	*HENCE, CA FIX	**9000
PANOCHE, CA VORTAC	GORMAN, CA VORTAC	24000
PANOCHE, CA VORTAC	SUNOL, CA FIX	18000
PARADISE, CA VORTAC *8500 - MCA CALBE, CA FIX , NW BND	*CALBE, CA FIX	MAA - 31000 6000
PAWNEE CITY, NE VORTAC	KIRKSVILLE, MO VORTAC	MAA - 17500 18000
		MAA - 41000

FROM	TO	MEA
PAWNEE CITY, NE VORTAC	KANSAS CITY, MO VORTAC	18000
PEACH SPRINGS, AZ VOR/DME	DOVE CREEK, CO VORTAC	MAA - 45000
PENDLETON, OR VORTAC	DILLON, MT VOR/DME	18000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE	WOODSIDE, CA VOR/DME	MAA - 41000
POINT REYES, CA VOR/DME		#24000
*4400 - MOCA	HILL CITY, KS VORTAC	*5000
PUEBLO, CO VORTAC	HAYES CENTER, NE VORTAC	MAA - 17000
PUEBLO, CO VORTAC	BLACK FOREST, CO VOR/DME	18000
PYNON, CO FIX	TULSA, OK VORTAC	MAA - 45000
QUITMAN, TX DME	FARGO, ND VOR/DME	18000
*3000 - MOCA	DUPREE, SD VOR/DME	MAA - 35000
RAPID CITY, SD VORTAC	MINOT, ND VOR/DME	#18000
RAPID CITY, SD VORTAC	SCAGGS ISLAND, CA VORTAC	*6000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE	REDDING, CA VOR/DME	3000
RED BLUFF, CA VORTAC	TOMAD, CA FIX	
*9000 - MOCA	NE BND	6000
RED BLUFF, CA VORTAC	SW BND	9000
*REDDING, CA VOR/DME		
*5000 - MCA REDDING, CA VOR/DME , SW BND	MARRI, CA FIX	13000
RICHY, CA FIX	LARAMIE, WY VOR/DME	18000
RIVERTON, WY VOR/DME		MAA - 35000
RIVERTON, WY VOR/DME	GREAT FALLS, MT VORTAC	#*35000
*14800 - MOCA		
#35000 MRA AT COP.	LARAMIE, WY VOR/DME	*18000
ROCK SPRINGS, WY VOR/DME	JACKSON, WY VOR/DME	MAA - 45000
*14000 - MOCA		*18000
ROCK SPRINGS, WY VOR/DME	*ROOTY, OR FIX	MAA - 45000
*13200 - MOCA		11000
ROGUE VALLEY, OR VORTAC	INT GAG VORTAC 143 & SYO VORTAC 079	*6000
*11000 - MRA	DONNELLY, ID VOR/DME	MAA - 17500
ROLLS, OK FIX	DUBOIS, ID VORTAC	24000
*3300 - MOCA		MAA - 45000
ROME, OR VOR/DME	KLAMATH FALLS, OR VORTAC	31000
ROME, OR VOR/DME	LICKE, CA WP	MAA - 45000
SACRAMENTO, CA VORTAC	GILRO, CA FIX	18000
SALINAS, CA VORTAC	MISSOULA, MT VOR/DME	6000
SALINAS, CA VORTAC		MAA - 17500
SALMON, ID VOR/DME	BROWNWOOD, TX VOR/DME	5000
SAN ANGELO, TX VORTAC	GOOCH SPRINGS, TX VORTAC	18000
SAN ANGELO, TX VORTAC	BROWNWOOD, TX VOR/DME	MAA - 45000
SAN ANGELO, TX VORTAC	ROCKSPRINGS, TX VORTAC	4500
SAN JOSE, CA VOR/DME	COLLI, CA FIX	5000
SAN MARCUS, CA VORTAC	GUADALUPE, CA VOR	3500
SAN MARCUS, CA VORTAC	MORRO BAY, CA VORTAC	4200
SANTA CATALINA, CA VORTAC	GAVIOTA, CA VORTAC	4000
SANTY, CA FIX	*TAILS, CA FIX	6700
*7000 - MRA		6800
SCAPA, PR WP	CRSTL, PR WP	6400
SCOTTSBLUFF, NE VORTAC	WOLBACH, NE VORTAC	5000
SCOTTSBLUFF, NE VORTAC	ABERDEEN, SD VOR/DME	6000
SEAL BEACH, CA VORTAC	ELMOO, CA FIX	18000
*2400 - MOCA	WRING, CA FIX	MAA - 45000
*SHAFTER, CA VORTAC	RAPID CITY, SD VORTAC	26000
*3300 - MCA SHAFTER, CA VORTAC , NE BND		MAA - 45000
SHERIDAN, WY VOR/DME	ABERDEEN, SD VOR/DME	*5000
SIDNEY, NE VOR/DME	FARGO, ND VOR/DME	18000
SIoux FALLS, SD VORTAC		MAA - 45000
		29000
		MAA - 45000
		15000

FROM	TO	MEA
SNOUT, AK FIX	EEDEN, AK FIX	10000
SNOWBIRD, TN VORTAC	LONDON, KY VOR/DME	MAA - 45000 18000
SPOKANE, WA VORTAC	DONNELLY, ID VOR/DME	MAA - 45000 18000
SPOKANE, WA VORTAC	MISSOULA, MT VOR/DME	MAA - 41000 18000
SPOKANE, WA VORTAC	U.S. CANADIAN BORDER	MAA - 35000 #18000
		MAA - 45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
SQUAW VALLEY, CA VOR/DME	*RICHY, CA FIX	11000
*12000 - MCA RICHY, CA FIX , SE BND		
SQUAW VALLEY, CA VOR/DME	KLAMATH FALLS, OR VORTAC	28000
TONOPAH, NV VORTAC	BRYCE CANYON, UT VORTAC	MAA - 45000 23000
TROSE, CA FIX	MODESTO, CA VOR/DME	MAA - 45000
	SW BND	5000
	NE BND	22000
		MAA - 39000
TUSCOLA, TX VOR/DME	LLANO, TX VORTAC	*4500
*3900 - MOCA		
TWENTYNINE PALMS, CA VORTAC	GOFFS, CA VORTAC	18000
UNBAR, MI FIX	SALEM, MI VORTAC	MAA - 45000 18000
VAN NUYS, CA VOR/DME	STABO, CA FIX	MAA - 45000 4000
*VAN NUYS, CA VOR/DME	PALMDALE, CA VORTAC	7800
*6000 - MCA VAN NUYS, CA VOR/DME , NE BND		
		MAA - 17500
WAKER, CA FIX	FILLMORE, CA VORTAC	4800
*WESLA, CA FIX	FILLMORE, CA VORTAC	4800
*4100 - MCA WESLA, CA FIX , N BND		
WICHITA FALLS, TX VORTAC	ARDMORE, OK VORTAC	*4000
*2500 - MOCA		
WILKES-BARRE, PA VORTAC	LATTY, NY FIX	4000
		MAA - 10000
WILL ROGERS, OK VORTAC	WICHITA, KS VORTAC	*6000
*3600 - MOCA		MAA - 17500
WILLISTON, ND VOR/DME	U.S. CANADIAN BORDER	*8000
*3400 - MOCA		MAA - 17500
WILSON CREEK, NV VORTAC	BULLION, NV VOR/DME	20000
WOLBACH, NE VORTAC	OMAHA, IA VORTAC	3800
		MAA - 35000
WOLBACH, NE VORTAC	DES MOINES, IA VORTAC	10000
		MAA - 17500
WOLBACH, NE VORTAC	PAWNEE CITY, NE VORTAC	18000
		MAA - 45000
WOODSIDE, CA VOR/DME	*EUGEN, CA FIX	**6000
*7000 - MRA		
**4400 - MOCA		
WRAPS, CA FIX	SACRAMENTO, CA VORTAC	*3000
*2600 - MOCA		

FROM

TO

MEA

PUERTO RICO ROUTES**ROUTE 1**

UTAHS, PR FIX	BORINQUEN, PR VORTAC	*4000
*1300 - MOCA		
BORINQUEN, PR VORTAC	MAYAGUEZ, PR VOR/DME	2500

ROUTE 2

FAJAR, PR FIX	TOURO, PR FIX	2000
TOURO, PR FIX	ST CROIX, VI VOR/DME	2000

ROUTE 3

UTAHS, PR FIX	JAAWS, PR FIX	12000
JAAWS, PR FIX	SAN JUAN, PR VORTAC	3000

ROUTE 4

*IDAHO, PR FIX	BORINQUEN, PR VORTAC	**2500
*15000 - MRA		
**1800 - MOCA		
BORINQUEN, PR VORTAC	JOSHE, PR FIX	6000
JOSHE, PR FIX	MIGHT, PR FIX	6000
MIGHT, PR FIX	TUUNA, PR FIX	6000
TUUNA, PR FIX	VEDAS, PR FIX	5000
VEDAS, PR FIX	SNOOZ, VI FIX	4000
SNOOZ, VI FIX	ST CROIX, VI VOR/DME	2400

ROUTE 5

BORINQUEN, PR VORTAC	ROBLL, PR FIX	*3000
*1800 - MOCA		
ROBLL, PR FIX	PLING, PR FIX	*6000
*1300 - MOCA		

ROUTE 6

*IDAHO, PR FIX	ROBLL, PR FIX	15000
*15000 - MRA		
ROBLL, PR FIX	BEANO, PR FIX	6000
BEANO, PR FIX	CORAF, PR FIX	*3000
*1300 - MOCA		
CORAF, PR FIX	SAN JUAN, PR VORTAC	1500
SAN JUAN, PR VORTAC	CHAKA, PR FIX	2500
CHAKA, PR FIX	PALCO, PR FIX	3000
PALCO, PR FIX	ST THOMAS, VI VOR/DME	2700
		MAA - 45000

ROUTE 7

PLING, PR FIX	SAALR, PR FIX	12000
SAALR, PR FIX	DONKE, PR FIX	3000
DONKE, PR FIX	SAN JUAN, PR VORTAC	3000
SAN JUAN, PR VORTAC	SANLO, PR FIX	4000
SANLO, PR FIX	TUUNA, PR FIX	4000
TUUNA, PR FIX	GESEO, PR FIX	9000

FROM	TO	MEA
ROUTE 9		
BEWIK, PR FIX *8500 - MRA	*WIGUM, PR FIX	6000
WIGUM, PR FIX	CLAYO, PR FIX	MAA - 18000 5500
CLAYO, PR FIX	MIGHT, PR FIX	MAA - 18000 5500
MIGHT, PR FIX	GANBO, PR FIX	MAA - 18000 6000
GANBO, PR FIX	SAN JUAN, PR VORTAC	MAA - 18000 3800
SAN JUAN, PR VORTAC	WALNA, PR FIX	MAA - 18000 1500
WALNA, PR FIX *2500 - MRA	*DEEDY, PR FIX	MAA - 18000 1500
DEEDY, PR FIX	VERMO, PR FIX	MAA - 18000 12000 MAA - 18000
ROUTE 12		
MAYAGUEZ, PR VOR/DME	JOSHE, PR FIX	7000
JOSHE, PR FIX *6000 - MRA	*VARNA, PR FIX	6000
*5000 - MCA VARNA, PR FIX , SW BND		
VARNA, PR FIX	SAN JUAN, PR VORTAC	3700
SAN JUAN, PR VORTAC	JETSS, PR FIX	2000
JETSS, PR FIX	ST THOMAS, VI VOR/DME	2800

FROM

TO

MEA

BAHAMA ROUTES**BR1L**

JOLTS, BS FIX	FREEPORT, BS VOR/DME	*2000
*1500 - MOCA		MAA - 45000
FREEPORT, BS VOR/DME	BARTS, BS FIX	*2000
*1300 - MOCA		
BARTS, BS FIX	MAMML, BS FIX	*2000
*1200 - MOCA		
MAMML, BS FIX	DIAZZ, OA FIX	*2000
*1200 - MOCA		
DIAZZ, OA FIX	COBBL, BS FIX	2000
COBBL, BS FIX	LOGVN, OA WP	*2000
*1200 - MOCA		
LOGVN, OA WP	BRRGO, BS FIX	2000
BRRGO, BS FIX	AVNEY, OA WP	*2000
*1200 - MOCA		
AVNEY, OA WP	BENIE, IB FIX	*2000
*1200 - MOCA		
BENIE, IB FIX	OREDE, BS WP	*2000
*1200 - MOCA		MAA - 41000
OREDE, BS WP	RAHAM, IB FIX	*2000
*1200 - MOCA		
RAHAM, IB FIX	STRUD, OA FIX	*2000
*1300 - MOCA		
STRUD, OA FIX	BIKIN, IB FIX	2000
BIKIN, IB FIX	GRAND TURK, TC VORTAC	*2000
*1300 - MOCA		

BR2L

SAN SALVADOR, BS NDB	DUKKY, BS FIX	5500
DUKKY, BS FIX	WRECK, OA FIX	5500
WRECK, OA FIX	SOLEI, OA FIX	5500
SOLEI, OA FIX	TROTR, OA FIX	5500
TROTR, OA FIX	PROVIDENCIALES, TC VOR/DME	5500
PROVIDENCIALES, TC VOR/DME	TOMAZ, IB FIX	5500
TOMAZ, IB FIX	BURTZ, OA FIX	5500
BURTZ, OA FIX	GOVET, OA FIX	5500
GOVET, OA FIX	JUELE, OA FIX	5500
		MAA - 60000

BR9L

TOMAZ, IB FIX	CARAH, OA FIX	*2000
*1300 - MOCA		
CARAH, OA FIX	GREAT INAGUA, BS NDB	*2000
*1300 - MOCA		

BR10L

FREEPORT, BS VOR/DME	FLINY, BS FIX	3000
FLINY, BS FIX	HAANA, BS FIX	3000
HAANA, BS FIX	MRRSH, BS FIX	3000
MRRSH, BS FIX	BNTTZ, BS FIX	3000

BR21V

FREEPORT, BS VOR/DME	ULAMA, BS FIX	2000
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FROM	TO	MEA
BR21V - CONTINUED		
ULAMA, BS FIX	KIXAL, OA FIX	2000
		MAA - 45000
KIXAL, OA FIX	WALIK, FL FIX	2000
WALIK, FL FIX	PALM BEACH, FL VORTAC	2000
BR22V		
FORT LAUDERDALE, FL VOR/DME	DEKAL, OA FIX	6000
DEKAL, OA FIX	WIERS, BS FIX	6000
		MAA - 45000
WIERS, BS FIX	OYSTA, BS FIX	10000
		MAA - 45000
OYSTA, BS FIX	CAREY, BS FIX	6000
CAREY, BS FIX	MAJUR, OA FIX	3000
MAJUR, OA FIX	NASSAU, BS VOR/DME	*2000
*1500 - MOCA		
BR49V		
DOLPHIN, FL VORTAC	LUVLY, FL FIX	2000
LUVLY, FL FIX	JUNUR, FL FIX	2000
JUNUR, FL FIX	FOWEE, OA FIX	6000
FOWEE, OA FIX	LUCSS, BS FIX	*7000
*1400 - MOCA		MAA - 45000
LUCSS, BS FIX	JERRE, OA FIX	*4000
*1400 - MOCA		MAA - 45000
JERRE, OA FIX	*TINKY, OA FIX	**4000
*8000 - MRA		
**1400 - MOCA		MAA - 45000
TINKY, OA FIX	NICKO, BS FIX	*4000
*1500 - MOCA		MAA - 45000
NICKO, BS FIX	NASSAU, BS VOR/DME	*2000
*1500 - MOCA		MAA - 45000
BR53V		
VIRGINIA KEY, FL VOR/DME	SKIPS, BS FIX	4000
SKIPS, BS FIX	LEEVI, BS FIX	5000
		MAA - 45000
LEEVI, BS FIX	SWIMM, BS FIX	5000
		MAA - 45000
SWIMM, BS FIX	WOOZE, BS FIX	9000
		MAA - 45000
WOOZE, BS FIX	*RAJAY, BS FIX	11000
*11000 - MRA		
RAJAY, BS FIX	PRUNE, BS FIX	4000
PRUNE, BS FIX	HINZY, BS FIX	2000
HINZY, BS FIX	NASSAU, BS VOR/DME	2000
NASSAU, BS VOR/DME	GUAVA, BS FIX	3000
GUAVA, BS FIX	BNTTZ, BS FIX	3000
BR54V		
PALM BEACH, FL VORTAC	MRLIN, FL FIX	2000
MRLIN, FL FIX	PREDA, FL FIX	4000
		MAA - 45000
PREDA, FL FIX	ISAAC, BS FIX	6000
		MAA - 45000
ISAAC, BS FIX	OYSTA, BS FIX	8000

FROM	TO	MEA
BR54V - CONTINUED		
OYSTA, BS FIX	CAREY, BS FIX	6000
CAREY, BS FIX	MAJUR, OA FIX	3000
MAJUR, OA FIX	NASSAU, BS VOR/DME	*2000
*1500 - MOCA		
BR55V		
PALM BEACH, FL VORTAC	MRLIN, FL FIX	2000
MRLIN, FL FIX	PREDA, FL FIX	4000
		MAA - 45000
PREDA, FL FIX	BEECH, BS FIX	4000
		MAA - 45000
BEECH, BS FIX	BIMINI, BS VORTAC	4000
		MAA - 45000
BIMINI, BS VORTAC	*RAJAY, BS FIX	4000
*11000 - MRA		
RAJAY, BS FIX	PRUNE, BS FIX	4000
PRUNE, BS FIX	HINZY, BS FIX	2000
HINZY, BS FIX	NASSAU, BS VOR/DME	2000
NASSAU, BS VOR/DME	BURRL, BS FIX	*3000
*1500 - MOCA		
BURRL, BS FIX	SEAAN, BS FIX	*3000
*1300 - MOCA		
SEAAN, BS FIX	MUVOD, BS FIX	*10000
*1300 - MOCA		
MUVOD, BS FIX	BRRGO, BS FIX	*16000
*1300 - MOCA		
BR57V		
FORT LAUDERDALE, FL VOR/DME	DEKAL, OA FIX	6000
DEKAL, OA FIX	WIERS, BS FIX	6000
WIERS, BS FIX	BIMINI, BS VORTAC	3000
		MAA - 45000
BIMINI, BS VORTAC	CAREY, BS FIX	*3000
*1300 - MOCA		MAA - 45000
CAREY, BS FIX	MAJUR, OA FIX	3000
MAJUR, OA FIX	NASSAU, BS VOR/DME	*2000
*1500 - MOCA		
BR58V		
NASSAU, BS VOR/DME	KURAY, BS FIX	*2000
*1500 - MOCA		MAA - 45000
KURAY, BS FIX	*MELON, BS FIX	**2000
*8000 - MRA		
**1400 - MOCA		MAA - 45000
MELON, BS FIX	HANKX, BS FIX	*2000
*1400 - MOCA		MAA - 45000
HANKX, BS FIX	BARTS, BS FIX	*4000
*1400 - MOCA		MAA - 45000
BARTS, BS FIX	ANGLL, BS FIX	*10000
*1400 - MOCA		MAA - 45000
BR62V		
TREASURE, FL VORTAC	ANGEE, FL FIX	2000
ANGEE, FL FIX	FORNL, FL FIX	2000
FORNL, FL FIX	SURFN, FL FIX	2000

FROM

TO

MEA

BR62V - CONTINUED

SURFN, FL FIX	BERTH, BS FIX	*4000
*1300 - MOCA		
BERTH, BS FIX	JAKEL, BS FIX	*4000
*1400 - MOCA		MAA - 45000
JAKEL, BS FIX	FREEPORT, BS VOR/DME	*4000
*1400 - MOCA		

BR63V

PALM BEACH, FL VORTAC	TURPS, FL FIX	2000
TURPS, FL FIX	MIXAE, BS FIX	3000
		MAA - 45000
MIXAE, BS FIX	HALBI, BS FIX	4000
		MAA - 45000
HALBI, BS FIX	ULAMA, BS FIX	2000
ULAMA, BS FIX	FREEPORT, BS VOR/DME	2000
FREEPORT, BS VOR/DME	CEGUR, BS FIX	*2000
*1400 - MOCA		
CEGUR, BS FIX	BURBO, BS FIX	*2000
*1300 - MOCA		
BURBO, BS FIX	BAYRU, BS FIX	*10000
*1300 - MOCA		
BAYRU, BS FIX	HANKX, BS FIX	*10000
*1300 - MOCA		
HANKX, BS FIX	*MELON, BS FIX	**2000
*8000 - MRA		
**1400 - MOCA		MAA - 45000
MELON, BS FIX	KURAY, BS FIX	*2000
*1400 - MOCA		MAA - 45000
KURAY, BS FIX	NASSAU, BS VOR/DME	*2000
*1500 - MOCA		MAA - 45000

BR64V

VIRGINIA KEY, FL VOR/DME	QEPRO, FL FIX	5000
QEPRO, FL FIX	KUCEP, FL WP	5000
KUCEP, FL WP	HEATT, FL FIX	5000
HEATT, FL FIX	MRLIN, FL FIX	5000
MRLIN, FL FIX	MUNRO, BS FIX	5000
		MAA - 45000
MUNRO, BS FIX	FREEPORT, BS VOR/DME	2000

BR65V

NASSAU, BS VOR/DME	PEACH, BS FIX	*2000
*1500 - MOCA		
PEACH, BS FIX	*SYDNY, BS FIX	**2000
*5000 - MRA		
**1300 - MOCA		
SYDNY, BS FIX	LAUTH, BS FIX	*5000
*1300 - MOCA		
LAUTH, BS FIX	FREEPORT, BS VOR/DME	*2000
*1400 - MOCA		
FREEPORT, BS VOR/DME	RAPPS, BS FIX	3000
		MAA - 45000
RAPPS, BS FIX	STIFF, BS FIX	8000
		MAA - 45000
STIFF, BS FIX	ELDER, FL FIX	8000
		MAA - 45000

FROM	TO	MEA
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BR65V - CONTINUED

ELDER, FL FIX	ADOOR, FL FIX	25000
		MAA - 45000

BR66V

VIRGINIA KEY, FL VOR/DME	JANUS, OA FIX	2000
JANUS, OA FIX	PADUS, BS FIX	4000
		MAA - 45000
PADUS, BS FIX	FREEPORT, BS VOR/DME	2000
		MAA - 45000

BR68V

FORT LAUDERDALE, FL VOR/DME	MRLIN, FL FIX	6000
MRLIN, FL FIX	MUNRO, BS FIX	5000
		MAA - 45000
MUNRO, BS FIX	FREEPORT, BS VOR/DME	2000

BR69V

BIMINI, BS VORTAC	BAHMA, BS FIX	3000
		MAA - 45000
BAHMA, BS FIX	MAYKO, OA FIX	3000
		MAA - 45000
MAYKO, OA FIX	FREEPORT, BS VOR/DME	3000
		MAA - 45000
FREEPORT, BS VOR/DME	JAMAX, BS FIX	*2000
*1400 - MOCA		MAA - 45000
JAMAX, BS FIX	BENZI, BS FIX	*3000
*1200 - MOCA		MAA - 45000
BENZI, BS FIX	JOLTS, BS FIX	4000
		MAA - 45000
JOLTS, BS FIX	BERTH, BS FIX	4000
		MAA - 45000
BERTH, BS FIX	KIXAL, OA FIX	4000
		MAA - 45000
KIXAL, OA FIX	WALIK, FL FIX	4000
		MAA - 45000
WALIK, FL FIX	PALM BEACH, FL VORTAC	2000
		MAA - 45000

BR70V

FORT LAUDERDALE, FL VOR/DME	TURBO, OA FIX	2000
TURBO, OA FIX	PADUS, BS FIX	7000
		MAA - 45000
PADUS, BS FIX	FREEPORT, BS VOR/DME	2000
		MAA - 45000
FREEPORT, BS VOR/DME	GRREG, BS FIX	3500
		MAA - 45000
GRREG, BS FIX	MRRSH, BS FIX	3500
		MAA - 45000
MRRSH, BS FIX	NASSAU, BS VOR/DME	6000
		MAA - 45000

BR71V

FREEPORT, BS VOR/DME	WOPOP, BS FIX	*2000
*1400 - MOCA		MAA - 45000

FROM

TO

MEA

BR71V - CONTINUED

WOPOP, BS FIX
*1200 - MOCA

WLKER, BS FIX

*3000
MAA - 45000

FROM

TO

MEA

ATLANTIC ROUTES

A301

*URSUS, OA FIX *16000 - MRA	ZOLLA, OA FIX	10000
ZOLLA, OA FIX	FOWEE, OA FIX	10000
FOWEE, OA FIX	SKIPS, BS FIX	5000
SKIPS, BS FIX	BIMINI, BS VORTAC	4000

A315

BIMINI, BS VORTAC	SWIMM, BS FIX	5000
SWIMM, BS FIX *8000 - MRA	*TINKY, OA FIX	8000
TINKY, OA FIX *12500 - MRA	*PEKRE, BS FIX	12500
PEKRE, BS FIX *14000 - MRA	*JAYEE, BS FIX	14000
JAYEE, BS FIX *16500 - MRA	*HODGY, BS FIX	7000
HODGY, BS FIX *16500 - MRA	*AMBIS, BS FIX	7000
AMBIS, BS FIX	JOSES, OA WP	7000

A509

*URSUS, OA FIX *16000 - MRA	ELLEE, BS FIX	16000
ELLEE, BS FIX	EONNS, FL FIX	5000
EONNS, FL FIX	JURER, FL FIX	3000
JURER, FL FIX	DOLPHIN, FL VORTAC	3000
DOLPHIN, FL VORTAC	MARCI, FL FIX	8000

A517

ZPATA, PR FIX	SAINT MAARTEN, AN VOR/DME	6000 MAA - 45000
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A555

ILURI, OA FIX	PORQE, VI FIX	12000
PORQE, VI FIX	DORADO, PR NDB	6000
DORADO, PR NDB *15000 - MRA	*IDAHO, PR FIX	2000
IDAHO, PR FIX *1300 - MOCA	HARDE, PR FIX	*2000
HARDE, PR FIX *1300 - MOCA	GRADI, IB FIX	*2000
GRADI, IB FIX *1300 - MOCA	COCBU, IB FIX	*2000
COCBU, IB FIX *1500 - MOCA	GRAND TURK, TC VORTAC	*2000
GRAND TURK, TC VORTAC	BTLER, OA FIX	2000
BTLER, OA FIX	GUANA, OA FIX	2000
GUANA, OA FIX	INDEE, BS FIX	2000
INDEE, BS FIX	DUKKY, BS FIX	2000
DUKKY, BS FIX	EVETS, BS FIX	3000

FROM	TO	MEA
A555 - CONTINUED		
EVETS, BS FIX	GEROT, OA FIX	3000
GEROT, OA FIX	DONEZ, OA FIX	3000
DONEZ, OA FIX	BOSAR, BS FIX	3000
BOSAR, BS FIX	LEPAS, BS FIX	*3000
*1300 - MOCA		
LEPAS, BS FIX	NASSAU, BS VOR/DME	*1500
*1500 - MOCA		
NASSAU, BS VOR/DME	HINZY, BS FIX	2000
HINZY, BS FIX	PRUNE, BS FIX	2000
PRUNE, BS FIX	*RAJAY, BS FIX	4000
*11000 - MRA		
RAJAY, BS FIX	BIMINI, BS VORTAC	4000
A636		
BORINQUEN, PR VORTAC	ALBBE, BS FIX	2000
		MAA - 45000
ALBBE, BS FIX	GREAT INAGUA, BS NDB	4000
A638		
ST THOMAS, VI VOR/DME	GUYRO, VI FIX	4000
GUYRO, VI FIX	SLUGO, VI FIX	4000
SLUGO, VI FIX	SAINT MAARTEN, AN VOR/DME	3000
A699		
NUCAR, BS FIX	STIFF, BS FIX	8000
STIFF, BS FIX	PERMT, FL FIX	8000
PERMT, FL FIX	PALM BEACH, FL VORTAC	6000
A756		
BODLO, OA WP	GREAT INAGUA, BS NDB	3000
GREAT INAGUA, BS NDB	ROSEA, OA WP	3000
ROSEA, OA WP	DUKKY, BS FIX	3000
A770		
LEEVILLE, LA VORTAC	DOLPH, OG FIX	4000
		MAA - 45000
DOLPH, OG FIX	ALGAE, OG WP	4000
		MAA - 45000
ALGAE, OG WP	KEHLI, OG FIX	4000
		MAA - 45000
AR10		
DOLPHIN, FL VORTAC	TURBO, OA FIX	6000
TURBO, OA FIX	PREDA, FL FIX	6000
PREDA, FL FIX	ZAPPA, BS FIX	10000
AR11		
VIRGINIA KEY, FL VOR/DME	JANUS, OA FIX	#2000
*VIRGINIA KEY R-058 UNUSABLE JANUS TO VALLY		
JANUS, OA FIX	VALLY, OA FIX	*5000
*5000 - GNSS MEA		

FROM	TO	MEA
AR12		
CHARLESTON, SC VORTAC	PITRW, SC WP	18000
		MAA - 60000
PITRW, SC WP	SPIKY, OA WP	18000
		MAA - 60000
SPIKY, OA WP	LURKS, OA WP	24000
		MAA - 60000
LURKS, OA WP	JAINS, OA WP	24000
		MAA - 60000
AR15		
WILMINGTON, NC VORTAC	METTA, OA FIX	24000
		MAA - 60000
METTA, OA FIX	SPIKY, OA WP	24000
		MAA - 60000
SPIKY, OA WP	BAHAA, OA WP	24000
		MAA - 60000
BAHAA, OA WP	HIBAC, OA WP	24000
		MAA - 60000
HIBAC, OA WP	PETEE, OA WP	24000
		MAA - 60000
PETEE, OA WP	*APOLO, FL FIX	24000
*4000 - MRA		
		MAA - 60000
APOLO, FL FIX	MALET, FL FIX	4000
		MAA - 60000
MALET, FL FIX	ORLANDO, FL VORTAC	2700
		MAA - 60000
AR16		
PERMT, FL FIX	LEND, OA WP	
	N BND	24000
		MAA - 60000
LEND, OA WP	SNABS, OA WP	
	N BND	24000
		MAA - 60000
SNABS, OA WP	EMCEE, OA WP	
	N BND	24000
		MAA - 60000
EMCEE, OA WP	SEELO, OA WP	
	N BND	24000
		MAA - 60000
SEELO, OA WP	WILMINGTON, NC VORTAC	
	N BND	24000
		MAA - 60000
AR17		
WILMINGTON, NC VORTAC	METTA, OA FIX	24000
		MAA - 60000
METTA, OA FIX	SPIKY, OA WP	24000
		MAA - 60000
SPIKY, OA WP	BAHAA, OA WP	24000
		MAA - 60000
BAHAA, OA WP	HIBAC, OA WP	24000
		MAA - 60000
HIBAC, OA WP	VIRGINIA KEY, FL VOR/DME	24000
		MAA - 60000

FROM	TO	MEA
AR18		
WOLFO, OA WP	RAMJT, OA WP	24000
		MAA - 60000
RAMJT, OA WP	ETECK, OA WP	24000
		MAA - 60000
ETECK, OA WP	OZENA, OA WP	24000
		MAA - 60000
OZENA, OA WP	LANIE, OA WP	24000
		MAA - 60000
LANIE, OA WP	LURKS, OA WP	24000
		MAA - 60000
LURKS, OA WP	MILOE, OA FIX	24000
		MAA - 60000
MILOE, OA FIX	PANAL, OA FIX	24000
		MAA - 60000
PANAL, OA FIX	DIXON, NC NDB	24000
		MAA - 60000
AR19		
AYBID, OA WP	INDRO, OA WP	
	S BND	24000
		MAA - 60000
INDRO, OA WP	MAJIK, OA WP	
	S BND	24000
		MAA - 60000
MAJIK, OA WP	JENKS, OA WP	
	S BND	24000
		MAA - 60000
JENKS, OA WP	SEELO, OA WP	
	S BND	24000
		MAA - 60000
SEELO, OA WP	DIXON, NC NDB	
	S BND	24000
		MAA - 60000
AR21		
WILMINGTON, NC VORTAC	METTA, OA FIX	24000
		MAA - 60000
METTA, OA FIX	SPIKY, OA WP	24000
		MAA - 60000
SPIKY, OA WP	BAHAA, OA WP	24000
		MAA - 60000
BAHAA, OA WP	DULEE, OA WP	24000
		MAA - 60000
DULEE, OA WP	HALSS, OA WP	24000
		MAA - 60000
HALSS, OA WP	CRANS, OA WP	24000
		MAA - 60000
AR22		
JORAY, OA WP	BGDOG, OA WP	
	S BND	24000
		MAA - 60000
BGDOG, OA WP	HOAGG, OA WP	
	S BND	24000
		MAA - 60000

FROM	TO	MEA
AR22 - CONTINUED		
HOAGG, OA WP	JENKS, OA WP S BND	24000 MAA - 60000
JENKS, OA WP	SEELO, OA WP S BND	24000 MAA - 60000
SEELO, OA WP	DIXON, NC NDB S BND	24000 MAA - 60000
AR23		
*URSUS, OA FIX *16000 - MRA	FREEPORT, BS VOR/DME	24000 MAA - 60000
FREEPORT, BS VOR/DME	CANIT, OA WP	24000 MAA - 60000
CANIT, OA WP	OZENA, OA WP	24000 MAA - 60000
OZENA, OA WP	LANIE, OA WP	24000 MAA - 60000
LANIE, OA WP	LURKS, OA WP	24000 MAA - 60000
LURKS, OA WP	MILOE, OA FIX	24000 MAA - 60000
MILOE, OA FIX	PANAL, OA FIX	24000 MAA - 60000
PANAL, OA FIX	DIXON, NC NDB	24000 MAA - 60000
AR24		
*URSUS, OA FIX *16000 - MRA	FREEPORT, BS VOR/DME	24000 MAA - 60000
FREEPORT, BS VOR/DME	OHLAA, OA WP	24000 MAA - 60000
OHLAA, OA WP	DIXON, NC NDB	24000 MAA - 60000
AR25		
CHARLESTON, SC VORTAC	PITRW, SC WP	18000 MAA - 60000
PITRW, SC WP	SPIKY, OA WP	18000 MAA - 60000
SPIKY, OA WP	LURKS, OA WP	24000 MAA - 60000
AR3		
NASSAU, BS VOR/DME *1500 - MOCA	KURAY, BS FIX	*2000 MAA - 45000
KURAY, BS FIX *8000 - MRA **1400 - MOCA	*MELON, BS FIX	**2000 MAA - 45000
MELON, BS FIX *1400 - MOCA	HANKX, BS FIX	*2000 MAA - 45000
HANKX, BS FIX *1400 - MOCA	BARTS, BS FIX	*4000 MAA - 45000

FROM	TO	MEA
AR3 - CONTINUED		
BARTS, BS FIX	ANGLL, BS FIX	*10000
*1400 - MOCA		MAA - 45000
ANGLL, BS FIX	CARPX, OA WP	*8000
*1400 - MOCA		MAA - 45000
CARPX, OA WP	PERIE, OA WP	2500
		MAA - 45000
PERIE, OA WP	OLDEY, SC FIX	2500
		MAA - 45000
OLDEY, SC FIX	PANAL, OA FIX	2500
		MAA - 45000
PANAL, OA FIX	CAROLINA BEACH, NC NDB	2500
		MAA - 45000
AR5		
DINNS, FL NDB	TROUT, FL WP	2500
		MAA - 45000
AR6		
ORLANDO, FL VORTAC	BITHO, FL FIX	2700
		MAA - 45000
BITHO, FL FIX	MALET, FL FIX	2700
		MAA - 45000
MALET, FL FIX	*APOLO, FL FIX	4000
*4000 - MRA		
		MAA - 45000
APOLO, FL FIX	HOBEE, FL FIX	24000
		MAA - 45000
AR7		
CHARLESTON, SC VORTAC	PITRW, SC WP	18000
		MAA - 60000
PITRW, SC WP	SPIKY, OA WP	18000
		MAA - 60000
SPIKY, OA WP	LURKS, OA WP	24000
		MAA - 60000
LURKS, OA WP	PERIE, OA WP	24000
		MAA - 60000
AR8		
ELIZABETH CITY, NC VOR/DME	OHPEA, NC FIX	21000
		MAA - 41000
OHPEA, NC FIX	TOMMZ, OA FIX	21000
		MAA - 41000
TOMMZ, OA FIX	OXANA, OA FIX	21000
		MAA - 41000
B24		
SEA ISLE, NJ VORTAC	FISSH, NJ FIX	15000
		MAA - 45000
FISSH, NJ FIX	WEBBB, OA WP	15000
		MAA - 45000
B503		
ENAMO, OA FIX	RYDEL, BS FIX	6000

FROM	TO	MEA
B503 - CONTINUED		
RYDEL, BS FIX *16500 - MRA	*HODGY, BS FIX	6000
HODGY, BS FIX	NASSAU, BS VOR/DME	7000
B646		
CANOA, FL WP	FISH HOOK, FL NDB	2000 MAA - 45000
FISH HOOK, FL NDB	MARATHON, FL NDB	2000 MAA - 45000
MARATHON, FL NDB *1400 - MOCA	AVION, FL FIX	*6000 MAA - 45000
AVION, FL FIX	ELLEE, BS FIX	6000 MAA - 45000
ELLEE, BS FIX *1400 - MOCA	FOWEE, OA FIX	*6000 MAA - 45000
FOWEE, OA FIX *1400 - MOCA	LUCSS, BS FIX	*7000 MAA - 45000
LUCSS, BS FIX *1400 - MOCA	JERRE, OA FIX	*4000 MAA - 45000
JERRE, OA FIX *8000 - MRA **1400 - MOCA	*TINKY, OA FIX	**4000 MAA - 45000
TINKY, OA FIX *1500 - MOCA	NICKO, BS FIX	*4000 MAA - 45000
NICKO, BS FIX *1500 - MOCA	NASSAU, BS VOR/DME	*2000 MAA - 45000
NASSAU, BS VOR/DME *1500 - MOCA	OHBEE, BS FIX	*2000 MAA - 45000
OHBEE, BS FIX *1400 - MOCA	MAMML, BS FIX	*4000 MAA - 45000
MAMML, BS FIX *1400 - MOCA	GRATX, OA WP	*5000 MAA - 45000
B760		
BIMINI, BS VORTAC	LEEVI, BS FIX	4000
LEEVI, BS FIX	MENDL, BS FIX	8000
MENDL, BS FIX	BORDO, BS FIX	12000
B891		
POKEG, IB FIX	GRADI, IB FIX	4000
GRADI, IB FIX	WATRS, OA FIX	10000
B892		
ANTEX, PR FIX	MAYAGUEZ, PR VOR/DME	4000
G430		
VIRGINIA KEY, FL VOR/DME	EONNS, FL FIX	3000
EONNS, FL FIX	AVION, FL FIX	4000
G437		
*DYNAH, OA FIX *14000 - MRA **14000 - MRA	*JAYEE, BS FIX	6000 MAA - 45000

FROM	TO	MEA
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G437 - CONTINUED

JAYEE, BS FIX	JEFRY, BS FIX	*4000
*1400 - MOCA		MAA - 45000
JEFRY, BS FIX	BRONO, BS FIX	*4000
*1500 - MOCA		MAA - 45000
BRONO, BS FIX	WELKS, BS FIX	*2000
*1500 - MOCA		MAA - 45000
WELKS, BS FIX	NASSAU, BS VOR/DME	*2000
*1500 - MOCA		
NASSAU, BS VOR/DME	INGRA, BS FIX	2000
INGRA, BS FIX	MAPYL, OA WP	8000

G439

DOLPHIN, FL VORTAC	MNATE, FL FIX	3000
MNATE, FL FIX	TWNNS, FL FIX	5000
TWNNS, FL FIX	DROWN, FL FIX	5000

G446

OLDEY, SC FIX	PERIE, OA WP	2500
PERIE, OA WP	CARPX, OA WP	2500
CARPX, OA WP	SCOBY, OA WP	2500
SCOBY, OA WP	CASPR, OA FIX	2500
CASPR, OA FIX	NUCAR, BS FIX	2500
NUCAR, BS FIX	OMALY, OA FIX	5500
OMALY, OA FIX	LASEE, OA WP	5500
LASEE, OA WP	ALUTE, OA WP	5500
ALUTE, OA WP	GRAND TURK, TC VORTAC	5500
GRAND TURK, TC VORTAC	PAMMS, IB FIX	2000
PAMMS, IB FIX	BESAS, IB FIX	6000

G629

GREAT INAGUA, BS NDB	CATHI, OA FIX	3000
CATHI, OA FIX	PROVIDENCIALES, TC VOR/DME	1500
PROVIDENCIALES, TC VOR/DME	EGANN, IB FIX	1500
EGANN, IB FIX	RAHAM, IB FIX	2000
RAHAM, IB FIX	LYMIN, OA FIX	2000

G633

GABAR, VI FIX	*DANDE, VI FIX	3500
*3500 - MRA		
DANDE, VI FIX	TANZY, VI FIX	3100
TANZY, VI FIX	ST CROIX, VI VOR/DME	2400
ST CROIX, VI VOR/DME	SNOOZ, VI FIX	3300
SNOOZ, VI FIX	TUUNA, PR FIX	3300
TUUNA, PR FIX	DORADO, PR NDB	5000
DORADO, PR NDB	MAYAGUEZ, PR VOR/DME	5000
MAYAGUEZ, PR VOR/DME	ZADAV, PR FIX	6000
ZADAV, PR FIX	MELLA, PR WP	6000

G648

GRAND TURK, TC VORTAC	PROVIDENCIALES, TC VOR/DME	1500
PROVIDENCIALES, TC VOR/DME	MICAS, IB FIX	2000

G765

MAXIM, FL WP	FISH HOOK, FL NDB	*3000
*1300 - MOCA		MAA - 45000

FROM	TO	MEA
L204		
GESO, PR FIX	ST CROIX, VI VOR/DME	GNSS - 18000 MAA - 60000
ST CROIX, VI VOR/DME	MLIZA, OA WP	GNSS - 18000 MAA - 60000
MLIZA, OA WP	GOUDA, VI FIX	GNSS - 18000 MAA - 60000
GOUDA, VI FIX	SAINT MAARTEN, AN VOR/DME	GNSS - 18000 MAA - 60000
L207		
SCHOLES, TX VOR/DME	MUSYL, OG FIX	4000 MAA - 45000
MUSYL, OG FIX	CATFS, OG WP	4000 MAA - 45000
CATFS, OG WP	SEAGL, OG WP	4000 MAA - 45000
SEAGL, OG WP	IPSEV, OG WP	4000 MAA - 45000
L208		
SABINE PASS, TX VOR/DME	ANKRR, OG WP	4000 MAA - 45000
ANKRR, OG WP	RUMMM, OG WP	4000 MAA - 45000
RUMMM, OG WP	PEGLG, OG WP	4000 MAA - 45000
PEGLG, OG WP	DUTNA, OG WP	4000 MAA - 45000
L214		
LEEVILLE, LA VORTAC	PLNDR, OG WP	4000 MAA - 45000
PLNDR, OG WP	DAGGR, OG WP	4000 MAA - 45000
DAGGR, OG WP	IRDOV, OG WP	4000 MAA - 45000
L216		
GRAND TURK, TC VORTAC	SHRUM, OA WP	GNSS - 3000 MAA - 60000
SHRUM, OA WP	LERED, OA FIX	GNSS - 3000 MAA - 60000
L221		
SATOE, OA WP	TAYOG, PR WP	7000 MAA - 60000
TAYOG, PR WP	JOSHE, PR FIX	7000 MAA - 60000
L325		
SCAPA, PR WP	DAKES, PR WP	GNSS - 7000 MAA - 60000

FROM	TO	MEA
L325 - CONTINUED		
DAKES, PR WP	GABYY, PR WP	GNSS - 7000 MAA - 60000
GABYY, PR WP	JOSHE, PR FIX	GNSS - 7000 MAA - 60000
L327		
SCAPA, PR WP	SAULT, PR WP	GNSS - 18000 MAA - 45000
SAULT, PR WP	OPAU, OA WP	GNSS - 18000 MAA - 45000
L329		
ZPATA, PR FIX	SAINT MAARTEN, AN VOR/DME	GNSS - 18000 MAA - 45000
SAINT MAARTEN, AN VOR/DME	SAULT, PR WP	GNSS - 18000 MAA - 45000
SAULT, PR WP	KEEKA, OA WP	GNSS - 18000 MAA - 45000
L333		
HARVEY, LA VORTAC	HOOCK, OG WP	4000 MAA - 45000
HOOCK, OG WP	TRESR, OG WP	4000 MAA - 45000
TRESR, OG WP	CCUDA, OG WP	4000 MAA - 45000
CCUDA, OG WP	PISAD, OG WP	4000 MAA - 45000
L335		
SCAPA, PR WP	MLIZA, OA WP	GNSS - 18000 MAA - 45000
MLIZA, OA WP	TRNKY, OA WP	GNSS - 18000 MAA - 45000
TRNKY, OA WP	OBIKE, OA WP	GNSS - 18000 MAA - 45000
L337		
ARMUR, PR WP	KBEZA, OA WP	GNSS - 5500 MAA - 60000
KBEZA, OA WP	NEGON, DO FIX	GNSS - 5500 MAA - 60000
L349		
GABAR, VI FIX	GESSO, PR FIX	5500 MAA - 60000
GESSO, PR FIX	SATOE, OA WP	5500 MAA - 60000
L375		
JAINS, OA WP	FLUPS, OA WP	GNSS - 5500 MAA - 60000

FROM	TO	MEA
L375 - CONTINUED		
FLUPS, OA WP	GALVN, OA WP	GNSS - 5500 MAA - 60000
GALVN, OA WP	DUNIG, OA WP	GNSS - 5500 MAA - 60000
DUNIG, OA WP	MEGGG, OA WP	GNSS - 5500 MAA - 60000
MEGGG, OA WP	BRKZZ, OA WP	GNSS - 5500 MAA - 60000
BRKZZ, OA WP	KOZIK, OA WP	GNSS - 5500 MAA - 60000
KOZIK, OA WP	FIVZE, OA WP	GNSS - 5500 MAA - 60000
FIVZE, OA WP	DABAK, OA WP	GNSS - 5500 MAA - 60000
L435		
JAINS, OA WP	FLUPS, OA WP	GNSS - 5500 MAA - 60000
FLUPS, OA WP	GALVN, OA WP	GNSS - 5500 MAA - 60000
GALVN, OA WP	DUNIG, OA WP	GNSS - 5500 MAA - 60000
DUNIG, OA WP	MEGGG, OA WP	GNSS - 5500 MAA - 60000
MEGGG, OA WP	BRKZZ, OA WP	GNSS - 5500 MAA - 60000
BRKZZ, OA WP	KOZIK, OA WP	GNSS - 5500 MAA - 60000
KOZIK, OA WP	FIVZE, OA WP	GNSS - 5500 MAA - 60000
FIVZE, OA WP	BUTUX, OA WP	GNSS - 5500 MAA - 60000
L450		
LETON, OA WP	IORIO, OA WP	GNSS - 18000 MAA - 60000
IORIO, OA WP	HELAX, OA WP	GNSS - 18000 MAA - 60000
HELAX, OA WP	COUKY, OA FIX	GNSS - 18000 MAA - 60000
COUKY, OA FIX	FOLLE, OA FIX	GNSS - 18000 MAA - 60000
FOLLE, OA FIX	JEFFO, OA FIX	GNSS - 18000 MAA - 60000
JEFFO, OA FIX	HAGIT, OA WP	GNSS - 18000 MAA - 60000
HAGIT, OA WP	TAANA, IB FIX	GNSS - 18000 MAA - 60000
TAANA, IB FIX	SEKAR, DO FIX	GNSS - 18000 MAA - 60000
L451		
ELMUC, OA WP	MYSTR, OA WP	GNSS - 3000 MAA - 60000
MYSTR, OA WP	LERUG, OA FIX	GNSS - 3000 MAA - 60000

FROM	TO	MEA
L451 - CONTINUED		
LERUG, OA FIX	DUNED, OA FIX	GNSS - 3000 MAA - 60000
DUNED, OA FIX	CERDA, OA WP	GNSS - 3000 MAA - 60000
CERDA, OA WP	JORGG, OA WP	GNSS - 3000 MAA - 60000
JORGG, OA WP	IORIO, OA WP	GNSS - 3000 MAA - 60000
IORIO, OA WP	LETON, OA WP	GNSS - 3000 MAA - 60000
LETON, OA WP	ILIDO, OA WP	GNSS - 5500 MAA - 60000
ILIDO, OA WP	JAINS, OA WP	GNSS - 5500 MAA - 60000
L452		
OXANA, OA FIX	ZZTOP, OA WP	5500 MAA - 60000
ZZTOP, OA WP	OMALA, OA WP	5500 MAA - 60000
OMALA, OA WP	WILYY, OA WP	5500 MAA - 60000
WILYY, OA WP	KANUX, OA WP	5500 MAA - 60000
KANUX, OA WP	GALVN, OA WP	5500 MAA - 60000
GALVN, OA WP	KASAR, OA WP	5500 MAA - 60000
KASAR, OA WP	LNHOM, OA WP	5500 MAA - 60000
LNHOM, OA WP	SLUKA, OA WP	5500 MAA - 60000
SLUKA, OA WP	JORGG, OA WP	5500 MAA - 60000
JORGG, OA WP	CAROX, OA WP	5500 MAA - 60000
CAROX, OA WP	NELSR, OA WP	5500 MAA - 60000
NELSR, OA WP	HAGIT, OA WP	5500 MAA - 60000
HAGIT, OA WP	RNTRY, OA FIX	5500 MAA - 60000
RNTRY, OA FIX	MACKI, OA FIX	5500 MAA - 60000
MACKI, OA FIX	HARBG, OA FIX	5500 MAA - 60000
HARBG, OA FIX	MUNOZ, OA WP	5500 MAA - 60000
MUNOZ, OA WP	BORINQUEN, PR VORTAC	5500 MAA - 60000
BORINQUEN, PR VORTAC	ETEEE, OA WP	5500 MAA - 60000
ETEEE, OA WP	RAFEE, OA WP	5500 MAA - 60000
RAFEE, OA WP	ANADA, OA WP	5500 MAA - 60000
L453		
SAUCR, OA WP	ONGOT, OA WP	GNSS - 5500 MAA - 60000

FROM	TO	MEA
L453 - CONTINUED		
ONGOT, OA WP	LSIER, OA WP	GNSS - 5500 MAA - 60000
LSIER, OA WP	ALOB, OA WP	GNSS - 5500 MAA - 60000
ALOB, OA WP	BOREX, OA WP	GNSS - 5500 MAA - 60000
BOREX, OA WP	LAMER, OA WP	GNSS - 5500 MAA - 60000
LAMER, OA WP	RODRK, OA WP	GNSS - 5500 MAA - 60000
RODRK, OA WP	CERDA, OA WP	GNSS - 5500 MAA - 60000
CERDA, OA WP	DETRE, OA WP	GNSS - 5500 MAA - 60000
DETRE, OA WP	FARMN, OA WP	GNSS - 5500 MAA - 60000
FARMN, OA WP	JSTIN, OA WP	GNSS - 5500 MAA - 60000
JSTIN, OA WP	ANTOX, OA WP	GNSS - 5500 MAA - 60000
ANTOX, OA WP	KARRN, OA FIX	GNSS - 5500 MAA - 60000
KARRN, OA FIX	MACKI, OA FIX	GNSS - 5500 MAA - 60000
MACKI, OA FIX	ASIVO, DO WP	GNSS - 5500 MAA - 60000

L454

OKONU, OA WP	ATUGI, OA WP	GNSS - 5500 MAA - 60000
ATUGI, OA WP	GOUGH, OA WP	GNSS - 5500 MAA - 60000
GOUGH, OA WP	PERDO, OA WP	GNSS - 5500 MAA - 60000
PERDO, OA WP	SAVON, OA WP	GNSS - 5500 MAA - 60000
SAVON, OA WP	GRAMN, OA WP	GNSS - 5500 MAA - 60000
GRAMN, OA WP	SEBIS, OA WP	GNSS - 5500 MAA - 60000
SEBIS, OA WP	RABAL, OA WP	GNSS - 5500 MAA - 60000
RABAL, OA WP	LUCTI, OA WP	GNSS - 5500 MAA - 60000
LUCTI, OA WP	SINGL, OA WP	GNSS - 3000 MAA - 60000
SINGL, OA WP	MNDEZ, OA WP	GNSS - 3000 MAA - 60000
MNDEZ, OA WP	ALERI, OA WP	GNSS - 3000 MAA - 60000
ALERI, OA WP	WOODZ, OA WP	GNSS - 3000 MAA - 60000
WOODZ, OA WP	KNDLL, OA WP	GNSS - 3000 MAA - 60000
KNDLL, OA WP	DONQU, OA WP	GNSS - 3000 MAA - 60000
DONQU, OA WP	PANMO, OA WP	GNSS - 5500 MAA - 60000

FROM	TO	MEA
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L454 - CONTINUED

PANMO, OA WP	GOTAY, PR WP	GNSS - 5500 MAA - 60000
GOTAY, PR WP	LEEEO, OA WP	GNSS - 5500 MAA - 60000
LEEEO, OA WP	ILURI, OA FIX	GNSS - 5500 MAA - 60000

L455

SAVIK, OA WP	SKPPR, OA WP	GNSS - 5500 MAA - 60000
SKPPR, OA WP	BEXUM, OA WP	GNSS - 5500 MAA - 60000
BEXUM, OA WP	TASNI, OA WP	GNSS - 5500 MAA - 60000
TASNI, OA WP	DUNIG, OA WP	GNSS - 5500 MAA - 60000
DUNIG, OA WP	DUPOX, OA WP	GNSS - 5500 MAA - 60000
DUPOX, OA WP	VESRA, OA WP	GNSS - 5500 MAA - 60000
VESRA, OA WP	MCOOP, OA WP	GNSS - 5500 MAA - 60000
MCOOP, OA WP	MACOR, OA WP	GNSS - 5500 MAA - 60000
MACOR, OA WP	KINCH, OA WP	GNSS - 5500 MAA - 60000
KINCH, OA WP	LENNT, OA WP	GNSS - 5500 MAA - 60000
LENNT, OA WP	JANMA, OA WP	GNSS - 5500 MAA - 60000
JANMA, OA WP	VACHI, OA WP	GNSS - 5500 MAA - 60000
VACHI, OA WP	KBEZA, OA WP	GNSS - 21000 MAA - 60000
KBEZA, OA WP	SCAPA, PR WP	GNSS - 21000 MAA - 60000

L456

MARIG, OA WP	DARUX, OA WP	GNSS - 5500 MAA - 60000
DARUX, OA WP	NOSID, OA WP	GNSS - 5500 MAA - 60000
NOSID, OA WP	EMAKO, OA WP	GNSS - 5500 MAA - 60000
EMAKO, OA WP	MEGGG, OA WP	GNSS - 5500 MAA - 60000
MEGGG, OA WP	VINSO, OA WP	GNSS - 5500 MAA - 60000
VINSO, OA WP	PRCHA, OA WP	GNSS - 5500 MAA - 60000
PRCHA, OA WP	HANCY, OA WP	GNSS - 5500 MAA - 60000
HANCY, OA WP	THANK, PR WP	GNSS - 5500 MAA - 60000
THANK, PR WP	FRATT, OA WP	GNSS - 15000 MAA - 60000
FRATT, OA WP	ETEEE, OA WP	GNSS - 15000 MAA - 60000

FROM	TO	MEA
L456 - CONTINUED		
ETEEE, OA WP	KIKER, OA WP	GNSS - 15000 MAA - 60000
L457		
OKONU, OA WP	SKPPR, OA WP	GNSS - 5500 MAA - 60000
SKPPR, OA WP	NOSID, OA WP	GNSS - 5500 MAA - 60000
NOSID, OA WP	ENAPI, OA WP	GNSS - 5500 MAA - 60000
ENAPI, OA WP	AWSOM, OA WP	GNSS - 5500 MAA - 60000
AWSOM, OA WP	GUICE, OA WP	GNSS - 21000 MAA - 60000
GUICE, OA WP	BERMUDA, BM VOR/DME	GNSS - 21000 MAA - 60000
L458		
GECAL, OA WP	TALSU, OA WP	GNSS - 5500 MAA - 60000
TALSU, OA WP	CHEDR, OA WP	GNSS - 5500 MAA - 60000
CHEDR, OA WP	THANK, PR WP	GNSS - 5500 MAA - 60000
THANK, PR WP	PANMO, OA WP	GNSS - 7000 MAA - 60000
PANMO, OA WP	ARMUR, PR WP	GNSS - 7000 MAA - 60000
L459		
SAVIK, OA WP	DARUX, OA WP	GNSS - 5500 MAA - 60000
DARUX, OA WP	DASER, OA WP	GNSS - 5500 MAA - 60000
DASER, OA WP	AWSOM, OA WP	GNSS - 5500 MAA - 60000
AWSOM, OA WP	BOBBO, OA WP	GNSS - 5500 MAA - 60000
BOBBO, OA WP	QRTET, OA WP	GNSS - 5500 MAA - 60000
QRTET, OA WP	CATZZ, OA WP	GNSS - 5500 MAA - 60000
CATZZ, OA WP	SHEIL, OA WP	GNSS - 5500 MAA - 60000
SHEIL, OA WP	TALSU, OA WP	GNSS - 5500 MAA - 60000
TALSU, OA WP	NUBUS, OA WP	GNSS - 5500 MAA - 60000
NUBUS, OA WP	KEEKA, OA WP	GNSS - 5500 MAA - 60000
KEEKA, OA WP	ODUCA, OA WP	GNSS - 5500 MAA - 60000
ODUCA, OA WP	CAFFE, OA WP	GNSS - 5500 MAA - 60000
CAFFE, OA WP	LEEEO, OA WP	GNSS - 5500 MAA - 60000

FROM	TO	MEA
L459 - CONTINUED		
LEEEO, OA WP	ANADA, OA WP	GNSS - 5500 MAA - 60000
L460		
ST THOMAS, VI VOR/DME	ODUCA, OA WP	GNSS - 6000 MAA - 60000
L461		
MARIG, OA WP	TILED, OA WP	GNSS - 5500 MAA - 60000
TILED, OA WP	KINER, OA WP	GNSS - 5500 MAA - 60000
KINER, OA WP	BOVIC, OA WP	GNSS - 5500 MAA - 60000
BOVIC, OA WP	FLAMO, OA WP	GNSS - 15000 MAA - 60000
FLAMO, OA WP	GUICE, OA WP	GNSS - 15000 MAA - 60000
GUICE, OA WP	LITTL, OA WP	GNSS - 15000 MAA - 60000
LITTL, OA WP	PIERC, OA WP	GNSS - 15000 MAA - 60000
PIERC, OA WP	ROOFE, OA WP	GNSS - 15000 MAA - 60000
ROOFE, OA WP	SICKL, OA WP	GNSS - 15000 MAA - 60000
SICKL, OA WP	GEAL, OA WP	GNSS - 15000 MAA - 60000
GEAL, OA WP	BRKZZ, OA WP	GNSS - 5500 MAA - 60000
BRKZZ, OA WP	DUPAN, OA WP	GNSS - 5500 MAA - 60000
DUPAN, OA WP	QNEPA, OA WP	GNSS - 5500 MAA - 60000
QNEPA, OA WP	OPAU, OA WP	GNSS - 5500 MAA - 60000
OPAU, OA WP	YIYYO, OA WP	GNSS - 6000 MAA - 60000
YIYYO, OA WP	TRNKY, OA WP	GNSS - 6000 MAA - 60000
TRNKY, OA WP	SAINT MAARTEN, AN VOR/DME	GNSS - 6000 MAA - 60000
L462		
KAYYT, OA WP	OVAPI, OA WP	GNSS - 5500 MAA - 60000
OVAPI, OA WP	KOZIK, OA WP	GNSS - 5500 MAA - 60000
KOZIK, OA WP	TARMO, OA WP	GNSS - 5500 MAA - 60000
TARMO, OA WP	ZABOR, OA WP	GNSS - 5500 MAA - 60000
ZABOR, OA WP	DAWIN, OA WP	GNSS - 5500 MAA - 60000
DAWIN, OA WP	NEYDU, OA WP	GNSS - 5500 MAA - 60000

FROM	TO	MEA
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L462 - CONTINUED

NEYDU, OA WP	LAMKN, OA WP	GNSS - 5500 MAA - 60000
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L463

NUCAR, BS FIX	BAAGR, OA WP	GNSS - 3000 MAA - 60000
BAAGR, OA WP	DAAST, BS WP	GNSS - 3000 MAA - 60000
DAAST, BS WP	KRTIS, OA WP	GNSS - 3000 MAA - 60000
KRTIS, OA WP	STAAL, OA WP	GNSS - 3000 MAA - 60000
STAAL, OA WP	BRRGO, BS FIX	GNSS - 3000 MAA - 60000
BRRGO, BS FIX	SMTTY, OA WP	GNSS - 3000 MAA - 60000
SMTTY, OA WP	RNDLY, OA WP	GNSS - 3000 MAA - 60000
RNDLY, OA WP	BTLER, OA FIX	GNSS - 3000 MAA - 60000
BTLER, OA FIX	PROVIDENCIALES, TC VOR/DME	GNSS - 3000 MAA - 60000
PROVIDENCIALES, TC VOR/DME	TOMAZ, IB FIX	GNSS - 3000 MAA - 60000
TOMAZ, IB FIX	GOVET, OA FIX	GNSS - 3000 MAA - 60000
GOVET, OA FIX	JUELE, OA FIX	GNSS - 3000 MAA - 60000

L464

LAMER, OA WP	RODRK, OA WP	GNSS - 3000 MAA - 60000
RODRK, OA WP	CERDA, OA WP	GNSS - 3000 MAA - 60000
CERDA, OA WP	WAROD, OA WP	GNSS - 3000 MAA - 60000
WAROD, OA WP	MANII, OA WP	GNSS - 3000 MAA - 60000
MANII, OA WP	LENUS, OA WP	GNSS - 3000 MAA - 60000
LENUS, OA WP	SEBUG, OA FIX	GNSS - 3000 MAA - 60000
SEBUG, OA FIX	RNTRY, OA FIX	GNSS - 3000 MAA - 60000
RNTRY, OA FIX	LERED, OA FIX	GNSS - 3000 MAA - 60000

L466

MEEGL, PR WP	GEECE, OA WP	GNSS - 7000 MAA - 60000
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L467

ANADA, OA WP	ANNER, OA WP	GNSS - 7000 MAA - 60000
ANNER, OA WP	GESSO, PR FIX	GNSS - 7000 MAA - 60000

FROM	TO	MEA
L576		
BERMUDA, BM VOR/DME	SEAVR, OA WP	5500
		MAA - 60000
SEAVR, OA WP	RKDIA, OA WP	5500
		MAA - 60000
RKDIA, OA WP	CITRS, OA WP	5500
		MAA - 60000
L577		
ELOPO, PR FIX	SAINT MAARTEN, AN VOR/DME	6000
		MAA - 60000
SAINT MAARTEN, AN VOR/DME	ST THOMAS, VI VOR/DME	6000
		MAA - 60000
ST THOMAS, VI VOR/DME	ANTEX, PR FIX	6000
		MAA - 60000
L776		
MACOR, OA WP	FERNA, OA WP	GNSS - 5500
		MAA - 60000
FERNA, OA WP	GEECE, OA WP	GNSS - 5500
		MAA - 60000
M201		
VIRST, OA WP	VEGAA, OA WP	GNSS - 3100
		MAA - 60000
VEGAA, OA WP	ATUGI, OA WP	GNSS - 3100
		MAA - 60000
ATUGI, OA WP	TILED, OA WP	GNSS - 5500
		MAA - 60000
TILED, OA WP	DRYED, OA WP	GNSS - 5500
		MAA - 60000
DRYED, OA WP	NOVOK, OA WP	GNSS - 5500
		MAA - 60000
NOVOK, OA WP	CARAC, OA WP	GNSS - 5500
		MAA - 60000
M202		
HOBEE, FL FIX	INDRO, OA WP	GNSS - 5500
		MAA - 60000
INDRO, OA WP	BGDOG, OA WP	GNSS - 5500
		MAA - 60000
BGDOG, OA WP	LENDs, OA WP	GNSS - 5500
		MAA - 60000
LENDs, OA WP	ADOOR, FL FIX	GNSS - 5500
		MAA - 60000
ADOOR, FL FIX	ETECK, OA WP	GNSS - 5500
		MAA - 60000
ETECK, OA WP	CANIT, OA WP	GNSS - 5500
		MAA - 60000
CANIT, OA WP	CARPX, OA WP	GNSS - 5500
		MAA - 60000
CARPX, OA WP	UKOKA, OA WP	GNSS - 5500
		MAA - 60000
UKOKA, OA WP	OMALA, OA WP	GNSS - 5500
		MAA - 60000

FROM	TO	MEA
M202 - CONTINUED		
OMALA, OA WP	ONGOT, OA WP	GNSS - 5500 MAA - 60000
ONGOT, OA WP	GOUGH, OA WP	GNSS - 5500 MAA - 60000
GOUGH, OA WP	KINER, OA WP	GNSS - 5500 MAA - 60000
KINER, OA WP	OVAPI, OA WP	GNSS - 5500 MAA - 60000
OVAPI, OA WP	MUNEY, OA WP	GNSS - 5500 MAA - 60000
MUNEY, OA WP	JEBBY, CA WP	GNSS - 5500 MAA - 60000
JEBBY, CA WP	LOMPI, OA WP	GNSS - 5500 MAA - 60000
M203		
HOBEE, FL FIX	INDRO, OA WP	GNSS - 5500 MAA - 60000
INDRO, OA WP	BGDOG, OA WP	GNSS - 5500 MAA - 60000
BGDOG, OA WP	LENDs, OA WP	GNSS - 5500 MAA - 60000
LENDs, OA WP	ADOOR, FL FIX	GNSS - 5500 MAA - 60000
ADOOR, FL FIX	CASPR, OA FIX	GNSS - 5500 MAA - 60000
CASPR, OA FIX	SNAGY, OA WP	GNSS - 5500 MAA - 60000
SNAGY, OA WP	LEXIM, OA WP	GNSS - 5500 MAA - 60000
LEXIM, OA WP	WILYY, OA WP	GNSS - 5500 MAA - 60000
WILYY, OA WP	LSIER, OA WP	GNSS - 5500 MAA - 60000
LSIER, OA WP	PERDO, OA WP	GNSS - 5500 MAA - 60000
PERDO, OA WP	SELIM, OA WP	GNSS - 5500 MAA - 60000
SELIM, OA WP	BOBTU, CA WP	GNSS - 5500 MAA - 60000
M204		
SUMRS, OA WP	FLUPS, OA WP	5500 MAA - 60000
FLUPS, OA WP	ALOB, OA WP	5500 MAA - 60000
ALOB, OA WP	BEXUM, OA WP	5500 MAA - 60000
BEXUM, OA WP	LUNKR, OA WP	5500 MAA - 60000
LUNKR, OA WP	SOORY, OA WP	5500 MAA - 60000
M215		
PISAD, OG WP	MINOW, OG FIX	4000 MAA - 45000

FROM	TO	MEA
M215 - CONTINUED		
MINOW, OG FIX	SNOMN, OG WP	4000
		MAA - 45000
SNOMN, OG WP	CIGAR, OG WP	4000
		MAA - 45000
CIGAR, OG WP	KNOST, OG WP	4000
		MAA - 45000
M219		
MYDIA, OG WP	SNAKR, OG WP	4000
		MAA - 45000
SNAKR, OG WP	BUUOY, OG WP	4000
		MAA - 45000
BUUOY, OG WP	CULLY, OG WP	4000
		MAA - 45000
CULLY, OG WP	CIGAR, OG WP	4000
		MAA - 45000
CIGAR, OG WP	KNOST, OG WP	4000
		MAA - 45000
M325		
OXANA, OA FIX	NETSS, OA WP	5500
		MAA - 60000
NETSS, OA WP	ONGOT, OA WP	5500
		MAA - 60000
ONGOT, OA WP	PERDO, OA WP	5500
		MAA - 60000
PERDO, OA WP	ENAPI, OA WP	5500
		MAA - 60000
ENAPI, OA WP	AWSOM, OA WP	6000
AWSOM, OA WP	GUICE, OA WP	6000
GUICE, OA WP	BERMUDA, BM VOR/DME	6000
M326		
JAINS, OA WP	LEXIM, OA WP	GNSS - 5500
		MAA - 60000
LEXIM, OA WP	ALOB, OA WP	GNSS - 5500
		MAA - 60000
ALOB, OA WP	BERMUDA, BM VOR/DME	GNSS - 5500
		MAA - 60000
M327		
SUMRS, OA WP	KANUX, OA WP	GNSS - 5500
		MAA - 60000
KANUX, OA WP	SAVON, OA WP	GNSS - 5500
		MAA - 60000
SAVON, OA WP	WINGZ, OA FIX	GNSS - 5500
		MAA - 60000
M328		
TANIA, OA FIX	JERRE, OA FIX	GNSS - 5500
		MAA - 60000
JERRE, OA FIX	*RAJAY, BS FIX	GNSS - 5500
*11000 - MRA		MAA - 60000

FROM	TO	MEA
M328 - CONTINUED		
RAJAY, BS FIX	BARTS, BS FIX	GNSS - 5500 MAA - 60000
BARTS, BS FIX	NATHY, OA WP	GNSS - 5500 MAA - 60000
NATHY, OA WP	BAAGR, OA WP	GNSS - 5500 MAA - 60000
BAAGR, OA WP	SLEMA, OA WP	GNSS - 5500 MAA - 60000
SLEMA, OA WP	ROTHM, OA WP	GNSS - 5500 MAA - 60000
ROTHM, OA WP	CNNOR, OA WP	GNSS - 5500 MAA - 60000
CNNOR, OA WP	ILIDO, OA WP	GNSS - 5500 MAA - 60000
ILIDO, OA WP	GRAMN, OA WP	GNSS - 5500 MAA - 60000
GRAMN, OA WP	TASNI, OA WP	GNSS - 5500 MAA - 60000
TASNI, OA WP	EMAKO, OA WP	GNSS - 5500 MAA - 60000
EMAKO, OA WP	NUMBR, OA FIX	GNSS - 5500 MAA - 60000
M329		
*DYNAH, OA FIX *14000 - MRA	NASSAU, BS VOR/DME	GNSS - 5500 MAA - 60000
NASSAU, BS VOR/DME	OHBEE, BS FIX	GNSS - 5500 MAA - 60000
OHBEE, BS FIX	MAMML, BS FIX	GNSS - 5500 MAA - 60000
MAMML, BS FIX	EXTER, OA FIX	GNSS - 5500 MAA - 60000
EXTER, OA FIX	DAAST, BS WP	GNSS - 5500 MAA - 60000
DAAST, BS WP	LASEE, OA WP	GNSS - 5500 MAA - 60000
LASEE, OA WP	CLETT, OA WP	GNSS - 5500 MAA - 60000
CLETT, OA WP	GRATX, OA WP	GNSS - 5500 MAA - 60000
GRATX, OA WP	KASAR, OA WP	GNSS - 5500 MAA - 60000
KASAR, OA WP	BOREX, OA WP	GNSS - 5500 MAA - 60000
BOREX, OA WP	LAZEY, OA FIX	GNSS - 5500 MAA - 60000
M330		
ENAMO, OA FIX	ZWICK, OA WP	GNSS - 5500 MAA - 60000
ZWICK, OA WP	KFFER, OA WP	GNSS - 5500 MAA - 60000
KFFER, OA WP	DONEZ, OA FIX	GNSS - 5500 MAA - 60000
DONEZ, OA FIX	MUVOD, BS FIX	GNSS - 5500 MAA - 60000

FROM	TO	MEA
M330 - CONTINUED		
MUVOD, BS FIX	DIAZZ, OA FIX	GNSS - 5500 MAA - 60000
DIAZZ, OA FIX	KRTIS, OA WP	GNSS - 5500 MAA - 60000
KRTIS, OA WP	WITOB, OA WP	GNSS - 5500 MAA - 60000
WITOB, OA WP	ALUTE, OA WP	GNSS - 5500 MAA - 60000
ALUTE, OA WP	MLSAP, OA FIX	GNSS - 5500 MAA - 60000
MLSAP, OA FIX	MILLE, OA WP	GNSS - 5500 MAA - 60000
MILLE, OA WP	RUDLI, OA WP	GNSS - 5500 MAA - 60000
RUDLI, OA WP	DUNIG, OA WP	GNSS - 5500 MAA - 60000
DUNIG, OA WP	SHEIL, OA WP	GNSS - 5500 MAA - 60000
SHEIL, OA WP	BALOO, OA WP	GNSS - 5500 MAA - 60000
M345		
AXEXO, OG WP	SEAGL, OG WP	4000 MAA - 45000
SEAGL, OG WP	RUMMM, OG WP	4000 MAA - 45000
RUMMM, OG WP	KENGs, OG WP	4000 MAA - 45000
KENGs, OG WP	WAHOO, OG FIX	4000 MAA - 45000
WAHOO, OG FIX	TIBBY, LA VOR/DME	4000 MAA - 45000
M423		
KIKER, OA WP	RAYAS, OA WP	GNSS - 18000 MAA - 60000
RAYAS, OA WP	PLING, PR FIX	GNSS - 18000 MAA - 60000
PLING, PR FIX	LENNT, OA WP	GNSS - 18000 MAA - 60000
M525		
MELLA, PR WP	LEILA, OA WP	GNSS - 5500 MAA - 60000
LEILA, OA WP	VACHI, OA WP	GNSS - 5500 MAA - 60000
VACHI, OA WP	PANMO, OA WP	5500 MAA - 60000
PANMO, OA WP	FRATT, OA WP	GNSS - 5500 MAA - 60000
FRATT, OA WP	CAFFE, OA WP	GNSS - 5500 MAA - 60000
CAFFE, OA WP	YIYYO, OA WP	GNSS - 5500 MAA - 60000
YIYYO, OA WP	SOCCO, OA WP	GNSS - 5500 MAA - 60000

FROM	TO	MEA
M525 - CONTINUED		
SOCCO, OA WP	ZABOR, OA WP	GNSS - 5500 MAA - 60000
ZABOR, OA WP	KAVAX, OA WP	GNSS - 5500 MAA - 60000
M575		
CLONN, OG FIX	CATFS, OG WP	4000 MAA - 45000
CATFS, OG WP	ANKRR, OG WP	4000 MAA - 45000
ANKRR, OG WP	KENGs, OG WP	4000 MAA - 45000
KENGs, OG WP	WAHOO, OG FIX	4000 MAA - 45000
WAHOO, OG FIX	TIBBY, LA VOR/DME	4000 MAA - 45000
M576		
MILOK, OA WP	RAYAS, OA WP	GNSS - 9000 MAA - 60000
RAYAS, OA WP	RAFEE, OA WP	GNSS - 9000 MAA - 60000
RAFEE, OA WP	ANNER, OA WP	GNSS - 9000 MAA - 60000
ANNER, OA WP	PORQE, VI FIX	GNSS - 9000 MAA - 60000
PORQE, VI FIX *3500 - MRA	*DANDE, VI FIX	GNSS - 6000 MAA - 60000
DANDE, VI FIX	SAINT MAARTEN, AN VOR/DME	GNSS - 6000 MAA - 60000
SAINT MAARTEN, AN VOR/DME	MNOLO, OA WP	GNSS - 6000 MAA - 60000
MNOLO, OA WP	NEYDU, OA WP	GNSS - 6000 MAA - 60000
NEYDU, OA WP	OBIKE, OA WP	GNSS - 18000 MAA - 60000
OBIKE, OA WP	RKDIA, OA WP	GNSS - 18000 MAA - 60000
M580		
IRDOV, OG WP	CCUDA, OG WP	4000 MAA - 45000
CCUDA, OG WP	MINOW, OG FIX	4000 MAA - 45000
MINOW, OG FIX	BUUOY, OG WP	4000 MAA - 45000
BUUOY, OG WP	NATLE, OG WP	4000 MAA - 45000
NATLE, OG WP	SHAQQ, FL WP	4000 MAA - 45000
SHAQQ, FL WP	MARCI, FL FIX	4000 MAA - 45000
M593		
GRATX, OA WP	RUDLI, OA WP	GNSS - 5500 MAA - 60000

FROM	TO	MEA
M593 - CONTINUED		
RUDLI, OA WP	SEBIS, OA WP	GNSS - 5500 MAA - 60000
SEBIS, OA WP	DUPOX, OA WP	GNSS - 5500 MAA - 60000
DUPOX, OA WP	AMENO, OA WP	GNSS - 5500 MAA - 60000
M594		
ALBBE, BS FIX	GOVET, OA FIX	GNSS - 5500 MAA - 60000
GOVET, OA FIX	GRAND TURK, TC VORTAC	GNSS - 5500 MAA - 60000
GRAND TURK, TC VORTAC	NETTA, OA FIX	GNSS - 3000 MAA - 60000
NETTA, OA FIX	EYSEL, OA WP	GNSS - 3000 MAA - 60000
EYSEL, OA WP	CERDA, OA WP	GNSS - 3000 MAA - 60000
CERDA, OA WP	MNDEZ, OA WP	GNSS - 3000 MAA - 60000
MNDEZ, OA WP	MLLER, OA WP	GNSS - 3000 MAA - 60000
MLLER, OA WP	MCOOP, OA WP	GNSS - 5500 MAA - 60000
MCOOP, OA WP	KOZIK, OA WP	GNSS - 5500 MAA - 60000
KOZIK, OA WP	AMENO, OA WP	GNSS - 5500 MAA - 60000
M595		
ERRCA, OA WP	WSSKY, OA WP	GNSS - 3000 MAA - 60000
WSSKY, OA WP	EVETS, BS FIX	GNSS - 3000 MAA - 60000
EVETS, BS FIX	LOGVN, OA WP	GNSS - 3000 MAA - 60000
LOGVN, OA WP	STAAL, OA WP	GNSS - 3000 MAA - 60000
STAAL, OA WP	ISOLE, OA WP	GNSS - 3000 MAA - 60000
ISOLE, OA WP	MUSSH, OA WP	GNSS - 3000 MAA - 60000
MUSSH, OA WP	MILLE, OA WP	GNSS - 3000 MAA - 60000
MILLE, OA WP	LFANO, OA WP	GNSS - 5500 MAA - 60000
LFANO, OA WP	RABAL, OA WP	GNSS - 5500 MAA - 60000
RABAL, OA WP	VINSO, OA WP	GNSS - 5500 MAA - 60000
VINSO, OA WP	AYTTE, OA WP	GNSS - 5500 MAA - 60000
M596		
POKEG, IB FIX	MACKI, OA FIX	GNSS - 3000 MAA - 60000

FROM	TO	MEA
M596 - CONTINUED		
MACKI, OA FIX	GRADI, IB FIX	GNSS - 3000 MAA - 60000
GRADI, IB FIX	NOPIT, OA WP	GNSS - 3000 MAA - 60000
NOPIT, OA WP	CHYLE, OA WP	GNSS - 3000 MAA - 60000
CHYLE, OA WP	FDLEE, OA WP	GNSS - 3000 MAA - 60000
FDLEE, OA WP	MYSTR, OA WP	GNSS - 3000 MAA - 60000
MYSTR, OA WP	KNDLL, OA WP	GNSS - 3000 MAA - 60000
KNDLL, OA WP	WATRS, OA FIX	GNSS - 3000 MAA - 60000
WATRS, OA FIX	MACOR, OA WP	GNSS - 5500 MAA - 60000
MACOR, OA WP	PRCHA, OA WP	GNSS - 5500 MAA - 60000
PRCHA, OA WP	NUBUS, OA WP	GNSS - 5500 MAA - 60000
NUBUS, OA WP	SIFEN, OA WP	GNSS - 5500 MAA - 60000
M597		
BETIR, PR FIX	PUYYA, OA WP	GNSS - 5500 MAA - 60000
PUYYA, OA WP	JANMA, OA WP	GNSS - 5500 MAA - 60000
JANMA, OA WP	THANK, PR WP	GNSS - 5500 MAA - 60000
THANK, PR WP	KEEKA, OA WP	GNSS - 5500 MAA - 60000
KEEKA, OA WP	QNEPA, OA WP	GNSS - 5500 MAA - 60000
QNEPA, OA WP	TARMO, OA WP	GNSS - 5500 MAA - 60000
TARMO, OA WP	FIVZE, OA WP	GNSS - 5500 MAA - 60000
N779		
ARMUR, PR WP	CRSTL, PR WP	GNSS - 7000 MAA - 60000
CRSTL, PR WP	ALASK, PR WP	GNSS - 7000 MAA - 60000
ALASK, PR WP	JOSHE, PR FIX	GNSS - 7000 MAA - 60000
Q100		
LEEVILLE, LA VORTAC *1500 - MOCA	REDFN, OG WP	*6000
REDFN, OG WP *1500 - MOCA	NAITE, OG WP	*6000
NAITE, OG WP *1500 - MOCA	ROZZI, OG WP	*6000
ROZZI, OG WP *1500 - MOCA	REMIS, OG WP	*6000

FROM	TO	MEA
Q100 - CONTINUED		
REMIS, OG WP *1500 - MOCA	SARASOTA, FL VOR/DME	*6000
Q102		
LEEVILLE, LA VORTAC *1500 - MOCA	BLVNS, OG WP	*6000
BLVNS, OG WP *1500 - MOCA	BUNNZ, OG WP	*6000
BUNNZ, OG WP *1500 - MOCA	BACCA, OG WP	*6000
BACCA, OG WP *1500 - MOCA	CIGAR, OG WP	*6000
CIGAR, OG WP *1500 - MOCA	BAGGS, OG WP	*6000
BAGGS, OG WP *1500 - MOCA	CYPRESS, FL VOR/DME	*6000
Q105		
HARVEY, LA VORTAC *1500 - MOCA	FATSO, OG WP	*6000
FATSO, OG WP *1500 - MOCA	REDFN, OG WP	*6000
REDFN, OG WP *1500 - MOCA	BLVNS, OG WP	*6000
R507		
SAPPO, OA WP *24000 - MRA	*CONCH, OA FIX	24000
CONCH, OA FIX	UTAH, PR FIX	24000
R56		
LINND, OA FIX	KENDA, OA WP	18000 MAA - 60000
KENDA, OA WP	LARGE, OA WP	18000 MAA - 60000
LARGE, OA WP	PENYT, OA WP	18000 MAA - 60000
PENYT, OA WP	SLATN, OA FIX	18000 MAA - 60000
R628		
TANIA, OA FIX	ZOLLA, OA FIX	12000
ZOLLA, OA FIX	MENDL, BS FIX	10000
MENDL, BS FIX *12500 - MRA **1400 - MOCA	*PEKRE, BS FIX	**6000 MAA - 45000
PEKRE, BS FIX *1500 - MOCA	SANNS, BS FIX	*2000 MAA - 45000
SANNS, BS FIX *1500 - MOCA	NASSAU, BS VOR/DME	*2000 MAA - 45000
R760		
ST CROIX, VI VOR/DME	GOUDA, VI FIX	5000 MAA - 18000

FROM	TO	MEA
R760 - CONTINUED		
GOUDA, VI FIX	SAINT MAARTEN, AN VOR/DME	3000 MAA - 18000
R763		
GRAND TURK, TC VORTAC *1200 - MOCA	RNTRY, OA FIX	*14000 MAA - 45000
RNTRY, OA FIX	MACKI, OA FIX	14000
MACKI, OA FIX	HARBG, OA FIX	14000
HARBG, OA FIX	MUNOZ, OA WP	14000
MUNOZ, OA WP	BORINQUEN, PR VORTAC	14000
R888		
ST CROIX, VI VOR/DME	MODUX, VI FIX	14000
Y183		
IKBIX, OA WP	PEAKY, FL WP	6000 MAA - 45000
Y185		
ILURI, OA FIX *4900 - MOCA	ACONY, OA WP	*GNSS - 18000 MAA - 60000
ACONY, OA WP *4900 - MOCA	DOZGO, OA WP	*GNSS - 18000 MAA - 60000
DOZGO, OA WP *4900 - MOCA	DONQU, OA WP	*GNSS - 18000 MAA - 60000
DONQU, OA WP	FARMN, OA WP	GNSS - 18000 MAA - 60000
FARMN, OA WP	MANII, OA WP	GNSS - 18000 MAA - 60000
MANII, OA WP	NELSR, OA WP	GNSS - 18000 MAA - 60000
NELSR, OA WP	COUKY, OA FIX	GNSS - 18000 MAA - 60000
COUKY, OA FIX	RENAH, OA WP	GNSS - 18000 MAA - 60000
RENAH, OA WP	CVIKK, BS WP	GNSS - 18000 MAA - 60000
CVIKK, BS WP	VENDS, OA WP	GNSS - 18000 MAA - 60000
VENDS, OA WP	BEERD, OA WP	GNSS - 18000 MAA - 60000
BEERD, OA WP *1200 - MOCA	MANLE, FL WP	*GNSS - 18000 MAA - 60000
Y196		
CANOA, FL WP *1200 - MOCA	LULLS, FL WP	*GNSS - 18000 MAA - 60000
LULLS, FL WP *1200 - MOCA	TUNSL, FL WP	*GNSS - 18000 MAA - 60000
Y217		
ZEUSS, OA FIX *1300 - MOCA	FONDS, OA WP	*GNSS - 18000 MAA - 45000

FROM	TO	MEA
Y217 - CONTINUED		
FONDS, OA WP	OCTAL, FL WP	GNSS - 18000 MAA - 45000
Y240		
MYDIA, OG WP	SNAKR, OG WP	4000 MAA - 45000
SNAKR, OG WP	YENNE, OG WP	4000 MAA - 45000
YENNE, OG WP	SHAQQ, FL WP	4000 MAA - 45000
SHAQQ, FL WP	MARCI, FL FIX	4000 MAA - 45000
Y259		
BORDO, BS FIX *1300 - MOCA	QUODS, OA WP	*GNSS - 18000 MAA - 60000
QUODS, OA WP	OCTAL, FL WP	GNSS - 18000 MAA - 60000
Y260		
ACONY, OA WP	LEEEO, OA WP	GNSS - 18000 MAA - 60000
LEEEO, OA WP	MODUX, VI FIX	GNSS - 18000 MAA - 60000
Y261		
MALVN, OA FIX	BOOZY, OA WP	GNSS - 18000 MAA - 60000
BOOZY, OA WP	MADIZ, OA WP	GNSS - 18000 MAA - 60000
MADIZ, OA WP	FOXID, OA WP	GNSS - 18000 MAA - 60000
FOXID, OA WP	FOWEE, OA FIX	GNSS - 18000 MAA - 60000
Y262		
MAXIM, FL WP	LULLS, FL WP	GNSS - 18000 MAA - 45000
LULLS, FL WP	TUNSL, FL WP	GNSS - 18000 MAA - 60000
TUNSL, FL WP	GOPEY, FL WP	GNSS - 18000 MAA - 60000
GOPEY, FL WP	LINEY, FL WP	GNSS - 18000 MAA - 60000
LINEY, FL WP	SAXXN, FL WP	GNSS - 18000 MAA - 60000
SAXXN, FL WP	CANVI, OA WP	GNSS - 18000 MAA - 60000
CANVI, OA WP	FREEPORT, BS VOR/DME	GNSS - 18000 MAA - 60000
Y280		
LEEVILLE, LA VORTAC	REDFN, OG WP	GNSS - 6000 MAA - 60000

FROM	TO	MEA
Y280 - CONTINUED		
REDFN, OG WP	NAITE, OG WP	GNSS - 6000 MAA - 60000
NAITE, OG WP	ROZZI, OG WP	GNSS - 6000 MAA - 60000
ROZZI, OG WP	REMIS, OG WP	GNSS - 6000 MAA - 60000
REMIS, OG WP	CHRG, OG WP	GNSS - 6000 MAA - 60000
CHRG, OG WP	JONBU, OG WP	GNSS - 6000 MAA - 60000
JONBU, OG WP	SARASOTA, FL VOR/DME	GNSS - 18000 MAA - 60000
SARASOTA, FL VOR/DME	DOLIE, FL WP	GNSS - 18000 MAA - 60000
DOLIE, FL WP	JAYMC, FL WP	GNSS - 18000 MAA - 60000
JAYMC, FL WP	OCTAL, FL WP	GNSS - 18000 MAA - 60000
OCTAL, FL WP	CANVI, OA WP	GNSS - 18000 MAA - 60000
CANVI, OA WP	PEACH, BS FIX	GNSS - 18000 MAA - 60000
PEACH, BS FIX	SUMAC, OA WP	GNSS - 18000 MAA - 60000
SUMAC, OA WP	RUTO, OA WP	GNSS - 18000 MAA - 60000
RUTO, OA WP	CHASO, OA WP	GNSS - 18000 MAA - 60000
CHASO, OA WP	JSTIN, OA WP	GNSS - 18000 MAA - 60000
JSTIN, OA WP	CHYLE, OA WP	GNSS - 18000 MAA - 60000
CHYLE, OA WP	SAPPO, OA WP	GNSS - 18000 MAA - 60000
SAPPO, OA WP	ACONY, OA WP	GNSS - 18000 MAA - 60000
ACONY, OA WP	GOTAY, PR WP	GNSS - 18000 MAA - 60000
GOTAY, PR WP	MLIZA, OA WP	GNSS - 18000 MAA - 60000
MLIZA, OA WP *3500 - MRA	*DANDE, VI FIX	GNSS - 18000 MAA - 60000
DANDE, VI FIX	GABAR, VI FIX	GNSS - 18000 MAA - 60000
Y289		
DULEE, OA WP	BAHAA, OA WP	GNSS - 18000 MAA - 45000
BAHAA, OA WP	NRRSE, OA WP	GNSS - 18000 MAA - 60000
NRRSE, OA WP	OSTNN, OA WP	GNSS - 18000 MAA - 60000
OSTNN, OA WP *1300 - MOCA	ZILLS, NC WP	*GNSS - 18000 MAA - 60000
Y290		
LEEVI, LA VORTAC	BLVNS, OG WP	GNSS - 6000 MAA - 60000

FROM	TO	MEA
Y290 - CONTINUED		
BLVNS, OG WP	BUNNZ, OG WP	GNSS - 6000 MAA - 60000
BUNNZ, OG WP	BACCA, OG WP	GNSS - 6000 MAA - 60000
BACCA, OG WP	CIGAR, OG WP	GNSS - 6000 MAA - 60000
CIGAR, OG WP	GAWKS, OA WP	GNSS - 6000 MAA - 60000
GAWKS, OA WP	BAGGS, OG WP	GNSS - 6000 MAA - 60000
BAGGS, OG WP	THMPR, FL WP	GNSS - 18000 MAA - 60000
THMPR, FL WP	FEMID, FL WP	GNSS - 18000 MAA - 60000
FEMID, FL WP	SAXXN, FL WP	GNSS - 18000 MAA - 60000
SAXXN, FL WP	UCRAZ, OA WP	GNSS - 18000 MAA - 60000
UCRAZ, OA WP	SKIPS, BS FIX	GNSS - 18000 MAA - 60000
SKIPS, BS FIX	BITAC, OA WP	GNSS - 18000 MAA - 60000
BITAC, OA WP	HAGIT, OA WP	GNSS - 18000 MAA - 60000
HAGIT, OA WP	CALTO, OA WP	GNSS - 18000 MAA - 60000
CALTO, OA WP	ZIBER, OA WP	GNSS - 18000 MAA - 60000
ZIBER, OA WP	SAYER, OA WP	GNSS - 18000 MAA - 60000
SAYER, OA WP	BEANO, PR FIX	GNSS - 18000 MAA - 60000
BEANO, PR FIX	JETSS, PR FIX	GNSS - 18000 MAA - 60000
JETSS, PR FIX	SLUGO, VI FIX	GNSS - 18000 MAA - 60000
SLUGO, VI FIX	ELOPO, PR FIX	GNSS - 18000 MAA - 60000
Y291		
HOAGG, OA WP	JENKS, OA WP	GNSS - 18000 MAA - 45000
JENKS, OA WP	RAZZL, OA WP	GNSS - 18000 MAA - 60000
RAZZL, OA WP	JRDAN, OA WP	GNSS - 18000 MAA - 60000
JRDAN, OA WP	SAGGY, OA WP	GNSS - 18000 MAA - 60000
Y292		
MNDEZ, OA WP	FIPEK, OA WP	GNSS - 18000 MAA - 60000
FIPEK, OA WP	PANMO, OA WP	GNSS - 18000 MAA - 60000
Y294		
FIPEK, OA WP	GESSO, PR FIX	GNSS - 18000 MAA - 60000

FROM	TO	MEA
Y297		
*URSUS, OA FIX *16000 - MRA	UCRAZ, OA WP	GNSS - 18000 MAA - 45000
UCRAZ, OA WP *1300 - MOCA	CANVI, OA WP	*GNSS - 18000 MAA - 60000
CANVI, OA WP	TOVAR, FL WP	GNSS - 18000 MAA - 60000
Y298		
VENDS, OA WP	WISSET, OA WP	GNSS - 18000 MAA - 60000
WISSET, OA WP	RUMFO, OA WP	GNSS - 18000 MAA - 60000
RUMFO, OA WP	GREAT INAGUA, BS NDB	GNSS - 18000 MAA - 60000
GREAT INAGUA, BS NDB	BODLO, OA WP	GNSS - 18000 MAA - 60000
Y299		
GRUBR, OA WP	SNABS, OA WP	GNSS - 18000 MAA - 45000
SNABS, OA WP	AYCHB, OA WP	GNSS - 18000 MAA - 60000
AYCHB, OA WP	DUUNK, OA WP	GNSS - 18000 MAA - 60000
DUUNK, OA WP	RBRHD, OA WP	GNSS - 18000 MAA - 60000
RBRHD, OA WP	JRDAN, OA WP	GNSS - 18000 MAA - 60000
Y304		
VENDS, OA WP	RUTO, OA WP	GNSS - 18000 MAA - 60000
RUTO, OA WP	SEKAR, DO FIX	GNSS - 18000 MAA - 60000
Y306		
VENDS, OA WP	CHASO, OA WP	GNSS - 18000 MAA - 45000
CHASO, OA WP	HAGIT, OA WP	GNSS - 18000 MAA - 60000
HAGIT, OA WP	POKEG, IB FIX	GNSS - 18000 MAA - 60000
Y307		
ENAMO, OA FIX	NASSAU, BS VOR/DME	GNSS - 18000 MAA - 45000
NASSAU, BS VOR/DME	HANKX, BS FIX	GNSS - 18000 MAA - 60000
HANKX, BS FIX	NUCAR, BS FIX	GNSS - 18000 MAA - 60000
NUCAR, BS FIX	PAAZZ, OA WP	GNSS - 18000 MAA - 60000

FROM	TO	MEA
Y307 - CONTINUED		
PAAZZ, OA WP	HOVAX, OA WP	GNSS - 18000 MAA - 60000
HOVAX, OA WP	CASPR, OA FIX	GNSS - 18000 MAA - 60000
CASPR, OA FIX	CARPX, OA WP	GNSS - 18000 MAA - 60000
CARPX, OA WP	ADUCI, OA WP	GNSS - 18000 MAA - 60000
ADUCI, OA WP	JAZZI, OA WP	GNSS - 18000 MAA - 60000
JAZZI, OA WP	FRRAM, OA WP	GNSS - 18000 MAA - 60000
FRRAM, OA WP	JRDAN, OA WP	GNSS - 18000 MAA - 60000
JRDAN, OA WP	OSTNN, OA WP	GNSS - 18000 MAA - 60000
OSTNN, OA WP	GARIC, NC WP	GNSS - 18000 MAA - 60000
Y308		
FOWEE, OA FIX	FOXID, OA WP	GNSS - 18000 MAA - 60000
FOXID, OA WP	MADIZ, OA WP	GNSS - 18000 MAA - 60000
MADIZ, OA WP	FODED, OA WP	GNSS - 18000 MAA - 60000
FODED, OA WP	HAGIT, OA WP	GNSS - 18000 MAA - 60000
HAGIT, OA WP	ANTOX, OA WP	GNSS - 18000 MAA - 60000
ANTOX, OA WP	FEKKO, OA WP	GNSS - 18000 MAA - 60000
FEKKO, OA WP	ACONY, OA WP	GNSS - 18000 MAA - 60000
Y309		
PELCN, OA WP	OZENA, OA WP	GNSS - 18000 MAA - 45000
OZENA, OA WP	ROWSY, OA WP	GNSS - 18000 MAA - 60000
ROWSY, OA WP	FLRDA, OA WP	GNSS - 18000 MAA - 60000
FLRDA, OA WP	FRRAM, OA WP	GNSS - 18000 MAA - 60000
FRRAM, OA WP	GFFFT, OA WP	GNSS - 18000 MAA - 60000
GFFFT, OA WP	IDOLS, OA WP	GNSS - 18000 MAA - 60000
Y315		
CHUMA, OA WP	DOZGO, OA WP	GNSS - 6000 MAA - 45000
DOZGO, OA WP	GEROA, OA WP	GNSS - 6000 MAA - 45000
GEROA, OA WP	KEEKA, OA WP	GNSS - 6000 MAA - 60000

FROM	TO	MEA
Y318		
RODRK, OA WP	DONQU, OA WP	GNSS - 18000 MAA - 60000
DONQU, OA WP	WEXET, PR WP	GNSS - 18000 MAA - 60000
WEXET, PR WP	LARPP, VI FIX	GNSS - 18000 MAA - 60000
LARPP, VI FIX	ELOPO, PR FIX	GNSS - 18000 MAA - 60000
Y319		
*URSUS, OA FIX *16000 - MRA **1400 - MOCA	FREEPORT, BS VOR/DME	**GNSS - 18000 MAA - 45000
FREEPORT, BS VOR/DME *1400 - MOCA	BRATZ, OA WP	*GNSS - 18000 MAA - 60000
BRATZ, OA WP	OHLAA, OA WP	GNSS - 18000 MAA - 60000
OHLAA, OA WP	COACH, OA WP	GNSS - 18000 MAA - 60000
COACH, OA WP	TYCAL, OA WP	GNSS - 18000 MAA - 60000
TYCAL, OA WP	JAZZI, OA WP	GNSS - 18000 MAA - 60000
JAZZI, OA WP *1200 - MOCA	IDOLS, OA WP	*GNSS - 18000 MAA - 60000
Y323		
CARPX, OA WP	WEAKK, OA WP	GNSS - 18000 MAA - 45000
WEAKK, OA WP	PRTHR, OA WP	GNSS - 18000 MAA - 60000
PRTHR, OA WP	IDOLS, OA WP	GNSS - 18000 MAA - 60000
Y325		
ZEUSS, OA FIX	FOWEE, OA FIX	GNSS - 18000 MAA - 60000
Y329		
ZEUSS, OA FIX	FREEPORT, BS VOR/DME	GNSS - 18000 MAA - 60000
Y330		
FODED, OA WP	PURPE, OA WP	GNSS - 18000 MAA - 60000
PURPE, OA WP	HARBG, OA FIX	GNSS - 18000 MAA - 60000
Y350		
BIMINI, BS VORTAC	SOME, OA WP	GNSS - 18000 MAA - 60000

FROM	TO	MEA
Y350 - CONTINUED		
SOME, OA WP	NASSAU, BS VOR/DME	GNSS - 18000 MAA - 60000
NASSAU, BS VOR/DME	CILEX, OA WP	GNSS - 18000 MAA - 60000
CILEX, OA WP	GREAT INAGUA, BS NDB	GNSS - 18000 MAA - 60000
Y352		
NASSAU, BS VOR/DME	HAGIT, OA WP	GNSS - 18000 MAA - 60000
Y353		
ALBBE, BS FIX	GREAT INAGUA, BS NDB	GNSS - 18000 MAA - 60000
GREAT INAGUA, BS NDB	SUMAC, OA WP	GNSS - 18000 MAA - 60000
SUMAC, OA WP	UPOKE, OA WP	GNSS - 18000 MAA - 60000
UPOKE, OA WP	BAHMA, BS FIX	GNSS - 18000 MAA - 60000
Y354		
DONQU, OA WP	GISSO, PR FIX	GNSS - 18000 MAA - 60000
Y355		
ELOPO, PR FIX	SLUGO, VI FIX	GNSS - 6000 MAA - 60000
SLUGO, VI FIX	KOLAO, OA WP	GNSS - 6000 MAA - 60000
KOLAO, OA WP	PLING, PR FIX	GNSS - 6000 MAA - 60000
PLING, PR FIX	PUYA, OA WP	GNSS - 6000 MAA - 60000
PUYA, OA WP	FIPEK, OA WP	GNSS - 6000 MAA - 60000
FIPEK, OA WP	DETRE, OA WP	GNSS - 18000 MAA - 60000
DETRE, OA WP	WAROD, OA WP	GNSS - 18000 MAA - 60000
WAROD, OA WP	CAROX, OA WP	GNSS - 18000 MAA - 60000
CAROX, OA WP	HELAX, OA WP	GNSS - 18000 MAA - 60000
HELAX, OA WP	FOSAS, OA WP	GNSS - 18000 MAA - 60000
FOSAS, OA WP	RENAH, OA WP	GNSS - 18000 MAA - 60000
RENAH, OA WP	OMALY, OA FIX	GNSS - 18000 MAA - 60000
OMALY, OA FIX	NUCAR, BS FIX	GNSS - 18000 MAA - 60000
Y356		
IORIO, OA WP	CERDA, OA WP	GNSS - 18000 MAA - 60000

FROM	TO	MEA
Y356 - CONTINUED		
CERDA, OA WP	DONQU, OA WP	GNSS - 18000 MAA - 60000
DONQU, OA WP	MEEGL, PR WP	GNSS - 18000 MAA - 60000
Y374		
NUCAR, BS FIX	WEDER, BS WP	GNSS - 18000 MAA - 60000
WEDER, BS WP	RUMFO, OA WP	GNSS - 18000 MAA - 60000
RUMFO, OA WP	ALBBE, BS FIX	GNSS - 18000 MAA - 60000
Y396		
BITAC, OA WP	RUMFO, OA WP	GNSS - 18000 MAA - 60000
RUMFO, OA WP	MALVN, OA FIX	GNSS - 18000 MAA - 60000
Y397		
SEKAR, DO FIX	RENAH, OA WP	GNSS - 18000 MAA - 60000
Y398		
SAXXN, FL WP	UCRAZ, OA WP	GNSS - 18000 MAA - 60000
UCRAZ, OA WP	SKIPS, BS FIX	GNSS - 18000 MAA - 60000
SKIPS, BS FIX *1300 - MOCA	JAGOR, OA WP	*GNSS - 18000 MAA - 60000
JAGOR, OA WP *2200 - MOCA	GREAT INAGUA, BS NDB	*GNSS - 18000 MAA - 60000
GREAT INAGUA, BS NDB	JOSES, OA WP	GNSS - 18000 MAA - 60000
Y399		
SAPPO, OA WP	CADGE, OA WP	GNSS - 18000 MAA - 45000
CADGE, OA WP *1500 - MOCA	NASSAU, BS VOR/DME	*GNSS - 18000 MAA - 60000
NASSAU, BS VOR/DME *1300 - MOCA	SOME, OA WP	*GNSS - 18000 MAA - 60000
SOME, OA WP *1300 - MOCA	BIMINI, BS VORTAC	*GNSS - 18000 MAA - 60000
Y421		
MEEGL, PR WP	HARBG, OA FIX	GNSS - 18000 MAA - 60000
HARBG, OA FIX	HAGIT, OA WP	GNSS - 18000 MAA - 60000
HAGIT, OA WP	WISSET, OA WP	GNSS - 18000 MAA - 60000
WISSET, OA WP	SUMAC, OA WP	GNSS - 18000 MAA - 60000

FROM	TO	MEA
Y421 - CONTINUED		
SUMAC, OA WP	PEACH, BS FIX	GNSS - 18000 MAA - 60000
PEACH, BS FIX	KOUGH, OA WP	GNSS - 18000 MAA - 60000
KOUGH, OA WP	CANVI, OA WP	GNSS - 18000 MAA - 60000
CANVI, OA WP	OCTAL, FL WP	GNSS - 18000 MAA - 60000
Y436		
DEDDY, SC WP	PITRW, SC WP	GNSS - 18000 MAA - 60000
PITRW, SC WP	SNNTA, SC WP	GNSS - 18000 MAA - 60000
SNNTA, SC WP	SPIKY, OA WP	GNSS - 18000 MAA - 60000
SPIKY, OA WP	LURKS, OA WP	GNSS - 18000 MAA - 60000
LURKS, OA WP	HARON, OA WP	GNSS - 18000 MAA - 60000
HARON, OA WP	JAINS, OA WP	GNSS - 18000 MAA - 60000
Y438		
KOOKK, FL WP	FEMON, FL WP	GNSS - 18000 MAA - 60000
FEMON, FL WP	JAWSS, FL FIX	GNSS - 18000 MAA - 60000
JAWSS, FL FIX	BAHAA, OA WP	GNSS - 18000 MAA - 60000
BAHAA, OA WP	TROUT, FL WP	GNSS - 18000 MAA - 60000
Y439		
ARMUR, PR WP	MEEGL, PR WP	GNSS - 18000 MAA - 60000
MEEGL, PR WP	SAYER, OA WP	GNSS - 18000 MAA - 60000
SAYER, OA WP	FIPEK, OA WP	GNSS - 18000 MAA - 60000
FIPEK, OA WP	CERDA, OA WP	GNSS - 18000 MAA - 60000
CERDA, OA WP	SLUKA, OA WP	GNSS - 18000 MAA - 60000
Y441		
JUELE, OA FIX	RUMFO, OA WP	GNSS - 18000 MAA - 60000
RUMFO, OA WP	NASSAU, BS VOR/DME	GNSS - 18000 MAA - 60000
NASSAU, BS VOR/DME	SOMEЕ, OA WP	GNSS - 18000 MAA - 60000
SOMEЕ, OA WP	BIMINI, BS VORTAC	GNSS - 18000 MAA - 60000
Y442		
FUNDI, OA WP	MCLAW, FL WP	6000 MAA - 45000

FROM	TO	MEA
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Y442 - CONTINUED

MCLAW, FL WP	TAZER, FL WP	6000
		MAA - 45000
TAZER, FL WP	MNATE, FL FIX	6000
		MAA - 45000

Y443

RUMFO, OA WP	SUMAC, OA WP	GNSS - 18000
		MAA - 60000
SUMAC, OA WP	UPOKE, OA WP	GNSS - 18000
		MAA - 60000
UPOKE, OA WP	BAHMA, BS FIX	GNSS - 18000
		MAA - 60000

Y481

KINGG, OA WP	OHRYN, OA WP	GNSS - 17000
		MAA - 60000
OHRYN, OA WP	POPPN, OA WP	GNSS - 17000
		MAA - 60000
POPPN, OA WP	OWENZ, OA FIX	GNSS - 17000
		MAA - 60000
OWENZ, OA FIX	DIXIE, NJ FIX	GNSS - 6000
		MAA - 60000

Y482

DIXIE, NJ FIX	OWENZ, OA FIX	GNSS - 6000
		MAA - 60000
OWENZ, OA FIX	POPPN, OA WP	GNSS - 17000
		MAA - 60000
POPPN, OA WP	OHRYN, OA WP	GNSS - 17000
		MAA - 60000
OHRYN, OA WP	SQUAD, OA WP	GNSS - 17000
		MAA - 60000

Y483

MARIG, OA WP	ISLES, OA WP	GNSS - 18000
		MAA - 60000
ISLES, OA WP	DUMPR, OA WP	GNSS - 18000
		MAA - 60000
DUMPR, OA WP	BLUUU, OA WP	GNSS - 18000
		MAA - 60000
BLUUU, OA WP	DOGRS, OA WP	GNSS - 18000
		MAA - 60000
DOGRS, OA WP	FATON, OA WP	GNSS - 18000
		MAA - 60000
FATON, OA WP	SHERL, NY FIX	GNSS - 18000
		MAA - 60000
SHERL, NY FIX	SHIPP, OA FIX	GNSS - 18000
		MAA - 60000
SHIPP, OA FIX	KENNEDY, NY VOR/DME	GNSS - 18000
		MAA - 60000

Y484

KENNEDY, NY VOR/DME	CREEL, NY FIX	GNSS - 18000
		MAA - 60000

FROM	TO	MEA
Y484 - CONTINUED		
CREEL, NY FIX	BOUNO, NY FIX	GNSS - 18000 MAA - 60000
BOUNO, NY FIX	GEDIC, NJ FIX	GNSS - 18000 MAA - 60000
GEDIC, NJ FIX	OWENZ, OA FIX	GNSS - 18000 MAA - 60000
OWENZ, OA FIX	MOUGH, OA WP	GNSS - 18000 MAA - 60000
MOUGH, OA WP	YETTI, OA WP	GNSS - 18000 MAA - 60000
YETTI, OA WP	YAALE, OA WP	GNSS - 18000 MAA - 60000
YAALE, OA WP	WEBBB, OA WP	GNSS - 18000 MAA - 60000
WEBBB, OA WP	OKONU, OA WP	GNSS - 18000 MAA - 60000
Y485		
SAUCR, OA WP	STERN, OA WP	GNSS - 31000 MAA - 60000
STERN, OA WP	CHUBY, OA WP	GNSS - 31000 MAA - 60000
CHUBY, OA WP	HOBOH, OA WP	GNSS - 31000 MAA - 60000
HOBOH, OA WP	SILLY, OA WP	GNSS - 31000 MAA - 60000
SILLY, OA WP	STINK, OA WP	GNSS - 17000 MAA - 60000
STINK, OA WP	YAALE, OA WP	GNSS - 17000 MAA - 60000
Y486		
KENNEDY, NY VOR/DME	CREEL, NY FIX	GNSS - 18000 MAA - 60000
CREEL, NY FIX	BOUNO, NY FIX	GNSS - 18000 MAA - 60000
BOUNO, NY FIX	GEDIC, NJ FIX	GNSS - 18000 MAA - 60000
GEDIC, NJ FIX	OWENZ, OA FIX	GNSS - 18000 MAA - 60000
OWENZ, OA FIX	MOUGH, OA WP	GNSS - 18000 MAA - 60000
MOUGH, OA WP	SAVIK, OA WP	GNSS - 18000 MAA - 60000
Y487		
KINGG, OA WP	ISLES, OA WP	GNSS - 17000 MAA - 60000
ISLES, OA WP	DUMPR, OA WP	GNSS - 17000 MAA - 60000
DUMPR, OA WP	BLUUU, OA WP	GNSS - 17000 MAA - 60000
BLUUU, OA WP	DOGRS, OA WP	GNSS - 11000 MAA - 60000
DOGRS, OA WP	SPDEY, OA WP	GNSS - 6000 MAA - 60000

FROM	TO	MEA
Y487 - CONTINUED		
SPDEY, OA WP	SHIPP, OA FIX	GNSS - 6000 MAA - 60000
Y488		
SHIPP, OA FIX	SPDEY, OA WP	GNSS - 6000 MAA - 60000
SPDEY, OA WP	DOGRS, OA WP	GNSS - 6000 MAA - 60000
DOGRS, OA WP	BLUUU, OA WP	GNSS - 11000 MAA - 60000
BLUUU, OA WP	DUMPR, OA WP	GNSS - 17000 MAA - 60000
DUMPR, OA WP	ICCEY, OA WP	GNSS - 17000 MAA - 60000
ICCEY, OA WP	OHRYN, OA WP	GNSS - 17000 MAA - 60000
OHRYN, OA WP	BEHR, OA WP	GNSS - 17000 MAA - 60000
BEHR, OA WP	WEBBB, OA WP	GNSS - 17000 MAA - 60000
WEBBB, OA WP	HOBH, OA WP	GNSS - 31000 MAA - 60000
HOBH, OA WP	CHUBY, OA WP	GNSS - 31000 MAA - 60000
CHUBY, OA WP	STERN, OA WP	GNSS - 31000 MAA - 60000
STERN, OA WP	SAUCR, OA WP	GNSS - 31000 MAA - 60000
Y489		
RESQU, OA WP	BEHR, OA WP	GNSS - 17000 MAA - 60000
BEHR, OA WP	OHRYN, OA WP	GNSS - 17000 MAA - 60000
OHRYN, OA WP	ICCEY, OA WP	GNSS - 17000 MAA - 60000
ICCEY, OA WP	DUMPR, OA WP	GNSS - 17000 MAA - 60000
DUMPR, OA WP	BLUUU, OA WP	GNSS - 17000 MAA - 60000
BLUUU, OA WP	DOGRS, OA WP	GNSS - 11000 MAA - 60000
DOGRS, OA WP	SPDEY, OA WP	GNSS - 6000 MAA - 60000
SPDEY, OA WP	SHIPP, OA FIX	GNSS - 6000 MAA - 60000
Y490		
SHIPP, OA FIX	SPDEY, OA WP	GNSS - 6000 MAA - 60000
SPDEY, OA WP	DOGRS, OA WP	GNSS - 6000 MAA - 60000
DOGRS, OA WP	BLUUU, OA WP	GNSS - 11000 MAA - 60000
BLUUU, OA WP	DUMPR, OA WP	GNSS - 17000 MAA - 60000

FROM	TO	MEA
Y490 - CONTINUED		
DUMPR, OA WP	ICCEY, OA WP	GNSS - 17000 MAA - 60000
ICCEY, OA WP	OHRYN, OA WP	GNSS - 17000 MAA - 60000
OHRYN, OA WP	BEHHR, OA WP	GNSS - 17000 MAA - 60000
BEHHR, OA WP	ROLLE, OA WP	GNSS - 17000 MAA - 60000
Y492		
SHIPP, OA FIX	SPDEY, OA WP	GNSS - 6000 MAA - 60000
SPDEY, OA WP	DOGRS, OA WP	GNSS - 6000 MAA - 60000
DOGRS, OA WP	BLUUU, OA WP	GNSS - 11000 MAA - 60000
BLUUU, OA WP	DUMPR, OA WP	GNSS - 17000 MAA - 60000
DUMPR, OA WP	ISLES, OA WP	GNSS - 17000 MAA - 60000
ISLES, OA WP	SQUAD, OA WP	GNSS - 17000 MAA - 60000
Y493		
BAHAA, OA WP	JENKS, OA WP	GNSS - 24000 MAA - 60000
JENKS, OA WP	AYCHB, OA WP	GNSS - 24000 MAA - 60000
AYCHB, OA WP	ROWSY, OA WP	GNSS - 24000 MAA - 60000
ROWSY, OA WP	COACH, OA WP	GNSS - 24000 MAA - 60000
COACH, OA WP	WEAKK, OA WP	GNSS - 24000 MAA - 60000
WEAKK, OA WP	TUBBS, OA WP	GNSS - 24000 MAA - 60000
TUBBS, OA WP	ROBBB, OA WP	GNSS - 31000 MAA - 60000
ROBBB, OA WP	STERN, OA WP	GNSS - 31000 MAA - 60000
STERN, OA WP	VEGAA, OA WP	GNSS - 31000 MAA - 60000
Y494		
AYCHB, OA WP	ROWSY, OA WP	GNSS - 24000 MAA - 60000
ROWSY, OA WP	COACH, OA WP	GNSS - 24000 MAA - 60000
COACH, OA WP	WEAKK, OA WP	GNSS - 24000 MAA - 60000
WEAKK, OA WP	HARON, OA WP	GNSS - 24000 MAA - 60000
HARON, OA WP	WHOOS, OA WP	GNSS - 24000 MAA - 60000
WHOOS, OA WP	OOONN, OA WP	GNSS - 31000 MAA - 60000

FROM	TO	MEA
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Y494 - CONTINUED

OOONN, OA WP	VIRST, OA WP	GNSS - 31000 MAA - 60000
VIRST, OA WP	HOB OH, OA WP	GNSS - 31000 MAA - 60000
HOB OH, OA WP	SILLY, OA WP	GNSS - 31000 MAA - 60000
SILLY, OA WP	STINK, OA WP	GNSS - 17000 MAA - 60000
STINK, OA WP	YAALE, OA WP	GNSS - 17000 MAA - 60000

Y495

YAALE, OA WP	YETTI, OA WP	GNSS - 17000 MAA - 60000
YETTI, OA WP	MOUGH, OA WP	GNSS - 17000 MAA - 60000
MOUGH, OA WP	OWENZ, OA FIX	GNSS - 17000 MAA - 60000
OWENZ, OA FIX *8000 - MRA	*PREPI, OA FIX	GNSS - 6000 MAA - 60000
PREPI, OA FIX	LEECY, NJ WP	GNSS - 6000 MAA - 60000
LEECY, NJ WP	CAMRN, NJ FIX	GNSS - 6000 MAA - 60000

Y497

YAALE, OA WP	YETTI, OA WP	GNSS - 17000 MAA - 60000
YETTI, OA WP	MOUGH, OA WP	GNSS - 17000 MAA - 60000
MOUGH, OA WP	OWENZ, OA FIX	GNSS - 17000 MAA - 60000
OWENZ, OA FIX *6000 - MRA	*DRIFT, NJ FIX	GNSS - 6000 MAA - 60000
DRIFT, NJ FIX	SUBBS, NJ WP	GNSS - 6000 MAA - 60000

Y578

BRUWN, MA FIX	BORQE, OA WP	GNSS - 17000 MAA - 60000
BORQE, OA WP	JENYY, OA WP	GNSS - 17000 MAA - 60000
JENYY, OA WP	KAYYT, OA WP	GNSS - 17000 MAA - 60000

Y585

ORMOND BEACH, FL VORTAC	ATTIK, OA WP	18000 MAA - 60000
ATTIK, OA WP	BEERD, OA WP	18000 MAA - 60000
BEERD, OA WP	CVIKK, BS WP	18000 MAA - 60000
CVIKK, BS WP	NATHY, OA WP	18000 MAA - 60000

FROM	TO	MEA
Y585 - CONTINUED		
NATHY, OA WP	DAAST, BS WP	18000
		MAA - 60000
DAAST, BS WP	WITOB, OA WP	18000
		MAA - 60000
WITOB, OA WP	RENAH, OA WP	18000
		MAA - 60000
RENAH, OA WP	COUKY, OA FIX	18000
		MAA - 60000
COUKY, OA FIX	NELSR, OA WP	18000
		MAA - 60000
NELSR, OA WP	EYSEL, OA WP	18000
		MAA - 60000
EYSEL, OA WP	FARMN, OA WP	18000
		MAA - 60000
FARMN, OA WP	FDLEE, OA WP	18000
		MAA - 60000
FDLEE, OA WP	ELMUC, OA WP	18000
		MAA - 60000
ELMUC, OA WP	TILDI, PR WP	18000
		MAA - 60000
TILDI, PR WP	UTAHS, PR FIX	18000
		MAA - 60000
UTAHS, PR FIX	VEDAS, PR FIX	18000
		MAA - 60000

Y586

FOWEE, OA FIX	FOXID, OA WP	GNSS - 18000
		MAA - 60000
FOXID, OA WP	MADIZ, OA WP	GNSS - 18000
		MAA - 60000
MADIZ, OA WP	BELAC, OA WP	GNSS - 18000
		MAA - 60000
BELAC, OA WP	FORST, BS WP	GNSS - 18000
		MAA - 60000
FORST, BS WP	JOSES, OA WP	GNSS - 18000
		MAA - 60000

Y587

SKIPS, BS FIX	*RAJAY, BS FIX	18000
*11000 - MRA		
RAJAY, BS FIX	COZIE, OA WP	MAA - 60000
		18000
COZIE, OA WP	DONEZ, OA FIX	MAA - 60000
		18000
DONEZ, OA FIX	PAARR, OA WP	MAA - 60000
		18000
PAARR, OA WP	RNDLY, OA WP	MAA - 60000
		18000
RNDLY, OA WP	GRAND TURK, TC VORTAC	MAA - 60000
		18000
GRAND TURK, TC VORTAC	COCBU, IB FIX	MAA - 60000
		18000
COCBU, IB FIX	SEBUG, OA FIX	MAA - 60000
		18000
SEBUG, OA FIX	GRADI, IB FIX	MAA - 60000
		18000

FROM	TO	MEA
Y587 - CONTINUED		
GRADI, IB FIX	HARDE, PR FIX	18000
		MAA - 60000
HARDE, PR FIX	GAGDD, OA WP	18000
		MAA - 60000
GAGDD, OA WP	ROBLL, PR FIX	18000
		MAA - 60000
Y588		
BROOM, OA WP	ROTHM, OA WP	18000
		MAA - 60000
ROTHM, OA WP	CLETT, OA WP	18000
		MAA - 60000
CLETT, OA WP	MLSAP, OA FIX	18000
		MAA - 60000
MLSAP, OA FIX	RENAH, OA WP	18000
		MAA - 60000
Y589		
ALBBE, BS FIX	MADIZ, OA WP	GNSS - 18000
		MAA - 60000
MADIZ, OA WP	FOXID, OA WP	GNSS - 18000
		MAA - 60000
FOXID, OA WP	FOWEE, OA FIX	GNSS - 18000
		MAA - 60000

FROM

TO

MEA

PACIFIC ROUTES**A216**

MONPI, OP WP	OATSS, OP WP	18000
	MAA - 60000	
OATSS, OP WP	RIDLL, OP WP	18000
	MAA - 60000	
RIDLL, OP WP	LOEBB, OP WP	18000
	MAA - 60000	
LOEBB, OP WP	HOOVR, OP WP	18000
	MAA - 60000	
HOOVR, OP WP	GALEE, OP WP	18000
	MAA - 60000	
GALEE, OP WP	FACED, OP WP	18000
	MAA - 60000	

A220

MAEVA, OP FIX	CRONN, OP FIX	5500
CRONN, OP FIX	BINGE, OP FIX	5500
BINGE, OP FIX	AHND0, OP FIX	5500
AHND0, OP FIX	MANEY, OP WP	5500
	MAA - 60000	
MANEY, OP WP	MAFIC, OP FIX	5500
	MAA - 60000	
MAFIC, OP FIX	CINNY, OP WP	5500
	MAA - 60000	

A221

NIMITZ, GU VORTAC	CULPS, MP FIX	3000
	MAA - 60000	
CULPS, MP FIX	ERTTS, GU FIX	1500
	MAA - 60000	
ERTTS, GU FIX	MONIE, MP FIX	1500
	MAA - 60000	
MONIE, MP FIX	LULJY, GU FIX	6000
	MAA - 60000	
LULJY, GU FIX	HEXUG, OP FIX	6000
	MAA - 60000	
HEXUG, OP FIX	WILLE, GU FIX	6000
	MAA - 60000	

A222

NIMITZ, GU VORTAC	CLANS, OP WP	20000
	MAA - 60000	
CLANS, OP WP	AXIDE, OP WP	20000
	MAA - 60000	
AXIDE, OP WP	FIBSS, OP WP	20000
	MAA - 60000	
FIBSS, OP WP	KRONK, OP FIX	20000
	MAA - 60000	
KRONK, OP FIX	ADUFO, FM FIX	20000
	MAA - 60000	
ADUFO, FM FIX	POHNPEI, FM NDB/DME	20000
	MAA - 60000	

FROM	TO	MEA
A222 - CONTINUED		
POHNPEI, FM NDB/DME	AXTEN, FM WP	20000
		MAA - 60000
AXTEN, FM WP	KOSRAE, FM NDB/DME	20000
		MAA - 60000
KOSRAE, FM NDB/DME	STEFF, OP FIX	20000
		MAA - 60000
STEFF, OP FIX	BUCHOLZ, MH NDB	18000
		MAA - 60000
A331		
ZIGIE, OP FIX	ZOULU, OP WP	5500
		MAA - 60000
ZOULU, OP WP	ZEMOM, OP WP	5500
		MAA - 60000
ZEMOM, OP WP	ZINNO, OP WP	5500
		MAA - 60000
ZINNO, OP WP	ZAGER, OP WP	5500
		MAA - 60000
ZAGER, OP WP	ZANNG, OP FIX	5500
		MAA - 60000
ZANNG, OP FIX	SEDAR, OP FIX	5500
		MAA - 60000
A332		
AUNTI, OP WP	HALLI, OP WP	5500
		MAA - 60000
HALLI, OP WP	HELOP, OP WP	5500
		MAA - 60000
HELOP, OP WP	HEKAB, OP WP	5500
		MAA - 60000
HEKAB, OP WP	HEMLO, OP WP	5500
		MAA - 60000
A337		
JUNIE, GU FIX	AXIDE, OP WP	6000
		MAA - 60000
AXIDE, OP WP	FONUG, OP WP	6000
		MAA - 60000
FONUG, OP WP	SNAPP, GU FIX	6000
		MAA - 60000
SNAPP, GU FIX	TEEDE, OP WP	6000
		MAA - 60000
TEEDE, OP WP	TEGOD, OP WP	6000
		MAA - 60000
A339		
SHREE, OP FIX	WRNNR, OP FIX	15000
		MAA - 60000
WRNNR, OP FIX	TILLY, OP WP	15000
		MAA - 60000
TILLY, OP WP	KEITH, OP FIX	15000
		MAA - 60000
A342		
OLCOT, AK FIX	PINSO, OP WP	18000
		MAA - 60000

FROM	TO	MEA
A342 - CONTINUED		
PINSO, OP WP	AMOND, AK FIX	18000
		MAA - 60000
AMOND, AK FIX	DRAPP, AK FIX	18000
		MAA - 60000
DRAPP, AK FIX	CRYPT, AK FIX	18000
		MAA - 60000
CRYPT, AK FIX	COLD BAY, AK VORTAC	18000
		MAA - 60000
A450		
CAHYO, OP WP	TNUGE, OP WP	18000
TNUGE, OP WP	PIGFA, OP WP	18000
PIGFA, OP WP	LOEBB, OP WP	8000
LOEBB, OP WP	BUCAT, OP WP	8000
BUCAT, OP WP	NIMITZ, GU VORTAC	8000
NIMITZ, GU VORTAC	BAGBE, GU FIX	5000
BAGBE, GU FIX	HOPPY, GU FIX	5000
HOPPY, GU FIX	FONUG, OP WP	5000
		MAA - 60000
FONUG, OP WP	STINE, GU FIX	5000
		MAA - 60000
STINE, GU FIX	DEWSS, OP FIX	18000
		MAA - 60000
DEWSS, OP FIX	JIMOS, OP WP	5500
		MAA - 60000
JIMOS, OP WP	NGUEN, OP WP	5500
		MAA - 60000
NGUEN, OP WP	NATIE, OP WP	5500
		MAA - 60000
NATIE, OP WP	RESEE, OP WP	5500
		MAA - 60000
RESEE, OP WP	SYSTA, OP WP	5500
		MAA - 60000
SYSTA, OP WP	BRIUN, OP WP	5500
		MAA - 60000
BRIUN, OP WP	HOOPA, OP FIX	5500
		MAA - 60000
HOOPA, OP FIX	*KATHS, HI FIX	5500
*29000 - MRA		
		MAA - 60000
A578		
POHNPEI, FM NDB/DME	AFOYU, FM WP	18000
		MAA - 60000
AFOYU, FM WP	FENSE, OP FIX	18000
		MAA - 60000
A590		
PASRO, OP FIX	POWAL, AK FIX	18000
		MAA - 60000
POWAL, AK FIX	PLADO, AK FIX	18000
		MAA - 60000
PLADO, AK FIX	PINSO, OP WP	18000
		MAA - 60000
PINSO, OP WP	POOFF, OP WP	18000
		MAA - 60000

FROM	TO	MEA
A590 - CONTINUED		
POOFF, OP WP	PINTT, AK FIX	18000
		MAA - 60000
PINTT, AK FIX	PTZGR, AK WP	18000
		MAA - 60000
PTZGR, AK WP	PUGGY, AK FIX	18000
		MAA - 60000
PUGGY, AK FIX	POETT, OP FIX	18000
		MAA - 60000
POETT, OP FIX	SELDM, AK FIX	18000
		MAA - 60000
SELDM, AK FIX	PORGE, AK FIX	18000
		MAA - 60000
PORGE, AK FIX	HAMND, AK WP	18000
		MAA - 60000
A597		
ADBON, OP FIX	OKOLE, OP WP	18000
OKOLE, OP WP	GALSS, OP FIX	18000
GALSS, OP FIX	JUNIE, GU FIX	18000
JUNIE, GU FIX	OPLAR, GU FIX	5000
OPLAR, GU FIX	GUMGE, GU FIX	5000
GUMGE, GU FIX	NIMITZ, GU VORTAC	5000
NIMITZ, GU VORTAC	WUVEN, GU FIX	5000
WUVEN, GU FIX	REEDE, OP WP	5000
REEDE, OP WP	RICHH, OP WP	5000
RICHH, OP WP	MONPI, OP WP	5000
A598		
MARTI, OP FIX	MAJURO, MH NDB/DME	2300
B200		
BISOX, OP FIX	ANJJE, OP FIX	5500
ANJJE, OP FIX	CARLS, OP FIX	5500
CARLS, OP FIX	BENTS, OP FIX	5500
BENTS, OP FIX	AMATT, OP FIX	5500
AMATT, OP FIX	TONYS, OP FIX	5500
TONYS, OP FIX	FICKY, OP WP	5500
B233		
GALENA, AK VOR/DME	SANGL, AK WP	18000
		MAA - 45000
SANGL, AK WP	KUTAL, RU WP	18000
		MAA - 45000
B240		
ERNIK, RU WP	IDROD, AK WP	18000
		MAA - 45000
IDROD, AK WP	AVUBA, AK WP	18000
		MAA - 45000
AVUBA, AK WP	EMMONAK, AK VOR/DME	18000
		MAA - 45000
B241		
EMMONAK, AK VOR/DME	ENEGU, AK WP	18000
		MAA - 45000

FROM	TO	MEA
B241 - CONTINUED		
ENEGU, AK WP	ROCET, AK WP	18000
		MAA - 45000
ROCET, AK WP	RUSOR, RU WP	18000
		MAA - 45000
B244		
FRENK, OP WP	KOTZEBUE, AK VOR/DME	5000
		MAA - 40000
B452		
ATIGO, OP WP	KERRY, OP FIX	6000
KERRY, OP FIX	KRONK, OP FIX	6000
KRONK, OP FIX	KRASZ, OP FIX	6000
KRASZ, OP FIX	DOHRT, OP FIX	6000
B453		
BOXER, OP WP	KYLLE, OP FIX	18000
KYLLE, OP FIX	KANUA, OP FIX	18000
KANUA, OP FIX	VIDKU, CA FIX	18000
VIDKU, CA FIX	TAMRU, CA FIX	18000
TAMRU, CA FIX	SIMLU, CA FIX	18000
SIMLU, CA FIX	KURTT, OP FIX	18000
KURTT, OP FIX	PETPA, CA FIX	18000
PETPA, CA FIX	NAKBI, CA FIX	18000
NAKBI, CA FIX	METPA, CA FIX	18000
METPA, CA FIX	KATCH, AK FIX	18000
KATCH, AK FIX	MIDDLETON ISLAND, AK VOR/DME	18000
B454		
UPNAR, OP FIX	COMIR, OP FIX	5500
COMIR, OP FIX	BORIC, OP FIX	5500
BORIC, OP FIX	ARENS, OP FIX	5500
ARENS, OP FIX	TONYS, OP FIX	5500
B577		
PASSA, OP FIX	QUIGG, OP FIX	5500
QUIGG, OP FIX	SANTA, OP FIX	5500
SANTA, OP FIX	CANOL, OP FIX	5500
CANOL, OP FIX	BELAN, OP FIX	5500
BELAN, OP FIX	AHNDQ, OP FIX	5500
AHNDQ, OP FIX	LENNA, OP FIX	5500
LENNA, OP FIX	FICKY, OP WP	5500
B581		
WOBY, OP FIX	WACOS, OP FIX	5500
WACOS, OP FIX	WOSLU, OP FIX	5500
WOSLU, OP FIX	WAYSE, OP FIX	5500
WAYSE, OP FIX	WINTY, OP FIX	5500
WINTY, OP FIX	CAMOS, OP FIX	5500
CAMOS, OP FIX	BALKS, OP FIX	5500
BALKS, OP FIX	AFONE, OP FIX	5500
AFONE, OP FIX	WEDES, OP FIX	5500
WEDES, OP FIX	FICKY, OP WP	5500

FROM	TO	MEA
B586		
OMLET, OP FIX	TOESS, OP WP	18000
TOESS, OP WP	WINZR, OP WP	18000
WINZR, OP WP	NIMITZ, GU VORTAC	18000
NIMITZ, GU VORTAC	ASADE, GU FIX	5000
ASADE, GU FIX	KAPOK, GU FIX	5000
KAPOK, GU FIX	HUTEL, OP FIX	18000
HUTEL, OP FIX	NUTTI, OP FIX	18000
NUTTI, OP FIX	PIKOK, OP FIX	18000
B589		
MAJURO, MH NDB/DME	ELNUR, OP FIX	18000
B932		
BAMOK, OP FIX	MORLY, AK WP	18000
		MAA - 45000
MORLY, AK WP	EPLOS, AK WP	18000
		MAA - 45000
EPLOS, AK WP	KIVAK, AK WP	18000
		MAA - 45000
KIVAK, AK WP	LESAD, AK WP	18000
		MAA - 45000
LESAD, AK WP	ST MARYS, AK NDB	18000
		MAA - 45000
ST MARYS, AK NDB	MC GRATH, AK VORTAC	18000
		MAA - 45000
B96		
LARSA, RU WP	GAMBELL, AK NDB/DME	5000
		MAA - 18000
G205		
RUTUS, OP FIX	KISME, OP FIX	1500
KISME, OP FIX	GOOFI, OP WP	1500
GOOFI, OP WP	JUNIE, GU FIX	1500
JUNIE, GU FIX	OPLAR, GU FIX	5000
OPLAR, GU FIX	GUMGE, GU FIX	5000
GUMGE, GU FIX	NIMITZ, GU VORTAC	5000
NIMITZ, GU VORTAC	GUYES, OP WP	18000
GUYES, OP WP	TERYY, OP WP	18000
TERYY, OP WP	TEGOD, OP WP	18000
G212		
VALDA, OP WP	YUREE, OP WP	5000
		MAA - 18000
YUREE, OP WP	FORT DAVIS, AK NDB	5000
		MAA - 18000
G215		
OLCOT, AK FIX	PLADO, AK FIX	18000
		MAA - 60000
PLADO, AK FIX	SHEMYA, AK VORTAC	18000
		MAA - 60000

FROM	TO	MEA
G215 - CONTINUED		
SHEMYA, AK VORTAC	CURVS, AK FIX	18000
		MAA - 60000
CURVS, AK FIX	DUTCH HARBOR, AK NDB/DME	18000
		MAA - 60000
G223		
MUBIT, OP FIX	OLGIS, OP FIX	18000
OLGIS, OP FIX	PHILY, OP FIX	18000
PHILY, OP FIX	RISBA, OP WP	6000
G339		
NIMITZ, GU VORTAC	SHAWS, OP WP	6000
SHAWS, OP WP	RIDLL, OP WP	6000
RIDLL, OP WP	NATSS, OP WP	6000
NATSS, OP WP	PAKDO, OP WP	6000
G344		
CUTEE, OP FIX	CARTO, AK FIX	18000
		MAA - 60000
CARTO, AK FIX	CHIPT, OP WP	18000
		MAA - 60000
CHIPT, OP WP	CHIKI, AK FIX	18000
		MAA - 60000
CHIKI, AK FIX	CURVS, AK FIX	18000
		MAA - 60000
CURVS, AK FIX	CRYPT, AK FIX	18000
		MAA - 60000
CRYPT, AK FIX	CAMBO, AK FIX	18000
		MAA - 60000
CAMBO, AK FIX	*CUDDA, AK WP	18000
*24000 - MRA		
		MAA - 60000
G349		
MARCC, AK WP	KIVAK, AK WP	18000
		MAA - 60000
KIVAK, AK WP	PALIN, AK WP	18000
		MAA - 60000
PALIN, AK WP	NEONN, AK WP	18000
		MAA - 60000
G467		
YELLO, OP FIX	KITSS, OP FIX	18000
KITSS, OP FIX	ACRON, GU FIX	18000
ACRON, GU FIX	PULEE, GU FIX	18000
PULEE, GU FIX	NIMITZ, GU VORTAC	5000
G469		
NYMPH, OP FIX	ONEIL, OP WP	18000
		MAA - 60000
ONEIL, OP WP	PINTT, AK FIX	18000
		MAA - 60000
PINTT, AK FIX	CREMR, AK FIX	18000
		MAA - 60000

FROM	TO	MEA
G469 - CONTINUED		
CREMR, AK FIX	ST PAUL ISLAND, AK NDB/DME	18000
		MAA - 60000
ST PAUL ISLAND, AK NDB/DME	PORT HEIDEN, AK NDB/DME	18000
		MAA - 60000
G575		
CINTO, OP FIX	BIGBY, OP FIX	5500
BIGBY, OP FIX	APIDD, OP FIX	5500
APIDD, OP FIX	HILCO, OP FIX	5500
HILCO, OP FIX	FICKY, OP WP	5500
G583		
BESAT, OP FIX	MARCC, AK WP	18000
		MAA - 60000
MARCC, AK WP	MUNRI, AK WP	18000
		MAA - 45000
MUNRI, AK WP	EMMONAK, AK VOR/DME	18000
		MAA - 60000
G7		
OLTON, RU WP	GAMBELL, AK NDB/DME	5000
		MAA - 18000
H201		
NOME, AK VOR/DME	SLEDD, AK WP	18000
		MAA - 45000
SLEDD, AK WP	AVUBA, AK WP	18000
		MAA - 45000
AVUBA, AK WP	ENEGU, AK WP	18000
		MAA - 45000
ENEGU, AK WP	MUNRI, AK WP	18000
		MAA - 45000
MUNRI, AK WP	KIVAK, AK WP	18000
		MAA - 45000
KIVAK, AK WP	NAYLD, AK FIX	18000
		MAA - 45000
H222		
VALDA, OP WP	ICEEE, AK WP	18000
		MAA - 45000
ICEEE, AK WP	SLEDD, AK WP	18000
		MAA - 45000
SLEDD, AK WP	MC GRATH, AK VORTAC	18000
		MAA - 45000
M756		
OLBIE, OP WP	AIBIE, OP WP	6000
AIBIE, OP WP	KEONE, OP WP	6000
R204		
KYWEE, OP WP	KALIN, OP WP	#18000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		

FROM	TO	MEA
R220		
NODLE, AK FIX	NICHO, AK WP	18000
		MAA - 60000
NICHO, AK WP	NOSHO, AK FIX	18000
		MAA - 60000
NOSHO, AK FIX	NEONN, AK WP	18000
		MAA - 60000
NEONN, AK WP	NANZA, AK FIX	18000
		MAA - 60000
NANZA, AK FIX	NOLTI, OP WP	18000
		MAA - 60000
NOLTI, OP WP	NAYLD, AK FIX	18000
		MAA - 60000
NAYLD, AK FIX	NULUK, AK FIX	18000
		MAA - 60000
NULUK, AK FIX	NANDY, AK FIX	18000
		MAA - 60000
NANDY, AK FIX	NATES, OP WP	18000
		MAA - 60000
NATES, OP WP	NIKLL, AK FIX	18000
		MAA - 60000
NIKLL, AK FIX	NYMPH, OP FIX	18000
		MAA - 60000
NYMPH, OP FIX	NUZAN, OP WP	18000
		MAA - 60000
NUZAN, OP WP	NRKEY, OP WP	18000
		MAA - 60000
NRKEY, OP WP	NIPPI, OP FIX	18000
		MAA - 60000
R330		
POWAL, AK FIX	SHEMYA, AK VORTAC	18000
		MAA - 60000
R332		
MAJURO, MH NDB/DME	VAVEE, OP FIX	6000
R336		
CARTO, AK FIX	LYYLE, AK FIX	18000
		MAA - 60000
LYYLE, AK FIX	MOUNT MOFFETT, AK NDB/DME	18000
		MAA - 60000
R337		
ISGOG, OP FIX	KOROR, PW NDB/DME	6500
R341		
NATES, OP WP	OFORD, AK FIX	18000
		MAA - 60000
OFORD, AK FIX	HODDY, AK FIX	18000
		MAA - 60000
HODDY, AK FIX	PUGGY, AK FIX	18000
		MAA - 60000
PUGGY, AK FIX	CHUUK, AK FIX	18000
		MAA - 60000

FROM	TO	MEA
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R341 - CONTINUED

CHUUK, AK FIX	KODIAK, AK VOR/DME	18000
		MAA - 60000

R451

OGDEN, AK FIX	POWAL, AK FIX	18000
		MAA - 60000
POWAL, AK FIX	AAMYY, AK FIX	18000
		MAA - 60000
AAMYY, AK FIX	WALLT, AK FIX	18000
		MAA - 60000
WALLT, AK FIX	CHIKI, AK FIX	18000
		MAA - 60000
CHIKI, AK FIX	MOUNT MOFFETT, AK NDB/DME	18000
		MAA - 60000

R463

MAGGI, HI FIX	TOADS, HI FIX	5000
TOADS, HI FIX	APACK, OP FIX	5000
APACK, OP FIX	AUNTI, OP WP	5500
AUNTI, OP WP	ADOPE, OP WP	5500
ADOPE, OP WP	AXELE, OP WP	5500
AXELE, OP WP	ADTIL, OP WP	5500
ADTIL, OP WP	ALLBE, OP WP	5500
ALLBE, OP WP	ALCOA, OP FIX	5500

R464

MAGGI, HI FIX	BITTA, OP FIX	5500
BITTA, OP FIX	BOARD, OP WP	21000
BOARD, OP WP	BEKME, OP WP	5500
BEKME, OP WP	BILLO, OP WP	5500
BILLO, OP WP	BARAZ, OP WP	5500
BARAZ, OP WP	BAART, OP WP	5500
BAART, OP WP	BEBOP, OP FIX	5500

R465

MAGGI, HI FIX	*SHARK, HI FIX	5500
*16000 - MRA		
SHARK, HI FIX	CLUTS, OP FIX	5500
CLUTS, OP FIX	CEBEN, OP WP	5500
CEBEN, OP WP	CIVIT, OP WP	5500
CIVIT, OP WP	CORTT, OP WP	5500
CORTT, OP WP	CUNDU, OP WP	5500
CUNDU, OP WP	CREAN, OP FIX	5500
CREAN, OP FIX	CINNY, OP WP	5500

R576

MAUI, HI VORTAC	ALAFU, HI FIX	9000
ALAFU, HI FIX	WAPPO, HI FIX	14000
WAPPO, HI FIX	ONOVY, HI FIX	26000
ONOVY, HI FIX	DENNS, OP FIX	26000
DENNS, OP FIX	DRAYK, OP WP	24000
DRAYK, OP WP	DUSAC, OP WP	5500
DUSAC, OP WP	DIALO, OP WP	5500
DIALO, OP WP	DADIE, OP WP	5500

FROM	TO	MEA
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R576 - CONTINUED

DADIE, OP WP	DUETS, OP WP	5500
DUETS, OP WP	DINTY, OP FIX	5500

R577

MAUI, HI VORTAC	AWAHI, HI FIX	9000
AWAHI, HI FIX	AZIBA, HI FIX	16000
AZIBA, HI FIX	TANFO, HI FIX	35000
TANFO, HI FIX	ALICA, HI FIX	35000
ALICA, HI FIX	EBBER, OP FIX	35000
EBBER, OP FIX	ELOYI, OP WP	21000
ELOYI, OP WP	ERROT, OP WP	5500
ERROT, OP WP	ETNIC, OP WP	5500
ETNIC, OP WP	ETECO, OP WP	5500
ETECO, OP WP	EDSEL, OP FIX	5500
EDSEL, OP FIX	EDTOO, OP FIX	5500
EDTOO, OP FIX	*ELKEY, CA FIX	5500
*26000 - MRA		

R578

DEREC, HI FIX	BYROW, HI FIX	14000
BYROW, HI FIX	FITES, OP FIX	14000
FITES, OP FIX	FAPIS, OP WP	21000
FAPIS, OP WP	FOMAS, OP WP	21000
FOMAS, OP WP	FIZEL, OP WP	5500
FIZEL, OP WP	FLITY, OP WP	5500
FLITY, OP WP	FOOTS, OP FIX	5500
FOOTS, OP FIX	FICKY, OP WP	5500

R580

OMOTO, OP FIX	OGDEN, AK FIX	18000
	MAA - 60000	
OGDEN, AK FIX	OPHET, AK FIX	18000
	MAA - 60000	
OPHET, AK FIX	OLCOT, AK FIX	18000
	MAA - 60000	
OLCOT, AK FIX	OPAKE, AK FIX	18000
	MAA - 60000	
OPAKE, AK FIX	ONEIL, OP WP	18000
	MAA - 60000	
ONEIL, OP WP	OBOYD, OP WP	18000
	MAA - 60000	
OBOYD, OP WP	OFORD, AK FIX	18000
	MAA - 60000	
OFORD, AK FIX	OGGOE, AK FIX	18000
	MAA - 60000	
OGGOE, AK FIX	ONEOX, OP WP	18000
	MAA - 60000	
ONEOX, OP WP	ORVIL, AK FIX	18000
	MAA - 60000	
ORVIL, AK FIX	ORCCA, AK FIX	18000
	MAA - 60000	
ORCCA, AK FIX	NICHO, AK WP	18000
	MAA - 60000	

R584

CHOKO, OP WP	MCFLY, OP WP	5500
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FROM	TO	MEA
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R584 - CONTINUED

MCFLY, OP WP	MANRE, OP WP	5500
MANRE, OP WP	MAZZA, OP FIX	5500
MAZZA, OP FIX	MAJURO, MH NDB/DME	18000
MAJURO, MH NDB/DME	CURCH, OP WP	18000
CURCH, OP WP	BUCHOLZ, MH NDB	18000
BUCHOLZ, MH NDB	LOOIS, OP FIX	18000
LOOIS, OP FIX	HAVNU, FM FIX	18000
HAVNU, FM FIX	TRADD, FM FIX	18000
TRADD, FM FIX	POHNPEI, FM NDB/DME	18000
POHNPEI, FM NDB/DME	BIRUQ, FM FIX	18000
BIRUQ, FM FIX	TRUK, FM NDB/DME	18000
TRUK, FM NDB/DME	GUNSS, OP FIX	18000
GUNSS, OP FIX	JUNIE, GU FIX	18000
JUNIE, GU FIX	OPLAR, GU FIX	5000
OPLAR, GU FIX	GUMGE, GU FIX	5000
GUMGE, GU FIX	NIMITZ, GU VORTAC	5000
NIMITZ, GU VORTAC	OTTRE, OP WP	6000
OTTRE, OP WP	MIKYY, OP WP	18000
MIKYY, OP WP	KEITH, OP FIX	18000

R591

AKISU, OP FIX	ASPIN, AK FIX	18000
	MAA - 60000	
ASPIN, AK FIX	AAMYY, AK FIX	18000
	MAA - 60000	
AAMYY, AK FIX	SHEMYA, AK VORTAC	18000
	MAA - 60000	
SHEMYA, AK VORTAC	AMOND, AK FIX	18000
	MAA - 60000	
AMOND, AK FIX	ALDOZ, AK FIX	18000
	MAA - 60000	
ALDOZ, AK FIX	ALUFF, AK FIX	18000
	MAA - 60000	
ALUFF, AK FIX	ST PAUL ISLAND, AK NDB/DME	18000
	MAA - 60000	
ST PAUL ISLAND, AK NDB/DME	CHUUK, AK FIX	18000
	MAA - 60000	
CHUUK, AK FIX	CAPE NEWENHAM, AK NDB/DME	18000
	MAA - 60000	
CAPE NEWENHAM, AK NDB/DME	HAMND, AK WP	18000
	MAA - 60000	

R595

NIMITZ, GU VORTAC	OTTRE, OP WP	6000
OTTRE, OP WP	MIKYY, OP WP	18000
MIKYY, OP WP	KEITH, OP FIX	18000

W21

NIMITZ, GU VORTAC	KAQTU, MP FIX	3000
KAQTU, MP FIX	SANDO, GU FIX	3000
SANDO, GU FIX	NUJCO, MP FIX	9000
NUJCO, MP FIX	KATQO, GU FIX	9000
KATQO, GU FIX	HIRCH, MP FIX	9000
HIRCH, MP FIX	ANEVY, GU FIX	9000
ANEVY, GU FIX	SNAPP, GU FIX	9000
SNAPP, GU FIX	BESSS, OP WP	9000

FROM	TO	MEA	MAA
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§95.3000 LOW ALTITUDE RNAV ROUTES

95.3200 RNAV ROUTE T200

COLLEGE STATION, TX VORTAC	SEALY, TX FIX	2100	17500
SEALY, TX FIX	MOLLR, TX WP	2000	17500
MOLLR, TX WP	SABINE PASS, TX VOR/DME	3100	17500

95.3201 RNAV ROUTE T201

MEVAE, SC WP	TRUEX, SC WP	2200	7000
TRUEX, SC WP	FEGNO, NC WP	2400	7000
FEGNO, NC WP	NUROE, NC WP	2700	7000
NUROE, NC WP	BORTZ, NC WP	3900	7000

95.3202 RNAV ROUTE T202

GURSH, SC WP	AWRYT, SC WP	2400	8000
AWRYT, SC WP	RICHE, SC FIX	2400	8000
RICHE, SC FIX	HUSTN, NC FIX	2500	8000
HUSTN, NC FIX	FEGNO, NC WP	2500	8000
FEGNO, NC WP	GANTS, NC FIX	2600	8000
GANTS, NC FIX	ZADEL, NC WP	2700	8000

95.3203 RNAV ROUTE T203

ANDYS, SC FIX	AWRYT, SC WP	2400	17500
AWRYT, SC WP	ROUTH, NC WP	2800	17500
ROUTH, NC WP	FADOS, NC WP	3400	17500
FADOS, NC WP	OREAD, NC WP	3500	17500

95.3204 RNAV ROUTE T204

TAYLOR, FL VORTAC	BRUNSWICK, GA VORTAC	2100	15000
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95.3205 RNAV ROUTE T205

OCALA, FL VORTAC *2500 - MOCA	VALDOSTA, GA VOR/DME	3000	15000
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95.3206 RNAV ROUTE T206

ENADE, NC WP	FADOS, NC WP	3000	17500
FADOS, NC WP	GOTHS, NC WP	3400	17500
GOTHS, NC WP	NUROE, NC WP	3400	17500
NUROE, NC WP	ZADEL, NC WP	3000	17500

95.3207 RNAV ROUTE T207

ORMOND BEACH, FL VORTAC	CARRA, FL FIX	2300	15000
CARRA, FL FIX	CECIL, FL VOR	1900	15000
CECIL, FL VOR	MONIA, GA FIX	1900	15000
MONIA, GA FIX	WAYCROSS, GA VORTAC	2300	15000

95.3208 RNAV ROUTE T208

WALEE, FL WP	MMKAY, FL WP	2000	17500
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FROM	TO	MEA	MAA
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95.3208 RNAV ROUTE T208 - CONTINUED

MMKAY, FL WP	FOXAM, FL WP	1800	17500
FOXAM, FL WP	SUUGR, FL WP	1800	17500
SUUGR, FL WP	SMYRA, FL FIX	1800	17500
SMYRA, FL FIX	OAKIE, FL FIX	1800	17500
OAKIE, FL FIX	MALET, FL FIX	1800	17500
MALET, FL FIX	TICCO, FL FIX	1800	17500
TICCO, FL FIX	INDIA, FL FIX	1800	17500
INDIA, FL FIX	DIMBY, FL WP	1800	17500
DIMBY, FL WP	VALKA, FL FIX	1800	17500
VALKA, FL FIX	SULTY, FL WP	1700	17500
SULTY, FL WP	WIXED, FL WP	1700	17500
WIXED, FL WP	CLEFF, FL WP	1700	17500
CLEFF, FL WP	DURRY, FL WP	1700	17500
DURRY, FL WP	BOBOE, FL WP	1700	17500
BOBOE, FL WP	SHANC, FL FIX	1700	17500

95.3209 RNAV ROUTE T209

EHEJO, GA FIX	NASDE, GA WP	2000	17500
NASDE, GA WP	YASLU, GA WP	2000	17500
YASLU, GA WP	JAMTA, GA WP	2000	17500
JAMTA, GA WP	COLLIERS, SC VORTAC	2500	17500

95.3210 RNAV ROUTE T210

MARQO, FL WP	OHLEE, FL WP	1900	9000
OHLEE, FL WP	BRADO, FL FIX	1900	9000
BRADO, FL FIX	MMKAY, FL WP	1800	17500
MMKAY, FL WP	MRUTT, FL WP	1800	17500
MRUTT, FL WP	GUANO, FL FIX	1800	17500
GUANO, FL FIX	KIZER, FL FIX	1800	17500
KIZER, FL FIX	EMSEE, FL WP	1800	17500
EMSEE, FL WP	DAIYL, FL WP	1900	17500
DAIYL, FL WP	AKOJO, FL WP	1800	17500
AKOJO, FL WP	PUNQU, FL WP	2000	17500
PUNQU, FL WP	VARZE, FL WP	1900	17500

95.3211 RNAV ROUTE T211

OCALA, FL VORTAC	JUTTS, FL WP	2500	15000
JUTTS, FL WP	CARRA, FL FIX	1900	15000
CARRA, FL FIX	CRAIG, FL VORTAC	2100	15000

95.3212 RNAV ROUTE T212

RASHE, PA FIX	SELINGROVE, PA VOR/DME	4000	17500
SELINGROVE, PA VOR/DME	DIANO, PA FIX	3700	17500
DIANO, PA FIX	WILKES-BARRE, PA VORTAC	5000	17500
WILKES-BARRE, PA VORTAC	LAAYK, PA FIX	4000	17500
LAAYK, PA FIX	WEETS, NY FIX	4700	17500
WEETS, NY FIX	NELIE, CT FIX	3500	17500
NELIE, CT FIX	PUTNAM, CT VOR/DME	3000	17500

95.3213 RNAV ROUTE T213

LOUISVILLE, KY VORTAC	GAMKE, IN WP	3600	8000
#NORTHBOUND EXPECT 7000			
#SOUTHBOUND EXPECT 6000			
GAMKE, IN WP	MILAN, IN FIX	2800	8000
#NORTHBOUND EXPECT 7000			
#SOUTHBOUND EXPECT 6000			

FROM	TO	MEA	MAA
95.3213 RNAV ROUTE T213 - CONTINUED			
MILAN, IN FIX #NORTHBOUND EXPECT 7000 #SOUTHBOUND EXPECT 6000	RICHMOND, IN DME	2800	8000
95.3214 RNAV ROUTE T214			
OREAD, NC WP	BORTZ, NC WP	3500	17500
BORTZ, NC WP	THMSN, NC WP	3400	17500
THMSN, NC WP	ZADEL, NC WP	2400	17500
ZADEL, NC WP	ORPEE, NC WP	2700	17500
95.3215 RNAV ROUTE T215			
HOLSTON MOUNTAIN, TN VORTAC	HILTO, VA FIX	6700	17500
HILTO, VA FIX	FLENR, VA WP	6500	17500
FLENR, VA WP *4800 - MCA RISTE, KY WP , SE BND	RISTE, KY WP	6000	17500
RISTE, KY WP	HAZARD, KY DME	3800	17500
HAZARD, KY DME	HUGEN, KY WP	3200	17500
HUGEN, KY WP	LEXINGTON, KY VOR/DME	3200	17500
LEXINGTON, KY VOR/DME #NORTHBOUND EXPECT 6000 #SOUTHBOUND EXPECT 5000	GAMKE, IN WP	3000	8000
95.3216 RNAV ROUTE T216			
PHILIPSBURG, PA VORTAC	WILLIAMSPORT, PA VOR/DME	4200	17500
WILLIAMSPORT, PA VOR/DME	ELEXY, PA WP	4500	17500
ELEXY, PA WP	LAAYK, PA FIX	4100	17500
LAAYK, PA FIX	HELON, NY FIX	4000	17500
HELON, NY FIX	KINGSTON, NY VOR/DME	4000	17500
KINGSTON, NY VOR/DME	MOONI, CT FIX	3200	17500
MOONI, CT FIX	HARTFORD, CT VOR/DME	3200	17500
HARTFORD, CT VOR/DME	GROTON, CT VOR/DME	2600	17500
GROTON, CT VOR/DME *1500 - MOCA	SANDY POINT, RI VOR/DME	2000	17500
SANDY POINT, RI VOR/DME	NANTUCKET, MA VOR/DME	2000	17500
95.3217 RNAV ROUTE T217			
LEXINGTON, KY VOR/DME #NORTHBOUND EXPECT 7000 #SOUTHBOUND EXPECT 6000	BOSTR, OH FIX	3000	8000
BOSTR, OH FIX #NORTHBOUND EXPECT 7000 #SOUTHBOUND EXPECT 6000	HEDEN, OH FIX	2700	8000
HEDEN, OH FIX #NORTHBOUND EXPECT 7000 #SOUTHBOUND EXPECT 6000	PRUDE, OH FIX	2800	8000
PRUDE, OH FIX #NORTHBOUND EXPECT 7000 #SOUTHBOUND EXPECT 6000	SPRINGFIELD, OH DME	2800	8000
SPRINGFIELD, OH DME #NORTHBOUND EXPECT 7000 #SOUTHBOUND EXPECT 6000	BONEE, OH FIX	2900	8000
BONEE, OH FIX	SJAAY, IN WP	3000	17500
SJAAY, IN WP	DERRF, IN WP	2800	17500
DERRF, IN WP	GETCH, MI WP	2800	17500
GETCH, MI WP	GAYLE, MI WP	2400	17500

FROM	TO	MEA	MAA
95.3218 RNAV ROUTE T218			
STONYFORK, PA VOR/DME	LAAYK, PA FIX	4200	17500
LAAYK, PA FIX	SPARTA, NJ VORTAC	4000	17500
95.3219 RNAV ROUTE T219			
NANWAK, AK NDB/DME	RUFVY, AK WP	2300	17500
*1700 - MOCA			
RUFVY, AK WP	ACATE, AK WP	2000	17500
*1300 - MOCA			
ACATE, AK WP	NACIP, AK FIX	6000	17500
*5400 - MOCA			
NACIP, AK FIX	BROUS, AK WP	6000	17500
*5400 - MOCA			
BROUS, AK WP	DILLINGHAM, AK VOR/DME	6000	17500
*5000 - MOCA			
95.3220 RNAV ROUTE T220			
INDUSTRY, TX VORTAC	SEALY, TX FIX	2100	17500
SEALY, TX FIX	MOLLR, TX WP	2000	17500
MOLLR, TX WP	SABINE PASS, TX VOR/DME	3100	17500
95.3221 RNAV ROUTE T221			
MAZIE, PA FIX	ALLENTOWN, PA VORTAC	3000	17500
*2200 - MOCA			
ALLENTOWN, PA VORTAC	LAAYK, PA FIX	4000	17500
LAAYK, PA FIX	BINGHAMTON, NY VOR/DME	4000	17500
95.3222 RNAV ROUTE T222			
BAERE, AK WP	ST PAUL ISLAND, AK NDB/DME	3600	17500
ST PAUL ISLAND, AK NDB/DME	RUFVY, AK WP	3000	17500
*1800 - MOCA			
RUFVY, AK WP	BETHEL, AK VORTAC	3000	17500
*1400 - MOCA			
BETHEL, AK VORTAC	MC GRATH, AK VORTAC	5000	17500
MC GRATH, AK VORTAC	NENANA, AK VORTAC	5000	17500
NENANA, AK VORTAC	FAIRBANKS, AK VORTAC	4000	17500
*3200 - MOCA			
95.3223 RNAV ROUTE T223			
CAPE NEWENHAM, AK NDB/DME	DILLINGHAM, AK VOR/DME	4400	17500
DILLINGHAM, AK VOR/DME	FAGIN, AK FIX	4400	17500
FAGIN, AK FIX	NONDA, AK FIX	8400	17500
NONDA, AK FIX	BLUGA, AK FIX	12400	17500
*10000 - MCA BLUGA, AK FIX , SW BND			
BLUGA, AK FIX	AMOTT, AK FIX	3000	17500
*7400 - MCA AMOTT, AK FIX , SW BND			
AMOTT, AK FIX	ANCHORAGE, AK VOR/DME	3000	17500
95.3224 RNAV ROUTE T224			
PALACIOS, TX VORTAC	MOLLR, TX WP	2500	17500
MOLLR, TX WP	BEAUMONT, TX VOR/DME	2100	17500
BEAUMONT, TX VOR/DME	LAKE CHARLES, LA VORTAC	1700	17500

FROM	TO	MEA	MAA
95.3225 RNAV ROUTE T225			
HOOPER BAY, AK VOR/DME	AKELT, AK FIX	4600	17500
AKELT, AK FIX	ALMOT, AK FIX	4400	17500
ALMOT, AK FIX	UNALAKLEET, AK VOR/DME	3700	17500
UNALAKLEET, AK VOR/DME	EDMON, AK FIX	5000	17500
EDMON, AK FIX	VENCE, AK FIX	5900	17500
VENCE, AK FIX	GALENA, AK VOR/DME	3400	17500
GALENA, AK VOR/DME	KUHZE, AK FIX	4400	17500
KUHZE, AK FIX	CHOKK, AK FIX	6800	17500
CHOKK, AK FIX	TANANA, AK VOR/DME	4000	17500
TANANA, AK VOR/DME	REEBA, AK FIX	4000	17500
REEBA, AK FIX	FAIRBANKS, AK VORTAC	5000	17500
*4700 - MCA FAIRBANKS, AK VORTAC , W BND			
95.3226 RNAV ROUTE T226			
JOHNSTONE POINT, AK VOR/DME	FIDAL, AK FIX	5000	17500
*7000 - MCA FIDAL, AK FIX , N BND			
FIDAL, AK FIX	ROBES, AK FIX	8000	17500
*8900 - MCA ROBES, AK FIX , N BND			
ROBES, AK FIX	KLUNG, AK FIX	10000	17500
KLUNG, AK FIX	GULKANA, AK VOR/DME	7000	17500
*7100 - MCA KLUNG, AK FIX , S BND			
GULKANA, AK VOR/DME	DOZEY, AK FIX	5000	17500
DOZEY, AK FIX	PAXON, AK FIX	8000	17500
*9500 - MCA PAXON, AK FIX , N BND			
*7300 - MOCA			
PAXON, AK FIX	DONEL, AK FIX	12000	17500
*11500 - MOCA			
DONEL, AK FIX	BIG DELTA, AK VORTAC	7000	17500
*10600 - MCA DONEL, AK FIX , S BND			
BIG DELTA, AK VORTAC	HEXAX, AK WP	7000	17500
HEXAX, AK WP	FORT YUKON, AK VORTAC	4000	17500
*3100 - MOCA			
95.3227 RNAV ROUTE T227			
SHEMYA, AK VORTAC	JANNT, AK WP	3400	17500
JANNT, AK WP	BAERE, AK WP	7500	17500
*2900 - MOCA			
BAERE, AK WP	ALEUT, AK WP	7500	17500
*3300 - MOCA			
ALEUT, AK WP	MORDI, AK FIX	2500	17500
MORDI, AK FIX	BINAL, AK FIX	4900	17500
BINAL, AK FIX	PORT HEIDEN, AK NDB/DME	3800	17500
PORT HEIDEN, AK NDB/DME	CULTI, AK WP	3700	17500
*1900 - MOCA			
CULTI, AK WP	BATTY, AK FIX	6100	17500
*5600 - MOCA			
BATTY, AK FIX	AMOTT, AK FIX	13000	17500
*5200 - MCA AMOTT, AK FIX , SW BND			
*12300 - MOCA			
AMOTT, AK FIX	BIG LAKE, AK VORTAC	3400	17500
*2700 - MOCA			
BIG LAKE, AK VORTAC	SURES, AK FIX	7000	17500
SURES, AK FIX	CAWIN, AK FIX	9700	17500
*8600 - MOCA			
CAWIN, AK FIX	LIBER, AK FIX	9000	17500
LIBER, AK FIX	GLOWS, AK FIX	7100	17500
*4800 - MCA GLOWS, AK FIX , S BND			

FROM	TO	MEA	MAA
95.3227 RNAV ROUTE T227 - CONTINUED			
GLOWS, AK FIX	FAIRBANKS, AK VORTAC	3400	17500
FAIRBANKS, AK VORTAC	PESGE, AK WP	5500	17500
PESGE, AK WP	FIPSU, AK WP	8400	17500
FIPSU, AK WP	CUGOB, AK WP	11000	17500
*7000 - MCA CUGOB, AK WP , S BND			
*10300 - MOCA			
CUGOB, AK WP	SIKLV, AK WP	4500	17500
SIKLV, AK WP	DEADHORSE, AK VOR/DME	2200	17500
95.3228 RNAV ROUTE T228			
CAPE NEWENHAM, AK NDB/DME	KUCYE, AK WP	4600	17500
KUCYE, AK WP	RUFVY, AK WP	2000	17500
RUFVY, AK WP	HOOPER BAY, AK VOR/DME	3000	17500
HOOPER BAY, AK VOR/DME	NOME, AK VOR/DME	5000	17500
*4400 - MOCA			
NOME, AK VOR/DME	HIKAX, AK WP	7000	17500
HIKAX, AK WP	SHISHMAREF, AK NDB	4000	17500
SHISHMAREF, AK NDB	ECIPI, AK FIX	10000	17500
*2000 - MOCA			
ECIPI, AK FIX	JAPKI, AK WP	8000	17500
*3800 - MOCA			
JAPKI, AK WP	PODKE, AK WP	13000	17500
*4200 - MOCA			
PODKE, AK WP	CIRSU, AK WP	3800	17500
CIRSU, AK WP	BARROW, AK VOR/DME	2000	17500
BARROW, AK VOR/DME	DEADHORSE, AK VOR/DME	2000	17500
*1500 - MOCA			
DEADHORSE, AK VOR/DME	ROCES, AK WP	2000	17500
*1300 - MOCA			
95.3229 RNAV ROUTE T229			
FAIRBANKS, AK VORTAC	REEBA, AK FIX	5000	17500
*4700 - MCA FAIRBANKS, AK VORTAC , W BND			
REEBA, AK FIX	TANANA, AK VOR/DME	4000	17500
TANANA, AK VOR/DME	HUSLIA, AK VOR/DME	6000	17500
*5500 - MOCA			
HUSLIA, AK VOR/DME	SELAWIK, AK VOR/DME	4000	17500
SELAWIK, AK VOR/DME	KOTZEBUE, AK VOR/DME	3000	17500
*2500 - MOCA			
KOTZEBUE, AK VOR/DME	POINT HOPE, AK NDB	4000	17500
95.3230 RNAV ROUTE T230			
ST PAUL ISLAND, AK NDB/DME	CHINOOK, AK NDB	3000	17500
*2700 - MOCA			
95.3231 RNAV ROUTE T231			
FAIRBANKS, AK VORTAC	HOBOM, AK WP	5100	17500
*4300 - MCA FAIRBANKS, AK VORTAC , W BND			
HOBOM, AK WP	MIPMY, AK WP	6300	17500
MIPMY, AK WP	SELAWIK, AK VOR/DME	3300	17500
SELAWIK, AK VOR/DME	KOTZEBUE, AK VOR/DME	3400	17500
95.3232 RNAV ROUTE T232			
NORTHWAY, AK VORTAC	BIG DELTA, AK VORTAC	8000	17500

FROM	TO	MEA	MAA
95.3232 RNAV ROUTE T232 - CONTINUED			
BIG DELTA, AK VORTAC *4300 - MOCA	FAIRBANKS, AK VORTAC	5000	17500
FAIRBANKS, AK VORTAC *5200 - MOCA	BETTLES, AK VOR/DME	6000	17500
BETTLES, AK VOR/DME	BRONX, AK FIX	9000	17500
BRONX, AK FIX *1200 - MOCA	BARROW, AK VOR/DME	4000	17500
95.3233 RNAV ROUTE T233			
AMBLER, AK NDB	KORKY, AK WP	5000	17500
KORKY, AK WP	ENCOR, AK WP	7000	17500
ENCOR, AK WP	EVANSVILLE, AK NDB	5000	17500
95.3234 RNAV ROUTE T234			
FAIRBANKS, AK VORTAC *4300 - MCA FAIRBANKS, AK VORTAC , W BND	TOLLO, AK FIX	5000	17500
TOLLO, AK FIX	RAMPA, AK FIX	7000	17500
95.3235 RNAV ROUTE T235			
ATQASUK, AK NDB *1300 - MOCA	NUIQSUT VILLAGE, AK NDB	3000	17500
95.3236 RNAV ROUTE T236			
NENANA, AK VORTAC	RAMPA, AK FIX	7000	17500
95.3237 RNAV ROUTE T237			
HOMER, AK VOR/DME *4800 - MCA HOMER, AK VOR/DME , E BND *8500 - MOCA	WUXAN, AK WP	9000	17500
WUXAN, AK WP *4100 - MOCA	MIDDLETON ISLAND, AK VOR/DME	5000	17500
95.3238 RNAV ROUTE T238			
RAMPA, AK FIX	BETTLES, AK VOR/DME	7000	17500
95.3239 RNAV ROUTE T239			
PECAN, GA VOR/DME	SHANY, GA FIX	2000	17500
SHANY, GA FIX	EUFAULA, AL VORTAC	2300	17500
EUFAULA, AL VORTAC	MILER, AL FIX	2000	17500
MILER, AL FIX	TUSKEGEE, AL VOR/DME	2300	17500
TUSKEGEE, AL VOR/DME *2100 - MOCA	KENTT, AL FIX	2600	17500
KENTT, AL FIX	VLKNN, AL WP	3200	17500
VLKNN, AL WP	FOGUM, AL WP	2600	17500
FOGUM, AL WP *2100 - MOCA	SWIKI, AL WP	2600	17500
SWIKI, AL WP	GANTT, MS WP	2500	17500
GANTT, MS WP	ICAVY, MS WP	2300	17500
ICAVY, MS WP	GOINS, MS WP	2400	17500
95.3240 RNAV ROUTE T240			
BETTLES, AK VOR/DME	TEGDE, AK FIX	7800	17500

FROM	TO	MEA	MAA
95.3240 RNAV ROUTE T240 - CONTINUED			
TEGDE, AK FIX *4700 - MCA DERIK, AK FIX , S BND	DERIK, AK FIX	9700	17500
DERIK, AK FIX	SHELO, AK FIX	3600	17500
SHELO, AK FIX	DEADHORSE, AK VOR/DME	2000	17500
95.3241 RNAV ROUTE T241			
LATCH, AK FIX	LEVEL ISLAND, AK VOR/DME	5000	17500
95.3242 RNAV ROUTE T242			
TALKEETNA, AK VOR/DME *12100 - MCA TALKEETNA, AK VOR/DME , N BND *15300 - MOCA	JOKAP, AK WP	16000	17500
JOKAP, AK WP *11500 - MCA JOKAP, AK WP , S BND	KUTDE, AK WP	6000	17500
KUTDE, AK WP *9400 - MOCA	LACIL, AK WP	15000	17500
LACIL, AK WP *1800 - MOCA	BARROW, AK VOR/DME	8000	17500
95.3243 RNAV ROUTE T243			
PUNGO, NC FIX *1500 - MOCA	ZOLMN, NC FIX	4000	17000
95.3244 RNAV ROUTE T244			
NOME, AK VOR/DME	CONFI, AK WP	3000	17500
CONFI, AK WP	CHEFF, AK WP	5300	17500
CHEFF, AK WP *7800 - MCA BETPE, AK WP , SE BND	BETPE, AK WP	6400	17500
BETPE, AK WP	CEXIX, AK WP	10000	17500
CEXIX, AK WP *6400 - MCA CAKAD, AK WP , NW BND	CAKAD, AK WP	6600	17500
CAKAD, AK WP	ANCHORAGE, AK VOR/DME	3000	17500
95.3245 RNAV ROUTE T245			
SEAL BEACH, CA VORTAC	POPPR, CA FIX	2500	17500
POPPR, CA FIX *3200 - MCA SANTA MONICA, CA VOR/DME , NW BND	SANTA MONICA, CA VOR/DME	2500	17500
SANTA MONICA, CA VOR/DME	SILEX, CA FIX	4600	17500
95.3246 RNAV ROUTE T246			
BARROW, AK VOR/DME	GALENA, AK VOR/DME	9200	17500
GALENA, AK VOR/DME	MC GRATH, AK VORTAC	5800	17500
MC GRATH, AK VORTAC *7500 - MCA WINOR, AK FIX , SE BND	WINOR, AK FIX	4900	17500
WINOR, AK FIX	FFITZ, AK FIX	8200	17500
FFITZ, AK FIX *7600 - MCA FRIDA, AK FIX , NW BND	FRIDA, AK FIX	8800	17500
FRIDA, AK FIX *5900 - MCA IVANN, AK FIX , W BND	IVANN, AK FIX	6600	17500
IVANN, AK FIX	ANCHORAGE, AK VOR/DME	2200	17500
95.3247 RNAV ROUTE T247			
SEAL BEACH, CA VORTAC	POPPR, CA FIX	2500	17500

FROM	TO	MEA	MAA
95.3247 RNAV ROUTE T247 - CONTINUED			
POPPR, CA FIX	SANTA MONICA, CA VOR/DME	2500	17500
*3200 - MCA SANTA MONICA, CA VOR/DME , NW BND			
SANTA MONICA, CA VOR/DME	CANOG, CA FIX	5000	17500
95.3248 RNAV ROUTE T248			
GAMBELL, AK NDB/DME	QAYAQ, AK WP	3600	17500
QAYAQ, AK WP	EMMONAK, AK VOR/DME	3000	17500
95.3249 RNAV ROUTE T249			
VAN NUYS, CA VOR/DME	SANTA MONICA, CA VOR/DME	4700	17500
*3300 - MCA SANTA MONICA, CA VOR/DME , N BND			
SANTA MONICA, CA VOR/DME	POPPR, CA FIX	2500	17500
POPPR, CA FIX	SEAL BEACH, CA VORTAC	2500	17500
95.3250 RNAV ROUTE T250			
BETHEL, AK VORTAC	AKELT, AK FIX	3800	17500
AKELT, AK FIX	QAYAQ, AK WP	3000	17500
QAYAQ, AK WP	KUKULIAK, AK VOR/DME	3700	17500
95.3251 RNAV ROUTE T251			
FARMINGTON, MO VORTAC	FORISTELL, MO VORTAC	3100	6000
FORISTELL, MO VORTAC	RIVRS, IL FIX	2700	6000
RIVRS, IL FIX	KAYUU, MO WP	2700	17500
KAYUU, MO WP	MERKR, IA WP	2500	17500
MERKR, IA WP	AGENS, IA FIX	2500	17500
AGENS, IA FIX	PICRA, IA WP	2700	17500
PICRA, IA WP	HAVOS, IA WP	2800	17500
HAVOS, IA WP	WATERLOO, IA VOR/DME	2800	17500
WATERLOO, IA VOR/DME	ZEZDU, IA FIX	2800	17500
ZEZDU, IA FIX	FALAR, MN FIX	3000	17500
FALAR, MN FIX	KOETZ, WI WP	3100	17500
95.3252 RNAV ROUTE T252			
NOME, AK VOR/DME	KOTZEBUE, AK VOR/DME	5900	17500
KOTZEBUE, AK VOR/DME	PERCI, AK WP	3000	17500
PERCI, AK WP	WARRT, AK WP	7000	17500
WARRT, AK WP	DEADHORSE, AK VOR/DME	3000	17500
95.3254 RNAV ROUTE T254			
COLLEGE STATION, TX VORTAC	HIPPS, TX WP	3000	15000
HIPPS, TX WP	EAKES, TX WP	3000	15000
EAKES, TX WP	CREPO, TX WP	3100	15000
CREPO, TX WP	LAKE CHARLES, LA VORTAC	2200	15000
95.3255 RNAV ROUTE T255			
MARTHAS VINEYARD, MA VOR/DME	FALMA, RI FIX	2000	17500
FALMA, RI FIX	PROVIDENCE, RI VOR/DME	2000	17500
PROVIDENCE, RI VOR/DME	NOXSE, RI WP	2500	17500
NOXSE, RI WP	BLATT, CT FIX	2500	17500
BLATT, CT FIX	NELIE, CT FIX	2800	17500
95.3256 RNAV ROUTE T256			
SAN ANTONIO, TX VORTAC	EAGLE LAKE, TX VOR/DME	3000	17500

FROM	TO	MEA	MAA
95.3256 RNAV ROUTE T256 - CONTINUED			
EAGLE LAKE, TX VOR/DME	MOLLR, TX WP	2400	17500
MOLLR, TX WP	SABINE PASS, TX VOR/DME	3100	17500
95.3257 RNAV ROUTE T257			
VENTURA, CA VOR/DME	SAN MARCUS, CA VORTAC	6300	17500
SAN MARCUS, CA VORTAC	MORRO BAY, CA VORTAC	7300	17500
MORRO BAY, CA VORTAC	CALIS, CA FIX	4100	17500
CALIS, CA FIX	BLANC, CA FIX	3400	17500
BLANC, CA FIX	HNNTR, CA WP	6600	17500
HNNTR, CA WP	DUBSS, CA WP	7000	17500
DUBSS, CA WP	CAATE, CA WP	6900	17500
CAATE, CA WP	CHAWZ, CA WP	3900	17500
CHAWZ, CA WP	PORTE, CA FIX	4200	17500
PORTE, CA FIX	THHEO, CA WP	4200	17500
THHEO, CA WP	JAMIN, CA WP	4300	17500
JAMIN, CA WP	POINT REYES, CA VOR/DME	4300	17500
POINT REYES, CA VOR/DME	FREES, CA FIX	3500	17500
FREES, CA FIX	NACKI, CA WP	4900	17500
NACKI, CA WP	MENDOCINO, CA VORTAC	5600	17500
MENDOCINO, CA VORTAC	MERRI, CA FIX	5600	17500
MERRI, CA FIX	FLUEN, CA FIX	5700	17500
FLUEN, CA FIX	PLYAT, CA FIX	6800	17500
PLYAT, CA FIX	CCHUK, CA WP	6700	17500
CCHUK, CA WP	CICRO, CA WP	4800	17500
CICRO, CA WP	SEGVE, CA FIX	3800	17500
SEGVE, CA FIX	SCUPY, CA WP	2400	17500
SCUPY, CA WP	OLJEK, CA FIX	2200	17500
OLJEK, CA FIX	CIGCA, CA WP	1700	17500
CIGCA, CA WP	FURNS, CA WP	2200	17500
FURNS, CA WP	MITUE, OR FIX	4700	17500
MITUE, OR FIX	JANAS, OR FIX	4600	17500
JANAS, OR FIX	NEWPORT, OR VORTAC	4300	17500
NEWPORT, OR VORTAC	CUTEL, OR FIX	4100	17500
CUTEL, OR FIX	EYCEH, OR WP	4100	17500
EYCEH, OR WP	ILWAC, WA FIX	2300	17500
ILWAC, WA FIX	ZEDAT, WA FIX	2300	17500
ZEDAT, WA FIX	WAVLU, WA FIX	2900	17500
WAVLU, WA FIX	HOQUIAM, WA VORTAC	2900	17500
HOQUIAM, WA VORTAC	COPLS, WA WP	2600	17500
COPLS, WA WP	WAPTO, WA FIX	2900	17500
WAPTO, WA FIX	OZETT, WA WP	3700	17500
OZETT, WA WP	TATOOSH, WA VORTAC	4300	17500
95.3258 RNAV ROUTE T258			
MINIM, AL FIX	CRMSN, AL WP	2300	17500
CRMSN, AL WP	BROOKWOOD, AL VORTAC	2500	17500
BROOKWOOD, AL VORTAC	HEENA, AL FIX	2600	17500
HEENA, AL FIX	KYLEE, AL FIX	2900	17500
KYLEE, AL FIX	CAMPP, AL FIX	3200	17500
CAMPP, AL FIX	LAGRANGE, GA VORTAC	2900	17500
LAGRANGE, GA VORTAC	LANGA, GA FIX	2600	17500
LANGA, GA FIX	CANER, GA FIX	3500	17500
95.3259 RNAV ROUTE T259			
LAKE HUGHES, CA VORTAC	SHAFTER, CA VORTAC	8800	17500
SHAFTER, CA VORTAC	AVENAL, CA VOR/DME	4300	17500
*3600 - MOCA			

FROM	TO	MEA	MAA
95.3259 RNAV ROUTE T259 - CONTINUED			
AVENAL, CA VOR/DME	MBARI, CA WP	6600	17500
MBARI, CA WP	LKHRN, CA WP	6200	17500
LKHRN, CA WP	SALINAS, CA VORTAC	6000	17500
SALINAS, CA VORTAC	CAATE, CA WP	4000	17500
CAATE, CA WP	SANTY, CA FIX	4000	17500
*3300 - MOCA			
SANTY, CA FIX	SAPID, CA FIX	5200	17500
SAPID, CA FIX	CRTER, CA WP	5500	17500
CRTER, CA WP	NORCL, CA WP	6000	17500
NORCL, CA WP	MOVDD, CA WP	6000	17500
*5000 - MCA MOVDD, CA WP , SW BND			
MOVDD, CA WP	OOWEN, CA WP	3500	17500
OOWEN, CA WP	OXJEF, CA WP	2300	17500
OXJEF, CA WP	SAAGO, CA WP	7000	17500
*9600 - MCA SAAGO, CA WP , E BND			
SAAGO, CA WP	BNAKI, CA WP	11500	17500
*13200 - MCA BNAKI, CA WP , E BND			
BNAKI, CA WP	WEXIM, CA WP	14700	17500
WEXIM, CA WP	NIKOL, CA FIX	14600	17500
*12200 - MCA NIKOL, CA FIX , W BND			
NIKOL, CA FIX	DAYMN, NV WP	13100	17500
DAYMN, NV WP	ELY, NV VOR/DME	12100	17500
95.3260 RNAV ROUTE T260			
NOME, AK VOR/DME	TIN CITY, AK NDB/DME	6900	17500
TIN CITY, AK NDB/DME	COGNU, AK WP	5300	17500
COGNU, AK WP	POINT HOPE, AK NDB	3000	17500
95.3261 RNAV ROUTE T261			
SANTA CATALINA, CA VORTAC	GAVIOTA, CA VORTAC	6500	17500
GAVIOTA, CA VORTAC	MORRO BAY, CA VORTAC	6200	17500
*5700 - MOCA			
MORRO BAY, CA VORTAC	CLMNS, CA FIX	4100	17500
CLMNS, CA FIX	HRRNG, CA WP	2300	17500
HRRNG, CA WP	HMPBK, CA WP	2300	17500
*4300 - MCA HMPBK, CA WP , N BND			
HMPBK, CA WP	WOZZZ, CA WP	5400	17500
*6600 - MCA WOZZZ, CA WP , N BND			
WOZZZ, CA WP	DUBSS, CA WP	6900	17500
DUBSS, CA WP	SALINAS, CA VORTAC	6900	17500
SALINAS, CA VORTAC	KARNN, CA FIX	5500	17500
KARNN, CA FIX	WINDY, CA FIX	4700	17500
WINDY, CA FIX	SMONE, CA WP	5700	17500
SMONE, CA WP	MOVDD, CA WP	5700	17500
*4700 - MCA MOVDD, CA WP , SE BND			
MOVDD, CA WP	RBLEW, CA WP	3600	17500
RBLEW, CA WP	GIFME, CA WP	2500	17500
GIFME, CA WP	HNNRY, CA WP	2500	17500
HNNRY, CA WP	GRIDD, CA FIX	3400	17500
*2600 - MCA GRIDD, CA FIX , S BND			
GRIDD, CA FIX	TALUM, CA FIX	1800	17500
TALUM, CA FIX	JINGO, CA FIX	1900	17500
JINGO, CA FIX	GONGS, CA FIX	1800	17500
GONGS, CA FIX	HOMAN, CA FIX	4800	17500
HOMAN, CA FIX	GARSA, CA FIX	5500	17500
GARSA, CA FIX	CCAPS, CA WP	9000	17500
CCAPS, CA WP	MUREX, CA FIX	9500	17500

FROM	TO	MEA	MAA
95.3261 RNAV ROUTE T261 - CONTINUED			
MUREX, CA FIX	MIXUP, OR FIX	8600	17500
MIXUP, OR FIX	PIIKZ, OR WP	8600	17500
PIIKZ, OR WP	TUPSE, OR WP	9400	17500
TUPSE, OR WP	DESCHUTES, OR VORTAC	6800	17500
DESCHUTES, OR VORTAC	HERBS, OR FIX	6300	17500
HERBS, OR FIX	CUPRI, OR FIX	6100	17500
CUPRI, OR FIX	SUPOC, OR WP	5500	17500
SUPOC, OR WP	KUKTE, OR FIX	6000	17500
KUKTE, OR FIX	VECCU, WA FIX	5500	17500
VECCU, WA FIX	SUNSN, WA WP	7000	17500
SUNSN, WA WP	MUDLE, WA FIX	7100	17500
MUDLE, WA FIX	YAKIMA, WA VORTAC	5300	17500
*4800 - MOCA			
YAKIMA, WA VORTAC	SELAH, WA FIX	5400	17500
SELAH, WA FIX	GEBTE, WA FIX	6000	17500
GEBTE, WA FIX	LARDY, WA WP	6000	17500
LARDY, WA WP	QUINT, WA FIX	6400	17500
QUINT, WA FIX	KLSEY, WA WP	5200	17500
KLSEY, WA WP	PAWYO, WA WP	5100	17500
PAWYO, WA WP	HVAR, WA WP	5400	17500
HVAR, WA WP	SOFFE, WA WP	6500	17500
SOFFE, WA WP	JSTEN, WA WP	6900	17500
95.3262 RNAV ROUTE T262			
KODIAK, AK VOR/DME	WUXAN, AK WP	6000	17500
*5200 - MCA WUXAN, AK WP , E BND			
*3800 - MOCA			
WUXAN, AK WP	JOHNSTONE POINT, AK VOR/DME	7000	17500
95.3263 RNAV ROUTE T263			
FILLMORE, CA VORTAC	DERBB, CA FIX	11000	17500
*7200 - MCA DERBB, CA FIX , SE BND			
DERBB, CA FIX	AVENAL, CA VOR/DME	6600	17500
AVENAL, CA VOR/DME	PANOCH, CA VORTAC	7100	17500
PANOCH, CA VORTAC	WINDY, CA FIX	6400	17500
WINDY, CA FIX	SMONE, CA WP	5700	17500
SMONE, CA WP	MOVDD, CA WP	5700	17500
*4700 - MCA MOVDD, CA WP , SE BND			
MOVDD, CA WP	RBLEW, CA WP	3600	17500
RBLEW, CA WP	PITTS, CA FIX	3400	17500
PITTS, CA FIX	SCAGGS ISLAND, CA VORTAC	3400	17500
SCAGGS ISLAND, CA VORTAC	POPES, CA FIX	4800	17500
POPES, CA FIX	NAKPT, CA WP	5400	17500
NAKPT, CA WP	DIBLE, CA FIX	4800	17500
DIBLE, CA FIX	KENDL, CA FIX	4900	17500
*3200 - MOCA			
KENDL, CA FIX	FOLDS, CA FIX	6900	17500
FOLDS, CA FIX	HOMEG, CA WP	10400	17500
HOMEG, CA WP	ZUNAS, CA FIX	9900	17500
ZUNAS, CA FIX	TALEM, OR FIX	9500	17500
*9000 - MCA TALEM, OR FIX , S BND			
TALEM, OR FIX	OREGN, OR WP	7800	17500
*6100 - MCA OREGN, OR WP , SE BND			
OREGN, OR WP	EROWY, OR WP	6000	17500
EROWY, OR WP	NOTTI, OR FIX	5400	17500
NOTTI, OR FIX	CORVALLIS, OR VOR/DME	4200	17500
CORVALLIS, OR VOR/DME	ARTTY, OR FIX	4000	17500

FROM	TO	MEA	MAA
95.3263 RNAV ROUTE T263 - CONTINUED			
ARTTY, OR FIX	NEWBERG, OR VOR/DME	3900	17500
NEWBERG, OR VOR/DME	LOATH, OR FIX	4400	17500
LOATH, OR FIX	WINLO, WA FIX	5200	17500
WINLO, WA FIX	ULESS, WA FIX	5400	17500
ULESS, WA FIX	MTLOK, WA WP	5800	17500
*5200 - MOCA			
MTLOK, WA WP	QUIIN, WA WP	7200	17500
*8100 - MCA QUIIN, WA WP , N BND			
QUIIN, WA WP	ARRIE, WA FIX	9100	17500
ARRIE, WA FIX	ELWHA, WA WP	8900	17500
95.3264 RNAV ROUTE T264			
KODIAK, AK VOR/DME	ZAXUM, AK WP	6000	17500
*4000 - MOCA			
ZAXUM, AK WP	MIDDLETON ISLAND, AK VOR/DME	3000	17500
*2200 - MOCA			
95.3265 RNAV ROUTE T265			
JAYBE, WI FIX	GRIFT, IL FIX	2800	17500
GRIFT, IL FIX	START, IL FIX	2700	17500
START, IL FIX	MEITZ, IL FIX	2700	17500
MEITZ, IL FIX	COYAP, IL WP	2400	17500
COYAP, IL WP	MAPPS, IN FIX	2500	17500
MAPPS, IN FIX	KLROY, IN WP	2400	17500
KLROY, IN WP	SMUUV, MI WP	2600	17500
SMUUV, MI WP	GETCH, MI WP	2500	17500
GETCH, MI WP	LADIN, MI FIX	4000	17500
LADIN, MI FIX	CARGA, MI FIX	3200	17500
CARGA, MI FIX	BUDHA, MI WP	3200	17500
BUDHA, MI WP	RONDO, MI FIX	3200	17500
RONDO, MI FIX	PINES, MI FIX	2700	17500
95.3266 RNAV ROUTE T266			
RADKY, AK FIX	XADZY, AK WP	7000	17500
XADZY, AK WP	VULHO, AK WP	6000	17500
VULHO, AK WP	FOGID, AK WP	5200	17500
FOGID, AK WP	YICAX, AK WP	4500	17500
YICAX, AK WP	NEREE, AK WP	5000	17500
NEREE, AK WP	VAZPU, AK WP	5100	17500
VAZPU, AK WP	DOOZI, AK FIX	6200	17500
DOOZI, AK FIX	ANNETTE ISLAND, AK VOR/DME	5400	17500
95.3267 RNAV ROUTE T267			
NOME, AK VOR/DME	JKSA, AK WP	6700	17500
*6000 - MOCA			
JKSA, AK WP	BALIN, AK FIX	3400	17500
*2700 - MOCA			
BALIN, AK FIX	KOTZEBUE, AK VOR/DME	3300	17500
*2600 - MOCA			
95.3268 RNAV ROUTE T268			
TATOOSH, WA VORTAC	HEMER, WA WP	3800	17500
HEMER, WA WP	YUCSU, WA FIX	4500	17500
YUCSU, WA FIX	NOOEL, WA WP	4500	17500

FROM	TO	MEA	MAA
95.3268 RNAV ROUTE T268 - CONTINUED			
NOOEL, WA WP	STVOH, WA WP	4400	17500
STVOH, WA WP	WATTR, WA FIX	2600	17500
WATTR, WA FIX	LEION, WA WP	3000	17500
*2400 - MOCA			
LEION, WA WP	AYURU, WA WP	2000	17500
*3500 - MCA AYURU, WA WP , E BND			
AYURU, WA WP	WOODI, WA FIX	5600	17500
WOODI, WA FIX	BANDR, WA FIX	7600	17500
BANDR, WA FIX	TMBOB, WA WP	7800	17500
*7200 - MCA TMBOB, WA WP , W BND			
TMBOB, WA WP	MERFF, WA WP	6600	17500
*6600 - MOCA			
MERFF, WA WP	DOFDO, WA FIX	6800	17500
*5400 - MCA DOFDO, WA FIX , SW BND			
DOFDO, WA FIX	MOSES LAKE, WA VOR/DME	3400	17500
MOSES LAKE, WA VOR/DME	SUBDY, WA FIX	3700	17500
SUBDY, WA FIX	YICUB, WA FIX	4400	17500
YICUB, WA FIX	SPOKANE, WA VORTAC	4800	17500
*5300 - MCA SPOKANE, WA VORTAC , E BND			
SPOKANE, WA VORTAC	HILIE, ID FIX	7400	17500
HILIE, ID FIX	MULLAN PASS, ID VOR/DME	9000	17500
MULLAN PASS, ID VOR/DME	ALTON, MT FIX	9400	17500
ALTON, MT FIX	MISSOULA, MT VOR/DME	8800	17500
MISSOULA, MT VOR/DME	BAMBE, MT FIX	9500	17500
BAMBE, MT FIX	PIXXI, MT FIX	10000	17500
PIXXI, MT FIX	RICH, MT FIX	10600	17500
*10300 - MCA RICH, MT FIX , W BND			
RICH, MT FIX	HELENA, MT VORTAC	9700	17500
HELENA, MT VORTAC	SWEDD, MT FIX	10000	17500
SWEDD, MT FIX	CONNS, MT FIX	10800	17500
CONNS, MT FIX	NUKUW, MT FIX	10000	17500
NUKUW, MT FIX	SUBKY, MT FIX	11700	17500
*10000 - MCA SUBKY, MT FIX , W BND			
SUBKY, MT FIX	REEPO, MT FIX	8300	17500
*7200 - MCA REEPO, MT FIX , W BND			
REEPO, MT FIX	COLUS, MT FIX	6900	17500
COLUS, MT FIX	BILLINGS, MT VORTAC	6500	17500
BILLINGS, MT VORTAC	MILES CITY, MT VOR/DME	5800	17500
MILES CITY, MT VOR/DME	QATSA, ND FIX	5200	17500
QATSA, ND FIX	DICKINSON, ND VORTAC	4700	17500
*4200 - MOCA			
DICKINSON, ND VORTAC	BISMARCK, ND VOR/DME	4500	17500

95.3269 RNAV ROUTE T269

ANNETTE ISLAND, AK VOR/DME	TOKEE, AK FIX	5700	17500
TOKEE, AK FIX	FLIPS, AK FIX	6300	17500
FLIPS, AK FIX	BIORKA ISLAND, AK VORTAC	6000	17500
BIORKA ISLAND, AK VORTAC	SALIS, AK FIX	5100	17500
SALIS, AK FIX	CENTA, AK FIX	6200	17500
*2000 - MOCA			
CENTA, AK FIX	YAKUTAT, AK VOR/DME	2000	17500
YAKUTAT, AK VOR/DME	MALAS, AK FIX	2400	17500
MALAS, AK FIX	KATAT, AK FIX	9000	17500
*5300 - MOCA			
KATAT, AK FIX	CASEL, AK FIX	7000	17500
*3400 - MOCA			
CASEL, AK FIX	JOHNSTONE POINT, AK VOR/DME	4800	17500
*4800 - MCA JOHNSTONE POINT, AK VOR/DME , E BND			

FROM	TO	MEA	MAA
95.3269 RNAV ROUTE T269 - CONTINUED			
JOHNSTONE POINT, AK VOR/DME	FIMIB, AK WP	3200	17500
*5400 - MCA FIMIB, AK WP , W BND			
FIMIB, AK WP	ANCHORAGE, AK VOR/DME	8800	17500
*6300 - MCA ANCHORAGE, AK VOR/DME , E BND			
ANCHORAGE, AK VOR/DME	YONEK, AK FIX	3000	17500
YONEK, AK FIX	TORTE, AK FIX	5000	17500
*8400 - MCA TORTE, AK FIX , W BND			
TORTE, AK FIX	VEILL, AK FIX	10600	17500
*8000 - MCA VEILL, AK FIX , E BND			
VEILL, AK FIX	SPARREVOHN, AK VOR/DME	6600	17500
SPARREVOHN, AK VOR/DME	ACRAN, AK FIX	5200	17500
ACRAN, AK FIX	VIDDA, AK FIX	6000	17500
VIDDA, AK FIX	BETHEL, AK VORTAC	2100	17500
95.3270 RNAV ROUTE T270			
NORTON BAY, AK NDB	HEXOG, AK WP	6000	17500
*5400 - MOCA			
HEXOG, AK WP	SHISHMAREF, AK NDB	5000	17500
95.3271 RNAV ROUTE T271			
COLD BAY, AK VORTAC	BINAL, AK FIX	4400	17500
BINAL, AK FIX	KING SALMON, AK VORTAC	2700	17500
KING SALMON, AK VORTAC	JIVCO, AK WP	3000	17500
JIVCO, AK WP	WOLCI, AK WP	4000	17500
WOLCI, AK WP	WIDVA, AK WP	7000	17500
*8000 - MCA WIDVA, AK WP , NE BND			
WIDVA, AK WP	ZINAM, AK WP	11800	17500
*10700 - MCA ZINAM, AK WP , SW BND			
ZINAM, AK WP	AMOTT, AK FIX	2500	17500
95.3272 RNAV ROUTE T272			
HALLSVILLE, MO VORTAC	VANDALIA, IL VOR/DME	2700	6000
95.3273 RNAV ROUTE T273			
FAIRBANKS, AK VORTAC	AYKID, AK FIX	6700	17500
AYKID, AK FIX	TUVVO, AK FIX	6400	17500
TUVVO, AK FIX	SOTGE, AK WP	11300	17500
*8000 - MCA SOTGE, AK WP , S BND			
SOTGE, AK WP	ROCES, AK WP	4000	17500
*2800 - MOCA			
95.3274 RNAV ROUTE T274			
NEWPORT, OR VORTAC	WESHH, OR WP	4200	17500
WESHH, OR WP	CRAAF, OR FIX	4500	17500
CRAAF, OR FIX	JAIME, OR FIX	6100	17500
JAIME, OR FIX	DBLEY, OR WP	8000	17500
*8200 - MCA DBLEY, OR WP , E BND			
DBLEY, OR WP	MMDSN, OR WP	10000	17500
MMDSN, OR WP	MMASN, OR WP	9000	17500
MMASN, OR WP	POCIT, OR FIX	9000	17500
POCIT, OR FIX	GIFRD, OR WP	9000	17500
GIFRD, OR WP	FASAB, OR WP	10000	17500
FASAB, OR WP	NUSME, CA WP	10000	17500
NUSME, CA WP	RUFUS, CA WP	10100	17500

FROM	TO	MEA	MAA
95.3274 RNAV ROUTE T274 - CONTINUED			
RUFUS, CA WP	DUCCS, NV WP	10100	17500
DUCCS, NV WP	SEDTO, NV FIX	10200	17500
*9200 - MOCA			
SEDTO, NV FIX	MUSTANG, NV VORTAC	11000	17500
MUSTANG, NV VORTAC	YERIN, NV FIX	10000	17500
*10400 - MCA YERIN, NV FIX , SE BND			
YERIN, NV FIX	SCOLA, NV WP	11400	17500
SCOLA, NV WP	BABIT, NV FIX	10800	17500
*10100 - MOCA			
BABIT, NV FIX	COALDALE, NV VORTAC	10500	17500
COALDALE, NV VORTAC	LIDAT, NV FIX	10000	17500
95.3275 RNAV ROUTE T275			
BETHEL, AK VORTAC	UNALAKLEET, AK VOR/DME	5900	17500
95.3276 RNAV ROUTE T276			
WAVLU, WA FIX	WINLO, WA FIX	5400	17500
WINLO, WA FIX	COUGA, WA FIX	5100	17500
COUGA, WA FIX	CARBY, WA FIX	7000	17500
*6500 - MOCA			
CARBY, WA FIX	VECCU, WA FIX	7000	17500
VECCU, WA FIX	HUNGR, WA WP	5600	17500
HUNGR, WA WP	LAYTN, WA WP	5000	17500
LAYTN, WA WP	WALLA WALLA, WA VOR/DME	4500	17500
WALLA WALLA, WA VOR/DME	RENGO, WA FIX	6400	17500
RENGO, WA FIX	POTOR, WA FIX	7200	17500
POTOR, WA FIX	CUPEV, ID FIX	6100	17500
*5600 - MOCA			
CUPEV, ID FIX	HENVO, ID WP	6300	17500
HENVO, ID WP	OFINO, ID FIX	6300	17500
OFINO, ID FIX	JIROS, MT FIX	9800	17500
JIROS, MT FIX	MISSOULA, MT VOR/DME	9500	17500
MISSOULA, MT VOR/DME	ARSHO, MT WP	10700	17500
*10200 - MOCA			
ARSHO, MT WP	BRCKN, MT WP	11600	17500
*10000 - MCA BRCKN, MT WP , SW BND			
BRCKN, MT WP	FRYMN, MT FIX	8300	17500
FRYMN, MT FIX	YOGOS, MT FIX	8000	17500
*6600 - MOCA			
YOGOS, MT FIX	EVBUJ, MT WP	8500	17500
EVBUJ, MT WP	ITEVE, MT WP	8000	17500
ITEVE, MT WP	WUDEY, MT WP	8000	17500
*5200 - MCA WUDEY, MT WP , W BND			
WUDEY, MT WP	GLASGOW, MT VOR/DME	5000	17500
95.3277 RNAV ROUTE T277			
BETTLES, AK VOR/DME	JIGTI, AK WP	6000	17500
*4000 - MOCA			
JIGTI, AK WP	NOKFE, AK WP	8000	17500
*7000 - MOCA			
NOKFE, AK WP	VOVUY, AK WP	10300	17500
*9400 - MOCA			
VOVUY, AK WP	EPEHO, AK WP	16000	17500
*9500 - MOCA			
EPEHO, AK WP	POINT LAY, AK NDB	6400	17500
*5500 - MOCA			

FROM	TO	MEA	MAA
95.3278 RNAV ROUTE T278			
HAPIT, AK FIX	CSPER, AK FIX	4000	17500
CSPER, AK FIX	SISTERS ISLAND, AK VORTAC	5300	17500
95.3279 RNAV ROUTE T279			
ALEUT, AK WP	BETHEL, AK VORTAC	3200	17500
95.3280 RNAV ROUTE T280			
FLIPS, AK FIX	LEVEL ISLAND, AK VOR/DME	7000	17500
*6300 - MOCA			
95.3281 RNAV ROUTE T281			
YOZLE, NE FIX	BOKKI, NE FIX	4700	17500
BOKKI, NE FIX	AINSWORTH, NE VOR/DME	4600	17500
AINSWORTH, NE VOR/DME	LKOTA, SD WP	4400	17500
LKOTA, SD WP	PIERRE, SD VORTAC	4300	17500
95.3282 RNAV ROUTE T282			
VENCE, AK FIX	HORSI, AK FIX	5000	17500
HORSI, AK FIX	PERZO, AK WP	4700	17500
PERZO, AK WP	FAIRBANKS, AK VORTAC	4300	17500
95.3283 RNAV ROUTE T283			
SCOTTSBLUFF, NE VORTAC	GORDON, NE NDB	6300	17500
GORDON, NE NDB	WNDED, SD WP	5500	17500
*5000 - MOCA			
WNDED, SD WP	PIERRE, SD VORTAC	5000	17500
95.3285 RNAV ROUTE T285			
NORTH PLATTE, NE VOR/DME	THEDFORD, NE VOR/DME	5000	17500
THEDFORD, NE VOR/DME	MARSS, NE FIX	4900	17500
MARSS, NE FIX	VALENTINE, NE NDB	4800	17500
VALENTINE, NE NDB	LKOTA, SD WP	4500	17500
LKOTA, SD WP	LESNR, SD WP	4300	17500
LESNR, SD WP	HURON, SD DME	4000	17500
95.3286 RNAV ROUTE T286			
RAPID CITY, SD VORTAC	GORDON, NE NDB	5700	17500
GORDON, NE NDB	EFFEX, NE FIX	5600	17500
EFFEX, NE FIX	THEDFORD, NE VOR/DME	5400	17500
THEDFORD, NE VOR/DME	BOKKI, NE FIX	4900	17500
BOKKI, NE FIX	GRAND ISLAND, NE VOR/DME	4600	17500
GRAND ISLAND, NE VOR/DME	PAWNEE CITY, NE VORTAC	3600	17500
PAWNEE CITY, NE VORTAC	ROBINSON, KS DME	3100	17500
ROBINSON, KS DME	BOWLR, KS FIX	2900	17500
95.3287 RNAV ROUTE T287			
DENNN, VA WP	CAARY, VA WP	5200	10000
*3400 - MOCA			
CAARY, VA WP	WILMY, VA WP	6900	10000
*6100 - MOCA			

FROM	TO	MEA	MAA
95.3287 RNAV ROUTE T287 - CONTINUED			
WILMY, VA WP *4900 - MOCA	KAIJE, VA WP	5400	10000
KAIJE, VA WP	BAMMY, WV WP	5500	10000
BAMMY, WV WP *4300 - MOCA	REEES, PA WP	5000	10000
REEES, PA WP *3800 - MOCA	TOMYD, MD WP	5000	10000
95.3288 RNAV ROUTE T288			
GILLETTE, WY VOR/DME	TRTTL, WY WP	7000	17500
TRTTL, WY WP	KARAS, WY FIX	9000	17500
KARAS, WY FIX	PACTO, SD FIX	10000	17500
PACTO, SD FIX	RAPID CITY, SD VORTAC	7100	17500
RAPID CITY, SD VORTAC	WNDED, SD WP	5000	17500
WNDED, SD WP	VALENTINE, NE NDB	5000	17500
VALENTINE, NE NDB *4200 - MOCA	AINSWORTH, NE VOR/DME	4700	17500
AINSWORTH, NE VOR/DME	FESNT, NE WP	4500	17500
FESNT, NE WP	WOLBACH, NE VORTAC	4300	17500
95.3290 RNAV ROUTE T290			
HABJE, MS FIX	MERIDIAN, MS VORTAC	2300	17500
MERIDIAN, MS VORTAC	KWANE, MS WP	2400	17500
KWANE, MS WP	RABEC, AL WP	2300	17500
RABEC, AL WP	MONTGOMERY, AL VORTAC	2000	17500
MONTGOMERY, AL VORTAC *3400 - MCA SCAIL, AL WP , E BND	SCAIL, AL WP	2600	17500
SCAIL, AL WP	BBAIT, GA WP	4000	17500
BBAIT, GA WP	BBASS, GA WP	3500	17500
BBASS, GA WP	BBOAT, GA WP	2500	17500
BBOAT, GA WP	BOBBR, GA WP	2400	17500
BOBBR, GA WP	JACET, GA WP	2400	17500
95.3291 RNAV ROUTE T291			
LOUIE, MD FIX *1800 - MOCA	BAABS, MD WP	5000	11000
BAABS, MD WP *3000 - MOCA	HARRISBURG, PA VORTAC	5000	11000
HARRISBURG, PA VORTAC	SELINSGROVE, PA VOR/DME	3300	17500
SELINSGROVE, PA VOR/DME	MILTON, PA VORTAC	3200	17500
MILTON, PA VORTAC	MEGSS, PA FIX	3500	17500
MEGSS, PA FIX	LAAYK, PA FIX	4000	17500
LAAYK, PA FIX	DELANCEY, NY VOR/DME	4400	17500
DELANCEY, NY VOR/DME	ALBANY, NY VORTAC	5600	17500
95.3292 RNAV ROUTE T292			
SEMMES, AL VORTAC	ANTUH, AL WP	2000	17500
ANTUH, AL WP	JANES, AL WP	2000	17500
JANES, AL WP	KWANE, MS WP	2300	17500
KWANE, MS WP	EUTAW, AL FIX	2000	17500
EUTAW, AL FIX	MOVIL, AL FIX	2300	17500
MOVIL, AL FIX	BROOKWOOD, AL VORTAC	2500	17500
BROOKWOOD, AL VORTAC	VLKNN, AL WP	2500	17500
VLKNN, AL WP	HOKES, AL FIX	3200	17500
HOKES, AL FIX	MAYES, AL FIX	2900	17500

FROM	TO	MEA	MAA
95.3292 RNAV ROUTE T292 - CONTINUED			
MAYES, AL FIX	RKMRT, GA WP	3600	17500
RKMRT, GA WP	POLL, GA WP	2900	17500
POLL, GA WP	CCATT, GA WP	3600	17500
CCATT, GA WP	REELL, GA WP	3700	17500
REELL, GA WP	TRREE, GA WP	2600	17500
TRREE, GA WP	JACET, GA WP	2400	17500
95.3293 RNAV ROUTE T293			
CHUTT, AL WP	NFTRY, GA WP	2500	17500
NFTRY, GA WP	RTLRY, GA WP	3200	17500
RTLRY, GA WP	HONRR, GA WP	3300	17500
HONRR, GA WP	POLL, GA WP	3300	17500
POLL, GA WP	DAISI, GA WP	4700	17500
95.3294 RNAV ROUTE T294			
HABJE, MS FIX	MERIDIAN, MS VORTAC	2300	17500
MERIDIAN, MS VORTAC	BOYDD, AL FIX	2300	17500
BOYDD, AL FIX	CRMSN, AL WP	2000	17500
CRMSN, AL WP	VLKNN, AL WP	2500	17500
VLKNN, AL WP	JOTAV, AL FIX	3300	17500
JOTAV, AL FIX	DEGAA, AL WP	2700	17500
DEGAA, AL WP	HEFIN, AL FIX	3400	17500
HEFIN, AL FIX	BBAIT, GA WP	4000	17500
BBAIT, GA WP	JMPPR, GA WP	3500	17500
JMPPR, GA WP	GRANT, GA FIX	3000	17500
95.3295 RNAV ROUTE T295			
LOUIE, MD FIX	BAABS, MD WP	5000	11000
*1800 - MOCA			
BAABS, MD WP	LANCASTER, PA VOR/DME	5000	11000
*2400 - MOCA			
LANCASTER, PA VOR/DME	WILKES-BARRE, PA VORTAC	4000	17500
WILKES-BARRE, PA VORTAC	LAAYK, PA FIX	4000	17500
LAAYK, PA FIX	SAGES, NY FIX	6400	17500
SAGES, NY FIX	SASHA, MA FIX	6100	17500
SASHA, MA FIX	KEENE, NH VORTAC	3600	17500
KEENE, NH VORTAC	CONCORD, NH VOR/DME	5000	17500
CONCORD, NH VOR/DME	KENNEBUNK, ME VOR/DME	3000	17500
KENNEBUNK, ME VOR/DME	BRNNS, ME FIX	3000	17500
BRNNS, ME FIX	BANGOR, ME VORTAC	3000	17500
95.3296 RNAV ROUTE T296			
JMPPR, GA WP	BBASS, GA WP	3000	17500
BBASS, GA WP	TATRS, GA WP	2500	17500
TATRS, GA WP	TACKL, GA WP	2500	17500
95.3297 RNAV ROUTE T297			
PAIRA, GA WP	NFTRY, GA WP	3400	17500
NFTRY, GA WP	HEFIN, AL FIX	3400	17500
HEFIN, AL FIX	RKMRT, GA WP	3200	17500
RKMRT, GA WP	CHTTE, GA WP	2900	17500
CHTTE, GA WP	DAISI, GA WP	4000	17500
DAISI, GA WP	AWSON, GA FIX	5000	17500
AWSON, GA FIX	REELL, GA WP	3300	17500

FROM	TO	MEA	MAA
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95.3297 RNAV ROUTE T297 - CONTINUED

95.3298 RNAV ROUTE T298

OAKLAND, CA VOR/DME	SALAD, CA FIX	4300	17500
*4800 - MCA SALAD, CA FIX , E BND			
SALAD, CA FIX	ALTAM, CA FIX	5000	17500
*4600 - MCA ALTAM, CA FIX , W BND			
ALTAM, CA FIX	RBLEW, CA WP	4400	17500
*2700 - MCA RBLEW, CA WP , W BND			
RBLEW, CA WP	ORANG, CA FIX	1800	17500
ORANG, CA FIX	EVETT, CA WP	1800	17500
*2500 - MCA EVETT, CA WP , E BND			
EVETT, CA WP	ELKHN, CA WP	6300	17500
*7500 - MCA ELKHN, CA WP , E BND			
ELKHN, CA WP	SMURA, CA WP	9600	17500
*11700 - MCA SMURA, CA WP , E BND			
SMURA, CA WP	NIKOL, CA FIX	14600	17500
*12200 - MCA NIKOL, CA FIX , W BND			
NIKOL, CA FIX	COALDALE, NV VORTAC	11700	17500
COALDALE, NV VORTAC	KATTS, NV WP	11400	17500
KATTS, NV WP	KITTN, NV WP	13300	17500
KITTN, NV WP	WILSON CREEK, NV VORTAC	11600	17500
WILSON CREEK, NV VORTAC	WOOOP, UT WP	11900	17500
WOOOP, UT WP	MILFORD, UT VORTAC	11700	17500
MILFORD, UT VORTAC	DETAN, UT FIX	11900	17500
*12700 - MCA DETAN, UT FIX , NE BND			
DETAN, UT FIX	EBOVE, UT WP	13400	17500
EBOVE, UT WP	CARBON, UT VOR/DME	13200	17500
CARBON, UT VOR/DME	MYTON, UT VOR/DME	11700	17500
MYTON, UT VOR/DME	ROCK SPRINGS, WY VOR/DME	13700	17500
ROCK SPRINGS, WY VOR/DME	DORTN, WY WP	10500	17500
DORTN, WY WP	CRAZY WOMAN, WY VOR/DME	9300	17500

95.3299 RNAV ROUTE T299

UCREK, VA WP	KAIJE, VA WP	5000	10000
KAIJE, VA WP	BAMMY, WV WP	5500	10000
BAMMY, WV WP	REEES, PA WP	5000	10000
*4300 - MOCA			
REEES, PA WP	SCAPE, PA FIX	5000	10000
*3800 - MOCA			

95.3300 RNAV ROUTE T300

SSENA, NY WP	STANK, NY WP	4100	17500
STANK, NY WP	JONNN, NY FIX	4600	17500
JONNN, NY FIX	UUBER, NY WP	4500	17500
*5300 - MCA UUBER, NY WP , S BND			
UUBER, NY WP	OPDIE, NY WP	5800	17500
*6600 - MCA OPDIE, NY WP , S BND			
OPDIE, NY WP	GASSY, NY FIX	7500	17500
GASSY, NY FIX	OTOLE, NY FIX	4900	17500
*2800 - MCA OTOLE, NY FIX , N BND			
OTOLE, NY FIX	ALBANY, NY VORTAC	2200	17500
ALBANY, NY VORTAC	CANAN, NY FIX	3400	17500
*3600 - MCA CANAN, NY FIX , SE BND			
CANAN, NY FIX	SHIGY, MA FIX	3900	17500
SHIGY, MA FIX	STELA, MA FIX	4000	17500
STELA, MA FIX	MOLDS, MA FIX	3900	17500

FROM	TO	MEA	MAA
95.3300 RNAV ROUTE T300 - CONTINUED			
MOLDS, MA FIX	TOMES, MA FIX	3500	17500
TOMES, MA FIX	COBOL, MA FIX	3300	17500
COBOL, MA FIX	NELIE, CT FIX	3100	17500
NELIE, CT FIX	WIPOR, CT FIX	2600	17500
WIPOR, CT FIX	YANTC, CT WP	2300	17500
*1900 - MOCA			
YANTC, CT WP	LAFAY, RI FIX	2300	17500
LAFAY, RI FIX	MINNK, RI FIX	2000	17500
MINNK, RI FIX	NEWBE, RI FIX	2000	17500
*1200 - MOCA			
NEWBE, RI FIX	DEEPO, MA FIX	2000	17500
95.3301 RNAV ROUTE T301			
CAPE GIRARDEAU, MO DME	CENTRALIA, IL VORTAC	3500	17500
CENTRALIA, IL VORTAC	TYMME, IL WP	2400	17500
TYMME, IL WP	SPINNER, IL VORTAC	2500	17500
SPINNER, IL VORTAC	PEORIA, IL VORTAC	2400	17500
95.3302 RNAV ROUTE T302			
CUKIS, OR WP	JJACE, OR WP	7300	17500
JJACE, OR WP	JJETT, OR WP	8000	17500
JJETT, OR WP	JERMM, OR WP	8000	17500
JERMM, OR WP	CUPRI, OR FIX	6600	17500
*5900 - MOCA			
CUPRI, OR FIX	ZUDMI, OR WP	9000	17500
*8200 - MOCA			
ZUDMI, OR WP	DRYLD, OR WP	9100	17500
DRYLD, OR WP	WILDHORSE, OR VOR/DME	9000	17500
WILDHORSE, OR VOR/DME	JOSTN, OR WP	8100	17500
JOSTN, OR WP	UKAYI, OR WP	8000	17500
*5500 - MCA UKAYI, OR WP , SW BND			
UKAYI, OR WP	PARMO, ID FIX	5000	17500
PARMO, ID FIX	ADEXE, ID WP	5000	17500
*5400 - MCA ADEXE, ID WP , E BND			
ADEXE, ID WP	ALKAL, ID FIX	7000	17500
*6200 - MCA ALKAL, ID FIX , W BND			
ALKAL, ID FIX	FEVDO, ID WP	6000	17500
FEVDO, ID WP	TOXEE, ID FIX	6100	17500
TOXEE, ID FIX	JADUP, ID WP	7000	17500
JADUP, ID WP	MRILE, ID WP	9100	17500
*10200 - MCA MRILE, ID WP , E BND			
MRILE, ID WP	RAMMM, ID WP	11000	17500
RAMMM, ID WP	MIKAE, WY WP	11700	17500
MIKAE, WY WP	BXTER, WY WP	11700	17500
BXTER, WY WP	EEBEE, WY WP	10000	17500
*8700 - MOCA			
EEBEE, WY WP	REGVE, WY WP	10200	17500
REGVE, WY WP	ROCK SPRINGS, WY VOR/DME	10200	17500
ROCK SPRINGS, WY VOR/DME	FIKLA, WY WP	10000	17500
FIKLA, WY WP	MEDICINE BOW, WY VOR/DME	10000	17500
MEDICINE BOW, WY VOR/DME	ZIKRU, NE FIX	10000	17500
*7400 - MCA ZIKRU, NE FIX , W BND			
ZIKRU, NE FIX	SCOTTSBLUFF, NE VORTAC	6700	17500
SCOTTSBLUFF, NE VORTAC	WAKPA, NE WP	6000	17500
WAKPA, NE WP	ALLIANCE, NE VOR/DME	6000	17500
ALLIANCE, NE VOR/DME	EFFEX, NE FIX	6000	17500
EFFEX, NE FIX	MARSS, NE FIX	5400	17500

FROM	TO	MEA	MAA
95.3302 RNAV ROUTE T302 - CONTINUED			
MARSS, NE FIX	PUKFA, NE WP	4800	17500
PUKFA, NE WP	GIYED, NE FIX	4600	17500
GIYED, NE FIX	LLUKY, NE WP	3900	17500
95.3305 RNAV ROUTE T305			
CAPE GIRARDEAU, MO DME	AMART, IL WP	3300	17500
AMART, IL WP	TYMME, IL WP	2400	17500
TYMME, IL WP	DELCO, IL FIX	2400	17500
DELCO, IL FIX	JIBKA, IN WP	2400	17500
95.3306 RNAV ROUTE T306			
LOS ANGELES, CA VORTAC	PRADO, CA FIX	4000	17500
PRADO, CA FIX	PARADISE, CA VORTAC	5000	17500
PARADISE, CA VORTAC	SETER, CA FIX	5500	17500
*12100 - MCA SETER, CA FIX , E BND			
SETER, CA FIX	BANDS, CA FIX	9000	17500
BANDS, CA FIX	PALM SPRINGS, CA VORTAC	13000	17500
*11800 - MCA PALM SPRINGS, CA VORTAC , W BND			
PALM SPRINGS, CA VORTAC	BLYTHE, CA VORTAC	8000	17500
BLYTHE, CA VORTAC	BUCKEYE, AZ VORTAC	6000	17500
BUCKEYE, AZ VORTAC	PERKY, AZ FIX	5000	17500
PERKY, AZ FIX	PHOENIX, AZ VORTAC	4000	17500
PHOENIX, AZ VORTAC	TOTEC, AZ FIX	5000	17500
*5500 - MCA TOTEC, AZ FIX , E BND			
TOTEC, AZ FIX	TUCSON, AZ VORTAC	6500	17500
TUCSON, AZ VORTAC	NOCHI, AZ WP	10700	17500
NOCHI, AZ WP	ANIMA, NM FIX	10700	17500
ANIMA, NM FIX	DARCE, NM FIX	9000	17500
DARCE, NM FIX	COLUMBUS, NM VOR/DME	9000	17500
*8200 - MOCA			
COLUMBUS, NM VOR/DME	EL PASO, TX VORTAC	9000	17500
95.3310 RNAV ROUTE T310			
TUCSON, AZ VORTAC	SULLI, AZ FIX	8000	17500
*9200 - MCA SULLI, AZ FIX , E BND			
*7200 - MOCA			
SULLI, AZ FIX	MESCA, AZ FIX	10000	17500
MESCA, AZ FIX	NOCHI, AZ WP	10000	17500
NOCHI, AZ WP	SAN SIMON, AZ VORTAC	10000	17500
SAN SIMON, AZ VORTAC	SILVER CITY, NM VOR/DME	10300	17500
SILVER CITY, NM VOR/DME	KEAPS, NM FIX	10300	17500
*11600 - MCA KEAPS, NM FIX , NE BND			
KEAPS, NM FIX	TRUTH OR CONSEQUENCES, NM VORTAC	12300	17500
95.3317 RNAV ROUTE T317			
NEWMAN, TX VORTAC	MOLLY, NM FIX	8900	17500
*7700 - MCA MOLLY, NM FIX , E BND			
MOLLY, NM FIX	FRIAN, NM FIX	6800	17500
*6300 - MOCA			
FRIAN, NM FIX	DUCAS, NM FIX	7900	17500
*9200 - MCA DUCAS, NM FIX , NW BND			
DUCAS, NM FIX	TRUTH OR CONSEQUENCES, NM VORTAC	9700	17500
TRUTH OR CONSEQUENCES, NM VORTAC	SOCORRO, NM VORTAC	10100	17500
SOCORRO, NM VORTAC	YECUG, NM WP	7900	17500
YECUG, NM WP	AWASH, NM FIX	8600	17500
*8100 - MOCA			

FROM	TO	MEA	MAA
95.3317 RNAV ROUTE T317 - CONTINUED			
AWASH, NM FIX	CABZO, NM FIX	10000	17500
CABZO, NM FIX	TANER, NM FIX	10300	17500
TANER, NM FIX	MISSY, NM FIX	9600	17500
MISSY, NM FIX	RATTLESNAKE, NM VORTAC	8900	17500
RATTLESNAKE, NM VORTAC	RIZAL, CO FIX	8900	17500
*10000 - MCA RIZAL, CO FIX , N BND			
RIZAL, CO FIX	MANCA, CO FIX	11200	17500
MANCA, CO FIX	GRAND JUNCTION, CO VOR/DME	12200	17500
*10800 - MCA GRAND JUNCTION, CO VOR/DME , SE BND			
GRAND JUNCTION, CO VOR/DME	TESSY, CO FIX	10100	17500
*10700 - MCA TESSY, CO FIX , N BND			
TESSY, CO FIX	RACER, CO FIX	11300	17500
RACER, CO FIX	RENAE, CO FIX	10800	17500
RENAE, CO FIX	ROCK SPRINGS, WY VOR/DME	11900	17500
*10200 - MCA ROCK SPRINGS, WY VOR/DME , S BND			
ROCK SPRINGS, WY VOR/DME	SWEAT, WY FIX	10000	17500
SWEAT, WY FIX	HONOX, WY FIX	10000	17500
HONOX, WY FIX	RIVERTON, WY VOR/DME	8300	17500
*7800 - MOCA			
RIVERTON, WY VOR/DME	FETIK, WY FIX	7500	17500
*8800 - MCA FETIK, WY FIX , N BND			
*7500 - MOCA			
FETIK, WY FIX	CRANY, WY FIX	9800	17500
CRANY, WY FIX	PECKK, WY FIX	7900	17500
PECKK, WY FIX	PRYER, MT FIX	11100	17500
*9900 - MCA PRYER, MT FIX , S BND			
PRYER, MT FIX	BILLINGS, MT VORTAC	7500	17500
BILLINGS, MT VORTAC	TASSE, MT FIX	6200	17500
TASSE, MT FIX	JUGAP, MT FIX	6800	17500
*8400 - MCA JUGAP, MT FIX , NW BND			
JUGAP, MT FIX	ZERZO, MT FIX	9700	17500
ZERZO, MT FIX	AUBBY, MT WP	10500	17500
*8300 - MCA AUBBY, MT WP , E BND			
AUBBY, MT WP	GREAT FALLS, MT VORTAC	6500	17500
GREAT FALLS, MT VORTAC	TUCKB, MT FIX	7000	17500
TUCKB, MT FIX	ROSOE, MT FIX	7600	17500
*7600 - MOCA			
ROSOE, MT FIX	PREEL, MT WP	8600	17500
*10200 - MCA PREEL, MT WP , SW BND			
PREEL, MT WP	KUNZY, MT WP	11200	17500
KUNZY, MT WP	OCEDA, MT FIX	9600	17500
*9100 - MOCA			
OCEDA, MT FIX	MISSOULA, MT VOR/DME	10100	17500
MISSOULA, MT VOR/DME	JIROS, MT FIX	9500	17500
JIROS, MT FIX	OFINO, ID FIX	9800	17500
OFINO, ID FIX	NEZ PERCE, ID VOR/DME	6100	17500
NEZ PERCE, ID VOR/DME	POTOR, WA FIX	6100	17500
*5600 - MOCA			
POTOR, WA FIX	RENGO, WA FIX	7200	17500
RENGO, WA FIX	BUTOC, WA FIX	6400	17500
BUTOC, WA FIX	BACUN, WA FIX	4500	17500
BACUN, WA FIX	PASCO, WA VOR/DME	3300	17500
PASCO, WA VOR/DME	NIALS, WA FIX	2900	17500
*3300 - MCA NIALS, WA FIX , NW BND			
NIALS, WA FIX	FEBUS, WA FIX	4900	17500
FEBUS, WA FIX	MERFF, WA WP	6200	17500
MERFF, WA WP	THICK, WA FIX	7900	17500
*7200 - MOCA			
THICK, WA FIX	RADDY, WA FIX	8700	17500

FROM	TO	MEA	MAA
95.3317 RNAV ROUTE T317 - CONTINUED			
RADDY, WA FIX	MOUNT, WA FIX	8400	17500
MOUNT, WA FIX	COFAY, WA WP	7700	17500
*4600 - MCA COFAY, WA WP , E BND			
COFAY, WA WP	FESAS, WA WP	2000	17500
FESAS, WA WP	OZEYO, WA FIX	3000	17500
*3800 - MCA OZEYO, WA FIX , SW BND			
*2500 - MOCA			
OZEYO, WA FIX	CETUV, WA FIX	4700	17500
CETUV, WA FIX	HEVOL, WA FIX	5200	17500
HEVOL, WA FIX	ASTORIA, OR VOR/DME	4800	17500
*4300 - MOCA			
95.3319 RNAV ROUTE T319			
CCLAY, GA WP	DUNCS, GA WP	2700	17500
DUNCS, GA WP	SHURT, GA WP	2700	17500
SHURT, GA WP	KLOWD, GA WP	3100	17500
KLOWD, GA WP	BLEWW, GA WP	3100	17500
95.3321 RNAV ROUTE T321			
BBOAT, GA WP	TACKL, GA WP	2500	17500
TACKL, GA WP	REELL, GA WP	2600	17500
REELL, GA WP	BIGNN, GA WP	3700	17500
95.3323 RNAV ROUTE T323			
CROCS, GA WP	BOBBR, GA WP	2300	17500
BOBBR, GA WP	BIGNN, GA WP	2700	17500
BIGNN, GA WP	ZPPLN, NC WP	7000	17500
ZPPLN, NC WP	HIGGI, NC WP	7400	17500
HIGGI, NC WP	KIDBE, TN WP	7700	17500
*5900 - MCA KIDBE, TN WP , S BND			
KIDBE, TN WP	ZADOT, TN WP	4100	17500
*5000 - MCA ZADOT, TN WP , N BND			
ZADOT, TN WP	WELLA, KY WP	5100	17500
WELLA, KY WP	HAZARD, KY DME	3700	17500
*3800 - MCA WELLA, KY WP , S BND			
95.3325 RNAV ROUTE T325			
BOWLING GREEN, KY DME	RENRO, KY WP	4500	17500
*2400 - MOCA			
RENRO, KY WP	LOONE, KY WP	4500	17500
*2100 - MOCA			
LOONE, KY WP	APALO, IN FIX	4500	17500
*2100 - MOCA			
APALO, IN FIX	BUNKA, IN FIX	2500	17500
BUNKA, IN FIX	TERRE HAUTE, IN VORTAC	2400	17500
95.3326 RNAV ROUTE T326			
MISSION BAY, CA VORTAC	HAILE, CA FIX	3800	17500
HAILE, CA FIX	BLLYJ, CA WP	6400	17500
BLLYJ, CA WP	STAXS, CA WP	8000	17500
STAXS, CA WP	GILYY, CA WP	8600	17500
GILYY, CA WP	KUMBA, CA FIX	8600	17500
KUMBA, CA FIX	IMPERIAL, CA VORTAC	4700	17500
95.3328 RNAV ROUTE T328			
ORCUS, WA FIX	MADEE, WA WP	2000	17500
*4800 - MCA MADEE, WA WP , E BND			

FROM	TO	MEA	MAA
95.3328 RNAV ROUTE T328 - CONTINUED			
MADEE, WA WP	BOCAT, WA FIX	6000	17500
BOCAT, WA FIX	BJAAY, WA WP	6300	17500
*8100 - MCA BJAAY, WA WP , E BND			
BJAAY, WA WP	CREEB, WA FIX	9000	17500
*10200 - MCA CREEB, WA FIX , E BND			
CREEB, WA FIX	ROZSE, WA WP	11000	17500
*11300 - MCA ROZSE, WA WP , E BND			
ROZSE, WA WP	KRUZR, WA FIX	11700	17500
KRUZR, WA FIX	STRDP, WA WP	10800	17500
*8800 - MCA STRDP, WA WP , W BND			
STRDP, WA WP	KLSEY, WA WP	7600	17500
*6700 - MCA KLSEY, WA WP , W BND			
KLSEY, WA WP	SINGG, WA WP	5000	17500
*6200 - MCA SINGG, WA WP , E BND			
SINGG, WA WP	ROZTY, WA WP	7000	17500
ROZTY, WA WP	PRRKS, WA WP	7400	17500
PRRKS, WA WP	DAINA, WA WP	7500	17500
DAINA, WA WP	INOBE, ID FIX	7300	17500
INOBE, ID FIX	RNDDY, ID WP	7700	17500
*8600 - MCA RNDDY, ID WP , E BND			
RNDDY, ID WP	KAPPN, MT WP	11000	17500
*10200 - MCA KAPPN, MT WP , W BND			
KAPPN, MT WP	KARSH, MT WP	8800	17500
95.3329 RNAV ROUTE T329			
MORRO BAY, CA VORTAC	PASO ROBLES, CA VORTAC	5000	17500
PASO ROBLES, CA VORTAC	LKHRN, CA WP	5900	17500
LKHRN, CA WP	PANOCH, CA VORTAC	6900	17500
PANOCH, CA VORTAC	MKNNA, CA WP	6400	17500
MKNNA, CA WP	OXJEF, CA WP	6400	17500
*1600 - MOCA			
OXJEF, CA WP	TIPRE, CA WP	2700	17500
TIPRE, CA WP	OLIPH, CA WP	2700	17500
OLIPH, CA WP	HNNRY, CA WP	2400	17500
HNNRY, CA WP	ROWWN, CA WP	1800	17500
*3200 - MCA ROWWN, CA WP , W BND			
ROWWN, CA WP	RAGGS, CA FIX	5100	17500
RAGGS, CA FIX	POPES, CA FIX	4900	17500
POPES, CA FIX	NACKI, CA WP	5900	17500
95.3330 RNAV ROUTE T330			
GRAND FORKS, ND VOR/DME	BYZIN, MN WP	3900	17500
*2500 - MOCA			
BYZIN, MN WP	TAMMR, MN WP	3900	17500
*3000 - MOCA			
TAMMR, MN WP	WATAM, MN WP	3900	17500
*2900 - MOCA			
WATAM, MN WP	MAFLN, MN WP	3900	17500
*2900 - MOCA			
MAFLN, MN WP	DAYLE, MN FIX	3900	17500
*3000 - MOCA			
DAYLE, MN FIX	GOPHER, MN VORTAC	4000	17500
*3500 - MOCA			
95.3331 RNAV ROUTE T331			
FRAME, CA FIX	NTELL, CA WP	2000	17500

FROM	TO	MEA	MAA
95.3331 RNAV ROUTE T331 - CONTINUED			
NTELL, CA WP	MKNNA, CA WP	2300	17500
MKNNA, CA WP	KARNN, CA FIX	4700	17500
KARNN, CA FIX	VINCO, CA FIX	6600	17500
VINCO, CA FIX	NORCL, CA WP	6300	17500
NORCL, CA WP	MOVDD, CA WP	6000	17500
*5000 - MCA MOVDD, CA WP , SW BND			
MOVDD, CA WP	EVETT, CA WP	3500	17500
EVETT, CA WP	TIPRE, CA WP	2700	17500
TIPRE, CA WP	ESSO, CA WP	6300	17500
*7800 - MCA ESSO, CA WP , NE BND			
ESSO, CA WP	SQUAW VALLEY, CA VOR/DME	11200	17500
SQUAW VALLEY, CA VOR/DME	TRUCK, CA FIX	11200	17500
TRUCK, CA FIX	MUSTANG, NV VORTAC	11600	17500
MUSTANG, NV VORTAC	HIXUP, NV WP	10300	17500
HIXUP, NV WP	LOVELOCK, NV VORTAC	9300	17500
LOVELOCK, NV VORTAC	CUTVA, NV FIX	10500	17500
*11900 - MCA CUTVA, NV FIX , E BND			
CUTVA, NV FIX	BATTLE MOUNTAIN, NV VORTAC	11900	17500
BATTLE MOUNTAIN, NV VORTAC	PARZZ, NV WP	10900	17500
PARZZ, NV WP	DRYAD, ID FIX	10700	17500
DRYAD, ID FIX	TULIE, ID WP	11400	17500
TULIE, ID WP	AMFAL, ID WP	8300	17500
AMFAL, ID WP	POCATELLO, ID VOR/DME	8300	17500
POCATELLO, ID VOR/DME	VIPUC, ID FIX	7700	17500
VIPUC, ID FIX	IDAHO FALLS, ID VOR/DME	7100	17500
IDAHO FALLS, ID VOR/DME	PULTE, ID FIX	7100	17500
PULTE, ID FIX	SABAT, ID FIX	7600	17500
SABAT, ID FIX	WAHNZ, ID WP	9900	17500
WAHNZ, ID WP	BUFVO, WY WP	11700	17500
BUFVO, WY WP	SPECT, MT WP	14900	17500
*13400 - MCA SPECT, MT WP , SW BND			
SPECT, MT WP	BILLINGS, MT VORTAC	8300	17500
BILLINGS, MT VORTAC	TRUED, MT WP	6100	17500
TRUED, MT WP	EXADE, MT FIX	5900	17500
EXADE, MT FIX	JEKOK, ND WP	4400	17500
JEKOK, ND WP	FONIA, ND FIX	4000	17500
95.3332 RNAV ROUTE T332			
ZONUV, WA WP	CRNEL, WA WP	6100	17500
*4600 - MOCA			
CRNEL, WA WP	AALIX, WA WP	7200	17500
AALIX, WA WP	BAALE, WA WP	8500	17500
*9400 - MCA BAALE, WA WP , E BND			
BAALE, WA WP	SNNDY, WA WP	10000	17500
*9500 - MOCA			
SNNDY, WA WP	COADY, WA WP	10400	17500
COADY, WA WP	DYNGO, WA WP	10600	17500
DYNGO, WA WP	METOO, WA WP	10400	17500
*9500 - MCA METOO, WA WP , W BND			
METOO, WA WP	HVAR, WA WP	7900	17500
HVAR, WA WP	REPII, WA WP	7000	17500
REPII, WA WP	ROZTY, WA WP	7000	17500
95.3333 RNAV ROUTE T333			
FELLOWS, CA VOR/DME	REDDE, CA WP	7300	17500
REDDE, CA WP	LKHRN, CA WP	5800	17500
LKHRN, CA WP	RANCK, CA FIX	6700	17500
*6200 - MCA RANCK, CA FIX , SE BND			

FROM	TO	MEA	MAA
95.3333 RNAV ROUTE T333 - CONTINUED			
RANCK, CA FIX	PANOS, CA FIX	6200	17500
*5500 - MCA PANOS, CA FIX , SE BND			
PANOS, CA FIX	ULENY, CA WP	5200	17500
*4500 - MCA ULENY, CA WP , SE BND			
ULENY, CA WP	HENCE, CA FIX	4300	17500
HENCE, CA FIX	GILRO, CA FIX	4700	17500
GILRO, CA FIX	BORED, CA FIX	6100	17500
BORED, CA FIX	SMONE, CA WP	6100	17500
SMONE, CA WP	OOWEN, CA WP	5700	17500
*4200 - MCA OOWEN, CA WP , S BND			
OOWEN, CA WP	EVETT, CA WP	2300	17500
EVETT, CA WP	TIPRE, CA WP	2700	17500
95.3336 RNAV ROUTE T336			
TROYR, FL WP	OMMNI, FL WP	2500	17500
OMMNI, FL WP	PUNQU, FL WP	2000	17500
PUNQU, FL WP	YOJIX, FL FIX	2200	17500
YOJIX, FL FIX	YONMA, FL FIX	2200	17500
YONMA, FL FIX	ODDEL, FL FIX	1800	17500
*2700 - MCA ODDEL, FL FIX , E BND			
ODDEL, FL FIX	DEARY, FL FIX	2700	17500
DEARY, FL FIX	WIXED, FL WP	1800	17500
95.3337 RNAV ROUTE T337			
SWENY, FL WP	RISKS, FL WP	2000	17500
RISKS, FL WP	WEZER, FL WP	2000	17500
95.3338 RNAV ROUTE T338			
DSIRE, NV WP	LNDIN, NV WP	7200	17500
LNDIN, NV WP	WYLND, NV WP	6600	17500
WYLND, NV WP	BOEGY, AZ WP	7700	17500
95.3339 RNAV ROUTE T339			
KARTR, FL FIX	DEEDS, FL FIX	1700	17500
DEEDS, FL FIX	SWAGS, FL FIX	1700	17500
SWAGS, FL FIX	ZAGPO, FL WP	1700	17500
ZAGPO, FL WP	DIDDY, FL FIX	1700	17500
DIDDY, FL FIX	ODDEL, FL FIX	2700	17500
95.3341 RNAV ROUTE T341			
MEAGN, FL WP	ZAGPO, FL WP	1700	17500
ZAGPO, FL WP	CUSEK, FL WP	1700	17500
CUSEK, FL WP	WEZER, FL WP	2000	17500
WEZER, FL WP	VARZE, FL WP	2000	17500
VARZE, FL WP	MARQO, FL WP	2100	12000
95.3343 RNAV ROUTE T343			
WORPP, FL FIX	CUSEK, FL WP	1800	17500
CUSEK, FL WP	FEBRO, FL WP	1800	17500
FEBRO, FL WP	TAHRS, FL WP	2000	17500
TAHRS, FL WP	YOJIX, FL FIX	2000	17500
YOJIX, FL FIX	YONMA, FL FIX	2200	17500
YONMA, FL FIX	ODDEL, FL FIX	1800	17500
*2700 - MCA ODDEL, FL FIX , E BND			

FROM	TO	MEA	MAA
95.3343 RNAV ROUTE T343 - CONTINUED			
ODDEL, FL FIX	DEARY, FL FIX	2700	17500
DEARY, FL FIX	INDIA, FL FIX	1800	17500
95.3345 RNAV ROUTE T345			
MARKT, FL WP	AIRBT, FL WP	1700	17500
AIRBT, FL WP	DOWDI, FL WP	1700	17500
DOWDI, FL WP	LLNCH, FL FIX	1800	17500
LLNCH, FL FIX	DEARY, FL FIX	1800	17500
95.3347 RNAV ROUTE T347			
CLEFF, FL WP	BAIRN, FL FIX	1800	17500
BAIRN, FL FIX	SABOT, FL FIX	1800	17500
SABOT, FL FIX	CROPY, FL FIX	1800	17500
CROPY, FL FIX	KIZER, FL FIX	1800	17500
KIZER, FL FIX	GUANO, FL FIX	1800	17500
GUANO, FL FIX	MRUTT, FL WP	1800	17500
MRUTT, FL WP	FOXAM, FL WP	1800	17500
FOXAM, FL WP	SEBAG, FL FIX	1700	17500
95.3348 RNAV ROUTE T348			
BRAIN, MN FIX	GRSIS, MN WP	3500	
GRSIS, MN WP	FOOLS, MN WP	3200	17500
FOOLS, MN WP	GABDE, MN WP	3100	17500
GABDE, MN WP	KRRTR, IA WP	3200	17500
KRRTR, IA WP	MADISON, WI VORTAC	3000	17500
MADISON, WI VORTAC	LUNGS, WI WP	2800	17500
95.3349 RNAV ROUTE T349			
VARZE, FL WP	TROYR, FL WP	1900	17500
95.3353 RNAV ROUTE T353			
FEBRO, FL WP	MOANS, FL FIX	1900	17500
MOANS, FL FIX	PUNQU, FL WP	1900	17500
PUNQU, FL WP	AKOJO, FL WP	2000	17500
AKOJO, FL WP	DAIYL, FL WP	1800	17500
DAIYL, FL WP	EMSEE, FL WP	1900	17500
EMSEE, FL WP	KIZER, FL FIX	1800	17500
KIZER, FL FIX	GUANO, FL FIX	1800	17500
GUANO, FL FIX	MRUTT, FL WP	1800	17500
MRUTT, FL WP	FOXAM, FL WP	1800	17500
FOXAM, FL WP	ASTOR, FL FIX	1700	17500
95.3354 RNAV ROUTE T354			
BYZIN, MN WP	PARK RAPIDS, MN DME	3600	17500
PARK RAPIDS, MN DME	BRNRD, MN WP	3300	17500
BRNRD, MN WP	SSKYY, WI WP	3000	17500
SSKYY, WI WP	TONOC, WI FIX	3000	17500
TONOC, WI FIX	KOETZ, WI WP	3000	17500
KOETZ, WI WP	HRMNN, WI WP	3500	17500
HRMNN, WI WP	FOMAG, WI WP	3000	17500
FOMAG, WI WP	MAYSE, WI WP	3000	17500
MAYSE, WI WP	HOMRC, IL WP	3000	17500
HOMRC, IL WP	CPTON, IL WP	2600	17500

FROM	TO	MEA	MAA
95.3354 RNAV ROUTE T354 - CONTINUED			
CPTON, IL WP	BLLUE, IL FIX	2700	17500
BLLUE, IL FIX	BOSTN, IL WP	2800	17500
BOSTN, IL WP	BIBLE GROVE, IL VORTAC	2500	17500
BIBLE GROVE, IL VORTAC	CUNNINGHAM, KY VOR/DME	2500	17500
95.3355 RNAV ROUTE T355			
FOLDS, CA FIX	DIMGE, CA WP	11200	17500
*9600 - MCA DIMGE, CA WP , S BND			
DIMGE, CA WP	GRENA, CA FIX	7600	17500
*6300 - MOCA			
GRENA, CA FIX	ROMAE, CA FIX	9000	17500
ROMAE, CA FIX	TALEM, OR FIX	9700	17500
*9200 - MCA TALEM, OR FIX , SE BND			
TALEM, OR FIX	SAMIE, OR FIX	7800	17500
SAMIE, OR FIX	BROKN, OR FIX	6900	17500
BROKN, OR FIX	KINZY, OR WP	8900	17500
KINZY, OR WP	SSTRS, OR WP	9800	17500
SSTRS, OR WP	OCTAD, OR FIX	8300	17500
*7100 - MCA OCTAD, OR FIX , S BND			
*7700 - MOCA			
OCTAD, OR FIX	HERBS, OR FIX	6900	17500
HERBS, OR FIX	WISSL, OR WP	6400	17500
WISSL, OR WP	JJETT, OR WP	7700	17500
JJETT, OR WP	PUTZZ, OR WP	7700	17500
PUTZZ, OR WP	GLARA, OR FIX	7300	17500
*5100 - MCA GLARA, OR FIX , E BND			
GLARA, OR FIX	CANBY, OR FIX	3500	17500
*2800 - MOCA			
CANBY, OR FIX	KKARP, OR WP	5300	17500
KKARP, OR WP	CETUV, WA FIX	5300	17500
CETUV, WA FIX	ZOLGI, WA FIX	4900	17500
ZOLGI, WA FIX	WUMOX, WA FIX	3400	17500
*3100 - MCA WUMOX, WA FIX , S BND			
WUMOX, WA FIX	PENN COVE, WA VOR/DME	3000	17500
PENN COVE, WA VOR/DME	ZONUV, WA WP	3000	17500
ZONUV, WA WP	UCAKI, WA WP	3000	17500
UCAKI, WA WP	SECOG, WA FIX	2300	17500
95.3356 RNAV ROUTE T356			
WOOLY, MD FIX	DROSA, MD WP	6000	17500
*6000 - MCA WOOLY, MD FIX , SE BND			
*3100 - MOCA			
DROSA, MD WP	OBWON, MD WP	6000	17500
*2600 - MOCA			
OBWON, MD WP	SWANN, MD FIX	6000	17500
*1800 - MOCA			
SWANN, MD FIX	GATBY, MD FIX	6000	17500
*6000 - MCA GATBY, MD FIX , SW BND			
*1500 - MOCA			
GATBY, MD FIX	KERNO, MD FIX	4000	17500
*1400 - MOCA			
KERNO, MD FIX	ODESA, MD FIX	4000	17500
*1500 - MOCA			
ODESA, MD FIX	ELUDE, MD FIX	4000	17500
*4000 - MCA ELUDE, MD FIX , S BND			
*1800 - MOCA			
95.3357 RNAV ROUTE T357			
KONNG, NV WP	DICSA, NV FIX	7600	17500

FROM	TO	MEA	MAA
95.3357 RNAV ROUTE T357 - CONTINUED			
DICSA, NV FIX	WANDR, NV WP	7600	17500
WANDR, NV WP	DSIRE, NV WP	6900	17500
95.3358 RNAV ROUTE T358			
MARTINSBURG, WV VORTAC	CPTAL, MD WP	5000	17500
*3800 - MOCA			
CPTAL, MD WP	HOGZZ, MD WP	5000	17500
*4300 - MOCA			
HOGZZ, MD WP	MOYRR, MD WP	5000	17500
*3200 - MOCA			
MOYRR, MD WP	DANII, MD WP	6000	17500
*3100 - MOCA			
DANII, MD WP	OBWON, MD WP	6000	17500
*2600 - MOCA			
OBWON, MD WP	SWANN, MD FIX	6000	17500
*1800 - MOCA			
SWANN, MD FIX	GOLDA, MD FIX	1800	17500
*1500 - MOCA			
GOLDA, MD FIX	BROSS, MD FIX	1800	17500
*1500 - MOCA			
BROSS, MD FIX	SMYRNA, DE VORTAC	1800	17500
*1500 - MOCA			
SMYRNA, DE VORTAC	LEEAH, NJ FIX	1800	17500
*1400 - MOCA			
LEEAH, NJ FIX	AVALO, NJ FIX	1800	17500
*1600 - MOCA			
95.3359 RNAV ROUTE T359			
DANBY, CA FIX	WOPMA, CA FIX	10500	17500
WOPMA, CA FIX	DICSA, NV FIX	8300	17500
DICSA, NV FIX	RAATT, NV WP	7600	17500
RAATT, NV WP	DSIRE, NV WP	6300	17500
95.3361 RNAV ROUTE T361			
BOEGY, AZ WP	PUTTT, AZ WP	7000	17500
PUTTT, AZ WP	DICSA, NV FIX	7600	17500
DICSA, NV FIX	WANDR, NV WP	7600	17500
WANDR, NV WP	LNDIN, NV WP	6300	17500
LNDIN, NV WP	SHIEK, NV WP	7700	17500
SHIEK, NV WP	MORMON MESA, NV VORTAC	7600	17500
*5900 - MOCA			
95.3363 RNAV ROUTE T363			
DICSA, NV FIX	PUTTT, AZ WP	7600	17500
PUTTT, AZ WP	SHIEK, NV WP	7600	17500
SHIEK, NV WP	MORMON MESA, NV VORTAC	7600	17500
*5900 - MOCA			
95.3383 RNAV ROUTE T383			
GOPHER, MN VORTAC	BRNRD, MN WP	3600	17500
*3100 - MOCA			
BRNRD, MN WP	BLUOX, MN FIX	3900	17500
*3400 - MOCA			
BLUOX, MN FIX	BAUDETTE, MN DME	3500	17500

FROM	TO	MEA	MAA
95.3391 RNAV ROUTE T391			
TUMPS, NY FIX	SYRACUSE, NY VORTAC	3400	17500
SYRACUSE, NY VORTAC	PAGER, NY FIX	2300	17500
PAGER, NY FIX	BRUIN, NY FIX	2600	17500
BRUIN, NY FIX	WATERTOWN, NY VORTAC	2600	17500
WATERTOWN, NY VORTAC	WILRD, NY FIX	2300	17500
WILRD, NY FIX	LETUS, NY FIX	2300	17500
LETUS, NY FIX	SSENA, NY WP	2200	17500
95.3393 RNAV ROUTE T393			
GAILS, MA FIX	INNDY, MA FIX	2000	17500
INNDY, MA FIX	PROVIDENCE, RI VOR/DME	2000	17500
PROVIDENCE, RI VOR/DME	FOSTY, RI FIX	2400	17500
FOSTY, RI FIX	PUTNM, CT WP	2500	17500
PUTNM, CT WP	GRIPE, MA FIX	2600	17500
GRIPE, MA FIX	GARDNER, MA VOR/DME	3100	17500
GARDNER, MA VOR/DME	KEYNN, NH WP	3500	17500
KEYNN, NH WP	STRUM, NH FIX	3500	17500
STRUM, NH FIX	UNKER, NH WP	3800	17500
*4200 - MCA UNKER, NH WP , N BND			
UNKER, NH WP	MCADM, NH WP	5000	17500
MCADM, NH WP	LBNON, NH WP	4100	17500
LBNON, NH WP	ZIECH, VT WP	4000	17500
*4100 - MCA ZIECH, VT WP , N BND			
ZIECH, VT WP	DAVID, VT WP	4600	17500
DAVID, VT WP	MONTPELIER, VT VOR/DME	4700	17500
MONTPELIER, VT VOR/DME	CEVIB, VT FIX	5200	17500
CEVIB, VT FIX	POROE, VT WP	5200	17500
*5700 - MCA POROE, VT WP , NW BND			
POROE, VT WP	BURLINGTON, VT VOR/DME	6300	17500
95.3395 RNAV ROUTE T395			
CONCORD, NH VOR/DME	YECKA, NH FIX	3300	17500
*3700 - MCA YECKA, NH FIX , NE BND			
YECKA, NH FIX	GRUMP, NH FIX	4000	17500
*4600 - MCA GRUMP, NH FIX , NE BND			
GRUMP, NH FIX	LAROE, NH FIX	5200	17500
LAROE, NH FIX	NOTTY, NH FIX	5400	17500
NOTTY, NH FIX	WYLIE, NH FIX	5900	17500
WYLIE, NH FIX	JOBBY, NH WP	6300	17500
*6200 - MCA JOBBY, NH WP , S BND			
JOBBY, NH WP	BRLIN, NH WP	5800	17500
95.3608 RNAV ROUTE T608			
WOZEE, NY WP	U.S. CANADIAN BORDER	3000	17500
*2400 - MOCA			
U.S. CANADIAN BORDER	HOCKE, MI WP	3500	17500
*2900 - MOCA			
95.3616 RNAV ROUTE T616			
FLINT, MI VORTAC	URSSA, MI WP	2500	17500
URSSA, MI WP	HOCKE, MI WP	2800	17500
HOCKE, MI WP	U.S. CANADIAN BORDER	6000	17500
*2100 - MOCA			
95.3705 RNAV ROUTE T705			
UTICA, NY VORTAC	USICI, NY FIX	3900	17500

FROM	TO	MEA	MAA
95.3705 RNAV ROUTE T705 - CONTINUED			
USICI, NY FIX	GACKE, NY FIX	4100	17500
GACKE, NY FIX	BECKS, NY FIX	5200	17500
BECKS, NY FIX	SMAIR, NY FIX	5400	17500
SMAIR, NY FIX	FOSYU, NY FIX	5300	17500
FOSYU, NY FIX	SARANAC LAKE, NY VOR/DME	5400	17500
SARANAC LAKE, NY VOR/DME	RIGID, NY FIX	5400	17500
RIGID, NY FIX	PBERG, NY WP	4800	17500
PBERG, NY WP	LATTS, NY WP	3900	17500
*3700 - MCA LATTS, NY WP , S BND			
LATTS, NY WP	U.S. CANADIAN BORDER	3400	17500
95.3781 RNAV ROUTE T781			
FLINT, MI VORTAC	KATTY, MI FIX	3000	17500
*2300 - MOCA			
KATTY, MI FIX	HANKY, MI WP	4000	17500
*2900 - MOCA			
HANKY, MI WP	ADRIE, MI WP	4000	17500
*2800 - MOCA			
ADRIE, MI WP	MARGN, MI FIX	4000	17500
*2800 - MOCA			
MARGN, MI FIX	BLUEZ, MI WP	4000	17500
*2800 - MOCA			
BLUEZ, MI WP	U.S. CANADIAN BORDER	4000	17500
*2800 - MOCA			
TK502 RNAV ROUTE TK502			
WESTMINSTER, MD VORTAC	TAYLO, MD WP	2700	17500
TAYLO, MD WP	WINGO, PA WP	2500	17500
*2000 - MOCA			
WINGO, PA WP	SINON, PA WP	2400	17500
SINON, PA WP	GRIBL, PA WP	2400	17500
GRIBL, PA WP	TOLAN, NJ WP	2100	17500
TOLAN, NJ WP	BALDE, NY WP	2100	17500
*1500 - MOCA			
BALDE, NY WP	SPATE, NY WP	2100	17500
*1400 - MOCA			
SPATE, NY WP	DECKR, NY WP	2900	17500
TK504 RNAV ROUTE TK504			
RUSEY, MD WP	CIDOB, MD WP	1800	17500
*1500 - MOCA			
CIDOB, MD WP	HAMOR, PA WP	2300	17500
HAMOR, PA WP	ARCUM, PA WP	2300	17500
*2000 - MOCA			
ARCUM, PA WP	TULLY, PA WP	2600	17500
TULLY, PA WP	BORKE, NJ FIX	2000	17500
BORKE, NJ FIX	BANKA, NJ WP	2000	17500

FROM	TO	MEA	MAA
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§95.4000 HIGH ALTITUDE RNAV ROUTES

95.4001 RNAV ROUTE Q1

POINT REYES, CA VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	ETCHY, CA WP	*24000	45000
ETCHY, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TOCOS, CA WP	*24000	45000
TOCOS, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ENVIE, CA WP	*24000	45000
ENVIE, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ELENN, CA WP	*24000	45000
ELENN, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	EBINY, OR WP	*24000	45000
EBINY, OR WP *18000 - GNSS MEA *DME/DME/IRU MEA	EASON, OR WP	*24000	45000
EASON, OR WP *18000 - GNSS MEA *DME/DME/IRU MEA	ERAVE, WA WP	*24000	45000
ERAVE, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ELMAA, WA FIX	*24000	45000

95.4002 RNAV ROUTE Q2

BOILE, CA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HEDVI, AZ WP	*24000	45000
HEDVI, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	HOBOL, AZ WP	*24000	45000
HOBOL, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	ITUCO, AZ WP	*24000	45000
ITUCO, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	NEWMAN, TX VORTAC	*26000	45000

95.4003 RNAV ROUTE Q3

FEPOT, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	POINT REYES, CA VOR/DME	*24000	45000
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95.4004 RNAV ROUTE Q4

BOILE, CA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SKTTR, AZ WP	*24000	45000
SKTTR, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	EL PASO, TX VORTAC	*26000	45000

FROM	TO	MEA	MAA
95.4005 RNAV ROUTE Q5			
HAROB, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	STIKM, CA WP	*26000	45000
95.4006 RNAV ROUTE Q6			
TALKEETNA, AK VOR/DME *GNSS REQUIRED	BARROW, AK VOR/DME	*18000	45000
95.4007 RNAV ROUTE Q7			
JINMO, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JOGEN, OR WP	*24000	45000
JOGEN, OR WP *18000 - GNSS MEA *DME/DME/IRU MEA	JUNEJ, CA WP	*24000	45000
JUNEJ, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAGWA, CA WP	*24000	45000
JAGWA, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	AVENAL, CA VOR/DME	*24000	45000
95.4008 RNAV ROUTE Q8			
GALENA, AK VOR/DME *GNSS REQUIRED	ANCHORAGE, AK VOR/DME	*18000	45000
95.4009 RNAV ROUTE Q9			
SUMMA, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DERBB, CA FIX	*24000	45000
95.4010 RNAV ROUTE Q10			
KUKULIAK, AK VOR/DME *GNSS REQUIRED	EMMONAK, AK VOR/DME	*18000	45000
95.4011 RNAV ROUTE Q11			
PAAGE, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	LOS ANGELES, CA VORTAC	*26000	45000
95.4012 RNAV ROUTE Q12			
KOTZEBUE, AK VOR/DME *GNSS REQUIRED	DEADHORSE, AK VOR/DME	*18000	45000
95.4013 RNAV ROUTE Q13			
EL PASO, TX VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	VERNO, AZ FIX	*24000	45000
VERNO, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	NABOB, AZ FIX	*24000	45000

FROM	TO	MEA	MAA
95.4013 RNAV ROUTE Q13 - CONTINUED			
NABOB, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DRAKE, AZ VORTAC	*24000	45000
DRAKE, AZ VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	WOTRO, AZ FIX	*24000	45000
WOTRO, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PRFUM, AZ FIX	*24000	45000
PRFUM, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HOUZZ, NV WP	*24000	45000
HOUZZ, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	FUULL, NV WP	*25000	45000
FUULL, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	SKANN, NV WP	*25000	45000
SKANN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	LOMIA, NV WP	*25000	45000
LOMIA, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	RUFUS, CA WP	*25000	45000
RUFUS, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	PAWLI, OR WP	*25000	45000
95.4014 RNAV ROUTE Q14			
KODIAK, AK VOR/DME *GNSS REQUIRED	JOHNSTONE POINT, AK VOR/DME	*18000	45000
95.4015 RNAV ROUTE Q15			
CHILY, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DOVEE, NV FIX	*24000	45000
DOVEE, NV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SOTOO, NV WP	*24000	45000
SOTOO, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	HOUZZ, NV WP	*24000	45000
HOUZZ, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	FUULL, NV WP	*25000	45000
FUULL, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	SKANN, NV WP	*25000	45000
SKANN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	LOMIA, NV WP	*25000	45000
95.4016 RNAV ROUTE Q16			
KODIAK, AK VOR/DME *GNSS REQUIRED	MIDDLETON ISLAND, AK VOR/DME	*18000	45000
MIDDLETON ISLAND, AK VOR/DME *GNSS REQUIRED	YAKUTAT, AK VOR/DME	*18000	45000

FROM	TO	MEA	MAA
95.4017 RNAV ROUTE Q17			
HOMER, AK VOR/DME *GNSS REQUIRED	MIDDLETON ISLAND, AK VOR/DME	*18000	45000
95.4018 RNAV ROUTE Q18			
GALENA, AK VOR/DME *GNSS REQUIRED	BARROW, AK VOR/DME	*18000	45000
95.4019 RNAV ROUTE Q19			
NASHVILLE, TN VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	PLESS, IL FIX	*18000	45000
PLESS, IL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ST LOUIS, MO VORTAC	*18000	45000
ST LOUIS, MO VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	DES MOINES, IA VORTAC	*18000	45000
DES MOINES, IA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	SIOUX FALLS, SD VORTAC	*18000	45000
SIOUX FALLS, SD VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	ABERDEEN, SD VOR/DME	*18000	45000
95.4020 RNAV ROUTE Q20			
CORONA, NM VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	HONDS, NM FIX	*24000	45000
HONDS, NM FIX *18000 - GNSS MEA *DME/DME/IRU MEA	UNNOS, NM WP	*24000	45000
UNNOS, NM WP *18000 - GNSS MEA *DME/DME/IRU MEA	FUSCO, TX FIX	*24000	45000
FUSCO, TX FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JUNCTION, TX VORTAC	*24000	45000
95.4021 RNAV ROUTE Q21			
JONEZ, OK WP *18000 - GNSS MEA *DME/DME/IRU MEA	RAZORBACK, AR VORTAC	*18000	45000
95.4022 RNAV ROUTE Q22			
GUSTI, LA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	OYSTY, LA FIX	*18000	45000
OYSTY, LA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ACMES, AL WP	*18000	45000
ACMES, AL WP *18000 - GNSS MEA *DME/DME/IRU MEA	CATLN, AL FIX	*18000	45000

FROM	TO	MEA	MAA
95.4022 RNAV ROUTE Q22 - CONTINUED			
CATLN, AL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	TWOUP, GA WP	*18000	45000
TWOUP, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SPARTANBURG, SC VORTAC	*18000	45000
SPARTANBURG, SC VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	NYBLK, NC WP	*18000	45000
NYBLK, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	MASHI, NC WP	*18000	45000
MASHI, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	KIDDO, NC WP	*18000	45000
KIDDO, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	OMENS, VA WP	*18000	45000
OMENS, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BEARI, VA WP	*18000	45000
95.4023 RNAV ROUTE Q23			
FORT SMITH, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	RAZORBACK, AR VORTAC	*18000	45000
95.4024 RNAV ROUTE Q24			
SAN ANTONIO, TX VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	MOLLR, TX WP	*18000	45000
MOLLR, TX WP *18000 - GNSS MEA *DME/DME/IRU MEA	LAKE CHARLES, LA VORTAC	*18000	45000
LAKE CHARLES, LA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	FIGHTING TIGER, LA VORTAC	*20000	45000
FIGHTING TIGER, LA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	IRUBE, MS WP	*20000	45000
IRUBE, MS WP *18000 - GNSS MEA *DME/DME/IRU MEA	PAYTN, AL FIX	*20000	45000
95.4025 RNAV ROUTE Q25			
MEEOW, AR FIX *18000 - GNSS MEA *DME/DME/IRU MEA	WALNUT RIDGE, AR VORTAC	*20000	45000
WALNUT RIDGE, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	POCKET CITY, IN VORTAC	*20000	45000
95.4026 RNAV ROUTE Q26			
WALNUT RIDGE, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	DEVAC, AL FIX	*20000	33000

FROM	TO	MEA	MAA
95.4027 RNAV ROUTE Q27			
FORT SMITH, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	ZALDA, AR WP	*18000	45000
95.4028 RNAV ROUTE Q28			
GRAZN, AR WP *18000 - GNSS MEA *DME/DME/IRU MEA	POCKET CITY, IN VORTAC	*20000	45000
95.4029 RNAV ROUTE Q29			
HARES, LA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BAKRE, MS WP	*20000	45000
BAKRE, MS WP *18000 - GNSS MEA *DME/DME/IRU MEA	MEMPHIS, TN VORTAC	*20000	45000
MEMPHIS, TN VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	OMDUE, TN WP	*20000	45000
OMDUE, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	SIDAE, KY WP	*20000	45000
SIDAE, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	CREEP, OH FIX	*18000	45000
CREEP, OH FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KLYNE, OH WP	*18000	45000
KLYNE, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	DUTSH, OH WP	*18000	45000
DUTSH, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	WWSHR, OH WP	*18000	45000
WWSHR, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	DORET, OH FIX	*18000	45000
DORET, OH FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JAMESTOWN, NY VOR/DME	*18000	45000
JAMESTOWN, NY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	HANKK, NY FIX	*18000	45000
HANKK, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GONZZ, NY WP	*18000	45000
GONZZ, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	KRAZZ, NY WP	*18000	45000
KRAZZ, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	NIPPY, NY WP	*18000	45000
NIPPY, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	CABCI, VT WP	*18000	45000
CABCI, VT WP *18000 - GNSS MEA *DME/DME/IRU MEA	EBONY, ME FIX	*18000	45000

FROM	TO	MEA	MAA
95.4029 RNAV ROUTE Q29 - CONTINUED			
EBONY, ME FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DUNOM, ME WP	*18000	45000
DUNOM, ME WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4030 RNAV ROUTE Q30			
SIDON, MS VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	VULCAN, AL VORTAC	*18000	45000
95.4031 RNAV ROUTE Q31			
DHART, AR FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MARVELL, AR VOR/DME	*18000	45000
MARVELL, AR VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	POCKET CITY, IN VORTAC	*18000	45000
95.4032 RNAV ROUTE Q32			
EL DORADO, AR VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	GAGLE, MS WP	*20000	45000
GAGLE, MS WP *18000 - GNSS MEA *DME/DME/IRU MEA	CRAMM, MS FIX	*20000	45000
CRAMM, MS FIX *18000 - GNSS MEA *DME/DME/IRU MEA	NASHVILLE, TN VORTAC	*20000	45000
NASHVILLE, TN VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	SWAPP, TN FIX	*20000	45000
95.4033 RNAV ROUTE Q33			
DHART, AR FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LITTLE ROCK, AR VORTAC	*20000	45000
LITTLE ROCK, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	PROWL, MO WP	*20000	45000
95.4034 RNAV ROUTE Q34			
TEXARKANA, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	MEMPHIS, TN VORTAC	*24000	45000
MEMPHIS, TN VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	SWAPP, TN FIX	*24000	45000
95.4035 RNAV ROUTE Q35			
DRAKE, AZ VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	CORKR, AZ FIX	*22000	45000

FROM	TO	MEA	MAA
95.4035 RNAV ROUTE Q35 - CONTINUED			
CORKR, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	WINEN, UT WP	*29000	45000
WINEN, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	NEERO, NV WP	*29000	45000
NEERO, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	KOATA, OR WP	*29000	45000
KOATA, OR WP *18000 - GNSS MEA *DME/DME/IRU MEA	KIMBERLY, OR VOR/DME	*29000	45000
95.4036 RNAV ROUTE Q36			
RAZORBACK, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	NASHVILLE, TN VORTAC	*20000	45000
NASHVILLE, TN VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	SWAPP, TN FIX	*20000	45000
95.4037 RNAV ROUTE Q37			
FORT STOCKTON, TX VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	CAVRN, TX FIX	*25000	45000
CAVRN, TX FIX *18000 - GNSS MEA *DME/DME/IRU MEA	YORUB, NM WP	*25000	45000
YORUB, NM WP *18000 - GNSS MEA *DME/DME/IRU MEA	IMMAS, NM WP	*25000	45000
IMMAS, NM WP *18000 - GNSS MEA *DME/DME/IRU MEA	PUEBLO, CO VORTAC	*25000	45000
95.4038 RNAV ROUTE Q38			
ROKIT, TX WP *18000 - GNSS MEA *DME/DME/IRU MEA	BESOM, AL FIX	*18000	45000
95.4039 RNAV ROUTE Q39			
CLAWD, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	TARCI, WV FIX	*18000	45000
TARCI, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ASERY, WV WP	*18000	45000
95.4040 RNAV ROUTE Q40			
ALEXANDRIA, LA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	DOOMS, MS WP	*18000	45000
DOOMS, MS WP *18000 - GNSS MEA *DME/DME/IRU MEA	WINAP, MS WP	*18000	45000

FROM	TO	MEA	MAA
95.4040 RNAV ROUTE Q40 - CONTINUED			
WINAP, MS WP *18000 - GNSS MEA *DME/DME/IRU MEA	MISLE, AL WP	*18000	45000
MISLE, AL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BFOLO, AL WP	*18000	45000
BFOLO, AL WP *18000 - GNSS MEA *DME/DME/IRU MEA	NIOLA, GA WP	*18000	45000
NIOLA, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAARE, TN WP	*18000	45000
JAARE, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	OJESS, TN WP	*18000	45000
OJESS, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	ALEAN, VA WP	*18000	45000
ALEAN, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	FEEDS, VA WP	*18000	45000
FEEDS, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	MAULS, VA WP	*18000	45000
MAULS, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	FANPO, VA WP	*18000	45000
95.4041 RNAV ROUTE Q41			
CAWIN, AK FIX *GNSS REQUIRED	DEADHORSE, AK VOR/DME	*18000	45000
95.4042 RNAV ROUTE Q42			
KIRKSVILLE, MO VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	DANVILLE, IL VORTAC	*34000	45000
DANVILLE, IL VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	MUNCIE, IN VOR/DME	*34000	45000
MUNCIE, IN VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	BRNAN, PA WP	*24000	45000
BRNAN, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	HOTEE, PA WP	*18000	45000
HOTEE, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	MIKYG, PA WP	*18000	45000
MIKYG, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SPOTZ, PA WP	*18000	45000
SPOTZ, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZIMMZ, PA FIX	*18000	45000
95.4043 RNAV ROUTE Q43			
ANCHORAGE, AK VOR/DME *GNSS REQUIRED	BIG LAKE, AK VORTAC	*18000	45000

FROM	TO	MEA	MAA
95.4043 RNAV ROUTE Q43 - CONTINUED			
BIG LAKE, AK VORTAC *GNSS REQUIRED	FAIRBANKS, AK VORTAC	*18000	45000
95.4044 RNAV ROUTE Q44			
NOME, AK VOR/DME *GNSS REQUIRED	HLBLY, AK WP	*18000	45000
HLBLY, AK WP *GNSS REQUIRED	ANCHORAGE, AK VOR/DME	*18000	45000
95.4045 RNAV ROUTE Q45			
DILLINGHAM, AK VOR/DME *GNSS REQUIRED	NONDA, AK FIX	*18000	45000
NONDA, AK FIX *GNSS REQUIRED	AMOTT, AK FIX	*18000	45000
95.4046 RNAV ROUTE Q46			
POINT HOPE, AK NDB *GNSS REQUIRED	BARROW, AK VOR/DME	*18000	45000
95.4047 RNAV ROUTE Q47			
KING SALMON, AK VORTAC *GNSS REQUIRED	AMOTT, AK FIX	*18000	45000
95.4048 RNAV ROUTE Q48			
BARROW, AK VOR/DME *GNSS REQUIRED	DEADHORSE, AK VOR/DME	*18000	45000
DEADHORSE, AK VOR/DME *GNSS REQUIRED	ROCES, AK WP	*18000	45000
95.4049 RNAV ROUTE Q49			
KODIAK, AK VOR/DME *GNSS REQUIRED	AMOTT, AK FIX	*18000	45000
95.4050 RNAV ROUTE Q50			
LOUISVILLE, KY VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	HELUB, KY WP	*18000	45000
HELUB, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	ENGRA, KY WP	*18000	45000
ENGRA, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	IBATE, KY WP	*18000	45000
IBATE, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	CUBIM, KY WP	*18000	45000
95.4051 RNAV ROUTE Q51			
KING SALMON, AK VORTAC *GNSS REQUIRED	SLIIM, AK WP	*18000	45000

FROM	TO	MEA	MAA
95.4051 RNAV ROUTE Q51 - CONTINUED			
SLIIM, AK WP *GNSS REQUIRED	HLBLY, AK WP	*18000	45000
HLBLY, AK WP *GNSS REQUIRED	KOTZEBUE, AK VOR/DME	*18000	45000
95.4052 RNAV ROUTE Q52			
CHOPZ, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	IPTAY, GA WP	*18000	45000
IPTAY, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	AWYAT, SC WP	*18000	45000
AWYAT, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	COLZI, NC WP	*18000	45000
95.4053 RNAV ROUTE Q53			
KODIAK, AK VOR/DME *GNSS REQUIRED	ILIAMNA, AK NDB/DME	*18000	45000
ILIAMNA, AK NDB/DME *GNSS REQUIRED	KOTZEBUE, AK VOR/DME	*18000	45000
95.4054 RNAV ROUTE Q54			
GREENWOOD, SC VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	NYLLA, SC WP	*18000	45000
NYLLA, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	CHYPS, NC WP	*18000	45000
CHYPS, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	AHOEY, NC WP	*18000	45000
AHOEY, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	RAANE, NC WP	*18000	45000
RAANE, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	NUTZE, NC WP	*18000	45000
95.4055 RNAV ROUTE Q55			
KODIAK, AK VOR/DME *GNSS REQUIRED	SLIIM, AK WP	*18000	45000
SLIIM, AK WP *GNSS REQUIRED	NOME, AK VOR/DME	*18000	45000
95.4056 RNAV ROUTE Q56			
SAN ANTONIO, TX VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	MOLLR, TX WP	*18000	45000
MOLLR, TX WP *18000 - GNSS MEA *DME/DME/IRU MEA	PEKON, LA FIX	*18000	45000
PEKON, LA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HARVEY, LA VORTAC	*18000	45000

FROM	TO	MEA	MAA
95.4056 RNAV ROUTE Q56 - CONTINUED			
HARVEY, LA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	SEMMES, AL VORTAC	*18000	45000
SEMMES, AL VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	CATLN, AL FIX	*18000	45000
CATLN, AL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KBLER, GA WP	*18000	45000
KBLER, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	KELLN, SC WP	*18000	45000
KELLN, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	KTOWN, NC WP	*18000	45000
KTOWN, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	BYSKO, NC WP	*18000	45000
BYSKO, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	JOOLI, NC WP	*18000	45000
JOOLI, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	NUUMN, NC WP	*18000	45000
NUUMN, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	ORACL, NC WP	*18000	45000
ORACL, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	KIWII, VA WP	*18000	45000
95.4057 RNAV ROUTE Q57			
KING SALMON, AK VORTAC *GNSS REQUIRED	MC GRATH, AK VORTAC	*18000	45000
95.4058 RNAV ROUTE Q58			
KELLN, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	GLOVR, NC WP	*18000	45000
GLOVR, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	LUMAY, NC WP	*18000	45000
LUMAY, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	STUKI, NC WP	*18000	45000
STUKI, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	PEETT, NC WP	*18000	45000
95.4059 RNAV ROUTE Q59			
COLD BAY, AK VORTAC *GNSS REQUIRED	BETHEL, AK VORTAC	*18000	45000
95.4060 RNAV ROUTE Q60			
SPARTANBURG, SC VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	BYJAC, NC FIX	*18000	45000

FROM	TO	MEA	MAA
95.4060 RNAV ROUTE Q60 - CONTINUED			
BYJAC, NC FIX *18000 - GNSS MEA *DME/DME/IRU MEA	EVING, NC WP	*18000	45000
EVING, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	LOOEY, VA WP	*18000	45000
LOOEY, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAXSN, VA FIX	*18000	45000
95.4061 RNAV ROUTE Q61			
FAIRBANKS, AK VORTAC *GNSS REQUIRED	BARROW, AK VOR/DME	*18000	45000
95.4062 RNAV ROUTE Q62			
WATSN, IN FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DAIFE, IN WP	*18000	45000
DAIFE, IN WP *18000 - GNSS MEA *DME/DME/IRU MEA	NOLNN, OH WP	*18000	45000
NOLNN, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	WEEVR, OH WP	*18000	45000
WEEVR, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	PSKUR, OH WP	*18000	45000
PSKUR, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	FAALS, OH WP	*18000	45000
FAALS, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	ALEEE, OH WP	*18000	45000
ALEEE, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	QUARM, PA WP	*18000	45000
QUARM, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BURNI, PA FIX	*18000	45000
BURNI, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MCMAN, PA FIX	*18000	45000
MCMAN, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	VALLO, PA FIX	*18000	45000
VALLO, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	RAVINE, PA VORTAC	*18000	45000
RAVINE, PA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	SUZIE, PA FIX	*18000	45000
SUZIE, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SARAA, PA FIX	*18000	45000
95.4063 RNAV ROUTE Q63			
DOOGE, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	HAPKI, KY WP	*18000	45000

FROM	TO	MEA	MAA
95.4063 RNAV ROUTE Q63 - CONTINUED			
HAPKI, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	TONIO, KY FIX	*18000	45000
TONIO, KY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	OCASE, KY WP	*18000	45000
OCASE, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	HEVAN, IN WP	*18000	45000
95.4064 RNAV ROUTE Q64			
CATLN, AL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FIGEY, GA WP	*18000	45000
FIGEY, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	GREENWOOD, SC VORTAC	*18000	45000
GREENWOOD, SC VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	DARRL, SC FIX	*18000	45000
DARRL, SC FIX *18000 - GNSS MEA *DME/DME/IRU MEA	IDDAA, NC WP	*18000	45000
IDDAA, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	TAR RIVER, NC VORTAC	*18000	45000
95.4065 RNAV ROUTE Q65			
MGNTY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	DOFFY, FL WP	*18000	45000
DOFFY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	FETAL, FL WP	*18000	45000
FETAL, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	ENEME, GA WP	*18000	45000
ENEME, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JEFOI, GA WP	*18000	45000
JEFOI, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TRASYS, GA WP	*18000	45000
TRASYS, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	CESKI, GA WP	*18000	45000
CESKI, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	DAREE, GA WP	*18000	45000
DAREE, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	LORNN, TN WP	*18000	45000
LORNN, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	SOGEE, TN WP	*18000	45000
SOGEE, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	ENGRA, KY WP	*18000	45000

FROM	TO	MEA	MAA
95.4065 RNAV ROUTE Q65 - CONTINUED			
ENGRA, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	OCASE, KY WP	*18000	45000
OCASE, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROSEWOOD, OH VORTAC	*18000	45000
95.4066 RNAV ROUTE Q66			
LITTLE ROCK, AR VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	CIVKI, AR WP	*18000	45000
CIVKI, AR WP *18000 - GNSS MEA *DME/DME/IRU MEA	RICKX, AR WP	*18000	45000
RICKX, AR WP *18000 - GNSS MEA *DME/DME/IRU MEA	TROVE, TN WP	*18000	45000
TROVE, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	BAZOO, TN WP	*18000	45000
BAZOO, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	METWO, TN WP	*18000	45000
METWO, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	MXEEN, TN WP	*18000	45000
MXEEN, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	ALEAN, VA WP	*18000	45000
95.4067 RNAV ROUTE Q67			
SMTTH, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	CEMEX, KY WP	*18000	45000
CEMEX, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	IBATE, KY WP	*18000	45000
IBATE, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	TONIO, KY FIX	*18000	45000
TONIO, KY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JONEN, KY WP	*18000	45000
JONEN, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	DARYN, WV WP	*18000	45000
95.4068 RNAV ROUTE Q68			
LITTR, AR WP *18000 - GNSS MEA *DME/DME/IRU MEA	SOPIE, TN FIX	*18000	45000
SOPIE, TN FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BOWLING GREEN, KY DME	*18000	45000
BOWLING GREEN, KY DME *18000 - GNSS MEA *DME/DME/IRU MEA	YOCKY, KY FIX	*18000	45000

FROM	TO	MEA	MAA
95.4068 RNAV ROUTE Q68 - CONTINUED			
YOCKY, KY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SPAYD, WV FIX	*18000	45000
SPAYD, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	CHARLESTON, WV VOR/DME	*18000	45000
CHARLESTON, WV VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	TOMCA, WV WP	*18000	45000
TOMCA, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	RONZZ, WV WP	*18000	45000
RONZZ, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	HHOLZ, WV WP	*18000	45000
HHOLZ, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	HAMME, WV WP	*18000	45000
HAMME, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	CAPOE, VA WP	*18000	45000
CAPOE, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	OTTTO, VA WP	*18000	45000
95.4069 RNAV ROUTE Q69			
VIYAP, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	OLBEC, GA WP	*18000	45000
OLBEC, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ISUZO, GA WP	*18000	45000
ISUZO, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	GURGE, SC WP	*18000	45000
GURGE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	BLAAN, SC WP	*18000	45000
BLAAN, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	EMCET, SC WP	*18000	45000
EMCET, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	RYCKI, NC WP	*18000	45000
RYCKI, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	LUNDD, VA WP	*18000	45000
LUNDD, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ILLSA, VA WP	*18000	45000
ILLSA, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	EWESS, WV WP	*18000	45000
EWESS, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	RICCS, WV WP	*18000	45000
95.4070 RNAV ROUTE Q70			
HAILO, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	LAS VEGAS, NV VORTAC	*18000	45000

FROM	TO	MEA	MAA
95.4070 RNAV ROUTE Q70 - CONTINUED			
LAS VEGAS, NV VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	IFEYE, NV WP	*20000	45000
IFEYE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	BLIPP, NV WP	*20000	45000
BLIPP, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	EEVUN, UT WP	*20000	45000
EEVUN, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BLOBB, UT WP	*20000	45000
BLOBB, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BAWER, UT WP	*22000	45000
BAWER, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	SAKES, UT FIX	*22000	45000
95.4071 RNAV ROUTE Q71			
BOBBD, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	ATUME, KY WP	*18000	45000
ATUME, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	HAPKI, KY WP	*18000	45000
HAPKI, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	KONGO, KY FIX	*18000	45000
KONGO, KY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	WISTA, WV WP	*18000	45000
WISTA, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	GEFFS, WV FIX	*18000	45000
GEFFS, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	EMNEM, WV WP	*18000	45000
EMNEM, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	PSYKO, PA WP	*18000	45000
PSYKO, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	PHILIPSBURG, PA VORTAC	*18000	45000
95.4072 RNAV ROUTE Q72			
HACKS, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GEQUE, WV WP	*18000	45000
GEQUE, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	BENSH, WV WP	*18000	45000
BENSH, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	RAMAY, VA WP	*18000	45000
95.4073 RNAV ROUTE Q73			
MOMAR, CA FIX *GNSS REQUIRED	CABIC, CA WP	*18000	45000

FROM	TO	MEA	MAA
95.4073 RNAV ROUTE Q73 - CONTINUED			
CABIC, CA WP *GNSS REQUIRED	CHADT, CA WP	*18000	45000
CHADT, CA WP *GNSS REQUIRED	LVELL, CA WP	*18000	45000
LVELL, CA WP *GNSS REQUIRED	HAKMN, NV WP	*18000	45000
HAKMN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZZYZX, NV WP	*18000	45000
ZZYZX, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	LAKRR, NV WP	*18000	45000
LAKRR, NV WP *GNSS REQUIRED	GUNTR, AZ WP	*18000	45000
GUNTR, AZ WP *GNSS REQUIRED	ZAINY, AZ WP	*18000	45000
ZAINY, AZ WP *GNSS REQUIRED	EEVUN, UT WP	*18000	45000
EEVUN, UT WP *GNSS REQUIRED	WINEN, UT WP	*18000	45000
WINEN, UT WP *GNSS REQUIRED	CRITO, NV WP	*18000	45000
CRITO, NV WP *GNSS REQUIRED	BROPH, ID WP	*18000	45000
BROPH, ID WP *GNSS REQUIRED	DERSO, ID FIX	*18000	45000
DERSO, ID FIX *GNSS REQUIRED	SAWTT, ID WP	*18000	45000
SAWTT, ID WP *GNSS REQUIRED	ZATIP, ID FIX	*18000	45000
ZATIP, ID FIX *GNSS REQUIRED	CORDU, ID FIX	*18000	45000
95.4074 RNAV ROUTE Q74			
NATEE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	BOULDER CITY, NV VORTAC	*18000	45000
BOULDER CITY, NV VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	ZAINY, AZ WP	*20000	45000
ZAINY, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	FIZZL, AZ WP	*20000	45000
FIZZL, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	GARDD, UT WP	*20000	45000
GARDD, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	DEANN, UT WP	*20000	45000
95.4075 RNAV ROUTE Q75			
ENEME, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TEUFL, GA WP	*18000	45000
TEUFL, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TEEEM, GA WP	*18000	45000

FROM	TO	MEA	MAA
95.4075 RNAV ROUTE Q75 - CONTINUED			
TEEEM, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHRIL, GA WP	*18000	45000
SHRIL, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	FISHO, SC WP	*18000	45000
FISHO, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	ILBEE, SC WP	*18000	45000
ILBEE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	SLOJO, SC WP	*18000	45000
SLOJO, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	GREENSBORO, NC VORTAC	*18000	45000
GREENSBORO, NC VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	BROSK, NC WP	*18000	45000
BROSK, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	DRAIK, VA FIX	*18000	45000
DRAIK, VA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GORDONSVILLE, VA VORTAC	*18000	45000
GORDONSVILLE, VA VORTAC *20000 - GNSS MEA *DME/DME/IRU MEA	HAMMZ, VA WP	*20000	45000
HAMMZ, VA WP *20000 - GNSS MEA *DME/DME/IRU MEA	TOOBN, MD WP	*20000	45000
TOOBN, MD WP *20000 - GNSS MEA *DME/DME/IRU MEA	MURPH, MD WP	*20000	45000
MURPH, MD WP *18000 - GNSS MEA *DME/DME/IRU MEA	SACRI, MD WP	*18000	45000
SACRI, MD WP *18000 - GNSS MEA *DME/DME/IRU MEA	STOEN, PA FIX	*18000	45000
STOEN, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MODENA, PA VORTAC	*18000	45000
MODENA, PA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	COPEs, PA FIX	*18000	45000
COPEs, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BIGGY, NJ FIX	*18000	45000
BIGGY, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SOLBERG, NJ VOR/DME	*18000	45000
SOLBERG, NJ VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	JERSY, NJ WP	*18000	45000
JERSY, NJ WP *18000 - GNSS MEA *DME/DME/IRU MEA	DUEYS, NY FIX	*18000	45000
DUEYS, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BIZEX, NY WP	*18000	45000

FROM	TO	MEA	MAA
95.4075 RNAV ROUTE Q75 - CONTINUED			
BIZEX, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	GREKI, CT FIX	*18000	45000
GREKI, CT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	NELIE, CT FIX	*18000	45000
NELIE, CT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SWALO, MA FIX	*18000	45000
SWALO, MA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BOSTON, MA VOR/DME	*18000	45000
BOSTON, MA VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	COPLY, MA WP	*18000	45000
95.4077 RNAV ROUTE Q77			
OCTAL, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MATLK, FL WP	*18000	45000
MATLK, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	STYMY, FL WP	*18000	45000
STYMY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	WAKKO, FL WP	*18000	45000
WAKKO, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MJAMS, FL WP	*18000	45000
MJAMS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	ETORE, FL WP	*18000	45000
ETORE, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHRKS, FL WP	*18000	45000
SHRKS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	TEUFL, GA WP	*18000	45000
TEUFL, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	WIGVO, GA WP	*18000	45000
95.4078 RNAV ROUTE Q78			
MARUE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	DUGGN, AZ WP	*24000	45000
DUGGN, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	TOADD, AZ WP	*24000	45000
95.4079 RNAV ROUTE Q79			
MCLAW, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	VAULT, FL WP	*18000	45000
VAULT, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	FEMID, FL WP	*18000	45000

FROM	TO	MEA	MAA
95.4079 RNAV ROUTE Q79 - CONTINUED			
FEMID, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	WULFF, FL WP	*18000	45000
WULFF, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MOLIE, FL WP	*18000	45000
MOLIE, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	DOFFY, FL WP	*18000	45000
DOFFY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	EVANZ, FL WP	*18000	45000
EVANZ, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	IISLY, GA WP	*18000	45000
IISLY, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	YUESS, GA WP	*18000	45000
YUESS, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ATLANTA, GA VORTAC	*18000	45000
95.4080 RNAV ROUTE Q80			
FAREV, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	JEDER, KY WP	*18000	45000
JEDER, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	ENGRA, KY WP	*18000	45000
ENGRA, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	DEWAK, KY WP	*18000	45000
DEWAK, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	CEGMA, KY WP	*18000	45000
CEGMA, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	JONEN, KY WP	*18000	45000
JONEN, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	BULVE, WV WP	*18000	45000
BULVE, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	WISTA, WV WP	*18000	45000
WISTA, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	LEVII, WV WP	*18000	45000
LEVII, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	RONZZ, WV WP	*18000	45000
RONZZ, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	HHOLZ, WV WP	*18000	45000
HHOLZ, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	HAMME, WV WP	*18000	45000
HAMME, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	CAPOE, VA WP	*18000	45000

FROM	TO	MEA	MAA
95.4080 RNAV ROUTE Q80 - CONTINUED			
CAPOE, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	OTTO, VA WP	*18000	45000
95.4081 RNAV ROUTE Q81			
TUNSL, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	KARTR, FL FIX	*18000	45000
KARTR, FL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FIPES, OG WP	*18000	45000
FIPES, OG WP *18000 - GNSS MEA *DME/DME/IRU MEA	THMPR, FL WP	*18000	45000
THMPR, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	LEEHI, FL WP	*18000	45000
LEEHI, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	FARLU, FL WP	*18000	45000
FARLU, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MGNTY, FL WP	*18000	45000
MGNTY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	ENDEW, FL WP	*18000	45000
ENDEW, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BITNY, OG WP	*18000	45000
BITNY, OG WP *18000 - GNSS MEA *DME/DME/IRU MEA	NICKI, FL WP	*18000	45000
NICKI, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SNAPY, FL WP	*18000	45000
SNAPY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BULZI, FL WP	*18000	45000
BULZI, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	IPOKE, GA WP	*18000	45000
IPOKE, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	HONID, GA WP	*18000	45000
95.4082 RNAV ROUTE Q82			
WWSHR, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	DORET, OH FIX	*18000	45000
DORET, OH FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JAMESTOWN, NY VOR/DME	*18000	45000
JAMESTOWN, NY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	WAYLA, NY WP	*18000	45000
WAYLA, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	VIEEW, NY FIX	*18000	45000

FROM	TO	MEA	MAA
95.4082 RNAV ROUTE Q82 - CONTINUED			
VIEEW, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MEMMS, NY FIX	*18000	45000
MEMMS, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LOXXE, NY FIX	*18000	45000
LOXXE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PONCT, NY WP	*18000	45000
95.4083 RNAV ROUTE Q83			
JEVED, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROYCO, GA WP	*18000	45000
ROYCO, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TAALN, GA WP	*18000	45000
TAALN, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	KONEY, SC WP	*18000	45000
KONEY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	WURFL, SC WP	*18000	45000
WURFL, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	JUSEE, SC WP	*18000	45000
JUSEE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	EFFAY, SC WP	*18000	45000
EFFAY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	SLOJO, SC WP	*18000	45000
95.4084 RNAV ROUTE Q84			
JAMESTOWN, NY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	AUDIL, NY FIX	*18000	45000
AUDIL, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PUPPY, NY WP	*18000	45000
PUPPY, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	PAYGE, NY FIX	*18000	45000
PAYGE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	CAMBRIDGE, NY VOR/DME	*18000	45000
95.4085 RNAV ROUTE Q85			
LPERD, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BEEGE, GA WP	*18000	45000
BEEGE, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	GIPPL, GA WP	*18000	45000
GIPPL, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROYCO, GA WP	*18000	45000

FROM	TO	MEA	MAA
95.4085 RNAV ROUTE Q85 - CONTINUED			
ROYCO, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	IGARY, SC WP	*18000	45000
IGARY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	PELIE, SC WP	*18000	45000
PELIE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	BUMMA, SC WP	*18000	45000
BUMMA, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	KAATT, NC WP	*18000	45000
KAATT, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	SMPRR, NC WP	*18000	45000
95.4086 RNAV ROUTE Q86			
TTRUE, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	YORRK, AZ WP	*18000	45000
YORRK, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	SCHLS, AZ WP	*20000	45000
SCHLS, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	CUTRO, AZ FIX	*20000	45000
CUTRO, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	VALEQ, AZ WP	*20000	45000
VALEQ, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	PLNDL, AZ WP	*20000	45000
95.4087 RNAV ROUTE Q87			
PEAKY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	GOPEY, FL WP	*18000	45000
GOPEY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	GRIDS, FL WP	*18000	45000
GRIDS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	TIRCO, FL WP	*18000	45000
TIRCO, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MATLK, FL WP	*18000	45000
MATLK, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	ONEWY, FL WP	*18000	45000
ONEWY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZERBO, FL WP	*18000	45000
ZERBO, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	DUCEN, FL WP	*18000	45000
DUCEN, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	OVENP, FL WP	*18000	45000

FROM	TO	MEA	MAA
95.4087 RNAV ROUTE Q87 - CONTINUED			
OVENP, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	FEMON, FL WP	*18000	45000
FEMON, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	VIYAP, GA WP	*18000	45000
VIYAP, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SUSYQ, GA WP	*18000	45000
SUSYQ, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TAALN, GA WP	*18000	45000
TAALN, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JROSS, SC WP	*18000	45000
JROSS, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	RAYVO, SC WP	*18000	45000
RAYVO, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	HINTZ, SC WP	*18000	45000
HINTZ, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	REDFH, SC WP	*18000	45000
REDFH, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	LCAPE, SC WP	*18000	45000
95.4088 RNAV ROUTE Q88			
HAKMN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZZYZX, NV WP	*18000	45000
ZZYZX, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	LAKRR, NV WP	*18000	45000
LAKRR, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	NOOTN, AZ FIX	*22000	45000
NOOTN, AZ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GARDD, UT WP	*22000	45000
GARDD, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	VERKN, UT WP	*22000	45000
VERKN, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	PROMT, UT WP	*22000	45000
PROMT, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	CHESZ, UT WP	*22000	45000
CHESZ, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	SINRY, CO WP	*22000	45000
SINRY, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZAKRY, CO WP	*22000	45000
ZAKRY, CO WP *22000 - GNSS MEA *DME/DME/IRU MEA	YAMPA, CO WP	*22000	45000

FROM	TO	MEA	MAA
95.4088 RNAV ROUTE Q88 - CONTINUED			
YAMPA, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	BICAR, NE WP	*22000	45000
BICAR, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	CHUWY, NE WP	*22000	45000
CHUWY, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	KEEFF, NE WP	*22000	45000
KEEFF, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	GUDDY, SD WP	*22000	45000
GUDDY, SD WP *18000 - GNSS MEA *DME/DME/IRU MEA	VIVID, SD FIX	*22000	45000
VIVID, SD FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JOYCC, SD WP	*22000	45000
JOYCC, SD WP *18000 - GNSS MEA *DME/DME/IRU MEA	DKOTA, SD WP	*22000	45000
95.4089 RNAV ROUTE Q89			
MANLE, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	WAKUP, FL WP	*18000	45000
WAKUP, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	PRMUS, FL WP	*18000	45000
PRMUS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	OVENP, FL WP	*18000	45000
OVENP, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHRKS, FL WP	*18000	45000
SHRKS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	YANTI, GA WP	*18000	45000
YANTI, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ATLANTA, GA VORTAC	*18000	45000
95.4090 RNAV ROUTE Q90			
DNERO, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ESGEE, NV WP	*20000	45000
ESGEE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	AREAF, AZ WP	*20000	45000
AREAF, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	JASSE, AZ WP	*20000	45000
JASSE, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	NAVJO, AZ WP	*24000	45000
NAVJO, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	YAMHA, CO WP	*24000	45000

FROM	TO	MEA	MAA
95.4090 RNAV ROUTE Q90 - CONTINUED			
YAMHA, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	DAAYE, CO WP	*24000	45000
DAAYE, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	SKWYR, CO WP	*24000	45000
SKWYR, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	HUSQA, KS WP	*24000	45000
HUSQA, KS WP *18000 - GNSS MEA *DME/DME/IRU MEA	VARNE, KS WP	*24000	45000
VARNE, KS WP *18000 - GNSS MEA *DME/DME/IRU MEA	ATIJA, KS WP	*20000	45000
ATIJA, KS WP *18000 - GNSS MEA *DME/DME/IRU MEA	LEFAM, NE WP	*20000	45000
LEFAM, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	BOVEY, MO WP	*20000	45000
BOVEY, MO WP *18000 - GNSS MEA *DME/DME/IRU MEA	WELKY, IA WP	*20000	45000
95.4092 RNAV ROUTE Q92			
CHUWY, NE WP *20000 - GNSS MEA *DME/DME/IRU MEA	KUTCH, NE WP	*22000	45000
KUTCH, NE WP *20000 - GNSS MEA *DME/DME/IRU MEA	WYYTE, NE WP	*22000	45000
WYYTE, NE WP *20000 - GNSS MEA *DME/DME/IRU MEA	MAASI, NE WP	*20000	45000
MAASI, NE WP *20000 - GNSS MEA *DME/DME/IRU MEA	HANKU, IA WP	*20000	45000
HANKU, IA WP *20000 - GNSS MEA *DME/DME/IRU MEA	JORDY, IA FIX	*20000	45000
95.4093 RNAV ROUTE Q93			
MCLAW, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	VAULT, FL WP	*18000	45000
VAULT, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	LINEY, FL WP	*18000	45000
LINEY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	FOBIN, FL WP	*18000	45000
FOBIN, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	EBAYY, FL WP	*18000	45000
EBAYY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MALET, FL FIX	*18000	45000

FROM	TO	MEA	MAA
95.4093 RNAV ROUTE Q93 - CONTINUED			
MALET, FL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DEBRL, FL WP	*18000	45000
DEBRL, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	KENLL, FL WP	*18000	45000
KENLL, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	PRMUS, FL WP	*18000	45000
PRMUS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	WOPNR, OA WP	*18000	45000
WOPNR, OA WP *18000 - GNSS MEA *DME/DME/IRU MEA	GIPPL, GA WP	*18000	45000
GIPPL, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SUSYQ, GA WP	*18000	45000
SUSYQ, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ISUZO, GA WP	*18000	45000
ISUZO, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	GURGE, SC WP	*18000	45000
GURGE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	FISHO, SC WP	*18000	45000
FISHO, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	QUIWE, SC WP	*18000	45000
95.4094 RNAV ROUTE Q94			
WELUM, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	MNGGO, AZ WP	*22000	45000
MNGGO, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROOLL, AZ WP	*22000	45000
95.4096 RNAV ROUTE Q96			
PURSE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	DODDL, NV WP	*22000	45000
DODDL, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	BFUNE, AZ WP	*22000	45000
BFUNE, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	GUNTR, AZ WP	*18000	45000
GUNTR, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	PIIXR, AZ WP	*22000	45000
PIIXR, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	FIZZL, AZ WP	*22000	45000
FIZZL, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	BAWER, UT WP	*22000	45000

FROM	TO	MEA	MAA
95.4096 RNAV ROUTE Q96 - CONTINUED			
BAWER, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROCCY, UT WP	*22000	45000
ROCCY, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	SARAF, UT WP	*22000	45000
SARAF, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	KIMMR, UT WP	*22000	45000
95.4097 RNAV ROUTE Q97			
TOVAR, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	EBAYY, FL WP	*18000	45000
EBAYY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MALET, FL FIX	*18000	45000
MALET, FL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DEBRL, FL WP	*18000	45000
DEBRL, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	KENLL, FL WP	*18000	45000
KENLL, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	PRMUS, FL WP	*18000	45000
PRMUS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	WOPNR, OA WP	*18000	45000
WOPNR, OA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JEVED, GA WP	*18000	45000
JEVED, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	CAKET, SC WP	*18000	45000
CAKET, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	ELMSZ, SC WP	*18000	45000
ELMSZ, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	YURCK, NC WP	*18000	45000
YURCK, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	ELLDE, NC WP	*18000	45000
95.4098 RNAV ROUTE Q98			
HAKMN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZZYZX, NV WP	*18000	45000
ZZYZX, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	LAKRR, NV WP	*18000	45000
LAKRR, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	DUZIT, AZ WP	*20000	45000
DUZIT, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	EEEZY, AZ WP	*24000	45000

FROM	TO	MEA	MAA
95.4098 RNAV ROUTE Q98 - CONTINUED			
EEEZY, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	PEEWE, AZ WP	*24000	45000
95.4099 RNAV ROUTE Q99			
KPASA, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	DOFFY, FL WP	*18000	45000
DOFFY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	CAMJO, FL WP	*18000	45000
CAMJO, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	HEPAR, GA WP	*18000	45000
HEPAR, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TEEEM, GA WP	*18000	45000
TEEEM, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BLAAN, SC WP	*18000	45000
BLAAN, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	BWAGS, SC WP	*18000	45000
BWAGS, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	EFFAY, SC WP	*18000	45000
EFFAY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	WNGUD, SC WP	*18000	45000
WNGUD, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	POLYY, NC WP	*18000	45000
95.4103 RNAV ROUTE Q103			
CYN TA, GA WP *30000 - GNSS MEA *DME/DME/IRU MEA	PUPYY, GA WP	*30000	45000
PUPYY, GA WP *30000 - GNSS MEA *DME/DME/IRU MEA	RIELE, SC WP	*30000	45000
RIELE, SC WP *30000 - GNSS MEA *DME/DME/IRU MEA	GRONK, SC WP	*30000	45000
GRONK, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	EMCET, SC WP	*18000	45000
EMCET, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	SLOJO, SC WP	*18000	45000
SLOJO, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	PULASKI, VA VORTAC	*18000	45000
PULASKI, VA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	ASBUR, WV FIX	*18000	45000
ASBUR, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	OAKLE, WV FIX	*18000	45000

FROM	TO	MEA	MAA
95.4103 RNAV ROUTE Q103 - CONTINUED			
OAKLE, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PERRI, WV FIX	*18000	45000
PERRI, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PERKS, WV FIX	*18000	45000
PERKS, WV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	RICCS, WV WP	*18000	45000
RICCS, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	EMNEM, WV WP	*18000	45000
EMNEM, WV WP *18000 - GNSS MEA *DME/DME/IRU MEA	AIRRA, PA WP	*18000	45000
95.4104 RNAV ROUTE Q104			
ACORI, AL WP *18000 - GNSS MEA *DME/DME/IRU MEA	CABLO, GA WP	*18000	45000
CABLO, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	HEVVN, FL FIX	*18000	45000
HEVVN, FL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LEGGT, FL FIX	*18000	45000
LEGGT, FL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PLYER, FL FIX	*18000	45000
PLYER, FL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SWABE, FL FIX	*18000	45000
SWABE, FL FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ENDEW, FL WP	*18000	45000
ENDEW, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	ST PETERSBURG, FL VORTAC	*18000	45000
95.4109 RNAV ROUTE Q109			
KNOST, OG WP *18000 - GNSS MEA *DME/DME/IRU MEA	DEANR, FL WP	*18000	45000
DEANR, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BRUTS, FL WP	*18000	45000
BRUTS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	EVANZ, FL WP	*18000	45000
EVANZ, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	CAMJO, FL WP	*18000	45000
CAMJO, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	HEPAR, GA WP	*18000	45000
HEPAR, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TEEEM, GA WP	*18000	45000

FROM	TO	MEA	MAA
95.4109 RNAV ROUTE Q109 - CONTINUED			
TEEEM, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	RIELE, SC WP	*18000	45000
RIELE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	PANDY, SC WP	*18000	45000
PANDY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	RAYVO, SC WP	*18000	45000
RAYVO, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	SESUE, SC WP	*18000	45000
SESUE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	BUMMA, SC WP	*18000	45000
BUMMA, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	YURCK, NC WP	*18000	45000
YURCK, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	LAANA, NC WP	*18000	45000
95.4110 RNAV ROUTE Q110			
BLANS, IL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BETIE, TN WP	*18000	45000
BETIE, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	SKIDO, AL WP	*18000	45000
SKIDO, AL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BFOLO, AL WP	*18000	45000
BFOLO, AL WP *18000 - GNSS MEA *DME/DME/IRU MEA	JYROD, AL WP	*18000	45000
JYROD, AL WP *18000 - GNSS MEA *DME/DME/IRU MEA	DAWWN, GA WP	*18000	45000
DAWWN, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JOKKY, FL WP	*18000	45000
JOKKY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	AMORY, FL WP	*18000	45000
AMORY, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SMELZ, FL WP	*18000	45000
SMELZ, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHEEK, FL WP	*18000	45000
SHEEK, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAYMC, FL WP	*18000	45000
JAYMC, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	OCTAL, FL WP	*18000	45000
95.4113 RNAV ROUTE Q113			
RAYVO, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	CEELY, SC WP	*18000	45000

FROM	TO	MEA	MAA
95.4113 RNAV ROUTE Q113 - CONTINUED			
CEELY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	SARKY, SC WP	*18000	45000
95.4114 RNAV ROUTE Q114			
NATEE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	BOULDER CITY, NV VORTAC	*18000	45000
BOULDER CITY, NV VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	ZAINY, AZ WP	*20000	45000
ZAINY, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	AHOWW, UT WP	*20000	45000
AHOWW, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BAWER, UT WP	*24000	45000
BAWER, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BUGGG, UT WP	*24000	45000
BUGGG, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZAKRY, CO WP	*24000	45000
ZAKRY, CO WP *20000 - GNSS MEA *DME/DME/IRU MEA	BULDG, CO WP	*20000	45000
BULDG, CO WP *20000 - GNSS MEA *DME/DME/IRU MEA	COUGH, CO WP	*20000	45000
COUGH, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	AVVVS, CO FIX	*20000	45000
AVVVS, CO FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BRAFF, CO WP	*20000	45000
BRAFF, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	GOORE, CO WP	*20000	45000
GOORE, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	AYOLE, NE WP	*20000	45000
AYOLE, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	PECKS, NE WP	*20000	45000
PECKS, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	LEONG, IA WP	*20000	45000
95.4116 RNAV ROUTE Q116			
VULCAN, AL VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	DEEDA, GA WP	*18000	45000
DEEDA, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAWJA, FL WP	*18000	45000
JAWJA, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	MICES, FL WP	*18000	45000

FROM	TO	MEA	MAA
95.4116 RNAV ROUTE Q116 - CONTINUED			
MICES, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	DEANR, FL WP	*18000	45000
DEANR, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	PAToy, FL WP	*18000	45000
PAToy, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SMELZ, FL WP	*18000	45000
SMELZ, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHEEK, FL WP	*18000	45000
SHEEK, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAYMC, FL WP	*18000	45000
JAYMC, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	OCTAL, FL WP	*18000	45000
95.4118 RNAV ROUTE Q118			
MARION, IN VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	HEVAN, IN WP	*18000	45000
HEVAN, IN WP *18000 - GNSS MEA *DME/DME/IRU MEA	VOSTK, KY WP	*18000	45000
VOSTK, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	HELUB, KY WP	*18000	45000
HELUB, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	JEDER, KY WP	*18000	45000
JEDER, KY WP *18000 - GNSS MEA *DME/DME/IRU MEA	GLAZR, TN WP	*18000	45000
GLAZR, TN WP *18000 - GNSS MEA *DME/DME/IRU MEA	KAILL, GA WP	*18000	45000
KAILL, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ATLANTA, GA VORTAC	*18000	45000
ATLANTA, GA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	JOHNN, GA WP	*18000	45000
JOHNN, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAMIZ, FL WP	*18000	45000
JAMIZ, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	BRUTS, FL WP	*18000	45000
BRUTS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	JINOS, FL WP	*18000	45000
JINOS, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	KPASA, FL WP	*18000	45000
KPASA, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHEEK, FL WP	*18000	45000

FROM	TO	MEA	MAA
95.4118 RNAV ROUTE Q118 - CONTINUED			
SHEEK, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	CHRR1, FL WP	*18000	45000
CHRR1, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	FEMID, FL WP	*18000	45000
FEMID, FL WP *18000 - GNSS MEA *DME/DME/IRU MEA	PEAKY, FL WP	*18000	45000
95.4119 RNAV ROUTE Q119			
SCOOB, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	GROKK, VA WP	*18000	45000
GROKK, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	RYVRR, VA WP	*18000	45000
RYVRR, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHTGN, MD WP	*18000	45000
SHTGN, MD WP *18000 - GNSS MEA *DME/DME/IRU MEA	DUALY, MD WP	*18000	45000
DUALY, MD WP *18000 - GNSS MEA *DME/DME/IRU MEA	HALEX, MD WP	*18000	45000
HALEX, MD WP *18000 - GNSS MEA *DME/DME/IRU MEA	WESTMINSTER, MD VORTAC	*18000	45000
95.4120 RNAV ROUTE Q120			
ORRCA, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BETBE, NV WP	*24000	45000
BETBE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZORUN, NV WP	*24000	45000
ZORUN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	GALLI, NV WP	*31000	45000
GALLI, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAJAY, NV WP	*31000	45000
JAJAY, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	TRAKY, NV WP	*31000	45000
TRAKY, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	PROXI, UT WP	*29000	45000
PROXI, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BIG PINEY, WY VOR/DME	*25000	45000
BIG PINEY, WY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	JUGIV, WY WP	*23000	45000
JUGIV, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	HIKOX, WY FIX	*23000	45000

FROM	TO	MEA	MAA
95.4120 RNAV ROUTE Q120 - CONTINUED			
HIKOX, WY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JASTI, SD WP	*23000	45000
JASTI, SD WP *18000 - GNSS MEA *DME/DME/IRU MEA	UFFDA, MN WP	*19000	45000
95.4121 RNAV ROUTE Q121			
PARZZ, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	POCATELLO, ID VOR/DME	*24000	45000
POCATELLO, ID VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	SWTHN, MT WP	*24000	45000
95.4122 RNAV ROUTE Q122			
MOGEE, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	MACUS, NV WP	*18000	45000
MACUS, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	MCORD, NV WP	*28000	45000
MCORD, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	LUCIN, UT VORTAC	*28000	45000
LUCIN, UT VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	BEARR, UT FIX	*28000	45000
BEARR, UT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KURSE, WY WP	*28000	45000
KURSE, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	O NEILL, NE VORTAC	*21000	45000
O NEILL, NE VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	FORT DODGE, IA VORTAC	*18000	45000
95.4123 RNAV ROUTE Q123			
PARZZ, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	COKEE, MT WP	*24000	45000
95.4124 RNAV ROUTE Q124			
MOGEE, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	MACUS, NV WP	*18000	45000
MACUS, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	MCORD, NV WP	*28000	45000
MCORD, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	SLOWN, NV WP	*28000	45000
SLOWN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	FASTE, NV WP	*28000	45000

FROM	TO	MEA	MAA
95.4124 RNAV ROUTE Q124 - CONTINUED			
FASTE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	BONNEVILLE, UT VORTAC	*23000	45000
BONNEVILLE, UT VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	WAATS, UT FIX	*18000	45000
95.4125 RNAV ROUTE Q125			
PARZZ, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	WLLES, MT WP	*24000	45000
95.4126 RNAV ROUTE Q126			
TIPRE, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	INSLO, NV WP	*21000	45000
INSLO, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	CHUKR, NV WP	*26000	45000
CHUKR, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	TTOES, NV WP	*26000	45000
TTOES, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	GAROT, UT WP	*26000	45000
GAROT, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	KREYK, UT WP	*19000	45000
KREYK, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	DRRSI, UT WP	*19000	45000
DRRSI, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	LBATO, UT WP	*19000	45000
LBATO, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BASNN, CO WP	*19000	45000
BASNN, CO WP *19000 - GNSS MEA *DME/DME/IRU MEA	BRAFF, CO WP	*19000	45000
95.4127 RNAV ROUTE Q127			
GORDONSVILLE, VA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	BUKYY, MD WP	*18000	45000
BUKYY, MD WP *18000 - GNSS MEA *DME/DME/IRU MEA	BAILZ, MD WP	*18000	45000
BAILZ, MD WP *18000 - GNSS MEA *DME/DME/IRU MEA	GRACO, MD FIX	*18000	45000
GRACO, MD FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SMYRNA, DE VORTAC	*18000	45000
95.4128 RNAV ROUTE Q128			
SYRAH, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JSICA, NV WP	*27000	45000

FROM	TO	MEA	MAA
95.4128 RNAV ROUTE Q128 - CONTINUED			
JSICA, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	TABLL, UT WP	*25000	45000
TABLL, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	EDLES, UT FIX	*25000	45000
EDLES, UT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FLOOD, CO FIX	*24000	45000
FLOOD, CO FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ZAROS, CO WP	*22000	45000
ZAROS, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	VEGUC, OK WP	*20000	45000
VEGUC, OK WP *18000 - GNSS MEA *DME/DME/IRU MEA	VLUST, AR WP	*18000	45000
VLUST, AR WP *18000 - GNSS MEA *DME/DME/IRU MEA	ECIGE, AR WP	*18000	45000
ECIGE, AR WP *18000 - GNSS MEA *DME/DME/IRU MEA	MUDHO, MS WP	*18000	45000
MUDHO, MS WP *18000 - GNSS MEA *DME/DME/IRU MEA	JILLS, AL WP	*18000	45000
95.4129 RNAV ROUTE Q129			
GARIC, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	YERBA, NC WP	*18000	45000
YERBA, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	AARNN, NC WP	*18000	45000
AARNN, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	THEOO, VA WP	*18000	45000
THEOO, VA WP *18000 - GNSS MEA *DME/DME/IRU MEA	PYTON, MD WP	*18000	45000
95.4130 RNAV ROUTE Q130			
SYRAH, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JSICA, NV WP	*27000	45000
JSICA, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	REANA, NV WP	*27000	45000
REANA, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROCCY, UT WP	*27000	45000
ROCCY, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	HASSL, UT WP	*27000	45000
HASSL, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	TAHIB, CO WP	*22000	45000

FROM	TO	MEA	MAA
95.4130 RNAV ROUTE Q130 - CONTINUED			
TAHIB, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	DIXAN, NM FIX	*22000	45000
DIXAN, NM FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MIRME, NM WP	*22000	45000
MIRME, NM WP *18000 - GNSS MEA *DME/DME/IRU MEA	PANHANDLE, TX VORTAC	*18000	45000
95.4132 RNAV ROUTE Q132			
WEBGO, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ANAHO, NV FIX	*18000	45000
ANAHO, NV FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MYBAD, NV WP	*18000	45000
MYBAD, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZERAM, NV WP	*18000	45000
ZERAM, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	MAGPY, NV WP	*26000	45000
95.4134 RNAV ROUTE Q134			
DUGLE, CA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	TATOO, NV WP	*20000	45000
TATOO, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	JULIK, UT FIX	*24000	45000
JULIK, UT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HERSH, UT WP	*21000	45000
HERSH, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	VOAXA, CO FIX	*21000	45000
95.4135 RNAV ROUTE Q135			
JROSS, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	PELIE, SC WP	*18000	45000
PELIE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	ELMSZ, SC WP	*18000	45000
ELMSZ, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	RAPZZ, NC WP	*18000	45000
95.4136 RNAV ROUTE Q136			
COALDALE, NV VORTAC *GNSS REQUIRED	RUMPS, NV WP	*18000	45000
RUMPS, NV WP *GNSS REQUIRED	KATTS, NV WP	*18000	45000
KATTS, NV WP *GNSS REQUIRED	CRLES, NV WP	*18000	45000

FROM	TO	MEA	MAA
95.4136 RNAV ROUTE Q136 - CONTINUED			
CRLES, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	GDGET, UT WP	*26000	45000
GDGET, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	TRALP, UT WP	*26000	45000
TRALP, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	MANRD, UT WP	*26000	45000
MANRD, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	WEEMN, UT WP	*26000	45000
WEEMN, UT WP *18000 - GNSS MEA *DME/DME/IRU MEA	ELLFF, CO WP	*26000	45000
ELLFF, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	VOAXA, CO FIX	*21000	45000
VOAXA, CO FIX *21000 - GNSS MEA *DME/DME/IRU MEA	COUGH, CO WP	*21000	45000
COUGH, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	BBULL, CO WP	*21000	45000
BBULL, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZIRKL, NE WP	*21000	45000
ZIRKL, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	KAWWA, NE WP	*21000	45000
KAWWA, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	SYTHH, NE WP	*21000	45000
SYTHH, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	AYEGI, NE WP	*19000	45000
AYEGI, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	TURCK, NE WP	*19000	45000
TURCK, NE WP *18000 - GNSS MEA *DME/DME/IRU MEA	WRNCH, IA WP	*19000	45000
WRNCH, IA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BVEEE, IA WP	*19000	45000
BVEEE, IA WP *18000 - GNSS MEA *DME/DME/IRU MEA	HIBAV, IA WP	*19000	45000
HIBAV, IA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BAACN, IA WP	*19000	45000
95.4138 RNAV ROUTE Q138			
WILLIAMS, CA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	FIMUV, CA WP	*18000	45000
FIMUV, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	JENSA, NV WP	*22000	45000

FROM	TO	MEA	MAA
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95.4138 RNAV ROUTE Q138 - CONTINUED

JENSA, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	PUHGI, NV WP	*24000	45000
PUHGI, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROOHZ, NV WP	*24000	45000
ROOHZ, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	PARZZ, NV WP	*24000	45000
PARZZ, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	UROCO, WY WP	*24000	45000
UROCO, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	RICCO, WY WP	*24000	45000
RICCO, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	MOTLY, SD WP	*24000	45000
MOTLY, SD WP *18000 - GNSS MEA *DME/DME/IRU MEA	DKOTA, SD WP	*24000	45000
DKOTA, SD WP *18000 - GNSS MEA *DME/DME/IRU MEA	WELOK, MN WP	*20000	45000
WELOK, MN WP *18000 - GNSS MEA *DME/DME/IRU MEA	CESNA, WI WP	*20000	45000
CESNA, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	GUUME, WI WP	*20000	45000
GUUME, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	SNARG, WI WP	*20000	45000
SNARG, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	SAULT STE MARIE, MI VOR/DME	*20000	45000

95.4140 RNAV ROUTE Q140

WOBED, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	GETNG, WA WP	*25000	45000
GETNG, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	CORDU, ID FIX	*25000	45000
CORDU, ID FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PETIY, MT WP	*30000	45000
PETIY, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	CHOTE, MT FIX	*32000	45000
CHOTE, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LEWIT, MT WP	*26000	45000
LEWIT, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	SAYOR, MT WP	*24000	45000
SAYOR, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	WILTND, ND FIX	*18000	45000

FROM	TO	MEA	MAA
95.4140 RNAV ROUTE Q140 - CONTINUED			
WILTN, ND FIX *18000 - GNSS MEA *DME/DME/IRU MEA	TTAIL, MN WP	*18000	45000
TTAIL, MN WP *18000 - GNSS MEA *DME/DME/IRU MEA	CESNA, WI WP	*18000	45000
CESNA, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	WISCN, WI WP	*19000	45000
WISCN, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	EEGEE, WI WP	*18000	45000
EEGEE, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	DAYYY, MI WP	*18000	45000
DAYYY, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	AHPAH, NY WP	*18000	45000
AHPAH, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	HANKK, NY FIX	*18000	45000
HANKK, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BEEPS, NY FIX	*18000	45000
BEEPS, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	EXTOL, NY FIX	*18000	45000
EXTOL, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MEMMS, NY FIX	*18000	45000
MEMMS, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KODEY, NY FIX	*18000	45000
KODEY, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ARKKK, NY WP	*18000	45000
ARKKK, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	RODYY, NY WP	*18000	45000
RODYY, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	YODAA, NY FIX	*18000	45000
95.4142 RNAV ROUTE Q142			
METOW, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	MULLAN PASS, ID VOR/DME	*26000	45000
MULLAN PASS, ID VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	KEETA, MT WP	*26000	45000
KEETA, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	OKVUJ, MT WP	*24000	45000
OKVUJ, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	KIXCO, MT FIX	*22000	45000

FROM	TO	MEA	MAA
95.4144 RNAV ROUTE Q144			
ZIRAN, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZOOMR, WA FIX	*18000	45000
ZOOMR, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BLOWS, MT WP	*21000	45000
BLOWS, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	KEETA, MT WP	*21000	45000
KEETA, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	LEWIT, MT WP	*21000	45000
95.4145 RNAV ROUTE Q145			
KONGO, KY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	CHARLESTON, WV VOR/DME	*18000	45000
CHARLESTON, WV VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	CLNTN, OH WP	*18000	45000
CLNTN, OH WP *18000 - GNSS MEA *DME/DME/IRU MEA	FOXEE, PA WP	*18000	45000
95.4146 RNAV ROUTE Q146			
CASHS, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BLUNT, WA FIX	*24000	45000
BLUNT, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DIPHU, MT FIX	*24000	45000
DIPHU, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	CUSDA, MT FIX	*24000	45000
CUSDA, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ZERZO, MT FIX	*24000	45000
ZERZO, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KIXCO, MT FIX	*22000	45000
KIXCO, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	TIMMR, ND FIX	*20000	45000
TIMMR, ND FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SMERF, SD WP	*20000	45000
SMERF, SD WP *18000 - GNSS MEA *DME/DME/IRU MEA	HUFFR, MN WP	*18000	45000
95.4148 RNAV ROUTE Q148			
STEVs, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZAXUL, WA FIX	*18000	45000
ZAXUL, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FINUT, WA WP	*24000	45000

FROM	TO	MEA	MAA
95.4148 RNAV ROUTE Q148 - CONTINUED			
FINUT, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	WEDAK, MT FIX	*26000	45000
WEDAK, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	WAIDE, MT FIX	*26000	45000
WAIDE, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JUGIV, WY WP	*26000	45000
JUGIV, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	MEDICINE BOW, WY VOR/DME	*26000	45000
MEDICINE BOW, WY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	MOCTU, WY FIX	*26000	45000
MOCTU, WY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LEWOY, CO WP	*26000	45000
LEWOY, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	CUGGA, KS FIX	*26000	45000
CUGGA, KS FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PENUT, KS WP	*26000	45000
PENUT, KS WP *18000 - GNSS MEA *DME/DME/IRU MEA	KIRKE, KS FIX	*26000	45000
KIRKE, KS FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MORRR, KS WP	*26000	45000
MORRR, KS WP *18000 - GNSS MEA *DME/DME/IRU MEA	BARTLESVILLE, OK VOR/DME	*26000	45000
95.4150 RNAV ROUTE Q150			
STEVs, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZAXUL, WA FIX	*18000	45000
ZAXUL, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LEZLE, WA FIX	*24000	45000
LEZLE, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BAXGO, ID FIX	*24000	45000
BAXGO, ID FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LAMON, ID FIX	*24000	45000
LAMON, ID FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GANNE, WY WP	*24000	45000
GANNE, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	DDRTH, WY WP	*24000	45000
DDRTH, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	YAMPA, CO WP	*24000	45000
YAMPA, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	BBULL, CO WP	*24000	45000

FROM	TO	MEA	MAA
95.4150 RNAV ROUTE Q150 - CONTINUED			
BBULL, CO WP *18000 - GNSS MEA *DME/DME/IRU MEA	DUUZE, KS WP	*24000	45000
DUUZE, KS WP *18000 - GNSS MEA *DME/DME/IRU MEA	EXHAS, KS WP	*24000	45000
95.4152 RNAV ROUTE Q152			
SUNED, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LEZLE, WA FIX	*24000	45000
LEZLE, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	WEDAK, MT FIX	*24000	45000
WEDAK, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	IKFOM, WY WP	*24000	45000
IKFOM, WY WP *18000 - GNSS MEA *DME/DME/IRU MEA	WUVUT, WY FIX	*24000	45000
WUVUT, WY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	O NEILL, NE VORTAC	*24000	45000
95.4154 RNAV ROUTE Q154			
WANTA, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JELTI, OR FIX	*24000	45000
JELTI, OR FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HOVEL, ID FIX	*24000	45000
HOVEL, ID FIX *18000 - GNSS MEA *DME/DME/IRU MEA	VELUY, ID WP	*24000	45000
VELUY, ID WP *18000 - GNSS MEA *DME/DME/IRU MEA	BURLEY, ID VOR/DME	*24000	45000
BURLEY, ID VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	PIMIE, UT FIX	*24000	45000
PIMIE, UT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	NAGNE, UT FIX	*24000	45000
NAGNE, UT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BONGO, UT FIX	*24000	45000
BONGO, UT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PITMN, CO FIX	*24000	45000
PITMN, CO FIX *18000 - GNSS MEA *DME/DME/IRU MEA	TAYLR, CO FIX	*24000	45000
TAYLR, CO FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GOSIP, CO FIX	*24000	45000
GOSIP, CO FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KENTO, NM FIX	*24000	45000

FROM	TO	MEA	MAA
95.4154 RNAV ROUTE Q154 - CONTINUED			
KENTO, NM FIX *18000 - GNSS MEA *DME/DME/IRU MEA	NOSEW, TX WP	*24000	45000
NOSEW, TX WP *18000 - GNSS MEA *DME/DME/IRU MEA	BOWIE, TX VORTAC	*24000	45000
95.4156 RNAV ROUTE Q156			
STEVs, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZAXUL, WA FIX	*18000	45000
ZAXUL, WA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FINUT, WA WP	*24000	45000
FINUT, WA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TUFFY, MT FIX	*24000	45000
TUFFY, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	UPUGE, MT FIX	*24000	45000
UPUGE, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HEXOL, MT FIX	*24000	45000
HEXOL, MT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SWTHN, MT WP	*24000	45000
SWTHN, MT WP *18000 - GNSS MEA *DME/DME/IRU MEA	JELRO, SD FIX	*28000	45000
JELRO, SD FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KEKPE, SD WP	*28000	45000
KEKPE, SD WP *18000 - GNSS MEA *DME/DME/IRU MEA	UFFDA, MN WP	*28000	45000
UFFDA, MN WP *18000 - GNSS MEA *DME/DME/IRU MEA	HSTIN, MN WP	*28000	45000
HSTIN, MN WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZZIPR, IA WP	*18000	45000
95.4158 RNAV ROUTE Q158			
NTELL, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	PPARK, CA WP	*24000	45000
PPARK, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TRTIS, CA WP	*24000	45000
TRTIS, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BIKKR, CA WP	*24000	45000
BIKKR, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	MYCAL, NV WP	*24000	45000
MYCAL, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	JEDNA, NV WP	*24000	45000

FROM	TO	MEA	MAA
95.4160 RNAV ROUTE Q160			
SHVVR, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	FAANG, CA FIX	*36000	45000
FAANG, CA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	RIVVO, CA WP	*36000	45000
RIVVO, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BIKKR, CA WP	*25000	45000
95.4162 RNAV ROUTE Q162			
NTELL, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	CABAB, CA WP	*24000	45000
CABAB, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	VIKSN, CA WP	*28000	45000
VIKSN, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	KENNO, NV WP	*28000	45000
KENNO, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ESSAA, NV WP	*28000	45000
ESSAA, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	TUMBE, NV WP	*28000	45000
TUMBE, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	MYCAL, NV WP	*28000	45000
95.4164 RNAV ROUTE Q164			
NTELL, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	CABAB, CA WP	*24000	45000
CABAB, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	KICHI, NV WP	*26000	45000
KICHI, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	KATTS, NV WP	*26000	45000
KATTS, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	KITTN, NV WP	*27000	45000
KITTN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	ROCCY, UT WP	*27000	45000
95.4166 RNAV ROUTE Q166			
VIKSN, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	UHILL, CA WP	*23000	45000
UHILL, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BIKKR, CA WP	*23000	45000
95.4168 RNAV ROUTE Q168			
FNDA, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SHIVA, AZ WP	*21000	45000

FROM	TO	MEA	MAA
95.4168 RNAV ROUTE Q168 - CONTINUED			
SHIVA, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	KRINA, AZ WP	*21000	45000
KRINA, AZ WP *18000 - GNSS MEA *DME/DME/IRU MEA	JASSE, AZ WP	*21000	45000
95.4172 RNAV ROUTE Q172			
YUTEE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	BWAGS, SC WP	*18000	45000
BWAGS, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	HINTZ, SC WP	*18000	45000
HINTZ, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	CEELY, SC WP	*18000	45000
CEELY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	OKNEE, SC WP	*18000	45000
OKNEE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	KAATT, NC WP	*18000	45000
KAATT, NC WP *18000 - GNSS MEA *DME/DME/IRU MEA	RAPZZ, NC WP	*18000	45000
95.4174 RNAV ROUTE Q174			
NTELL, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	CABAB, CA WP	*24000	45000
CABAB, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	TTMSN, CA WP	*24000	45000
TTMSN, CA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SKANN, NV WP	*24000	45000
SKANN, NV WP *18000 - GNSS MEA *DME/DME/IRU MEA	FLCHR, NV WP	*24000	45000
95.4220 RNAV ROUTE Q220			
RIFLE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HOFFI, NY FIX	*18000	45000
HOFFI, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ORCHA, NY WP	*18000	45000
ORCHA, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	ALBOW, NY WP	*18000	45000
ALBOW, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	SANDY POINT, RI VOR/DME	*18000	45000
SANDY POINT, RI VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	SKOWL, RI WP	*18000	45000

FROM	TO	MEA	MAA
95.4220 RNAV ROUTE Q220 - CONTINUED			
SKOWL, RI WP *18000 - GNSS MEA *DME/DME/IRU MEA	JAWZZ, MA WP	*18000	45000
JAWZZ, MA WP *18000 - GNSS MEA *DME/DME/IRU MEA	LARIE, MA WP	*18000	45000
95.4406 RNAV ROUTE Q406			
BROADWAY, NJ VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	DBABE, NY WP	*18000	45000
DBABE, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	BASYE, NY FIX	*18000	45000
BASYE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	TRIBS, CT WP	*18000	45000
TRIBS, CT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BIGGO, CT FIX	*18000	45000
BIGGO, CT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BARNES, MA VORTAC	*18000	45000
95.4409 RNAV ROUTE Q409			
ENEME, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	PUPYY, GA WP	*18000	45000
PUPYY, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	ISUZO, GA WP	*18000	45000
ISUZO, GA WP *18000 - GNSS MEA *DME/DME/IRU MEA	KONEY, SC WP	*18000	45000
KONEY, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	JROSS, SC WP	*18000	45000
JROSS, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	SESUE, SC WP	*18000	45000
SESUE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	OKNEE, SC WP	*18000	45000
OKNEE, SC WP *18000 - GNSS MEA *DME/DME/IRU MEA	MRPIT, NC WP	*18000	45000
95.4430 RNAV ROUTE Q430			
ZANDR, OH FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BELLAIRE, OH VOR/DME	*18000	45000
BELLAIRE, OH VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	LEJOY, PA FIX	*18000	45000
LEJOY, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	VINSE, PA FIX	*18000	45000

FROM	TO	MEA	MAA
95.4430 RNAV ROUTE Q430 - CONTINUED			
VINSE, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BEETS, PA FIX	*18000	45000
BEETS, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LARRI, PA FIX	*18000	45000
LARRI, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SAAME, PA FIX	*18000	45000
SAAME, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BYRDD, PA FIX	*18000	45000
BYRDD, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	COPEES, PA FIX	*18000	45000
COPEES, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ROBBINSVILLE, NJ VORTAC	*18000	45000
ROBBINSVILLE, NJ VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	MYRCA, NJ WP	*18000	45000
MYRCA, NJ WP *18000 - GNSS MEA *DME/DME/IRU MEA	CREEL, NY FIX	*18000	45000
CREEL, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	RIFLE, NY FIX	*18000	45000
RIFLE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KYSKY, NY FIX	*18000	45000
KYSKY, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	LIBBE, NY FIX	*18000	45000
LIBBE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FLAPE, MA FIX	*18000	45000
FLAPE, MA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DEEPO, MA FIX	*18000	45000
DEEPO, MA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	NANTUCKET, MA VOR/DME	*18000	45000
95.4436 RNAV ROUTE Q436			
EMMMA, MI FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DIXSN, MI WP	*18000	45000
DIXSN, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	BOOTT, MI WP	*18000	45000
BOOTT, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	RRONS, MI WP	*18000	45000
RRONS, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	RAAKK, NY WP	*18000	45000

FROM	TO	MEA	MAA
95.4436 RNAV ROUTE Q436 - CONTINUED			
RAAKK, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	HERBA, NY WP	*18000	45000
HERBA, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	REXXY, NY WP	*18000	45000
REXXY, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	REBBL, PA FIX	*18000	45000
REBBL, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MTCAF, PA WP	*18000	45000
MTCAF, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	DGRAF, PA FIX	*18000	45000
DGRAF, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	YYOST, PA WP	*18000	45000
YYOST, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	LAAYK, PA FIX	*18000	45000
LAAYK, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	COATE, NJ FIX	*18000	45000
95.4438 RNAV ROUTE Q438			
RUBYY, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	BERYS, MI WP	*18000	45000
BERYS, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	TWIGS, MI WP	*18000	45000
TWIGS, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	RAAKK, NY WP	*18000	45000
95.4439 RNAV ROUTE Q439			
BRIGS, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DRIFT, NJ FIX	*18000	45000
DRIFT, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MANTA, NJ FIX	*18000	45000
MANTA, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	PLUME, NJ FIX	*18000	45000
PLUME, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SHERL, NY FIX	*18000	45000
SHERL, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DUNEE, NY FIX	*18000	45000
DUNEE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SARDI, NY FIX	*18000	45000

FROM	TO	MEA	MAA
95.4439 RNAV ROUTE Q439 - CONTINUED			
SARDI, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	RIFLE, NY FIX	*18000	45000
RIFLE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FOXWD, CT WP	*18000	45000
FOXWD, CT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BOGRT, MA WP	*18000	45000
BOGRT, MA WP *18000 - GNSS MEA *DME/DME/IRU MEA	BLENO, NH WP	*18000	45000
BLENO, NH WP *18000 - GNSS MEA *DME/DME/IRU MEA	BEEKN, ME WP	*18000	45000
BEEKN, ME WP *18000 - GNSS MEA *DME/DME/IRU MEA	FRIAR, ME FIX	*18000	45000
FRIAR, ME FIX *GNSS REQUIRED	PRESQUE ISLE, ME VOR/DME	*18000	45000
95.4440 RNAV ROUTE Q440			
HUFFR, MN WP *18000 - GNSS MEA *DME/DME/IRU MEA	IDIOM, WI WP	*18000	45000
IDIOM, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	DEANI, MI FIX	*18000	45000
DEANI, MI FIX *18000 - GNSS MEA *DME/DME/IRU MEA	SLLAP, MI WP	*18000	45000
SLLAP, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	BERYS, MI WP	*18000	45000
BERYS, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	TWIGS, MI WP	*18000	45000
TWIGS, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	RAAKK, NY WP	*18000	45000
95.4448 RNAV ROUTE Q448			
POTTSTOWN, PA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	LANNA, NJ FIX	*18000	45000
LANNA, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	DBABE, NY WP	*18000	45000
DBABE, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	BASYE, NY FIX	*18000	45000
BASYE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	TRIBS, CT WP	*18000	45000

FROM	TO	MEA	MAA
95.4448 RNAV ROUTE Q448 - CONTINUED			
TRIBS, CT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BIGGO, CT FIX	*18000	45000
BIGGO, CT FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BARNES, MA VORTAC	*18000	45000
95.4450 RNAV ROUTE Q450			
HNNAH, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KENNEDY, NY VOR/DME	*18000	45000
KENNEDY, NY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	DEER PARK, NY VOR/DME	*18000	45000
95.4475 RNAV ROUTE Q475			
COPLY, MA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SCUPP, OA FIX	*18000	45000
SCUPP, OA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	CANAL, OA WP	*18000	45000
CANAL, OA WP *GNSS REQUIRED	U.S. CANADIAN BORDER	*18000	45000
95.4480 RNAV ROUTE Q480			
ZANDR, OH FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BELLAIRE, OH VOR/DME	*18000	45000
BELLAIRE, OH VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	LEJOY, PA FIX	*18000	45000
LEJOY, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	VINSE, PA FIX	*18000	45000
VINSE, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BEETS, PA FIX	*18000	45000
BEETS, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HOTEE, PA WP	*18000	45000
HOTEE, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	MIKYG, PA WP	*18000	45000
MIKYG, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	SPOTZ, PA WP	*18000	45000
SPOTZ, PA WP *18000 - GNSS MEA *DME/DME/IRU MEA	CANDR, NJ FIX	*18000	45000
CANDR, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JEFFF, NJ FIX	*18000	45000
JEFFF, NJ FIX *18000 - GNSS MEA *DME/DME/IRU MEA	KINGSTON, NY VOR/DME	*18000	45000

FROM	TO	MEA	MAA
95.4480 RNAV ROUTE Q480 - CONTINUED			
KINGSTON, NY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	LESWL, CT WP	*18000	45000
LESWL, CT WP *18000 - GNSS MEA *DME/DME/IRU MEA	BARNES, MA VORTAC	*18000	45000
BARNES, MA VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	KYLOH, NH WP	*18000	45000
KYLOH, NH WP *18000 - GNSS MEA *DME/DME/IRU MEA	BEEKN, ME WP	*18000	45000
BEEKN, ME WP *18000 - GNSS MEA *DME/DME/IRU MEA	KENNEBUNK, ME VOR/DME	*18000	45000
95.4806 RNAV ROUTE Q806			
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	MILLINOCKET, ME VOR/DME	*18000	45000
MILLINOCKET, ME VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	CANME, ME WP	*18000	45000
CANME, ME WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4812 RNAV ROUTE Q812			
TIMMR, ND FIX *18000 - GNSS MEA *DME/DME/IRU MEA	WELOK, MN WP	*20000	45000
WELOK, MN WP *18000 - GNSS MEA *DME/DME/IRU MEA	CEWDA, WI WP	*20000	45000
CEWDA, WI WP *18000 - GNSS MEA *DME/DME/IRU MEA	ZOHAN, MI WP	*20000	45000
ZOHAN, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*20000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	KELTI, NY WP	*20000	45000
KELTI, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	AHPAH, NY WP	*20000	45000
AHPAH, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	GOATR, NY WP	*20000	45000
GOATR, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	SYRACUSE, NY VORTAC	*18000	45000
SYRACUSE, NY VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	FABEN, NY WP	*18000	45000
FABEN, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	LOXXE, NY FIX	*18000	45000

FROM	TO	MEA	MAA
95.4812 RNAV ROUTE Q812 - CONTINUED			
LOXXE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	ARKKK, NY WP	*18000	45000
ARKKK, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	STOMP, NY FIX	*18000	45000
STOMP, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MSLIN, NY FIX	*18000	45000
MSLIN, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GAYEL, NY FIX	*18000	45000
95.4816 RNAV ROUTE Q816			
HOCKE, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	KELTI, NY WP	*18000	45000
KELTI, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	AHPAH, NY WP	*18000	45000
AHPAH, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	GOATR, NY WP	*18000	45000
GOATR, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	ARNII, NY FIX	*18000	45000
ARNII, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HANAA, NY WP	*18000	45000
95.4818 RNAV ROUTE Q818			
FLINT, MI VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	WOZEE, NY WP	*18000	45000
WOZEE, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	KELIE, NY FIX	*18000	45000
KELIE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	VIEEW, NY FIX	*18000	45000
VIEEW, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	BINGHAMTON, NY VOR/DME	*18000	45000
BINGHAMTON, NY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	BUFFY, PA FIX	*18000	45000
BUFFY, PA FIX *18000 - GNSS MEA *DME/DME/IRU MEA	STOMP, NY FIX	*18000	45000
STOMP, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	MSLIN, NY FIX	*18000	45000

FROM	TO	MEA	MAA
95.4818 RNAV ROUTE Q818 - CONTINUED			
MSLIN, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	GAYEL, NY FIX	*18000	45000
95.4822 RNAV ROUTE Q822			
FLINT, MI VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	HOZIR, NY WP	*18000	45000
HOZIR, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	GONZZ, NY WP	*18000	45000
GONZZ, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	PUPPY, NY WP	*18000	45000
PUPPY, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	PAYGE, NY FIX	*18000	45000
PAYGE, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	CAMBRIDGE, NY VOR/DME	*18000	45000
CAMBRIDGE, NY VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	KENNEBUNK, ME VOR/DME	*18000	45000
KENNEBUNK, ME VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	AJJAY, ME WP	*18000	45000
AJJAY, ME WP *18000 - GNSS MEA *DME/DME/IRU MEA	ALEX, OA FIX	*18000	45000
95.4824 RNAV ROUTE Q824			
FLINT, MI VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	HOCKE, MI WP	*18000	45000
HOCKE, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4842 RNAV ROUTE Q842			
BEALE, NV FIX *GNSS REQUIRED	BLIPP, NV WP	*18000	45000
BLIPP, NV WP *GNSS REQUIRED	WINEN, UT WP	*18000	45000
WINEN, UT WP *GNSS REQUIRED	TABLL, UT WP	*18000	45000
TABLL, UT WP *GNSS REQUIRED	PICHO, UT WP	*18000	45000
PICHO, UT WP *GNSS REQUIRED	PATIO, UT WP	*18000	45000
PATIO, UT WP *GNSS REQUIRED	PROXI, UT WP	*18000	45000
PROXI, UT WP *GNSS REQUIRED	VAANE, MT WP	*18000	45000

FROM	TO	MEA	MAA
95.4842 RNAV ROUTE Q842 - CONTINUED			
VAANE, MT WP *GNSS REQUIRED	KEETA, MT WP	*18000	45000
KEETA, MT WP *GNSS REQUIRED	U.S. CANADIAN BORDER	*18000	45000
95.4844 RNAV ROUTE Q844			
SYRACUSE, NY VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4848 RNAV ROUTE Q848			
SLLAP, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	HHIPP, MI WP	*18000	45000
HHIPP, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4905 RNAV ROUTE Q905			
HOCKE, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4907 RNAV ROUTE Q907			
POSTS, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	PADDE, MI WP	*18000	45000
PADDE, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	SALEM, MI VORTAC	*18000	45000
SALEM, MI VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4913 RNAV ROUTE Q913			
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	CABCI, VT WP	*18000	45000
CABCI, VT WP *18000 - GNSS MEA *DME/DME/IRU MEA	TOPPS, ME FIX	*18000	45000
95.4917 RNAV ROUTE Q917			
SAULT STE MARIE, MI VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	HOZIR, NY WP	*18000	45000

FROM	TO	MEA	MAA
95.4917 RNAV ROUTE Q917 - CONTINUED			
HOZIR, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	WOZEE, NY WP	*18000	45000
95.4923 RNAV ROUTE Q923			
HOCKE, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4935 RNAV ROUTE Q935			
MONEE, MI FIX *18000 - GNSS MEA *DME/DME/IRU MEA	HOCKE, MI WP	*18000	45000
HOCKE, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	WOZEE, NY WP	*18000	45000
WOZEE, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	HANKK, NY FIX	*18000	45000
HANKK, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	JOSSY, NY WP	*18000	45000
JOSSY, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	AUDIL, NY FIX	*18000	45000
AUDIL, NY FIX *18000 - GNSS MEA *DME/DME/IRU MEA	FABEN, NY WP	*18000	45000
FABEN, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	PONCT, NY WP	*18000	45000
PONCT, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	GARDNER, MA VOR/DME	*18000	45000
GARDNER, MA VOR/DME *18000 - GNSS MEA *DME/DME/IRU MEA	BOSTON, MA VOR/DME	*18000	45000
95.4937 RNAV ROUTE Q937			
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	WAYGO, NY WP	*18000	45000
WAYGO, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	KRAZZ, NY WP	*18000	45000
95.4947 RNAV ROUTE Q947			
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	TOPPS, ME FIX	*18000	45000
TOPPS, ME FIX *18000 - GNSS MEA *DME/DME/IRU MEA	CUZWA, ME WP	*18000	45000

FROM	TO	MEA	MAA
95.4947 RNAV ROUTE Q947 - CONTINUED			
CUZWA, ME WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
95.4951 RNAV ROUTE Q951			
POSTS, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	PADDE, MI WP	*18000	45000
PADDE, MI WP *18000 - GNSS MEA *DME/DME/IRU MEA	SALEM, MI VORTAC	*18000	45000
SALEM, MI VORTAC *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	DAVDA, NY WP	*18000	45000
DAVDA, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	SAVAL, NY WP	*18000	45000
SAVAL, NY WP *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000
U.S. CANADIAN BORDER *18000 - GNSS MEA *DME/DME/IRU MEA	U.S. CANADIAN BORDER	*18000	45000

§95.5000 GROUND-BASED HIGH ALTITUDE RNAV ROUTES

FROM/TO	TOTAL DISTANCE	CHANGEOVER DISTANCE	POINT FROM	TRACK ANGLE	MEA	MAA
J804R						
ANCHORAGE, AK VOR/DME	60.0				18000	45000
NOWEL, AK RP				133/314 TO NOWEL		
NOWEL, AK RP	90.5				18000	45000
MIDDLETON ISLAND, AK VOR/DME				134/316 TO MIDDLETON ISLAND		
MIDDLETON ISLAND, AK VOR/DME	170.9	121	MIDDLETON ISLAND	095/275 TO COP	24000	45000
SNOUT, AK RP				120/300 TO SNOUT		
SNOUT, AK RP	196.9	197	SNOUT	096/276 TO COP	24000	45000
EEDEN, AK RP				125/305 TO EEDEN		
EEDEN, AK RP	153.9	112	EEDEN	102/282 TO COP	24000	45000
FRIED, AK RP				129/309 TO FRIED		
J889R						
NOWEL, AK RP	75.0	10	NOWEL	112/294 TO COP	18000	45000
ARISE, AK RP				112/294 TO ARISE		
ARISE, AK RP	71.0			112/293 TO KONKS	18000	45000
KONKS, AK WP				293/113 TO KONKS		
KONKS, AK WP	116.0	40	KONKS	111/294 TO COP	18000	45000
LAIRE, AK RP				294/114 TO LAIRE		

FROM

TO

MEA

§95.6001 VOR FEDERAL AIRWAYS**95.6001 VOR FEDERAL AIRWAY V1**

CRAIG, FL VORTAC	STARY, GA FIX	*4000
*2100 - MOCA		
STARY, GA FIX	RUBYS, SC FIX	*11000
*1200 - MOCA		
RUBYS, SC FIX	*BASSO, SC FIX	**11000
*3000 - MRA		
**2300 - MOCA		
BASSO, SC FIX	CHARLESTON, SC VORTAC	2000
CHARLESTON, SC VORTAC	*KIMMY, SC FIX	**5000
*6000 - MRA		
**2000 - GNSS MEA		
KIMMY, SC FIX	INLET, SC FIX	*5000
*2100 - GNSS MEA		
INLET, SC FIX	GRAND STRAND, SC VORTAC	
	NE BND	*2100
	SW BND	*5000
*2100 - GNSS MEA		
GRAND STRAND, SC VORTAC	ASHES, NC FIX	
	NE BND	5000
	SW BND	2000
ASHES, NC FIX	YOAST, NC FIX	*5000
*2100 - MOCA		
YOAST, NC FIX	WALLO, NC FIX	*7000
*1700 - MOCA		
WALLO, NC FIX	KINSTON, NC VORTAC	
	NE BND	#2000
	SW BND	*7000
#SEGMENT UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
KINSTON, NC VORTAC	ZAGGY, NC FIX	#
#UNUSABLE		
ZAGGY, NC FIX	COFIELD, NC VORTAC	*3000
*1500 - MOCA		
COFIELD, NC VORTAC	DRONE, NC FIX	2000
DRONE, NC FIX	NORFOLK, VA VORTAC	*2500
*1600 - MOCA		
NORFOLK, VA VORTAC	CAPE CHARLES, VA VORTAC	*2500
*1800 - MOCA		
CAPE CHARLES, VA VORTAC	SALISBURY, MD VORTAC	2000
SALISBURY, MD VORTAC	WATERLOO, DE VOR/DME	#*2000
*1500 - MOCA		
#SALISBURY R-039 UNUSABLE BELOW 5000 MSL		
WATERLOO, DE VOR/DME	COYLE, NJ VORTAC	1800
COYLE, NJ VORTAC	DIXIE, NJ FIX	*2500
*1600 - MOCA		
DIXIE, NJ FIX	KENNEDY, NY VOR/DME	*2500
*1600 - MOCA		
KENNEDY, NY VOR/DME	DEER PARK, NY VOR/DME	1800
DEER PARK, NY VOR/DME	MADISON, CT VOR/DME	2000
MADISON, CT VOR/DME	HARTFORD, CT VOR/DME	2500
HARTFORD, CT VOR/DME	DVANY, CT FIX	3000
DVANY, CT FIX	GRAYM, MA FIX	*4000
*2500 - MOCA		
GRAYM, MA FIX	BOSTON, MA VOR/DME	*4000
*2500 - MOCA		
*3000 - GNSS MEA		

FROM

TO

MEA

95.6002 VOR FEDERAL AIRWAY V2

*SEATTLE, WA VORTAC	VAMPS, WA FIX	
	E BND	**8400
	W BND	**4000
*4300 - MCA SEATTLE, WA VORTAC , E BND		
**3100 - MOCA		
**5300 - GNSS MEA		
VAMPS, WA FIX	BANDR, WA FIX	
	E BND	*8400
	W BND	*7700
*7700 - GNSS MEA		
BANDR, WA FIX	*BEEZR, WA FIX	8400
*9000 - MRA		
BEEZR, WA FIX	ELLENSBURG, WA VOR/DME	*8000
*7200 - MOCA		
ELLENSBURG, WA VOR/DME	PLUSS, WA FIX	7000
PLUSS, WA FIX	MOSES LAKE, WA VOR/DME	4000
MOSES LAKE, WA VOR/DME	BATUM, WA FIX	4000
BATUM, WA FIX	SUBDY, WA FIX	5000
SUBDY, WA FIX	*SPOKANE, WA VORTAC	5000
*5200 - MCA SPOKANE, WA VORTAC , E BND		
SPOKANE, WA VORTAC	ROPES, WA FIX	7100
ROPES, WA FIX	MULLAN PASS, ID VOR/DME	9100
MULLAN PASS, ID VOR/DME	ALTON, MT FIX	9600
ALTON, MT FIX	MISSOULA, MT VOR/DME	
	SE BND	*9000
	NW BND	*9600
*8500 - MOCA		
MISSOULA, MT VOR/DME	HELENA, MT VORTAC	*13000
*10300 - MOCA		
HELENA, MT VORTAC	SWEDD, MT FIX	10000
SWEDD, MT FIX	CONNS, MT FIX	10800
CONNS, MT FIX	LIVINGSTON, MT VOR/DME	10000
LIVINGSTON, MT VOR/DME	REEPO, MT FIX	9700
REEPO, MT FIX	COLUS, MT FIX	
	W BND	9700
	E BND	7000
COLUS, MT FIX	BILLINGS, MT VORTAC	
	W BND	9700
	E BND	6400
BILLINGS, MT VORTAC	MILES CITY, MT VOR/DME	6000
MILES CITY, MT VOR/DME	DICKINSON, ND VORTAC	6000
DICKINSON, ND VORTAC	BISMARCK, ND VOR/DME	4600
BISMARCK, ND VOR/DME	JAMESTOWN, ND VOR/DME	4000
JAMESTOWN, ND VOR/DME	*CHAFE, ND FIX	3300
*6000 - MRA		
CHAFE, ND FIX	FARGO, ND VOR/DME	
	W BND	3300
	E BND	2700
FARGO, ND VOR/DME	ALEXANDRIA, MN VOR/DME	*3500
*3000 - MOCA		
ALEXANDRIA, MN VOR/DME	GOPHER, MN VORTAC	3400
GOPHER, MN VORTAC	PEGGS, MN FIX	3400
PEGGS, MN FIX	NODINE, MN VORTAC	3000
BUFFALO, NY VOR/DME	ROCHESTER, NY VOR/DME	#2800
#BUFFALO R-083 UNUSABLE BELOW 11000 USE ROCHESTER R-268		
ROCHESTER, NY VOR/DME	MAGEN, NY FIX	2300
MAGEN, NY FIX	*KONDO, NY FIX	2300
*4800 - MRA		

FROM	TO	MEA
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95.6002 VOR FEDERAL AIRWAY V2 - CONTINUED

KONDO, NY FIX	*WIFFY, NY FIX	2300
*3000 - MRA		
WIFFY, NY FIX	SYRACUSE, NY VORTAC	2300
SYRACUSE, NY VORTAC	STODA, NY FIX	2400
STODA, NY FIX	VASTS, NY FIX	3000
VASTS, NY FIX	UTICA, NY VORTAC	3400
UTICA, NY VORTAC	MARIA, NY FIX	3500
MARIA, NY FIX	ALBANY, NY VORTAC	3000
ALBANY, NY VORTAC	WARIC, MA FIX	5000
WARIC, MA FIX	GARDNER, MA VOR/DME	*4000
*3500 - MOCA		

95.6003 VOR FEDERAL AIRWAY V3

KEY WEST, FL VORTAC	*BIPIN, FL FIX	#GNSS - 15000
*14500 - MCA BIPIN, FL FIX , W BND		
#KEY WEST R-082 UNUSABLE		
BIPIN, FL FIX	DROWN, FL FIX	GNSS - 3000
DROWN, FL FIX	MNATE, FL FIX	5000
MNATE, FL FIX	DOLPHIN, FL VORTAC	*5000
*2800 - MOCA		
DOLPHIN, FL VORTAC	FORT LAUDERDALE, FL VOR/DME	2100
FORT LAUDERDALE, FL VOR/DME	PALM BEACH, FL VORTAC	2000
PALM BEACH, FL VORTAC	TREASURE, FL VORTAC	*3000
*2100 - MOCA		
TREASURE, FL VORTAC	MELBOURNE, FL VOR/DME	2000
MELBOURNE, FL VOR/DME	MALET, FL FIX	2000
MALET, FL FIX	ORMOND BEACH, FL VORTAC	*4000
*1600 - MOCA		
ORMOND BEACH, FL VORTAC	*SEBAG, FL FIX	**2000
*3000 - MRA		
**1400 - MOCA		
SEBAG, FL FIX	BRUNSWICK, GA VORTAC	*2000
*1400 - MOCA		
BRUNSWICK, GA VORTAC	*BROUN, GA FIX	**3000
*11000 - MRA		
**2200 - MOCA		
BROUN, GA FIX	*HARPS, GA FIX	**3000
*3800 - MRA		
**2200 - MOCA		
HARPS, GA FIX	KELER, GA FIX	*3000
*2200 - MOCA		
KELER, GA FIX	SAVANNAH, GA VORTAC	*3000
*1900 - MOCA		
SAVANNAH, GA VORTAC	OWENS, SC FIX	*3000
*1500 - MOCA		
OWENS, SC FIX	*VANCE, SC VORTAC	2000
*13000 - MCA VANCE, SC VORTAC , NE BND		
VANCE, SC VORTAC	*FLORENCE, SC VORTAC	***13000
*12000 - MCA FLORENCE, SC VORTAC , SW BND		
**2000 - GNSS MEA		
#VANCE R-047 UNUSABLE, USE FLORENCE R-224		
FLORENCE, SC VORTAC	TOWEY, SC FIX	2000
TOWEY, SC FIX	SANDHILLS, NC VORTAC	*8000
*1900 - MOCA		
SANDHILLS, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	2500
RALEIGH/DURHAM, NC VORTAC	HARVY, VA FIX	3000
HARVY, VA FIX	*NUTTS, VA FIX	**6000
*9000 - MRA		
**4000 - GNSS MEA		

FROM	TO	MEA
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95.6003 VOR FEDERAL AIRWAY V3 - CONTINUED

NUTTS, VA FIX *4000 - GNSS MEA	FLAT ROCK, VA VORTAC	*6000
FLAT ROCK, VA VORTAC	GORDONSVILLE, VA VORTAC	2500
GORDONSVILLE, VA VORTAC	LURAY, VA FIX	6100
LURAY, VA FIX *7000 - MRA **5000 - MOCA	*KERRE, VA FIX	**6000
KERRE, VA FIX *5000 - MOCA	MARTINSBURG, WV VORTAC	*6000
MARTINSBURG, WV VORTAC *3300 - MOCA	WESTMINSTER, MD VORTAC	*4000
WESTMINSTER, MD VORTAC	VINNY, PA FIX	3000
VINNY, PA FIX	MODENA, PA VORTAC	3500
MODENA, PA VORTAC *5000 - MRA	*MAZIE, PA FIX	3000
MAZIE, PA FIX *5000 - MRA	*HARRS, PA FIX	2500
HARRS, PA FIX *5000 - MRA	*BIGGY, NJ FIX	2500
BIGGY, NJ FIX	SOLBERG, NJ VOR/DME	2500
SOLBERG, NJ VOR/DME *2500 - MOCA	CARMEL, NY VOR/DME	*3000
CARMEL, NY VOR/DME	RACEY, CT FIX	2100
RACEY, CT FIX	HARTFORD, CT VOR/DME	3000
HARTFORD, CT VOR/DME *2100 - MOCA	JEWIT, CT FIX	*2600
JEWIT, CT FIX	WOONS, RI FIX	2500
WOONS, RI FIX	BOSTON, MA VOR/DME	2000
BOSTON, MA VOR/DME	PEASE, NH VOR/DME	3000
PEASE, NH VOR/DME *2400 - MOCA	YUKES, NH FIX	*3500
YUKES, NH FIX *5000 - MRA *7000 - MCA PARSO, ME FIX , N BND **2800 - MOCA	*PARSO, ME FIX	**3500
PARSO, ME FIX	LABEL, ME FIX S BND	3500
LABEL, ME FIX *3600 - MOCA *3600 - GNSS MEA	N BND	7000
AUGUSTA, ME VOR/DME	AUGUSTA, ME VOR/DME	*7000
BANGOR, ME VORTAC	BANGOR, ME VORTAC	3000
*2300 - MOCA	HOULTON, ME VOR/DME	*2800
HOULTON, ME VOR/DME *2700 - MOCA	PRESQUE ISLE, ME VOR/DME	*3400
PRESQUE ISLE, ME VOR/DME *4200 - MOCA	U.S. CANADIAN BORDER	*8000

95.6004 VOR FEDERAL AIRWAY V4

TATOOSH, WA VORTAC	JAWBN, WA FIX	5800
JAWBN, WA FIX *4300 - MOCA	LOFAL, WA FIX	*5400
LOFAL, WA FIX *6200 - MCA SEATTLE, WA VORTAC , E BND **2800 - MOCA	*SEATTLE, WA VORTAC	**4000
SEATTLE, WA VORTAC	BLAKO, WA FIX E BND	*10000
*3100 - MOCA	W BND	*4000

FROM	TO	MEA
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95.6004 VOR FEDERAL AIRWAY V4 - CONTINUED

BLAKO, WA FIX	HUMPP, WA FIX	
	E BND	*10000
	W BND	*6600
*6600 - MOCA		
HUMPP, WA FIX	CHINS, WA FIX	*10000
*9000 - MOCA		
CHINS, WA FIX	TITON, WA FIX	
	E BND	*7000
	W BND	*10000
*7000 - MOCA		
TITON, WA FIX	GLEED, WA FIX	
	W BND	*7000
	E BND	*5500
*5000 - MOCA		
GLEED, WA FIX	YAKIMA, WA VORTAC	
	E BND	5000
	W BND	5500
YAKIMA, WA VORTAC	AMPLE, WA FIX	5000
AMPLE, WA FIX	PENDLETON, OR VORTAC	4000
PENDLETON, OR VORTAC	PIANO, OR FIX	
	SE BND	7000
	NW BND	6000
PIANO, OR FIX	LACED, OR FIX	
	NW BND	7000
	SE BND	10000
LACED, OR FIX	BAKER CITY, OR VOR/DME	10000
BAKER CITY, OR VOR/DME	PAYET, ID FIX	9000
PAYET, ID FIX	*EMETT, ID FIX	
	SE BND	5900
	NW BND	9000
*9400 - MRA		
EMETT, ID FIX	BOISE, ID VORTAC	5900
BOISE, ID VORTAC	CANEK, ID FIX	
	NW BND	7000
	SE BND	9500
CANEK, ID FIX	ALKAL, ID FIX	*9500
*8500 - MOCA		
ALKAL, ID FIX	GOODE, ID FIX	
	E BND	*8000
	W BND	*9500
*6200 - MOCA		
GOODE, ID FIX	JEROT, ID FIX	*8000
*6500 - MOCA		
JEROT, ID FIX	BURLEY, ID VOR/DME	6500
BURLEY, ID VOR/DME	MEDEA, ID FIX	*8400
*7800 - MOCA		
MEDEA, ID FIX	MALAD CITY, ID VOR/DME	9400
MALAD CITY, ID VOR/DME	FILOB, ID FIX	10900
FILOB, ID FIX	HODNI, ID FIX	*12000
*10800 - MOCA		
*10800 - GNSS MEA		
HODNI, ID FIX	GRIPS, WY FIX	*16000
*11700 - MOCA		
*11700 - GNSS MEA		
GRIPS, WY FIX	ROCK SPRINGS, WY VOR/DME	*11000
*10000 - MOCA		
*10000 - GNSS MEA		
ROCK SPRINGS, WY VOR/DME	CHEROKEE, WY VOR/DME	10000
CHEROKEE, WY VOR/DME	KLASH, WY FIX	
	E BND	13000
	W BND	11000

FROM	TO	MEA
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95.6004 VOR FEDERAL AIRWAY V4 - CONTINUED

KLASH, WY FIX	*LARAMIE, WY VOR/DME	13000
*10600 - MCA LARAMIE, WY VOR/DME , W BND		
LARAMIE, WY VOR/DME	FLEMS, WY FIX	11000
FLEMS, WY FIX	BARGR, CO FIX	*11000
*10000 - MOCA		
BARGR, CO FIX	WISER, CO FIX	8400
WISER, CO FIX	GILL, CO VOR/DME	8000
GILL, CO VOR/DME	THURMAN, CO VORTAC	7000
THURMAN, CO VORTAC	GOODLAND, KS VORTAC	*7000
*6300 - MOCA		
GOODLAND, KS VORTAC	HILL CITY, KS VORTAC	5500
HILL CITY, KS VORTAC	*WESAL, KS FIX	**5500
*4500 - MRA		
**4100 - MOCA		
WESAL, KS FIX	SALINA, KS VORTAC	
	E BND	*4000
	W BND	*4500
*2900 - MOCA		
SALINA, KS VORTAC	*VASCO, KS FIX	3000
*5000 - MRA		
VASCO, KS FIX	ALMAS, KS FIX	3000
ALMAS, KS FIX	TOPEKA, KS VORTAC	3600
TOPEKA, KS VORTAC	KANSAS CITY, MO VORTAC	2700
KANSAS CITY, MO VORTAC	LEXIN, MO FIX	2600
LEXIN, MO FIX	HALLSVILLE, MO VORTAC	*6000
*3000 - GNSS MEA		
HALLSVILLE, MO VORTAC	SADEN, MO FIX	2600
SADEN, MO FIX	ST LOUIS, MO VORTAC	*2400
*1700 - MOCA		
ST LOUIS, MO VORTAC	TROY, IL VORTAC	2400
TROY, IL VORTAC	CENTRALIA, IL VORTAC	2300
CENTRALIA, IL VORTAC	POCKET CITY, IN VORTAC	3000
POCKET CITY, IN VORTAC	LAMBS, IN FIX	
	W BND	2500
	E BND	10000
LAMBS, IN FIX	*LOUISVILLE, KY VORTAC	**10000
*10000 - MCA LOUISVILLE, KY VORTAC , W BND		
**3000 - GNSS MEA		
LOUISVILLE, KY VORTAC	LEXINGTON, KY VOR/DME	2800
CHARLESTON, WV VOR/DME	REACH, WV FIX	4000
REACH, WV FIX	*ELKINS, WV VORTAC	4400
*4900 - MCA ELKINS, WV VORTAC , E BND		
ELKINS, WV VORTAC	KESSEL, WV VOR/DME	6400
KESSEL, WV VOR/DME	ARMEL, VA VOR/DME	5000

95.6005 VOR FEDERAL AIRWAY V5

PECAN, GA VOR/DME	VIENNA, GA VORTAC	*2000
*1900 - MOCA		
VIENNA, GA VORTAC	DUBLIN, GA VORTAC	2100
DUBLIN, GA VORTAC	ATHENS, GA VOR/DME	*3000
*2200 - MOCA		
ATHENS, GA VOR/DME	IRMOS, GA FIX	3100
IRMOS, GA FIX	CORCE, GA FIX	3800
CORCE, GA FIX	AWSON, GA FIX	*5400
*4600 - MOCA		
AWSON, GA FIX	*NELLO, GA FIX	**7000
*7000 - MCA NELLO, GA FIX , E BND		
**5500 - MOCA		

FROM	TO	MEA
95.6005 VOR FEDERAL AIRWAY V5 - CONTINUED		
NELLO, GA FIX	*HOICHE, GA FIX	5400
*4000 - MCA HOICHE, GA FIX , SE BND		
HOICHE, GA FIX	CHOO CHOO, TN VORTAC	3000
NEW HOPE, KY VOR/DME	*LOUISVILLE, KY VORTAC	2700
*10000 - MCA LOUISVILLE, KY VORTAC , NE BND		
LOUISVILLE, KY VORTAC	*NERVE, KY FIX	***10000
*10000 - MCA NERVE, KY FIX , SW BND		
**2700 - GNSS MEA		
#LOUISVILLE R-036 UNUSABLE BELOW 10000.		
NERVE, KY FIX	CINCINNATI, KY VORTAC	2700
CINCINNATI, KY VORTAC	PRUDE, OH FIX	3000
PRUDE, OH FIX	SHIRT, OH FIX	*4000
*2500 - MOCA		
SHIRT, OH FIX	*GLOOM, OH FIX	3000
*4000 - MRA		
GLOOM, OH FIX	APPLETON, OH VORTAC	3000
95.6006 VOR FEDERAL AIRWAY V6		
OAKLAND, CA VOR/DME	COLLI, CA FIX	4000
COLLI, CA FIX	*PITTS, CA FIX	5000
*3800 - MCA PITTS, CA FIX , S BND		
PITTS, CA FIX	REJOY, CA FIX	*4000
*2400 - MOCA		
REJOY, CA FIX	SACRAMENTO, CA VORTAC	2000
SACRAMENTO, CA VORTAC	FOLLY, CA FIX	3000
FOLLY, CA FIX	*COLOM, CA FIX	5000
*9500 - MCA COLOM, CA FIX , NE BND		
COLOM, CA FIX	SQUAW VALLEY, CA VOR/DME	11000
SQUAW VALLEY, CA VOR/DME	*MUSTANG, NV VORTAC	13000
*12000 - MCA MUSTANG, NV VORTAC , SW BND		
MUSTANG, NV VORTAC	WADDS, NV FIX	10300
WADDS, NV FIX	*LOVELOCK, NV VORTAC	**10000
*8500 - MCA LOVELOCK, NV VORTAC , NE BND		
**9500 - MOCA		
LOVELOCK, NV VORTAC	BATTLE MOUNTAIN, NV VORTAC	12000
BATTLE MOUNTAIN, NV VORTAC	WELLS, NV VOR/DME	*11000
*10100 - MOCA		
WELLS, NV VOR/DME	LUCIN, UT VORTAC	10300
LUCIN, UT VORTAC	*OGDEN, UT VORTAC	9000
*10700 - MCA OGDEN, UT VORTAC , E BND		
OGDEN, UT VORTAC	EVIEW, UT FIX	
	E BND	12000
	W BND	7000
EVIEW, UT FIX	FORT BRIDGER, WY VOR/DME	12000
FORT BRIDGER, WY VOR/DME	ROCK SPRINGS, WY VOR/DME	10000
ROCK SPRINGS, WY VOR/DME	CHEROKEE, WY VOR/DME	10000
CHEROKEE, WY VOR/DME	MEDICINE BOW, WY VOR/DME	10000
MEDICINE BOW, WY VOR/DME	MOIST, WY FIX	9500
MOIST, WY FIX	*LITER, WY FIX	**10500
*10500 - MCA LITER, WY FIX , W BND		
**9500 - MOCA		
LITER, WY FIX	SIDNEY, NE VOR/DME	*9500
*7600 - MOCA		
SIDNEY, NE VOR/DME	NORTH PLATTE, NE VOR/DME	*6000
*5700 - MOCA		
NORTH PLATTE, NE VOR/DME	RAGAR, NE FIX	*5000
*4300 - MOCA		
RAGAR, NE FIX	GRAND ISLAND, NE VOR/DME	*5000
*3600 - MOCA		

FROM

TO

MEA

95.6006 VOR FEDERAL AIRWAY V6 - CONTINUED

GRAND ISLAND, NE VOR/DME	HUSKR, NE FIX	*4000
*3200 - MOCA		
HUSKR, NE FIX	OMAHA, IA VORTAC	4000
OMAHA, IA VORTAC	DES MOINES, IA VORTAC	3000
DES MOINES, IA VORTAC	IOWA CITY, IA VOR/DME	2700
IOWA CITY, IA VOR/DME	DAVENPORT, IA VORTAC	2700
DAVENPORT, IA VORTAC	LEECS, IL FIX	2500
LEECS, IL FIX	DUPAGE, IL VOR/DME	*4000
*2700 - GNSS MEA		
NILES, IL FIX	CHETT, MI FIX	*3500
*2500 - MOCA		
CHETT, MI FIX	GIPPER, MI VORTAC	*3000
*2200 - MOCA		
GIPPER, MI VORTAC	MODEM, IN FIX	*4000
*2600 - MOCA		
PHILIPSBURG, PA VORTAC	SELINGSGROVE, PA VOR/DME	4100
SELINGSGROVE, PA VOR/DME	SNOWY, PA FIX	*5000
*4000 - GNSS MEA		
SNOWY, PA FIX	ALLENTOWN, PA VORTAC	*4000
*3300 - MOCA		
ALLENTOWN, PA VORTAC	SOLBERG, NJ VOR/DME	#*3000
*2200 - MOCA		
#ALLENTOWN R-115 UNUSABLE. USE SOLBERG R-295.		
SOLBERG, NJ VOR/DME	EMPYR, NY FIX	2300
EMPYR, NY FIX	NANCI, NY FIX	2700
NANCI, NY FIX	LA GUARDIA, NY VOR/DME	2900

95.6007 VOR FEDERAL AIRWAY V7

DOLPHIN, FL VORTAC	LEE COUNTY, FL VORTAC	2300
LEE COUNTY, FL VORTAC	JOCKS, FL FIX	2600
JOCKS, FL FIX	*CROWD, FL FIX	**2300
*5000 - MRA		
**1600 - MOCA		
CROWD, FL FIX	LAKELAND, FL VORTAC	2300
LAKELAND, FL VORTAC	*DADES, FL FIX	**2300
*5000 - MRA		
**1800 - MOCA		
DADES, FL FIX	NITTS, FL FIX	*2300
*1800 - MOCA		
NITTS, FL FIX	*ORATE, FL FIX	**3000
*3000 - MRA		
**1700 - MOCA		
ORATE, FL FIX	CROSS CITY, FL VORTAC	*2000
*1500 - MOCA		
CROSS CITY, FL VORTAC	SEMINOLE, FL VORTAC	2000
SEMINOLE, FL VORTAC	OALDY, AL FIX	2000
OALDY, AL FIX	WIREGRASS, AL VORTAC	2500
WIREGRASS, AL VORTAC	SKIPO, AL FIX	2300
SKIPO, AL FIX	*BANBI, AL FIX	**4000
*4000 - MCA BANBI, AL FIX , SE BND		
**1900 - MOCA		
**2300 - GNSS MEA		
BANBI, AL FIX	MONTGOMERY, AL VORTAC	2400
MONTGOMERY, AL VORTAC	VULCAN, AL VORTAC	3100
VULCAN, AL VORTAC	MUSCLE SHOALS, AL VORTAC	*2800
*2200 - MOCA		
POCKET CITY, IN VORTAC	PRINC, IN FIX	2300
PRINC, IN FIX	LISLE, IN FIX	4500

FROM

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95.6007 VOR FEDERAL AIRWAY V7 - CONTINUED

LISLE, IN FIX	TERRE HAUTE, IN VORTAC	3000
TERRE HAUTE, IN VORTAC	*POTES, IN FIX	2500
*4000 - MRA		
POTES, IN FIX	BOILER, IN VORTAC	2500
BOILER, IN VORTAC	CHICAGO HEIGHTS, IL VORTAC	2800
CHICAGO HEIGHTS, IL VORTAC	*LAIRD, IL FIX	3500
*2700 - MCA LAIRD, IL FIX , S BND		
LAIRD, IL FIX	*THORR, IL FIX	2500
*2600 - MCA THORR, IL FIX , S BND		
THORR, IL FIX	PAPPI, IL FIX	*2500
*1800 - MOCA		
PAPPI, IL FIX	*TALOR, WI FIX	**4000
*5300 - MCA TALOR, WI FIX , N BND		
**1800 - MOCA		
TALOR, WI FIX	PETTY, WI FIX	*6000
*1900 - MOCA		
GREEN BAY, WI VORTAC	MENOMINEE, MI VOR/DME	2600
MENOMINEE, MI VOR/DME	SAWYER, MI VOR/DME	2900

95.6008 VOR FEDERAL AIRWAY V8

DOYLE, CA FIX	LIMBO, CA FIX	3000
LIMBO, CA FIX	*WILMA, CA FIX	3200
*2800 - MCA WILMA, CA FIX , W BND		
WILMA, CA FIX	SEAL BEACH, CA VORTAC	2300
SEAL BEACH, CA VORTAC	AHEIM, CA FIX	*3000
*2200 - MOCA		
AHEIM, CA FIX	*OLLIE, CA FIX	3000
*3000 - MRA		
*4100 - MCA OLLIE, CA FIX , NE BND		
OLLIE, CA FIX	PARADISE, CA VORTAC	5000
PARADISE, CA VORTAC	*RAVON, CA FIX	4500
*8800 - MCA RAVON, CA FIX , NE BND		
RAVON, CA FIX	GAREY, CA FIX	
	SW BND	8000
	NE BND	10500
GAREY, CA FIX	*LUCER, CA FIX	10500
*9300 - MCA LUCER, CA FIX , SW BND		
LUCER, CA FIX	BULGY, CA FIX	*9000
*8000 - MOCA		
BULGY, CA FIX	HECTOR, CA VORTAC	*9000
*7000 - MOCA		
HECTOR, CA VORTAC	GOFFS, CA VORTAC	*9000
*8200 - MOCA		
GOFFS, CA VORTAC	LYNSY, NV FIX	7600
LYNSY, NV FIX	MEADS, NV FIX	7500
MEADS, NV FIX	MORMON MESA, NV VORTAC	6000
MORMON MESA, NV VORTAC	MATZO, UT FIX	
	NE BND	12000
	SW BND	9000
MATZO, UT FIX	BRYCE CANYON, UT VORTAC	12300
BRYCE CANYON, UT VORTAC	HANKSVILLE, UT VORTAC	13300
HANKSVILLE, UT VORTAC	GRAND JUNCTION, CO VOR/DME	10000
GRAND JUNCTION, CO VOR/DME	*SQUAT, CO FIX	**10500
*12000 - MCA SQUAT, CO FIX , NE BND		
**9600 - MOCA		
SQUAT, CO FIX	RIFLE, CO VOR/DME	13200
RIFLE, CO VOR/DME	KREMMLING, CO VOR/DME	13400
KREMMLING, CO VOR/DME	*MILE HIGH, CO VORTAC	15500
*10300 - MCA MILE HIGH, CO VORTAC , W BND		

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95.6008 VOR FEDERAL AIRWAY V8 - CONTINUED

MILE HIGH, CO VORTAC	HOYTT, CO FIX	7600
HOYTT, CO FIX	AKRON, CO VOR/DME	7000
AKRON, CO VOR/DME	HAYES CENTER, NE VORTAC	6500
HAYES CENTER, NE VORTAC	GRAND ISLAND, NE VOR/DME	*5500
*4900 - MOCA		
GRAND ISLAND, NE VOR/DME	HUSKR, NE FIX	*4000
*3200 - MOCA		
HUSKR, NE FIX	OMAHA, IA VORTAC	4000
OMAHA, IA VORTAC	DES MOINES, IA VORTAC	3000
DES MOINES, IA VORTAC	IOWA CITY, IA VOR/DME	2700
IOWA CITY, IA VOR/DME	MOLINE, IL VOR/DME	2700
MOLINE, IL VOR/DME	TRIDE, IL FIX	3300
TRIDE, IL FIX	JOLIET, IL VOR/DME	2600
JOLIET, IL VOR/DME	CHICAGO HEIGHTS, IL VORTAC	2500
CHICAGO HEIGHTS, IL VORTAC	HALIE, IN FIX	2600
HALIE, IN FIX	INKEN, IN FIX	*4000
*2300 - MOCA		
INKEN, IN FIX	GOSHEN, IN VORTAC	2600
GOSHEN, IN VORTAC	*TWERP, OH FIX	**4500
*5000 - MRA		
**2500 - MOCA		
TWERP, OH FIX	FLAG CITY, OH VORTAC	2700
MARTINSBURG, WV VORTAC	WASHINGTON, DC VOR/DME	3300

95.6009 VOR FEDERAL AIRWAY V9

LEEVILLE, LA VORTAC	SAFES, LA FIX	*2000
*1400 - MOCA		
SAFES, LA FIX	WAVEZ, LA FIX	*4000
*1600 - MOCA		
WAVEZ, LA FIX	OYSTY, LA FIX	*3000
*1800 - MOCA		
OYSTY, LA FIX	MC COMB, MS VORTAC	2000
MC COMB, MS VORTAC	*ROMAR, MS FIX	**3000
*4000 - MRA		
**1900 - MOCA		
ROMAR, MS FIX	MAGNOLIA, MS VORTAC	*3000
*1900 - MOCA		
MAGNOLIA, MS VORTAC	SIDON, MS VORTAC	2000
SIDON, MS VORTAC	MARVELL, AR VOR/DME	2100
MARVELL, AR VOR/DME	GILMORE, AR VOR/DME	1900
GILMORE, AR VOR/DME	MALDEN, MO VORTAC	*3000
*2300 - MOCA		
MALDEN, MO VORTAC	FARMINGTON, MO VORTAC	*3000
*2300 - MOCA		
FARMINGTON, MO VORTAC	ARNOL, IL FIX	*3000
*2500 - MOCA		
ARNOL, IL FIX	ST LOUIS, MO VORTAC	2800
ST LOUIS, MO VORTAC	SPINNER, IL VORTAC	*2700
*2100 - MOCA		
SPINNER, IL VORTAC	PONTIAC, IL VOR/DME	*3000
*2300 - MOCA		
PONTIAC, IL VOR/DME	KELSI, IL FIX	3000
KELSI, IL FIX	ROCKFORD, IL VOR/DME	2700
ROCKFORD, IL VOR/DME	JANESVILLE, WI VOR/DME	2700
JANESVILLE, WI VOR/DME	MADISON, WI VORTAC	3000
MADISON, WI VORTAC	OSHKOSH, WI VORTAC	3000
OSHKOSH, WI VORTAC	GREEN BAY, WI VORTAC	*3000
*2300 - MOCA		

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95.6009 VOR FEDERAL AIRWAY V9 - CONTINUED

GREEN BAY, WI VORTAC	IRON MOUNTAIN, MI VOR/DME	2900
IRON MOUNTAIN, MI VOR/DME	HOUGHTON, MI VOR/DME	*3800
*3300 - MOCA		

95.6010 VOR FEDERAL AIRWAY V10

PUEBLO, CO VORTAC	LAMAR, CO VOR/DME	7000
LAMAR, CO VOR/DME	ADEER, KS FIX	*5700
*5200 - MOCA		
ADEER, KS FIX	GARDEN CITY, KS VORTAC	*5000
*4400 - MOCA		
GARDEN CITY, KS VORTAC	DODGE CITY, KS VORTAC	4600
DODGE CITY, KS VORTAC	STAFF, KS FIX	4300
STAFF, KS FIX	HUTCHINSON, KS VOR/DME	
	E BND	3800
	W BND	4300
HUTCHINSON, KS VOR/DME	WAIVE, KS FIX	4000
WAIVE, KS FIX	*FLOSS, KS FIX	3300
*5000 - MRA		
FLOSS, KS FIX	EMPORIA, KS VORTAC	3300
EMPORIA, KS VORTAC	WETZL, KS FIX	*5000
*2600 - MOCA		
*3000 - GNSS MEA		
WETZL, KS FIX	NAPOLEON, MO VORTAC	3100
NAPOLEON, MO VORTAC	KIRKSVILLE, MO VORTAC	3000
KIRKSVILLE, MO VORTAC	LOAMY, MO FIX	3000
LOAMY, MO FIX	BURLINGTON, IA VOR/DME	*2700
*2200 - MOCA		
BURLINGTON, IA VOR/DME	BRADFORD, IL VORTAC	2600
BRADFORD, IL VORTAC	PLANO, IL FIX	3000
NILES, IL FIX	CHETT, MI FIX	*3500
*2500 - MOCA		
CHETT, MI FIX	GIPPER, MI VORTAC	*3000
*2200 - MOCA		
GIPPER, MI VORTAC	LITCHFIELD, MI VOR/DME	2800
YOUNGSTOWN, OH VORTAC	VOLAN, PA FIX	*5000
*3000 - MOCA		
*3000 - GNSS MEA		
VOLAN, PA FIX	TALLS, PA FIX	*5000
*3200 - MOCA		
*3300 - GNSS MEA		
TALLS, PA FIX	*REVLOC, PA VOR/DME	
	SE BND	4200
	NW BND	5000
*5000 - MCA REVLOC, PA VOR/DME , SE BND		
REVLOC, PA VOR/DME	JUNEY, PA FIX	*5000
		MAA - 12000
*5000 - GNSS MEA		
JUNEY, PA FIX	LANCASTER, PA VOR/DME	*5000
*3600 - MOCA		

95.6011 VOR FEDERAL AIRWAY V11

BROOKLEY, AL VORTAC	GREENE COUNTY, MS VORTAC	2000
GREENE COUNTY, MS VORTAC	MIZZE, MS FIX	*4000
*1900 - MOCA		
*3000 - GNSS MEA		
MIZZE, MS FIX	MAGNOLIA, MS VORTAC	*3000
*2400 - MOCA		

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95.6011 VOR FEDERAL AIRWAY V11 - CONTINUED

MAGNOLIA, MS VORTAC	SIDON, MS VORTAC	2000
SIDON, MS VORTAC	HOLLY SPRINGS, MS VORTAC	3000
HOLLY SPRINGS, MS VORTAC	DYERSBURG, TN VORTAC	*2500
*2000 - MOCA		
DYERSBURG, TN VORTAC	CUNNINGHAM, KY VOR/DME	2400
CUNNINGHAM, KY VOR/DME	POCKET CITY, IN VORTAC	2600
POCKET CITY, IN VORTAC	MACKY, IN FIX	2300
MACKY, IN FIX	CLOWN, IN FIX	*3000
*2100 - MOCA		
CLOWN, IN FIX	SCOTO, IN FIX	*6000
*2100 - MOCA		
SCOTO, IN FIX	BRICKYARD, IN VORTAC	*2900
*2200 - MOCA		
BRICKYARD, IN VORTAC	WELDO, IN FIX	2900
WELDO, IN FIX	MARION, IN VOR/DME	2800
MARION, IN VOR/DME	FORT WAYNE, IN VORTAC	2600
FORT WAYNE, IN VORTAC	EDGE, OH FIX	3000

95.6012 VOR FEDERAL AIRWAY V12

GAVIOTA, CA VORTAC	SAN MARCUS, CA VORTAC	6400
SAN MARCUS, CA VORTAC	PALMDALE, CA VORTAC	9300
PALMDALE, CA VORTAC	HELDE, CA FIX	6000
HELDE, CA FIX	HECTOR, CA VORTAC	7900
HECTOR, CA VORTAC	CLIPP, CA FIX	9000
CLIPP, CA FIX	NEEDLES, CA VORTAC	*8000
*5900 - MOCA		
NEEDLES, CA VORTAC	DRAKE, AZ VORTAC	10000
DRAKE, AZ VORTAC	OATES, AZ FIX	10100
OATES, AZ FIX	WINSLOW, AZ VORTAC	10800
WINSLOW, AZ VORTAC	ZUNI, NM VORTAC	9000
ZUNI, NM VORTAC	*CARTY, NM FIX	11000
*10000 - MCA CARTY, NM FIX , W BND		
CARTY, NM FIX	*ALBUQUERQUE, NM VORTAC	9000
*10700 - MCA ALBUQUERQUE, NM VORTAC , E BND		
ALBUQUERQUE, NM VORTAC	OTTO, NM VOR	12000
OTTO, NM VOR	ANTON CHICO, NM VORTAC	*10000
*9400 - MOCA		
ANTON CHICO, NM VORTAC	TUCUMCARI, NM VORTAC	7700
TUCUMCARI, NM VORTAC	PANHANDLE, TX VORTAC	6000
PANHANDLE, TX VORTAC	MITBEE, OK VORTAC	5500
WICHITA, KS VORTAC	EMPORIA, KS VORTAC	3600
EMPORIA, KS VORTAC	WETZL, KS FIX	*5000
*2600 - MOCA		
*3000 - GNSS MEA		
WETZL, KS FIX	NAPOLEON, MO VORTAC	3100
NAPOLEON, MO VORTAC	FRANC, MO FIX	3000
FRANC, MO FIX	COLUMBIA, MO VOR/DME	2600
COLUMBIA, MO VOR/DME	STITH, MO FIX	##4000
*2200 - MOCA		
#COU R-096 UNUSABLE, USE FTZ R-272		
STITH, MO FIX	FORISTELL, MO VORTAC	*3000
*2500 - MOCA		
FORISTELL, MO VORTAC	TROY, IL VORTAC	*2600
*2100 - MOCA		
TROY, IL VORTAC	BIBLE GROVE, IL VORTAC	2300
BIBLE GROVE, IL VORTAC	WORKE, IL FIX	
	SW BND	2300
	NE BND	6000

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95.6012 VOR FEDERAL AIRWAY V12 - CONTINUED

WORKE, IL FIX	OZMOE, IN FIX	*6000
*2600 - MOCA		
OZMOE, IN FIX	SHELBYVILLE, IN VOR/DME	*2500
*2300 - MOCA		
*ALLEGHENY, PA VOR/DME	JOHNSTOWN, PA VOR/DME	10000
*10000 - MCA ALLEGHENY, PA VOR/DME , E BND		
*JOHNSTOWN, PA VOR/DME	HARRISBURG, PA VORTAC	5400
*10000 - MCA JOHNSTOWN, PA VOR/DME , W BND		
HARRISBURG, PA VORTAC	KUPPS, PA FIX	#
#UNUSABLE		
KUPPS, PA FIX	BOYER, PA FIX	#
#UNUSABLE		
BOYER, PA FIX	POTTSTOWN, PA VORTAC	*3000
*2400 - MOCA		

95.6013 VOR FEDERAL AIRWAY V13

MC ALLEN, TX VOR/DME	MANNY, TX FIX	*5000
*1700 - MOCA		
MANNY, TX FIX	ASCOT, TX FIX	*5000
*1500 - MOCA		
ASCOT, TX FIX	SOLON, TX FIX	
	N BND	*4000
	S BND	*5000
*1600 - MOCA		
SOLON, TX FIX	CORPUS CHRISTI, TX VORTAC	1800
CORPUS CHRISTI, TX VORTAC	PALACIOS, TX VORTAC	1700
PALACIOS, TX VORTAC	HUMBLE, TX VORTAC	2000
HUMBLE, TX VORTAC	CLEEP, TX FIX	3000
CLEEP, TX FIX	*LEGGE, TX FIX	3100
*3000 - MRA		
LEGGE, TX FIX	LUFKIN, TX VORTAC	2100
LUFKIN, TX VORTAC	CARTH, TX FIX	*3800
*2400 - MOCA		
CARTH, TX FIX	BELCHER, LA VORTAC	3100
BELCHER, LA VORTAC	*IDDAS, LA FIX	2000
*3000 - MRA		
IDDAS, LA FIX	*DUBOW, AR FIX	2000
*4000 - MRA		
DUBOW, AR FIX	TEXARKANA, AR VORTAC	2000
TEXARKANA, AR VORTAC	DEENS, AR FIX	
	SE BND	2300
	NW BND	4600
DEENS, AR FIX	RICH MOUNTAIN, OK VORTAC	*4600
*4000 - MOCA		
RICH MOUNTAIN, OK VORTAC	*HADES, AR FIX	**4600
*5000 - MRA		
**3900 - MOCA		
HADES, AR FIX	FORT SMITH, AR VORTAC	2000
FORT SMITH, AR VORTAC	*CHESO, AR FIX	3400
*5000 - MRA		
CHESO, AR FIX	RAZORBACK, AR VORTAC	3700
RAZORBACK, AR VORTAC	*PINNE, MO FIX	3000
*4500 - MRA		
PINNE, MO FIX	NEOSHO, MO VOR/DME	3000
NEOSHO, MO VOR/DME	NASHE, MO FIX	2900
NASHE, MO FIX	*DIZZI, MO FIX	2700
*3000 - MRA		
DIZZI, MO FIX	BUTLER, MO VORTAC	*2600
*2000 - MOCA		

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95.6013 VOR FEDERAL AIRWAY V13 - CONTINUED

BUTLER, MO VORTAC	NAPOLEON, MO VORTAC	2900
NAPOLEON, MO VORTAC	LAMONI, IA VOR/DME	2900
LAMONI, IA VOR/DME	*WIVEY, IA FIX	3000
*4300 - MRA		
WIVEY, IA FIX	DES MOINES, IA VORTAC	3000
DES MOINES, IA VORTAC	*ANKEN, IA FIX	2700
*3500 - MCA ANKEN, IA FIX , N BND		
ANKEN, IA FIX	NEVAD, IA FIX	4000
NEVAD, IA FIX	ALOCK, IA FIX	*3300
*2700 - MOCA		
ALOCK, IA FIX	MASON CITY, IA VOR/DME	3000
MASON CITY, IA VOR/DME	FARMINGTON, MN VORTAC	3000
DULUTH, MN VORTAC	WEMAN, MN FIX	4000
WEMAN, MN FIX	BYPOR, MN FIX	5000
BYPOR, MN FIX	U.S. CANADIAN BORDER	4000

95.6014 VOR FEDERAL AIRWAY V14

CHISUM, NM VORTAC	ONSOM, NM FIX	
	W BND	*7000
	E BND	*7500
*6000 - MOCA		
ONSOM, NM FIX	WINNS, TX FIX	*8000
*6300 - MOCA		
WINNS, TX FIX	*FLATT, TX FIX	**8000
*8000 - MRA		
**5200 - MOCA		
FLATT, TX FIX	SHALO, TX FIX	5200
SHALO, TX FIX	LUBBOCK, TX VORTAC	*5100
*5000 - GNSS MEA		
LUBBOCK, TX VORTAC	CHILDRESS, TX VORTAC	5100
CHILDRESS, TX VORTAC	HOBART, OK VORTAC	3700
HOBART, OK VORTAC	CARFF, OK FIX	3700
CARFF, OK FIX	*DATTA, OK FIX	3000
*3500 - MRA		
DATTA, OK FIX	WILL ROGERS, OK VORTAC	3000
WILL ROGERS, OK VORTAC	TOTES, OK FIX	3700
TOTES, OK FIX	DROPS, OK FIX	*3700
*2500 - MOCA		
DROPS, OK FIX	TULSA, OK VORTAC	
	NE BND	2800
	SW BND	3800
TULSA, OK VORTAC	ADAIR, OK FIX	2500
ADAIR, OK FIX	NEOSHO, MO VOR/DME	3000
NEOSHO, MO VOR/DME	SPRINGFIELD, MO VORTAC	3000
SPRINGFIELD, MO VORTAC	VICHY, MO VOR/DME	3100
VICHY, MO VOR/DME	STEER, MO FIX	*3000
*2300 - MOCA		
STEER, MO FIX	ST LOUIS, MO VORTAC	2600
ST LOUIS, MO VORTAC	VANDALIA, IL VOR/DME	2500
VANDALIA, IL VOR/DME	TERRE HAUTE, IN VORTAC	2400
TERRE HAUTE, IN VORTAC	BRICKYARD, IN VORTAC	2700
BRICKYARD, IN VORTAC	MUNCIE, IN VOR/DME	2900
MUNCIE, IN VOR/DME	FLAG CITY, OH VORTAC	3000
BUFFALO, NY VOR/DME	GENESE0, NY VOR/DME	#4000
#BUFFALO R-106 UNUSABLE		
GENESE0, NY VOR/DME	BEEPS, NY FIX	*4000
*3300 - MOCA		
BEEPS, NY FIX	SCIPO, NY FIX	*4000
*3400 - MOCA		

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95.6014 VOR FEDERAL AIRWAY V14 - CONTINUED

SCIPO, NY FIX	VESPE, NY FIX	4000
VESPE, NY FIX	GEORGETOWN, NY VORTAC	4000
GEORGETOWN, NY VORTAC	SHERB, NY FIX	4000
SHERB, NY FIX	COBIA, NY FIX	5000
COBIA, NY FIX	CASIL, NY FIX	*5000
*3800 - MOCA		
CASIL, NY FIX	ALBANY, NY VORTAC	3600
ALBANY, NY VORTAC	WARIC, MA FIX	5000
WARIC, MA FIX	GARDNER, MA VOR/DME	*4000
*3500 - MOCA		
GARDNER, MA VOR/DME	GRAYM, MA FIX	3000
GRAYM, MA FIX	NORWICH, CT VOR/DME	*3000
*2200 - MOCA		

95.6015 VOR FEDERAL AIRWAY V15

NAVASOTA, TX VOR/DME	COLLEGE STATION, TX VORTAC	2000
COLLEGE STATION, TX VORTAC	SATY, TX FIX	2200
SATY, TX FIX	WACO, TX VORTAC	2400
WACO, TX VORTAC	CEDAR CREEK, TX VORTAC	2500
CEDAR CREEK, TX VORTAC	BONHAM, TX VORTAC	*3500
*2200 - MOCA		
OKMULGEE, OK VOR/DME	MALTS, OK FIX	3500
MALTS, OK FIX	*PRYOR, OK FIX	**2900
*2900 - MRA		
**2200 - MOCA		
PRYOR, OK FIX	NEOSHO, MO VOR/DME	3000
ABERDEEN, SD VOR/DME	BISMARCK, ND VOR/DME	*4700
*3500 - MOCA		
BISMARCK, ND VOR/DME	MINOT, ND VOR/DME	4100

95.6016 VOR FEDERAL AIRWAY V16

LOS ANGELES, CA VORTAC	PRADO, CA FIX	4000
PRADO, CA FIX	PARADISE, CA VORTAC	5000
PARADISE, CA VORTAC	*SETER, CA FIX	5500
*12000 - MCA SETER, CA FIX , E BND		
SETER, CA FIX	BANDS, CA FIX	
	E BND	13000
	W BND	9000
BANDS, CA FIX	*PALM SPRINGS, CA VORTAC	13000
*11800 - MCA PALM SPRINGS, CA VORTAC , W BND		
PALM SPRINGS, CA VORTAC	BLYTHE, CA VORTAC	8000
BLYTHE, CA VORTAC	BUCKEYE, AZ VORTAC	6000
BUCKEYE, AZ VORTAC	PERKY, AZ FIX	5000
PERKY, AZ FIX	PHOENIX, AZ VORTAC	4000
PHOENIX, AZ VORTAC	*TOTEC, AZ FIX	5000
*5500 - MCA TOTEC, AZ FIX , E BND		
TOTEC, AZ FIX	TUCSON, AZ VORTAC	6500
TUCSON, AZ VORTAC	SAN SIMON, AZ VORTAC	11500
SAN SIMON, AZ VORTAC	ANIMA, NM FIX	8000
ANIMA, NM FIX	DARCE, NM FIX	9000
DARCE, NM FIX	COLUMBUS, NM VOR/DME	*9000
*8200 - MOCA		
COLUMBUS, NM VOR/DME	EL PASO, TX VORTAC	9000
EL PASO, TX VORTAC	SALT FLAT, TX VORTAC	*8000
*7400 - MOCA		
SALT FLAT, TX VORTAC	DILLI, TX FIX	8000
DILLI, TX FIX	CAVRN, TX FIX	*10000
*7500 - MOCA		

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95.6016 VOR FEDERAL AIRWAY V16 - CONTINUED

CAVRN, TX FIX *5300 - MOCA	WINK, TX VORTAC	*10000
WINK, TX VORTAC	GOMIT, TX FIX	5500
GOMIT, TX FIX	PIZON, TX FIX	5000
PIZON, TX FIX *4400 - MOCA	MERGE, TX FIX	*7000
MERGE, TX FIX	BIG SPRING, TX VORTAC	4400
BIG SPRING, TX VORTAC	WEEPE, TX FIX	4200
WEEPE, TX FIX *6500 - MRA	*LORAN, TX FIX	4500
LORAN, TX FIX	MERKE, TX FIX	4500
MERKE, TX FIX *3200 - MOCA	ABILENE, TX VORTAC	*4000
ABILENE, TX VORTAC *5000 - MRA	*ROGEE, TX FIX	3600
ROGEE, TX FIX *2900 - MOCA	BOWIE, TX VORTAC	*4500
BOWIE, TX VORTAC	BONHAM, TX VORTAC	4000
BONHAM, TX VORTAC	PARIS, TX VOR/DME	2400
PARIS, TX VOR/DME	TEXARKANA, AR VORTAC	2000
TEXARKANA, AR VORTAC *3000 - MRA	*HOSES, AR FIX	2000
HOSES, AR FIX *2300 - MOCA	SPARO, AR FIX	*4000
SPARO, AR FIX *1900 - MOCA	BUNNS, AR FIX	*6000
BUNNS, AR FIX	PINE BLUFF, AR VOR/DME	2000
PINE BLUFF, AR VOR/DME	MARVELL, AR VOR/DME	1900
MARVELL, AR VOR/DME	HOLLY SPRINGS, MS VORTAC	2200
SHELBYVILLE, TN VOR/DME	HINCH MOUNTAIN, TN VOR/DME	5000
HINCH MOUNTAIN, TN VOR/DME	BUCKY, TN FIX	5000
BUCKY, TN FIX	VOLUNTEER, TN VORTAC	3500
VOLUNTEER, TN VORTAC *4000 - MCA PENCE, TN FIX , NE BND	*PENCE, TN FIX	3000
PENCE, TN FIX	TAKEN, TN FIX	4000
TAKEN, TN FIX	HOLSTON MOUNTAIN, TN VORTAC	6000
HOLSTON MOUNTAIN, TN VORTAC	DAMAS, TN FIX	6000
DAMAS, TN FIX *7500 - MCA STOVE, VA FIX , SW BND	*STOVE, VA FIX	7500
STOVE, VA FIX	SPEEL, VA FIX	6000
SPEEL, VA FIX	PULASKI, VA VORTAC	5400
PULASKI, VA VORTAC	ROANOKE, VA VOR/DME	5300
ROANOKE, VA VOR/DME	GOOZE, VA FIX	5000
GOOZE, VA FIX	LYNCHBURG, VA VOR/DME W BND E BND	*5000 *3000
*2900 - MOCA	FLAT ROCK, VA VORTAC	3000
LYNCHBURG, VA VOR/DME	RICHMOND, VA VORTAC	2600
FLAT ROCK, VA VORTAC	*TAPPA, VA FIX	2000
RICHMOND, VA VORTAC *5000 - MCA TAPPA, VA FIX , NE BND	PATUXENT, MD VORTAC	*5000
TAPPA, VA FIX *1500 - MOCA		
*2000 - GNSS MEA		
PATUXENT, MD VORTAC	*GARED, MD FIX	**4500
*8000 - MRA		
**1500 - MOCA		
**4000 - GNSS MEA		
GARED, MD FIX *1500 - MOCA	CHOPS, MD FIX	*4500
*4000 - GNSS MEA		

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95.6016 VOR FEDERAL AIRWAY V16 - CONTINUED

CHOPS, MD FIX *1500 - MOCA	SMYRNA, DE VORTAC	*2000
SMYRNA, DE VORTAC	CEDAR LAKE, NJ VOR/DME	1800
CEDAR LAKE, NJ VOR/DME	COYLE, NJ VORTAC	1900
COYLE, NJ VORTAC *1600 - MOCA	DIXIE, NJ FIX	*2500
DIXIE, NJ FIX *1600 - MOCA	KENNEDY, NY VOR/DME	*2500
KENNEDY, NY VOR/DME	CALVERTON, NY VOR/DME	2000
CALVERTON, NY VOR/DME	CREAM, NY FIX	2000
CREAM, NY FIX	NORWICH, CT VOR/DME	2500
NORWICH, CT VOR/DME	WOONS, RI FIX	2500
WOONS, RI FIX	BOSTON, MA VOR/DME	2000

95.6017 VOR FEDERAL AIRWAY V17

BROWNSVILLE, TX VORTAC	HARLINGEN, TX VOR/DME	1600
HARLINGEN, TX VOR/DME	MC ALLEN, TX VOR/DME	2400
MC ALLEN, TX VOR/DME *1700 - MOCA	FATOR, TX FIX	*2500
FATOR, TX FIX *5500 - MRA **2800 - MOCA	*NELEE, TX FIX	**4000
NELEE, TX FIX	LAREDO, TX VORTAC	2500
LAREDO, TX VORTAC *5000 - MRA	*KAHAN, TX FIX	2400
KAHAN, TX FIX *1800 - MOCA	COTULLA, TX VORTAC	*2400
COTULLA, TX VORTAC	MILET, TX FIX	2500
MILET, TX FIX *2500 - MOCA	SOMER, TX FIX	*4000
SOMER, TX FIX *2400 - MOCA	SAN ANTONIO, TX VORTAC	*3000
SAN ANTONIO, TX VORTAC	CENTEX, TX VORTAC	3500
CENTEX, TX VORTAC	WACO, TX VORTAC	3600
MILLSAP, TX VORTAC	BOWIE, TX VORTAC	3000
BOWIE, TX VORTAC	ARDMORE, OK VORTAC	3000
ARDMORE, OK VORTAC	WILL ROGERS, OK VORTAC	3100
WILL ROGERS, OK VORTAC	ODINS, OK FIX	3300
ODINS, OK FIX *3600 - MOCA	CAMAR, OK FIX	*4900
CAMAR, OK FIX	MITBEE, OK VORTAC W BND	4300
	E BND	4900
MITBEE, OK VORTAC *3900 - MOCA	FLACK, KS FIX	*4400
FLACK, KS FIX	GARDEN CITY, KS VORTAC	4700
GARDEN CITY, KS VORTAC *9000 - MRA **4600 - MOCA	*COFFE, KS FIX	**5500
COFFE, KS FIX	GOODLAND, KS VORTAC	5500

95.6018 VOR FEDERAL AIRWAY V18

BELCHER, LA VORTAC	MONROE, LA VORTAC	2000
MONROE, LA VORTAC	MAGNOLIA, MS VORTAC	2500
MAGNOLIA, MS VORTAC	MERIDIAN, MS VORTAC	2500
MERIDIAN, MS VORTAC	CRIMSON, AL VORTAC	2000
CRIMSON, AL VORTAC	VULCAN, AL VORTAC	2400

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95.6018 VOR FEDERAL AIRWAY V18 - CONTINUED

COLLIERS, SC VORTAC	LASHE, SC FIX	2400
LASHE, SC FIX	NORMS, SC FIX	*3000
*2200 - MOCA		
NORMS, SC FIX	SACKS, SC FIX	*4000
*1700 - MOCA		
SACKS, SC FIX	CHARLESTON, SC VORTAC	2100

95.6019 VOR FEDERAL AIRWAY V19

CINCINNATI, KY VORTAC	APPLETON, OH VORTAC	*4000
*2800 - MOCA		

95.6020 VOR FEDERAL AIRWAY V20

MC ALLEN, TX VOR/DME	LATEX, TX FIX	1700
LATEX, TX FIX	ASCOT, TX FIX	*4000
*1900 - MOCA		
ASCOT, TX FIX	SOLON, TX FIX	
	N BND	*4000
	S BND	*5000
*1600 - MOCA		
SOLON, TX FIX	CORPUS CHRISTI, TX VORTAC	1800
CORPUS CHRISTI, TX VORTAC	BETZY, TX FIX	1800
BETZY, TX FIX	PALACIOS, TX VORTAC	2000
BEAUMONT, TX VOR/DME	LAKE CHARLES, LA VORTAC	2000
LAKE CHARLES, LA VORTAC	LAFAYETTE, LA VORTAC	1800
LAFAYETTE, LA VORTAC	RESERVE, LA VOR/DME	2000
RESERVE, LA VOR/DME	GULFPORT, MS VORTAC	2000
GULFPORT, MS VORTAC	SEMMES, AL VORTAC	*5000
*1800 - MOCA		
SEMMES, AL VORTAC	MONROEVILLE, AL VORTAC	2000
MONROEVILLE, AL VORTAC	*PICKS, AL FIX	2300
*3500 - MRA		
PICKS, AL FIX	MONTGOMERY, AL VORTAC	2300
MONTGOMERY, AL VORTAC	TUSKEGEE, AL VOR/DME	2000
TUSKEGEE, AL VOR/DME	MARVO, AL FIX	2100
MARVO, AL FIX	COLUMBUS, GA VORTAC	*2600
*2000 - MOCA		
COLUMBUS, GA VORTAC	GRANT, GA FIX	*3000
*2400 - MOCA		
GRANT, GA FIX	*SMARR, GA FIX	**4000
*4500 - MCA SMARR, GA FIX , NE BND		
**2500 - MOCA		
**2600 - GNSS MEA		
SMARR, GA FIX	*SINCA, GA FIX	**4500
*4500 - MCA SINCA, GA FIX , SW BND		
**2500 - MOCA		
**2500 - GNSS MEA		
SINCA, GA FIX	ATHENS, GA VOR/DME	*3000
*2200 - MOCA		
ATHENS, GA VOR/DME	ELECTRIC CITY, SC VORTAC	*2800
*2300 - MOCA		
ELECTRIC CITY, SC VORTAC	ELLID, SC FIX	3000
ELLID, SC FIX	CLEVA, SC FIX	3400
CLEVA, SC FIX	TUXDO, SC FIX	5000
TUXDO, SC FIX	SUGARLOAF MOUNTAIN, NC VORTAC	6200
SUGARLOAF MOUNTAIN, NC VORTAC	BARRETTS MOUNTAIN, NC VOR/DME	6200
BARRETTS MOUNTAIN, NC VOR/DME	LEAKS, NC FIX	3600
LEAKS, NC FIX	SOUTH BOSTON, VA VORTAC	3000

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95.6020 VOR FEDERAL AIRWAY V20 - CONTINUED

SOUTH BOSTON, VA VORTAC	*NUTTS, VA FIX	**3000
*9000 - MRA		
**2000 - MOCA		
NUTTS, VA FIX	MELIA, VA FIX	*3000
*2400 - MOCA		
MELIA, VA FIX	RICHMOND, VA VORTAC	2000
RICHMOND, VA VORTAC	*TAPPA, VA FIX	2000
*5000 - MCA TAPPA, VA FIX , NE BND		
TAPPA, VA FIX	*COLIN, VA FIX	**5000
*10000 - MCA COLIN, VA FIX , N BND		
**1500 - MOCA		
**2000 - GNSS MEA		
COLIN, VA FIX	NOTTINGHAM, MD VORTAC	*10000
*1800 - MOCA		
*2000 - GNSS MEA		

95.6021 VOR FEDERAL AIRWAY V21

SANTA CATALINA, CA VORTAC	SEAL BEACH, CA VORTAC	4000
SEAL BEACH, CA VORTAC	AHEIM, CA FIX	*3000
*2200 - MOCA		
AHEIM, CA FIX	*OLLIE, CA FIX	3000
*3000 - MRA		
*4100 - MCA OLLIE, CA FIX , NE BND		
OLLIE, CA FIX	PARADISE, CA VORTAC	5000
PARADISE, CA VORTAC	*RAVON, CA FIX	4500
*8800 - MCA RAVON, CA FIX , NE BND		
RAVON, CA FIX	GAREY, CA FIX	
	NE BND	10500
	SW BND	8000
GAREY, CA FIX	*LUCER, CA FIX	10500
*9300 - MCA LUCER, CA FIX , SW BND		
LUCER, CA FIX	BULGY, CA FIX	*9000
*8000 - MOCA		
BULGY, CA FIX	*HECTOR, CA VORTAC	**9000
*8200 - MCA HECTOR, CA VORTAC , NE BND		
**7000 - MOCA		
HECTOR, CA VORTAC	*WHIGG, CA FIX	10500
*12000 - MRA		
WHIGG, CA FIX	BOULDER CITY, NV VORTAC	10500
BOULDER CITY, NV VORTAC	MORMON MESA, NV VORTAC	7500
MORMON MESA, NV VORTAC	BERYL, UT FIX	9800
BERYL, UT FIX	MILFORD, UT VORTAC	10000
MILFORD, UT VORTAC	DELTA, UT VORTAC	9600
DELTA, UT VORTAC	FAIRFIELD, UT VORTAC	10300
FAIRFIELD, UT VORTAC	*WASATCH, UT VORTAC	9600
*8000 - MCA WASATCH, UT VORTAC , S BND		
WASATCH, UT VORTAC	OGDEN, UT VORTAC	7000
OGDEN, UT VORTAC	*CORIN, UT FIX	
	N BND	10000
	S BND	7600
*13000 - MRA		
CORIN, UT FIX	MALAD CITY, ID VOR/DME	10000
MALAD CITY, ID VOR/DME	BANNO, ID FIX	10000
BANNO, ID FIX	*POCATELLO, ID VOR/DME	9000
*8000 - MCA POCATELLO, ID VOR/DME , SE BND		
POCATELLO, ID VOR/DME	IDAHO FALLS, ID VOR/DME	7000
IDAHO FALLS, ID VOR/DME	*DUBOIS, ID VORTAC	7600
*8600 - MCA DUBOIS, ID VORTAC , N BND		

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95.6021 VOR FEDERAL AIRWAY V21 - CONTINUED

DUBOIS, ID VORTAC	DILLON, MT VOR/DME	*12000
*11200 - MOCA		
DILLON, MT VOR/DME	*WHITEHALL, MT VOR/DME	10000
*9300 - MCA WHITEHALL, MT VOR/DME , N BND		
WHITEHALL, MT VOR/DME	*HELENA, MT VORTAC	10600
*10000 - MCA HELENA, MT VORTAC , SE BND		
HELENA, MT VORTAC	GREAT FALLS, MT VORTAC	10000
GREAT FALLS, MT VORTAC	CUT BANK, MT VOR/DME	6000
CUT BANK, MT VOR/DME	U.S. CANADIAN BORDER	6300

95.6023 VOR FEDERAL AIRWAY V23

MISSION BAY, CA VORTAC	OCEANSIDE, CA VORTAC	3000
OCEANSIDE, CA VORTAC	BALBO, CA FIX	4000
BALBO, CA FIX	SEAL BEACH, CA VORTAC	
	NW BND	3000
	SE BND	4000
SEAL BEACH, CA VORTAC	LOS ANGELES, CA VORTAC	2500
LOS ANGELES, CA VORTAC	*CHATY, CA FIX	4000
*5400 - MCA CHATY, CA FIX , NW BND		
CHATY, CA FIX	*CASTA, CA FIX	6000
*8300 - MCA CASTA, CA FIX , NW BND		
CASTA, CA FIX	GORMAN, CA VORTAC	9500
GORMAN, CA VORTAC	*GRAPE, CA FIX	9500
*9500 - MCA GRAPE, CA FIX , S BND		
GRAPE, CA FIX	*LAMPE, CA FIX	
	NW BND	5000
	SE BND	9500
*7800 - MCA LAMPE, CA FIX , SE BND		
LAMPE, CA FIX	SHAFTER, CA VORTAC	
	NW BND	3000
	SE BND	6000
SHAFTER, CA VORTAC	DELNO, CA FIX	3000
DELNO, CA FIX	PIXEY, CA FIX	*5000
*2000 - MOCA		
*3000 - GNSS MEA		
PIXEY, CA FIX	LATON, CA FIX	*6000
*2000 - MOCA		
*3000 - GNSS MEA		
LATON, CA FIX	FRAME, CA FIX	*6000
*1900 - MOCA		
*2000 - GNSS MEA		
EBTUW, CA FIX	WRAPS, CA FIX	*4000
*3000 - MOCA		
WRAPS, CA FIX	LINDEN, CA VOR/DME	3000
LINDEN, CA VOR/DME	SACRAMENTO, CA VORTAC	2300
SACRAMENTO, CA VORTAC	GRIME, CA FIX	*2000
*1600 - MOCA		
GRIME, CA FIX	YUBBA, CA FIX	*4000
*2000 - MOCA		
YUBBA, CA FIX	*GRIDD, CA FIX	**4000
*4000 - MRA		
**3400 - MOCA		
GRIDD, CA FIX	RED BLUFF, CA VORTAC	*3000
*1700 - MOCA		
RED BLUFF, CA VORTAC	BEIRA, CA FIX	
	NW BND	8000
	SE BND	3000
BEIRA, CA FIX	*SHATA, CA FIX	
	NW BND	**8000
	SE BND	**6500
*8000 - MCA SHATA, CA FIX , NW BND		
**5500 - MOCA		

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95.6023 VOR FEDERAL AIRWAY V23 - CONTINUED

SHATA, CA FIX	FORT JONES, CA VOR/DME	10000
FORT JONES, CA VOR/DME	TALEM, OR FIX	*10000
*9400 - MOCA		
TALEM, OR FIX	*ROGUE VALLEY, OR VORTAC	
	NW BND	8000
	SE BND	10000
*7000 - MCA ROGUE VALLEY, OR VORTAC , SE BND		
ROGUE VALLEY, OR VORTAC	MOURN, OR FIX	7000
MOURN, OR FIX	*CURTI, OR FIX	**8000
*7000 - MRA		
**6500 - MOCA		
CURTI, OR FIX	EUGENE, OR VORTAC	
	SE BND	*6000
	NW BND	*4000
*4000 - MOCA		
EUGENE, OR VORTAC	TURN0, OR FIX	3000
TURN0, OR FIX	RAWER, OR FIX	5000
RAWER, OR FIX	BATTLE GROUND, WA VORTAC	4100
BATTLE GROUND, WA VORTAC	*MALAY, WA FIX	
	NW BND	6000
	SE BND	5000
*9500 - MRA		
MALAY, WA FIX	*MCKEN, WA FIX	
	S BND	6000
	N BND	5000
*4100 - MCA MCKEN, WA FIX , S BND		
MCKEN, WA FIX	SEATTLE, WA VORTAC	3000
SEATTLE, WA VORTAC	PAINE, WA VOR/DME	3000
PAINE, WA VOR/DME	EGRET, WA FIX	4500
EGRET, WA FIX	ACORD, WA FIX	3500
ACORD, WA FIX	WHATCOM, WA VORTAC	*3000
*2200 - MOCA		
WHATCOM, WA VORTAC	U.S. CANADIAN BORDER	3000

95.6024 VOR FEDERAL AIRWAY V24

ABERDEEN, SD VOR/DME	WATERTOWN, SD VORTAC	3600
WATERTOWN, SD VORTAC	REDWOOD FALLS, MN VOR/DME	3800
REDWOOD FALLS, MN VOR/DME	*ALMAY, MN FIX	**3400
*5000 - MRA		
**2900 - MOCA		
ALMAY, MN FIX	KASPR, MN FIX	3400
KASPR, MN FIX	ROCHESTER, MN VOR/DME	3000
JANESVILLE, WI VOR/DME	FARMM, IL FIX	2900
FARMM, IL FIX	NORTHBROOK, IL VOR/DME	2700
PEOTONE, IL VORTAC	KENLA, IL FIX	2400
KENLA, IL FIX	VAGES, IN FIX	2600
VAGES, IN FIX	*POTES, IN FIX	**4000
*4000 - MRA		
**2300 - MOCA		
POTES, IN FIX	JAKKS, IN FIX	*4000
*2300 - MOCA		
JAKKS, IN FIX	BRICKYARD, IN VORTAC	2700

95.6025 VOR FEDERAL AIRWAY V25

MISSION BAY, CA VORTAC	REDIN, CA FIX	3000
REDIN, CA FIX	PACIF, CA FIX	*6000
*2000 - MOCA		

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95.6025 VOR FEDERAL AIRWAY V25 - CONTINUED

PACIF, CA FIX *2000 - MOCA	ALBAS, CA FIX	*3000
ALBAS, CA FIX *2700 - MCA FERMY, CA FIX , NW BND	*FERMY, CA FIX	2100
FERMY, CA FIX *2700 - MCA HERMO, CA FIX , SE BND	*HERMO, CA FIX	3200
HERMO, CA FIX	LOS ANGELES, CA VORTAC	2500
LOS ANGELES, CA VORTAC *3000 - MRA	*MERMA, CA FIX	2000
MERMA, CA FIX	EXERT, CA FIX	2000
EXERT, CA FIX	VENTURA, CA VOR/DME	5000
VENTURA, CA VOR/DME	DEANO, CA FIX	6000
DEANO, CA FIX *7600 - MCA SAN MARCUS, CA VORTAC , NW BND	*SAN MARCUS, CA VORTAC	6200
SAN MARCUS, CA VORTAC	POZOE, CA FIX	8600
POZOE, CA FIX	PASO ROBLES, CA VORTAC NW BND	6000
	SE BND	7000
PASO ROBLES, CA VORTAC	SALINAS, CA VORTAC	5500
SALINAS, CA VORTAC *4000 - MOCA	SANTY, CA FIX	*5000
SANTY, CA FIX	WOODSIDE, CA VOR/DME	5100
WOODSIDE, CA VOR/DME	SAN FRANCISCO, CA VOR/DME	4700
SAN FRANCISCO, CA VOR/DME	SUTRO, CA FIX	3500
SUTRO, CA FIX	GOBBS, CA FIX	3000
GOBBS, CA FIX	POINT REYES, CA VOR/DME	3500
POINT REYES, CA VOR/DME	FREES, CA FIX	3500
FREES, CA FIX *12000 - MCA GETER, CA FIX , N BND	*GETER, CA FIX	6000
GETER, CA FIX *9000 - MRA	*LAPED, CA FIX	**12000
*11000 - MCA LAPED, CA FIX , S BND		
**6300 - MOCA		
LAPED, CA FIX *9000 - MCA GRENY, CA FIX , S BND	*GRENY, CA FIX	9000
GRENY, CA FIX	RED BLUFF, CA VORTAC N BND	3200
	S BND	9000
RED BLUFF, CA VORTAC *4000 - MOCA	HOMAN, CA FIX	*4000
HOMAN, CA FIX *7000 - MCA ITMOR, CA FIX , N BND	*ITMOR, CA FIX	**5000
**4000 - MOCA		
**4000 - GNSS MEA		
ITMOR, CA FIX *9600 - MOCA	MUREX, CA FIX	*11000
*10000 - GNSS MEA		
MUREX, CA FIX	KLAMATH FALLS, OR VORTAC N BND	*8500
	S BND	*11000
*8500 - MOCA		
KLAMATH FALLS, OR VORTAC *9500 - MOCA	SPRAG, OR FIX	*12000
*10000 - GNSS MEA		
SPRAG, OR FIX *9500 - MOCA	OCTAD, OR FIX	*12000
*10000 - GNSS MEA		
OCTAD, OR FIX	DESCHUTES, OR VORTAC N BND	*7000
	S BND	*12000
*7000 - GNSS MEA		

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95.6025 VOR FEDERAL AIRWAY V25 - CONTINUED

DESCHUTES, OR VORTAC	*GASHE, OR FIX	**7000
*10000 - MRA		
**6500 - MOCA		
GASHE, OR FIX	*Klickitat, OR VOR/DME	**7000
*5400 - MCA Klickitat, OR VOR/DME , N BND		
**6500 - MOCA		
Klickitat, OR VOR/DME	GUBSE, WA FIX	7800
GUBSE, WA FIX	YAKIMA, WA VORTAC	
	N BND	*5000
	S BND	*7800
*4500 - MOCA		
YAKIMA, WA VORTAC	*Elensburg, WA VOR/DME	5900
*6800 - MCA Elensburg, WA VOR/DME , N BND		
Elensburg, WA VOR/DME	*Wenatchee, WA VOR/DME	8900
*7400 - MCA Wenatchee, WA VOR/DME , S BND		

95.6026 VOR FEDERAL AIRWAY V26

BLUE MESA, CO VOR/DME	MONTROSE, CO VOR/DME	12500
MONTROSE, CO VOR/DME	GRAND JUNCTION, CO VOR/DME	11000
GRAND JUNCTION, CO VOR/DME	RAYMN, CO FIX	
	NE BND	11000
	SW BND	10000
RAYMN, CO FIX	MEEKER, CO VOR/DME	11000
MEEKER, CO VOR/DME	STRIM, CO FIX	11000
STRIM, CO FIX	CHEROKEE, WY VOR/DME	10000
CHEROKEE, WY VOR/DME	ALCOS, WY FIX	11700
ALCOS, WY FIX	MUDDY MOUNTAIN, WY VOR/DME	*10000
*9400 - MOCA		
MUDDY MOUNTAIN, WY VOR/DME	SALON, WY FIX	
	NE BND	13000
	SW BND	8000
SALON, WY FIX	RULER, SD FIX	*13000
*9500 - MOCA		
RULER, SD FIX	*RAPID CITY, SD VORTAC	
	NE BND	8300
	SW BND	13000
*11300 - MCA RAPID CITY, SD VORTAC , SW BND		
*RAPID CITY, SD VORTAC	PHILIP, SD VOR/DME	5000
*11300 - MCA RAPID CITY, SD VORTAC , SW BND		
PHILIP, SD VOR/DME	PIERRE, SD VORTAC	*4400
*3700 - MOCA		
REDWOOD FALLS, MN VOR/DME	BEEGR, MN FIX	*3000
*2500 - MOCA		
BEEGR, MN FIX	LYDIA, MN FIX	*5500
*2400 - MOCA		
LYDIA, MN FIX	FARMINGTON, MN VORTAC	*3500
*2500 - MOCA		
FARMINGTON, MN VORTAC	PRESS, WI FIX	*3500
*2800 - MOCA		
PRESS, WI FIX	ELPAS, WI FIX	*5500
*2600 - MOCA		
ELPAS, WI FIX	EAU CLAIRE, WI VORTAC	*3500
*2800 - MOCA		
EAU CLAIRE, WI VORTAC	EDGRR, WI FIX	
	E BND	*7500
	W BND	*4500
*2900 - MOCA		
EDGRR, WI FIX	WAUSAU, WI VOR/DME	*7500
*3600 - MOCA		
*3600 - GNSS MEA		

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95.6026 VOR FEDERAL AIRWAY V26 - CONTINUED

WAUSAU, WI VOR/DME *3000 - GNSS MEA	CHURP, WI FIX	*8000
CHURP, WI FIX *2400 - MOCA	GREEN BAY, WI VORTAC	*7000
GREEN BAY, WI VORTAC #GREEN BAY R-115 TO YULNU UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS	NEROE, WI FIX	#3000
NEROE, WI FIX *2400 - MOCA	WELKO, MI FIX	*5000
WELKO, MI FIX #WHITE CLOUD R-303 TO YULNU UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS	WHITE CLOUD, MI VOR/DME	#4000

95.6027 VOR FEDERAL AIRWAY V27

MISSION BAY, CA VORTAC REDIN, CA FIX *2000 - MOCA	REDIN, CA FIX PACIF, CA FIX	3000 *6000
PACIF, CA FIX *2000 - MOCA	AVOLS, CA FIX	*3000
AVOLS, CA FIX SANTA CATALINA, CA VORTAC	SANTA CATALINA, CA VORTAC	4000
EXERT, CA FIX	EXERT, CA FIX	4000
VENTURA, CA VOR/DME	VENTURA, CA VOR/DME	5000
KWANG, CA FIX *5000 - MCA GOLET, CA FIX , NW BND **2300 - MOCA	KWANG, CA FIX *GOLET, CA FIX	5000 **4000
GOLET, CA FIX GAVIOTA, CA VORTAC *6000 - MCA ORCUT, CA FIX , S BND	GAVIOTA, CA VORTAC *ORCUT, CA FIX	6400 6000
ORCUT, CA FIX MORRO BAY, CA VORTAC	MORRO BAY, CA VORTAC	4000
BLANC, CA FIX	BLANC, CA FIX	4000
BIG SUR, CA VORTAC	BIG SUR, CA VORTAC	7000
CARME, CA FIX *5200 - MOCA	CARME, CA FIX	7000
SHOEY, CA FIX *7000 - MRA **3000 - MOCA	SHOEY, CA FIX	*6000
EUGEN, CA FIX *7000 - MRA **3000 - MOCA	*EUGEN, CA FIX	**6000
TAILS, CA FIX *3000 - MOCA	*TAILS, CA FIX	**6000
HADLY, CA FIX *3000 - MOCA	HADLY, CA FIX	*6000
SEEMS, CA FIX *3000 - MOCA	SEEMS, CA FIX	*4000
STINS, CA FIX POINT REYES, CA VOR/DME	STINS, CA FIX	*3500
FREES, CA FIX	POINT REYES, CA VOR/DME	3500
MENDOCINO, CA VORTAC	FREES, CA FIX	3500
OLRIO, CA FIX	MENDOCINO, CA VORTAC	6000
	OLRIO, CA FIX	6700
	FORTUNA, CA VORTAC	
	NW BND	4000
	SE BND	6700
FORTUNA, CA VORTAC	CRESCENT CITY, CA VORTAC	3000
CRESCENT CITY, CA VORTAC *11000 - MRA	*ROOTY, OR FIX	6400
ROOTY, OR FIX	LEDGE, OR FIX	6400

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95.6027 VOR FEDERAL AIRWAY V27 - CONTINUED

LEDGE, OR FIX	NORTH BEND, OR VOR/DME	
	S BND	6400
	N BND	4000
NORTH BEND, OR VOR/DME	*GAMMA, OR FIX	
	S BND	4000
	N BND	4500
*6200 - MRA		
GAMMA, OR FIX	NEWPORT, OR VORTAC	4500
NEWPORT, OR VORTAC	CUTEL, OR FIX	
	S BND	3300
	N BND	8000
CUTEL, OR FIX	DANES, OR FIX	
	N BND	*8000
	S BND	*5000
*3600 - MOCA		
*4000 - GNSS MEA		
DANES, OR FIX	ASTORIA, OR VOR/DME	*8000
*5000 - MOCA		
*5000 - GNSS MEA		
ASTORIA, OR VOR/DME	HOQUIAM, WA VORTAC	3700
HOQUIAM, WA VORTAC	*CARRO, WA FIX	3200
*4000 - MRA		
CARRO, WA FIX	SEATTLE, WA VORTAC	3000

95.6028 VOR FEDERAL AIRWAY V28

OAKLAND, CA VOR/DME	*SALAD, CA FIX	4000
*4700 - MCA SALAD, CA FIX , NE BND		
SALAD, CA FIX	ALTAM, CA FIX	5000
ALTAM, CA FIX	HAIRE, CA FIX	4500
HAIRE, CA FIX	*LINDEN, CA VOR/DME	**3000
*4000 - MCA LINDEN, CA VOR/DME , NE BND		
**2100 - MOCA		
LINDEN, CA VOR/DME	*KATSO, CA FIX	5000
*12400 - MCA KATSO, CA FIX , NE BND		
KATSO, CA FIX	*SPOOK, CA FIX	**13000
*15000 - MCA SPOOK, CA FIX , N BND		
**12100 - MOCA		
SPOOK, CA FIX	RICHY, CA FIX	*15000
*12000 - MOCA		
RICHY, CA FIX	*MUSTANG, NV VORTAC	13000
*10500 - MCA MUSTANG, NV VORTAC , S BND		

95.6029 VOR FEDERAL AIRWAY V29

SNOW HILL, MD VORTAC	*SALISBURY, MD VORTAC	**2000
*5000 - MCA SALISBURY, MD VORTAC , N BND		
**1500 - MOCA		
SALISBURY, MD VORTAC	*EZIZI, DE FIX	5000
*7000 - MCA EZIZI, DE FIX , N BND		
EZIZI, DE FIX	*LAFLN, DE FIX	**7000
*7000 - MCA LAFLN, DE FIX , S BND		
**5000 - GNSS MEA		
LAFLN, DE FIX	SMYRNA, DE VORTAC	1800
SMYRNA, DE VORTAC	DUPONT, DE VORTAC	#1800
#DUPONT R-181 UNUSABLE BELOW 10000 USE SMYRNA R-360		
DUPONT, DE VORTAC	MODENA, PA VORTAC	*3000
*1800 - MOCA		
*2000 - GNSS MEA		

FROM	TO	MEA
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95.6029 VOR FEDERAL AIRWAY V29 - CONTINUED

MODENA, PA VORTAC	POTTSTOWN, PA VORTAC	2400
POTTSTOWN, PA VORTAC	*HIKES, PA FIX	2900
*4000 - MRA		
HIKES, PA FIX	EAST TEXAS, PA VOR/DME	2900
EAST TEXAS, PA VOR/DME	SLATT, PA FIX	4000
SLATT, PA FIX	WILKES-BARRE, PA VORTAC	4000
WILKES-BARRE, PA VORTAC	SCOFF, PA FIX	4000
SCOFF, PA FIX	BINGHAMTON, NY VOR/DME	3600
BINGHAMTON, NY VOR/DME	CORTA, NY FIX	*4000
*3600 - MOCA		
CORTA, NY FIX	VESPE, NY FIX	4500
VESPE, NY FIX	SYRACUSE, NY VORTAC	*4000
*3600 - MOCA		
SYRACUSE, NY VORTAC	PAGER, NY FIX	*2400
*1800 - MOCA		
PAGER, NY FIX	WATERTOWN, NY VORTAC	*2600
*2000 - MOCA		
WATERTOWN, NY VORTAC	*LETUS, NY FIX	**3000
*4000 - MRA		
**1900 - MOCA		
LETUS, NY FIX	MASSENA, NY VORTAC	#GNSS - 3000
#MASSENA R-255 UNUSABLE		
#GNSS REQUIRED		

95.6030 VOR FEDERAL AIRWAY V30

BADGER, WI VOR/DME	SQUIB, MI FIX	2900
SQUIB, MI FIX	PULLMAN, MI VOR/DME	3500
PULLMAN, MI VOR/DME	LITCHFIELD, MI VOR/DME	2800
PHILIPSBURG, PA VORTAC	SELINSGROVE, PA VOR/DME	4100
SELINSGROVE, PA VOR/DME	EAST TEXAS, PA VOR/DME	4000
EAST TEXAS, PA VOR/DME	SOLBERG, NJ VOR/DME	2700

95.6031 VOR FEDERAL AIRWAY V31

PATUXENT, MD VORTAC	*ARUYE, MD FIX	2500
*6000 - MRA		
ARUYE, MD FIX	NOTTINGHAM, MD VORTAC	#*6000
*3000 - GNSS MEA		
#NOTTINGHAM R-138 UNUSABLE BELOW 6000 .		
BALTIMORE, MD VORTAC	VINNY, PA FIX	3000
VINNY, PA FIX	GRAMO, PA FIX	*7000
*5000 - GNSS MEA		
GRAMO, PA FIX	HARRISBURG, PA VORTAC	*7000
*5000 - GNSS MEA		
HARRISBURG, PA VORTAC	*MORTO, PA FIX	3000
*5000 - MRA		
MORTO, PA FIX	SELINSGROVE, PA VOR/DME	5000
SELINSGROVE, PA VOR/DME	WATSO, PA FIX	*3500
*3100 - MOCA		
WATSO, PA FIX	WILLIAMSPORT, PA VOR/DME	3800
WILLIAMSPORT, PA VOR/DME	ELMIRA, NY VOR/DME	4000
ELMIRA, NY VOR/DME	GIBBE, NY FIX	3800
GIBBE, NY FIX	BEEPS, NY FIX	3500
BEEPS, NY FIX	ROCHESTER, NY VOR/DME	4000
ROCHESTER, NY VOR/DME	*AIRCO, NY FIX	4000
*6000 - MRA		

95.6032 VOR FEDERAL AIRWAY V32

MUSTANG, NV VORTAC	HAZEN, NV VORTAC	*10000
*9200 - MOCA		

FROM	TO	MEA
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95.6032 VOR FEDERAL AIRWAY V32 - CONTINUED

HAZEN, NV VORTAC	LOVELOCK, NV VORTAC	8000
LOVELOCK, NV VORTAC	BATTLE MOUNTAIN, NV VORTAC	11000
BATTLE MOUNTAIN, NV VORTAC	*BULLION, NV VOR/DME	**10000
*10800 - MCA BULLION, NV VOR/DME , E BND		
**9400 - MOCA		
BULLION, NV VOR/DME	SPATS, NV FIX	13000
SPATS, NV FIX	BONNEVILLE, UT VORTAC	*11000
*10000 - MOCA		
BONNEVILLE, UT VORTAC	*WASATCH, UT VORTAC	9000
*10400 - MCA WASATCH, UT VORTAC , NE BND		
WASATCH, UT VORTAC	FORT BRIDGER, WY VOR/DME	12000

95.6033 VOR FEDERAL AIRWAY V33

HARCUM, VA VORTAC	*COLIN, VA FIX	**4000
*10000 - MCA COLIN, VA FIX , N BND		
**1600 - MOCA		
**2000 - GNSS MEA		
COLIN, VA FIX	NOTTINGHAM, MD VORTAC	*10000
*1800 - MOCA		
*2000 - GNSS MEA		
BALTIMORE, MD VORTAC	VINNY, PA FIX	3000
VINNY, PA FIX	GRAMO, PA FIX	*7000
*5000 - GNSS MEA		
GRAMO, PA FIX	*HARRISBURG, PA VORTAC	**7000
*3600 - MCA HARRISBURG, PA VORTAC , NW BND		
*4600 - MCA HARRISBURG, PA VORTAC , SE BND		
**5000 - GNSS MEA		
HARRISBURG, PA VORTAC	*PHILIPSBURG, PA VORTAC	4900
*4800 - MCA PHILIPSBURG, PA VORTAC , SE BND		
PHILIPSBURG, PA VORTAC	KEATING, PA VORTAC	4000

95.6034 VOR FEDERAL AIRWAY V34

ROCHESTER, NY VOR/DME	HANCOCK, NY VOR/DME	4000
HANCOCK, NY VOR/DME	WEETS, NY FIX	6400
WEETS, NY FIX	PAWLING, NY VOR/DME	
	W BND	6000
	E BND	4000
PAWLING, NY VOR/DME	MADISON, CT VOR/DME	3000
MADISON, CT VOR/DME	SANDY POINT, RI VOR/DME	*2000
*1400 - MOCA		
SANDY POINT, RI VOR/DME	NANTUCKET, MA VOR/DME	2000

95.6035 VOR FEDERAL AIRWAY V35

DOLPHIN, FL VORTAC	CURVE, FL FIX	*2000
*1500 - MOCA		
CURVE, FL FIX	*DEEDS, FL FIX	**5000
*4000 - MRA		
**1300 - MOCA		
DEEDS, FL FIX	LEE COUNTY, FL VORTAC	2200
LEE COUNTY, FL VORTAC	ST PETERSBURG, FL VORTAC	2000
ST PETERSBURG, FL VORTAC	ENDED, FL FIX	2500
ENDED, FL FIX	CROSS CITY, FL VORTAC	*3000
*1500 - MOCA		
CROSS CITY, FL VORTAC	GREENVILLE, FL VORTAC	2000
GREENVILLE, FL VORTAC	*SALER, GA FIX	2500
*3000 - MRA		

FROM	TO	MEA
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95.6035 VOR FEDERAL AIRWAY V35 - CONTINUED

SALER, GA FIX *1700 - MOCA	PECAN, GA VOR/DME	*2000
PECAN, GA VOR/DME	MACON, GA VORTAC	2000
MACON, GA VORTAC	SINCA, GA FIX	2500
SINCA, GA FIX *2200 - MOCA	ATHENS, GA VOR/DME	*3000
ATHENS, GA VOR/DME *2300 - MOCA	ELECTRIC CITY, SC VORTAC	*2800
ELECTRIC CITY, SC VORTAC	ELLID, SC FIX	3000
ELLID, SC FIX	CLEVA, SC FIX	3400
CLEVA, SC FIX	TUXDO, SC FIX	5000
TUXDO, SC FIX	SUGARLOAF MOUNTAIN, NC VORTAC	6200
SUGARLOAF MOUNTAIN, NC VORTAC *9000 - MCA BUSIC, NC FIX , N BND	*BUSIC, NC FIX	8800
BUSIC, NC FIX *9000 - MCA ROANS, TN FIX , S BND	*ROANS, TN FIX	9000
ROANS, TN FIX	HOLSTON MOUNTAIN, TN VORTAC	7000
HOLSTON MOUNTAIN, TN VORTAC	GLADE SPRING, VA VOR/DME	6700
GLADE SPRING, VA VOR/DME	MACET, WV FIX	#6500
#GZG TO COP UNUSABLE EXCEPT FOR AIRCRAFT WITH SUITABLE RNAV SYSTEM WITH GPS.		
MACET, WV FIX	CHARLESTON, WV VOR/DME N BND	4500
	S BND	6500
CHARLESTON, WV VOR/DME *3000 - MOCA	CARLA, WV FIX	*4000
CARLA, WV FIX *3300 - MOCA	BENZO, WV FIX	*4000
BENZO, WV FIX	CLARKSBURG, WV VOR/DME	3300
CLARKSBURG, WV VOR/DME	MORGANTOWN, WV VOR/DME	4000
PHILIPSBURG, PA VORTAC	STONYFORK, PA VOR/DME	4500
STONYFORK, PA VOR/DME *3900 - MOCA	ELMIRA, NY VOR/DME	*4500
ELMIRA, NY VOR/DME	SCIPO, NY FIX	3700
SCIPO, NY FIX	SYRACUSE, NY VORTAC	3500

95.6036 VOR FEDERAL AIRWAY V36

U.S. CANADIAN BORDER *3000 - MOCA	U.S. CANADIAN BORDER	*7000
U.S. CANADIAN BORDER *3100 - MOCA	SAULT STE MARIE, MI VOR/DME	*4600
SAULT STE MARIE, MI VOR/DME *2800 - MOCA	U.S. CANADIAN BORDER	*5000
BUFFALO, NY VOR/DME *11000 - MCA BURST, NY FIX , NW BND **4000 - GNSS MEA	*BURST, NY FIX	**11000
BURST, NY FIX	THINK, NY FIX	4000
THINK, NY FIX	ELMIRA, NY VOR/DME	3500
ELMIRA, NY VOR/DME #ELMIRA R-122 UNUSABLE BELOW FL180 BEYOND 40 NM	HAWLY, PA FIX	#GNSS - 4500
HAWLY, PA FIX *3600 - MOCA *4000 - GNSS MEA	HOPCE, NJ FIX	*15500
HOPCE, NJ FIX *3600 - MOCA *4000 - GNSS MEA	NEION, NJ FIX	*13500

95.6037 VOR FEDERAL AIRWAY V37

CRAIG, FL VORTAC	CARVL, FL FIX	2100
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FROM	TO	MEA
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95.6037 VOR FEDERAL AIRWAY V37 - CONTINUED

CARVL, FL FIX	BRUNSWICK, GA VORTAC	2000
BRUNSWICK, GA VORTAC	*BROUN, GA FIX	**3000
*11000 - MRA		
**2200 - MOCA		
BROUN, GA FIX	*HARPS, GA FIX	**3000
*3800 - MRA		
**2200 - MOCA		
HARPS, GA FIX	SAVANNAH, GA VORTAC	*3000
*2200 - MOCA		
SAVANNAH, GA VORTAC	ALLENDAL, SC VOR	*6000
*1600 - MOCA		
*4000 - GNSS MEA		
ALLENDAL, SC VOR	COLUMBIA, SC VORTAC	*3000
*2000 - GNSS MEA		
COLUMBIA, SC VORTAC	RICHE, SC FIX	*4000
*2400 - MOCA		
*2400 - GNSS MEA		
RICHE, SC FIX	CHARLOTTE, NC VOR/DME	2500
CHARLOTTE, NC VOR/DME	OWALT, NC FIX	3000
OWALT, NC FIX	JOTTA, NC FIX	*6000
*3500 - MOCA		
JOTTA, NC FIX	DOILY, VA FIX	*7000
*5100 - MOCA		
DOILY, VA FIX	PULASKI, VA VORTAC	*6000
*5000 - MOCA		
PULASKI, VA VORTAC	HAWKI, WV FIX	8000
HAWKI, WV FIX	ELKINS, WV VORTAC	6000
ELKINS, WV VORTAC	CLARKSBURG, WV VOR/DME	*5000
*3900 - MOCA		
CLARKSBURG, WV VOR/DME	TEDDS, WV FIX	*4000
*3400 - MOCA		
TEDDS, WV FIX	CETPU, PA FIX	*5000
*3400 - MOCA		
*4000 - GNSS MEA		
CETPU, PA FIX	ELLWOOD CITY, PA VOR/DME	*4000
*3200 - MOCA		
ELLWOOD CITY, PA VOR/DME	ERIE, PA VORTAC	3000

95.6038 VOR FEDERAL AIRWAY V38

MOLINE, IL VOR/DME	TRIDE, IL FIX	3300
TRIDE, IL FIX	MEDAN, IL FIX	*4000
*2200 - MOCA		
MEDAN, IL FIX	PEOTONE, IL VORTAC	2400
PEOTONE, IL VORTAC	LUCIT, IN FIX	2500
LUCIT, IN FIX	CLEFT, IN FIX	*4000
*2400 - MOCA		
CLEFT, IN FIX	FORT WAYNE, IN VORTAC	2800
FORT WAYNE, IN VORTAC	WINES, OH FIX	2500
APPLETON, OH VORTAC	ZANESVILLE, OH VOR/DME	3000
ZANESVILLE, OH VOR/DME	PARKERSBURG, WV VOR/DME	3000
PARKERSBURG, WV VOR/DME	SACKY, WV FIX	3000
SACKY, WV FIX	*JULEA, WV FIX	3000
*5000 - MRA		
JULEA, WV FIX	BENZO, WV FIX	3300
BENZO, WV FIX	ELKINS, WV VORTAC	4000
ELKINS, WV VORTAC	*DEKAY, WV FIX	9000
*9500 - MRA		
DEKAY, WV FIX	CEROL, VA FIX	9000

FROM	TO	MEA
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95.6038 VOR FEDERAL AIRWAY V38 - CONTINUED

CEROL, VA FIX	GORDONSVILLE, VA VORTAC	6000
GORDONSVILLE, VA VORTAC	*ROOKY, VA FIX	2500
*2500 - MRA		
ROOKY, VA FIX	RICHMOND, VA VORTAC	2100
RICHMOND, VA VORTAC	HARCUM, VA VORTAC	2000
HARCUM, VA VORTAC	CAPE CHARLES, VA VORTAC	2000

95.6039 VOR FEDERAL AIRWAY V39

SANDHILLS, NC VORTAC	SOUTH BOSTON, VA VORTAC	2500
SOUTH BOSTON, VA VORTAC	SHEPS, VA FIX	*3000
*2000 - MOCA		
SHEPS, VA FIX	GORDONSVILLE, VA VORTAC	3000
GORDONSVILLE, VA VORTAC	LURAY, VA FIX	6100
LURAY, VA FIX	*KERRE, VA FIX	**6000
*7000 - MRA		
**5000 - MOCA		
KERRE, VA FIX	MARTINSBURG, WV VORTAC	*6000
*5000 - MOCA		
MARTINSBURG, WV VORTAC	HYPER, MD FIX	*5000
*3900 - MOCA		
HYPER, MD FIX	BINNS, PA FIX	*9000
*2600 - MOCA		
*4000 - GNSS MEA		
BINNS, PA FIX	DELRO, PA FIX	*9000
*4500 - GNSS MEA		
DELRO, PA FIX	LANCASTER, PA VOR/DME	3000
LANCASTER, PA VOR/DME	BOYER, PA FIX	2900
BOYER, PA FIX	EAST TEXAS, PA VOR/DME	*3000
*2400 - MOCA		
EAST TEXAS, PA VOR/DME	SPARTA, NJ VORTAC	2700
SPARTA, NJ VORTAC	CARMEL, NY VOR/DME	2600
CARMEL, NY VOR/DME	SOARS, CT FIX	#3000
#CARMEL R-057 UNUSABLE		
SOARS, CT FIX	*MOONI, CT FIX	
	N BND	**12000
	S BND	**6000
*12000 - MCA MOONI, CT FIX , N BND		
*6000 - MCA MOONI, CT FIX , S BND		
**6000 - GNSS MEA		
MOONI, CT FIX	*STUBY, CT FIX	**12000
*12000 - MRA		
*12000 - MCA STUBY, CT FIX , S BND		
**4900 - MOCA		
**6000 - GNSS MEA		
STUBY, CT FIX	CHESTER, MA VOR/DME	4000
CHESTER, MA VOR/DME	VAPER, MA FIX	*3700
*3200 - MOCA		
VAPER, MA FIX	GARDNER, MA VOR/DME	*3500
*2900 - MOCA		
GARDNER, MA VOR/DME	CONCORD, NH VOR/DME	4000
CONCORD, NH VOR/DME	*NEETS, NH FIX	3500
*4500 - MCA NEETS, NH FIX , NE BND		
NEETS, NH FIX	*LABEL, ME FIX	**6000
*7000 - MCA LABEL, ME FIX , NE BND		
**3500 - MOCA		
**3500 - GNSS MEA		
LABEL, ME FIX	AUGUSTA, ME VOR/DME	*7000
*3600 - MOCA		
*3600 - GNSS MEA		

FROM	TO	MEA
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95.6039 VOR FEDERAL AIRWAY V39 - CONTINUED

AUGUSTA, ME VOR/DME *2000 - MOCA	RINTH, ME FIX	*3000
RINTH, ME FIX *2400 - MOCA	MILLINOCKET, ME VOR/DME	*3000
MILLINOCKET, ME VOR/DME *2500 - MOCA	PRESQUE ISLE, ME VOR/DME	*3000
PRESQUE ISLE, ME VOR/DME *3000 - MOCA	GRINS, ME FIX	*5000
GRINS, ME FIX	U.S. CANADIAN BORDER	3000

95.6041 VOR FEDERAL AIRWAY V41

CUTTA, OH FIX *3600 - GNSS MEA	YOUNGSTOWN, OH VORTAC	*5000
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95.6043 VOR FEDERAL AIRWAY V43

YOUNGSTOWN, OH VORTAC *3000 - GNSS MEA	ERIE, PA VORTAC	*5000
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95.6044 VOR FEDERAL AIRWAY V44

COLUMBIA, MO VOR/DME HODGS, MO FIX *2200 - MOCA	HODGS, MO FIX FORISTELL, MO VORTAC	2800 *2800
FORISTELL, MO VORTAC MOODS, IL FIX CENTRALIA, IL VORTAC	MOODS, IL FIX CENTRALIA, IL VORTAC SAMSVILLE, IL VOR/DME	2600 2300 2400
FALMOUTH, KY VOR/DME YORK, KY VORTAC PARKERSBURG, WV VOR/DME	YORK, KY VORTAC PARKERSBURG, WV VOR/DME BENDS, WV FIX	3300 3300 3000
BENDS, WV FIX MORGANTOWN, WV VOR/DME KEYER, WV FIX *4100 - MOCA	MORGANTOWN, WV VOR/DME KEYER, WV FIX MARTINSBURG, WV VORTAC	4000 5000 *5000
MARTINSBURG, WV VORTAC WOOLY, MD FIX BALTIMORE, MD VORTAC *1700 - MOCA	WOOLY, MD FIX BALTIMORE, MD VORTAC PALEO, MD FIX	3200 2600 *2200
PALEO, MD FIX *2000 - GNSS MEA	SPEAK, MD FIX	*13500
SPEAK, MD FIX *1500 - MOCA *2000 - GNSS MEA	SEA ISLE, NJ VORTAC	*7000
SEA ISLE, NJ VORTAC *7000 - MCA KARRS, NJ FIX , NE BND **1800 - MOCA **2000 - GNSS MEA	*KARRS, NJ FIX	**6000
KARRS, NJ FIX *1300 - MOCA *2500 - GNSS MEA	GAMBY, NJ FIX	*7000
GAMBY, NJ FIX *1600 - MOCA *2500 - GNSS MEA	DEER PARK, NY VOR/DME	*5000
DEER PARK, NY VOR/DME NESSI, CT FIX BRIDGEPORT, CT VOR/DME	NESSI, CT FIX BRIDGEPORT, CT VOR/DME PAWLING, NY VOR/DME	2000 2000 3000
PAWLING, NY VOR/DME *8000 - MCA ATHOS, NY FIX , N BND	*ATHOS, NY FIX	3100

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95.6044 VOR FEDERAL AIRWAY V44 - CONTINUED

ATHOS, NY FIX	GROUP, NY FIX	*8000
*3000 - GNSS MEA		
GROUP, NY FIX	*ALBANY, NY VORTAC	**6000
*6000 - MCA ALBANY, NY VORTAC , S BND		
**2800 - GNSS MEA		

95.6045 VOR FEDERAL AIRWAY V45

NEW BERN, NC VOR/DME	KINSTON, NC VORTAC	2500
KINSTON, NC VORTAC	WENDI, NC FIX	2000
WENDI, NC FIX	RALEIGH/DURHAM, NC VORTAC	2600
RALEIGH/DURHAM, NC VORTAC	*CHAPL, NC FIX	**2400
*2800 - MCA CHAPL, NC FIX , W BND		
**1900 - MOCA		
CHAPL, NC FIX	GREENSBORO, NC VORTAC	3100
GREENSBORO, NC VORTAC	*PROVE, NC FIX	2700
*3500 - MCA PROVE, NC FIX , NW BND		
PROVE, NC FIX	*FREON, NC FIX	4300
*4800 - MCA FREON, NC FIX , NW BND		
FREON, NC FIX	PULASKI, VA VORTAC	6200
PULASKI, VA VORTAC	BLUEFIELD, WV VOR/DME	6000
BLUEFIELD, WV VOR/DME	CHARLESTON, WV VOR/DME	*6000
*5500 - MOCA		
CHARLESTON, WV VOR/DME	HENDERSON, WV VORTAC	3100
HENDERSON, WV VORTAC	*BREMN, OH FIX	**10000
*10000 - MCA BREMN, OH FIX , S BND		
**3000 - GNSS MEA		
BREMN, OH FIX	APPLETON, OH VORTAC	3000
SAGINAW, MI VOR/DME	SEEKS, MI FIX	2200
SEEKS, MI FIX	ALPENA, MI VORTAC	*3500
*2600 - MOCA		
ALPENA, MI VORTAC	SAULT STE MARIE, MI VOR/DME	2900

95.6046 VOR FEDERAL AIRWAY V46

DEER PARK, NY VOR/DME	CALVERTON, NY VOR/DME	1900
CALVERTON, NY VOR/DME	HAMPTON, NY VORTAC	1900
HAMPTON, NY VORTAC	LIBBE, NY FIX	#
#UNUSABLE		
LIBBE, NY FIX	CLAMY, MA FIX	*3000
*2000 - MOCA		
CLAMY, MA FIX	NANTUCKET, MA VOR/DME	2000

95.6047 VOR FEDERAL AIRWAY V47

PINE BLUFF, AR VOR/DME	GILMORE, AR VOR/DME	*4000
*1800 - MOCA		
GILMORE, AR VOR/DME	DYERSBURG, TN VORTAC	2500
DYERSBURG, TN VORTAC	CUNNINGHAM, KY VOR/DME	2400
CUNNINGHAM, KY VOR/DME	POCKET CITY, IN VORTAC	2600
CINCINNATI, KY VORTAC	ROSEWOOD, OH VORTAC	3100
ROSEWOOD, OH VORTAC	FLAG CITY, OH VORTAC	3000

95.6048 VOR FEDERAL AIRWAY V48

OTTUMWA, IA VOR/DME	BURLINGTON, IA VOR/DME	2500
BURLINGTON, IA VOR/DME	PEORIA, IL VORTAC	2500
PEORIA, IL VORTAC	MAROC, IL FIX	*3000
*2400 - MOCA		

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95.6048 VOR FEDERAL AIRWAY V48 - CONTINUED

MAROC, IL FIX	PONTIAC, IL VOR/DME	2500
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95.6049 VOR FEDERAL AIRWAY V49

VULCAN, AL VORTAC	FOLSO, AL FIX	3100
FOLSO, AL FIX	MASHA, AL FIX	
	N BND	*3000
	S BND	*3100
*2400 - MOCA		
MASHA, AL FIX	DECATUR, AL VOR/DME	*3000
*2300 - MOCA		
DECATUR, AL VOR/DME	ELKED, AL FIX	2500
ELKED, AL FIX	NASHVILLE, TN VORTAC	*3500
*2700 - MOCA		

95.6050 VOR FEDERAL AIRWAY V50

HASTINGS, NE VOR/DME	PAWNEE CITY, NE VORTAC	4000
PAWNEE CITY, NE VORTAC	ST JOSEPH, MO VORTAC	4000
ST JOSEPH, MO VORTAC	KIRKSVILLE, MO VORTAC	3000
KIRKSVILLE, MO VORTAC	QUINCY, IL VORTAC	2700
QUINCY, IL VORTAC	SPINNER, IL VORTAC	*3000
*2100 - MOCA		
SPINNER, IL VORTAC	ADDERS, IL VORTAC	3000
ADDERS, IL VORTAC	TERRE HAUTE, IN VORTAC	2500
TERRE HAUTE, IN VORTAC	BRICKYARD, IN VORTAC	2700
BRICKYARD, IN VORTAC	DAYTON, OH VOR/DME	3000

95.6051 VOR FEDERAL AIRWAY V51

PAHOKEE, FL VOR/DME	*SHEDS, FL FIX	2000
*3000 - MRA		
SHEDS, FL FIX	TREASURE, FL VORTAC	*2000
*1400 - MOCA		
TREASURE, FL VORTAC	OVIDO, FL FIX	*4000
*2800 - MOCA		
OVIDO, FL FIX	ORMOND BEACH, FL VORTAC	3000
ORMOND BEACH, FL VORTAC	*BULLI, FL FIX	**2000
*3000 - MRA		
**1400 - MOCA		
BULLI, FL FIX	*ASTOR, FL FIX	**2000
*3000 - MRA		
**1400 - MOCA		
ASTOR, FL FIX	CRAIG, FL VORTAC	2100
CRAIG, FL VORTAC	ALMA, GA VORTAC	#*5000
*1700 - MOCA		
*4000 - GNSS MEA		
#ALMA R-144 NA BELOW 10000		
ALMA, GA VORTAC	DUBLIN, GA VORTAC	#*3000
*2000 - GNSS MEA		
#ALMA R-345 UNUSABLE, USE DUBLIN R-170		
DUBLIN, GA VORTAC	ATHENS, GA VOR/DME	*3000
*2200 - MOCA		
ATHENS, GA VOR/DME	IRMOS, GA FIX	3100
IRMOS, GA FIX	CORCE, GA FIX	3800
CORCE, GA FIX	TALLE, GA FIX	5300
TALLE, GA FIX	HARRIS, GA VORTAC	7000
HARRIS, GA VORTAC	ETOWA, TN FIX	7000
ETOWA, TN FIX	HINCH MOUNTAIN, TN VOR/DME	5000

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95.6051 VOR FEDERAL AIRWAY V51 - CONTINUED

HINCH MOUNTAIN, TN VOR/DME	LIVINGSTON, TN VOR/DME	5000
LIVINGSTON, TN VOR/DME	LOUISVILLE, KY VORTAC	3200
SHELBYVILLE, IN VOR/DME	*OCKEL, IN FIX	**5000
*4700 - MCA OCKEL, IN FIX , SE BND		
**2900 - MOCA		
OCKEL, IN FIX	BOILER, IN VORTAC	2600
BOILER, IN VORTAC	CHICAGO HEIGHTS, IL VORTAC	2800

95.6052 VOR FEDERAL AIRWAY V52

DES MOINES, IA VORTAC	BUSSY, IA FIX	#*4500
*2400 - MOCA		
*2700 - GNSS MEA		
#DES MOINES R-105 UNUSABLE, USE OTTUMWA R-287		
BUSSY, IA FIX	OTTUMWA, IA VOR/DME	2700
OTTUMWA, IA VOR/DME	QUINCY, IL VORTAC	2600
QUINCY, IL VORTAC	*RIVRS, IL FIX	2600
*6000 - MRA		
RIVRS, IL FIX	ST LOUIS, MO VORTAC	2600
ST LOUIS, MO VORTAC	TROY, IL VORTAC	2400
TROY, IL VORTAC	CRATS, IL FIX	2600
CRATS, IL FIX	POCKET CITY, IN VORTAC	*4500
*2100 - MOCA		

95.6053 VOR FEDERAL AIRWAY V53

CHARLESTON, SC VORTAC	COLUMBIA, SC VORTAC	2100
COLUMBIA, SC VORTAC	WILLS, SC FIX	4000
WILLS, SC FIX	*SPARTANBURG, SC VORTAC	2700
*5200 - MCA SPARTANBURG, SC VORTAC , NW BND		
SPARTANBURG, SC VORTAC	CARTT, SC FIX	
	NW BND	6200
	SE BND	3000
CARTT, SC FIX	SUGARLOAF MOUNTAIN, NC VORTAC	6200
SUGARLOAF MOUNTAIN, NC VORTAC	*BUSIC, NC FIX	8800
*9000 - MCA BUSIC, NC FIX , N BND		
BUSIC, NC FIX	*ROANS, TN FIX	9000
*9000 - MCA ROANS, TN FIX , S BND		
ROANS, TN FIX	HOLSTON MOUNTAIN, TN VORTAC	7000
LEXINGTON, KY VOR/DME	*LOUISVILLE, KY VORTAC	2800
*7000 - MCA LOUISVILLE, KY VORTAC , NW BND		
LOUISVILLE, KY VORTAC	HOUSE, IN FIX	*10000
*3000 - MOCA		
HOUSE, IN FIX	MOUTH, IN FIX	*2800
*2300 - MOCA		
MOUTH, IN FIX	BRICKYARD, IN VORTAC	2700

95.6054 VOR FEDERAL AIRWAY V54

WACO, TX VORTAC	CEDAR CREEK, TX VORTAC	2500
TEXARKANA, AR VORTAC	*WASHO, AR FIX	2200
*4000 - MRA		
WASHO, AR FIX	CANEY, AR FIX	*3500
*1800 - MOCA		
CANEY, AR FIX	MALVE, AR FIX	*3500
*1900 - MOCA		
MALVE, AR FIX	LITTLE ROCK, AR VORTAC	2000
LITTLE ROCK, AR VORTAC	MARVELL, AR VOR/DME	1900
MARVELL, AR VOR/DME	HOLLY SPRINGS, MS VORTAC	2200

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95.6054 VOR FEDERAL AIRWAY V54 - CONTINUED

HOLLY SPRINGS, MS VORTAC	MUSCLE SHOALS, AL VORTAC	3000
MUSCLE SHOALS, AL VORTAC	TANNE, AL FIX	2400
TANNE, AL FIX	ROCKET, AL VORTAC	2900
ROCKET, AL VORTAC	CHOO CHOO, TN VORTAC	4000
CHOO CHOO, TN VORTAC	*CRAND, GA FIX	3000
*4500 - MCA CRAND, GA FIX , E BND		
CRAND, GA FIX	MELLS, GA FIX	6000
MELLS, GA FIX	HARRIS, GA VORTAC	*6000
*5200 - MOCA		
HARRIS, GA VORTAC	DILLA, GA FIX	7500
DILLA, GA FIX	RESTS, SC FIX	*8000
*6800 - MOCA		
RESTS, SC FIX	CLEVA, SC FIX	*7000
*5100 - MOCA		
*5100 - GNSS MEA		
CLEVA, SC FIX	*SPARTANBURG, SC VORTAC	**6000
*5200 - MCA SPARTANBURG, SC VORTAC , W BND		
**3300 - GNSS MEA		
SPARTANBURG, SC VORTAC	CHARLOTTE, NC VOR/DME	*4000
*2600 - MOCA		
CHARLOTTE, NC VOR/DME	LOCAS, NC FIX	3100
LOCAS, NC FIX	SANDHILLS, NC VORTAC	2500
SANDHILLS, NC VORTAC	*RAEFO, NC FIX	**6000
*6000 - MRA		
**2000 - MOCA		
**3000 - GNSS MEA		
RAEFO, NC FIX	FAYETTEVILLE, NC VOR/DME	*5000
*1900 - MOCA		
FAYETTEVILLE, NC VOR/DME	KINSTON, NC VORTAC	*2000
*1900 - MOCA		

95.6055 VOR FEDERAL AIRWAY V55

DAYTON, OH VOR/DME	FORT WAYNE, IN VORTAC	2800
FORT WAYNE, IN VORTAC	GOSHEN, IN VORTAC	2700
GOSHEN, IN VORTAC	GIPPER, MI VORTAC	3000
GIPPER, MI VORTAC	KEELER, MI VOR/DME	*4000
*2300 - MOCA		
KEELER, MI VOR/DME	PULLMAN, MI VOR/DME	4000
GRAND FORKS, ND VOR/DME	*BEHQY, ND FIX	**8000
*12000 - MRA		
**3600 - MOCA		
BEHQY, ND FIX	BISMARCK, ND VOR/DME	3900

95.6056 VOR FEDERAL AIRWAY V56

MONTGOMERY, AL VORTAC	TUSKEGEE, AL VOR/DME	2000
TUSKEGEE, AL VOR/DME	MARVO, AL FIX	2100
MARVO, AL FIX	COLUMBUS, GA VORTAC	*2600
*2000 - MOCA		
COLUMBUS, GA VORTAC	*PRATZ, GA FIX	2500
*3000 - MRA		
PRATZ, GA FIX	MACON, GA VORTAC	#GNSS - 2500
#MACON R-265 UNUSABLE GNSS REQUIRED		
MACON, GA VORTAC	MISTY, GA FIX	*6000
*2200 - MOCA		
MISTY, GA FIX	COLLIERS, SC VORTAC	2300
COLLIERS, SC VORTAC	COLUMBIA, SC VORTAC	3000
COLUMBIA, SC VORTAC	FLORENCE, SC VORTAC	2000

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95.6056 VOR FEDERAL AIRWAY V56 - CONTINUED

FLORENCE, SC VORTAC	FAYETTEVILLE, NC VOR/DME	2300
FAYETTEVILLE, NC VOR/DME	*ROZBO, NC FIX	
	E BND	7000
	W BND	2000
*5000 - MRA		
ROZBO, NC FIX	WALLO, NC FIX	
	E BND	7000
	W BND	2000
WALLO, NC FIX	KROVE, NC FIX	*7000
*2400 - MOCA		
*3000 - GNSS MEA		
KROVE, NC FIX	*NEW BERN, NC VOR/DME	
	E BND	**2400
	W BND	**7000
*3000 - MCA NEW BERN, NC VOR/DME , W BND		
**1800 - MOCA		

95.6057 VOR FEDERAL AIRWAY V57

LEXINGTON, KY VOR/DME	FALMOUTH, KY VOR/DME	3000
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95.6058 VOR FEDERAL AIRWAY V58

PHILIPSBURG, PA VORTAC	WILLIAMSPORT, PA VOR/DME	4000
HELON, NY FIX	KINGSTON, NY VOR/DME	4000
KINGSTON, NY VOR/DME	HARTFORD, CT VOR/DME	3200
HARTFORD, CT VOR/DME	GROTON, CT VOR/DME	2500
GROTON, CT VOR/DME	SANDY POINT, RI VOR/DME	*2000
*1500 - MOCA		
SANDY POINT, RI VOR/DME	NANTUCKET, MA VOR/DME	2000

95.6059 VOR FEDERAL AIRWAY V59

PULASKI, VA VORTAC	BECKLEY, WV VOR/DME	6000
BECKLEY, WV VOR/DME	ITALY, WV FIX	*5000
*4300 - MOCA		
ITALY, WV FIX	WARDO, WV FIX	*5000
*4300 - MOCA		
WARDO, WV FIX	*EDSOE, WV FIX	3000
*3500 - MRA		
EDSOE, WV FIX	PARKERSBURG, WV VOR/DME	3000

95.6060 VOR FEDERAL AIRWAY V60

GALLUP, NM VORTAC	*CUBBA, NM FIX	11000
*10000 - MCA CUBBA, NM FIX , W BND		
CUBBA, NM FIX	ALBUQUERQUE, NM VORTAC	8600
ALBUQUERQUE, NM VORTAC	OTTO, NM VOR	10000
OTTO, NM VOR	FORT UNION, NM VORTAC	10000

95.6062 VOR FEDERAL AIRWAY V62

GALLUP, NM VORTAC	CABZO, NM FIX	11000
CABZO, NM FIX	ZIASE, NM FIX	10000
ZIASE, NM FIX	SANTA FE, NM VORTAC	9000
SANTA FE, NM VORTAC	ANTON CHICO, NM VORTAC	10000
ANTON CHICO, NM VORTAC	FLUTY, NM FIX	8000
FLUTY, NM FIX	TEXICO, TX VORTAC	6500
TEXICO, TX VORTAC	SPADE, TX FIX	5900

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95.6062 VOR FEDERAL AIRWAY V62 - CONTINUED

SPADE, TX FIX	LUBBOCK, TX VORTAC	5000
LUBBOCK, TX VORTAC	ROTAN, TX FIX	*6000
*5000 - MOCA		
ROTAN, TX FIX	ABILENE, TX VORTAC	
	SE BND	3700
	NW BND	6000

95.6063 VOR FEDERAL AIRWAY V63

RAZORBACK, AR VORTAC	GAMPS, AR FIX	3500
GAMPS, AR FIX	BILIE, MO FIX	*4000
*3200 - MOCA		
BILIE, MO FIX	SPRINGFIELD, MO VORTAC	3000
SPRINGFIELD, MO VORTAC	PLADD, MO FIX	3000
PLADD, MO FIX	BARTI, MO FIX	*6000
*2600 - MOCA		
BARTI, MO FIX	HALLSVILLE, MO VORTAC	3100
HALLSVILLE, MO VORTAC	QUINCY, IL VORTAC	2900
QUINCY, IL VORTAC	BURLINGTON, IA VOR/DME	2600
BURLINGTON, IA VOR/DME	MOLINE, IL VOR/DME	3100
MOLINE, IL VOR/DME	DAVENPORT, IA VORTAC	3100
DAVENPORT, IA VORTAC	*MIHAL, IL FIX	2700
*4000 - MRA		
MIHAL, IL FIX	ROCKFORD, IL VOR/DME	2700
ROCKFORD, IL VOR/DME	JANESVILLE, WI VOR/DME	2700
JANESVILLE, WI VOR/DME	*DEBOW, WI FIX	***4000
*10000 - MRA		
**3000 - GNSS MEA		
#JANESVILLE R-044 UNUSABLE, USE BADGER R-226		
DEBOW, WI FIX	RASTT, WI FIX	*4000
*4000 - GNSS MEA		
RASTT, WI FIX	BADGER, WI VOR/DME	*3000
*3000 - GNSS MEA		
BADGER, WI VOR/DME	OSHKOSH, WI VORTAC	3000
WAUSAU, WI VOR/DME	ENETE, WI FIX	#
#UNUSABLE		
ENETE, WI FIX	YANUT, WI FIX	#
#UNUSABLE		
YANUT, WI FIX	RHINELANDER, WI VOR/DME	#
#UNUSABLE		
RHINELANDER, WI VOR/DME	HOUGHTON, MI VOR/DME	3600

95.6064 VOR FEDERAL AIRWAY V64

LOS ANGELES, CA VORTAC	LIMBO, CA FIX	3000
LIMBO, CA FIX	*WILMA, CA FIX	3200
*2800 - MCA WILMA, CA FIX , W BND		
WILMA, CA FIX	SEAL BEACH, CA VORTAC	2300
SEAL BEACH, CA VORTAC	*TUSTI, CA FIX	3000
*6200 - MCA TUSTI, CA FIX , E BND		
TUSTI, CA FIX	COREL, CA FIX	
	W BND	6200
	E BND	8000
COREL, CA FIX	PERIS, CA FIX	
	W BND	8000
	E BND	11000
PERIS, CA FIX	HEMET, CA FIX	*11000
*6700 - MOCA		
HEMET, CA FIX	HAPPE, CA FIX	*11000
*10200 - MOCA		

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95.6064 VOR FEDERAL AIRWAY V64 - CONTINUED

HAPPE, CA FIX	BALDI, CA FIX	10500
BALDI, CA FIX	CORLA, CA FIX	
	W BND	9700
	E BND	8000
CORLA, CA FIX	*THERMAL, CA VORTAC	
	W BND	8400
	E BND	6000
*7700 - MCA THERMAL, CA VORTAC , W BND		
THERMAL, CA VORTAC	BLYTHE, CA VORTAC	7000

95.6066 VOR FEDERAL AIRWAY V66

MISSION BAY, CA VORTAC	*RYAHH, CA FIX	
	E BND	7000
	W BND	4000
*6400 - MCA RYAAH, CA FIX , E BND		
RYAAH, CA FIX	BARET, CA FIX	
	E BND	*8400
	W BND	*7000
*6100 - MOCA		
BARET, CA FIX	*KUMBA, CA FIX	8400
*6700 - MCA KUMBA, CA FIX , W BND		
KUMBA, CA FIX	IMPERIAL, CA VORTAC	4300
IMPERIAL, CA VORTAC	BARD, CA VORTAC	3600
BARD, CA VORTAC	*MOHAK, AZ FIX	
	W BND	4000
	E BND	6000
*6000 - MCA MOHAK, AZ FIX , E BND		
MOHAK, AZ FIX	*JUDTH, AZ FIX	**6000
*6000 - MCA JUDTH, AZ FIX , W BND		
**4000 - MOCA		
JUDTH, AZ FIX	GILA BEND, AZ VORTAC	
	W BND	6000
	E BND	4000
GILA BEND, AZ VORTAC	FLIER, AZ FIX	6500
FLIER, AZ FIX	TUCSON, AZ VORTAC	*8000
*6700 - MOCA		
TUCSON, AZ VORTAC	*SULLI, AZ FIX	**8000
*9200 - MCA SULLI, AZ FIX , E BND		
**7200 - MOCA		
SULLI, AZ FIX	DOUGLAS, AZ VORTAC	10000
DOUGLAS, AZ VORTAC	ANIMA, NM FIX	*11000
*8700 - MOCA		
ANIMA, NM FIX	DARCE, NM FIX	9000
DARCE, NM FIX	COLUMBUS, NM VOR/DME	*9000
*8200 - MOCA		
COLUMBUS, NM VOR/DME	EL PASO, TX VORTAC	9000
EL PASO, TX VORTAC	HUDSPETH, TX VORTAC	7500
HUDSPETH, TX VORTAC	PECOS, TX VOR/DME	*9000
*8000 - MOCA		
PECOS, TX VOR/DME	MIDLAND, TX VORTAC	5000
MIDLAND, TX VORTAC	BYPAS, TX FIX	*5000
*4400 - MOCA		
BYPAS, TX FIX	*HYMAN, TX FIX	**6000
*5000 - MRA		
**4400 - MOCA		
HYMAN, TX FIX	TYEES, TX FIX	*7000
*4500 - MOCA		
TYEES, TX FIX	ABILENE, TX VORTAC	*7000
*4300 - MOCA		

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95.6066 VOR FEDERAL AIRWAY V66 - CONTINUED

ABILENE, TX VORTAC	TRUSS, TX FIX	3500
TRUSS, TX FIX	MILLSAP, TX VORTAC	3700
CRIMSON, AL VORTAC	BROOKWOOD, AL VORTAC	*2500
*2000 - MOCA		
BROOKWOOD, AL VORTAC	LAGRANGE, GA VORTAC	3400
LAGRANGE, GA VORTAC	CANER, GA FIX	3500
CANER, GA FIX	GRANT, GA FIX	*3000
*2400 - MOCA		
GRANT, GA FIX	*SMARR, GA FIX	**4000
*4500 - MCA SMARR, GA FIX , NE BND		
**2500 - MOCA		
**2600 - GNSS MEA		
SMARR, GA FIX	*SINCA, GA FIX	**4500
*4500 - MCA SINCA, GA FIX , SW BND		
**2500 - MOCA		
**2500 - GNSS MEA		
SINCA, GA FIX	ATHENS, GA VOR/DME	*3000
*2200 - MOCA		
ATHENS, GA VOR/DME	GREENWOOD, SC VORTAC	*2500
*2200 - MOCA		
GREENWOOD, SC VORTAC	RICHE, SC FIX	*4000
*2100 - MOCA		
*2500 - GNSS MEA		
RICHE, SC FIX	SANDHILLS, NC VORTAC	*8000
*2300 - MOCA		
*2500 - GNSS MEA		
SANDHILLS, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	2500
RALEIGH/DURHAM, NC VORTAC	FRANKLIN, VA VORTAC	2600

95.6067 VOR FEDERAL AIRWAY V67

CHOO CHOO, TN VORTAC	SHELBYVILLE, TN VOR/DME	4000
CUNNINGHAM, KY VOR/DME	MARION, IL VOR/DME	2600
MARION, IL VOR/DME	CENTRALIA, IL VORTAC	2300
CENTRALIA, IL VORTAC	VANDALIA, IL VOR/DME	2500
VANDALIA, IL VOR/DME	SPINNER, IL VORTAC	2500
SPINNER, IL VORTAC	BURLINGTON, IA VOR/DME	*2500
*2200 - MOCA		
BURLINGTON, IA VOR/DME	IOWA CITY, IA VOR/DME	*2600
*2100 - MOCA		
IOWA CITY, IA VOR/DME	CEDAR RAPIDS, IA VOR/DME	2700
CEDAR RAPIDS, IA VOR/DME	*LYERS, IA FIX	3300
*4000 - MRA		
LYERS, IA FIX	WATERLOO, IA VOR/DME	3300
WATERLOO, IA VOR/DME	FOYDE, IA FIX	3000
FOYDE, IA FIX	ROCHESTER, MN VOR/DME	3500

95.6068 VOR FEDERAL AIRWAY V68

MONTROSE, CO VOR/DME	CONES, CO VOR/DME	12000
CONES, CO VOR/DME	DOVE CREEK, CO VORTAC	12000
DOVE CREEK, CO VORTAC	CORTEZ, CO VOR/DME	9800
CORTEZ, CO VOR/DME	PLATA, NM FIX	10600
PLATA, NM FIX	RATTLESNAKE, NM VORTAC	10000
RATTLESNAKE, NM VORTAC	OTINS, NM FIX	9000
OTINS, NM FIX	PEDRA, NM FIX	*11500
*10000 - MOCA		
PEDRA, NM FIX	ALBUQUERQUE, NM VORTAC	9000
*ALBUQUERQUE, NM VORTAC	CORONA, NM VORTAC	12000
*10000 - MCA ALBUQUERQUE, NM VORTAC , SE BND		

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95.6068 VOR FEDERAL AIRWAY V68 - CONTINUED

CORONA, NM VORTAC	HONDS, NM FIX	9000
HONDS, NM FIX	CHISUM, NM VORTAC	
	NW BND	9000
	SE BND	6500
CHISUM, NM VORTAC	HAGER, NM FIX	
	W BND	6000
	E BND	6500
HAGER, NM FIX	HOBBS, NM VORTAC	6500
HOBBS, NM VORTAC	ANEEL, TX FIX	5200
ANEEL, TX FIX	MIDLAND, TX VORTAC	5000
MIDLAND, TX VORTAC	JOKES, TX FIX	4500
JOKES, TX FIX	STEEP, TX FIX	*5000
*4200 - MOCA		
STEEP, TX FIX	TANKR, TX FIX	4400
TANKR, TX FIX	SAN ANGELO, TX VORTAC	3700
SAN ANGELO, TX VORTAC	JUNCTION, TX VORTAC	4000
JUNCTION, TX VORTAC	CENTER POINT, TX VORTAC	4000
CENTER POINT, TX VORTAC	SAN ANTONIO, TX VORTAC	4100
SAN ANTONIO, TX VORTAC	*BRAUN, TX FIX	3100
*5500 - MRA		
BRAUN, TX FIX	MARCS, TX FIX	3100
MARCS, TX FIX	CRAYS, TX FIX	*2900
*2000 - MOCA		
CRAYS, TX FIX	INDUSTRY, TX VORTAC	2600

95.6069 VOR FEDERAL AIRWAY V69

EL DORADO, AR VOR/DME	PINE BLUFF, AR VOR/DME	2000
PINE BLUFF, AR VOR/DME	BILLI, AR FIX	2000
BILLI, AR FIX	*HILLE, AR FIX	**6000
*6000 - MRA		
**1500 - MOCA		
HILLE, AR FIX	WALNUT RIDGE, AR VORTAC	*4000
*3000 - MOCA		
WALNUT RIDGE, AR VORTAC	FARMINGTON, MO VORTAC	3000
FARMINGTON, MO VORTAC	TROY, IL VORTAC	*3000
*2500 - MOCA		
TROY, IL VORTAC	SPINNER, IL VORTAC	2500
SPINNER, IL VORTAC	PONTIAC, IL VOR/DME	*3000
*2300 - MOCA		
PONTIAC, IL VOR/DME	JOLIET, IL VOR/DME	*3000
*2300 - MOCA		

95.6070 VOR FEDERAL AIRWAY V70

U.S. MEXICAN BORDER	BROWNSVILLE, TX VORTAC	*5000
*1600 - MOCA		
BROWNSVILLE, TX VORTAC	RAYMO, TX FIX	
	N BND	*3800
	S BND	*1600
*1600 - GNSS MEA		
RAYMO, TX FIX	JIMIE, TX FIX	
	N BND	*6000
	S BND	*4000
*1600 - MOCA		
*2000 - GNSS MEA		
JIMIE, TX FIX	JETTY, TX FIX	*6000
*1800 - MOCA		
*2000 - GNSS MEA		

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95.6070 VOR FEDERAL AIRWAY V70 - CONTINUED

JETTY, TX FIX	CORPUS CHRISTI, TX VORTAC	
	N BND	*2100
	S BND	*3800
*2100 - GNSS MEA		
CORPUS CHRISTI, TX VORTAC	BETZY, TX FIX	1800
BETZY, TX FIX	PALACIOS, TX VORTAC	2000
PALACIOS, TX VORTAC	SCHOLES, TX VOR/DME	2600
SCHOLES, TX VOR/DME	SABINE PASS, TX VOR/DME	2000
SABINE PASS, TX VOR/DME	LAKE CHARLES, LA VORTAC	1700
LAKE CHARLES, LA VORTAC	LAFAYETTE, LA VORTAC	1800
LAFAYETTE, LA VORTAC	*ROSEY, LA FIX	2100
*5000 - MRA		
ROSEY, LA FIX	FIGHTING TIGER, LA VORTAC	2100
FIGHTING TIGER, LA VORTAC	PICAYUNE, MS VOR/DME	2000
PICAYUNE, MS VOR/DME	GREENE COUNTY, MS VORTAC	2000
GREENE COUNTY, MS VORTAC	MONROEVILLE, AL VORTAC	2000
MONROEVILLE, AL VORTAC	CHAFF, AL FIX	2000
CHAFF, AL FIX	*RUTEL, AL FIX	**2500
*4500 - MCA RUTEL, AL FIX , NE BND		
**1800 - MOCA		
RUTEL, AL FIX	*CRENS, AL FIX	**4500
*4500 - MCA CRENS, AL FIX , SW BND		
**1800 - MOCA		
CRENS, AL FIX	BANBI, AL FIX	2400
BANBI, AL FIX	EUFAULA, AL VORTAC	2400
EUFAULA, AL VORTAC	VIENNA, GA VORTAC	2400
VIENNA, GA VORTAC	OCONE, GA FIX	*3000
*2100 - MOCA		
OCONE, GA FIX	MILEN, GA FIX	*3000
*1900 - MOCA		MAA - 9000
MILEN, GA FIX	ALLENDALE, SC VOR	*3000
*1800 - MOCA		
GRAND STRAND, SC VORTAC	WILMINGTON, NC VORTAC	#3100
#COP NE TO WILMINGTON R-240 UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
WILMINGTON, NC VORTAC	BEULA, NC FIX	#*8000
*1600 - MOCA		
*2000 - GNSS MEA		
#SEGMENT UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
BEULA, NC FIX	*KINSTON, NC VORTAC	
	N BND	#2000
	S BND	*8000
*4400 - MCA KINSTON, NC VORTAC , S BND		
#SEGMENT UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
KINSTON, NC VORTAC	PEARS, NC FIX	#2500
#SEGMENT UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
PEARS, NC FIX	COFIELD, NC VORTAC	*3000
*2000 - MOCA		

95.6071 VOR FEDERAL AIRWAY V71

FIGHTING TIGER, LA VORTAC	WRACK, LA FIX	*2200
*1800 - MOCA		
WRACK, LA FIX	NATCHEZ, MS VOR/DME	*3500
*2200 - MOCA		
*2200 - GNSS MEA		

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95.6071 VOR FEDERAL AIRWAY V71 - CONTINUED

NATCHEZ, MS VOR/DME	MONROE, LA VORTAC	2000
MONROE, LA VORTAC	EL DORADO, AR VOR/DME	2200
EL DORADO, AR VOR/DME	SPARO, AR FIX	
	S BND	*2500
	N BND	*4000
*1800 - MOCA		
SPARO, AR FIX	CANEY, AR FIX	*4000
*1700 - MOCA		
CANEY, AR FIX	HOT SPRINGS, AR VOR/DME	
	N BND	3000
	S BND	3500
HOT SPRINGS, AR VOR/DME	OLLAS, AR FIX	*3600
*3100 - MOCA		
OLLAS, AR FIX	*HAAWK, AR FIX	**4500
*10000 - MCA HAAWK, AR FIX , N BND		
**2500 - MOCA		
HAAWK, AR FIX	HARRISON, AR VOR/DME	*10000
*3700 - MOCA		
*4000 - GNSS MEA		
HARRISON, AR VOR/DME	REEDS, MO FIX	3300
REEDS, MO FIX	SPRINGFIELD, MO VORTAC	3000
SPRINGFIELD, MO VORTAC	*SHIRE, MO FIX	**3000
*4000 - MRA		
**2500 - MOCA		
SHIRE, MO FIX	BUTLER, MO VORTAC	*3000
*2500 - MOCA		
BUTLER, MO VORTAC	TOPEKA, KS VORTAC	3100
TOPEKA, KS VORTAC	PAWNEE CITY, NE VORTAC	*4000
*2800 - MOCA		
PAWNEE CITY, NE VORTAC	LINCOLN, NE VORTAC	3000
LINCOLN, NE VORTAC	DWELL, NE FIX	*3300
*2600 - MOCA		
DWELL, NE FIX	COLUMBUS, NE VOR/DME	*3500
*3000 - MOCA		
COLUMBUS, NE VOR/DME	O NEILL, NE VORTAC	4000
PIERRE, SD VORTAC	LINTN, ND FIX	*5500
*3600 - MOCA		
LINTN, ND FIX	BISMARCK, ND VOR/DME	
	S BND	5500
	N BND	3600
BISMARCK, ND VOR/DME	CENTR, ND FIX	
	W BND	5600
	E BND	4000
CENTR, ND FIX	WILLISTON, ND VOR/DME	*5600
*3900 - MOCA		

95.6072 VOR FEDERAL AIRWAY V72

RAZORBACK, AR VORTAC	EDUGE, AR FIX	3500
EDUGE, AR FIX	REEDS, MO FIX	*4000
*2900 - MOCA		
REEDS, MO FIX	DOGWOOD, MO VORTAC	*3400
*2900 - MOCA		
DOGWOOD, MO VORTAC	GOBEY, MO FIX	3400
GOBEY, MO FIX	MAPLES, MO VORTAC	3400
MAPLES, MO VORTAC	BUNKS, MO FIX	3000
BUNKS, MO FIX	FARMINGTON, MO VORTAC	3500
FARMINGTON, MO VORTAC	NIKEL, IL FIX	*3000
*2500 - MOCA		

FROM	TO	MEA
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95.6072 VOR FEDERAL AIRWAY V72 - CONTINUED

NIKEL, IL FIX	CENTRALIA, IL VORTAC	2300
CENTRALIA, IL VORTAC	BIBLE GROVE, IL VORTAC	2600

95.6073 VOR FEDERAL AIRWAY V73

TULSA, OK VORTAC	FRAKS, OK FIX	3000
FRAKS, OK FIX	WICHITA, KS VORTAC	4000
WICHITA, KS VORTAC	HUTCHINSON, KS VOR/DME	3600
HUTCHINSON, KS VOR/DME	SALINA, KS VORTAC	3400

95.6074 VOR FEDERAL AIRWAY V74

GARDEN CITY, KS VORTAC	DODGE CITY, KS VORTAC	4600
PIONEER, OK VORTAC	MANON, OK FIX	2700
MANON, OK FIX	TULSA, OK VORTAC	2500
TULSA, OK VORTAC	OWETA, OK FIX	3200
OWETA, OK FIX	MALTS, OK FIX	*2800
*1900 - MOCA		
MALTS, OK FIX	FORT SMITH, AR VORTAC	3000
FORT SMITH, AR VORTAC	MAGGA, AR FIX	
	E BND	4500
	W BND	4000
MAGGA, AR FIX	DANIL, AR FIX	*4500
*4000 - MOCA		
DANIL, AR FIX	OLLAS, AR FIX	*4500
*2600 - MOCA		
OLLAS, AR FIX	MAUME, AR FIX	*4500
*2700 - MOCA		
MAUME, AR FIX	LITTLE ROCK, AR VORTAC	3500
LITTLE ROCK, AR VORTAC	PINE BLUFF, AR VOR/DME	2500
PINE BLUFF, AR VOR/DME	GREENVILLE, MS VOR/DME	2000
GREENVILLE, MS VOR/DME	MAGNOLIA, MS VORTAC	2000

95.6075 VOR FEDERAL AIRWAY V75

MORGANTOWN, WV VOR/DME	BELLAIRE, OH VOR/DME	4000
BELLAIRE, OH VOR/DME	ATWOO, OH FIX	*6000
*3000 - MOCA		
ATWOO, OH FIX	BRIGGS, OH VOR/DME	*4000
*3100 - MOCA		
*3100 - GNSS MEA		

95.6076 VOR FEDERAL AIRWAY V76

LUBBOCK, TX VORTAC	*WELCH, TX FIX	5200
*7000 - MRA		
WELCH, TX FIX	PATTS, TX FIX	*6100
*5200 - MOCA		
PATTS, TX FIX	BIG SPRING, TX VORTAC	4700
BIG SPRING, TX VORTAC	*HYMAN, TX FIX	4500
*5000 - MRA		
HYMAN, TX FIX	*WATOR, TX FIX	4500
*7000 - MRA		
WATOR, TX FIX	SAN ANGELO, TX VORTAC	4500
SAN ANGELO, TX VORTAC	EVILE, TX FIX	3700
EVILE, TX FIX	BREDY, TX FIX	3800
BREDY, TX FIX	LLANO, TX VORTAC	3500
LLANO, TX VORTAC	CENTEX, TX VORTAC	3200
CENTEX, TX VORTAC	MOUZE, TX FIX	2200

FROM	TO	MEA
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95.6076 VOR FEDERAL AIRWAY V76 - CONTINUED

MOUZE, TX FIX	INDUSTRY, TX VORTAC	2100
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95.6077 VOR FEDERAL AIRWAY V77

SAN ANGELO, TX VORTAC	ABILENE, TX VORTAC	4000
ABILENE, TX VORTAC	WICHITA FALLS, TX VORTAC	*3900
*3400 - MOCA		
WICHITA FALLS, TX VORTAC	FOYER, OK FIX	2900
FOYER, OK FIX	*FLECH, OK FIX	3000
*4900 - MRA		
FLECH, OK FIX	*NEADS, OK FIX	**3800
*5400 - MRA		
*3800 - MCA NEADS, OK FIX , S BND		
**3000 - MOCA		
NEADS, OK FIX	WILL ROGERS, OK VORTAC	3000
WILL ROGERS, OK VORTAC	CASTN, OK FIX	3500
CASTN, OK FIX	WENDY, OK FIX	4000
WENDY, OK FIX	PIONEER, OK VORTAC	2900
PIONEER, OK VORTAC	WICHITA, KS VORTAC	3600
WICHITA, KS VORTAC	*FLOSS, KS FIX	3600
*5000 - MRA		
FLOSS, KS FIX	HEYDN, KS FIX	*5000
*2900 - MOCA		
HEYDN, KS FIX	TOPEKA, KS VORTAC	3700
TOPEKA, KS VORTAC	ST JOSEPH, MO VORTAC	3000
ST JOSEPH, MO VORTAC	LAMONI, IA VOR/DME	2900
LAMONI, IA VOR/DME	*WIVEY, IA FIX	3000
*4300 - MRA		
WIVEY, IA FIX	DES MOINES, IA VORTAC	3000
DES MOINES, IA VORTAC	*MIXIN, IA FIX	3100
*5000 - MRA		
MIXIN, IA FIX	NEWTON, IA VOR/DME	3000
NEWTON, IA VOR/DME	WATERLOO, IA VOR/DME	2800

95.6078 VOR FEDERAL AIRWAY V78

WATERTOWN, SD VORTAC	CLAPS, MN FIX	*5500
*3300 - MOCA		
CLAPS, MN FIX	DARWIN, MN VORTAC	3000
DARWIN, MN VORTAC	GOPHER, MN VORTAC	3000
GOPHER, MN VORTAC	EAU CLAIRE, WI VORTAC	3400
EAU CLAIRE, WI VORTAC	RHINELANDER, WI VOR/DME	3700
RHINELANDER, WI VOR/DME	IRON MOUNTAIN, MI VOR/DME	4400
IRON MOUNTAIN, MI VOR/DME	VUKFI, MI FIX	3300
VUKFI, MI FIX	ESCANABA, MI VOR/DME	*3000
*2300 - MOCA		
PELLSTON, MI VORTAC	ALPENA, MI VORTAC	2700
ALPENA, MI VORTAC	*ZABLE, MI FIX	3000
*5000 - MCA ZABLE, MI FIX , S BND		
ZABLE, MI FIX	BANJO, MI FIX	*5000
*2900 - MOCA		
BANJO, MI FIX	BENNY, MI FIX	*3000
*2300 - MOCA		
BENNY, MI FIX	SAGINAW, MI VOR/DME	2400

95.6079 VOR FEDERAL AIRWAY V79

HASTINGS, NE VOR/DME	LINCOLN, NE VORTAC	4000
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95.6080 VOR FEDERAL AIRWAY V80

AKRON, CO VOR/DME	HOLYO, CO FIX	6400
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FROM	TO	MEA
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95.6080 VOR FEDERAL AIRWAY V80 - CONTINUED

HOLYO, CO FIX	NORTH PLATTE, NE VOR/DME	*6500
*5000 - MOCA		
NORTH PLATTE, NE VOR/DME	O NEILL, NE VORTAC	*5400
*4400 - MOCA		
O NEILL, NE VORTAC	TYNDA, SD FIX	*4000
*3500 - MOCA		
TYNDA, SD FIX	DOLTS, SD FIX	*4000
*3200 - MOCA		
DOLTS, SD FIX	SIOUX FALLS, SD VORTAC	3400

95.6081 VOR FEDERAL AIRWAY V81

U.S. MEXICAN BORDER	MARFA, TX VOR/DME	10000
MARFA, TX VOR/DME	FORT STOCKTON, TX VORTAC	9000
FORT STOCKTON, TX VORTAC	MIDLAND, TX VORTAC	4500
MIDLAND, TX VORTAC	PATTS, TX FIX	4500
PATTS, TX FIX	*WELCH, TX FIX	**6100
*7000 - MRA		
**5200 - MOCA		
WELCH, TX FIX	LUBBOCK, TX VORTAC	5200
LUBBOCK, TX VORTAC	PLAINVIEW, TX VOR/DME	5000
PLAINVIEW, TX VOR/DME	*YOCAN, TX FIX	**5400
*6500 - MRA		
**4900 - MOCA		
YOCAN, TX FIX	PANHANDLE, TX VORTAC	5400
PANHANDLE, TX VORTAC	LANTT, TX FIX	6100
LANTT, TX FIX	EXELL, TX FIX	5400
EXELL, TX FIX	DALHART, TX VORTAC	5900
DALHART, TX VORTAC	TOBE, CO VOR/DME	8800
TOBE, CO VOR/DME	PUEBLO, CO VORTAC	7700
PUEBLO, CO VORTAC	*BLACK FOREST, CO VOR/DME	9500
*10000 - MCA BLACK FOREST, CO VOR/DME , N BND		
BLACK FOREST, CO VOR/DME	HOHUM, CO FIX	#*10000
*10000 - GNSS MEA		
#BLACK FOREST R-330 UNUSABLE		
HOHUM, CO FIX	SIGNE, CO FIX	9200
SIGNE, CO FIX	JEFFCO, CO VOR/DME	*9200
*8600 - MOCA		
JEFFCO, CO VOR/DME	WISER, CO FIX	8000
WISER, CO FIX	CHEYENNE, WY VORTAC	9000
CHEYENNE, WY VORTAC	SCOTTSBLUFF, NE VORTAC	8000
SCOTTSBLUFF, NE VORTAC	TOADSTOOL, NE VOR/DME	7000

95.6082 VOR FEDERAL AIRWAY V82

GOPHER, MN VORTAC	FARMINGTON, MN VORTAC	*3500
*2700 - MOCA		
FARMINGTON, MN VORTAC	*CORDY, MN FIX	3000
*4000 - MRA		
CORDY, MN FIX	ROCHESTER, MN VOR/DME	3000
ROCHESTER, MN VOR/DME	NODINE, MN VORTAC	3000
NODINE, MN VORTAC	DELLS, WI VORTAC	3000

95.6083 VOR FEDERAL AIRWAY V83

CARLSBAD, NM VORTAC	*NELON, NM FIX	5900
*7000 - MRA		
NELON, NM FIX	CHISUM, NM VORTAC	5900
CHISUM, NM VORTAC	HONDS, NM FIX	
	NW BND	9000
	SE BND	6500

FROM

TO

MEA

95.6083 VOR FEDERAL AIRWAY V83 - CONTINUED

HONDS, NM FIX	CORONA, NM VORTAC	9000
CORONA, NM VORTAC	OTTO, NM VOR	9000
OTTO, NM VOR	*LACRO, NM FIX	9000
*9000 - MRA		
LACRO, NM FIX	SANTA FE, NM VORTAC	9000
SANTA FE, NM VORTAC	NAMBE, NM FIX	
	N BND	11000
	S BND	9000
NAMBE, NM FIX	TAOS, NM VORTAC	11000
TAOS, NM VORTAC	*ALAMOSA, CO VORTAC	11600
*10400 - MCA ALAMOSA, CO VORTAC , S BND		
ALAMOSA, CO VORTAC	BLOKE, CO FIX	
	E BND	14000
	W BND	10400
BLOKE, CO FIX	*GOSIP, CO FIX	14000
*14000 - MCA GOSIP, CO FIX , SW BND		
GOSIP, CO FIX	PUEBLO, CO VORTAC	8700
PUEBLO, CO VORTAC	DRAKE, CO FIX	7600
DRAKE, CO FIX	BLACK FOREST, CO VOR/DME	9000

95.6084 VOR FEDERAL AIRWAY V84

NORTHBROOK, IL VOR/DME	*KUBBS, IL FIX	**3000
*4000 - MRA		
**2000 - MOCA		
KUBBS, IL FIX	*STORY, IL FIX	**3000
*3500 - MRA		
**2000 - MOCA		
STORY, IL FIX	PIVOT, IL FIX	*3000
*2000 - MOCA		
PIVOT, IL FIX	*JYBEE, MI FIX	**4000
*4000 - MRA		
**1900 - MOCA		
JYBEE, MI FIX	PULLMAN, MI VOR/DME	*4000
*2200 - MOCA		
BUFFALO, NY VOR/DME	GENESEEO, NY VOR/DME	#4000
#BUF R-106 UNUSABLE.		
GENESEEO, NY VOR/DME	BEEPS, NY FIX	*4000
*3300 - MOCA		
BEEPS, NY FIX	SYRACUSE, NY VORTAC	*3500
*2600 - MOCA		

95.6085 VOR FEDERAL AIRWAY V85

FALCON, CO VORTAC	HYGEN, CO FIX	
	SE BND	9400
	NW BND	16000
HYGEN, CO FIX	LARAMIE, WY VOR/DME	16000
LARAMIE, WY VOR/DME	MEDICINE BOW, WY VOR/DME	9400
MEDICINE BOW, WY VOR/DME	MULTI, WY FIX	10800
MULTI, WY FIX	MUDDY MOUNTAIN, WY VOR/DME	
	N BND	8000
	S BND	10800
MUDDY MOUNTAIN, WY VOR/DME	RIVERTON, WY VOR/DME	8500
RIVERTON, WY VOR/DME	BOYSEN RESERVOIR, WY VOR/DME	9600
BOYSEN RESERVOIR, WY VOR/DME	CODY, WY VOR/DME	9600
CODY, WY VOR/DME	EDDAR, MT FIX	8400
EDDAR, MT FIX	BILLINGS, MT VORTAC	
	S BND	8400
	N BND	7000

FROM	TO	MEA
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95.6086 VOR FEDERAL AIRWAY V86

MISSOULA, MT VOR/DME	COPPERTOWN, MT VOR/DME	*13000
*11300 - MOCA		
*12000 - GNSS MEA		
COPPERTOWN, MT VOR/DME	*WHITEHALL, MT VOR/DME	10500
*9100 - MCA WHITEHALL, MT VOR/DME , W BND		
WHITEHALL, MT VOR/DME	*BOZEMAN, MT VOR/DME	8500
*10200 - MCA BOZEMAN, MT VOR/DME , SE BND		
BOZEMAN, MT VOR/DME	LIVINGSTON, MT VOR/DME	10900
LIVINGSTON, MT VOR/DME	REEPO, MT FIX	9700
REEPO, MT FIX	COLUS, MT FIX	
	W BND	9700
	E BND	7000
COLUS, MT FIX	BILLINGS, MT VORTAC	
	W BND	9700
	E BND	6400
BILLINGS, MT VORTAC	KRONA, MT FIX	
	NW BND	6200
	SE BND	8000
KRONA, MT FIX	SHERIDAN, WY VOR/DME	8000
SHERIDAN, WY VOR/DME	WETON, WY FIX	#*10900
*7000 - MOCA		
*7000 - GNSS MEA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
WETON, WY FIX	*KOCYE, WY FIX	**13000
*15000 - MRA		
**7000 - MOCA		
**7000 - GNSS MEA		
KOCYE, WY FIX	KARAS, WY FIX	*13000
*8600 - MOCA		
*9000 - GNSS MEA		
KARAS, WY FIX	*PACTO, SD FIX	**11100
*9700 - MRA		
**9400 - MOCA		
**10000 - GNSS MEA		
PACTO, SD FIX	RAPID CITY, SD VORTAC	
	E BND	*8000
	W BND	*9700
*7100 - MOCA		

95.6087 VOR FEDERAL AIRWAY V87

PANOCH, CA VORTAC	SALINAS, CA VORTAC	6200
SALINAS, CA VORTAC	SANTY, CA FIX	*5000
*4000 - MOCA		
SANTY, CA FIX	WOODSIDE, CA VOR/DME	5100
WOODSIDE, CA VOR/DME	SAN FRANCISCO, CA VOR/DME	4700
SAN FRANCISCO, CA VOR/DME	SCAGGS ISLAND, CA VORTAC	4000

95.6088 VOR FEDERAL AIRWAY V88

TULSA, OK VORTAC	VINTA, OK FIX	2700
VINTA, OK FIX	NARCI, OK FIX	*4500
*2300 - MOCA		
*4000 - GNSS MEA		
NARCI, OK FIX	*WACCO, MO FIX	**6200
*6200 - MCA WACCO, MO FIX , SW BND		
**3100 - MOCA		
**4000 - GNSS MEA		

FROM	TO	MEA
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95.6088 VOR FEDERAL AIRWAY V88 - CONTINUED

WACCO, MO FIX	*QUALM, MO FIX	**3700
*3700 - MCA QUALM, MO FIX , W BND		
**3000 - MOCA		
QUALM, MO FIX	SPRINGFIELD, MO VORTAC	3000
SPRINGFIELD, MO VORTAC	VICHY, MO VOR/DME	3100
VICHY, MO VOR/DME	STEER, MO FIX	*3000
*2300 - MOCA		
STEER, MO FIX	TROY, IL VORTAC	2700

95.6089 VOR FEDERAL AIRWAY V89

GILL, CO VOR/DME	HAMER, WY FIX	8000
HAMER, WY FIX	CHEYENNE, WY VORTAC	8500
CHEYENNE, WY VORTAC	LITER, WY FIX	8300
LITER, WY FIX	TOADSTOOL, NE VOR/DME	7800

95.6091 VOR FEDERAL AIRWAY V91

SARDI, NY FIX	CALVERTON, NY VOR/DME	*2500
*1900 - MOCA		
CALVERTON, NY VOR/DME	NESSI, CT FIX	2000
NESSI, CT FIX	*BRIDGEPORT, CT VOR/DME	2000
*8800 - MCA BRIDGEPORT, CT VOR/DME , N BND		
BRIDGEPORT, CT VOR/DME	*MOONI, CT FIX	
	N BND	**12000
	S BND	**6000
*12000 - MCA MOONI, CT FIX , N BND		
*6000 - MCA MOONI, CT FIX , S BND		
**5500 - MOCA		
**6000 - GNSS MEA		
MOONI, CT FIX	*BOWAN, NY FIX	**12000
*12000 - MCA BOWAN, NY FIX , S BND		
*12000 - MCA BOWAN, NY FIX , N BND		
**4900 - MOCA		
**6000 - GNSS MEA		
BOWAN, NY FIX	CIRRU, NY FIX	*12000
*4900 - MOCA		
*6000 - GNSS MEA		
CIRRU, NY FIX	*ALBANY, NY VORTAC	
	N BND	**6000
	S BND	**12000
*9700 - MCA ALBANY, NY VORTAC , S BND		
**6000 - GNSS MEA		

95.6092 VOR FEDERAL AIRWAY V92

CHICAGO HEIGHTS, IL VORTAC	HALIE, IN FIX	2600
HALIE, IN FIX	INKEN, IN FIX	*4000
*2300 - MOCA		
INKEN, IN FIX	GOSHEN, IN VORTAC	2600

95.6093 VOR FEDERAL AIRWAY V93

PATUXENT, MD VORTAC	*GRACO, MD FIX	**2500
*10000 - MRA		
**1700 - MOCA		
GRACO, MD FIX	PALEO, MD FIX	*10000
*1600 - MOCA		
PALEO, MD FIX	BALTIMORE, MD VORTAC	*2200
*1700 - MOCA		

FROM	TO	MEA
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95.6093 VOR FEDERAL AIRWAY V93 - CONTINUED

BALTIMORE, MD VORTAC	VINNY, PA FIX	3000
VINNY, PA FIX	*ROAST, PA FIX	**9000
*10000 - MRA		
**4500 - GNSS MEA		
ROAST, PA FIX	LANCASTER, PA VOR/DME	
	SW BND	*9000
	NE BND	*4500
*2600 - MOCA		
*4500 - GNSS MEA		
LANCASTER, PA VOR/DME	HAILS, PA FIX	3400
HAILS, PA FIX	SNOWY, PA FIX	4000
SNOWY, PA FIX	LYTEL, PA FIX	4000
LYTEL, PA FIX	WILKES-BARRE, PA VORTAC	4000
WILKES-BARRE, PA VORTAC	LAAYK, PA FIX	
	NE BND	*5000
	SW BND	*4000
*4000 - MOCA		
HELON, NY FIX	KINGSTON, NY VOR/DME	4000
KINGSTON, NY VOR/DME	PAWLING, NY VOR/DME	3000
PAWLING, NY VOR/DME	CHESTER, MA VOR/DME	4000
CHESTER, MA VOR/DME	KEENE, NH VORTAC	*4000
*3500 - GNSS MEA		
KEENE, NH VORTAC	CONCORD, NH VOR/DME	5000
CONCORD, NH VOR/DME	KENNEBUNK, ME VOR/DME	3000
KENNEBUNK, ME VOR/DME	BRNNS, ME FIX	*3000
*1600 - MOCA		
BRNNS, ME FIX	BANGOR, ME VORTAC	3000

95.6094 VOR FEDERAL AIRWAY V94

BLYTHE, CA VORTAC	*VICKO, AZ FIX	6000
*9000 - MRA		
VICKO, AZ FIX	GILA BEND, AZ VORTAC	*9000
*5200 - MOCA		
GILA BEND, AZ VORTAC	*POTER, AZ FIX	5000
*8000 - MRA		
POTER, AZ FIX	STANFIELD, AZ VORTAC	5000
STANFIELD, AZ VORTAC	*TOTEC, AZ FIX	**5000
*5500 - MCA TOTEC, AZ FIX , E BND		
**4300 - MOCA		
TOTEC, AZ FIX	CROME, AZ FIX	
	E BND	8000
	W BND	6500
CROME, AZ FIX	SAN SIMON, AZ VORTAC	10000
SAN SIMON, AZ VORTAC	DEMING, NM VORTAC	*9000
*8100 - MOCA		
DEMING, NM VORTAC	*MOLLY, NM FIX	**9000
*10000 - MRA		
**7700 - MOCA		
MOLLY, NM FIX	NEWMAN, TX VORTAC	9000
NEWMAN, TX VORTAC	SALT FLAT, TX VORTAC	8800
SALT FLAT, TX VORTAC	DILLI, TX FIX	8000
DILLI, TX FIX	CAVRN, TX FIX	*10000
*7500 - MOCA		
CAVRN, TX FIX	WINK, TX VORTAC	*10000
*5300 - MOCA		
WINK, TX VORTAC	YOGSU, TX FIX	5500
YOGSU, TX FIX	MIDLAND, TX VORTAC	5000
MIDLAND, TX VORTAC	BYPAS, TX FIX	*5000
*4400 - MOCA		

FROM	TO	MEA
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95.6094 VOR FEDERAL AIRWAY V94 - CONTINUED

BYPAS, TX FIX	*HYMAN, TX FIX	**6000
*5000 - MRA		
**4400 - MOCA		
HYMAN, TX FIX	TUSCOLA, TX VOR/DME	*7500
*4200 - MOCA		
CEDAR CREEK, TX VORTAC	GREGG COUNTY, TX VORTAC	2500
GREGG COUNTY, TX VORTAC	ELM GROVE, LA VORTAC	2000
ELM GROVE, LA VORTAC	*WETER, LA FIX	2400
*3000 - MRA		
WETER, LA FIX	MONROE, LA VORTAC	*2400
*1800 - MOCA		
MONROE, LA VORTAC	GREENVILLE, MS VOR/DME	2100
GREENVILLE, MS VOR/DME	HOLLY SPRINGS, MS VORTAC	*3000
*2100 - MOCA		

95.6095 VOR FEDERAL AIRWAY V95

GILA BEND, AZ VORTAC	*POTER, AZ FIX	5000
*8000 - MRA		
POTER, AZ FIX	PHOENIX, AZ VORTAC	8000
PHOENIX, AZ VORTAC	WINSLOW, AZ VORTAC	10000
WINSLOW, AZ VORTAC	*BUTTE, AZ FIX	
	NE BND	11000
	SW BND	8700
*9600 - MRA		
BUTTE, AZ FIX	CASTI, AZ FIX	
	NE BND	11000
	SW BND	8700
CASTI, AZ FIX	DERMA, NM FIX	*13000
*11400 - MOCA		
DERMA, NM FIX	RATTLESNAKE, NM VORTAC	
	E BND	8300
	W BND	13000
RATTLESNAKE, NM VORTAC	*DURANGO, CO VOR/DME	9700
*13200 - MCA DURANGO, CO VOR/DME , N BND		
DURANGO, CO VOR/DME	ZEANS, CO FIX	
	S BND	12300
	N BND	16500
ZEANS, CO FIX	LAZON, CO FIX	16500
LAZON, CO FIX	POWES, CO FIX	
	N BND	15000
	S BND	16500
POWES, CO FIX	BLUE MESA, CO VOR/DME	
	S BND	16500
	N BND	12800
BLUE MESA, CO VOR/DME	ROMLY, CO FIX	
	E BND	17000
	W BND	12000
ROMLY, CO FIX	*HOHUM, CO FIX	**17000
*13100 - MCA HOHUM, CO FIX , S BND		
**16200 - MOCA		
HOHUM, CO FIX	FALCON, CO VORTAC	9000

95.6096 VOR FEDERAL AIRWAY V96

BRICKYARD, IN VORTAC	KOKOMO, IN VORTAC	2700
KOKOMO, IN VORTAC	FORT WAYNE, IN VORTAC	2600
FORT WAYNE, IN VORTAC	*TWERP, OH FIX	**5000
*5000 - MRA		
**2400 - MOCA		

FROM	TO	MEA
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95.6096 VOR FEDERAL AIRWAY V96 - CONTINUED

95.6097 VOR FEDERAL AIRWAY V97

DOLPHIN, FL VORTAC *1500 - MOCA	LA BELLE, FL VORTAC	*3000
LA BELLE, FL VORTAC	ROGAN, FL FIX SE BND NW BND	*2000 *4000
*2000 - GNSS MEA		
ROGAN, FL FIX *4300 - MCA BRDGE, FL FIX , SE BND **1400 - MOCA **2000 - GNSS MEA	*BRDGE, FL FIX	**5000
BRDGE, FL FIX *3600 - MCA ST PETERSBURG, FL VORTAC , NW BND	*ST PETERSBURG, FL VORTAC	2000
ST PETERSBURG, FL VORTAC	DARBS, FL FIX SE BND NW BND	*2100 *6000
*2100 - GNSS MEA		
DARBS, FL FIX *1400 - MOCA *4000 - GNSS MEA	PLYER, FL FIX	*8000
PLYER, FL FIX *1400 - MOCA *4000 - GNSS MEA	CLAMP, FL FIX	*8000
CLAMP, FL FIX	HEVVN, FL FIX NW BND SE BND	*6000 *8000
*1400 - MOCA *4000 - GNSS MEA		
HEVVN, FL FIX	ADDAX, FL FIX NW BND SE BND	*3000 *6000
*1400 - MOCA *2000 - GNSS MEA		
ADDAX, FL FIX	SEMINOLE, FL VORTAC NW BND SE BND	*2000 *5000
*2000 - GNSS MEA		
SEMINOLE, FL VORTAC	PECAN, GA VOR/DME	2100
PECAN, GA VOR/DME *1900 - MOCA	AMAPO, GA FIX	*2300
AMAPO, GA FIX *3000 - MRA *4000 - MCA PRATZ, GA FIX , N BND **2300 - MOCA	*PRATZ, GA FIX	**3000
PRATZ, GA FIX *2700 - MOCA *3000 - GNSS MEA	OLISY, GA FIX	*4000
OLISY, GA FIX *2400 - MOCA	ATLANTA, GA VORTAC	*3000
ATLANTA, GA VORTAC *3300 - MOCA	BAPPY, GA FIX	*4000
BAPPY, GA FIX *10000 - MCA NELLO, GA FIX , N BND	*NELLO, GA FIX	5000
NELLO, GA FIX *6300 - GNSS MEA	MELLS, GA FIX	*10000
MELLS, GA FIX *6600 - MCA HINDE, TN FIX , S BND	*HINDE, TN FIX	7400

FROM	TO	MEA
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95.6097 VOR FEDERAL AIRWAY V97 - CONTINUED

HINDE, TN FIX	TALLA, TN FIX	6600
TALLA, TN FIX	VOLUNTEER, TN VORTAC	4200
VOLUNTEER, TN VORTAC	NOISE, TN FIX	3800
NOISE, TN FIX	LONDON, KY VOR/DME	*5000
*4200 - MOCA		
LONDON, KY VOR/DME	REBEL, KY FIX	*3400
*2900 - MOCA		
REBEL, KY FIX	LEXINGTON, KY VOR/DME	2800
LEXINGTON, KY VOR/DME	DARKS, KY FIX	3000
DARKS, KY FIX	CINCINNATI, KY VORTAC	2700
CINCINNATI, KY VORTAC	SHELBYVILLE, IN VOR/DME	2800
SHELBYVILLE, IN VOR/DME	*OCKEL, IN FIX	**5000
*4700 - MCA OCKEL, IN FIX , SE BND		
**2900 - MOCA		
OCKEL, IN FIX	BOILER, IN VORTAC	2600
BOILER, IN VORTAC	CHICAGO HEIGHTS, IL VORTAC	2800
CHICAGO HEIGHTS, IL VORTAC	NILES, IL FIX	3500
NODINE, MN VORTAC	PEGGS, MN FIX	3000
PEGGS, MN FIX	GOPHER, MN VORTAC	3400

95.6099 VOR FEDERAL AIRWAY V99

LA GUARDIA, NY VOR/DME	OUTTE, CT FIX	*4000
*1700 - MOCA		
OUTTE, CT FIX	SORRY, CT FIX	*4000
*2600 - MOCA		
SORRY, CT FIX	HARTFORD, CT VOR/DME	3000

95.6100 VOR FEDERAL AIRWAY V100

MEDICINE BOW, WY VOR/DME	SCOTTSBLUFF, NE VORTAC	9500
SCOTTSBLUFF, NE VORTAC	ALLIANCE, NE VOR/DME	6300
ALLIANCE, NE VOR/DME	AINSWORTH, NE VOR/DME	*7500
*5600 - MOCA		
AINSWORTH, NE VOR/DME	O NEILL, NE VORTAC	4500
FORT DODGE, IA VORTAC	WATERLOO, IA VOR/DME	3000
WATERLOO, IA VOR/DME	DUBUQUE, IA VORTAC	2900
DUBUQUE, IA VORTAC	ROCKFORD, IL VOR/DME	2900
ROCKFORD, IL VOR/DME	KRENA, IL FIX	2800
KRENA, IL FIX	FARM, IL FIX	2900
FARM, IL FIX	NORTHBROOK, IL VOR/DME	2700
NORTHBROOK, IL VOR/DME	*MINCE, MI FIX	2500
*3500 - MRA		
MINCE, MI FIX	MUSKY, MI FIX	2500
MUSKY, MI FIX	KEELER, MI VOR/DME	2400
KEELER, MI VOR/DME	LITCHFIELD, MI VOR/DME	2600

95.6101 VOR FEDERAL AIRWAY V101

GILL, CO VOR/DME	*LIBEL, CO FIX	**10000
*13500 - MCA LIBEL, CO FIX , W BND		
**8900 - MOCA		
LIBEL, CO FIX	BROCC, CO FIX	16000
BROCC, CO FIX	ECHOA, CO FIX	13200
ECHOA, CO FIX	*HAYDEN, CO VOR/DME	
	E BND	13200
	W BND	11500
*11500 - MCA HAYDEN, CO VOR/DME , E BND		
HAYDEN, CO VOR/DME	STRIM, CO FIX	10000

FROM	TO	MEA
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95.6101 VOR FEDERAL AIRWAY V101 - CONTINUED

STRIM, CO FIX	*RENAE, CO FIX	11000
*13000 - MRA		
RENAE, CO FIX	VERNAL, UT VOR/DME	11000
VERNAL, UT VOR/DME	*NEOLA, UT FIX	10000
*12000 - MCA NEOLA, UT FIX , W BND		
NEOLA, UT FIX	*WASATCH, UT VORTAC	15000
*11000 - MCA WASATCH, UT VORTAC , E BND		
WASATCH, UT VORTAC	OGDEN, UT VORTAC	7000
OGDEN, UT VORTAC	*KREBS, UT FIX	9400
*13000 - MRA		
KREBS, UT FIX	BLIDA, UT FIX	9400
BLIDA, UT FIX	MALTT, ID FIX	11400
MALTT, ID FIX	*BURLEY, ID VOR/DME	
	NW BND	**8000
	SE BND	**11400
*9300 - MCA BURLEY, ID VOR/DME , SE BND		
**7400 - MOCA		
BURLEY, ID VOR/DME	REAPS, ID FIX	
	S BND	7000
	N BND	9500
REAPS, ID FIX	HAILEY, ID NDB/DME	*9500
*8900 - MOCA		
HAILEY, ID NDB/DME	SOLDE, ID FIX	
	NE BND	9000
	SW BND	17000

95.6102 VOR FEDERAL AIRWAY V102

*SALT FLAT, TX VORTAC	CARLSBAD, NM VORTAC	10800
*10000 - MCA SALT FLAT, TX VORTAC , NE BND		
*CARLSBAD, NM VORTAC	HOBBS, NM VORTAC	5600
*7000 - MCA CARLSBAD, NM VORTAC , SW BND		
HOBBS, NM VORTAC	LUBBOCK, TX VORTAC	*6000
*5400 - MOCA		

95.6103 VOR FEDERAL AIRWAY V103

CHESTERFIELD, SC VOR/DME	GREENSBORO, NC VORTAC	2500
GREENSBORO, NC VORTAC	HENBY, VA FIX	3500
HENBY, VA FIX	TABER, VA FIX	5100
TABER, VA FIX	ROANOKE, VA VOR/DME	5600
ROANOKE, VA VOR/DME	NATTS, WV FIX	6000
NATTS, WV FIX	VELLI, WV FIX	7000
VELLI, WV FIX	ELKINS, WV VORTAC	*7000
*6400 - MOCA		
ELKINS, WV VORTAC	CLARKSBURG, WV VOR/DME	*5000
*3900 - MOCA		
CLARKSBURG, WV VOR/DME	BELLAIRE, OH VOR/DME	#3400
#CKB R-335 UNUSABLE BELOW 9000, USE AIR R-158.		
BELLAIRE, OH VOR/DME	ATWOO, OH FIX	*6000
*3000 - MOCA		
ATWOO, OH FIX	AKRON, OH VOR/DME	3000

95.6105 VOR FEDERAL AIRWAY V105

TUCSON, AZ VORTAC	STANFIELD, AZ VORTAC	*8000
*6700 - MOCA		
STANFIELD, AZ VORTAC	PHOENIX, AZ VORTAC	5000
PHOENIX, AZ VORTAC	KARLO, AZ FIX	10000

FROM	TO	MEA
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95.6105 VOR FEDERAL AIRWAY V105 - CONTINUED

KARLO, AZ FIX *10000 - MOCA *10000 - GNSS MEA	DRAKE, AZ VORTAC	*12000
DRAKE, AZ VORTAC	WINDS, AZ FIX	10000
WINDS, AZ FIX *6000 - MOCA	BOULDER CITY, NV VORTAC	*7000
BOULDER CITY, NV VORTAC *10500 - MCA LAS VEGAS, NV VORTAC , W BND	*LAS VEGAS, NV VORTAC	6000
LAS VEGAS, NV VORTAC	HARLS, NV FIX E BND	7000
	W BND	14000
HARLS, NV FIX	LUCKY, NV FIX E BND	11000
	W BND	14000
LUCKY, NV FIX *14000 - MRA *14000 - MCA HIDDEN, CA FIX , E BND	*HIDDEN, CA FIX	14000
HIDDEN, CA FIX *8600 - MOCA	BEATTY, NV VORTAC	*12000
BEATTY, NV VORTAC *9600 - MOCA	COALDALE, NV VORTAC	*11000
COALDALE, NV VORTAC *12500 - MCA YERIN, NV FIX , SE BND **11200 - MOCA	*YERIN, NV FIX	**14000
YERIN, NV FIX	CHIME, NV FIX NW BND	10000
	SE BND	11500
CHIME, NV FIX	MUSTANG, NV VORTAC	10000

95.6106 VOR FEDERAL AIRWAY V106

JOHNSTOWN, PA VOR/DME	HUDON, PA FIX	5000
HUDON, PA FIX *14000 - MCA RASHE, PA FIX , E BND **4000 - MOCA **4000 - GNSS MEA	*RASHE, PA FIX	**7000
RASHE, PA FIX	SELINGSGROVE, PA VOR/DME	14000
SELINGSGROVE, PA VOR/DME	DIANO, PA FIX	3700
DIANO, PA FIX	WILKES-BARRE, PA VORTAC	4000
WILKES-BARRE, PA VORTAC	LAAYK, PA FIX NE BND	*5000
	SW BND	*4000
*4000 - MOCA		
BARNES, MA VORTAC *3000 - MOCA	GARDNER, MA VOR/DME	*3500
GARDNER, MA VOR/DME	MANCHESTER, NH VOR/DME	4000
MANCHESTER, NH VOR/DME *2100 - MOCA	RAYMY, NH FIX	*2600
RAYMY, NH FIX *2200 - MOCA *3000 - GNSS MEA	KENNEBUNK, ME VOR/DME	*5500

95.6107 VOR FEDERAL AIRWAY V107

LOS ANGELES, CA VORTAC	STABO, CA FIX	2500
STABO, CA FIX *3700 - MCA SANTA MONICA, CA VOR/DME , W BND	*SANTA MONICA, CA VOR/DME	3000
SANTA MONICA, CA VOR/DME *7500 - MCA FILLMORE, CA VORTAC , NW BND	*FILLMORE, CA VORTAC	5000

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95.6107 VOR FEDERAL AIRWAY V107 - CONTINUED

FILLMORE, CA VORTAC	PIRUE, CA FIX	
	SE BND	*8000
	NW BND	*9000
*7200 - MOCA		
PIRUE, CA FIX	REYES, CA FIX	*11000
*9200 - MOCA		
REYES, CA FIX	DERBB, CA FIX	11000
DERBB, CA FIX	AVENAL, CA VOR/DME	*7000
*6500 - MOCA		
AVENAL, CA VOR/DME	PANOCHE, CA VORTAC	8000
PANOCHE, CA VORTAC	*CATHE, CA FIX	**7000
*7000 - MCA CATHE, CA FIX , NW BND		
**5700 - MOCA		
CATHE, CA FIX	VINCO, CA FIX	*7000
*6400 - MOCA		
VINCO, CA FIX	MABRY, CA FIX	
	S BND	7000
	N BND	6000
MABRY, CA FIX	MISON, CA FIX	
	N BND	5500
	S BND	7000
MISON, CA FIX	OAKLAND, CA VOR/DME	
	SE BND	7000
	NW BND	4500
OAKLAND, CA VOR/DME	COMMO, CA FIX	*5000
*4000 - MOCA		
COMMO, CA FIX	POINT REYES, CA VOR/DME	5000
POINT REYES, CA VOR/DME	BOARS, CA FIX	5000

95.6108 VOR FEDERAL AIRWAY V108

SANTA ROSA, CA VOR/DME	SCAGGS ISLAND, CA VORTAC	4500
SCAGGS ISLAND, CA VORTAC	CONCORD, CA VOR/DME	3000
CONCORD, CA VOR/DME	Oakey, CA FIX	3500
Oakey, CA FIX	LINDEN, CA VOR/DME	2300
MEEKER, CO VOR/DME	RED TABLE, CO VOR/DME	*14000
*12800 - MOCA		
RED TABLE, CO VOR/DME	*STAMY, CO FIX	16400
*12300 - MCA STAMY, CO FIX , W BND		
STAMY, CO FIX	*BLACK FOREST, CO VOR/DME	12000
*10700 - MCA BLACK FOREST, CO VOR/DME , W BND		
BLACK FOREST, CO VOR/DME	ADANE, CO FIX	9500
ADANE, CO FIX	*HUGO, CO VOR/DME	9000
*7100 - MCA HUGO, CO VOR/DME , W BND		
HUGO, CO VOR/DME	GOODLAND, KS VORTAC	7000
GOODLAND, KS VORTAC	HILL CITY, KS VORTAC	5500

95.6110 VOR FEDERAL AIRWAY V110

DEMING, NM VORTAC	TRUTH OR CONSEQUENCES, NM VORTAC	8000
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95.6111 VOR FEDERAL AIRWAY V111

BIG SUR, CA VORTAC	SALINAS, CA VORTAC	7000
SALINAS, CA VORTAC	CATHE, CA FIX	5500
CATHE, CA FIX	KARNN, CA FIX	5500
KARNN, CA FIX	PATYY, CA FIX	5000
PATYY, CA FIX	MODESTO, CA VOR/DME	*3000
*1500 - MOCA		

FROM	TO	MEA
95.6112 VOR FEDERAL AIRWAY V112		
HOQUIAM, WA VORTAC	ILWAC, WA FIX	2500
ILWAC, WA FIX	ASTORIA, OR VOR/DME	3000
ASTORIA, OR VOR/DME	PITER, OR FIX	5000
PITER, OR FIX	*BATTLE GROUND, WA VORTAC	4400
*5000 - MCA BATTLE GROUND, WA VORTAC , E BND		
BATTLE GROUND, WA VORTAC	KLICKITAT, OR VOR/DME	*7000
*6500 - MOCA		
KLICKITAT, OR VOR/DME	*OGPAY, OR FIX	5400
*6000 - MRA		
OGPAY, OR FIX	*LOAMS, OR FIX	5400
*6000 - MRA		
LOAMS, OR FIX	*ECHOD, OR FIX	4100
*6000 - MRA		
ECHOD, OR FIX	PENDLETON, OR VORTAC	4100
PENDLETON, OR VORTAC	LYLES, WA FIX	4000
LYLES, WA FIX	*RODNA, WA FIX	**5000
*6000 - MRA		
**4400 - MOCA		
RODNA, WA FIX	SPOKANE, WA VORTAC	5000
SPOKANE, WA VORTAC	DIANN, WA FIX	
	SW BND	*7000
	NE BND	*11000
*5500 - MOCA		
DIANN, WA FIX	U.S. CANADIAN BORDER	*11000
*9700 - MOCA		

95.6113 VOR FEDERAL AIRWAY V113

MORRO BAY, CA VORTAC	PASO ROBLES, CA VORTAC	5000
PANOCH, CA VORTAC	*PATYY, CA FIX	5000
*5000 - MCA PATYY, CA FIX , SE BND		
PATYY, CA FIX	MODESTO, CA VOR/DME	*3000
*1500 - MOCA		
MODESTO, CA VOR/DME	*LINDEN, CA VOR/DME	2000
*4000 - MCA LINDEN, CA VOR/DME , NE BND		
LINDEN, CA VOR/DME	*KATSO, CA FIX	5000
*12400 - MCA KATSO, CA FIX , NE BND		
KATSO, CA FIX	*SPOOK, CA FIX	**13000
*15000 - MCA SPOOK, CA FIX , N BND		
**12100 - MOCA		
SPOOK, CA FIX	RICHY, CA FIX	*15000
*12000 - MOCA		
RICHY, CA FIX	*MUSTANG, NV VORTAC	13000
*10500 - MCA MUSTANG, NV VORTAC , S BND		
MUSTANG, NV VORTAC	NICER, NV FIX	10300
NICER, NV FIX	ROBUD, NV FIX	*12000
*10600 - MOCA		
ROBUD, NV FIX	SOD HOUSE, NV VORTAC	*10000
*9000 - MOCA		
SOD HOUSE, NV VORTAC	ROME, OR VOR/DME	10000
ROME, OR VOR/DME	*RENOL, ID FIX	9400
*7300 - MCA RENOL, ID FIX , SW BND		
RENOL, ID FIX	*BOISE, ID VORTAC	6000
*8200 - MCA BOISE, ID VORTAC , NE BND		
BOISE, ID VORTAC	SALMON, ID VOR/DME	16500
SALMON, ID VOR/DME	SLIPP, MT FIX	13000
SLIPP, MT FIX	*COPPERTOWN, MT VOR/DME	
	SW BND	13000
	NE BND	11000
*10200 - MCA COPPERTOWN, MT VOR/DME , SW BND		

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95.6113 VOR FEDERAL AIRWAY V113 - CONTINUED

COPPERTOWN, MT VOR/DME	HELENA, MT VORTAC	*13000
*10800 - MOCA		
HELENA, MT VORTAC	LEWISTOWN, MT VOR/DME	11100

95.6114 VOR FEDERAL AIRWAY V114

PANHANDLE, TX VORTAC	CAUDE, TX FIX	*5400
*4900 - MOCA		
CAUDE, TX FIX	*DOGIN, TX FIX	5000
*6500 - MRA		
DOGIN, TX FIX	CHILDRESS, TX VORTAC	5000
CHILDRESS, TX VORTAC	VASTY, TX FIX	3700
VASTY, TX FIX	WICHITA FALLS, TX VORTAC	3200
WICHITA FALLS, TX VORTAC	BONHAM, TX VORTAC	3000
GREGG COUNTY, TX VORTAC	CARTH, TX FIX	*2300
*1900 - MOCA		
CARTH, TX FIX	EXITE, LA FIX	*3000
*1700 - MOCA		
EXITE, LA FIX	COVEX, LA FIX	*3500
*1700 - MOCA		
COVEX, LA FIX	NUBOY, LA FIX	*5000
*1900 - MOCA		
NUBOY, LA FIX	ALEXANDRIA, LA VORTAC	
	W BND	5000
	E BND	2000
ALEXANDRIA, LA VORTAC	*MIKLE, LA FIX	2000
*3000 - MRA		
MIKLE, LA FIX	FIGHTING TIGER, LA VORTAC	2000
FIGHTING TIGER, LA VORTAC	VEILS, LA FIX	2800
VEILS, LA FIX	RESERVE, LA VOR/DME	2000
RESERVE, LA VOR/DME	GULFPORT, MS VORTAC	2000
GULFPORT, MS VORTAC	*MINDO, MS FIX	**6000
*6000 - MRA		
**2000 - GNSS MEA		
MINDO, MS FIX	EATON, MS VORTAC	*6000
*2000 - GNSS MEA		

95.6115 VOR FEDERAL AIRWAY V115

CRESTVIEW, FL VORTAC	PIGON, AL FIX	2500
PIGON, AL FIX	*REDDI, AL FIX	2500
*5500 - MRA		
REDDI, AL FIX	MONTGOMERY, AL VORTAC	2500
MONTGOMERY, AL VORTAC	VULCAN, AL VORTAC	3000
VULCAN, AL VORTAC	CHOO CHOO, TN VORTAC	4000
CHOO CHOO, TN VORTAC	ETOWA, TN FIX	3000
ETOWA, TN FIX	GROSS, TN FIX	3100
GROSS, TN FIX	VOLUNTEER, TN VORTAC	3000
CHARLESTON, WV VOR/DME	PARKERSBURG, WV VOR/DME	3000

95.6116 VOR FEDERAL AIRWAY V116

STONYFORK, PA VOR/DME	WILKES-BARRE, PA VORTAC	4000
WILKES-BARRE, PA VORTAC	SPARTA, NJ VORTAC	4000

95.6117 VOR FEDERAL AIRWAY V117

PARKERSBURG, WV VOR/DME	BELLAIRE, OH VOR/DME	3000
BELLAIRE, OH VOR/DME	WISKE, WV FIX	3300

FROM	TO	MEA
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95.6118 VOR FEDERAL AIRWAY V118

MEDICINE BOW, WY VOR/DME	LARAMIE, WY VOR/DME	9400
LARAMIE, WY VOR/DME	*SENSE, WY FIX	11000
*9900 - MCA SENSE, WY FIX , W BND		
SENSE, WY FIX	CHEYENNE, WY VORTAC	8800

95.6119 VOR FEDERAL AIRWAY V119

HENDERSON, WV VORTAC	*JACEE, WV FIX	2700
*3800 - MRA		
JACEE, WV FIX	PARKERSBURG, WV VOR/DME	2700
PARKERSBURG, WV VOR/DME	ANTIO, OH FIX	3000
ANTIO, OH FIX	INDIAN HEAD, PA VORTAC	5000

95.6120 VOR FEDERAL AIRWAY V120

*SEATTLE, WA VORTAC	TAGOR, WA FIX	
	E BND	**8500
	W BND	**5000
*6300 - MCA SEATTLE, WA VORTAC , E BND		
**5000 - MOCA		
TAGOR, WA FIX	CASHS, WA FIX	*12000
*11400 - MOCA		
CASHS, WA FIX	*WENATCHEE, WA VOR/DME	
	E BND	**7500
	W BND	**12000
*8200 - MCA WENATCHEE, WA VOR/DME , W BND		
**6700 - MOCA		
WENATCHEE, WA VOR/DME	EPHRATA, WA VORTAC	5500
EPHRATA, WA VORTAC	WIPES, WA FIX	4000
WIPES, WA FIX	*SPOKANE, WA VORTAC	5000
*5200 - MCA SPOKANE, WA VORTAC , E BND		
SPOKANE, WA VORTAC	KARPS, ID FIX	*9000
*7600 - MOCA		
KARPS, ID FIX	MULLAN PASS, ID VOR/DME	9100
MULLAN PASS, ID VOR/DME	CHARL, MT FIX	*13000
*9600 - MOCA		
CHARL, MT FIX	*SHIMY, MT FIX	**13000
*7000 - MRA		
*7900 - MCA SHIMY, MT FIX , W BND		
**12100 - MOCA		
SHIMY, MT FIX	GREAT FALLS, MT VORTAC	6800
GREAT FALLS, MT VORTAC	LEWISTOWN, MT VOR/DME	8400
LEWISTOWN, MT VOR/DME	ESTRO, MT FIX	7700
ESTRO, MT FIX	MILES CITY, MT VOR/DME	*9000
*7500 - MOCA		
MILES CITY, MT VOR/DME	DUPREE, SD VOR/DME	*10000
*6600 - MOCA		
DUPREE, SD VOR/DME	PIERRE, SD VORTAC	*4300
*3700 - MOCA		
PIERRE, SD VORTAC	MITCHELL, SD VOR/DME	*3900
*3400 - MOCA		
MITCHELL, SD VOR/DME	FRYRE, SD FIX	3700
FRYRE, SD FIX	SIOUX FALLS, SD VORTAC	3700
SIOUX FALLS, SD VORTAC	BILOO, IA FIX	3600
BILOO, IA FIX	*GRUVE, IA FIX	**6800
*8000 - MRA		
**3100 - MOCA		
GRUVE, IA FIX	BANCO, IA FIX	*6800
*3100 - MOCA		

FROM	TO	MEA
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95.6120 VOR FEDERAL AIRWAY V120 - CONTINUED

BANCO, IA FIX	MASON CITY, IA VOR/DME	3000
MASON CITY, IA VOR/DME	*AREDA, IA FIX	3000
*4500 - MRA		
AREDA, IA FIX	*SEATS, IA FIX	3000
*4500 - MRA		
SEATS, IA FIX	WATERLOO, IA VOR/DME	3000

95.6121 VOR FEDERAL AIRWAY V121

FORT JONES, CA VOR/DME	*BAYTS, OR FIX	**10000
*10000 - MRA		
*9000 - MCA BAYTS, OR FIX , S BND		
**9400 - MOCA		
BAYTS, OR FIX	ROGUE VALLEY, OR VORTAC	*8000
*7500 - MOCA		
ROGUE VALLEY, OR VORTAC	MOURN, OR FIX	7000
MOURN, OR FIX	ROSEBURG, OR VOR/DME	
	W BND	6000
	E BND	7000
ROSEBURG, OR VOR/DME	NORTH BEND, OR VOR/DME	6000
NORTH BEND, OR VOR/DME	SCOTY, OR FIX	
	NE BND	5000
	SW BND	4400
SCOTY, OR FIX	*VAUGN, OR FIX	5000
*7000 - MRA		
VAUGN, OR FIX	*EUGENE, OR VORTAC	
	NE BND	4100
	SW BND	5000
*9000 - MCA EUGENE, OR VORTAC , E BND		
EUGENE, OR VORTAC	DOSEE, OR FIX	
	E BND	10000
	W BND	5200
DOSEE, OR FIX	VIDAS, OR FIX	
	E BND	11600
	W BND	6000
VIDAS, OR FIX	WHIFF, OR FIX	*13000
*7500 - MOCA		
*12000 - GNSS MEA		
WHIFF, OR FIX	SNOKY, OR FIX	*13000
*12300 - MOCA		
SNOKY, OR FIX	*DESCHUTES, OR VORTAC	
	E BND	8000
	W BND	13000
*10400 - MCA DESCHUTES, OR VORTAC , W BND		
DESCHUTES, OR VORTAC	JABOT, OR FIX	
	NE BND	9000
	SW BND	7000
JABOT, OR FIX	KIMBERLY, OR VOR/DME	9000
KIMBERLY, OR VOR/DME	*BAKER CITY, OR VOR/DME	12000
*10000 - MCA BAKER CITY, OR VOR/DME , SW BND		
BAKER CITY, OR VOR/DME	DONNELLY, ID VOR/DME	11000
DONNELLY, ID VOR/DME	SALMON, ID VOR/DME	12000
SALMON, ID VOR/DME	NOSEY, MT FIX	12000
NOSEY, MT FIX	DILLON, MT VOR/DME	
	E BND	*10000
	W BND	*12000
*9100 - MOCA		

95.6122 VOR FEDERAL AIRWAY V122

CRESCENT CITY, CA VORTAC	REFIX, CA FIX	
	SW BND	4000
	NE BND	8000

FROM	TO	MEA
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95.6122 VOR FEDERAL AIRWAY V122 - CONTINUED

REFIX, CA FIX	OBRIN, CA FIX	
	NE BND	8000
	SW BND	6000
OBRIN, CA FIX	*PAPLE, OR FIX	8000
*10100 - MRA		
PAPLE, OR FIX	GNATS, OR FIX	8000
GNATS, OR FIX	ROGUE VALLEY, OR VORTAC	
	SW BND	8000
	NE BND	5500
ROGUE VALLEY, OR VORTAC	BRUTE, OR FIX	
	E BND	9000
	W BND	5000
BRUTE, OR FIX	LANKS, OR FIX	
	W BND	*6500
	E BND	*9000
*5800 - MOCA		
LANKS, OR FIX	KLAMATH FALLS, OR VORTAC	*9000
*8500 - MOCA		
KLAMATH FALLS, OR VORTAC	LAKEVIEW, OR VORTAC	9600
LAKEVIEW, OR VORTAC	ROME, OR VOR/DME	12000

95.6123 VOR FEDERAL AIRWAY V123

MITCH, MD FIX	SWANN, MD FIX	*7000
*3000 - GNSS MEA		
SWANN, MD FIX	*TACKS, MD FIX	**7000
*7000 - MCA TACKS, MD FIX , W BND		
**4000 - GNSS MEA		
TACKS, MD FIX	WOODSTOWN, NJ VORTAC	*2000
*1500 - MOCA		
WOODSTOWN, NJ VORTAC	ROBBINSVILLE, NJ VORTAC	*3000
*2000 - MOCA		
ROBBINSVILLE, NJ VORTAC	MINKS, NJ FIX	2000
MINKS, NJ FIX	LA GUARDIA, NY VOR/DME	2900
LA GUARDIA, NY VOR/DME	FAMMA, NY FIX	2000
FAMMA, NY FIX	HAARP, CT FIX	3000
HAARP, CT FIX	*RYMES, CT FIX	**5000
*5000 - MRA		
**2000 - MOCA		
**3000 - GNSS MEA		
RYMES, CT FIX	CARMEL, NY VOR/DME	2500
CARMEL, NY VOR/DME	CASSH, NY FIX	3000
CASSH, NY FIX	*WIGAN, NY FIX	3100
*8000 - MCA WIGAN, NY FIX , N BND		
WIGAN, NY FIX	GROUP, NY FIX	*8000
*3000 - GNSS MEA		
GROUP, NY FIX	*ALBANY, NY VORTAC	**6000
*6000 - MCA ALBANY, NY VORTAC , S BND		
**2800 - GNSS MEA		
ALBANY, NY VORTAC	*CAMBRIDGE, NY VOR/DME	***4000
*4500 - MCA CAMBRIDGE, NY VOR/DME , N BND		
**3000 - MOCA		
#ALBANY R-067 UNUSABLE.		

95.6124 VOR FEDERAL AIRWAY V124

BONHAM, TX VORTAC	PARIS, TX VOR/DME	2400
PARIS, TX VOR/DME	DEENS, AR FIX	*4000
*2000 - MOCA		

FROM	TO	MEA
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95.6124 VOR FEDERAL AIRWAY V124 - CONTINUED

DEENS, AR FIX *2700 - MOCA	HOT SPRINGS, AR VOR/DME	*5000
HOT SPRINGS, AR VOR/DME	LITTLE ROCK, AR VORTAC	3000
LITTLE ROCK, AR VORTAC *1700 - MOCA	TAFTE, AR FIX	*4000
TAFTE, AR FIX *6000 - MRA **1600 - MOCA	*HILLE, AR FIX	**6000
HILLE, AR FIX *1700 - MOCA	GILMORE, AR VOR/DME	*4000

95.6125 VOR FEDERAL AIRWAY V125

NIKEL, IL FIX	BURCK, IL FIX	4500
BURCK, IL FIX *2600 - MOCA	ST LOUIS, MO VORTAC	*3500

95.6126 VOR FEDERAL AIRWAY V126

BEARZ, IN FIX	HALIE, IN FIX	3000
HALIE, IN FIX *2300 - MOCA	INKEN, IN FIX	*4000
INKEN, IN FIX	GOSHEN, IN VORTAC	2600
GOSHEN, IN VORTAC *2400 - MOCA	ILTON, IN FIX	*5000

95.6127 VOR FEDERAL AIRWAY V127

BRADFORD, IL VORTAC *3300 - MRA	*WYNET, IL FIX	2700
WYNET, IL FIX	POLO, IL VOR/DME	2600
POLO, IL VOR/DME	ROCKFORD, IL VOR/DME	2700

95.6128 VOR FEDERAL AIRWAY V128

BRICKYARD, IN VORTAC	DECEE, IN FIX	2600
DECEE, IN FIX	CINCINNATI, KY VORTAC	2800
CINCINNATI, KY VORTAC	CALIF, KY FIX	2600
CALIF, KY FIX	YORK, KY VORTAC	4000
YORK, KY VORTAC *2300 - MOCA	CROUP, OH FIX	*3300
CROUP, OH FIX	RULEY, WV FIX	3200
RULEY, WV FIX	CHARLESTON, WV VOR/DME	3600
CHARLESTON, WV VOR/DME	SWIFT, WV FIX	3400
SWIFT, WV FIX	BITES, WV FIX	
	W BND	5000
	E BND	7000
BITES, WV FIX	VELLI, WV FIX	7000
VELLI, WV FIX *7100 - MOCA *7100 - GNSS MEA	BOIER, WV FIX	*8000
BOIER, WV FIX *6900 - MOCA *6900 - GNSS MEA	LURAY, VA FIX	*10000
LURAY, VA FIX	CASANOVA, VA VORTAC	6300

95.6129 VOR FEDERAL AIRWAY V129

SPINNER, IL VORTAC	PEORIA, IL VORTAC	2500
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FROM	TO	MEA
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95.6129 VOR FEDERAL AIRWAY V129 - CONTINUED

PEORIA, IL VORTAC	GENSO, IL FIX	2600
GENSO, IL FIX	DAVENPORT, IA VORTAC	3000
DAVENPORT, IA VORTAC	DUBUQUE, IA VORTAC	2900
DUBUQUE, IA VORTAC	QUEST, WI FIX	*3100
*2600 - MOCA		
QUEST, WI FIX	NODINE, MN VORTAC	3100
NODINE, MN VORTAC	EAU CLAIRE, WI VORTAC	3000
EAU CLAIRE, WI VORTAC	DULUTH, MN VORTAC	*4000
*3100 - MOCA		
DULUTH, MN VORTAC	HIBBING, MN VOR/DME	3300
HIBBING, MN VOR/DME	INTERNATIONAL FALLS, MN VOR/DME	*3600
*3100 - MOCA		
INTERNATIONAL FALLS, MN VOR/DME	U.S. CANADIAN BORDER	2500

95.6130 VOR FEDERAL AIRWAY V130

NORWICH, CT VOR/DME	MINNK, RI FIX	2300
MINNK, RI FIX	FALMA, RI FIX	*3000
*1600 - MOCA		
FALMA, RI FIX	MARTHAS VINEYARD, MA VOR/DME	3000

95.6131 VOR FEDERAL AIRWAY V131

OKMULGEE, OK VOR/DME	TULSA, OK VORTAC	3200
TULSA, OK VORTAC	TYROE, KS FIX	3000
TYROE, KS FIX	CHANUTE, KS VOR/DME	2800
CHANUTE, KS VOR/DME	TOPEKA, KS VORTAC	2900

95.6132 VOR FEDERAL AIRWAY V132

MEDICINE BOW, WY VOR/DME	MOIST, WY FIX	9500
MOIST, WY FIX	CHEYENNE, WY VORTAC	9000
CHEYENNE, WY VORTAC	RAYME, CO FIX	8500
RAYME, CO FIX	AKRON, CO VOR/DME	6800
AKRON, CO VOR/DME	GOODLAND, KS VORTAC	6400
GOODLAND, KS VORTAC	ORION, KS FIX	5700
ORION, KS FIX	*RANSO, KS FIX	**10000
*10000 - MRA		
**4200 - MOCA		
RANSO, KS FIX	DISKS, KS FIX	*10000
*4400 - MOCA		
DISKS, KS FIX	*SPELT, KS FIX	**5000
*5000 - MRA		
**3300 - MOCA		
SPELT, KS FIX	HUTCHINSON, KS VOR/DME	3200
HUTCHINSON, KS VOR/DME	WAIVE, KS FIX	4000
WAIVE, KS FIX	*FLOSS, KS FIX	3300
*5000 - MRA		
*5000 - MCA FLOSS, KS FIX , SE BND		
FLOSS, KS FIX	CHANUTE, KS VOR/DME	*5000
*2800 - MOCA		
CHANUTE, KS VOR/DME	NALLY, KS FIX	2800
NALLY, KS FIX	NASHE, MO FIX	2700
NASHE, MO FIX	SPRINGFIELD, MO VORTAC	3000
SPRINGFIELD, MO VORTAC	FORNEY, MO VOR	3100
FORNEY, MO VOR	LENOX, MO FIX	3000

95.6133 VOR FEDERAL AIRWAY V133

LINCO, NC FIX	BARRETTS MOUNTAIN, NC VOR/DME	4000
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FROM	TO	MEA
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95.6133 VOR FEDERAL AIRWAY V133 - CONTINUED

BARRETT'S MOUNTAIN, NC VOR/DME	MULBE, NC FIX	
	S BND	5400
	N BND	7200
MULBE, NC FIX	*STOVE, VA FIX	7200
*11000 - MCA STOVE, VA FIX , N BND		
STOVE, VA FIX	PINEE, WV FIX	*13000
*7000 - MOCA		
PINEE, WV FIX	*CHARLESTON, WV VOR/DME	
	N BND	**7000
	S BND	**13000
*8500 - MCA CHARLESTON, WV VOR/DME , S BND		
**5600 - MOCA		
**5600 - GNSS MEA		
CHARLESTON, WV VOR/DME	ZANESVILLE, OH VOR/DME	3000
SAGINAW, MI VOR/DME	WHIPP, MI FIX	2400
WHIPP, MI FIX	*LADIN, MI FIX	**5000
*5000 - MRA		
**2800 - MOCA		
LADIN, MI FIX	TRAVERSE CITY, MI VOR/DME	*5000
*2800 - MOCA		
TRAVERSE CITY, MI VOR/DME	ESCANABA, MI VOR/DME	5000
ESCANABA, MI VOR/DME	SAWYER, MI VOR/DME	2800
SAWYER, MI VOR/DME	HOUGHTON, MI VOR/DME	*4500
*3400 - MOCA		
HOUGHTON, MI VOR/DME	U.S. CANADIAN BORDER	*3100
*2500 - MOCA		
U.S. CANADIAN BORDER	INTERNATIONAL FALLS, MN VOR/DME	*3000
*2500 - MOCA		
INTERNATIONAL FALLS, MN VOR/DME	U.S. CANADIAN BORDER	*6500
*2800 - MOCA		

95.6134 VOR FEDERAL AIRWAY V134

*FAIRFIELD, UT VORTAC	CARBON, UT VOR/DME	#13000
*10800 - MCA FAIRFIELD, UT VORTAC , E BND		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
*CARBON, UT VOR/DME	GRAND JUNCTION, CO VOR/DME	11900
*10200 - MCA CARBON, UT VOR/DME , W BND		
GRAND JUNCTION, CO VOR/DME	*PACES, CO FIX	11500
*13000 - MRA		
PACES, CO FIX	SLOLM, CO FIX	#13000
#MTA V134 NE TO V220 NW 12900		
SLOLM, CO FIX	*GLENO, CO FIX	14000
*16000 - MRA		
GLENO, CO FIX	RED TABLE, CO VOR/DME	14000
RED TABLE, CO VOR/DME	HERLS, CO FIX	
	E BND	16000
	W BND	14000
HERLS, CO FIX	*FUNDS, CO FIX	16000
*16500 - MRA		
FUNDS, CO FIX	BREWS, CO FIX	16500
BREWS, CO FIX	*FALCON, CO VORTAC	
	W BND	16500
	E BND	10000
*11600 - MCA FALCON, CO VORTAC , W BND		

95.6135 VOR FEDERAL AIRWAY V135

SAYUL, CA FIX	BARD, CA VORTAC	*4000
*2700 - MOCA		

FROM	TO	MEA
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95.6135 VOR FEDERAL AIRWAY V135 - CONTINUED

BARD, CA VORTAC	BLYTHE, CA VORTAC	*5000
*3900 - MOCA		
BLYTHE, CA VORTAC	PARKER, CA VORTAC	5400
PARKER, CA VORTAC	NEEDLES, CA VORTAC	6000
NEEDLES, CA VORTAC	*GOFFS, CA VORTAC	**8000
*9600 - MCA GOFFS, CA VORTAC , NW BND		
**7100 - MOCA		
GOFFS, CA VORTAC	*WHIGG, CA FIX	**12000
*12000 - MRA		
**10000 - MOCA		
WHIGG, CA FIX	CLARR, CA FIX	*12000
*10500 - MOCA		
CLARR, CA FIX	*HIDEN, CA FIX	**12000
*14000 - MRA		
**9100 - MOCA		
HIDEN, CA FIX	BEATTY, NV VORTAC	*12000
*8600 - MOCA		
BEATTY, NV VORTAC	TEZUM, NV FIX	*11000
*9600 - MOCA		
TEZUM, NV FIX	TONOPAH, NV VORTAC	11000

95.6136 VOR FEDERAL AIRWAY V136

HINCH MOUNTAIN, TN VOR/DME	SWELL, TN FIX	5000
SWELL, TN FIX	VOLUNTEER, TN VORTAC	3000
VOLUNTEER, TN VORTAC	AUBRY, TN FIX	5000
AUBRY, TN FIX	*PITTE, TN FIX	6000
*7000 - MCA PITTE, TN FIX , E BND		
PITTE, TN FIX	SNOWBIRD, TN VORTAC	7000
SNOWBIRD, TN VORTAC	AFTEN, TN FIX	7000
AFTEN, TN FIX	HOLSTON MOUNTAIN, TN VORTAC	6000
HOLSTON MOUNTAIN, TN VORTAC	DAMAS, TN FIX	6000
DAMAS, TN FIX	*STOVE, VA FIX	7500
*7500 - MCA STOVE, VA FIX , SW BND		
STOVE, VA FIX	SPEEL, VA FIX	6000
SPEEL, VA FIX	PULASKI, VA VORTAC	5400
PULASKI, VA VORTAC	PIGGS, VA FIX	5500
PIGGS, VA FIX	DUNCE, VA FIX	3500
DUNCE, VA FIX	SOUTH BOSTON, VA VORTAC	2800
SOUTH BOSTON, VA VORTAC	*ALDAN, NC FIX	2600
*3000 - MRA		
ALDAN, NC FIX	RALEIGH/DURHAM, NC VORTAC	2600
RALEIGH/DURHAM, NC VORTAC	LANHO, NC FIX	3100
LANHO, NC FIX	FAYETTEVILLE, NC VOR/DME	2100
FAYETTEVILLE, NC VOR/DME	GRAND STRAND, SC VORTAC	#*3000
*2200 - MOCA		
#V136 WITHIN GAMECOCK A MOA 7000 AND ABOVE FROM 17-38 NM S OF FAY VOR		
DOES NOT EXIST WHEN MOA IS ACTI		

95.6137 VOR FEDERAL AIRWAY V137

NOVOS, CA FIX	IMPERIAL, CA VORTAC	*3000
*1900 - MOCA		
IMPERIAL, CA VORTAC	*BRAWL, CA FIX	**3700
*4500 - MRA		
**2300 - MOCA		
BRAWL, CA FIX	HENOM, CA FIX	3700
HENOM, CA FIX	THERMAL, CA VORTAC	3900
THERMAL, CA VORTAC	*PALM SPRINGS, CA VORTAC	4000
*11200 - MCA PALM SPRINGS, CA VORTAC , NW BND		

FROM

TO

MEA

95.6137 VOR FEDERAL AIRWAY V137 - CONTINUED

PALM SPRINGS, CA VORTAC	*WHETO, CA FIX	
	NW BND	**12000
	SE BND	**7000
*12400 - MCA WHETO, CA FIX , NW BND		
**6000 - MOCA		
WHETO, CA FIX	MORON, CA FIX	
	SE BND	12000
	NW BND	13500
MORON, CA FIX	*ARRAN, CA FIX	13500
*12000 - MCA ARRAN, CA FIX , E BND		
ARRAN, CA FIX	*PALMDALE, CA VORTAC	10700
*7000 - MCA PALMDALE, CA VORTAC , E BND		
PALMDALE, CA VORTAC	VICKY, CA FIX	*8000
*5800 - MOCA		
VICKY, CA FIX	JEFFY, CA FIX	
	E BND	8000
	W BND	9000
JEFFY, CA FIX	GORMAN, CA VORTAC	
	E BND	8000
	W BND	10100
GORMAN, CA VORTAC	*TAFTO, CA FIX	10000
*9000 - MCA TAFTO, CA FIX , SE BND		
TAFTO, CA FIX	AVENAL, CA VOR/DME	
	SE BND	5500
	NW BND	4500

95.6138 VOR FEDERAL AIRWAY V138

RIVERTON, WY VOR/DME	HUNTZ, WY FIX	9000
HUNTZ, WY FIX	MEDICINE BOW, WY VOR/DME	11200
MEDICINE BOW, WY VOR/DME	MILKY, WY FIX	10600
MILKY, WY FIX	CHEYENNE, WY VORTAC	9200
CHEYENNE, WY VORTAC	PIETY, WY FIX	8000
PIETY, WY FIX	SIDNEY, NE VOR/DME	*7600
*7000 - MOCA		
GRAND ISLAND, NE VOR/DME	BRADY, NE FIX	*3600
*3200 - MOCA		
BRADY, NE FIX	GAMBL, NE FIX	4100
GAMBL, NE FIX	LINCOLN, NE VORTAC	3300
LINCOLN, NE VORTAC	OMAHA, IA VORTAC	4000
OMAHA, IA VORTAC	FORT DODGE, IA VORTAC	*4500
*3000 - MOCA		
*3000 - GNSS MEA		
FORT DODGE, IA VORTAC	MASON CITY, IA VOR/DME	3000

95.6139 VOR FEDERAL AIRWAY V139

FLORENCE, SC VORTAC	MOKKA, NC FIX	2000
MOKKA, NC FIX	WILMINGTON, NC VORTAC	#*8000
*2100 - MOCA		
*2100 - GNSS MEA		
#WILMINGTON R-273 UNUSABLE. USE FLORENCE R-088		
WILMINGTON, NC VORTAC	NEW BERN, NC VOR/DME	#*6000
*1800 - MOCA		
*2000 - GNSS MEA		
#WILMINGTON R-050 UNUSABLE. USE NEW BERN R-232		
NEW BERN, NC VOR/DME	PEARS, NC FIX	
	S BND	*4000
	N BND	*6000
*1800 - MOCA		
*2000 - GNSS MEA		

FROM	TO	MEA
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95.6139 VOR FEDERAL AIRWAY V139 - CONTINUED

PEARS, NC FIX *2100 - MOCA *2100 - GNSS MEA	SUNNS, NC FIX	*6000
SUNNS, NC FIX	NORFOLK, VA VORTAC NE BND SW BND	*2500 *4800
*1600 - MOCA *2000 - GNSS MEA		
NORFOLK, VA VORTAC *1800 - MOCA	CAPE CHARLES, VA VORTAC	*2500
CAPE CHARLES, VA VORTAC	DUNFE, VA FIX NE BND SSW BND	*4000 *2000
*1600 - MOCA		
DUNFE, VA FIX *1600 - MOCA	SNOW HILL, MD VORTAC	*4000
SNOW HILL, MD VORTAC	CBEAV, MD FIX	2000
CBEAV, MD FIX *1700 - MOCA	SEA ISLE, NJ VORTAC	*2500
SEA ISLE, NJ VORTAC *4000 - GNSS MEA	AVALO, NJ FIX	*4500
AVALO, NJ FIX *4000 - GNSS MEA	HARBO, NJ FIX	*6000
HARBO, NJ FIX *6000 - MRA **3000 - GNSS MEA	*DRIFT, NJ FIX	**7500
DRIFT, NJ FIX *3000 - GNSS MEA	MANTA, NJ FIX	*12000
MANTA, NJ FIX *2000 - MOCA *3000 - GNSS MEA	PLUME, NJ FIX	*7000
PLUME, NJ FIX *5000 - MRA **3000 - MOCA **3000 - GNSS MEA	*KOPPY, NY FIX	**4000
KOPPY, NY FIX *3000 - MOCA *3000 - GNSS MEA	BEADS, NY FIX	*4000
BEADS, NY FIX *1600 - MOCA	HAMPTON, NY VORTAC	*2500
HAMPTON, NY VORTAC #UNUSABLE	PARCH, NY FIX	#
PARCH, NY FIX #UNUSABLE	GARRD, NY FIX	#
GARRD, NY FIX #UNUSABLE	TRAIT, RI FIX	#
TRAIT, RI FIX *2100 - MOCA	PROVIDENCE, RI VOR/DME	*3000
PROVIDENCE, RI VOR/DME *2000 - GNSS MEA	INNDY, MA FIX	*3000
INNDY, MA FIX *6000 - MRA	*TONNI, MA FIX	6000
TONNI, MA FIX *4000 - GNSS MEA	SEEDY, NH FIX	*5000
SEEDY, NH FIX *1800 - MOCA	KENNEBUNK, ME VOR/DME	*2500

95.6140 VOR FEDERAL AIRWAY V140

PANHANDLE, TX VORTAC	BURNS FLAT, OK VORTAC	5300
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FROM	TO	MEA
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95.6140 VOR FEDERAL AIRWAY V140 - CONTINUED

BURNS FLAT, OK VORTAC *4000 - MRA	*HISLA, OK FIX	3600
HISLA, OK FIX *3000 - MOCA	KINGFISHER, OK VORTAC	*3600
KINGFISHER, OK VORTAC LASTS, OK FIX *3100 - MOCA	LASTS, OK FIX IBAAH, OK FIX	3000 *4500
IBAAH, OK FIX TULSA, OK VORTAC *2900 - MRA	TULSA, OK VORTAC *PRYOR, OK FIX	3300 2700
PRYOR, OK FIX *2800 - MOCA	RAZORBACK, AR VORTAC	*3400
RAZORBACK, AR VORTAC *2900 - MOCA	SPRAY, AR FIX	*3400
SPRAY, AR FIX *3500 - MOCA	HARRISON, AR VOR/DME	*4000
HARRISON, AR VOR/DME VILLO, AR FIX	VILLO, AR FIX WALNUT RIDGE, AR VORTAC W BND E BND	3000 3000 2500
WALNUT RIDGE, AR VORTAC HELMS, MO FIX DYERSBURG, TN VORTAC NASHVILLE, TN VORTAC	HELMS, MO FIX DYERSBURG, TN VORTAC NASHVILLE, TN VORTAC HARME, TN FIX W BND E BND	2400 2000 3500 *3000 *6000
*2400 - MOCA HARME, TN FIX *2900 - MOCA	LIVINGSTON, TN VOR/DME	*6000
LIVINGSTON, TN VOR/DME BLUEFIELD, WV VOR/DME *5600 - MOCA	LONDON, KY VOR/DME SOFTY, WV FIX	3900 *7000
SOFTY, WV FIX CASTE, VA FIX MONTEBELLO, VA VOR/DME HOODE, VA FIX	CASTE, VA FIX MONTEBELLO, VA VOR/DME HOODE, VA FIX CASANOVA, VA VORTAC	6300 6000 6100 3200

95.6141 VOR FEDERAL AIRWAY V141

NANTUCKET, MA VOR/DME GAILS, MA FIX *2500 - MRA **2000 - MOCA	GAILS, MA FIX *CELTS, MA FIX	1700 **3000
CELTS, MA FIX	BOSTON, MA VOR/DME	2000

95.6142 VOR FEDERAL AIRWAY V142

*TWIN FALLS, ID VORTAC	MURTH, ID FIX E BND W BND	13000 7800
*12000 - MCA TWIN FALLS, ID VORTAC , E BND MURTH, ID FIX	OCLEY, ID FIX E BND W BND	15000 9500
OCLEY, ID FIX *16500 - MCA SHEAR, UT FIX , W BND **12400 - MOCA	*SHEAR, UT FIX	**16500
SHEAR, UT FIX	*MALAD CITY, ID VOR/DME SW BND NE BND	11000 10000
*13500 - MCA MALAD CITY, ID VOR/DME , SW BND		

FROM	TO	MEA
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95.6142 VOR FEDERAL AIRWAY V142 - CONTINUED

MALAD CITY, ID VOR/DME	*ORNEY, UT FIX	10400
*11200 - MCA ORNEY, UT FIX , E BND		
ORNEY, UT FIX	FORT BRIDGER, WY VOR/DME	12200
FORT BRIDGER, WY VOR/DME	ROCK SPRINGS, WY VOR/DME	10000

95.6143 VOR FEDERAL AIRWAY V143

GIZMO, NC FIX	GREENSBORO, NC VORTAC	3000
GREENSBORO, NC VORTAC	LEAKS, NC FIX	3000
LEAKS, NC FIX	LYNCHBURG, VA VOR/DME	3000
LYNCHBURG, VA VOR/DME	ELLON, VA FIX	
	N BND	5700
	S BND	3200
ELLON, VA FIX	*CLYFF, VA FIX	5700
*6300 - MCA CLYFF, VA FIX , N BND		
CLYFF, VA FIX	MONTEBELLO, VA VOR/DME	6400
MONTEBELLO, VA VOR/DME	LURAY, VA FIX	6000
LURAY, VA FIX	*KERRE, VA FIX	**6000
*7000 - MRA		
**5000 - MOCA		
KERRE, VA FIX	MARTINSBURG, WV VORTAC	*6000
*5000 - MOCA		
MARTINSBURG, WV VORTAC	HYPER, MD FIX	*5000
*3900 - MOCA		
HYPER, MD FIX	BINNS, PA FIX	*9000
*2600 - MOCA		
*4000 - GNSS MEA		
BINNS, PA FIX	DELRO, PA FIX	*9000
*4500 - GNSS MEA		
DELRO, PA FIX	LANCASTER, PA VOR/DME	3000
LANCASTER, PA VOR/DME	POTTSTOWN, PA VORTAC	4500
POTTSTOWN, PA VORTAC	YARDLEY, PA VOR/DME	*6900
*4000 - GNSS MEA		

95.6144 VOR FEDERAL AIRWAY V144

FORT WAYNE, IN VORTAC	BUZZI, OH FIX	*6000
*3000 - MOCA		
BUZZI, OH FIX	APPLETON, OH VORTAC	*4000
*2600 - MOCA		
APPLETON, OH VORTAC	ZANESVILLE, OH VOR/DME	3000
ZANESVILLE, OH VOR/DME	BEALL, OH FIX	3000
BEALL, OH FIX	*MORGANTOWN, WV VOR/DME	4000
*4600 - MCA MORGANTOWN, WV VOR/DME , SE BND		
MORGANTOWN, WV VOR/DME	KESSEL, WV VOR/DME	5700
KESSEL, WV VOR/DME	LINDEN, VA VORTAC	5500

95.6145 VOR FEDERAL AIRWAY V145

UTICA, NY VORTAC	WEEPY, NY FIX	3400
WEEPY, NY FIX	FLOOR, NY FIX	*3000
*2200 - MOCA		
FLOOR, NY FIX	WATERTOWN, NY VORTAC	3000
WATERTOWN, NY VORTAC	U.S. CANADIAN BORDER	*3000
*1800 - MOCA		

95.6146 VOR FEDERAL AIRWAY V146

ALBANY, NY VORTAC	CHESTER, MA VOR/DME	4100
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FROM	TO	MEA
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95.6146 VOR FEDERAL AIRWAY V146 - CONTINUED

CHESTER, MA VOR/DME	BARNES, MA VORTAC	*4000
*3200 - MOCA		
BARNES, MA VORTAC	PUTNAM, CT VOR/DME	*3000
*2500 - MOCA		
PUTNAM, CT VOR/DME	PROVIDENCE, RI VOR/DME	*3000
*2100 - MOCA		
PROVIDENCE, RI VOR/DME	MARTHAS VINEYARD, MA VOR/DME	2100
MARTHAS VINEYARD, MA VOR/DME	NANTUCKET, MA VOR/DME	2000

95.6147 VOR FEDERAL AIRWAY V147

YARDLEY, PA VOR/DME	*SPUDS, PA FIX	5000
*6000 - MRA		
SPUDS, PA FIX	EAST TEXAS, PA VOR/DME	*4100
*2500 - MOCA		
EAST TEXAS, PA VOR/DME	SLATT, PA FIX	4000
SLATT, PA FIX	WILKES-BARRE, PA VORTAC	4000
WILKES-BARRE, PA VORTAC	ELMIRA, NY VOR/DME	4000
ELMIRA, NY VOR/DME	GENESE0, NY VOR/DME	4000
GENESE0, NY VOR/DME	ROCHESTER, NY VOR/DME	2800

95.6148 VOR FEDERAL AIRWAY V148

FALCON, CO VORTAC	*LIMEX, CO FIX	8500
*10000 - MRA		
LIMEX, CO FIX	THURMAN, CO VORTAC	7500
THURMAN, CO VORTAC	MCJEF, NE FIX	*7000
*6500 - MOCA		
MCJEF, NE FIX	HAYES CENTER, NE VORTAC	*7000
*5600 - MOCA		
HAYES CENTER, NE VORTAC	NORTH PLATTE, NE VOR/DME	*4900
*4500 - MOCA		
NORTH PLATTE, NE VOR/DME	O NEILL, NE VORTAC	*5400
*4400 - MOCA		
O NEILL, NE VORTAC	TYNDA, SD FIX	*4000
*3500 - MOCA		
TYNDA, SD FIX	DOLTS, SD FIX	*4000
*3200 - MOCA		
DOLTS, SD FIX	SIOUX FALLS, SD VORTAC	3400
SIOUX FALLS, SD VORTAC	REDWOOD FALLS, MN VOR/DME	3700
REDWOOD FALLS, MN VOR/DME	MAYER, MN FIX	2800
MAYER, MN FIX	GOPHER, MN VORTAC	3000
IRONWOOD, MI VOR/DME	HOUGHTON, MI VOR/DME	*3700
*3200 - MOCA		

95.6149 VOR FEDERAL AIRWAY V149

ALLENTOWN, PA VORTAC	BINGHAMTON, NY VOR/DME	*5000
*4000 - MOCA		

95.6150 VOR FEDERAL AIRWAY V150

SAN FRANCISCO, CA VOR/DME	SUTRO, CA FIX	3500
SUTRO, CA FIX	GOBBS, CA FIX	3000
GOBBS, CA FIX	SAUSALITO, CA VOR/DME	4000
SAUSALITO, CA VOR/DME	COMMO, CA FIX	4000
COMMO, CA FIX	REBAS, CA FIX	
	SW BND	4000
	NE BND	3000

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95.6150 VOR FEDERAL AIRWAY V150 - CONTINUED

REBAS, CA FIX	EMBER, CA FIX	3000
EMBER, CA FIX	SACRAMENTO, CA VORTAC	
	NE BND	2000
	SW BND	3000

95.6152 VOR FEDERAL AIRWAY V152

ST PETERSBURG, FL VORTAC	JENSN, FL FIX	*4000
*2500 - MOCA		
*2500 - GNSS MEA		
JENSN, FL FIX	KIZER, FL FIX	#GNSS - 2800
#ORMOND BEACH R-211 UNUSABLE BYD 26NM		
KIZER, FL FIX	ORMOND BEACH, FL VORTAC	
	NE BND	*3600
	SW BND	*5000
*2800 - MOCA		

95.6154 VOR FEDERAL AIRWAY V154

ROME, GA VORTAC	MACON, GA VORTAC	*4000
*3400 - MOCA		MAA - 7000
MACON, GA VORTAC	DUBLIN, GA VORTAC	#2300
#MACON R-099 UNUSABLE USE DUBLIN R-286		
DUBLIN, GA VORTAC	OCONE, GA FIX	#
#UNUSABLE		
OCONE, GA FIX	EHEJO, GA FIX	#
#UNUSABLE		
EHEJO, GA FIX	*LOTTTS, GA FIX	#
*11000 - MRA		
#UNUSABLE		
LOTTTS, GA FIX	SAVANNAH, GA VORTAC	*3000
*1800 - MOCA		

95.6155 VOR FEDERAL AIRWAY V155

COLUMBUS, GA VORTAC	GRANT, GA FIX	*3000
*2400 - MOCA		
GRANT, GA FIX	*SMARR, GA FIX	**4000
*4500 - MCA SMARR, GA FIX , NE BND		
**2500 - MOCA		
**2600 - GNSS MEA		
SMARR, GA FIX	*SINCA, GA FIX	**4500
*4500 - MCA SINCA, GA FIX , SW BND		
**2500 - MOCA		
**2500 - GNSS MEA		
SINCA, GA FIX	BEYLO, GA FIX	*5000
*2400 - MOCA		
*2400 - GNSS MEA		
BEYLO, GA FIX	COLLIERS, SC VORTAC	*3000
*2100 - MOCA		
COLLIERS, SC VORTAC	*WIDER, SC FIX	2500
*4000 - MRA		
WIDER, SC FIX	*BLOTS, SC FIX	2500
*4000 - MRA		
BLOTS, SC FIX	CHESTERFIELD, SC VOR/DME	2300
CHESTERFIELD, SC VOR/DME	LILLS, NC FIX	2300
LILLS, NC FIX	SANDHILLS, NC VORTAC	*8000
*2000 - MOCA		
*2400 - GNSS MEA		

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95.6155 VOR FEDERAL AIRWAY V155 - CONTINUED

SANDHILLS, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	2500
RALEIGH/DURHAM, NC VORTAC	WIPER, NC FIX	2300
WIPER, NC FIX	LAWRENCEVILLE, VA VORTAC	#*8000
*2000 - MOCA		
*2300 - GNSS MEA		
#LAWRENCEVILLE R-225 UNUSABLE, USE RALEIGH/DURHAM R-046		
LAWRENCEVILLE, VA VORTAC	*MANGE, VA FIX	**4000
*5000 - MRA		
**2000 - GNSS MEA		
#LAWRENCEVILLE R-042 UNUSABLE, USE RICHMOND R-223		
MANGE, VA FIX	FLAT ROCK, VA VORTAC	*5000
*1800 - MOCA		
*2000 - GNSS MEA		
FLAT ROCK, VA VORTAC	FALKO, VA FIX	2000
FALKO, VA FIX	BROOKE, VA VORTAC	*6000
*1700 - MOCA		
*2000 - GNSS MEA		

95.6156 VOR FEDERAL AIRWAY V156

CEDAR RAPIDS, IA VOR/DME	MOSCO, IA FIX	3200
MOSCO, IA FIX	MOLINE, IL VOR/DME	2600
MOLINE, IL VOR/DME	BRADFORD, IL VORTAC	2800
BRADFORD, IL VORTAC	PEOTONE, IL VORTAC	2700
PEOTONE, IL VORTAC	LUCIT, IN FIX	2500
LUCIT, IN FIX	MAPPS, IN FIX	*4000
*2400 - MOCA		
MAPPS, IN FIX	KNOX, IN VOR/DME	*3000
*2200 - MOCA		
KNOX, IN VOR/DME	GIPPER, MI VORTAC	2600
GIPPER, MI VORTAC	KALAMAZOO, MI VOR/DME	3000

95.6157 VOR FEDERAL AIRWAY V157

KEY WEST, FL VORTAC	DVALL, FL FIX	*5000
*1400 - MOCA		
*3000 - GNSS MEA		
DVALL, FL FIX	*FAMIN, FL FIX	**5000
*5700 - MRA		
**1300 - MOCA		
**3000 - GNSS MEA		
FAMIN, FL FIX	DOLPHIN, FL VORTAC	*5000
*1600 - MOCA		
*3000 - GNSS MEA		
DOLPHIN, FL VORTAC	THNDR, FL FIX	*3000
*1500 - MOCA		
THNDR, FL FIX	LA BELLE, FL VORTAC	*3000
*1600 - MOCA		
LA BELLE, FL VORTAC	RINSE, FL FIX	*2000
*1500 - MOCA		
RINSE, FL FIX	LAKELAND, FL VORTAC	2300
LAKELAND, FL VORTAC	OCALA, FL VORTAC	2000
OCALA, FL VORTAC	TAYLOR, FL VORTAC	2000
TAYLOR, FL VORTAC	WAYCROSS, GA VORTAC	2300
WAYCROSS, GA VORTAC	ALMA, GA VORTAC	#2000
#ALMA R-189 UNUSABLE USE WAYCROSS R-009.		
ALMA, GA VORTAC	*LOTTTS, GA FIX	**10000
*11000 - MRA		
*11000 - MCA LOTTS, GA FIX , NE BND		
**2000 - GNSS MEA		

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95.6157 VOR FEDERAL AIRWAY V157 - CONTINUED

LOTS, GA FIX	ALLENDALE, SC VOR	*11000
*1800 - MOCA		
*2000 - GNSS MEA		
ALLENDALE, SC VOR	*VANCE, SC VORTAC	**6000
*13000 - MCA VANCE, SC VORTAC , NE BND		
**2000 - GNSS MEA		
VANCE, SC VORTAC	*FLORENCE, SC VORTAC	***13000
*12000 - MCA FLORENCE, SC VORTAC , SW BND		
**2000 - GNSS MEA		
#VANCE R-047 UNUSABLE, USE FLORENCE R-224.		
FLORENCE, SC VORTAC	FAYETTEVILLE, NC VOR/DME	2300
FAYETTEVILLE, NC VOR/DME	KINSTON, NC VORTAC	*2000
*1900 - MOCA		
KINSTON, NC VORTAC	TAR RIVER, NC VORTAC	2200
TAR RIVER, NC VORTAC	LAWRENCEVILLE, VA VORTAC	#*4500
*2500 - MOCA		
#LAWRENCEVILLE R-177 UNUSABLE BELOW 6000, USE TAR RIVER R-354.		
LAWRENCEVILLE, VA VORTAC	DALTO, VA FIX	#*4000
*2000 - GNSS MEA		
#LAWRENCEVILLE R-042 UNUSABLE.		
DALTO, VA FIX	RICHMOND, VA VORTAC	2000
RICHMOND, VA VORTAC	*TAPPA, VA FIX	2000
*5000 - MCA TAPPA, VA FIX , NE BND		
TAPPA, VA FIX	PATUXENT, MD VORTAC	*5000
*1500 - MOCA		
*2000 - GNSS MEA		
PATUXENT, MD VORTAC	*GARED, MD FIX	**4500
*8000 - MRA		
**1500 - MOCA		
**4000 - GNSS MEA		
GARED, MD FIX	CHOPS, MD FIX	*4500
*1500 - MOCA		
*4000 - GNSS MEA		
CHOPS, MD FIX	SMYRNA, DE VORTAC	*2000
*1500 - MOCA		
SMYRNA, DE VORTAC	WOODSTOWN, NJ VORTAC	*1900
*1500 - MOCA		
WOODSTOWN, NJ VORTAC	ROBBINSVILLE, NJ VORTAC	*3000
*2000 - MOCA		
ROBBINSVILLE, NJ VORTAC	MINKS, NJ FIX	2000
MINKS, NJ FIX	LA GUARDIA, NY VOR/DME	2900
LA GUARDIA, NY VOR/DME	FAMMA, NY FIX	2000
FAMMA, NY FIX	HAARP, CT FIX	3000
HAARP, CT FIX	KINGSTON, NY VOR/DME	*7000
*2800 - MOCA		
*4000 - GNSS MEA		
KINGSTON, NY VOR/DME	*WIGAN, NY FIX	3100
*8000 - MCA WIGAN, NY FIX , N BND		
WIGAN, NY FIX	GROUP, NY FIX	*8000
*3000 - GNSS MEA		
GROUP, NY FIX	*ALBANY, NY VORTAC	**6000
*6000 - MCA ALBANY, NY VORTAC , S BND		
**2800 - GNSS MEA		

95.6158 VOR FEDERAL AIRWAY V158

MASON CITY, IA VOR/DME	POUND, IA FIX	3000
POUND, IA FIX	DUBUQUE, IA VORTAC	*6000
*3100 - MOCA		

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95.6158 VOR FEDERAL AIRWAY V158 - CONTINUED

DUBUQUE, IA VORTAC	POLO, IL VOR/DME	2800
POLO, IL VOR/DME	SHOOF, IL FIX	2700

95.6159 VOR FEDERAL AIRWAY V159

VIRGINIA KEY, FL VOR/DME	*NITNY, FL FIX	2100
*3000 - MCA NITNY, FL FIX , N BND		
NITNY, FL FIX	JUPEM, FL FIX	3000
JUPEM, FL FIX	TREASURE, FL VORTAC	2600
TREASURE, FL VORTAC	*PRESK, FL FIX	3000
*2500 - MRA		
PRESK, FL FIX	ORLANDO, FL VORTAC	2000
ORLANDO, FL VORTAC	*SHIMM, FL FIX	2000
*3000 - MRA		
SHIMM, FL FIX	OCALA, FL VORTAC	2000
OCALA, FL VORTAC	*PERSE, FL FIX	2000
*3000 - MRA		
PERSE, FL FIX	*WILON, FL FIX	2000
*3000 - MRA		
WILON, FL FIX	CROSS CITY, FL VORTAC	2000
CROSS CITY, FL VORTAC	GREENVILLE, FL VORTAC	2000
GREENVILLE, FL VORTAC	*SALER, GA FIX	2500
*3000 - MRA		
SALER, GA FIX	PECAN, GA VOR/DME	*2000
*1700 - MOCA		
PECAN, GA VOR/DME	*SHANY, GA FIX	2200
*4000 - MRA		
SHANY, GA FIX	EUFULA, AL VORTAC	2200
EUFULA, AL VORTAC	TUSKEGEE, AL VOR/DME	2000
TUSKEGEE, AL VOR/DME	KENTT, AL FIX	*2600
*1900 - MOCA		
KENTT, AL FIX	KYLEE, AL FIX	3800
KYLEE, AL FIX	VULCAN, AL VORTAC	3800
HOLLY SPRINGS, MS VORTAC	GILMORE, AR VOR/DME	2500
GILMORE, AR VOR/DME	WALNUT RIDGE, AR VORTAC	2800
WALNUT RIDGE, AR VORTAC	DOGWOOD, MO VORTAC	*3400
*3000 - MOCA		
DOGWOOD, MO VORTAC	SPRINGFIELD, MO VORTAC	4300
SPRINGFIELD, MO VORTAC	*OLIVA, MO FIX	**3000
*6000 - MRA		
**2500 - MOCA		
OLIVA, MO FIX	TRALE, MO FIX	*3000
*2500 - MOCA		
TRALE, MO FIX	AUGIE, MO FIX	*3000
*2500 - MOCA		
AUGIE, MO FIX	HODEN, MO FIX	2700
HODEN, MO FIX	NAPOLEON, MO VORTAC	*3000
*2400 - MOCA		
NAPOLEON, MO VORTAC	ST JOSEPH, MO VORTAC	2900
ST JOSEPH, MO VORTAC	VIKKI, IA FIX	3000
VIKKI, IA FIX	OMAHA, IA VORTAC	3400

95.6160 VOR FEDERAL AIRWAY V160

*BLUE MESA, CO VOR/DME	MURFE, CO FIX	16400
*13100 - MCA BLUE MESA, CO VOR/DME , NE BND		
MURFE, CO FIX	*LARKS, CO FIX	**15000
*15600 - MRA		
**14400 - MOCA		

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95.6160 VOR FEDERAL AIRWAY V160 - CONTINUED

LARKS, CO FIX	*SIGNE, CO FIX	**14400
*11500 - MCA SIGNE, CO FIX , SW BND		
**13800 - MOCA		
SIGNE, CO FIX	FALCON, CO VORTAC	8800
FALCON, CO VORTAC	WITNE, CO FIX	8000
WITNE, CO FIX	SAYGE, CO FIX	*8000
*7200 - MOCA		
SAYGE, CO FIX	TUMBL, CO FIX	*8000
*6800 - MOCA		
TUMBL, CO FIX	SIDNEY, NE VOR/DME	*8000
*6800 - MOCA		

95.6161 VOR FEDERAL AIRWAY V161

THREE RIVERS, TX VORTAC	LEMIG, TX FIX	2000
LEMIG, TX FIX	CENTER POINT, TX VORTAC	4000
CENTER POINT, TX VORTAC	LLANO, TX VORTAC	4000
LLANO, TX VORTAC	BUILT, TX FIX	*6000
*3200 - MOCA		
BUILT, TX FIX	DUFFA, TX FIX	*6000
*2900 - MOCA		
DUFFA, TX FIX	MILLSAP, TX VORTAC	3000
MILLSAP, TX VORTAC	BOWIE, TX VORTAC	3000
BOWIE, TX VORTAC	ARDMORE, OK VORTAC	3000
ARDMORE, OK VORTAC	OKMULGEE, OK VOR/DME	3000
OKMULGEE, OK VOR/DME	TULSA, OK VORTAC	3200
TULSA, OK VORTAC	NOVEL, OK FIX	3100
NOVEL, OK FIX	OSWEGO, KS VOR/DME	2800
OSWEGO, KS VOR/DME	NALLY, KS FIX	*3000
*2400 - MOCA		
NALLY, KS FIX	BUTLER, MO VORTAC	*3000
*2500 - MOCA		
BUTLER, MO VORTAC	NAPOLEON, MO VORTAC	2900
NAPOLEON, MO VORTAC	LAMONI, IA VOR/DME	2900
LAMONI, IA VOR/DME	*WIVEY, IA FIX	3000
*4300 - MRA		
WIVEY, IA FIX	DES MOINES, IA VORTAC	3000
DES MOINES, IA VORTAC	*ANKEN, IA FIX	2700
*3500 - MCA ANKEN, IA FIX , N BND		
ANKEN, IA FIX	NEVAD, IA FIX	4000
NEVAD, IA FIX	ALOCK, IA FIX	*3300
*2700 - MOCA		
ALOCK, IA FIX	MASON CITY, IA VOR/DME	3000
MASON CITY, IA VOR/DME	ROCHESTER, MN VOR/DME	3000
ROCHESTER, MN VOR/DME	*CORDY, MN FIX	3000
*4000 - MRA		
CORDY, MN FIX	FARMINGTON, MN VORTAC	3000
FARMINGTON, MN VORTAC	GOPHER, MN VORTAC	*3500
*2700 - MOCA		
INTERNATIONAL FALLS, MN VOR/DME	U.S. CANADIAN BORDER	3000
U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	*11000
*2400 - MOCA		

95.6162 VOR FEDERAL AIRWAY V162

HARRISBURG, PA VORTAC	BOBSS, PA FIX	#
#UNUSABLE		
BOBSS, PA FIX	EAST TEXAS, PA VOR/DME	3000
EAST TEXAS, PA VOR/DME	ALLENTOWN, PA VORTAC	#3000
#ALLENTOWN R-240 UNUSABLE BELOW 9000 USE EAST TEXAS R-059		

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95.6162 VOR FEDERAL AIRWAY V162 - CONTINUED

ALLENTOWN, PA VORTAC	HUGUENOT, NY VOR/DME	3500
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95.6163 VOR FEDERAL AIRWAY V163

U.S. MEXICAN BORDER *1400 - MOCA	BROWNSVILLE, TX VORTAC	*2000
BROWNSVILLE, TX VORTAC	RELAX, TX FIX	1800
RELAX, TX FIX *1800 - MOCA *1800 - GNSS MEA	MANNY, TX FIX	*5000
MANNY, TX FIX *1500 - MOCA	ASCOT, TX FIX	*5000
ASCOT, TX FIX	SOLON, TX FIX N BND S BND	*4000 *5000
*1600 - MOCA		
SOLON, TX FIX	CORPUS CHRISTI, TX VORTAC	1800
CORPUS CHRISTI, TX VORTAC	SINTO, TX FIX	1800
SINTO, TX FIX	THREE RIVERS, TX VORTAC	2000
THREE RIVERS, TX VORTAC	YENNS, TX FIX S BND N BND	2000 3000
YENNS, TX FIX *2500 - MOCA	SAN ANTONIO, TX VORTAC	*3000
SAN ANTONIO, TX VORTAC *2900 - MOCA	SLIMM, TX FIX	*3500
SLIMM, TX FIX *3000 - MOCA	GOOCH SPRINGS, TX VORTAC	*3500

95.6164 VOR FEDERAL AIRWAY V164

STONYFORK, PA VOR/DME	WILLIAMSPORT, PA VOR/DME	4000
WILLIAMSPORT, PA VOR/DME	DIANO, PA FIX	4000
DIANO, PA FIX *3500 - MOCA	EAST TEXAS, PA VOR/DME	*4000

95.6165 VOR FEDERAL AIRWAY V165

MISSION BAY, CA VORTAC	SARGS, CA FIX	3000
SARGS, CA FIX	OCEANSIDE, CA VORTAC	2500
OCEANSIDE, CA VORTAC	BALBO, CA FIX	4000
BALBO, CA FIX	SEAL BEACH, CA VORTAC NW BND SE BND	3000 4000
SEAL BEACH, CA VORTAC	LOS ANGELES, CA VORTAC	2500
LOS ANGELES, CA VORTAC *5600 - MCA VALEY, CA FIX , N BND	*VALEY, CA FIX	4000
VALEY, CA FIX *6600 - MCA SAUGS, CA FIX , NW BND	*SAUGS, CA FIX	6000
SAUGS, CA FIX	LAKE HUGHES, CA VORTAC	8000
LAKE HUGHES, CA VORTAC	JEFFY, CA FIX	8000
JEFFY, CA FIX *8600 - MCA LOPES, CA FIX , S BND	*LOPES, CA FIX	9000
LOPES, CA FIX *7300 - MCA ARVIN, CA FIX , SE BND	*ARVIN, CA FIX	8500
ARVIN, CA FIX	SHAFTER, CA VORTAC	3000
SHAFTER, CA VORTAC	TULE, CA VOR/DME	3000
TULE, CA VOR/DME	EXTRA, CA FIX	3500
MARRI, CA FIX *10000 - MCA MUSTANG, NV VORTAC , S BND **11000 - MOCA	*MUSTANG, NV VORTAC	**13000

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95.6165 VOR FEDERAL AIRWAY V165 - CONTINUED

MUSTANG, NV VORTAC *9700 - MOCA *10000 - GNSS MEA	PYRAM, NV FIX	*11000
PYRAM, NV FIX	BINNZ, NV FIX NW BND SE BND	*14000 *12000
*11000 - MOCA *11000 - GNSS MEA		
BINNZ, NV FIX *12200 - MOCA	CHOIR, CA FIX	*14000
CHOIR, CA FIX	LAKEVIEW, OR VORTAC SE BND NW BND	*14000 *11000
*10500 - MOCA		
LAKEVIEW, OR VORTAC	URBIA, OR FIX	9500
URBIA, OR FIX	*DESCHUTES, OR VORTAC SE BND NW BND	9500 7000
*9300 - MCA DESCHUTES, OR VORTAC , NW BND		
DESCHUTES, OR VORTAC	BOTTL, OR FIX NW BND SE BND	12500 7000
BOTTL, OR FIX	WALDO, OR FIX	12500
WALDO, OR FIX	ELKES, OR FIX NW BND SE BND	7800 12500
ELKES, OR FIX	*MAVER, OR FIX SE BND NW BND	12500 7000
*9400 - MCA MAVER, OR FIX , SE BND		
MAVER, OR FIX	RAWER, OR FIX	*5000
*3600 - MOCA		
RAWER, OR FIX	NEWBERG, OR VOR/DME	4000
NEWBERG, OR VOR/DME	PITER, OR FIX	4000
PITER, OR FIX	CETRA, WA FIX	6000
CETRA, WA FIX	OLYMPIA, WA VORTAC N BND S BND	4000 6000
OLYMPIA, WA VORTAC	*CARRO, WA FIX	**4000
*4000 - MRA **2000 - MOCA		
CARRO, WA FIX	DIGGN, WA FIX	*6000
*5000 - MOCA		
DIGGN, WA FIX	PENN COVE, WA VOR/DME	*5000
*2600 - MOCA		
PENN COVE, WA VOR/DME	ISLND, WA FIX	*5000
*1500 - MOCA		
ISLND, WA FIX	CANDL, WA FIX	*5000
*2800 - MOCA		
CANDL, WA FIX	WHATCOM, WA VORTAC	*4000
*1900 - MOCA		

95.6166 VOR FEDERAL AIRWAY V166

PARKERSBURG, WV VOR/DME	MOSIC, WV FIX	3000
MOSIC, WV FIX	CLARKSBURG, WV VOR/DME	*3600
*3100 - MOCA		
CLARKSBURG, WV VOR/DME	TYGAR, WV FIX	3600
TYGAR, WV FIX	UGJOB, WV FIX	4700

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95.6166 VOR FEDERAL AIRWAY V166 - CONTINUED

UGJOB, WV FIX	KESSEL, WV VOR/DME	6300
KESSEL, WV VOR/DME	CAPON, WV FIX	*5000
*4500 - MOCA		
CAPON, WV FIX	MARTINSBURG, WV VORTAC	*5000
*3500 - MOCA		
MARTINSBURG, WV VORTAC	WESTMINSTER, MD VORTAC	*4000
*3300 - MOCA		
WESTMINSTER, MD VORTAC	BELAY, MD FIX	*3000
*2500 - MOCA		
BELAY, MD FIX	*BAINS, MD FIX	2000
*6000 - MRA		
BAINS, MD FIX	DUPONT, DE VORTAC	2000
DUPONT, DE VORTAC	WOODSTOWN, NJ VORTAC	2000
		MAA - 8000
WOODSTOWN, NJ VORTAC	BRIEF, NJ FIX	1900
BRIEF, NJ FIX	SEA ISLE, NJ VORTAC	3000

95.6167 VOR FEDERAL AIRWAY V167

HANCOCK, NY VOR/DME	HELON, NY FIX	4100
HELON, NY FIX	KINGSTON, NY VOR/DME	4000
KINGSTON, NY VOR/DME	HARTFORD, CT VOR/DME	3200
HARTFORD, CT VOR/DME	JEWIT, CT FIX	*2600
*2100 - MOCA		
JEWIT, CT FIX	PROVIDENCE, RI VOR/DME	2500
PROVIDENCE, RI VOR/DME	ZUNUX, MA FIX	*2500
*1800 - MOCA		
ZUNUX, MA FIX	PEAKE, MA FIX	*3000
*1800 - MOCA		
PEAKE, MA FIX	MARCONI, MA VOR/DME	#
#UNUSABLE		
MARCONI, MA VOR/DME	KENNEBUNK, ME VOR/DME	*6000
*1600 - MOCA		
*4000 - GNSS MEA		

95.6168 VOR FEDERAL AIRWAY V168

VULCAN, AL VORTAC	LAGRANGE, GA VORTAC	4000
LAGRANGE, GA VORTAC	*MILER, AL FIX	2600
*6000 - MCA MILER, AL FIX , S BND		
*2600 - MCA MILER, AL FIX , N BND		
MILER, AL FIX	*WIREGRASS, AL VORTAC	**6000
*6000 - MCA WIREGRASS, AL VORTAC , N BND		
**3000 - GNSS MEA		

95.6169 VOR FEDERAL AIRWAY V169

TOBE, CO VOR/DME	HUGO, CO VOR/DME	8100
HUGO, CO VOR/DME	THURMAN, CO VORTAC	7300
THURMAN, CO VORTAC	AKRON, CO VOR/DME	*7000
*6200 - MOCA		
AKRON, CO VOR/DME	SIDNEY, NE VOR/DME	*6400
*6200 - MOCA		
SIDNEY, NE VOR/DME	SCOTTSBLUFF, NE VORTAC	*7000
*6000 - MOCA		
SCOTTSBLUFF, NE VORTAC	TOADSTOOL, NE VOR/DME	7000
TOADSTOOL, NE VOR/DME	WAXER, NE FIX	7000
WAXER, NE FIX	RAPID CITY, SD VORTAC	6000
RAPID CITY, SD VORTAC	DUPREE, SD VOR/DME	5000

FROM	TO	MEA
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95.6169 VOR FEDERAL AIRWAY V169 - CONTINUED

DUPREE, SD VOR/DME	BISMARCK, ND VOR/DME	4700
BISMARCK, ND VOR/DME	DEVILS LAKE, ND VOR/DME	4000

95.6170 VOR FEDERAL AIRWAY V170

DEVILS LAKE, ND VOR/DME	JAMESTOWN, ND VOR/DME	3500
JAMESTOWN, ND VOR/DME	ABERDEEN, SD VOR/DME	3300
ABERDEEN, SD VOR/DME	SIOUX FALLS, SD VORTAC	*5000
*3400 - MOCA		
SIOUX FALLS, SD VORTAC	WORTHINGTON, MN VOR/DME	3400
ROCHESTER, MN VOR/DME	NODINE, MN VORTAC	3000
NODINE, MN VORTAC	DELLS, WI VORTAC	3000
DELLS, WI VORTAC	BADGER, WI VOR/DME	3000
BADGER, WI VOR/DME	PETTY, WI FIX	2700
PETTY, WI FIX	BRAVE, WI FIX	#
#UNUSABLE		
BRAVE, WI FIX	PAITN, MI FIX	#
#UNUSABLE		
PAITN, MI FIX	RAINE, MI WP	#
#UNUSABLE		
RAINE, MI WP	PULLMAN, MI VOR/DME	#
#UNUSABLE		
PULLMAN, MI VOR/DME	OSEGO, MI FIX	#
#UNUSABLE		
OSEGO, MI FIX	HEBEL, MI FIX	#
#UNUSABLE		
HEBEL, MI FIX	BEJAE, MI FIX	#
#UNUSABLE		
BEJAE, MI FIX	POSIE, MI FIX	#
#UNUSABLE		
POSIE, MI FIX	LESSY, MI FIX	#
#UNUSABLE		
LESSY, MI FIX	SALEM, MI VORTAC	3000
SLATE RUN, PA VORTAC	SELINGSGROVE, PA VOR/DME	4000
SELINGSGROVE, PA VOR/DME	RAVINE, PA VORTAC	*4000
*3400 - MOCA		
RAVINE, PA VORTAC	BOYER, PA FIX	3500
BOYER, PA FIX	MODENA, PA VORTAC	*3000
*2400 - MOCA		
MODENA, PA VORTAC	DUPONT, DE VORTAC	*3000
*1800 - MOCA		
*2000 - GNSS MEA		
DUPONT, DE VORTAC	ODESA, MD FIX	#*2000
*2000 - GNSS MEA		
#DUPONT R 233 UNUSABLE BEYOND 22 NM.		
ODESA, MD FIX	KERNO, MD FIX	#
#UNUSABLE		
KERNO, MD FIX	GATBY, MD FIX	#
#UNUSABLE		
GATBY, MD FIX	SWANN, MD FIX	#
#UNUSABLE		
SWANN, MD FIX	PALEO, MD FIX	#
#UNUSABLE		
PALEO, MD FIX	POLLA, MD FIX	2200
		MAA - 13000

95.6171 VOR FEDERAL AIRWAY V171

LEXINGTON, KY VOR/DME	MCFEE, KY FIX	3000
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FROM	TO	MEA
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95.6171 VOR FEDERAL AIRWAY V171 - CONTINUED

MCREE, KY FIX	LOUISVILLE, KY VORTAC	2600
LOUISVILLE, KY VORTAC	SCOTO, IN FIX	*10000
*3000 - MOCA		
SCOTO, IN FIX	TERRE HAUTE, IN VORTAC	*4000
*3000 - MOCA		
TERRE HAUTE, IN VORTAC	DANVILLE, IL VORTAC	2500
DANVILLE, IL VORTAC	PEOTONE, IL VORTAC	2500
PEOTONE, IL VORTAC	MEDAN, IL FIX	2400
MEDAN, IL FIX	JOLIET, IL VOR/DME	2400
JOLIET, IL VOR/DME	ROCKFORD, IL VOR/DME	2700
NODINE, MN VORTAC	EMILS, MN FIX	3000
EMILS, MN FIX	FARMINGTON, MN VORTAC	*5500
*3000 - GNSS MEA		
FARMINGTON, MN VORTAC	JONNA, MN FIX	*3500
*2500 - MOCA		
*3000 - GNSS MEA		
JONNA, MN FIX	DARWIN, MN VORTAC	2900
DARWIN, MN VORTAC	ALEXANDRIA, MN VOR/DME	3000
ALEXANDRIA, MN VOR/DME	STARR, MN FIX	*3500
*3000 - MOCA		
STARR, MN FIX	*SHELS, MN FIX	**6000
*4000 - MRA		
**3500 - MOCA		
SHELS, MN FIX	GRAND FORKS, ND VOR/DME	3000
GRAND FORKS, ND VOR/DME	ROSEAU, MN VOR/DME	2900

95.6172 VOR FEDERAL AIRWAY V172

NORTH PLATTE, NE VOR/DME	WOLBACH, NE VORTAC	*5400
*4500 - MOCA		
WOLBACH, NE VORTAC	COLUMBUS, NE VOR/DME	3800
COLUMBUS, NE VOR/DME	OMAHA, IA VORTAC	3700
OMAHA, IA VORTAC	WUNOT, IA FIX	
	NE BND	5500
	SW BND	4000
WUNOT, IA FIX	*LINDE, IA FIX	**5500
*5500 - MRA		
**3800 - MOCA		
LINDE, IA FIX	GUMBO, IA FIX	3500
GUMBO, IA FIX	NEWTON, IA VOR/DME	3300
NEWTON, IA VOR/DME	CEDAR RAPIDS, IA VOR/DME	2800
CEDAR RAPIDS, IA VOR/DME	LISBO, IA FIX	2700
LISBO, IA FIX	LOTTE, IA FIX	3300
LOTTE, IA FIX	*MIHAL, IL FIX	2700
*4000 - MRA		
MIHAL, IL FIX	POLO, IL VOR/DME	2700
POLO, IL VOR/DME	DUPAGE, IL VOR/DME	2600

95.6173 VOR FEDERAL AIRWAY V173

SPINNER, IL VORTAC	PEOTONE, IL VORTAC	*4500
*2300 - MOCA		

95.6174 VOR FEDERAL AIRWAY V174

YORK, KY VORTAC	HENDERSON, WV VORTAC	3300
HENDERSON, WV VORTAC	GAYED, WV FIX	*4000
*2700 - MOCA		
GAYED, WV FIX	CARLA, WV FIX	5500

FROM	TO	MEA
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95.6174 VOR FEDERAL AIRWAY V174 - CONTINUED

CARLA, WV FIX	ELKINS, WV VORTAC	5500
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95.6175 VOR FEDERAL AIRWAY V175

MALDEN, MO VORTAC	BUNKS, MO FIX	*4000
*2700 - MOCA		
BUNKS, MO FIX	VICHY, MO VOR/DME	3000
VICHY, MO VOR/DME	ZIPUR, MO FIX	*3000
*2500 - MOCA		
ZIPUR, MO FIX	HALLSVILLE, MO VORTAC	2700
HALLSVILLE, MO VORTAC	MACON, MO VOR/DME	3100
MACON, MO VOR/DME	KIRKSVILLE, MO VORTAC	2700
KIRKSVILLE, MO VORTAC	OHGEE, IA FIX	2800
OHGEE, IA FIX	DES MOINES, IA VORTAC	#*7000
*2500 - MOCA		
#DES MOINES R-141 UNUSABLE, USE KIRKSVILLE R-323		
WORTHINGTON, MN VOR/DME	REDWOOD FALLS, MN VOR/DME	3400
REDWOOD FALLS, MN VOR/DME	ALEXANDRIA, MN VOR/DME	3600

95.6178 VOR FEDERAL AIRWAY V178

HALLSVILLE, MO VORTAC	BNTON, MO FIX	2800
BNTON, MO FIX	VICHY, MO VOR/DME	*2800
*2200 - MOCA		
VICHY, MO VOR/DME	FARMINGTON, MO VORTAC	3300
NEW HOPE, KY VOR/DME	MAUDD, KY FIX	2700
MAUDD, KY FIX	MCREE, KY FIX	5000
MCREE, KY FIX	LEXINGTON, KY VOR/DME	3000
LEXINGTON, KY VOR/DME	TRENT, KY FIX	
	W BND	3400
	E BND	8000
TRENT, KY FIX	SLINK, WV FIX	*8000
*4200 - GNSS MEA		
SLINK, WV FIX	BLUEFIELD, WV VOR/DME	
	E BND	6300
	W BND	8000

95.6179 VOR FEDERAL AIRWAY V179

BRUNSWICK, GA VORTAC	DUBLIN, GA VORTAC	2000
DUBLIN, GA VORTAC	HUSKY, GA FIX	*3000
*2200 - MOCA		

95.6180 VOR FEDERAL AIRWAY V180

INTERNATIONAL FALLS, MN VOR/DME	U.S. CANADIAN BORDER	2900
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95.6181 VOR FEDERAL AIRWAY V181

KIRKSVILLE, MO VORTAC	LAMONI, IA VOR/DME	2900
LAMONI, IA VOR/DME	OMAHA, IA VORTAC	3000
OMAHA, IA VORTAC	NORFOLK, NE VOR/DME	3600
NORFOLK, NE VOR/DME	YANKTON, SD VOR/DME	3700
YANKTON, SD VOR/DME	SIOUX FALLS, SD VORTAC	3400
SIOUX FALLS, SD VORTAC	WATERTOWN, SD VORTAC	4000
WATERTOWN, SD VORTAC	BANEY, ND FIX	4500
BANEY, ND FIX	FARGO, ND VOR/DME	
	N BND	2800
	S BND	3900

FROM	TO	MEA
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95.6181 VOR FEDERAL AIRWAY V181 - CONTINUED

FARGO, ND VOR/DME	GRAND FORKS, ND VOR/DME	2600
GRAND FORKS, ND VOR/DME	HUMBOLDT, MN VORTAC	2600
HUMBOLDT, MN VORTAC	ZOMTA, ND FIX	2800
ZOMTA, ND FIX	U.S. CANADIAN BORDER	2800

95.6182 VOR FEDERAL AIRWAY V182

NORTH BEND, OR VOR/DME	*GAMMA, OR FIX	
	S BND	4000
	N BND	4500
*6200 - MRA		
GAMMA, OR FIX	NEWPORT, OR VORTAC	4500
NEWPORT, OR VORTAC	NEWBERG, OR VOR/DME	6000
NEWBERG, OR VOR/DME	*BATTLE GROUND, WA VORTAC	4100
*5000 - MCA BATTLE GROUND, WA VORTAC , E BND		
BATTLE GROUND, WA VORTAC	KLICKITAT, OR VOR/DME	*7000
*6500 - MOCA		
KLICKITAT, OR VOR/DME	*BREED, OR FIX	5300
*5700 - MRA		
BREED, OR FIX	*UKIAH, OR FIX	8000
*9400 - MCA UKIAH, OR FIX , E BND		
UKIAH, OR FIX	*BAKER CITY, OR VOR/DME	**13000
*10000 - MCA BAKER CITY, OR VOR/DME , W BND		
**11000 - MOCA		
BAKER CITY, OR VOR/DME	*IBEAM, OR FIX	9000
*12000 - MCA IBEAM, OR FIX , NE BND		
IBEAM, OR FIX	LEZLE, WA FIX	*12000
*8100 - MOCA		
LEZLE, WA FIX	NEZ PERCE, ID VOR/DME	*7000
*6200 - MOCA		

95.6183 VOR FEDERAL AIRWAY V183

*SAN MARCUS, CA VORTAC	TAFTO, CA FIX	9000
*7500 - MCA SAN MARCUS, CA VORTAC , N BND		
*TAFTO, CA FIX	MARIC, CA FIX	**6000
*6000 - MCA TAFTO, CA FIX , S BND		
**4500 - MOCA		
*MARIC, CA FIX	SHAFTER, CA VORTAC	3000
*5000 - MCA MARIC, CA FIX , S BND		

95.6184 VOR FEDERAL AIRWAY V184

PHILIPSBURG, PA VORTAC	*HARRISBURG, PA VORTAC	4900
*3600 - MCA HARRISBURG, PA VORTAC , NW BND		
HARRISBURG, PA VORTAC	*DELRO, PA FIX	3000
*10000 - MCA DELRO, PA FIX , E BND		
DELRO, PA FIX	*MODENA, PA VORTAC	**10000
*10000 - MCA MODENA, PA VORTAC , W BND		
**4000 - GNSS MEA		
MODENA, PA VORTAC	WOODSTOWN, NJ VORTAC	2000
WOODSTOWN, NJ VORTAC	CEDAR LAKE, NJ VOR/DME	1900
CEDAR LAKE, NJ VOR/DME	ATLANTIC CITY, NJ VORTAC	1800
ATLANTIC CITY, NJ VORTAC	PANZE, NJ FIX	2100
PANZE, NJ FIX	FALON, NJ FIX	*5000
*1500 - MOCA		
*2000 - GNSS MEA		
FALON, NJ FIX	ZIGGI, NJ FIX	*2500
*1600 - MOCA		

FROM	TO	MEA
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95.6185 VOR FEDERAL AIRWAY V185

SAVANNAH, GA VORTAC	*SPONG, GA FIX	**3000
*5000 - MRA		
**2200 - MOCA		
SPONG, GA FIX	COLLIERS, SC VORTAC	*3000
*2200 - MOCA		
COLLIERS, SC VORTAC	GREENWOOD, SC VORTAC	2400
GREENWOOD, SC VORTAC	*UNMAN, SC FIX	3000
*4000 - MCA UNMAN, SC FIX , N BND		
UNMAN, SC FIX	SUGARLOAF MOUNTAIN, NC VORTAC	6000
SUGARLOAF MOUNTAIN, NC VORTAC	MUMMI, NC FIX	7000
MUMMI, NC FIX	SNOWBIRD, TN VORTAC	8000
SNOWBIRD, TN VORTAC	*PENCE, TN FIX	7000
*4000 - MCA PENCE, TN FIX , SE BND		
PENCE, TN FIX	VOLUNTEER, TN VORTAC	3000

95.6186 VOR FEDERAL AIRWAY V186

SAN MARCUS, CA VORTAC	DEANO, CA FIX	6200
DEANO, CA FIX	*HENER, CA FIX	5000
*5100 - MCA HENER, CA FIX , E BND		
HENER, CA FIX	FILLMORE, CA VORTAC	6300
FILLMORE, CA VORTAC	VAN NUYS, CA VOR/DME	6000
VAN NUYS, CA VOR/DME	TIFNI, CA FIX	5500
TIFNI, CA FIX	PARADISE, CA VORTAC	4000
PARADISE, CA VORTAC	TANNR, CA FIX	6000
TANNR, CA FIX	POGGL, CA VORTAC	5000

95.6187 VOR FEDERAL AIRWAY V187

SOCORRO, NM VORTAC	ALBUQUERQUE, NM VORTAC	8000
ALBUQUERQUE, NM VORTAC	*CURLY, NM FIX	9000
*9500 - MCA CURLY, NM FIX , NW BND		
CURLY, NM FIX	MISSY, NM FIX	11000
MISSY, NM FIX	RATTLESNAKE, NM VORTAC	
	NW BND	9100
	SE BND	11000
RATTLESNAKE, NM VORTAC	RIZAL, CO FIX	9200
RIZAL, CO FIX	*MANCA, CO FIX	10900
*11200 - MCA MANCA, CO FIX , N BND		
MANCA, CO FIX	HERRM, CO FIX	#*15000
*12800 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
HERRM, CO FIX	*GRAND JUNCTION, CO VOR/DME	**15000
*10700 - MCA GRAND JUNCTION, CO VOR/DME , S BND		
**12100 - MOCA		
GRAND JUNCTION, CO VOR/DME	*TESSY, CO FIX	10000
*10500 - MRA		
*10700 - MCA TESSY, CO FIX , N BND		
TESSY, CO FIX	*RACER, CO FIX	**12000
*12000 - MRA		
**11000 - MOCA		
RACER, CO FIX	*RENAE, CO FIX	**13000
*13000 - MRA		
**10700 - MOCA		
RENAE, CO FIX	ROCK SPRINGS, WY VOR/DME	*13000
*11700 - MOCA		
ROCK SPRINGS, WY VOR/DME	RIVERTON, WY VOR/DME	*12000
*10000 - MOCA		
*10000 - GNSS MEA		

FROM	TO	MEA
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95.6187 VOR FEDERAL AIRWAY V187 - CONTINUED

RIVERTON, WY VOR/DME	BOYSEN RESERVOIR, WY VOR/DME	9600
BOYSEN RESERVOIR, WY VOR/DME	PRYER, MT FIX	11000
PRYER, MT FIX	*BILLINGS, MT VORTAC	
	SE BND	11000
	NW BND	7000
*6500 - MCA BILLINGS, MT VORTAC , S BND		
BILLINGS, MT VORTAC	TASSE, MT FIX	
	NW BND	8000
	SE BND	6200
TASSE, MT FIX	*JUGAP, MT FIX	8000
*11200 - MCA JUGAP, MT FIX , NW BND		
JUGAP, MT FIX	GREAT FALLS, MT VORTAC	13000
GREAT FALLS, MT VORTAC	ROSOE, MT FIX	
	NE BND	8000
	SW BND	10000
ROSOE, MT FIX	MISSOULA, MT VOR/DME	*13000
*11400 - MOCA		
MISSOULA, MT VOR/DME	LOLLO, MT FIX	
	NE BND	*10000
	SW BND	*13000
*9300 - MOCA		
LOLLO, MT FIX	RIVAL, MT FIX	
	NE BND	*12000
	SW BND	*13000
*9000 - MOCA		
RIVAL, MT FIX	OFINO, ID FIX	*13000
*9900 - MOCA		
OFINO, ID FIX	NEZ PERCE, ID VOR/DME	
	SW BND	5500
	NE BND	10000
NEZ PERCE, ID VOR/DME	POTOR, WA FIX	*6000
*5400 - MOCA		
POTOR, WA FIX	*DATES, WA FIX	7200
*4500 - MCA DATES, WA FIX , E BND		
DATES, WA FIX	PASCO, WA VOR/DME	4000
PASCO, WA VOR/DME	NIALS, WA FIX	2900
NIALS, WA FIX	FEBUS, WA FIX	4400
FEBUS, WA FIX	*ELLENBURG, WA VOR/DME	6000
*6700 - MCA ELLENBURG, WA VOR/DME , W BND		
ELLENBURG, WA VOR/DME	THICK, WA FIX	
	E BND	7700
	W BND	10000
OLYMPIA, WA VORTAC	RINDS, WA FIX	4000
RINDS, WA FIX	ASTORIA, OR VOR/DME	5000

95.6188 VOR FEDERAL AIRWAY V188

SLATE RUN, PA VORTAC	WILLIAMSPORT, PA VOR/DME	4000
WILLIAMSPORT, PA VOR/DME	SWANK, PA FIX	4500
SWANK, PA FIX	WILKES-BARRE, PA VORTAC	
	E BND	*4000
	W BND	*4500
*3700 - MOCA		
WILKES-BARRE, PA VORTAC	SPARTA, NJ VORTAC	4000
SPARTA, NJ VORTAC	CARMEL, NY VOR/DME	*3000
*2500 - MOCA		
CARMEL, NY VOR/DME	GROTON, CT VOR/DME	3000

95.6189 VOR FEDERAL AIRWAY V189

WRIGHT BROTHERS, NC VOR/DME	*DAREZ, NC FIX	**8000
*8000 - MCA DAREZ, NC FIX , E BND		
**3000 - GNSS MEA		

FROM	TO	MEA
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95.6189 VOR FEDERAL AIRWAY V189 - CONTINUED

DAREZ, NC FIX	TAR RIVER, NC VORTAC	*6000
*3000 - MOCA		
*4000 - GNSS MEA		
TAR RIVER, NC VORTAC	FRANKLIN, VA VORTAC	2000
FRANKLIN, VA VORTAC	HOPEWELL, VA VORTAC	3000

95.6190 VOR FEDERAL AIRWAY V190

PHOENIX, AZ VORTAC	*LAKEY, AZ FIX	5000
*7800 - MCA LAKEY, AZ FIX , NE BND		
LAKEY, AZ FIX	GRINE, AZ FIX	
	NE BND	*9000
	SW BND	*6000
*5300 - MOCA		
GRINE, AZ FIX	PEAKS, AZ FIX	*10000
*6700 - MOCA		
PEAKS, AZ FIX	TEDDI, AZ FIX	
	NE BND	13000
	SW BND	10000
TEDDI, AZ FIX	ST JOHNS, AZ VORTAC	*13000
*11000 - MOCA		
*11000 - GNSS MEA		
ST JOHNS, AZ VORTAC	ACOMA, NM FIX	11500
ACOMA, NM FIX	*ALBUQUERQUE, NM VORTAC	9000
*11500 - MCA ALBUQUERQUE, NM VORTAC , NE BND		
ALBUQUERQUE, NM VORTAC	RENCO, NM FIX	13000
RENCO, NM FIX	*FORT UNION, NM VORTAC	12000
*11300 - MCA FORT UNION, NM VORTAC , SW BND		
FORT UNION, NM VORTAC	DALHART, TX VORTAC	*10000
*9200 - MOCA		
DALHART, TX VORTAC	MITBEE, OK VORTAC	*7000
*5400 - MOCA		
MITBEE, OK VORTAC	CARON, OK FIX	
	SW BND	*5000
	NE BND	*8000
*3700 - MOCA		
CARON, OK FIX	FIRET, OK FIX	*8000
*2800 - MOCA		
FIRET, OK FIX	PIONEER, OK VORTAC	
	E BND	3000
	W BND	8000
PIONEER, OK VORTAC	BARTLESVILLE, OK VOR/DME	3000
BARTLESVILLE, OK VOR/DME	OSWEGO, KS VOR/DME	2700
OSWEGO, KS VOR/DME	*WACCO, MO FIX	3100
*3700 - MCA WACCO, MO FIX , E BND		
WACCO, MO FIX	*QUALM, MO FIX	**3700
*3700 - MCA QUALM, MO FIX , W BND		
**3000 - MOCA		
QUALM, MO FIX	SPRINGFIELD, MO VORTAC	3000
SPRINGFIELD, MO VORTAC	MAPLES, MO VORTAC	3000
MAPLES, MO VORTAC	BUNKS, MO FIX	3000
BUNKS, MO FIX	FARMINGTON, MO VORTAC	3500
FARMINGTON, MO VORTAC	MARION, IL VOR/DME	3000
MARION, IL VOR/DME	POCKET CITY, IN VORTAC	*5000
*2000 - MOCA		
*2300 - GNSS MEA		

95.6191 VOR FEDERAL AIRWAY V191

TROY, IL VORTAC	ADDERS, IL VORTAC	2500
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FROM

TO

MEA

95.6191 VOR FEDERAL AIRWAY V191 - CONTINUED

ADDERS, IL VORTAC	ROBERTS, IL VOR/DME	2800
ROBERTS, IL VOR/DME	NEWT, IL FIX	2500
NEWT, IL FIX	*BOJAK, IL FIX	**5000
*5000 - MRA		
**2200 - MOCA		
BOJAK, IL FIX	NORTHBROOK, IL VOR/DME	2500
NORTHBROOK, IL VOR/DME	BADGER, WI VOR/DME	2900
BADGER, WI VOR/DME	OSHKOSH, WI VORTAC	3000
OSHKOSH, WI VORTAC	RHINELANDER, WI VOR/DME	*4500
*3100 - MOCA		
RHINELANDER, WI VOR/DME	IRONWOOD, MI VOR/DME	*8000
*3200 - MOCA		
IRONWOOD, MI VOR/DME	DULUTH, MN VORTAC	*3500
*3100 - MOCA		
DULUTH, MN VORTAC	HIBBING, MN VOR/DME	3300
HIBBING, MN VOR/DME	GRAND RAPIDS, MN VOR/DME	3000

95.6192 VOR FEDERAL AIRWAY V192

CHAMPAIGN, IL VORTAC	TERRE HAUTE, IN VORTAC	2500
TERRE HAUTE, IN VORTAC	BRICKYARD, IN VORTAC	2700
BRICKYARD, IN VORTAC	MUNCIE, IN VOR/DME	2900
MUNCIE, IN VOR/DME	DAYTON, OH VOR/DME	2800

95.6193 VOR FEDERAL AIRWAY V193

MUSKY, MI FIX	PULLMAN, MI VOR/DME	#*3000
*2000 - MOCA		
#PULLMAN R-243 UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
PULLMAN, MI VOR/DME	CLOCK, MI FIX	#*3000
*2400 - MOCA		
#PULLMAN R-029 UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
CLOCK, MI FIX	WHITE CLOUD, MI VOR/DME	#2800
#WHITE CLOUD R-169 TO CLOCK UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
WHITE CLOUD, MI VOR/DME	TRAVERSE CITY, MI VOR/DME	#4000
#WHITE CLOUD R-007 UNUSABLE TO COP EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
TRAVERSE CITY, MI VOR/DME	PELLSTON, MI VORTAC	3000
PELLSTON, MI VORTAC	SAULT STE MARIE, MI VOR/DME	3000

95.6194 VOR FEDERAL AIRWAY V194

CEDAR CREEK, TX VORTAC	KISER, TX FIX	2300
KISER, TX FIX	COLLEGE STATION, TX VORTAC	4000
SABINE PASS, TX VOR/DME	GUSTI, LA FIX	*4000
*1600 - MOCA		
GUSTI, LA FIX	LAFAYETTE, LA VORTAC	2800
LAFAYETTE, LA VORTAC	*ROSEY, LA FIX	2100
*5000 - MRA		
ROSEY, LA FIX	FIGHTING TIGER, LA VORTAC	2100
FIGHTING TIGER, LA VORTAC	MC COMB, MS VORTAC	2300
MC COMB, MS VORTAC	MIZZE, MS FIX	*3000
*2000 - MOCA		
MIZZE, MS FIX	*PAULD, MS FIX	3000
*5000 - MRA		
*3000 - MCA PAULD, MS FIX , SW BND		

FROM	TO	MEA
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95.6194 VOR FEDERAL AIRWAY V194 - CONTINUED

PAULD, MS FIX	MERIDIAN, MS VORTAC	2100
LIBERTY, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	3100
RALEIGH/DURHAM, NC VORTAC	TAR RIVER, NC VORTAC	2600
TAR RIVER, NC VORTAC	COFIELD, NC VORTAC	1800
COFIELD, NC VORTAC	SUNNS, NC FIX	*2000
*1600 - MOCA		

95.6195 VOR FEDERAL AIRWAY V195

OAKLAND, CA VOR/DME	CROIT, CA FIX	4000
CROIT, CA FIX	*CORDD, CA FIX	**5000
*7200 - MCA CORDD, CA FIX , N BND		
**3400 - MOCA		
CORDD, CA FIX	*RAGGS, CA FIX	**8500
*8500 - MRA		
**5000 - MOCA		
RAGGS, CA FIX	*BESSA, CA FIX	**8500
*8500 - MCA BESSA, CA FIX , S BND		
**4800 - MOCA		
BESSA, CA FIX	WILLIAMS, CA VORTAC	5300
WILLIAMS, CA VORTAC	RED BLUFF, CA VORTAC	*3000
*1700 - MOCA		
RED BLUFF, CA VORTAC	BURRS, CA FIX	3000
BURRS, CA FIX	*TOMAD, CA FIX	**6000
*7300 - MCA TOMAD, CA FIX , W BND		
**4600 - MOCA		
TOMAD, CA FIX	*YAGER, CA FIX	**11000
*7700 - MCA YAGER, CA FIX , E BND		
**8300 - MOCA		
YAGER, CA FIX	FORTUNA, CA VORTAC	6000

95.6196 VOR FEDERAL AIRWAY V196

UTICA, NY VORTAC	*SARANAC LAKE, NY VOR/DME	5400
*6500 - MCA SARANAC LAKE, NY VOR/DME , E BND		
SARANAC LAKE, NY VOR/DME	RIGID, NY FIX	
	E BND	9000
	W BND	5000

95.6197 VOR FEDERAL AIRWAY V197

PARADISE, CA VORTAC	*POMONA, CA VORTAC	4500
*10500 - MCA POMONA, CA VORTAC , NW BND		
POMONA, CA VORTAC	HASSA, CA FIX	
	NW BND	10500
	SE BND	6600
HASSA, CA FIX	*PALMDALE, CA VORTAC	10500
*8700 - MCA PALMDALE, CA VORTAC , SE BND		
PALMDALE, CA VORTAC	*FISCH, CA FIX	5000
*8300 - MCA FISCH, CA FIX , NW BND		
FISCH, CA FIX	*KELEN, CA FIX	**10200
*9300 - MCA KELEN, CA FIX , SE BND		
**10200 - MOCA		
KELEN, CA FIX	*ARVIN, CA FIX	8500
*7300 - MCA ARVIN, CA FIX , SE BND		
ARVIN, CA FIX	SHAFTER, CA VORTAC	3000

95.6198 VOR FEDERAL AIRWAY V198

SAN SIMON, AZ VORTAC	COLUMBUS, NM VOR/DME	8700
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FROM	TO	MEA
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95.6198 VOR FEDERAL AIRWAY V198 - CONTINUED

COLUMBUS, NM VOR/DME	EL PASO, TX VORTAC	9000
EL PASO, TX VORTAC	HUDSPETH, TX VORTAC	7500
HUDSPETH, TX VORTAC	AGAZY, TX FIX	*11000
*8900 - MOCA		
AGAZY, TX FIX	DOWES, TX FIX	*8000
*6400 - MOCA		
DOWES, TX FIX	FORT STOCKTON, TX VORTAC	5000
FORT STOCKTON, TX VORTAC	KEMPL, TX FIX	*8000
*5500 - MOCA		
KEMPL, TX FIX	JUNCTION, TX VORTAC	*6000
*4000 - MOCA		
JUNCTION, TX VORTAC	SAN ANTONIO, TX VORTAC	4100
SAN ANTONIO, TX VORTAC	SEEDS, TX FIX	2900
SEEDS, TX FIX	WEMAR, TX FIX	*2500
*2000 - MOCA		
WEMAR, TX FIX	EAGLE LAKE, TX VOR/DME	2000
SABINE PASS, TX VOR/DME	WHITE LAKE, LA VOR/DME	*4000
*1700 - MOCA		
*2000 - GNSS MEA		
WHITE LAKE, LA VOR/DME	TIBBY, LA VOR/DME	2000
TIBBY, LA VOR/DME	HARVEY, LA VORTAC	2100
HARVEY, LA VORTAC	PEARL, LA FIX	2000
PEARL, LA FIX	MINNI, MS FIX	*2300
*1300 - MOCA		
MINNI, MS FIX	ELSIE, MS FIX	*3500
*1300 - MOCA		
ELSIE, MS FIX	*ROMMY, MS FIX	**2800
*4000 - MRA		
**1300 - MOCA		
ROMMY, MS FIX	BROOKLEY, AL VORTAC	2000
BROOKLEY, AL VORTAC	CRESTVIEW, FL VORTAC	3100
CRESTVIEW, FL VORTAC	DEFUN, FL FIX	
	W BND	2000
	E BND	3000
DEFUN, FL FIX	*CHEWS, FL FIX	**3000
*2500 - MCA CHEWS, FL FIX , W BND		
*1800 - MOCA		
CHEWS, FL FIX	MARIANNA, FL VORTAC	2000
MARIANNA, FL VORTAC	*SNEAD, FL FIX	2000
*3000 - MRA		
SNEAD, FL FIX	SEMINOLE, FL VORTAC	2000
SEMINOLE, FL VORTAC	GREENVILLE, FL VORTAC	#2100
#GREENVILLE R-270 UNUSABLE USE SEMINOLE R-088		
GREENVILLE, FL VORTAC	TAYLOR, FL VORTAC	2000
TAYLOR, FL VORTAC	CRAIG, FL VORTAC	*3000
*2100 - MOCA		

95.6199 VOR FEDERAL AIRWAY V199

SAN FRANCISCO, CA VOR/DME	SUTRO, CA FIX	3500
SUTRO, CA FIX	GOBBS, CA FIX	3000
GOBBS, CA FIX	STINS, CA FIX	3500
STINS, CA FIX	DUBRY, CA FIX	4500
DUBRY, CA FIX	MENDOCINO, CA VORTAC	6000
MENDOCINO, CA VORTAC	*HENLE, CA FIX	9000
*9000 - MCA HENLE, CA FIX , S BND		
HENLE, CA FIX	RED BLUFF, CA VORTAC	
	N BND	3200
	S BND	9000

FROM	TO	MEA
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95.6200 VOR FEDERAL AIRWAY V200

MENDOCINO, CA VORTAC	WILLIAMS, CA VORTAC	6200
WILLIAMS, CA VORTAC	YUBBA, CA FIX	4000
YUBBA, CA FIX	*RANGO, CA FIX	5000
*8500 - MCA RANGO, CA FIX , E BND		
RANGO, CA FIX	SIGNA, CA FIX	*11000
*10000 - MOCA		
SIGNA, CA FIX	MUSTANG, NV VORTAC	11500
BONNEVILLE, UT VORTAC	*STACO, UT FIX	9000
*11000 - MCA STACO, UT FIX , SE BND		
STACO, UT FIX	*FAIRFIELD, UT VORTAC	12100
*10700 - MCA FAIRFIELD, UT VORTAC , NW BND		
*12500 - MCA FAIRFIELD, UT VORTAC , E BND		
FAIRFIELD, UT VORTAC	PANEL, UT FIX	
	W BND	*11000
	E BND	*13300
*9900 - MOCA		
PANEL, UT FIX	MYTON, UT VOR/DME	13300
MYTON, UT VOR/DME	*RACER, CO FIX	
	W BND	**10000
	E BND	**10500
*12000 - MRA		
**8700 - MOCA		
RACER, CO FIX	*MEEKER, CO VOR/DME	10500
*11300 - MCA MEEKER, CO VOR/DME , E BND		
MEEKER, CO VOR/DME	*KREMMLING, CO VOR/DME	14600
*12500 - MCA KREMMLING, CO VOR/DME , W BND		

95.6201 VOR FEDERAL AIRWAY V201

LOS ANGELES, CA VORTAC	*BERRI, CA FIX	5000
*7600 - MCA BERRI, CA FIX , N BND		
BERRI, CA FIX	*SOLED, CA FIX	8800
*8400 - MCA SOLED, CA FIX , S BND		
SOLED, CA FIX	PALMDALE, CA VORTAC	7500

95.6202 VOR FEDERAL AIRWAY V202

SAN SIMON, AZ VORTAC	SILVER CITY, NM VOR/DME	10300
SILVER CITY, NM VOR/DME	*KEAPS, NM FIX	10300
*11600 - MCA KEAPS, NM FIX , NE BND		
KEAPS, NM FIX	TRUTH OR CONSEQUENCES, NM VORTAC	12300

95.6203 VOR FEDERAL AIRWAY V203

STELA, MA FIX	ALBANY, NY VORTAC	*6000
*4000 - GNSS MEA		
ALBANY, NY VORTAC	OTOLE, NY FIX	*6000
*2200 - MOCA		
*3000 - GNSS MEA		
OTOLE, NY FIX	DINNY, NY FIX	*10000
*6900 - MOCA		
*7000 - GNSS MEA		
DINNY, NY FIX	SARANAC LAKE, NY VOR/DME	7000
SARANAC LAKE, NY VOR/DME	MASSENA, NY VORTAC	*10000
*5100 - MOCA		
*6000 - GNSS MEA		

95.6204 VOR FEDERAL AIRWAY V204

HOQUIAM, WA VORTAC	*OLYMPIA, WA VORTAC	4500
*3200 - MCA OLYMPIA, WA VORTAC , W BND		

FROM	TO	MEA
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95.6204 VOR FEDERAL AIRWAY V204 - CONTINUED

OLYMPIA, WA VORTAC	*MCKEN, WA FIX	4000
*5000 - MCA MCKEN, WA FIX , E BND		
MCKEN, WA FIX	*ALDER, WA FIX	5800
*5800 - MCA ALDER, WA FIX , E BND		
ALDER, WA FIX	TAMPO, WA FIX	10000
TAMPO, WA FIX	*YAKIMA, WA VORTAC	
	W BND	8000
	E BND	6000
*5300 - MCA YAKIMA, WA VORTAC , W BND		
YAKIMA, WA VORTAC	*PAIDS, WA FIX	6000
*5300 - MCA PAIDS, WA FIX , W BND		
PAIDS, WA FIX	PASCO, WA VOR/DME	4000
PASCO, WA VOR/DME	WATSY, WA FIX	3500
WATSY, WA FIX	SPOKANE, WA VORTAC	5000

95.6206 VOR FEDERAL AIRWAY V206

NAPOLEON, MO VORTAC	KIRKSVILLE, MO VORTAC	3000
KIRKSVILLE, MO VORTAC	OTTUMWA, IA VOR/DME	3000

95.6207 VOR FEDERAL AIRWAY V207

GILL, CO VOR/DME	SCOTTSBLUFF, NE VORTAC	7500
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95.6208 VOR FEDERAL AIRWAY V208

VENTURA, CA VOR/DME	WEEZL, CA FIX	5000
WEEZL, CA FIX	SANTA CATALINA, CA VORTAC	4000
SANTA CATALINA, CA VORTAC	AVOLS, CA FIX	4000
AVOLS, CA FIX	PACIF, CA FIX	*3000
*2000 - MOCA		
PACIF, CA FIX	OCEANSIDE, CA VORTAC	3000
OCEANSIDE, CA VORTAC	*VISTA, CA FIX	3000
*5000 - MCA VISTA, CA FIX , E BND		
VISTA, CA FIX	JULIAN, CA VORTAC	7700
JULIAN, CA VORTAC	THERMAL, CA VORTAC	9000
THERMAL, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	7000
TWENTYNINE PALMS, CA VORTAC	NEEDLES, CA VORTAC	7800
NEEDLES, CA VORTAC	PEACH SPRINGS, AZ VOR/DME	9000
PEACH SPRINGS, AZ VOR/DME	GRAND CANYON, AZ VOR/DME	10000
GRAND CANYON, AZ VOR/DME	TUBA CITY, AZ VORTAC	9500
TUBA CITY, AZ VORTAC	PAGE, AZ VOR/DME	9000
PAGE, AZ VOR/DME	*HANKSVILLE, UT VORTAC	14000
*11500 - MCA HANKSVILLE, UT VORTAC , S BND		
HANKSVILLE, UT VORTAC	CARBON, UT VOR/DME	10000
CARBON, UT VOR/DME	MYTON, UT VOR/DME	11300
MYTON, UT VOR/DME	VERNAL, UT VOR/DME	8400
VERNAL, UT VOR/DME	CHEROKEE, WY VOR/DME	11700

95.6209 VOR FEDERAL AIRWAY V209

SEMMES, AL VORTAC	YARBO, AL FIX	*3000
*1800 - MOCA		
*2000 - GNSS MEA		
EUTAW, AL FIX	BROOKWOOD, AL VORTAC	*5000
*2300 - MOCA		
*2500 - GNSS MEA		
BROOKWOOD, AL VORTAC	VULCAN, AL VORTAC	2500
VULCAN, AL VORTAC	TRUST, AL FIX	3500

FROM	TO	MEA
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95.6209 VOR FEDERAL AIRWAY V209 - CONTINUED

TRUST, AL FIX	GADSDEN, AL VOR/DME	3600
GADSDEN, AL VOR/DME	*MENLA, AL FIX	**5000
*5000 - MCA MENLA, AL FIX , SW BND		
**3700 - MOCA		
MENLA, AL FIX	CHOO CHOO, TN VORTAC	4000

95.6210 VOR FEDERAL AIRWAY V210

LOS ANGELES, CA VORTAC	PIRRO, CA FIX	3500
PIRRO, CA FIX	*POMONA, CA VORTAC	4500
*10400 - MCA POMONA, CA VORTAC , NE BND		
POMONA, CA VORTAC	CALBE, CA FIX	
	SW BND	5700
	NE BND	10800
CALBE, CA FIX	MEANT, CA FIX	
	SW BND	10700
	NE BND	11500
MEANT, CA FIX	*APLES, CA FIX	11800
*9200 - MCA APLES, CA FIX , SW BND		
APLES, CA FIX	HECTOR, CA VORTAC	7900
HECTOR, CA VORTAC	GOFFS, CA VORTAC	*9000
*8200 - MOCA		
GOFFS, CA VORTAC	UNPAS, NV FIX	8000
UNPAS, NV FIX	PEACH SPRINGS, AZ VOR/DME	9000
PEACH SPRINGS, AZ VOR/DME	*GRAND CANYON, AZ VOR/DME	10000
*14500 - MCA GRAND CANYON, AZ VOR/DME , E BND		
GRAND CANYON, AZ VOR/DME	*TUBA CITY, AZ VORTAC	**14500
*14500 - MCA TUBA CITY, AZ VORTAC , W BND		
**9600 - MOCA		
TUBA CITY, AZ VORTAC	FULLY, NM FIX	12000
FULLY, NM FIX	RATTLESNAKE, NM VORTAC	
	NE BND	9000
	SW BND	12000
RATTLESNAKE, NM VORTAC	RESER, NM FIX	9000
RESER, NM FIX	MRKKO, CO FIX	15000
MRKKO, CO FIX	*ALAMOSA, CO VORTAC	
	W BND	14800
	E BND	10000
*11200 - MCA ALAMOSA, CO VORTAC , W BND		
ALAMOSA, CO VORTAC	BLOKE, CO FIX	
	E BND	14000
	W BND	10400
BLOKE, CO FIX	*GOSIP, CO FIX	14000
*14000 - MCA GOSIP, CO FIX , SW BND		
GOSIP, CO FIX	*RADIO, CO FIX	**12000
*10900 - MCA RADIO, CO FIX , SW BND		
**8500 - MOCA		
RADIO, CO FIX	BLOOM, CO FIX	*9400
*8000 - MOCA		
BLOOM, CO FIX	LAMAR, CO VOR/DME	7000
LAMAR, CO VOR/DME	LIBERAL, KS VORTAC	*6000
*5300 - MOCA		
LIBERAL, KS VORTAC	ROLLS, OK FIX	*12000
*4400 - MOCA		
*5000 - GNSS MEA		
ROLLS, OK FIX	WAXEY, OK FIX	
	W BND	*11000
	E BND	*9300
*3800 - MOCA		
*4000 - GNSS MEA		

FROM	TO	MEA
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95.6210 VOR FEDERAL AIRWAY V210 - CONTINUED

WAXEY, OK FIX	WILL ROGERS, OK VORTAC	
	W BND	*9300
	E BND	*5000
*3300 - MOCA		
*4000 - GNSS MEA		
WILL ROGERS, OK VORTAC	MINGG, OK FIX	*4000
*3100 - MOCA		
MINGG, OK FIX	OKMULGEE, OK VOR/DME	*4000
*2600 - MOCA		
BRICKYARD, IN VORTAC	MUNCIE, IN VOR/DME	2900
MUNCIE, IN VOR/DME	ROSEWOOD, OH VORTAC	2800
REVLLOC, PA VOR/DME	BLINK, PA FIX	4500
BLINK, PA FIX	HARRISBURG, PA VORTAC	4000
HARRISBURG, PA VORTAC	LANCASTER, PA VOR/DME	3000
LANCASTER, PA VOR/DME	SPERY, PA FIX	2800
SPERY, PA FIX	YARDLEY, PA VOR/DME	*3000
*2200 - MOCA		

95.6211 VOR FEDERAL AIRWAY V211

BRAZO, NM FIX	DURANGO, CO VOR/DME	
	W BND	11300
	E BND	13000
DURANGO, CO VOR/DME	CORTEZ, CO VOR/DME	11300

95.6212 VOR FEDERAL AIRWAY V212

SAN ANTONIO, TX VORTAC	SEEDS, TX FIX	2900
SEEDS, TX FIX	WEMAR, TX FIX	*2500
*2000 - MOCA		
WEMAR, TX FIX	INDUSTRY, TX VORTAC	2000
INDUSTRY, TX VORTAC	NAVASOTA, TX VOR/DME	2200
NAVASOTA, TX VOR/DME	OSCER, TX FIX	3000
OSCER, TX FIX	LUFKIN, TX VORTAC	*4000
*2000 - MOCA		
LUFKIN, TX VORTAC	COSGO, LA FIX	*4000
*1900 - MOCA		
COSGO, LA FIX	COCOS, LA FIX	*4000
*1800 - MOCA		
COCOS, LA FIX	ALEXANDRIA, LA VORTAC	*3000
*1900 - MOCA		
ALEXANDRIA, LA VORTAC	JOHON, LA FIX	2000
JOHON, LA FIX	SETTA, MS FIX	*4000
*2000 - MOCA		
SETTA, MS FIX	MC COMB, MS VORTAC	*3000
*2000 - MOCA		

95.6213 VOR FEDERAL AIRWAY V213

GRAND STRAND, SC VORTAC	WILMINGTON, NC VORTAC	#3100
#COP NE TO WILMINGTON R-240 UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
WILMINGTON, NC VORTAC	WALLO, NC FIX	#*8000
*1600 - MOCA		
*5000 - GNSS MEA		
#SEGMENT UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.		
WALLO, NC FIX	JOSCH, NC FIX	*6000
*1700 - MOCA		
*2000 - GNSS MEA		

FROM	TO	MEA
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95.6213 VOR FEDERAL AIRWAY V213 - CONTINUED

JOSCH, NC FIX *1700 - MOCA *2000 - GNSS MEA	ESTER, NC FIX	*6000
ESTER, NC FIX *2000 - GNSS MEA	TAR RIVER, NC VORTAC	*6000
TAR RIVER, NC VORTAC	GUMBE, NC FIX	2000
GUMBE, NC FIX *1500 - MOCA	HOPEWELL, VA VORTAC	*2000
HOPEWELL, VA VORTAC *5000 - MCA TAPPA, VA FIX , NE BND	*TAPPA, VA FIX	2000
TAPPA, VA FIX *1500 - MOCA *2000 - GNSS MEA	PATUXENT, MD VORTAC	*5000
PATUXENT, MD VORTAC *8000 - MRA **1500 - MOCA **4000 - GNSS MEA	*GARED, MD FIX	**4500
GARED, MD FIX *1500 - MOCA *4000 - GNSS MEA	CHOPS, MD FIX	*4500
CHOPS, MD FIX *1500 - MOCA	SMYRNA, DE VORTAC	*2000
SMYRNA, DE VORTAC *1600 - MOCA	HOLEY, NJ FIX	*3000
HOLEY, NJ FIX *2000 - MOCA	ROBBINSVILLE, NJ VORTAC	*3000
ROBBINSVILLE, NJ VORTAC *1900 - MOCA	WARRD, NJ FIX	*3000
WARRD, NJ FIX *2500 - MOCA	SHOTT, NJ FIX	MAA - 10000 *3000
SHOTT, NJ FIX *2600 - MOCA	SPARTA, NJ VORTAC	MAA - 10000 *3500
SPARTA, NJ VORTAC *3200 - MOCA	FLOSI, NY FIX	MAA - 10000 *4000
FLOSI, NY FIX *4000 - MOCA	WEETS, NY FIX	*5500
WEETS, NY FIX *6100 - MOCA *8000 - GNSS MEA	ALBANY, NY VORTAC	*10000

95.6214 VOR FEDERAL AIRWAY V214

KOKOMO, IN VORTAC	MARION, IN VOR/DME	2600
MARION, IN VOR/DME	MUNCIE, IN VOR/DME	2800
*GLOOM, OH FIX *4000 - MRA **2600 - MOCA **3000 - GNSS MEA	ZANESVILLE, OH VOR/DME	**4000
ZANESVILLE, OH VOR/DME	BELLAIRE, OH VOR/DME	3000
MARTINSBURG, WV VORTAC	WOOLY, MD FIX	3200
WOOLY, MD FIX	BALTIMORE, MD VORTAC	2600
BALTIMORE, MD VORTAC	SWANN, MD FIX	2000
SWANN, MD FIX #UNUSABLE	GATBY, MD FIX	#
GATBY, MD FIX #UNUSABLE	KERNO, MD FIX	#
KERNO, MD FIX #UNUSABLE	ODESA, MD FIX	#
ODESA, MD FIX *2000 - GNSS MEA #DUPONT R-233 UNUSABLE BEYOND 22 NM.	DUPONT, DE VORTAC	#*2000

FROM	TO	MEA
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95.6214 VOR FEDERAL AIRWAY V214 - CONTINUED

DUPONT, DE VORTAC *3000 - GNSS MEA	YARDLEY, PA VOR/DME	*6000
YARDLEY, PA VOR/DME *2000 - MOCA	TETERBORO, NJ VOR/DME	*3000 MAA - 10000

95.6216 VOR FEDERAL AIRWAY V216

LAMAR, CO VOR/DME *5200 - MOCA	ORION, KS FIX	*6300
ORION, KS FIX *4300 - MOCA	HILL CITY, KS VORTAC	*5000
HILL CITY, KS VORTAC *3900 - MOCA	MANKATO, KS VORTAC	*4500
MANKATO, KS VORTAC	PAWNEE CITY, NE VORTAC	3600
PAWNEE CITY, NE VORTAC	LAMONI, IA VOR/DME	3400
LAMONI, IA VOR/DME	OTTUMWA, IA VOR/DME	2900
OTTUMWA, IA VOR/DME	IOWA CITY, IA VOR/DME	3000
IOWA CITY, IA VOR/DME *2600 - MOCA	LOTTE, IA FIX	*3500
LOTTE, IA FIX *2200 - MOCA	WACKS, IL FIX	*4000
WACKS, IL FIX	JANESVILLE, WI VOR/DME	2800

95.6217 VOR FEDERAL AIRWAY V217

*BESIE, IL FIX *10000 - MRA	BADGER, WI VOR/DME	2900
BADGER, WI VOR/DME	CHING, WI FIX	3000
CHING, WI FIX	SHOOD, WI FIX	2700
SHOOD, WI FIX	GREEN BAY, WI VORTAC	2500
GREEN BAY, WI VORTAC	WISOM, WI FIX	2700
WISOM, WI FIX	RHINELANDER, WI VOR/DME	3600
RHINELANDER, WI VOR/DME *4100 - MOCA	DULUTH, MN VORTAC	*6000
DULUTH, MN VORTAC	HIBBING, MN VOR/DME	3300

95.6218 VOR FEDERAL AIRWAY V218

*INTERNATIONAL FALLS, MN VOR/DME	JIBDU, MN FIX	
	N BND	4000
	S BND	10000
*7800 - MCA INTERNATIONAL FALLS, MN VOR/DME , S BND		
JIBDU, MN FIX	BEBEL, MN FIX	
	N BND	7000
	S BND	10000
BEBEL, MN FIX	SQEAK, MN FIX	10000
SQEAK, MN FIX *3100 - MOCA	GRAND RAPIDS, MN VOR/DME	*5000
GRAND RAPIDS, MN VOR/DME *3000 - MOCA	GOPHER, MN VORTAC	*5500

95.6219 VOR FEDERAL AIRWAY V219

HAYES CENTER, NE VORTAC *4500 - MOCA	WOLBACH, NE VORTAC	*5000
WOLBACH, NE VORTAC	NORFOLK, NE VOR/DME	4000

95.6220 VOR FEDERAL AIRWAY V220

GRAND JUNCTION, CO VOR/DME *13000 - MRA	*PACES, CO FIX	11500
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FROM

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95.6220 VOR FEDERAL AIRWAY V220 - CONTINUED

PACES, CO FIX	SLOLM, CO FIX	#13000
#MTA V220 NE TO V220 NW 12900		
SLOLM, CO FIX	RIFLE, CO VOR/DME	12400
RIFLE, CO VOR/DME	MEEKER, CO VOR/DME	12400
MEEKER, CO VOR/DME	AXIAL, CO FIX	11000
AXIAL, CO FIX	HAYDEN, CO VOR/DME	
	SW BND	11000
	NE BND	10000
HAYDEN, CO VOR/DME	HABRO, CO FIX	10000
HABRO, CO FIX	KREMMLING, CO VOR/DME	13000
KREMMLING, CO VOR/DME	NIWOT, CO FIX	*17000
*15900 - MOCA		
NIWOT, CO FIX	*GILL, CO VOR/DME	
	NE BND	7400
	SW BND	17000
*14500 - MCA GILL, CO VOR/DME , SW BND		
GILL, CO VOR/DME	AKRON, CO VOR/DME	7000
AKRON, CO VOR/DME	MCJEF, NE FIX	*7000
*6000 - MOCA		
MCJEF, NE FIX	MC COOK, NE VOR/DME	*7500
*5000 - MOCA		
MC COOK, NE VOR/DME	SPRIT, NE FIX	*5000
*4100 - MOCA		
SPRIT, NE FIX	KEARNEY, NE VOR	*5000
*3700 - MOCA		
KEARNEY, NE VOR	HASTINGS, NE VOR/DME	4300
HASTINGS, NE VOR/DME	COLUMBUS, NE VOR/DME	4000

95.6221 VOR FEDERAL AIRWAY V221

BIBLE GROVE, IL VORTAC	HOOSIER, IN VORTAC	3000
HOOSIER, IN VORTAC	SHELBYVILLE, IN VOR/DME	#*6000
*3100 - MOCA		
*4000 - GNSS MEA		
#HOOSIER R-053 UNUSABLE		
SHELBYVILLE, IN VOR/DME	MUNCIE, IN VOR/DME	*2800
*2600 - MOCA		
MUNCIE, IN VOR/DME	FORT WAYNE, IN VORTAC	2700
FORT WAYNE, IN VORTAC	*GAREN, IN FIX	3000
*4500 - MRA		
GAREN, IN FIX	ILTON, IN FIX	*3000
*2400 - MOCA		

95.6222 VOR FEDERAL AIRWAY V222

EL PASO, TX VORTAC	SALT FLAT, TX VORTAC	*8000
*7400 - MOCA		
SALT FLAT, TX VORTAC	HOBAN, TX FIX	8000
HOBAN, TX FIX	FORT STOCKTON, TX VORTAC	5000
FORT STOCKTON, TX VORTAC	KEMPL, TX FIX	*8000
*5500 - MOCA		
KEMPL, TX FIX	JUNCTION, TX VORTAC	*6000
*4000 - MOCA		
JUNCTION, TX VORTAC	STONEWALL, TX VORTAC	4000
STONEWALL, TX VORTAC	MARCS, TX FIX	4500
MARCS, TX FIX	CRAYS, TX FIX	*2900
*2000 - MOCA		
CRAYS, TX FIX	INDUSTRY, TX VORTAC	2600
INDUSTRY, TX VORTAC	SEALY, TX FIX	2100

FROM	TO	MEA
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95.6222 VOR FEDERAL AIRWAY V222 - CONTINUED

SEALY, TX FIX	HUMBLE, TX VORTAC	2000
HUMBLE, TX VORTAC	BEAUMONT, TX VOR/DME	3100
BEAUMONT, TX VOR/DME	LAKE CHARLES, LA VORTAC	2000
LAKE CHARLES, LA VORTAC	MAXON, LA FIX	2000
MAXON, LA FIX	WRACK, LA FIX	*6000
*1800 - MOCA		
*2000 - GNSS MEA		
WRACK, LA FIX	MC COMB, MS VORTAC	*4000
*2000 - MOCA		
*2000 - GNSS MEA		
MC COMB, MS VORTAC	EATON, MS VORTAC	2000
EATON, MS VORTAC	PICAN, MS FIX	
	W BND	2300
	E BND	3000
PICAN, MS FIX	MONROEVILLE, AL VORTAC	*3000
*1900 - MOCA		
MONROEVILLE, AL VORTAC	MONTGOMERY, AL VORTAC	2300
MONTGOMERY, AL VORTAC	*MARST, AL FIX	2300
*3500 - MRA		
MARST, AL FIX	KENTT, AL FIX	2100
KENTT, AL FIX	LAGRANGE, GA VORTAC	2500
LAGRANGE, GA VORTAC	*TIROE, GA FIX	2600
*4000 - MRA		
LOGEN, GA FIX	CORCE, GA FIX	*4600
*3700 - MOCA		
CORCE, GA FIX	FOOTHILLS, SC VOR/DME	3400
FOOTHILLS, SC VOR/DME	SUNET, SC FIX	*6100
*4800 - MOCA		
SUNET, SC FIX	SUGARLOAF MOUNTAIN, NC VORTAC	7100
SUGARLOAF MOUNTAIN, NC VORTAC	BARRETTS MOUNTAIN, NC VOR/DME	6200
BARRETTS MOUNTAIN, NC VOR/DME	HENBY, VA FIX	5000
HENBY, VA FIX	LYNCHBURG, VA VOR/DME	4000

95.6223 VOR FEDERAL AIRWAY V223

FLAT ROCK, VA VORTAC	*HANEY, VA FIX	2800
*7000 - MRA		
HANEY, VA FIX	FLUKY, VA FIX	2600

95.6225 VOR FEDERAL AIRWAY V225

KEY WEST, FL VORTAC	RIGOR, FL FIX	1700
RIGOR, FL FIX	MARCI, FL FIX	*4000
*1400 - MOCA		
*1700 - GNSS MEA		
MARCI, FL FIX	LEE COUNTY, FL VORTAC	
	N BND	2100
	S BND	4000
LEE COUNTY, FL VORTAC	LA BELLE, FL VORTAC	*2000
*1500 - MOCA		
LA BELLE, FL VORTAC	DIDDY, FL FIX	*2000
*1500 - MOCA		
DIDDY, FL FIX	TREASURE, FL VORTAC	2000

95.6226 VOR FEDERAL AIRWAY V226

KEATING, PA VORTAC	WILLIAMSPORT, PA VOR/DME	*4500
*3900 - MOCA		
WILLIAMSPORT, PA VOR/DME	SWANK, PA FIX	4500

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95.6226 VOR FEDERAL AIRWAY V226 - CONTINUED

SWANK, PA FIX	WILKES-BARRE, PA VORTAC	
	E BND	*4000
	W BND	*4500
*3700 - MOCA		
WILKES-BARRE, PA VORTAC	STILLWATER, NJ VOR/DME	4000

95.6227 VOR FEDERAL AIRWAY V227

BOILER, IN VORTAC	ROBERTS, IL VOR/DME	2600
ROBERTS, IL VOR/DME	PONTIAC, IL VOR/DME	3000
PONTIAC, IL VOR/DME	PLANO, IL FIX	3000

95.6228 VOR FEDERAL AIRWAY V228

DELLS, WI VORTAC	MADISON, WI VORTAC	3300
MADISON, WI VORTAC	*DEBOW, WI FIX	10000
*10000 - MRA		
DEBOW, WI FIX	*BESIE, IL FIX	10000
*10000 - MRA		
FARM, IL FIX	NORTHBROOK, IL VOR/DME	2700
NORTHBROOK, IL VOR/DME	*NEPTS, MI FIX	2500
*3000 - MRA		
NEPTS, MI FIX	GIPPER, MI VORTAC	2600

95.6229 VOR FEDERAL AIRWAY V229

PATUXENT, MD VORTAC	*GARED, MD FIX	**4500
*8000 - MRA		
**1500 - MOCA		
**4000 - GNSS MEA		
GARED, MD FIX	DONIL, DE FIX	*8000
*1600 - MOCA		
*4000 - GNSS MEA		
DONIL, DE FIX	ATLANTIC CITY, NJ VORTAC	*2000
*1500 - MOCA		
ATLANTIC CITY, NJ VORTAC	PANZE, NJ FIX	2100
PANZE, NJ FIX	DIXIE, NJ FIX	2500
DIXIE, NJ FIX	KENNEDY, NY VOR/DME	*2500
*1600 - MOCA		
KENNEDY, NY VOR/DME	KEEPM, NY FIX	2000
KEEPM, NY FIX	TRANZ, NY FIX	2000
TRANZ, NY FIX	PUGGS, NY FIX	*2500
*2000 - GNSS MEA		
PUGGS, NY FIX	BRIDGEPORT, CT VOR/DME	*2500
*2000 - GNSS MEA		
BRIDGEPORT, CT VOR/DME	HARTFORD, CT VOR/DME	2000
HARTFORD, CT VOR/DME	GARDNER, MA VOR/DME	3000
GARDNER, MA VOR/DME	KEENE, NH VORTAC	3600
KEENE, NH VORTAC	JAMMA, VT FIX	4500
JAMMA, VT FIX	MUDDI, VT FIX	6400
MUDDI, VT FIX	*BURLINGTON, VT VOR/DME	6000
*3100 - MCA BURLINGTON, VT VOR/DME , SE BND		

95.6230 VOR FEDERAL AIRWAY V230

SHOEY, CA FIX	*SALINAS, CA VORTAC	**5000
*6000 - MCA SALINAS, CA VORTAC , E BND		
**4100 - MOCA		
SALINAS, CA VORTAC	*PANOS, CA FIX	**6500
*8000 - MCA PANOS, CA FIX , E BND		
**5500 - MOCA		

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95.6230 VOR FEDERAL AIRWAY V230 - CONTINUED

PANOS, CA FIX	FIDDO, CA FIX	9000
FIDDO, CA FIX	*PANOCHE, CA VORTAC	**7000
*8500 - MCA PANOCHE, CA VORTAC , W BND		
**5800 - MOCA		
PANOCHE, CA VORTAC	MENDO, CA FIX	4500
MENDO, CA FIX	BLEAR, CA FIX	*4000
*1600 - MOCA		
BLEAR, CA FIX	*FRIANT, CA VORTAC	**5500
*10400 - MCA FRIANT, CA VORTAC , NE BND		
**4700 - MOCA		
FRIANT, CA VORTAC	CAINS, CA FIX	
	NE BND	14300
	SW BND	11000
CAINS, CA FIX	NIKOL, CA FIX	14300
NIKOL, CA FIX	MINA, NV VORTAC	
	NE BND	11000
	SW BND	13000

95.6231 VOR FEDERAL AIRWAY V231

BURLEY, ID VOR/DME	*MENIN, ID FIX	
	S BND	**7000
	N BND	**9500
*10600 - MCA MENIN, ID FIX , N BND		
**7000 - MOCA		
MENIN, ID FIX	SALMON, ID VOR/DME	14000
SALMON, ID VOR/DME	TUFFY, MT FIX	*12000
*11300 - MOCA		
TUFFY, MT FIX	*MISSOULA, MT VOR/DME	
	S BND	12000
	N BND	9000
*10000 - MCA MISSOULA, MT VOR/DME , S BND		
MISSOULA, MT VOR/DME	ARLEE, MT FIX	9700
ARLEE, MT FIX	*JESSY, MT FIX	**11000
*13000 - MCA JESSY, MT FIX , N BND		
**9400 - MOCA		
JESSY, MT FIX	*SKOTT, MT FIX	**13000
*12000 - MRA		
**8700 - MOCA		
SKOTT, MT FIX	KALISPELL, MT VOR/DME	
	N BND	8600
	S BND	10000

95.6232 VOR FEDERAL AIRWAY V232

KEATING, PA VORTAC	WATSO, PA FIX	4700
WATSO, PA FIX	MILTON, PA VORTAC	*4000
*2900 - MOCA		
MILTON, PA VORTAC	SOLBERG, NJ VOR/DME	4000
SOLBERG, NJ VOR/DME	TYKES, NJ FIX	2300
TYKES, NJ FIX	COLTS NECK, NJ VOR/DME	2000

95.6233 VOR FEDERAL AIRWAY V233

SPINNER, IL VORTAC	ROBERTS, IL VOR/DME	2600
ROBERTS, IL VOR/DME	KNOX, IN VOR/DME	*3000
*2200 - MOCA		
KNOX, IN VOR/DME	GOSHEN, IN VORTAC	2600
GOSHEN, IN VORTAC	LITCHFIELD, MI VOR/DME	3000

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95.6233 VOR FEDERAL AIRWAY V233 - CONTINUED

MOUNT PLEASANT, MI VOR/DME	CARGA, MI FIX	5500
CARGA, MI FIX	GAYLORD, MI VOR/DME	4000
GAYLORD, MI VOR/DME	PELLSTON, MI VORTAC	3200

95.6234 VOR FEDERAL AIRWAY V234

ST JOHNS, AZ VORTAC	*STONY, NM FIX	**12000
*9500 - MCA STONY, NM FIX , SW BND		
**10500 - MOCA		
STONY, NM FIX	ALBUQUERQUE, NM VORTAC	9000
ALBUQUERQUE, NM VORTAC	ANTON CHICO, NM VORTAC	10000
ANTON CHICO, NM VORTAC	DALHART, TX VORTAC	*8500
*7500 - MOCA		
DALHART, TX VORTAC	BRAKR, OK FIX	5700
BRAKR, OK FIX	LIBERAL, KS VORTAC	*5700
*4700 - MOCA		
LIBERAL, KS VORTAC	FLACK, KS FIX	4600
FLACK, KS FIX	KRIER, KS FIX	*5000
*4100 - MOCA		
KRIER, KS FIX	BYWAY, KS FIX	*7100
*4000 - MOCA		
BYWAY, KS FIX	GABIE, KS FIX	
	E BND	*4500
	W BND	*7100
*3800 - MOCA		
GABIE, KS FIX	HUTCHINSON, KS VOR/DME	
	E BND	3800
	W BND	4500
HUTCHINSON, KS VOR/DME	WAIVE, KS FIX	4000
WAIVE, KS FIX	*FLOSS, KS FIX	3300
*5000 - MRA		
FLOSS, KS FIX	EMPORIA, KS VORTAC	3300
EMPORIA, KS VORTAC	BUTLER, MO VORTAC	3000
BUTLER, MO VORTAC	AUGIE, MO FIX	2700
AUGIE, MO FIX	VICHY, MO VOR/DME	*3200
*2400 - MOCA		
VICHY, MO VOR/DME	DELMA, MO FIX	3000
DELMA, MO FIX	*GLASS, MO FIX	**3500
*4500 - MRA		
**2800 - MOCA		
GLASS, MO FIX	CENTRALIA, IL VORTAC	*3000
*2200 - MOCA		

95.6235 VOR FEDERAL AIRWAY V235

PEACH SPRINGS, AZ VOR/DME	MORMON MESA, NV VORTAC	10000
MORMON MESA, NV VORTAC	MATZO, UT FIX	
	NE BND	12000
	SW BND	9000
MATZO, UT FIX	*ENOCH, UT VOR/DME	12400
*11400 - MCA ENOCH, UT VOR/DME , S BND		
ENOCH, UT VOR/DME	MILFORD, UT VORTAC	10000
MILFORD, UT VORTAC	DELTA, UT VORTAC	9600
DELTA, UT VORTAC	FAIRFIELD, UT VORTAC	10300
*FAIRFIELD, UT VORTAC	GRODI, WY FIX	14000
*12500 - MCA FAIRFIELD, UT VORTAC , NE BND		
GRODI, WY FIX	FORT BRIDGER, WY VOR/DME	11000
ROCK SPRINGS, WY VOR/DME	BORGG, WY FIX	9500
BORGG, WY FIX	OILLY, WY FIX	11200

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95.6235 VOR FEDERAL AIRWAY V235 - CONTINUED

OILLY, WY FIX	MUDDY MOUNTAIN, WY VOR/DME	9000
MUDDY MOUNTAIN, WY VOR/DME	NEWCASTLE, WY VOR	8300

95.6236 VOR FEDERAL AIRWAY V236

CEVAR, UT FIX	EMONT, UT FIX	9000
EMONT, UT FIX	OGDEN, UT VORTAC	#*8000
*7000 - MOCA		
#MTA V236 NE TO V21-101 SE 12000		

95.6237 VOR FEDERAL AIRWAY V237

NEEDLES, CA VORTAC	BOULDER CITY, NV VORTAC	7600
BOULDER CITY, NV VORTAC	LAS VEGAS, NV VORTAC	6000

95.6238 VOR FEDERAL AIRWAY V238

MAPLES, MO VORTAC	IMPER, MO FIX	3000
IMPER, MO FIX	TROY, IL VORTAC	2600

95.6239 VOR FEDERAL AIRWAY V239

FORNEY, MO VOR	BNTON, MO FIX	2900
BNTON, MO FIX	HALLSVILLE, MO VORTAC	2800

95.6240 VOR FEDERAL AIRWAY V240

HARVEY, LA VORTAC	PEARL, LA FIX	2000
PEARL, LA FIX	MINNI, MS FIX	*2300
*1300 - MOCA		
MINNI, MS FIX	ELSIE, MS FIX	*3500
*1300 - MOCA		
ELSIE, MS FIX	*ROMMY, MS FIX	**2800
*4000 - MRA		
**1300 - MOCA		
ROMMY, MS FIX	SEMMES, AL VORTAC	2000

95.6241 VOR FEDERAL AIRWAY V241

SEMMES, AL VORTAC	CRESTVIEW, FL VORTAC	3100
CRESTVIEW, FL VORTAC	*WIREGRASS, AL VORTAC	2000
*3000 - MCA WIREGRASS, AL VORTAC , N BND		
WIREGRASS, AL VORTAC	EUFULA, AL VORTAC	#*3000
*2000 - MOCA		
#WIREGRASS R-019 UNSABLE BELOW 6000 USE EUFAULA R-199		
EUFULA, AL VORTAC	COLUMBUS, GA VORTAC	2400
COLUMBUS, GA VORTAC	*TIROE, GA FIX	3000
*4000 - MRA		

95.6242 VOR FEDERAL AIRWAY V242

INTERNATIONAL FALLS, MN VOR/DME	U.S. CANADIAN BORDER	3000
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95.6243 VOR FEDERAL AIRWAY V243

CRAIG, FL VORTAC	WAYCROSS, GA VORTAC	*3000
*2300 - MOCA		
WAYCROSS, GA VORTAC	VIENNA, GA VORTAC	2300

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95.6243 VOR FEDERAL AIRWAY V243 - CONTINUED

VIENNA, GA VORTAC	*PRATZ, GA FIX	**3000
*3000 - MRA		
**2000 - MOCA		
PRATZ, GA FIX	LAGRANGE, GA VORTAC	3500
LAGRANGE, GA VORTAC	HEFIN, AL FIX	*4000
*3400 - MOCA		
HEFIN, AL FIX	FELTO, GA FIX	*6000
*3400 - MOCA		
FELTO, GA FIX	GORG0, GA FIX	*5000
*4000 - MOCA		
GORG0, GA FIX	CHOO CHOO, TN VORTAC	4000

95.6244 VOR FEDERAL AIRWAY V244

OAKLAND, CA VOR/DME	*SALAD, CA FIX	4000
*4700 - MCA SALAD, CA FIX , NE BND		
SALAD, CA FIX	ALTAM, CA FIX	5000
ALTAM, CA FIX	HAIRE, CA FIX	4500
HAIRE, CA FIX	*LINDEN, CA VOR/DME	**3000
*3300 - MCA LINDEN, CA VOR/DME , E BND		
**2100 - MOCA		
LINDEN, CA VOR/DME	*MERPH, CA FIX	
	W BND	6400
	E BND	15300
*9800 - MCA MERPH, CA FIX , E BND		
MERPH, CA FIX	*NIKOL, CA FIX	15300
*13100 - MCA NIKOL, CA FIX , W BND		
NIKOL, CA FIX	COALDALE, NV VORTAC	12500
COALDALE, NV VORTAC	TONOPAH, NV VORTAC	11000
TONOPAH, NV VORTAC	WILSON CREEK, NV VORTAC	12200
WILSON CREEK, NV VORTAC	*MILFORD, UT VORTAC	12000
*12000 - MCA MILFORD, UT VORTAC , E BND		
MILFORD, UT VORTAC	DETAN, UT FIX	14000
DETAN, UT FIX	HANKSVILLE, UT VORTAC	*16000
*14200 - MOCA		
HANKSVILLE, UT VORTAC	*ANIUM, UT FIX	**10500
*12300 - MCA ANIUM, UT FIX , E BND		
**8500 - MOCA		
ANIUM, UT FIX	*PAROX, CO FIX	**15500
*13300 - MCA PAROX, CO FIX , W BND		
**14800 - MOCA		
PAROX, CO FIX	*NADIN, CO FIX	**13000
*12000 - MCA NADIN, CO FIX , W BND		
**12000 - MOCA		
NADIN, CO FIX	MONTROSE, CO VOR/DME	11000
MONTROSE, CO VOR/DME	BLUE MESA, CO VOR/DME	12500
BLUE MESA, CO VOR/DME	DUFEL, CO FIX	
	E BND	16000
	W BND	12000
DUFEL, CO FIX	*FLOOD, CO FIX	16000
*10000 - MRA		
FLOOD, CO FIX	STANO, CO FIX	
	W BND	12000
	E BND	9000
STANO, CO FIX	PUEBLO, CO VORTAC	7800
PUEBLO, CO VORTAC	LAMAR, CO VOR/DME	7000
LAMAR, CO VOR/DME	*COFFE, KS FIX	**9000
*9000 - MRA		
*9000 - MCA COFFE, KS FIX , SW BND		
*9700 - MCA COFFE, KS FIX , NE BND		
**5400 - MOCA		

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95.6244 VOR FEDERAL AIRWAY V244 - CONTINUED

COFFE, KS FIX	*RANSO, KS FIX	**10000
*10000 - MRA		
**4700 - MOCA		
RANSO, KS FIX	HAYS, KS VORTAC	*5000
*3900 - MOCA		
HAYS, KS VORTAC	*GLIDE, KS FIX	3900
*4500 - MRA		
GLIDE, KS FIX	SALINA, KS VORTAC	*3900
*3200 - MOCA		

95.6245 VOR FEDERAL AIRWAY V245

ALEXANDRIA, LA VORTAC	NATCHEZ, MS VOR/DME	2000
NATCHEZ, MS VOR/DME	MAGNOLIA, MS VORTAC	3500
MAGNOLIA, MS VORTAC	BIGBEE, MS VORTAC	*5000
*2000 - MOCA		MAA - 17500
*3000 - GNSS MEA		
BIGBEE, MS VORTAC	MINIM, AL FIX	2000
MINIM, AL FIX	CRIMSON, AL VORTAC	2400

95.6246 VOR FEDERAL AIRWAY V246

JANESVILLE, WI VOR/DME	DUBUQUE, IA VORTAC	3000
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95.6247 VOR FEDERAL AIRWAY V247

SCOTTSBLUFF, NE VORTAC	HIPSHER, WY VOR/DME	8100
HIPSHER, WY VOR/DME	*WAPAP, WY FIX	**9000
*9000 - MCA WAPAP, WY FIX , SE BND		
**8300 - MOCA		
**8000 - GNSS MEA		
WAPAP, WY FIX	CRAZY WOMAN, WY VOR/DME	8000
CRAZY WOMAN, WY VOR/DME	SHERIDAN, WY VOR/DME	7000
SHERIDAN, WY VOR/DME	ARDMO, MT FIX	8000
ARDMO, MT FIX	BILLINGS, MT VORTAC	
	E BND	8000
	W BND	6000
BILLINGS, MT VORTAC	PELJE, MT FIX	
	W BND	10500
	E BND	6400
PELJE, MT FIX	BAXTA, MT FIX	
	E BND	7000
	W BND	10500
BAXTA, MT FIX	*WAUTS, MT FIX	**13000
*10700 - MCA WAUTS, MT FIX , E BND		
**10900 - MOCA		
WAUTS, MT FIX	HELENA, MT VORTAC	9400

95.6248 VOR FEDERAL AIRWAY V248

SALINAS, CA VORTAC	*SARDO, CA FIX	**6000
*7000 - MRA		
**5500 - MOCA		
SARDO, CA FIX	FIKDU, CA FIX	*6000
*5500 - MOCA		
FIKDU, CA FIX	PASO ROBLES, CA VORTAC	
	SE BND	5000
	NW BND	6000
PASO ROBLES, CA VORTAC	AVENAL, CA VOR/DME	4500

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95.6248 VOR FEDERAL AIRWAY V248 - CONTINUED

AVENAL, CA VOR/DME	SCRAP, CA FIX	4000
SCRAP, CA FIX	SHAFTER, CA VORTAC	
	W BND	*4000
	E BND	*3000
*3000 - MOCA		

95.6249 VOR FEDERAL AIRWAY V249

ROBBINSVILLE, NJ VORTAC	JERYY, NJ FIX	4000
JERYY, NJ FIX	SOLBERG, NJ VOR/DME	*3000
*2000 - MOCA		
SOLBERG, NJ VOR/DME	SPARTA, NJ VORTAC	3000
SPARTA, NJ VORTAC	FLOSI, NY FIX	*4000
*3200 - MOCA		
FLOSI, NY FIX	WEETS, NY FIX	*5500
*4000 - MOCA		
WEETS, NY FIX	RIMBA, NY FIX	6400
RIMBA, NY FIX	DELANCEY, NY VOR/DME	5500
DELANCEY, NY VOR/DME	MILID, NY FIX	4300
MILID, NY FIX	UTICA, NY VORTAC	3700

95.6250 VOR FEDERAL AIRWAY V250

O NEILL, NE VORTAC	YANKTON, SD VOR/DME	3700
YANKTON, SD VOR/DME	WORTHINGTON, MN VOR/DME	3400
WORTHINGTON, MN VOR/DME	MANKATO, MN VOR/DME	3400

95.6251 VOR FEDERAL AIRWAY V251

ADDERS, IL VORTAC	CHAMPAIGN, IL VORTAC	2500
CHAMPAIGN, IL VORTAC	DANVILLE, IL VORTAC	2500
DANVILLE, IL VORTAC	BOILER, IN VORTAC	2500

95.6252 VOR FEDERAL AIRWAY V252

*AIRCO, NY FIX	GENESEO, NY VOR/DME	**4000
*6000 - MRA		
**2800 - MOCA		
GENESEO, NY VOR/DME	GIBBE, NY FIX	4000
GIBBE, NY FIX	BINGHAMTON, NY VOR/DME	3800
BINGHAMTON, NY VOR/DME	HUGIE, PA FIX	4000
HUGIE, PA FIX	RAGER, NY FIX	4400
RAGER, NY FIX	HUGUENOT, NY VOR/DME	4000
HUGUENOT, NY VOR/DME	COATE, NJ FIX	*4000
*3300 - MOCA		
COATE, NJ FIX	SLYNG, NJ FIX	*5000
*2700 - MOCA		
SLYNG, NJ FIX	ROBBINSVILLE, NJ VORTAC	2600
ROBBINSVILLE, NJ VORTAC	DUPONT, DE VORTAC	2000

95.6253 VOR FEDERAL AIRWAY V253

LUCIN, UT VORTAC	ROGET, ID FIX	11000
ROGET, ID FIX	*TWIN FALLS, ID VORTAC	
	NW BND	9000
	SE BND	11000
*9000 - MCA TWIN FALLS, ID VORTAC , SE BND		
TWIN FALLS, ID VORTAC	LITKE, ID FIX	6200
LITKE, ID FIX	ALKAL, ID FIX	
	SE BND	6000
	NW BND	9500

FROM	TO	MEA
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95.6253 VOR FEDERAL AIRWAY V253 - CONTINUED

ALKAL, ID FIX	CANEK, ID FIX	*9500
*8500 - MOCA		
CANEK, ID FIX	*BOISE, ID VORTAC	
	NW BND	7000
	SE BND	9500
*7500 - MCA BOISE, ID VORTAC , N BND		
BOISE, ID VORTAC	BANGS, ID FIX	
	S BND	9100
	N BND	10500
BANGS, ID FIX	DONNELLY, ID VOR/DME	10500
DONNELLY, ID VOR/DME	OXLEY, ID FIX	12000
OXLEY, ID FIX	*NEZ PERCE, ID VOR/DME	
	SE BND	12000
	NW BND	7400
*6400 - MCA NEZ PERCE, ID VOR/DME , SE BND		
NEZ PERCE, ID VOR/DME	PULLMAN, WA VOR/DME	6000
PULLMAN, WA VOR/DME	SPOKANE, WA VORTAC	*6000
*5600 - MOCA		

95.6254 VOR FEDERAL AIRWAY V254

HIPSHER, WY VOR/DME	TOOKE, WY FIX	*10000
*7500 - MOCA		
TOOKE, WY FIX	GILLETTE, WY VOR/DME	7000
GILLETTE, WY VOR/DME	MILES CITY, MT VOR/DME	*9000
*6900 - MOCA		
MILES CITY, MT VOR/DME	GLASGOW, MT VOR/DME	6000

95.6255 VOR FEDERAL AIRWAY V255

GARDEN CITY, KS VORTAC	HAYS, KS VORTAC	4600
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95.6256 VOR FEDERAL AIRWAY V256

TULSA, OK VORTAC	PIONEER, OK VORTAC	3000
PIONEER, OK VORTAC	HUTCHINSON, KS VOR/DME	3300

95.6257 VOR FEDERAL AIRWAY V257

*PHOENIX, AZ VORTAC	**AVENT, AZ FIX	
	NW BND	14000
	SE BND	5000
**8000 - MRA		
*9400 - MCA PHOENIX, AZ VORTAC , NW BND		
AVENT, AZ FIX	*BANYO, AZ FIX	
	NW BND	14000
	SE BND	5000
*6000 - MRA		
BANYO, AZ FIX	COYOT, AZ FIX	
	NW BND	*14000
	SE BND	*9000
*8100 - MOCA		
COYOT, AZ FIX	*MAIER, AZ FIX	**14000
*14000 - MCA MAIER, AZ FIX , SE BND		
*9000 - GNSS MEA		
MAIER, AZ FIX	*DRAKE, AZ VORTAC	
	NW BND	10000
	SE BND	14000
*12000 - MCA DRAKE, AZ VORTAC , SE BND		

FROM	TO	MEA
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95.6257 VOR FEDERAL AIRWAY V257 - CONTINUED

DRAKE, AZ VORTAC	*KACEE, AZ FIX	**10000
*11000 - MCA KACEE, AZ FIX , W BND		
*11000 - MCA KACEE, AZ FIX , E BND		
**8600 - MOCA		
**9000 - GNSS MEA		
KACEE, AZ FIX	*BISOP, AZ FIX	**10000
*11000 - MRA		
**8400 - MOCA		
**9000 - GNSS MEA		
BISOP, AZ FIX	*GRAND CANYON, AZ VOR/DME	10000
*14500 - MCA GRAND CANYON, AZ VOR/DME , N BND		
GRAND CANYON, AZ VOR/DME	*DOZIT, AZ FIX	**14500
*14500 - MCA DOZIT, AZ FIX , S BND		
**11200 - MOCA		
DOZIT, AZ FIX	JALMA, AZ FIX	*14500
*11200 - MOCA		
JALMA, AZ FIX	KACIR, AZ FIX	*13000
*11000 - MOCA		
KACIR, AZ FIX	BRYCE CANYON, UT VORTAC	11600
BRYCE CANYON, UT VORTAC	DELTA, UT VORTAC	12000
DELTA, UT VORTAC	*VERNE, UT FIX	11500
*12200 - MCA VERNE, UT FIX , N BND		
VERNE, UT FIX	*STACO, UT FIX	13000
*10500 - MCA STACO, UT FIX , S BND		
STACO, UT FIX	MOINT, UT FIX	*13000
*8900 - MOCA		
MOINT, UT FIX	*KREBS, UT FIX	**13000
*13000 - MRA		
**9600 - MOCA		
KREBS, UT FIX	MALAD CITY, ID VOR/DME	*11000
*10000 - MOCA		
MALAD CITY, ID VOR/DME	BANNO, ID FIX	10000
BANNO, ID FIX	*POCATELLO, ID VOR/DME	9000
*8000 - MCA POCATELLO, ID VOR/DME , SE BND		
POCATELLO, ID VOR/DME	ROCCA, ID FIX	7000
ROCCA, ID FIX	*DUBOIS, ID VORTAC	7500
*8600 - MCA DUBOIS, ID VORTAC , N BND		
DUBOIS, ID VORTAC	DILLON, MT VOR/DME	*12000
*11200 - MOCA		
DILLON, MT VOR/DME	DIVID, MT FIX	11000
DIVID, MT FIX	*COPPERTOWN, MT VOR/DME	10000
*10000 - MCA COPPERTOWN, MT VOR/DME , SE BND		
COPPERTOWN, MT VOR/DME	GLUES, MT FIX	9200
GLUES, MT FIX	SCAAT, MT FIX	*16000
*9200 - MOCA		
SCAAT, MT FIX	SIEBE, MT FIX	*13000
*9800 - MOCA		
*9800 - GNSS MEA		
SIEBE, MT FIX	WOKEN, MT FIX	9000
WOKEN, MT FIX	GREAT FALLS, MT VORTAC	8800
GREAT FALLS, MT VORTAC	SHONK, MT FIX	6200
SHONK, MT FIX	HAVRE, MT VOR/DME	6000

95.6258 VOR FEDERAL AIRWAY V258

CHARLESTON, WV VOR/DME	BECKLEY, WV VOR/DME	5500
BECKLEY, WV VOR/DME	ZOOMS, WV FIX	*10000
*6300 - MOCA		
*6300 - GNSS MEA		

FROM	TO	MEA
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95.6258 VOR FEDERAL AIRWAY V258 - CONTINUED

ZOOMS, WV FIX	ROANOKE, VA VOR/DME	6400
ROANOKE, VA VOR/DME	PIGGS, VA FIX	5400
PIGGS, VA FIX	ENTUK, VA FIX	*4000
*3400 - MOCA		
ENTUK, VA FIX	DANVILLE, VA VOR	3000

95.6259 VOR FEDERAL AIRWAY V259

GRAND STRAND, SC VORTAC	*CLETA, SC FIX	2000
*3000 - MRA		
CLETA, SC FIX	FLORENCE, SC VORTAC	2000
FLORENCE, SC VORTAC	CHESTERFIELD, SC VOR/DME	2000
CHESTERFIELD, SC VOR/DME	HUSTN, NC FIX	2500
MOPED, NC FIX	BARRETT'S MOUNTAIN, NC VOR/DME	4000
BARRETT'S MOUNTAIN, NC VOR/DME	GOWBE, NC FIX	
	SE BND	5000
	NW BND	7500
GOWBE, NC FIX	*HOLSTON MOUNTAIN, TN VORTAC	7500
*6600 - MCA HOLSTON MOUNTAIN, TN VORTAC , SE BND		

95.6260 VOR FEDERAL AIRWAY V260

CHARLESTON, WV VOR/DME	MONT'S, WV FIX	3400
MONT'S, WV FIX	RAINELLE, WV VOR	5100
RAINELLE, WV VOR	ROANOKE, VA VOR/DME	*6000
*5400 - MOCA		
ROANOKE, VA VOR/DME	GOOZE, VA FIX	5000
GOOZE, VA FIX	LYNCHBURG, VA VOR/DME	
	W BND	*5000
	E BND	*3000
*2900 - MOCA		
LYNCHBURG, VA VOR/DME	FLAT ROCK, VA VORTAC	3000
FLAT ROCK, VA VORTAC	RICHMOND, VA VORTAC	2600
RICHMOND, VA VORTAC	HOPEWELL, VA VORTAC	1900
HOPEWELL, VA VORTAC	WAIKS, VA FIX	3000
WAIKS, VA FIX	FRANKLIN, VA VORTAC	3000
FRANKLIN, VA VORTAC	COFIELD, NC VORTAC	1800

95.6261 VOR FEDERAL AIRWAY V261

WICHITA, KS VORTAC	CEKIS, KS FIX	3600
CEKIS, KS FIX	MANHATTAN, KS VOR/DME	3000

95.6262 VOR FEDERAL AIRWAY V262

PEORIA, IL VORTAC	*DULAP, IL FIX	2700
*3000 - MRA		
DULAP, IL FIX	BRADFORD, IL VORTAC	2700
BRADFORD, IL VORTAC	MOTIF, IL FIX	2700
MOTIF, IL FIX	JOLIET, IL VOR/DME	*3000
*2300 - MOCA		

95.6263 VOR FEDERAL AIRWAY V263

CORONA, NM VORTAC	ENCIA, NM FIX	9700
ENCIA, NM FIX	ALBUQUERQUE, NM VORTAC	8000
ALBUQUERQUE, NM VORTAC	*SANTA FE, NM VORTAC	9000
*11600 - MCA SANTA FE, NM VORTAC , E BND		
SANTA FE, NM VORTAC	*FORT UNION, NM VORTAC	12500
*10900 - MCA FORT UNION, NM VORTAC , N BND		
*11300 - MCA FORT UNION, NM VORTAC , W BND		

FROM	TO	MEA
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95.6263 VOR FEDERAL AIRWAY V263 - CONTINUED

FORT UNION, NM VORTAC *11100 - MOCA	CIMARRON, NM VORTAC	*12000
CIMARRON, NM VORTAC *10700 - MOCA	TOBE, CO VOR/DME	*11600
TOBE, CO VOR/DME *6700 - MOCA	LAMAR, CO VOR/DME	*7400
LAMAR, CO VOR/DME *6200 - MOCA	HUGO, CO VOR/DME	*6900
HUGO, CO VOR/DME *8500 - MOCA *9000 - GNSS MEA	KANDO, CO FIX	*10000
KANDO, CO FIX *7500 - MOCA	AKRON, CO VOR/DME NE BND SW BND	*8500 *10000
PIERRE, SD VORTAC	ABERDEEN, SD VOR/DME	4000

95.6264 VOR FEDERAL AIRWAY V264

LOS ANGELES, CA VORTAC	STABO, CA FIX	2500
STABO, CA FIX	AMTRA, CA FIX	3000
AMTRA, CA FIX *5600 - MCA POMONA, CA VORTAC , E BND #MTA V264 E TO V197 NW 11800	*POMONA, CA VORTAC	#4800
POMONA, CA VORTAC *11400 - MCA RAVON, CA FIX , E BND	*RAVON, CA FIX	6000
RAVON, CA FIX	REANS, CA FIX E BND W BND	12800 9000
REANS, CA FIX *12000 - MCA YUCCA, CA FIX , W BND	*YUCCA, CA FIX	13500
YUCCA, CA FIX *7700 - MOCA	TWENTYNINE PALMS, CA VORTAC	*8500
TWENTYNINE PALMS, CA VORTAC	PARKER, CA VORTAC	6000
DRAKE, AZ VORTAC	OATES, AZ FIX	10100
OATES, AZ FIX	WINSLOW, AZ VORTAC	10800
WINSLOW, AZ VORTAC	ST JOHNS, AZ VORTAC	8900
ST JOHNS, AZ VORTAC *10000 - MCA SOCORRO, NM VORTAC , W BND **11100 - MOCA	*SOCORRO, NM VORTAC	**12000
SOCORRO, NM VORTAC	CORONA, NM VORTAC	9500
CORONA, NM VORTAC *9000 - MOCA	TUCUMCARI, NM VORTAC	*11000

95.6265 VOR FEDERAL AIRWAY V265

KRANT, MD FIX	WESTMINSTER, MD VORTAC	2600
WESTMINSTER, MD VORTAC *3600 - MCA HARRISBURG, PA VORTAC , NW BND	*HARRISBURG, PA VORTAC	3400
HARRISBURG, PA VORTAC *4800 - MCA PHILIPSBURG, PA VORTAC , SE BND	*PHILIPSBURG, PA VORTAC	4900
PHILIPSBURG, PA VORTAC	KEATING, PA VORTAC	4000

95.6266 VOR FEDERAL AIRWAY V266

ELECTRIC CITY, SC VORTAC	PELZE, SC FIX	2800
PELZE, SC FIX	SPARTANBURG, SC VORTAC	2900
GREENSBORO, NC VORTAC	SOUTH BOSTON, VA VORTAC	2700
SOUTH BOSTON, VA VORTAC *2000 - MOCA *2300 - GNSS MEA	LAWRENCEVILLE, VA VORTAC	*3000

FROM	TO	MEA
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95.6266 VOR FEDERAL AIRWAY V266 - CONTINUED

LAWRENCEVILLE, VA VORTAC	FRANKLIN, VA VORTAC	2000
FRANKLIN, VA VORTAC	SUNNS, NC FIX	*2000
*1500 - MOCA		
SUNNS, NC FIX	ELIZABETH CITY, NC VOR/DME	*5000
*4000 - MOCA		
ELIZABETH CITY, NC VOR/DME	WRIGHT BROTHERS, NC VOR/DME	4000

95.6267 VOR FEDERAL AIRWAY V267

DOLPHIN, FL VORTAC	PAHOKEE, FL VOR/DME	*2000
*1500 - MOCA		
PAHOKEE, FL VOR/DME	DIDDY, FL FIX	*2000
*1500 - MOCA		
DIDDY, FL FIX	ORLANDO, FL VORTAC	2700
ORLANDO, FL VORTAC	PAOLA, FL FIX	
	N BND	*2800
	S BND	*1900
*1600 - MOCA		
PAOLA, FL FIX	WORMS, FL FIX	2800
WORMS, FL FIX	CRAIG, FL VORTAC	*3000
*2100 - MOCA		
CRAIG, FL VORTAC	*BAXLY, GA FIX	**5000
*10000 - MRA		
**3000 - GNSS MEA		
BAXLY, GA FIX	DUBLIN, GA VORTAC	
	N BND	*3000
	S BND	*5000
*2300 - MOCA		
*2500 - GNSS MEA		
DUBLIN, GA VORTAC	ATHENS, GA VOR/DME	*3000
*2200 - MOCA		
ATHENS, GA VOR/DME	IRMOS, GA FIX	3100
		MAA - 17500
IRMOS, GA FIX	CORCE, GA FIX	3800
CORCE, GA FIX	TALLE, GA FIX	5300
TALLE, GA FIX	HARRIS, GA VORTAC	7000
HARRIS, GA VORTAC	FORMS, NC FIX	7800
FORMS, NC FIX	*KNITS, TN FIX	7500
*6200 - MCA KNITS, TN FIX , S BND		
KNITS, TN FIX	VOLUNTEER, TN VORTAC	4200

95.6268 VOR FEDERAL AIRWAY V268

NESTO, PA FIX	PLEEZ, PA FIX	*4000
*3100 - MOCA		
PLEEZ, PA FIX	INDIAN HEAD, PA VORTAC	*5000
*4500 - MOCA		
INDIAN HEAD, PA VORTAC	HAGERSTOWN, MD VOR	*12000
*4600 - MOCA		
*4700 - GNSS MEA		
HAGERSTOWN, MD VOR	KEMAR, MD FIX	5000
KEMAR, MD FIX	WESTMINSTER, MD VORTAC	*4000
*2600 - MOCA		
*2700 - GNSS MEA		
WESTMINSTER, MD VORTAC	BALTIMORE, MD VORTAC	2500
BALTIMORE, MD VORTAC	SMYRNA, DE VORTAC	2000
SMYRNA, DE VORTAC	LEEAH, NJ FIX	*1800
*1300 - MOCA		
LEEAH, NJ FIX	AVALO, NJ FIX	2000

FROM	TO	MEA
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95.6268 VOR FEDERAL AIRWAY V268 - CONTINUED

AVALO, NJ FIX *4000 - GNSS MEA	HARBO, NJ FIX	*6000
HARBO, NJ FIX *6000 - MRA **3000 - GNSS MEA	*DRIFT, NJ FIX	**7500
DRIFT, NJ FIX *3000 - GNSS MEA	MANTA, NJ FIX	*12000
MANTA, NJ FIX *2000 - MOCA *3000 - GNSS MEA	PLUME, NJ FIX	*7000
PLUME, NJ FIX *5000 - MRA **3000 - MOCA **3000 - GNSS MEA	*KOPPY, NY FIX	**4000
KOPPY, NY FIX *3000 - MOCA *3000 - GNSS MEA	BEADS, NY FIX	*4000
BEADS, NY FIX *1600 - MOCA	HAMPTON, NY VORTAC	*2500
HAMPTON, NY VORTAC	SANDY POINT, RI VOR/DME	2000
SANDY POINT, RI VOR/DME	INNDY, MA FIX	2000
INNDY, MA FIX *6000 - MRA	*TONNI, MA FIX	6000
TONNI, MA FIX *5000 - MRA **4000 - GNSS MEA	*MESHL, ME FIX	**5000
MESHL, ME FIX	SAPPE, ME FIX	3000
SAPPE, ME FIX *1800 - MOCA	AUGUSTA, ME VOR/DME	*3000

95.6269 VOR FEDERAL AIRWAY V269

ELY, NV VOR/DME *13000 - MCA SPATS, NV FIX , S BND **12200 - MOCA	*SPATS, NV FIX	**13000
SPATS, NV FIX	WELLS, NV VOR/DME	11000
WELLS, NV VOR/DME *7700 - MCA TWIN FALLS, ID VORTAC , S BND **11000 - MOCA **11000 - GNSS MEA	*TWIN FALLS, ID VORTAC	**13000
TWIN FALLS, ID VORTAC	BURLEY, ID VOR/DME	7000
BURLEY, ID VOR/DME	POCATELLO, ID VOR/DME	7000
POCATELLO, ID VOR/DME *9700 - MCA JATTS, ID FIX , NW BND	*JATTS, ID FIX	8000
JATTS, ID FIX *13300 - MOCA *13300 - GNSS MEA	YOYYU, ID FIX	*16000
YOYYU, ID FIX *13500 - MOCA *13500 - GNSS MEA	SALMON, ID VOR/DME	*14000
SALMON, ID VOR/DME	DONNELLY, ID VOR/DME	12000
DONNELLY, ID VOR/DME	HOVEL, ID FIX	12000
HOVEL, ID FIX *8700 - MOCA *9000 - GNSS MEA	FONNA, OR FIX	*12000
FONNA, OR FIX	WILDHORSE, OR VOR/DME	9000
WILDHORSE, OR VOR/DME	DESCHUTES, OR VORTAC	9500
DESCHUTES, OR VORTAC	MANTE, OR FIX	10000
MANTE, OR FIX *7600 - MOCA *8000 - GNSS MEA	MOBIL, OR FIX	*10000

FROM	TO	MEA
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95.6269 VOR FEDERAL AIRWAY V269 - CONTINUED

MOBIL, OR FIX	COBUR, OR FIX	
	NE BND	7000
	SW BND	5200
COBUR, OR FIX	*EUGENE, OR VORTAC	
	NE BND	5000
	SW BND	4400
*3800 - MCA EUGENE, OR VORTAC , NE BND		

95.6270 VOR FEDERAL AIRWAY V270

ERIE, PA VORTAC	JAMESTOWN, NY VOR/DME	4000
ELMIRA, NY VOR/DME	BINGHAMTON, NY VOR/DME	3500
BINGHAMTON, NY VOR/DME	DELANCEY, NY VOR/DME	4500
DELANCEY, NY VOR/DME	ATHOS, NY FIX	6300
ATHOS, NY FIX	CHESTER, MA VOR/DME	*4500
*4000 - MOCA		
CHESTER, MA VOR/DME	GLYDE, MA FIX	4000
GLYDE, MA FIX	BOSTON, MA VOR/DME	*4000
*3000 - MOCA		

95.6271 VOR FEDERAL AIRWAY V271

MANISTEE, MI VOR/DME	ESCANABA, MI VOR/DME	*3000
*2100 - MOCA		

95.6272 VOR FEDERAL AIRWAY V272

DALHART, TX VORTAC	BORGER, TX VORTAC	5700
BORGER, TX VORTAC	BRISC, TX FIX	5000
BRISC, TX FIX	BURNS FLAT, OK VORTAC	*5000
*4500 - MOCA		
BURNS FLAT, OK VORTAC	WILL ROGERS, OK VORTAC	4500

95.6273 VOR FEDERAL AIRWAY V273

FALLZ, NJ FIX	HAAYS, NY FIX	3000
HAAYS, NY FIX	HUGUENOT, NY VOR/DME	3600
HUGUENOT, NY VOR/DME	HANCOCK, NY VOR/DME	4000
HANCOCK, NY VOR/DME	GEORGETOWN, NY VORTAC	4000
GEORGETOWN, NY VORTAC	SYRACUSE, NY VORTAC	4000

95.6274 VOR FEDERAL AIRWAY V274

PULLMAN, MI VOR/DME	VICTORY, MI VOR/DME	3000
VICTORY, MI VOR/DME	SAGINAW, MI VOR/DME	2600

95.6275 VOR FEDERAL AIRWAY V275

CINCINNATI, KY VORTAC	DAYTON, OH VOR/DME	3000
DAYTON, OH VOR/DME	KLOEE, OH FIX	*6000
*2500 - MOCA		

95.6276 VOR FEDERAL AIRWAY V276

RASHE, PA FIX	*MORTO, PA FIX	4000
*5000 - MRA		
MORTO, PA FIX	RAVINE, PA VORTAC	4000
RAVINE, PA VORTAC	*HIKES, PA FIX	**4000
*4000 - MRA		
**3500 - MOCA		

FROM	TO	MEA
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95.6276 VOR FEDERAL AIRWAY V276 - CONTINUED

HIKES, PA FIX	YARDLEY, PA VOR/DME	*4000
*2400 - MOCA		
YARDLEY, PA VOR/DME	ROBBINSVILLE, NJ VORTAC	2100
ROBBINSVILLE, NJ VORTAC	CASVI, NJ FIX	1900
CASVI, NJ FIX	*GAMBY, NJ FIX	**3000
*6000 - MCA GAMBY, NJ FIX , SE BND		
**1500 - MOCA		
GAMBY, NJ FIX	*PREPI, OA FIX	**6000
*8000 - MRA		
**2000 - MOCA		
**3000 - GNSS MEA		

95.6277 VOR FEDERAL AIRWAY V277

ROSEWOOD, OH VORTAC	FORT WAYNE, IN VORTAC	3000
FORT WAYNE, IN VORTAC	BAGEL, IN FIX	2800
BAGEL, IN FIX	KEELER, MI VOR/DME	4000

95.6278 VOR FEDERAL AIRWAY V278

TEXICO, TX VORTAC	PLAINVIEW, TX VOR/DME	5800
BOWIE, TX VORTAC	BONHAM, TX VORTAC	4000
BONHAM, TX VORTAC	PARIS, TX VOR/DME	2400
PARIS, TX VOR/DME	TEXARKANA, AR VORTAC	2000
TEXARKANA, AR VORTAC	WARLO, AR FIX	2200
WARLO, AR FIX	LOCUS, AR FIX	*3000
*1700 - MOCA		
LOCUS, AR FIX	MONTICELLO, AR VOR/DME	*2500
*1600 - MOCA		
MONTICELLO, AR VOR/DME	GREENVILLE, MS VOR/DME	*2000
*1500 - MOCA		
GREENVILLE, MS VOR/DME	SIDON, MS VORTAC	2000
SIDON, MS VORTAC	BIGBEE, MS VORTAC	2400
BIGBEE, MS VORTAC	MINIM, AL FIX	2000
MINIM, AL FIX	VULCAN, AL VORTAC	2600

95.6279 VOR FEDERAL AIRWAY V279

GUNNE, OH FIX	FLAG CITY, OH VORTAC	3000
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95.6280 VOR FEDERAL AIRWAY V280

U.S. MEXICAN BORDER	EL PASO, TX VORTAC	*8000
*6300 - MOCA		
EL PASO, TX VORTAC	PINON, NM VOR/DME	8800
PINON, NM VOR/DME	*HOPET, NM FIX	8800
*7400 - MCA HOPET, NM FIX , SW BND		
HOPET, NM FIX	CHISUM, NM VORTAC	7000
CHISUM, NM VORTAC	FRAIZ, NM FIX	
	NE BND	7500
	SW BND	6500
FRAIZ, NM FIX	DEBRA, NM FIX	*7500
*6000 - MOCA		
DEBRA, NM FIX	TEXICO, TX VORTAC	
	NE BND	*6500
	SW BND	*7500
*6000 - MOCA		
TEXICO, TX VORTAC	PANHANDLE, TX VORTAC	*5900
*5600 - MOCA		

FROM	TO	MEA
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95.6280 VOR FEDERAL AIRWAY V280 - CONTINUED

PANHANDLE, TX VORTAC	MITBEE, OK VORTAC	5500
MITBEE, OK VORTAC	*CARKO, KS FIX	4000
*5000 - MCA CARKO, KS FIX , NE BND		
CARKO, KS FIX	WIPET, KS FIX	*8000
*3500 - MOCA		
WIPET, KS FIX	HUTCHINSON, KS VOR/DME	
	E BND	3400
	W BND	8000
HUTCHINSON, KS VOR/DME	BUHLS, KS FIX	4000
BUHLS, KS FIX	STONS, KS FIX	*4500
*2900 - MOCA		
STONS, KS FIX	HEYDN, KS FIX	*5000
*2900 - MOCA		
HEYDN, KS FIX	TOPEKA, KS VORTAC	3700

95.6281 VOR FEDERAL AIRWAY V281

PASCO, WA VOR/DME	MOSES LAKE, WA VOR/DME	4000
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95.6282 VOR FEDERAL AIRWAY V282

SARANAC LAKE, NY VOR/DME	*FAWNS, NY FIX	5000
*5000 - MCA FAWNS, NY FIX , S BND		
FAWNS, NY FIX	U.S. CANADIAN BORDER	5000

95.6283 VOR FEDERAL AIRWAY V283

SEAL BEACH, CA VORTAC	*JOGIT, CA FIX	4000
*6800 - MCA JOGIT, CA FIX , E BND		
JOGIT, CA FIX	KAYOH, CA FIX	
	W BND	6200
	E BND	8000
KAYOH, CA FIX	HOMELAND, CA VOR	8000
HOMELAND, CA VOR	*LUCER, CA FIX	10500
*9300 - MCA LUCER, CA FIX , SW BND		
LUCER, CA FIX	BULGY, CA FIX	*9000
*8000 - MOCA		
BULGY, CA FIX	*HECTOR, CA VORTAC	**9000
*8200 - MCA HECTOR, CA VORTAC , NE BND		
**7000 - MOCA		
HECTOR, CA VORTAC	*WHIGG, CA FIX	10500
*12000 - MRA		
WHIGG, CA FIX	BOULDER CITY, NV VORTAC	10500

95.6284 VOR FEDERAL AIRWAY V284

SEA ISLE, NJ VORTAC	CEDAR LAKE, NJ VOR/DME	*2500
*1800 - MOCA		

95.6285 VOR FEDERAL AIRWAY V285

BRICKYARD, IN VORTAC	KOKOMO, IN VORTAC	2700
KOKOMO, IN VORTAC	GOSHEN, IN VORTAC	2600
GOSHEN, IN VORTAC	KALAMAZOO, MI VOR/DME	2600
KALAMAZOO, MI VOR/DME	VICTORY, MI VOR/DME	3000
VICTORY, MI VOR/DME	CLOCK, MI FIX	2800
CLOCK, MI FIX	WHITE CLOUD, MI VOR/DME	#2800
#WHITE CLOUD R-169 TO CLOCK UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		

FROM	TO	MEA
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95.6285 VOR FEDERAL AIRWAY V285 - CONTINUED

WHITE CLOUD, MI VOR/DME	MANISTEE, MI VOR/DME	#4000
#WHITE CLOUD R-332 TO MANISTEE UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH G		
MANISTEE, MI VOR/DME	TRAVERSE CITY, MI VOR/DME	#2800
#MANISTEE R-057 TO COP UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		

95.6286 VOR FEDERAL AIRWAY V286

ELKINS, WV VORTAC	DERIN, WV FIX	
	W BND	5700
	E BND	6200
DERIN, WV FIX	TEAKK, VA FIX	6900
TEAKK, VA FIX	CASANOVA, VA VORTAC	
	W BND	*6900
	E BND	*6500
*5800 - MOCA		
CASANOVA, VA VORTAC	FLUKY, VA FIX	*3000
*2300 - MOCA		
FLUKY, VA FIX	BROOKE, VA VORTAC	2000
BROOKE, VA VORTAC	*ZUNAR, VA FIX	**3000
*5000 - MCA ZUNAR, VA FIX , SE BND		
**2000 - GNSS MEA		
ZUNAR, VA FIX	FAGED, VA FIX	*5000
*2000 - GNSS MEA		
FAGED, VA FIX	GWYNN, VA FIX	2000
GWYNN, VA FIX	CAPE CHARLES, VA VORTAC	*2000
*1500 - MOCA		

95.6287 VOR FEDERAL AIRWAY V287

FORT JONES, CA VOR/DME	KLAMA, OR FIX	*12000
*9800 - MOCA		
KLAMA, OR FIX	*ROGUE VALLEY, OR VORTAC	
	SE BND	12000
	NW BND	8000
*7000 - MCA ROGUE VALLEY, OR VORTAC , SE BND		
ROGUE VALLEY, OR VORTAC	KOLER, OR FIX	*8000
*7400 - MOCA		
KOLER, OR FIX	CAMAS, OR FIX	*8500
*6000 - MOCA		
CAMAS, OR FIX	DEROY, OR FIX	
	NW BND	5500
	SE BND	8000
DEROY, OR FIX	NORTH BEND, OR VOR/DME	
	NW BND	4000
	SE BND	8000
NORTH BEND, OR VOR/DME	*RARES, OR FIX	
	N BND	6000
	S BND	3700
*5500 - MRA		
RARES, OR FIX	CRAAF, OR FIX	6000
CRAAF, OR FIX	MCCOY, OR FIX	*4000
*3400 - MOCA		
MCCOY, OR FIX	NEWBERG, OR VOR/DME	3600
NEWBERG, OR VOR/DME	BATTLE GROUND, WA VORTAC	4000
BATTLE GROUND, WA VORTAC	*MALAY, WA FIX	
	NW BND	6000
	SE BND	5000
*9500 - MRA		

FROM	TO	MEA
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95.6287 VOR FEDERAL AIRWAY V287 - CONTINUED

MALAY, WA FIX	*TONNO, WA FIX	6000
*5000 - MRA		
TONNO, WA FIX	OLYMPIA, WA VORTAC	4000
OLYMPIA, WA VORTAC	*CARRO, WA FIX	**4000
*4000 - MRA		
**2000 - MOCA		
CARRO, WA FIX	*LOFAL, WA FIX	**6000
*5000 - MCA LOFAL, WA FIX , SW BND		
**5000 - MOCA		
LOFAL, WA FIX	PAINE, WA VOR/DME	*3000
*1900 - MOCA		
PAINE, WA VOR/DME	PENN COVE, WA VOR/DME	*3000
*1800 - MOCA		

95.6288 VOR FEDERAL AIRWAY V288

LUCIN, UT VORTAC	*CORIN, UT FIX	**13000
*13000 - MRA		
*16000 - MCA CORIN, UT FIX , E BND		
**9400 - MOCA		
CORIN, UT FIX	FORT BRIDGER, WY VOR/DME	*16000
*11600 - MOCA		
*12000 - GNSS MEA		

95.6289 VOR FEDERAL AIRWAY V289

BEAUMONT, TX VOR/DME	HONEE, TX FIX	2000
HONEE, TX FIX	LUFKIN, TX VORTAC	*3000
*1900 - MOCA		
LUFKIN, TX VORTAC	*PIPES, TX FIX	2400
*2400 - MRA		
PIPES, TX FIX	GREGG COUNTY, TX VORTAC	2000
GREGG COUNTY, TX VORTAC	TEXARKANA, AR VORTAC	2000
TEXARKANA, AR VORTAC	*PROVO, AR FIX	
	N BND	4300
	S BND	2200
*4500 - MRA		
PROVO, AR FIX	UMPIR, AR FIX	
	N BND	*4300
	S BND	*3900
*3400 - MOCA		
UMPIR, AR FIX	BATEZ, AR FIX	*4300
*3800 - MOCA		
BATEZ, AR FIX	FORT SMITH, AR VORTAC	*4100
*3600 - MOCA		
FORT SMITH, AR VORTAC	MULBY, AR FIX	
	SW BND	3300
	NE BND	4000
MULBY, AR FIX	HARRISON, AR VOR/DME	4000
HARRISON, AR VOR/DME	DOGWOOD, MO VORTAC	3400
DOGWOOD, MO VORTAC	GOBEY, MO FIX	3400
GOBEY, MO FIX	PEKLE, MO FIX	3400
PEKLE, MO FIX	VICHY, MO VOR/DME	3000

95.6290 VOR FEDERAL AIRWAY V290

RAINELLE, WV VOR	MONTEBELLO, VA VOR/DME	6500
*MONTEBELLO, VA VOR/DME	ROMAN, VA FIX	6300
*6000 - MCA MONTEBELLO, VA VOR/DME , SE BND		

FROM	TO	MEA
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95.6290 VOR FEDERAL AIRWAY V290 - CONTINUED

ROMAN, VA FIX	ARVON, VA FIX	4000
ARVON, VA FIX	FLAT ROCK, VA VORTAC	#*5000
*2200 - GNSS MEA		
#FLAT ROCK R-297 UNUSABLE.		
TAR RIVER, NC VORTAC	KENIR, NC FIX	*4000
*1600 - MOCA		
*2000 - GNSS MEA		
KENIR, NC FIX	PUNGO, NC FIX	*5000
*1500 - MOCA		
*2000 - GNSS MEA		

95.6291 VOR FEDERAL AIRWAY V291

HOBBS, NM VORTAC	CHISUM, NM VORTAC	*6000
*5500 - MOCA		
CHISUM, NM VORTAC	DUPAL, NM FIX	
	NW BND	9000
	SE BND	6000
DUPAL, NM FIX	CORONA, NM VORTAC	9000
CORONA, NM VORTAC	ALBUQUERQUE, NM VORTAC	10000
ALBUQUERQUE, NM VORTAC	AROYO, NM FIX	8300
AROYO, NM FIX	*LORAT, NM FIX	9500
*12400 - MCA LORAT, NM FIX , W BND		
LORAT, NM FIX	BLINI, NM FIX	13300
BLINI, NM FIX	GALLUP, NM VORTAC	11000
GALLUP, NM VORTAC	FORAN, AZ FIX	9400
FORAN, AZ FIX	WINSLOW, AZ VORTAC	9000
WINSLOW, AZ VORTAC	*FLAGSTAFF, AZ VOR/DME	10100
*11000 - MCA FLAGSTAFF, AZ VOR/DME , NE BND		
FLAGSTAFF, AZ VOR/DME	KACEE, AZ FIX	11000
KACEE, AZ FIX	PEACH SPRINGS, AZ VOR/DME	*11000
*10000 - MOCA		

95.6292 VOR FEDERAL AIRWAY V292

HANCOCK, NY VOR/DME	SAGES, NY FIX	6400
SAGES, NY FIX	WIGAN, NY FIX	#
#UNUSABLE		
WIGAN, NY FIX	BARNES, MA VORTAC	#*10000
*4900 - MOCA		
#BARNES R-279 UNUSABLE BYD 50 NM		
BARNES, MA VORTAC	GLYDE, MA FIX	*7000
*2700 - MOCA		
*4000 - GNSS MEA		
GLYDE, MA FIX	BOSTON, MA VOR/DME	*4000
*3000 - MOCA		

95.6293 VOR FEDERAL AIRWAY V293

*GRAND CANYON, AZ VOR/DME	KLIFF, AZ FIX	**14500
*14500 - MCA GRAND CANYON, AZ VOR/DME , N BND		
**10900 - MOCA		
*KLIFF, AZ FIX	PAGE, AZ VOR/DME	8700
*14500 - MCA KLIFF, AZ FIX , S BND		
PAGE, AZ VOR/DME	CABER, UT FIX	8500
CABER, UT FIX	BRYCE CANYON, UT VORTAC	11000
BRYCE CANYON, UT VORTAC	*ENOCH, UT VOR/DME	13300
*12100 - MCA ENOCH, UT VOR/DME , E BND		
ENOCH, UT VOR/DME	BERYL, UT FIX	9000

FROM	TO	MEA
95.6293 VOR FEDERAL AIRWAY V293 - CONTINUED		
BERYL, UT FIX	WILSON CREEK, NV VORTAC	11600
WILSON CREEK, NV VORTAC	ELY, NV VOR/DME	12000
ELY, NV VOR/DME	*BULLION, NV VOR/DME	***14000
*12000 - MCA BULLION, NV VOR/DME , S BND		
**13100 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
BULLION, NV VOR/DME	SAMAN, ID FIX	10600
SAMAN, ID FIX	*TWIN FALLS, ID VORTAC	
	N BND	7500
	S BND	8600
*6500 - MCA TWIN FALLS, ID VORTAC , S BND		
TWIN FALLS, ID VORTAC	GOODE, ID FIX	6000
GOODE, ID FIX	*TORIN, ID FIX	6600
*8700 - MCA TORIN, ID FIX , NW BND		
TORIN, ID FIX	DERSO, ID FIX	
	NW BND	11500
	SE BND	9200
DERSO, ID FIX	DONNELLY, ID VOR/DME	11700
95.6294 VOR FEDERAL AIRWAY V294		
DES MOINES, IA VORTAC	CEDAR RAPIDS, IA VOR/DME	2700
CEDAR RAPIDS, IA VOR/DME	DAVENPORT, IA VORTAC	2600
95.6295 VOR FEDERAL AIRWAY V295		
VIRGINIA KEY, FL VOR/DME	HEATT, FL FIX	*5000
*2100 - MOCA		
HEATT, FL FIX	*BLUFI, FL FIX	**6000
*6000 - MCA BLUFI, FL FIX , S BND		
**2000 - MOCA		
BLUFI, FL FIX	STOOP, FL FIX	*5000
*2000 - MOCA		
STOOP, FL FIX	TREASURE, FL VORTAC	2000
TREASURE, FL VORTAC	BAIRN, FL FIX	2600
BAIRN, FL FIX	ORLANDO, FL VORTAC	2700
ORLANDO, FL VORTAC	*SHIMM, FL FIX	2000
*3000 - MRA		
SHIMM, FL FIX	OCALA, FL VORTAC	2000
OCALA, FL VORTAC	*PERSE, FL FIX	2000
*3000 - MRA		
PERSE, FL FIX	*WILON, FL FIX	2000
*3000 - MRA		
WILON, FL FIX	CROSS CITY, FL VORTAC	2000
CROSS CITY, FL VORTAC	SEMINOLE, FL VORTAC	2000
95.6296 VOR FEDERAL AIRWAY V296		
HUSTN, NC FIX	*RAEFO, NC FIX	**5000
*6000 - MRA		
**2300 - MOCA		
**2400 - GNSS MEA		
RAEFO, NC FIX	FAYETTEVILLE, NC VOR/DME	*5000
*1900 - MOCA		
FAYETTEVILLE, NC VOR/DME	WILMINGTON, NC VORTAC	*3000
*2100 - MOCA		
95.6298 VOR FEDERAL AIRWAY V298		
*SEATTLE, WA VORTAC	VAMPS, WA FIX	
	W BND	**4000
	E BND	**8400
*4300 - MCA SEATTLE, WA VORTAC , E BND		
**3100 - MOCA		
**5300 - GNSS MEA		

FROM	TO	MEA
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95.6298 VOR FEDERAL AIRWAY V298 - CONTINUED

VAMPS, WA FIX	BANDR, WA FIX	
	E BND	*8400
	W BND	*7700
*7700 - GNSS MEA		
BANDR, WA FIX	*BEEZR, WA FIX	8400
*9000 - MRA		
BEEZR, WA FIX	PERTT, WA FIX	*9000
*7500 - MOCA		
PERTT, WA FIX	YAKIMA, WA VORTAC	6600
YAKIMA, WA VORTAC	*SUNED, WA FIX	**5000
*5500 - MRA		
**4300 - MOCA		
SUNED, WA FIX	BENTY, WA FIX	*5000
*4300 - MOCA		
BENTY, WA FIX	PASCO, WA VOR/DME	*4000
*3500 - MOCA		
PASCO, WA VOR/DME	PENDLETON, OR VORTAC	4000
PENDLETON, OR VORTAC	CABAN, OR FIX	6000
CABAN, OR FIX	IBEAM, OR FIX	8300
IBEAM, OR FIX	DONNELLY, ID VOR/DME	12000
DONNELLY, ID VOR/DME	*DUBOIS, ID VORTAC	**16000
*9800 - MCA DUBOIS, ID VORTAC , W BND		
**13600 - MOCA		
DUBOIS, ID VORTAC	*SABAT, ID FIX	
	W BND	**9000
	E BND	**13000
*10000 - MRA		
*11100 - MCA SABAT, ID FIX , E BND		
**8100 - MOCA		
SABAT, ID FIX	LAMON, ID FIX	
	W BND	*10000
	E BND	*13000
*8100 - MOCA		
LAMON, ID FIX	*QUIRT, WY FIX	15000
*14100 - MCA QUIRT, WY FIX , W BND		
QUIRT, WY FIX	DUNOIR, WY VOR/DME	*12000
*10800 - MOCA		
DUNOIR, WY VOR/DME	*BOYSEN RESERVOIR, WY VOR/DME	14000
*11000 - MCA BOYSEN RESERVOIR, WY VOR/DME , W BND		
BOYSEN RESERVOIR, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	*11000
*10300 - MOCA		
MUDDY MOUNTAIN, WY VOR/DME	CHANG, WY FIX	8500
CHANG, WY FIX	GILLETTE, WY VOR/DME	7200

95.6299 VOR FEDERAL AIRWAY V299

*LOS ANGELES, CA VORTAC	VENTURA, CA VOR/DME	5000
*3200 - MCA LOS ANGELES, CA VORTAC , W BND		
VENTURA, CA VOR/DME	*FILLMORE, CA VORTAC	5000
*7200 - MCA FILLMORE, CA VORTAC , N BND		
FILLMORE, CA VORTAC	GORMAN, CA VORTAC	9500

95.6300 VOR FEDERAL AIRWAY V300

U.S. CANADIAN BORDER	AVALE, MI FIX	*9000
*2400 - MOCA		
AVALE, MI FIX	U.S. CANADIAN BORDER	*3000
*2400 - MOCA		
U.S. CANADIAN BORDER	SAULT STE MARIE, MI VOR/DME	*3000
*2400 - MOCA		

FROM	TO	MEA
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95.6300 VOR FEDERAL AIRWAY V300 - CONTINUED

SAULT STE MARIE, MI VOR/DME *2500 - MOCA	U.S. CANADIAN BORDER	*3000
U.S. CANADIAN BORDER *2500 - MOCA	NAASH, MI FIX	*3000
NAASH, MI FIX *2500 - MOCA	U.S. CANADIAN BORDER	*6000
U.S. CANADIAN BORDER *5900 - MOCA *5900 - GNSS MEA	CAMPO, ME FIX	*9000
CAMPO, ME FIX *6000 - MOCA *6000 - GNSS MEA	WRAPT, ME FIX	*9000
WRAPT, ME FIX *5900 - MOCA *5900 - GNSS MEA	MILLINOCKET, ME VOR/DME	*7000
MILLINOCKET, ME VOR/DME *2200 - MOCA	U.S. CANADIAN BORDER	*3000

95.6301 VOR FEDERAL AIRWAY V301

PANOCHE, CA VORTAC *6500 - MCA SUNOL, CA FIX , SE BND	*SUNOL, CA FIX	6500
SUNOL, CA FIX	OAKLAND, CA VOR/DME	4000
OAKLAND, CA VOR/DME *4000 - MOCA	COMMO, CA FIX	*5000
COMMO, CA FIX	POINT REYES, CA VOR/DME	5000
POINT REYES, CA VOR/DME	SANTA ROSA, CA VOR/DME	3500
SANTA ROSA, CA VOR/DME *6400 - MCA KLOGE, CA FIX , NE BND	*KLOGE, CA FIX	5000
KLOGE, CA FIX	RUMSY, CA FIX	7000
RUMSY, CA FIX	WILLIAMS, CA VORTAC	
	SW BND	7000
	NE BND	5300

95.6302 VOR FEDERAL AIRWAY V302

AUGUSTA, ME VOR/DME *3000 - GNSS MEA	ANCOR, ME FIX	*5000
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95.6303 VOR FEDERAL AIRWAY V303

HOT SPRINGS, AR VOR/DME *5000 - MRA **3000 - MOCA	*BLURB, AR FIX	**3500
BLURB, AR FIX *3600 - MOCA	BLIMP, AR FIX	*4100
BLIMP, AR FIX *2400 - MOCA	FORT SMITH, AR VORTAC	*2900

95.6304 VOR FEDERAL AIRWAY V304

PANHANDLE, TX VORTAC	BORGER, TX VORTAC	5000
BORGER, TX VORTAC	LIBERAL, KS VORTAC	4800
LIBERAL, KS VORTAC *5300 - MOCA	LAMAR, CO VOR/DME	*6000

95.6305 VOR FEDERAL AIRWAY V305

EL DORADO, AR VOR/DME	LITTLE ROCK, AR VORTAC	3300
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FROM	TO	MEA
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95.6305 VOR FEDERAL AIRWAY V305 - CONTINUED

LITTLE ROCK, AR VORTAC	DUMPI, AR FIX	
	S BND	2000
	N BND	4000
DUMPI, AR FIX	WALNUT RIDGE, AR VORTAC	*4000
*2200 - MOCA		
WALNUT RIDGE, AR VORTAC	MALDEN, MO VORTAC	2300
MALDEN, MO VORTAC	CUNNINGHAM, KY VOR/DME	2500
CUNNINGHAM, KY VOR/DME	POCKET CITY, IN VORTAC	2600
POCKET CITY, IN VORTAC	*AUGUS, IN FIX	2400
*2600 - MRA		
AUGUS, IN FIX	*WEGEE, IN FIX	**3500
*3500 - MRA		
**1900 - MOCA		
WEGEE, IN FIX	HOOSIER, IN VORTAC	2700
HOOSIER, IN VORTAC	BRICKYARD, IN VORTAC	#*2700
*2700 - GNSS MEA		
#HOOSIER R-027 UNUSABLE.		
BRICKYARD, IN VORTAC	WELDO, IN FIX	2900
WELDO, IN FIX	KOKOMO, IN VORTAC	2700

95.6306 VOR FEDERAL AIRWAY V306

JUNCTION, TX VORTAC	*AMUSE, TX FIX	**7000
*5000 - MCA AMUSE, TX FIX , W BND		
**5000 - MOCA		
AMUSE, TX FIX	CENTEX, TX VORTAC	*3300
*2900 - MOCA		
CENTEX, TX VORTAC	NAVASOTA, TX VOR/DME	2400
NAVASOTA, TX VOR/DME	ZMSKL, TX FIX	2000
ZMSKL, TX FIX	CLEEP, TX FIX	*5000
*2400 - MOCA		
CLEEP, TX FIX	DAISETTA, TX VORTAC	3100
DAISETTA, TX VORTAC	KUUPR, TX FIX	
	W BND	2300
	E BND	2800
KUUPR, TX FIX	OFERS, LA FIX	2800
OFERS, LA FIX	LAKE CHARLES, LA VORTAC	2000

95.6307 VOR FEDERAL AIRWAY V307

HARRISON, AR VOR/DME	NEOSHO, MO VOR/DME	*3400
*2800 - MOCA		
NEOSHO, MO VOR/DME	OSWEGO, KS VOR/DME	3000
OSWEGO, KS VOR/DME	CHANUTE, KS VOR/DME	*3000
*2500 - MOCA		
CHANUTE, KS VOR/DME	EMPORIA, KS VORTAC	3000
EMPORIA, KS VORTAC	*ALMAS, KS FIX	3300
*5000 - MCA ALMAS, KS FIX , N BND		
ALMAS, KS FIX	PAWNEE CITY, NE VORTAC	*5000
*3000 - MOCA		
PAWNEE CITY, NE VORTAC	OMAHA, IA VORTAC	3000

95.6308 VOR FEDERAL AIRWAY V308

NOTTINGHAM, MD VORTAC	*BILIT, MD FIX	**6000
*6000 - MCA BILIT, MD FIX , W BND		
**1600 - MOCA		
**2000 - GNSS MEA		
BILIT, MD FIX	WATERLOO, DE VOR/DME	*2000
*1500 - MOCA		

FROM	TO	MEA
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95.6308 VOR FEDERAL AIRWAY V308 - CONTINUED

WATERLOO, DE VOR/DME	SEA ISLE, NJ VORTAC	*2000
*1500 - MOCA		
SEA ISLE, NJ VORTAC	AVALO, NJ FIX	*4500
*4000 - GNSS MEA		
AVALO, NJ FIX	HARBO, NJ FIX	*6000
*4000 - GNSS MEA		
HARBO, NJ FIX	*DRIFT, NJ FIX	**7500
*6000 - MRA		
**3000 - GNSS MEA		
DRIFT, NJ FIX	MANTA, NJ FIX	*12000
*3000 - GNSS MEA		
MANTA, NJ FIX	PLUME, NJ FIX	*7000
*2000 - MOCA		
*3000 - GNSS MEA		
PLUME, NJ FIX	*KOPPY, NY FIX	**4000
*5000 - MRA		
**3000 - MOCA		
**3000 - GNSS MEA		
KOPPY, NY FIX	BEADS, NY FIX	*4000
*3000 - MOCA		
*3000 - GNSS MEA		
BEADS, NY FIX	HAMPTON, NY VORTAC	*2500
*1600 - MOCA		
HAMPTON, NY VORTAC	GROTON, CT VOR/DME	2000
GROTON, CT VOR/DME	NORWICH, CT VOR/DME	2000

95.6309 VOR FEDERAL AIRWAY V309

CHARLESTON, WV VOR/DME	*JULEA, WV FIX	**5000
*5000 - MRA		
*5700 - MCA JULEA, WV FIX , NE BND		
**3200 - MOCA		
**3200 - GNSS MEA		
JULEA, WV FIX	RANDE, WV FIX	*7000
*3200 - MOCA		
*3200 - GNSS MEA		
RANDE, WV FIX	BURGS, WV FIX	*7000
*3300 - MOCA		
*3400 - GNSS MEA		
BURGS, WV FIX	BELLAIRE, OH VOR/DME	3400

95.6310 VOR FEDERAL AIRWAY V310

LOUISVILLE, KY VORTAC	*DARBY, KY FIX	**3300
*5000 - MRA		
**2900 - MOCA		
DARBY, KY FIX	LONDON, KY VOR/DME	*3300
*3000 - MOCA		
LONDON, KY VOR/DME	ROSAR, KY FIX	
	SE BND	*6900
	NW BND	*5500
*4100 - MOCA		
ROSAR, KY FIX	*HOLSTON MOUNTAIN, TN VORTAC	6900
*6900 - MCA HOLSTON MOUNTAIN, TN VORTAC , E BND		
HOLSTON MOUNTAIN, TN VORTAC	STAIN, TN FIX	6900
STAIN, TN FIX	*BURCH, NC FIX	8500
*8500 - MCA BURCH, NC FIX , W BND		
BURCH, NC FIX	GREENSBORO, NC VORTAC	3500
GREENSBORO, NC VORTAC	*CHAPL, NC FIX	3100
*2800 - MCA CHAPL, NC FIX , W BND		

FROM	TO	MEA
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95.6310 VOR FEDERAL AIRWAY V310 - CONTINUED

CHAPL, NC FIX	RALEIGH/DURHAM, NC VORTAC	*2400
*1900 - MOCA		
RALEIGH/DURHAM, NC VORTAC	TAR RIVER, NC VORTAC	2600
TAR RIVER, NC VORTAC	ELIZABETH CITY, NC VOR/DME	*4000
*1600 - MOCA		
*2000 - GNSS MEA		

95.6311 VOR FEDERAL AIRWAY V311

HINCH MOUNTAIN, TN VOR/DME	DUBBS, TN FIX	5000
DUBBS, TN FIX	MADOL, GA FIX	*7000
*6400 - MOCA		
MADOL, GA FIX	*NELLO, GA FIX	**8000
*8000 - MCA NELLO, GA FIX , N BND		
*7000 - MCA NELLO, GA FIX , E BND		
**6400 - MOCA		
NELLO, GA FIX	AWSON, GA FIX	*7000
*5500 - MOCA		
AWSON, GA FIX	CORCE, GA FIX	*5400
*4600 - MOCA		
CORCE, GA FIX	ELECTRIC CITY, SC VORTAC	3800
ELECTRIC CITY, SC VORTAC	GREENWOOD, SC VORTAC	2500
GREENWOOD, SC VORTAC	COLUMBIA, SC VORTAC	2400
COLUMBIA, SC VORTAC	*ERNIE, SC FIX	2000
*2500 - MRA		
ERNIE, SC FIX	SACKS, SC FIX	2000
SACKS, SC FIX	CHARLESTON, SC VORTAC	2100

95.6312 VOR FEDERAL AIRWAY V312

POLLA, MD FIX	TACKS, MD FIX	2200
		MAA - 13000
TACKS, MD FIX	WOODSTOWN, NJ VORTAC	*2000
*1500 - MOCA		
WOODSTOWN, NJ VORTAC	COYLE, NJ VORTAC	2100
COYLE, NJ VORTAC	*DRIFT, NJ FIX	2000
*6000 - MRA		
DRIFT, NJ FIX	*PREPI, OA FIX	**4800
*8000 - MRA		
**2500 - GNSS MEA		

95.6313 VOR FEDERAL AIRWAY V313

CENTRALIA, IL VORTAC	ADDERS, IL VORTAC	2500
ADDERS, IL VORTAC	PONTIAC, IL VOR/DME	3000

95.6314 VOR FEDERAL AIRWAY V314

U.S. CANADIAN BORDER	*PATTA, ME FIX	**6000
*10000 - MRA		
**3900 - MOCA		
PATTA, ME FIX	MILLINOCKET, ME VOR/DME	*6000
*3900 - MOCA		

95.6315 VOR FEDERAL AIRWAY V315

PARIS, TX VOR/DME	RICH MOUNTAIN, OK VORTAC	4200
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95.6316 VOR FEDERAL AIRWAY V316

IRONWOOD, MI VOR/DME	SAWYER, MI VOR/DME	*6000
*3700 - MOCA		

FROM	TO	MEA
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95.6316 VOR FEDERAL AIRWAY V316 - CONTINUED

SAULT STE MARIE, MI VOR/DME *2800 - MOCA	U.S. CANADIAN BORDER	*5000
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95.6317 VOR FEDERAL AIRWAY V317

MISSION BAY, CA VORTAC	POGGI, CA VORTAC	4500
POGGI, CA VORTAC	IMPERIAL, CA VORTAC	7000

95.6318 VOR FEDERAL AIRWAY V318

U.S. CANADIAN BORDER *3900 - MOCA	HOULTON, ME VOR/DME	*9000
HOULTON, ME VOR/DME	U.S. CANADIAN BORDER	1900

95.6319 VOR FEDERAL AIRWAY V319

BOYSEN RESERVOIR, WY VOR/DME	WORLAND, WY VOR/DME	9600
WORLAND, WY VOR/DME	ALVIL, WY FIX	7000
ALVIL, WY FIX	CODY, WY VOR/DME	8500

95.6320 VOR FEDERAL AIRWAY V320

PELLSTON, MI VORTAC	TRAVERSE CITY, MI VOR/DME	3000
TRAVERSE CITY, MI VOR/DME	MOUNT PLEASANT, MI VOR/DME	5000
MOUNT PLEASANT, MI VOR/DME	SAGINAW, MI VOR/DME	2600

95.6321 VOR FEDERAL AIRWAY V321

PECAN, GA VOR/DME	KUTVE, GA FIX	2000
KUTVE, GA FIX *5000 - MCA PREST, GA FIX , NW BND	*PREST, GA FIX	2600
PREST, GA FIX *5000 - MCA COLUMBUS, GA VORTAC , SE BND **3300 - MOCA	*COLUMBUS, GA VORTAC	**5000
COLUMBUS, GA VORTAC	LAGRANGE, GA VORTAC	2500
LAGRANGE, GA VORTAC *3400 - MOCA	HEFIN, AL FIX	*4000
HEFIN, AL FIX	GADSDEN, AL VOR/DME	4000
GADSDEN, AL VOR/DME	ALBER, AL FIX	3100
ALBER, AL FIX	ROCKET, AL VORTAC	3700
ROCKET, AL VORTAC	SHELBYVILLE, TN VOR/DME	3000
SHELBYVILLE, TN VOR/DME	LIVINGSTON, TN VOR/DME	3800

95.6322 VOR FEDERAL AIRWAY V322

CONCORD, NH VOR/DME	GRUMP, NH FIX	4000
GRUMP, NH FIX *6000 - MCA NOTTY, NH FIX , N BND	*NOTTY, NH FIX	5000
NOTTY, NH FIX *5600 - MOCA	WYLIE, NH FIX	*7000

95.6323 VOR FEDERAL AIRWAY V323

MONTGOMERY, AL VORTAC	EUFAULA, AL VORTAC	2400
EUFAULA, AL VORTAC *2100 - MOCA	BYROE, GA FIX	*3000
BYROE, GA FIX	MACON, GA VORTAC	2300
MACON, GA VORTAC *2500 - MOCA	NALIZ, GA FIX	*3000

FROM	TO	MEA
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95.6323 VOR FEDERAL AIRWAY V323 - CONTINUED

NALIZ, GA FIX	WEMOB, GA FIX	*3000
*2100 - MOCA		
WEMOB, GA FIX	HUSKY, GA FIX	*3000
*2200 - MOCA		

95.6324 VOR FEDERAL AIRWAY V324

GILLETTE, WY VOR/DME	*CRAZY WOMAN, WY VOR/DME	7500
*9500 - MCA CRAZY WOMAN, WY VOR/DME , W BND		
CRAZY WOMAN, WY VOR/DME	CHAPY, WY FIX	12000
CHAPY, WY FIX	WORLAND, WY VOR/DME	
	E BND	12000
	W BND	8000

95.6325 VOR FEDERAL AIRWAY V325

COLUMBIA, SC VORTAC	*VESTO, GA FIX	8000
*8000 - MCA VESTO, GA FIX , E BND		
VESTO, GA FIX	ATHENS, GA VOR/DME	
	W BND	2500
	E BND	8000
ATHENS, GA VOR/DME	WOMAC, GA FIX	3700
WOMAC, GA FIX	LOGEN, GA FIX	*4600
*3700 - MOCA		
DALAS, GA FIX	CARAN, GA FIX	#*GNSS - 5000
*3700 - MOCA		
#GADSDEN R-089 UNUSABLE BYD 47NM EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
CARAN, GA FIX	GADSDEN, AL VOR/DME	*5000
*4200 - MOCA		
GADSDEN, AL VOR/DME	MASHA, AL FIX	3500
MASHA, AL FIX	MUSCLE SHOALS, AL VORTAC	2500

95.6326 VOR FEDERAL AIRWAY V326

FILLMORE, CA VORTAC	VAN NUYS, CA VOR/DME	5000
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95.6327 VOR FEDERAL AIRWAY V327

PHOENIX, AZ VORTAC	KNOBB, AZ FIX	8000
KNOBB, AZ FIX	RADOM, AZ FIX	
	S BND	8000
	N BND	11000
RADOM, AZ FIX	*FERER, AZ FIX	
	N BND	**12000
	S BND	**11000
*12000 - MRA		
*11000 - MCA FERER, AZ FIX , S BND		
**8400 - MOCA		
**9000 - GNSS MEA		
FERER, AZ FIX	OATES, AZ FIX	*12000
*9400 - MOCA		
*10000 - GNSS MEA		
OATES, AZ FIX	*FLAGSTAFF, AZ VOR/DME	10500
*11000 - MCA FLAGSTAFF, AZ VOR/DME , NE BND		

95.6328 VOR FEDERAL AIRWAY V328

JACKSON, WY VOR/DME	BIG PINEY, WY VOR/DME	#13500
#MTA V328 NW TO V465 SW 15100		

FROM	TO	MEA
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95.6328 VOR FEDERAL AIRWAY V328 - CONTINUED

BIG PINEY, WY VOR/DME *9700 - MOCA	ROCK SPRINGS, WY VOR/DME	*10000
ROCK SPRINGS, WY VOR/DME	SNAKY, WY FIX	11000
SNAKY, WY FIX *10000 - GNSS MEA	CELIA, CO FIX	*12000
CELIA, CO FIX	HAYDEN, CO VOR/DME	10000
HAYDEN, CO VOR/DME	HABRO, CO FIX	10000
HABRO, CO FIX	KREMMLING, CO VOR/DME	13000
KREMMLING, CO VOR/DME *16500 - MRA **15800 - MOCA	*SKEED, CO FIX	**16500
SKEED, CO FIX *15600 - MRA	*POWDR, CO FIX	14500
POWDR, CO FIX	MILE HIGH, CO VORTAC	14000

95.6330 VOR FEDERAL AIRWAY V330

WILDHORSE, OR VOR/DME	BOISE, ID VORTAC	8000
BOISE, ID VORTAC	CANEK, ID FIX NW BND	7000
	SE BND	9500
CANEK, ID FIX *8500 - MOCA	ALKAL, ID FIX	*9500
ALKAL, ID FIX	TORIN, ID FIX E BND	*8000
	W BND	*9500
*6700 - MOCA		
TORIN, ID FIX	*KINZE, ID FIX	8000
*8000 - MCA KINZE, ID FIX , W BND		
IDAHO FALLS, ID VOR/DME	*OSITY, ID FIX	8000
*9500 - MCA OSITY, ID FIX , E BND		
OSITY, ID FIX	*JACKSON, WY VOR/DME	#14000
*13400 - MCA JACKSON, WY VOR/DME , W BND #MTA V330 E TO V520 W 16000		
JACKSON, WY VOR/DME	DUNOIR, WY VOR/DME	13000
DUNOIR, WY VOR/DME *11000 - MCA ROWEY, WY FIX , W BND **13500 - MOCA	*ROWEY, WY FIX	**14000
ROWEY, WY FIX	RIVERTON, WY VOR/DME	8800
RIVERTON, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	8500

95.6332 VOR FEDERAL AIRWAY V332

FRIANT, CA VORTAC	HANGTOWN, CA VOR/DME	8500
HANGTOWN, CA VOR/DME	RED BLUFF, CA VORTAC	6000

95.6333 VOR FEDERAL AIRWAY V333

DALAS, GA FIX *3200 - MOCA	ROME, GA VORTAC	*4000
ROME, GA VORTAC	CHOO CHOO, TN VORTAC	4000
CHOO CHOO, TN VORTAC *4500 - MRA	*BOOPS, TN FIX	3500
BOOPS, TN FIX	HINCH MOUNTAIN, TN VOR/DME	5000
HINCH MOUNTAIN, TN VOR/DME	JELLO, TN FIX	5000
JELLO, TN FIX *5100 - MCA WNSOR, KY FIX , S BND *5100 - MCA WNSOR, KY FIX , N BND **4000 - MOCA **4000 - GNSS MEA	*WNSOR, KY FIX	**5100

FROM	TO	MEA
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95.6333 VOR FEDERAL AIRWAY V333 - CONTINUED

WNSOR, KY FIX	DOLLY, KY FIX	*5100
*4000 - MOCA		
*4000 - GNSS MEA		
DOLLY, KY FIX	LEXINGTON, KY VOR/DME	3800

95.6334 VOR FEDERAL AIRWAY V334

SAN JOSE, CA VOR/DME	*OAKEY, CA FIX	5000
*3000 - MCA OAKEY, CA FIX , S BND		
OAKEY, CA FIX	SACRAMENTO, CA VORTAC	2500

95.6335 VOR FEDERAL AIRWAY V335

ST LOUIS, MO VORTAC	ARNOL, IL FIX	2800
ARNOL, IL FIX	*GLASS, MO FIX	**3000
*4500 - MRA		
**2100 - MOCA		
GLASS, MO FIX	NIKEL, IL FIX	*4500
*2200 - MOCA		
*3500 - GNSS MEA		
NIKEL, IL FIX	MARION, IL VOR/DME	2400

95.6336 VOR FEDERAL AIRWAY V336

ELLENSBURG, WA VOR/DME	*QUINT, WA FIX	7100
*6500 - MCA QUINT, WA FIX , SW BND		
QUINT, WA FIX	EPHRATA, WA VORTAC	5000

95.6338 VOR FEDERAL AIRWAY V338

LINDEN, CA VOR/DME	*HANGTOWN, CA VOR/DME	5000
*7000 - MCA HANGTOWN, CA VOR/DME , NE BND		
HANGTOWN, CA VOR/DME	SQUAW VALLEY, CA VOR/DME	11000

95.6340 VOR FEDERAL AIRWAY V340

BEARZ, IN FIX	KNOX, IN VOR/DME	3000
KNOX, IN VOR/DME	FORT WAYNE, IN VORTAC	3000

95.6341 VOR FEDERAL AIRWAY V341

CEDAR RAPIDS, IA VOR/DME	DUBUQUE, IA VORTAC	2900
DUBUQUE, IA VORTAC	*BAULK, WI FIX	3600
*4000 - MRA		
BAULK, WI FIX	MADISON, WI VORTAC	3600
MADISON, WI VORTAC	OSHKOSH, WI VORTAC	3000
OSHKOSH, WI VORTAC	GREEN BAY, WI VORTAC	*3000
*2300 - MOCA		
GREEN BAY, WI VORTAC	MENOMINEE, MI VOR/DME	2600
MENOMINEE, MI VOR/DME	HAVEL, MI FIX	2500
HAVEL, MI FIX	IRON MOUNTAIN, MI VOR/DME	3300
IRON MOUNTAIN, MI VOR/DME	SAWYER, MI VOR/DME	3100
SAWYER, MI VOR/DME	HOUGHTON, MI VOR/DME	*4500
*3400 - MOCA		

95.6343 VOR FEDERAL AIRWAY V343

*DUBOIS, ID VORTAC	RANEY, MT FIX	**15000
*8500 - MCA DUBOIS, ID VORTAC , N BND		
**13200 - MOCA		

FROM	TO	MEA
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95.6343 VOR FEDERAL AIRWAY V343 - CONTINUED

RANEY, MT FIX	*GATEY, MT FIX	
	S BND	14000
	N BND	10200
*11500 - MCA GATEY, MT FIX , S BND		
GATEY, MT FIX	*BOZEMAN, MT VOR/DME	
	S BND	11500
	N BND	8000
*10500 - MCA BOZEMAN, MT VOR/DME , S BND		
BOZEMAN, MT VOR/DME	THESE, MT FIX	8000
THESE, MT FIX	SUZZY, MT FIX	
	E BND	8300
	W BND	10800
SUZZY, MT FIX	EVVER, MT FIX	11000

95.6344 VOR FEDERAL AIRWAY V344

DUPREE, SD VOR/DME	ABERDEEN, SD VOR/DME	*6500
*4100 - MOCA		
ABERDEEN, SD VOR/DME	FARGO, ND VOR/DME	*3900
*3000 - MOCA		

95.6345 VOR FEDERAL AIRWAY V345

DELLS, WI VORTAC	*MILTO, WI FIX	**3500
*4700 - MCA MILTO, WI FIX , NW BND		
**2800 - MOCA		
MILTO, WI FIX	EAU CLAIRE, WI VORTAC	*4700
*3500 - MOCA		
*3500 - GNSS MEA		

95.6346 VOR FEDERAL AIRWAY V346

U.S. CANADIAN BORDER	MILLINOCKET, ME VOR/DME	*6000
*5100 - MOCA		

95.6347 VOR FEDERAL AIRWAY V347

LONDON, KY VOR/DME	HINCH MOUNTAIN, TN VOR/DME	*4700
*4600 - MOCA		

95.6348 VOR FEDERAL AIRWAY V348

U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	*15000
*2800 - MOCA		
U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	*15000
*2800 - MOCA		
U.S. CANADIAN BORDER	SAULT STE MARIE, MI VOR/DME	*15000
*2800 - MOCA		
SAULT STE MARIE, MI VOR/DME	U.S. CANADIAN BORDER	*7000
*3000 - MOCA		

95.6349 VOR FEDERAL AIRWAY V349

WHATCOM, WA VORTAC	U.S. CANADIAN BORDER	*3000
*2600 - MOCA		

95.6350 VOR FEDERAL AIRWAY V350

LIBERAL, KS VORTAC	WICHITA, KS VORTAC	*8000
*4500 - MOCA		

FROM	TO	MEA
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95.6350 VOR FEDERAL AIRWAY V350 - CONTINUED

WICHITA, KS VORTAC	CHANUTE, KS VOR/DME	3600
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95.6352 VOR FEDERAL AIRWAY V352

*PATTA, ME FIX *10000 - MRA	HOULTON, ME VOR/DME	6500
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95.6354 VOR FEDERAL AIRWAY V354

WILL ROGERS, OK VORTAC	PIONEER, OK VORTAC	4000
PIONEER, OK VORTAC	EMPORIA, KS VORTAC	3500

95.6355 VOR FEDERAL AIRWAY V355

BOWIE, TX VORTAC	WICHITA FALLS, TX VORTAC	3100
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95.6356 VOR FEDERAL AIRWAY V356

RED TABLE, CO VOR/DME	FISTR, CO FIX	
	NE BND	15200
	SW BND	14200
FISTR, CO FIX	FIDLE, CO FIX	15200
FIDLE, CO FIX	*ELORE, CO FIX	**16500
*12400 - MCA ELORE, CO FIX , W BND		
**15600 - MOCA		
ELORE, CO FIX	MILE HIGH, CO VORTAC	7800

95.6357 VOR FEDERAL AIRWAY V357

LAKEVIEW, OR VORTAC	WILDHORSE, OR VOR/DME	*10000
*9500 - MOCA		
WILDHORSE, OR VOR/DME	*POTSY, OR FIX	10000
*15000 - MRA		
POTSY, OR FIX	BAKER CITY, OR VOR/DME	12000
BAKER CITY, OR VOR/DME	*TOLGA, OR FIX	9000
*7000 - MCA TOLGA, OR FIX , SE BND		
TOLGA, OR FIX	*WALLA WALLA, WA VOR/DME	6700
*5300 - MCA WALLA WALLA, WA VOR/DME , SE BND		
WALLA WALLA, WA VOR/DME	MOSES LAKE, WA VOR/DME	4000
MOSES LAKE, WA VOR/DME	QUINT, WA FIX	4000
QUINT, WA FIX	WENATCHEE, WA VOR/DME	5500

95.6358 VOR FEDERAL AIRWAY V358

SAN ANTONIO, TX VORTAC	GUADA, TX FIX	*4000
*2800 - MOCA		
GUADA, TX FIX	STONEWALL, TX VORTAC	4000
STONEWALL, TX VORTAC	GOOCH SPRINGS, TX VORTAC	*3800
*3200 - MOCA		
GOOCH SPRINGS, TX VORTAC	SONET, TX FIX	3000
SONET, TX FIX	WACO, TX VORTAC	2700

95.6359 VOR FEDERAL AIRWAY V359

U.S. MEXICAN BORDER	LAREDO, TX VORTAC	*3000
*2500 - MOCA		

95.6360 VOR FEDERAL AIRWAY V360

SAULT STE MARIE, MI VOR/DME	U.S. CANADIAN BORDER	*6000
*2600 - MOCA		

FROM	TO	MEA
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95.6360 VOR FEDERAL AIRWAY V360 - CONTINUED

95.6361 VOR FEDERAL AIRWAY V361

RATTLESNAKE, NM VORTAC	MARKE, CO FIX	
	NE BND	16300
	SW BND	9500
MARKE, CO FIX	UNLAP, CO FIX	
	NE BND	*16300
	SW BND	*11000
*10400 - MOCA		
UNLAP, CO FIX	SCRUB, CO FIX	16300
SCRUB, CO FIX	LYZZA, CO FIX	
	SW BND	16300
	NE BND	12400
LYZZA, CO FIX	MONTROSE, CO VOR/DME	
	SW BND	16300
	NE BND	9600
MONTROSE, CO VOR/DME	ICIES, CO FIX	
	S BND	10600
	N BND	15000
ICIES, CO FIX	RED TABLE, CO VOR/DME	15000
RED TABLE, CO VOR/DME	KREMMLING, CO VOR/DME	14000
KREMMLING, CO VOR/DME	BARGR, CO FIX	*16000
*15600 - MOCA		
BARGR, CO FIX	CHEYENNE, WY VORTAC	
	NE BND	9200
	SW BND	16000

95.6362 VOR FEDERAL AIRWAY V362

BRUNSWICK, GA VORTAC	*HABLE, GA FIX	**3000
*10000 - MCA HABLE, GA FIX , NW BND		
**1700 - MOCA		
HABLE, GA FIX	ALMA, GA VORTAC	*10000
*1700 - MOCA		
*3000 - GNSS MEA		
ALMA, GA VORTAC	SEYBO, GA FIX	#*5000
*1800 - MOCA		
*2000 - GNSS MEA		
#ALMA R-309 UNUSABLE, USE VIENNA R-127.		
SEYBO, GA FIX	VIENNA, GA VORTAC	2000
VIENNA, GA VORTAC	MACON, GA VORTAC	2000

95.6363 VOR FEDERAL AIRWAY V363

MISSION BAY, CA VORTAC	HURSI, CA FIX	3000
HURSI, CA FIX	OORAH, CA FIX	*4000
*2600 - MOCA		
OORAH, CA FIX	OFREE, CA FIX	*4000
*2300 - MOCA		
OFREE, CA FIX	EL TORO, CA VOR/DME	4000
EL TORO, CA VOR/DME	POMONA, CA VORTAC	4000

95.6364 VOR FEDERAL AIRWAY V364

LINCO, NC FIX	SUGARLOAF MOUNTAIN, NC VORTAC	6000
SUGARLOAF MOUNTAIN, NC VORTAC	WEAKS, NC FIX	8000
WEAKS, NC FIX	UNICO, TN FIX	*9000
*7700 - MOCA		
*7700 - GNSS MEA		

FROM	TO	MEA
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95.6364 VOR FEDERAL AIRWAY V364 - CONTINUED

UNICO, TN FIX	HOLSTON MOUNTAIN, TN VORTAC	7000
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95.6365 VOR FEDERAL AIRWAY V365

BURLEY, ID VOR/DME	IDAHO FALLS, ID VOR/DME	8000
IDAHO FALLS, ID VOR/DME	RIGBY, ID FIX	7600
RIGBY, ID FIX	*SABAT, ID FIX	8000
*10000 - MRA		
LIVINGSTON, MT VOR/DME	*BOZEMAN, MT VOR/DME	10900
*10200 - MCA BOZEMAN, MT VOR/DME , E BND		
BOZEMAN, MT VOR/DME	*MENAR, MT FIX	8700
*9200 - MCA MENAR, MT FIX , NW BND		
MENAR, MT FIX	SWEDD, MT FIX	*10000
*9400 - MOCA		
SWEDD, MT FIX	HELENA, MT VORTAC	10000
HELENA, MT VORTAC	WOKEN, MT FIX	9000
WOKEN, MT FIX	*SHIMY, MT FIX	*9500
*7000 - MRA		
**7500 - MOCA		
SHIMY, MT FIX	CHOTE, MT FIX	*9500
*7000 - MOCA		
CHOTE, MT FIX	CUT BANK, MT VOR/DME	7000

95.6366 VOR FEDERAL AIRWAY V366

HUGO, CO VOR/DME	FALCON, CO VORTAC	8500
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95.6367 VOR FEDERAL AIRWAY V367

INTERNATIONAL FALLS, MN VOR/DME	U.S. CANADIAN BORDER	3000
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95.6368 VOR FEDERAL AIRWAY V368

ALAMOSA, CO VORTAC	RODDS, CO FIX	
	W BND	13000
	E BND	10000
RODDS, CO FIX	*WAPRE, CO FIX	13000
*14000 - MRA		
WAPRE, CO FIX	MANUL, NM FIX	13000
MANUL, NM FIX	TURLY, NM FIX	
	E BND	11000
	W BND	9700
TURLY, NM FIX	RATTLESNAKE, NM VORTAC	9000

95.6370 VOR FEDERAL AIRWAY V370

LOS ANGELES, CA VORTAC	PRADO, CA FIX	4000
PRADO, CA FIX	PARADISE, CA VORTAC	5000
PARADISE, CA VORTAC	*SETER, CA FIX	5500
*12000 - MCA SETER, CA FIX , E BND		
SETER, CA FIX	BANDS, CA FIX	
	E BND	13000
	W BND	9000
BANDS, CA FIX	*PALM SPRINGS, CA VORTAC	13000
*11800 - MCA PALM SPRINGS, CA VORTAC , W BND		
*6200 - MCA PALM SPRINGS, CA VORTAC , N BND		
PALM SPRINGS, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	7600

95.6371 VOR FEDERAL AIRWAY V371

BOILER, IN VORTAC	KNOX, IN VOR/DME	2500
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FROM	TO	MEA
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95.6372 VOR FEDERAL AIRWAY V372

SEAL BEACH, CA VORTAC	*JOGIT, CA FIX	4000
*6800 - MCA JOGIT, CA FIX , E BND		
JOGIT, CA FIX	KAYOH, CA FIX	
	W BND	6200
	E BND	8000
KAYOH, CA FIX	*HOMELAND, CA VOR	8000
*11200 - MCA HOMELAND, CA VOR , NE BND		
HOMELAND, CA VOR	BANDS, CA FIX	
	E BND	13000
	W BND	8000
BANDS, CA FIX	*PALM SPRINGS, CA VORTAC	13000
*11800 - MCA PALM SPRINGS, CA VORTAC , W BND		
PALM SPRINGS, CA VORTAC	BLYTHE, CA VORTAC	8000

95.6373 VOR FEDERAL AIRWAY V373

GREENSBORO, NC VORTAC	SANDHILLS, NC VORTAC	3600
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95.6374 VOR FEDERAL AIRWAY V374

BINGHAMTON, NY VOR/DME	*GAYEL, NY FIX	**10000
*10000 - MCA GAYEL, NY FIX , NW BND		
**4400 - MOCA		
**4400 - GNSS MEA		
GAYEL, NY FIX	VOLLU, NY FIX	*5000
*3200 - MOCA		
VOLLU, NY FIX	CARMEL, NY VOR/DME	2600
CARMEL, NY VOR/DME	*BETHA, CT FIX	2500
*8000 - MRA		
BETHA, CT FIX	CREAM, NY FIX	2500
CREAM, NY FIX	KURTY, CT FIX	2500
KURTY, CT FIX	GROTON, CT VOR/DME	3000
GROTON, CT VOR/DME	MINNK, RI FIX	*3000
*1500 - MOCA		
MINNK, RI FIX	MARTHAS VINEYARD, MA VOR/DME	*3000
*1600 - MOCA		

95.6375 VOR FEDERAL AIRWAY V375

ROANOKE, VA VOR/DME	PROSE, VA FIX	
	E BND	6500
	W BND	5400
PROSE, VA FIX	ROMAN, VA FIX	6500
ROMAN, VA FIX	GORDONSVILLE, VA VORTAC	4000
GORDONSVILLE, VA VORTAC	*HANEY, VA FIX	2800
*7000 - MRA		
HANEY, VA FIX	FLUKY, VA FIX	2600

95.6376 VOR FEDERAL AIRWAY V376

RICHMOND, VA VORTAC	*GRUBY, VA FIX	2000
*3000 - MCA GRUBY, VA FIX , N BND		
GRUBY, VA FIX	IRONS, MD FIX	*4500
*1700 - MOCA		

95.6377 VOR FEDERAL AIRWAY V377

MONTEBELLO, VA VOR/DME	KESSEL, WV VOR/DME	*6000
*5500 - MOCA		

FROM	TO	MEA
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95.6377 VOR FEDERAL AIRWAY V377 - CONTINUED

KESSEL, WV VOR/DME	*TOMAC, WV FIX	4900
*4300 - MCA TOMAC, WV FIX , SW BND		
TOMAC, WV FIX	HAGERSTOWN, MD VOR	4000
HAGERSTOWN, MD VOR	HARRISBURG, PA VORTAC	*5000
*3800 - MOCA		
*4000 - GNSS MEA		

95.6378 VOR FEDERAL AIRWAY V378

BALTIMORE, MD VORTAC	*BELAY, MD FIX	2300
*9500 - MCA BELAY, MD FIX , NE BND		
BELAY, MD FIX	TROYZ, MD FIX	*9500
*4000 - GNSS MEA		
TROYZ, MD FIX	NUGGY, PA FIX	*7500
*4000 - GNSS MEA		
NUGGY, PA FIX	MODENA, PA VORTAC	*6000
*2000 - MOCA		
*4000 - GNSS MEA		

95.6379 VOR FEDERAL AIRWAY V379

NOTTINGHAM, MD VORTAC	JETTA, MD FIX	1900
JETTA, MD FIX	*GRACO, MD FIX	**3000
*10000 - MRA		
**1600 - MOCA		
GRACO, MD FIX	SMYRNA, DE VORTAC	1800

95.6380 VOR FEDERAL AIRWAY V380

O NEILL, NE VORTAC	WOLBACH, NE VORTAC	*4000
*3500 - MOCA		
WOLBACH, NE VORTAC	GRAND ISLAND, NE VOR/DME	*4000
*3300 - MOCA		
GRAND ISLAND, NE VOR/DME	HASTINGS, NE VOR/DME	4000
HASTINGS, NE VOR/DME	MANKATO, KS VORTAC	3900

95.6381 VOR FEDERAL AIRWAY V381

BISHOP, CA VOR/DME	*NIKOL, CA FIX	**13000
*13000 - MCA NIKOL, CA FIX , SE BND		
**12300 - MOCA		

95.6382 VOR FEDERAL AIRWAY V382

GRAND JUNCTION, CO VOR/DME	*CONES, CO VOR/DME	12100
*14200 - MCA CONES, CO VOR/DME , SE BND		
CONES, CO VOR/DME	*DURANGO, CO VOR/DME	15500
*12500 - MCA DURANGO, CO VOR/DME , NW BND		

95.6384 VOR FEDERAL AIRWAY V384

LIVINGSTON, TN VOR/DME	VOLUNTEER, TN VORTAC	6100
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95.6385 VOR FEDERAL AIRWAY V385

LUBBOCK, TX VORTAC	WAGUN, TX FIX	*8000
*4700 - MOCA		
WAGUN, TX FIX	ABILENE, TX VORTAC	*8000
*3900 - MOCA		

FROM	TO	MEA
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95.6386 VOR FEDERAL AIRWAY V386

SAN MARCUS, CA VORTAC	*OHIGH, CA FIX	8000
*9000 - MRA		
OHIGH, CA FIX	*FILLMORE, CA VORTAC	8000
*6100 - MCA FILLMORE, CA VORTAC , W BND		
FILLMORE, CA VORTAC	*SAUGS, CA FIX	6000
*6300 - MCA SAUGS, CA FIX , NE BND		
SAUGS, CA FIX	PALMDALE, CA VORTAC	7000
PALMDALE, CA VORTAC	APLES, CA FIX	7000
APLES, CA FIX	SOGGI, CA FIX	
	E BND	11000
	W BND	9000
SOGGI, CA FIX	YUCCA, CA FIX	*11000
*9400 - MOCA		
YUCCA, CA FIX	*PALM SPRINGS, CA VORTAC	**9000
*7600 - MCA PALM SPRINGS, CA VORTAC , NW BND		
**8200 - MOCA		

95.6387 VOR FEDERAL AIRWAY V387

MC ALLEN, TX VOR/DME	U.S. MEXICAN BORDER	2000
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95.6388 VOR FEDERAL AIRWAY V388

PARADISE, CA VORTAC	ACINS, CA FIX	
	E BND	7000
	W BND	5000
ACINS, CA FIX	DEWAY, CA FIX	9500
DEWAY, CA FIX	*PALM SPRINGS, CA VORTAC	9500
*6300 - MCA PALM SPRINGS, CA VORTAC , W BND		

95.6389 VOR FEDERAL AIRWAY V389

CIMARRON, NM VORTAC	*FOGLE, NM FIX	**11600
*15600 - MCA FOGLE, NM FIX , N BND		
**10700 - MOCA		
FOGLE, NM FIX	*EARLS, CO FIX	**15600
*11600 - MRA		
**12000 - MOCA		
EARLS, CO FIX	RADIO, CO FIX	*11600
*8500 - MOCA		
RADIO, CO FIX	PUEBLO, CO VORTAC	8200
PUEBLO, CO VORTAC	DRAKE, CO FIX	7600
DRAKE, CO FIX	FALCON, CO VORTAC	9000

95.6390 VOR FEDERAL AIRWAY V390

TUCUMCARI, NM VORTAC	BORGER, TX VORTAC	6500
BORGER, TX VORTAC	MITBEE, OK VORTAC	4800

95.6391 VOR FEDERAL AIRWAY V391

RATTLESNAKE, NM VORTAC	PLATA, NM FIX	10000
PLATA, NM FIX	CORTEZ, CO VOR/DME	10600
CORTEZ, CO VOR/DME	DOVE CREEK, CO VORTAC	9800
DOVE CREEK, CO VORTAC	PAROX, CO FIX	*12000
*10500 - MOCA		
PAROX, CO FIX	*GRAND JUNCTION, CO VOR/DME	12000
*10700 - MCA GRAND JUNCTION, CO VOR/DME , S BND		

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95.6391 VOR FEDERAL AIRWAY V391 - CONTINUED

GRAND JUNCTION, CO VOR/DME	BONGO, UT FIX	10800
BONGO, UT FIX	*VERNAL, UT VOR/DME	8400
*9500 - MCA VERNAL, UT VOR/DME , N BND		
VERNAL, UT VOR/DME	ROCK SPRINGS, WY VOR/DME	11800

95.6392 VOR FEDERAL AIRWAY V392

OAKLAND, CA VOR/DME	*SALAD, CA FIX	4000
*4700 - MCA SALAD, CA FIX , NE BND		
SALAD, CA FIX	*OAKEY, CA FIX	5000
*3000 - MCA OAKEY, CA FIX , S BND		
OAKEY, CA FIX	SACRAMENTO, CA VORTAC	2500
SACRAMENTO, CA VORTAC	ROZZY, CA FIX	*3500
*2300 - MOCA		
ROZZY, CA FIX	HAGAN, CA FIX	4000
HAGAN, CA FIX	*AUDIO, CA FIX	**6000
*9000 - MCA AUDIO, CA FIX , NE BND		
**4500 - MOCA		
AUDIO, CA FIX	CONYO, CA FIX	
	N BND	10000
	S BND	8000
CONYO, CA FIX	SIGNA, CA FIX	11000
SIGNA, CA FIX	MUSTANG, NV VORTAC	11500

95.6393 VOR FEDERAL AIRWAY V393

*TUCSON, AZ VORTAC	NOGALES, AZ VOR/DME	11500
*9000 - MCA TUCSON, AZ VORTAC , S BND		
NOGALES, AZ VOR/DME	U.S. MEXICAN BORDER	*13000
*8800 - MOCA		

95.6394 VOR FEDERAL AIRWAY V394

SEAL BEACH, CA VORTAC	AHEIM, CA FIX	*3000
*2200 - MOCA		
AHEIM, CA FIX	*POMONA, CA VORTAC	4000
*10400 - MCA POMONA, CA VORTAC , NE BND		
POMONA, CA VORTAC	CALBE, CA FIX	
	SW BND	5700
	NE BND	10800
CALBE, CA FIX	MEANT, CA FIX	
	SW BND	10700
	NE BND	11500
MEANT, CA FIX	*APLES, CA FIX	11800
*9200 - MCA APLES, CA FIX , SW BND		
APLES, CA FIX	BASAL, CA FIX	7900
BASAL, CA FIX	DAGGETT, CA VORTAC	7500
DAGGETT, CA VORTAC	*OASYS, NV FIX	**12000
*10400 - MCA OASYS, NV FIX , SW BND		
**9500 - MOCA		
**10000 - GNSS MEA		
OASYS, NV FIX	LAS VEGAS, NV VORTAC	9000
LAS VEGAS, NV VORTAC	MORMON MESA, NV VORTAC	*7500
*6500 - MOCA		

95.6395 VOR FEDERAL AIRWAY V395

*TUCSON, AZ VORTAC	NOGALES, AZ VOR/DME	10000
*9000 - MCA TUCSON, AZ VORTAC , S BND		

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95.6395 VOR FEDERAL AIRWAY V395 - CONTINUED

NOGALES, AZ VOR/DME *6500 - MOCA	U.S. MEXICAN BORDER	*10000
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95.6397 VOR FEDERAL AIRWAY V397

MONROE, LA VORTAC *1600 - MOCA	RUTTS, AR FIX	*6000
RUTTS, AR FIX	GREENVILLE, MS VOR/DME	2000
GREENVILLE, MS VOR/DME	MARVELL, AR VOR/DME	1900

95.6398 VOR FEDERAL AIRWAY V398

ABERDEEN, SD VOR/DME	WATERTOWN, SD VORTAC	3600
WATERTOWN, SD VORTAC	REDWOOD FALLS, MN VOR/DME	3800
REDWOOD FALLS, MN VOR/DME *5000 - MRA **2900 - MOCA	*ALMAY, MN FIX	**3400
ALMAY, MN FIX	KASPR, MN FIX	3400
KASPR, MN FIX	ROCHESTER, MN VOR/DME	3000

95.6399 VOR FEDERAL AIRWAY V399

BRICKYARD, IN VORTAC	JAKKS, IN FIX	2700
JAKKS, IN FIX	BOILER, IN VORTAC	2500
BOILER, IN VORTAC	KENLA, IL FIX	2600
KENLA, IL FIX	PEOTONE, IL VORTAC	2400

95.6400 VOR FEDERAL AIRWAY V400

PRESQUE ISLE, ME VOR/DME *4000 - MOCA	U.S. CANADIAN BORDER	*6000
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95.6401 VOR FEDERAL AIRWAY V401

WORLAND, WY VOR/DME	RANKK, WY FIX SE BND	11000
	NW BND	7000
RANKK, WY FIX	MUDDY MOUNTAIN, WY VOR/DME	11000

95.6402 VOR FEDERAL AIRWAY V402

TUCUMCARI, NM VORTAC	MOSER, TX FIX	6300
MOSER, TX FIX *5500 - MOCA	PANHANDLE, TX VORTAC	*6000
PANHANDLE, TX VORTAC *8000 - MCA BRISC, TX FIX , NE BND **5000 - MOCA	*BRISC, TX FIX	**7000
BRISC, TX FIX *8000 - MCA MITBEE, OK VORTAC , SW BND **4500 - MOCA	*MITBEE, OK VORTAC	**8000

95.6403 VOR FEDERAL AIRWAY V403

BELAY, MD FIX *2100 - MOCA *3000 - GNSS MEA	SPERY, PA FIX	*10000
SPERY, PA FIX *2100 - MOCA	POTTSTOWN, PA VORTAC	*3000

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95.6403 VOR FEDERAL AIRWAY V403 - CONTINUED

POTTSTOWN, PA VORTAC *2200 - MOCA	SOLBERG, NJ VOR/DME	*6000
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95.6404 VOR FEDERAL AIRWAY V404

CHILDRRESS, TX VORTAC *5000 - MRA	*SNEED, TX FIX	4700
SNEED, TX FIX	WICHITA FALLS, TX VORTAC E BND W BND	3000 4700

95.6405 VOR FEDERAL AIRWAY V405

BELAY, MD FIX *2100 - MOCA *3000 - GNSS MEA	SPERY, PA FIX	*10000
SPERY, PA FIX *2100 - MOCA	POTTSTOWN, PA VORTAC	*3000
POTTSTOWN, PA VORTAC *5000 - MRA *6000 - MCA LANNA, NJ FIX , SW BND	*LANNA, NJ FIX	6000
LANNA, NJ FIX	SOLBERG, NJ VOR/DME	2700
SOLBERG, NJ VOR/DME *2500 - MOCA	CARMEL, NY VOR/DME	*3000
CARMEL, NY VOR/DME	CASSH, NY FIX	3000
CASSH, NY FIX	PAWLING, NY VOR/DME	3100
PAWLING, NY VOR/DME *3500 - MOCA	COBOL, MA FIX	*4000
COBOL, MA FIX	BARNES, MA VORTAC	3500
BARNES, MA VORTAC *2500 - MOCA	PUTNAM, CT VOR/DME	*3000
PUTNAM, CT VOR/DME *2100 - MOCA	PROVIDENCE, RI VOR/DME	*3000
PROVIDENCE, RI VOR/DME *1400 - MOCA	FALMA, RI FIX	*3000
FALMA, RI FIX *1600 - MOCA	MARTHAS VINEYARD, MA VOR/DME	*3000

95.6407 VOR FEDERAL AIRWAY V407

BROWNSVILLE, TX VORTAC	HARLINGEN, TX VOR/DME	1600
HARLINGEN, TX VOR/DME	JIMIE, TX FIX N BND S BND	*6000 *1700
*1700 - GNSS MEA	JETTY, TX FIX	*6000
JIMIE, TX FIX *1800 - MOCA *2000 - GNSS MEA	CORPUS CHRISTI, TX VORTAC N BND S BND	*2100 *3800
JETTY, TX FIX	PALACIOS, TX VORTAC	1700
*2100 - GNSS MEA	GLAND, TX FIX	*4000
CORPUS CHRISTI, TX VORTAC	HUMBLE, TX VORTAC	*2500
PALACIOS, TX VORTAC *1600 - MOCA	DAISETTA, TX VORTAC	2000
GLAND, TX FIX *1900 - MOCA	LUFKIN, TX VORTAC	2000
HUMBLE, TX VORTAC		
DAISETTA, TX VORTAC		

FROM	TO	MEA
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95.6407 VOR FEDERAL AIRWAY V407 - CONTINUED

LUFKIN, TX VORTAC	ELM GROVE, LA VORTAC	*4000
*2000 - MOCA		
ELM GROVE, LA VORTAC	EL DORADO, AR VOR/DME	2000

95.6408 VOR FEDERAL AIRWAY V408

ROBRT, MD FIX	VINNY, PA FIX	5000
VINNY, PA FIX	MODENA, PA VORTAC	3500
MODENA, PA VORTAC	POTTSTOWN, PA VORTAC	2400
POTTSTOWN, PA VORTAC	*HIKES, PA FIX	2900
*4000 - MRA		
HIKES, PA FIX	EAST TEXAS, PA VOR/DME	2900
EAST TEXAS, PA VOR/DME	ALLENTOWN, PA VORTAC	#3000
#ALLENTOWN R-240 UNUSABLE BELOW 9000 USE EAST TEXAS R-059		

95.6409 VOR FEDERAL AIRWAY V409

CHARLOTTE, NC VOR/DME	LOCAS, NC FIX	3100
LOCAS, NC FIX	LIBERTY, NC VORTAC	*3000
*2400 - MOCA		
LIBERTY, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	3100

95.6412 VOR FEDERAL AIRWAY V412

REDWOOD FALLS, MN VOR/DME	FLYING CLOUD, MN VOR/DME	2800
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95.6413 VOR FEDERAL AIRWAY V413

GOPHER, MN VORTAC	BITLR, WI FIX	3500
BITLR, WI FIX	EAU CLAIRE, WI VORTAC	*3500
*2800 - MOCA		
EAU CLAIRE, WI VORTAC	RUSSH, WI FIX	
	SW BND	*6000
	NE BND	*8000
*2900 - MOCA		MAA - 17500
RUSSH, WI FIX	IRONWOOD, MI VOR/DME	8000

95.6415 VOR FEDERAL AIRWAY V415

MONTGOMERY, AL VORTAC	SEMAN, AL FIX	2300
SEMAN, AL FIX	GIFFY, AL FIX	*4000
*3300 - MOCA		
GIFFY, AL FIX	FELTO, GA FIX	*6000
*3400 - MOCA		
FELTO, GA FIX	GORGO, GA FIX	*5000
*4000 - MOCA		
GORGO, GA FIX	ROME, GA VORTAC	4000
ROME, GA VORTAC	*NELLO, GA FIX	5600
*6000 - MCA NELLO, GA FIX , E BND		
NELLO, GA FIX	ANNYE, GA FIX	6000
ANNYE, GA FIX	FOOTHILLS, SC VOR/DME	5000
FOOTHILLS, SC VOR/DME	PELAM, SC FIX	4000
PELAM, SC FIX	SPARTANBURG, SC VORTAC	*3000
*2400 - MOCA		
SPARTANBURG, SC VORTAC	LOCKS, SC FIX	2300

95.6417 VOR FEDERAL AIRWAY V417

MERIDIAN, MS VORTAC	CRIMSON, AL VORTAC	2000
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FROM	TO	MEA
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95.6417 VOR FEDERAL AIRWAY V417 - CONTINUED

CRIMSON, AL VORTAC	VULCAN, AL VORTAC	2400
VULCAN, AL VORTAC	ROME, GA VORTAC	4000
ROME, GA VORTAC	*NELLO, GA FIX	5600
*7000 - MCA NELLO, GA FIX , E BND		
NELLO, GA FIX	AWSON, GA FIX	*7000
*5500 - MOCA		
AWSON, GA FIX	CORCE, GA FIX	*5400
*4600 - MOCA		
CORCE, GA FIX	IRMOS, GA FIX	3800
IRMOS, GA FIX	ATHENS, GA VOR/DME	3100
ATHENS, GA VOR/DME	COLLIERS, SC VORTAC	2500
COLLIERS, SC VORTAC	ALLENDALE, SC VOR	3000
ALLENDALE, SC VOR	*STOAS, SC FIX	**6000
*6000 - MCA STOAS, SC FIX , W BND		
**2000 - GNSS MEA		
STOAS, SC FIX	CHARLESTON, SC VORTAC	2000

95.6419 VOR FEDERAL AIRWAY V419

WESTMINSTER, MD VORTAC	MODENA, PA VORTAC	*3000
*2400 - MOCA		
MODENA, PA VORTAC	*MAZIE, PA FIX	3000
*5000 - MRA		
MAZIE, PA FIX	*HARRS, PA FIX	2500
*5000 - MRA		
HARRS, PA FIX	*BIGGY, NJ FIX	2500
*5000 - MRA		
BIGGY, NJ FIX	SOLBERG, NJ VOR/DME	2500
SOLBERG, NJ VOR/DME	CARMEL, NY VOR/DME	*3000
*2500 - MOCA		
CARMEL, NY VOR/DME	BRISS, CT FIX	#3000
#CARMEL R-057 UNUSABLE		

95.6420 VOR FEDERAL AIRWAY V420

GREEN BAY, WI VORTAC	TRAVERSE CITY, MI VOR/DME	3500
TRAVERSE CITY, MI VOR/DME	GAYLORD, MI VOR/DME	#3000
#TRAVERSE CITY R-062 UNUSABLE USE GAYLORD R-247		
GAYLORD, MI VOR/DME	ALPENA, MI VORTAC	3200

95.6421 VOR FEDERAL AIRWAY V421

ZUNI, NM VORTAC	GALLUP, NM VORTAC	9000
GALLUP, NM VORTAC	RATTLESNAKE, NM VORTAC	10000
RATTLESNAKE, NM VORTAC	*DURANGO, CO VOR/DME	9700
*13200 - MCA DURANGO, CO VOR/DME , N BND		
DURANGO, CO VOR/DME	ZEANS, CO FIX	
	N BND	16500
	S BND	12300
ZEANS, CO FIX	LAZON, CO FIX	16500
LAZON, CO FIX	POWES, CO FIX	
	S BND	16500
	N BND	15000
POWES, CO FIX	BLUE MESA, CO VOR/DME	
	S BND	16500
	N BND	12800
BLUE MESA, CO VOR/DME	*WENDT, CO FIX	
	N BND	16300
	S BND	13400
*13900 - MCA WENDT, CO FIX , N BND		

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95.6421 VOR FEDERAL AIRWAY V421 - CONTINUED

WENDT, CO FIX *14700 - MOCA	CAZUU, CO FIX	*16300
CAZUU, CO FIX	SKIER, CO FIX	16300
SKIER, CO FIX *14900 - MOCA	RED TABLE, CO VOR/DME	*16300
RED TABLE, CO VOR/DME	KREMMLING, CO VOR/DME	14000
KREMMLING, CO VOR/DME	ROBERT, CO VOR/DME	12900
ROBERT, CO VOR/DME *12300 - MOCA	HAHNS, CO FIX	*13000

95.6422 VOR FEDERAL AIRWAY V422

NILES, IL FIX	CHICAGO HEIGHTS, IL VORTAC	3500
CHICAGO HEIGHTS, IL VORTAC	KNOX, IN VOR/DME	2800
KNOX, IN VOR/DME	WEBSTER LAKE, IN VOR	2700
WEBSTER LAKE, IN VOR	FLAG CITY, OH VORTAC	2700

95.6423 VOR FEDERAL AIRWAY V423

WILLIAMSPORT, PA VOR/DME *3800 - MOCA	BINGHAMTON, NY VOR/DME	*4300
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95.6424 VOR FEDERAL AIRWAY V424

NAPOLEON, MO VORTAC	MACON, MO VOR/DME	2900
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95.6425 VOR FEDERAL AIRWAY V425

BROOKLEY, AL VORTAC	AXSIS, AL FIX	2000
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95.6428 VOR FEDERAL AIRWAY V428

GEORGETOWN, NY VORTAC	EATEN, NY FIX	4000
EATEN, NY FIX	UTICA, NY VORTAC	3500

95.6429 VOR FEDERAL AIRWAY V429

MARION, IL VOR/DME *2100 - MOCA *2300 - GNSS MEA	BIBLE GROVE, IL VORTAC	*5000
CHAMPAIGN, IL VORTAC	ROBERTS, IL VOR/DME	2600
ROBERTS, IL VOR/DME	MEDAN, IL FIX	2500
MEDAN, IL FIX	JOLIET, IL VOR/DME	2400

95.6430 VOR FEDERAL AIRWAY V430

CUT BANK, MT VOR/DME	HAVRE, MT VOR/DME	6800
HAVRE, MT VOR/DME *5500 - MOCA	GLASGOW, MT VOR/DME	*6500
GLASGOW, MT VOR/DME *5000 - MOCA	WILLISTON, ND VOR/DME	*6000
WILLISTON, ND VOR/DME *3900 - MOCA	MINOT, ND VOR/DME	*6000
MINOT, ND VOR/DME	DEVILS LAKE, ND VOR/DME	3600
DEVILS LAKE, ND VOR/DME	GRAND FORKS, ND VOR/DME	3300
GRAND FORKS, ND VOR/DME	THIEF RIVER FALLS, MN VOR/DME	2900
THIEF RIVER FALLS, MN VOR/DME *3400 - GNSS MEA	GRAND RAPIDS, MN VOR/DME	*7000

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95.6430 VOR FEDERAL AIRWAY V430 - CONTINUED

GRAND RAPIDS, MN VOR/DME	DULUTH, MN VORTAC	3000
DULUTH, MN VORTAC	IRONWOOD, MI VOR/DME	3500
IRONWOOD, MI VOR/DME	DINER, MI FIX	3600
DINER, MI FIX	IRON MOUNTAIN, MI VOR/DME	*5000
*4000 - GNSS MEA		
IRON MOUNTAIN, MI VOR/DME	VUKFI, MI FIX	3300
VUKFI, MI FIX	ESCANABA, MI VOR/DME	*3000
*2300 - MOCA		

95.6431 VOR FEDERAL AIRWAY V431

REVER, MA FIX	LOBBY, MA FIX	2000
LOBBY, MA FIX	GARDNER, MA VOR/DME	3500

95.6432 VOR FEDERAL AIRWAY V432

*THERMAL, CA VORTAC	PARKER, CA VORTAC	**9000
*4500 - MCA THERMAL, CA VORTAC , NE BND		
**7300 - MOCA		

95.6433 VOR FEDERAL AIRWAY V433

NOTTINGHAM, MD VORTAC	PALEO, MD FIX	#
#UNUSABLE		
PALEO, MD FIX	SWANN, MD FIX	#
#UNUSABLE		
SWANN, MD FIX	GATBY, MD FIX	#
#UNUSABLE		
GATBY, MD FIX	KERNO, MD FIX	#
#UNUSABLE		
KERNO, MD FIX	ODESA, MD FIX	#
#UNUSABLE		
ODESA, MD FIX	DUPONT, DE VORTAC	#*2000
*2000 - GNSS MEA		
#DUPONT R-233 UNUSABLE BEYOND 22NM.		
DUPONT, DE VORTAC	YARDLEY, PA VOR/DME	*6000
*3000 - GNSS MEA		
YARDLEY, PA VOR/DME	METRO, NJ FIX	*3000
*2000 - MOCA		MAA - 10000
METRO, NJ FIX	GRITY, NJ FIX	*4000
*1700 - MOCA		
GRITY, NJ FIX	TICKL, NY FIX	4000
TICKL, NY FIX	LA GUARDIA, NY VOR/DME	2900
LA GUARDIA, NY VOR/DME	DUNBO, NY FIX	2000
DUNBO, NY FIX	BRIDGEPORT, CT VOR/DME	*2000
*1500 - MOCA		
BRIDGEPORT, CT VOR/DME	PAWLING, NY VOR/DME	3000
PAWLING, NY VOR/DME	*CYPER, NY FIX	6100
*10000 - MRA		
CYPER, NY FIX	ROCKDALE, NY VOR/DME	#*10000
*6100 - GNSS MEA		
#ROCKDALE R-127 UNUSABLE BELOW 10000 .		
ROCKDALE, NY VOR/DME	STODA, NY FIX	4000
STODA, NY FIX	SYRACUSE, NY VORTAC	2400

95.6434 VOR FEDERAL AIRWAY V434

OTTUMWA, IA VOR/DME	MOLINE, IL VOR/DME	*3000
*2500 - MOCA		

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95.6434 VOR FEDERAL AIRWAY V434 - CONTINUED

MOLINE, IL VOR/DME	PEORIA, IL VORTAC	2600
PEORIA, IL VORTAC	CHAMPAIGN, IL VORTAC	2800
CHAMPAIGN, IL VORTAC	BRICKYARD, IN VORTAC	2700

95.6436 VOR FEDERAL AIRWAY V436

HOBART, OK VORTAC	*NEADS, OK FIX	**5400
*5400 - MRA		
**3500 - MOCA		
NEADS, OK FIX	WILL ROGERS, OK VORTAC	3000
WILL ROGERS, OK VORTAC	JABDO, OK FIX	*4500
*3000 - MOCA		
JABDO, OK FIX	SAPPA, OK FIX	*4000
*2400 - MOCA		
SAPPA, OK FIX	TULSA, OK VORTAC	2500

95.6437 VOR FEDERAL AIRWAY V437

DOLPHIN, FL VORTAC	PAHOKEE, FL VOR/DME	*2000
*1500 - MOCA		
PAHOKEE, FL VOR/DME	MELBOURNE, FL VOR/DME	*2100
*1600 - MOCA		
MELBOURNE, FL VOR/DME	AWINY, FL FIX	*3000
*1600 - MOCA		
AWINY, FL FIX	OVIDO, FL FIX	
	NW BND	5000
	SE BND	3000
OVIDO, FL FIX	KIZER, FL FIX	*5000
*2800 - MOCA		
KIZER, FL FIX	ORMOND BEACH, FL VORTAC	
	SW BND	*5000
	NE BND	*3600
*2800 - MOCA		
ORMOND BEACH, FL VORTAC	JETSO, FL FIX	*3000
*1300 - MOCA		
JETSO, FL FIX	HOTAR, FL FIX	*5000
*1200 - MOCA		
HOTAR, FL FIX	STARY, GA FIX	*8000
*1200 - MOCA		
STARY, GA FIX	SAVANNAH, GA VORTAC	*3000
*1900 - MOCA		
SAVANNAH, GA VORTAC	CHARLESTON, SC VORTAC	2000
CHARLESTON, SC VORTAC	WESEL, SC FIX	
	S BND	1800
	N BND	4000
WESEL, SC FIX	*FILLI, SC FIX	**4000
*4500 - MRA		
**1900 - MOCA		
FILLI, SC FIX	FLORENCE, SC VORTAC	4000

95.6438 VOR FEDERAL AIRWAY V438

HAGERSTOWN, MD VOR	LUCKE, VA FIX	*3800
*3300 - MOCA		

95.6439 VOR FEDERAL AIRWAY V439

DICKINSON, ND VORTAC	WILLISTON, ND VOR/DME	4500
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95.6440 VOR FEDERAL AIRWAY V440

PANHANDLE, TX VORTAC	*BRISC, TX FIX	**7000
*7000 - MCA BRISC, TX FIX , SW BND		
**5000 - MOCA		

FROM	TO	MEA
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95.6440 VOR FEDERAL AIRWAY V440 - CONTINUED

BRISC, TX FIX *4500 - MOCA	BURNS FLAT, OK VORTAC	*5000
BURNS FLAT, OK VORTAC	CARFF, OK FIX	3600
CARFF, OK FIX *3500 - MRA	*DATTA, OK FIX	3000
DATTA, OK FIX	WILL ROGERS, OK VORTAC	3000

95.6441 VOR FEDERAL AIRWAY V441

MELBOURNE, FL VOR/DME	LAKELAND, FL VORTAC	2600
LAKELAND, FL VORTAC	ST PETERSBURG, FL VORTAC	2000
ST PETERSBURG, FL VORTAC	BAYPO, FL FIX	2000
BAYPO, FL FIX *1500 - MOCA	NITTS, FL FIX	*4000
NITTS, FL FIX	OCALA, FL VORTAC	
	NE BND	2000
	SW BND	4000
OCALA, FL VORTAC *3000 - MRA	*LEJKO, FL FIX	2000
LEJKO, FL FIX	GATORS, FL VORTAC	2000
GATORS, FL VORTAC	BRUNSWICK, GA VORTAC	3000
BRUNSWICK, GA VORTAC *1500 - MOCA	STARY, GA FIX	*3000
STARY, GA FIX *1900 - MOCA	SAVANNAH, GA VORTAC	*3000

95.6442 VOR FEDERAL AIRWAY V442

PARADISE, CA VORTAC *8100 - MOCA *9000 - GNSS MEA	APLES, CA FIX	*10000
APLES, CA FIX *8500 - MOCA	HECTOR, CA VORTAC	*10000
HECTOR, CA VORTAC	CLIPP, CA FIX	9000
CLIPP, CA FIX	PARKER, CA VORTAC	8000

95.6444 VOR FEDERAL AIRWAY V444

SPOKANE, WA VORTAC	DATES, WA FIX	5000
DATES, WA FIX	WALLA WALLA, WA VOR/DME	4000
BAKER CITY, OR VOR/DME	PAYET, ID FIX	9000
PAYET, ID FIX	*EMETT, ID FIX	
	SE BND	5900
	NW BND	9000
*9400 - MRA		
EMETT, ID FIX	*BOISE, ID VORTAC	5900
*7400 - MCA BOISE, ID VORTAC , E BND		
BOISE, ID VORTAC	AROWS, ID FIX	
	W BND	8000
	E BND	9000
AROWS, ID FIX	*DERSO, ID FIX	**12500
*15200 - MCA DERSO, ID FIX , E BND		
*10000 - MOCA		
DERSO, ID FIX	SOLDE, ID FIX	*17000
*10400 - MOCA		
SOLDE, ID FIX	*KINZE, ID FIX	
	SE BND	8000
	NW BND	17000
*15900 - MCA KINZE, ID FIX , NW BND		

FROM	TO	MEA
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95.6444 VOR FEDERAL AIRWAY V444 - CONTINUED

KINZE, ID FIX *7000 - MOCA	BURLEY, ID VOR/DME	*8000
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95.6445 VOR FEDERAL AIRWAY V445

MITCH, MD FIX *3000 - GNSS MEA	SWANN, MD FIX	*7000
SWANN, MD FIX #UNUSABLE	GATBY, MD FIX	#
GATBY, MD FIX #UNUSABLE	KERNO, MD FIX	#
KERNO, MD FIX #UNUSABLE	ODESA, MD FIX	#
ODESA, MD FIX *2000 - GNSS MEA #DUPONT R-233 UNUSABLE BEYOND 22NM.	DUPONT, DE VORTAC	#*2000
DUPONT, DE VORTAC *3000 - GNSS MEA	YARDLEY, PA VOR/DME	*6000
YARDLEY, PA VOR/DME	EMPYR, NY FIX	2100
EMPYR, NY FIX	NANCI, NY FIX	2700
NANCI, NY FIX	LA GUARDIA, NY VOR/DME	2900

95.6446 VOR FEDERAL AIRWAY V446

TROY, IL VORTAC	SAMSVILLE, IL VOR/DME	2600
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95.6447 VOR FEDERAL AIRWAY V447

CAMBRIDGE, NY VOR/DME *5400 - MOCA	KERST, VT FIX	*5900
KERST, VT FIX *5500 - MOCA	MUDDI, VT FIX	*6000
MUDDI, VT FIX *5500 - MOCA	RUCKY, VT FIX	*6000
RUCKY, VT FIX *4000 - MOCA	MONTPELIER, VT VOR/DME	*4500
MONTPELIER, VT VOR/DME *8000 - MRA	*PLOTT, VT FIX	4800
PLOTT, VT FIX *6500 - MRA	*HURDS, VT FIX	5000
HURDS, VT FIX	U.S. CANADIAN BORDER	5000

95.6448 VOR FEDERAL AIRWAY V448

ROGUE VALLEY, OR VORTAC	ROSEBURG, OR VOR/DME	7000
ROSEBURG, OR VOR/DME *6000 - MRA	*DRAIN, OR FIX	5000
DRAIN, OR FIX	EUGENE, OR VORTAC	
	N BND	*4000
	S BND	*5000
*3900 - MOCA		
EUGENE, OR VORTAC	GLORR, OR FIX	4000
GLORR, OR FIX	MAVER, OR FIX	6000
MAVER, OR FIX	*BATTLE GROUND, WA VORTAC	5000
*9400 - MCA BATTLE GROUND, WA VORTAC , NE BND		
BATTLE GROUND, WA VORTAC	LEARN, WA FIX	
	SW BND	*10500
	NE BND	*14500
*8000 - MOCA		

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95.6448 VOR FEDERAL AIRWAY V448 - CONTINUED

LEARN, WA FIX	ANGOO, WA FIX	14500
ANGOO, WA FIX	SIMCO, WA FIX	
	SW BND	*14500
	NE BND	*8500
*7500 - MOCA		
SIMCO, WA FIX	*YAKIMA, WA VORTAC	
	SW BND	12000
	NE BND	6300
*9500 - MCA YAKIMA, WA VORTAC , SW BND		
YAKIMA, WA VORTAC	RUBEL, WA FIX	6000
RUBEL, WA FIX	MOSES LAKE, WA VOR/DME	
	SW BND	6000
	NE BND	4000
MOSES LAKE, WA VOR/DME	BATUM, WA FIX	4000
BATUM, WA FIX	*SPOKANE, WA VORTAC	5000
*5200 - MCA SPOKANE, WA VORTAC , NE BND		
SPOKANE, WA VORTAC	CLASS, ID FIX	*9000
*7600 - MOCA		
CLASS, ID FIX	KILLY, MT FIX	*13000
*9900 - MOCA		
*10000 - GNSS MEA		
KILLY, MT FIX	KALISPELL, MT VOR/DME	*12000
*8600 - MOCA		
*8600 - GNSS MEA		

95.6451 VOR FEDERAL AIRWAY V451

LA GUARDIA, NY VOR/DME	*NESSI, CT FIX	**4000
*4000 - MCA NESSI, CT FIX , W BND		
**1900 - MOCA		
**2000 - GNSS MEA		
NESSI, CT FIX	KEYED, NY FIX	#2500
#SEGMENT UNUSABLE EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS		
KEYED, NY FIX	CREAM, NY FIX	2000
CREAM, NY FIX	GROTON, CT VOR/DME	*6000
*4000 - GNSS MEA		

95.6452 VOR FEDERAL AIRWAY V452

NEWPORT, OR VORTAC	*HORTE, OR FIX	6000
*4300 - MCA HORTE, OR FIX , W BND		
HORTE, OR FIX	EUGENE, OR VORTAC	4000
EUGENE, OR VORTAC	CHEEZ, OR FIX	
	SE BND	7000
	NW BND	5200
CHEEZ, OR FIX	MANSN, OR FIX	
	SE BND	#*11000
	NW BND	**8000
*7400 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
MANSN, OR FIX	MIXUP, OR FIX	*11000
*9800 - MOCA		
MIXUP, OR FIX	KLAMATH FALLS, OR VORTAC	
	NW BND	11000
	SE BND	9100
KLAMATH FALLS, OR VORTAC	TULIP, CA FIX	9000
TULIP, CA FIX	BACHS, CA FIX	
	S BND	*14000
	N BND	*9000
*11000 - GNSS MEA		

FROM	TO	MEA
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95.6452 VOR FEDERAL AIRWAY V452 - CONTINUED

BACHS, CA FIX *10200 - MOCA *11000 - GNSS MEA	HALLE, NV FIX	*14000
HALLE, NV FIX *9600 - MOCA	MUSTANG, NV VORTAC	*11000

95.6453 VOR FEDERAL AIRWAY V453

GORDONSVILLE, VA VORTAC	CASANOVA, VA VORTAC	4500
CASANOVA, VA VORTAC	LINDEN, VA VORTAC	5000

95.6454 VOR FEDERAL AIRWAY V454

BROOKLEY, AL VORTAC	MONROEVILLE, AL VORTAC	2000
MONROEVILLE, AL VORTAC	CHAFF, AL FIX	2000
CHAFF, AL FIX *4500 - MCA RUTEL, AL FIX , NE BND **1800 - MOCA	*RUTEL, AL FIX	**2500
RUTEL, AL FIX *4500 - MCA CRENS, AL FIX , SW BND **1800 - MOCA	*CRENS, AL FIX	**4500
CRENS, AL FIX *2100 - MOCA	BANBI, AL FIX	*2400
BANBI, AL FIX	COLUMBUS, GA VORTAC	2400
COLUMBUS, GA VORTAC *2400 - MOCA	GRANT, GA FIX	*3000
GRANT, GA FIX *4500 - MCA SMARR, GA FIX , NE BND **2500 - MOCA **2600 - GNSS MEA	*SMARR, GA FIX	**4000
SMARR, GA FIX *4500 - MCA SINCA, GA FIX , SW BND **2500 - MOCA **2500 - GNSS MEA	*SINCA, GA FIX	**4500
SINCA, GA FIX *4000 - MCA MADDI, GA FIX , NE BND **2200 - MOCA	*MADDI, GA FIX	**3000
MADDI, GA FIX *4000 - MCA VESTO, GA FIX , SW BND **2300 - MOCA	*VESTO, GA FIX	**4000
VESTO, GA FIX	GREENWOOD, SC VORTAC	2500
GREENWOOD, SC VORTAC	LOCKS, SC FIX	2400
GIZMO, NC FIX	LIBERTY, NC VORTAC	3000
LIBERTY, NC VORTAC *3000 - GNSS MEA	NOKIY, VA FIX	*6000
NOKIY, VA FIX *3000 - GNSS MEA #LAWRENCEVILLE R-242 UNUSABLE, USE LIBERTY R-056	LAWRENCEVILLE, VA VORTAC	#*8000
LAWRENCEVILLE, VA VORTAC *1900 - MOCA *2000 - GNSS MEA #LAWRENCEVILLE R-059 UNUSABLE, USE HOPEWELL R-237	JUNKI, VA FIX	#*6000
JUNKI, VA FIX	HOPEWELL, VA VORTAC	2000

95.6455 VOR FEDERAL AIRWAY V455

RESERVE, LA VOR/DME	PICAYUNE, MS VOR/DME	2000
PICAYUNE, MS VOR/DME *5000 - MRA	*PLUGG, MS FIX	2000

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95.6455 VOR FEDERAL AIRWAY V455 - CONTINUED

PLUGG, MS FIX	EATON, MS VORTAC	2000
EATON, MS VORTAC	MERIDIAN, MS VORTAC	2300

95.6456 VOR FEDERAL AIRWAY V456

FORT DODGE, IA VORTAC	MANKATO, MN VOR/DME	3000
MANKATO, MN VOR/DME	FLYING CLOUD, MN VOR/DME	*2900
*2400 - MOCA		

95.6457 VOR FEDERAL AIRWAY V457

BROADWAY, NJ VOR/DME	LANCASTER, PA VOR/DME	3000
LANCASTER, PA VOR/DME	*ROAST, PA FIX	
	SW BND	**9000
	NE BND	**4500
*10000 - MRA		
**2600 - MOCA		
**4500 - GNSS MEA		
ROAST, PA FIX	VINNY, PA FIX	*9000
*4500 - GNSS MEA		
VINNY, PA FIX	WESTMINSTER, MD VORTAC	3000
WESTMINSTER, MD VORTAC	MARTINSBURG, WV VORTAC	*4000
*3300 - MOCA		

95.6458 VOR FEDERAL AIRWAY V458

SANTA CATALINA, CA VORTAC	AVOLS, CA FIX	4000
AVOLS, CA FIX	PACIF, CA FIX	*3000
*2000 - MOCA		
PACIF, CA FIX	OCEANSIDE, CA VORTAC	3000
OCEANSIDE, CA VORTAC	*VISTA, CA FIX	3000
*5000 - MCA VISTA, CA FIX , E BND		
VISTA, CA FIX	JULIAN, CA VORTAC	7700
JULIAN, CA VORTAC	*KUMBA, CA FIX	7900
*5600 - MCA KUMBA, CA FIX , NW BND		
KUMBA, CA FIX	IMPERIAL, CA VORTAC	4300
IMPERIAL, CA VORTAC	BARD, CA VORTAC	3600

95.6459 VOR FEDERAL AIRWAY V459

SEAL BEACH, CA VORTAC	DARTS, CA FIX	
	SE BND	4000
	NW BND	6000
DARTS, CA FIX	*SAUGS, CA FIX	7000
*6600 - MCA SAUGS, CA FIX , NW BND		
SAUGS, CA FIX	LAKE HUGHES, CA VORTAC	8000
LAKE HUGHES, CA VORTAC	JEFFY, CA FIX	8000
JEFFY, CA FIX	*LOPES, CA FIX	9000
*8600 - MCA LOPES, CA FIX , S BND		
LOPES, CA FIX	*WRING, CA FIX	8500
*5800 - MCA WRING, CA FIX , SE BND		
WRING, CA FIX	TULE, CA VOR/DME	5000
TULE, CA VOR/DME	EXTRA, CA FIX	3500
EXTRA, CA FIX	FRIANT, CA VORTAC	5700
FRIANT, CA VORTAC	BAGBY, CA FIX	*8500
*6600 - MOCA		
BAGBY, CA FIX	LINDEN, CA VOR/DME	7000

95.6460 VOR FEDERAL AIRWAY V460

MISSION BAY, CA VORTAC	*RYAHH, CA FIX	
	E BND	7000
	W BND	4000
*6400 - MCA RYAHH, CA FIX , E BND		

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95.6460 VOR FEDERAL AIRWAY V460 - CONTINUED

RYAHH, CA FIX	BARET, CA FIX	
	E BND	*8400
	W BND	*7000
*6100 - MOCA		
BARET, CA FIX	CANNO, CA FIX	8400
CANNO, CA FIX	JULIAN, CA VORTAC	8800
JULIAN, CA VORTAC	*MOMAR, CA FIX	8500
*7300 - MCA MOMAR, CA FIX , SW BND		
MOMAR, CA FIX	BLYTHE, CA VORTAC	7000

95.6461 VOR FEDERAL AIRWAY V461

GILA BEND, AZ VORTAC	BUCKEYE, AZ VORTAC	4000
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95.6462 VOR FEDERAL AIRWAY V462

FORT DODGE, IA VORTAC	SIOUX FALLS, SD VORTAC	4400
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95.6463 VOR FEDERAL AIRWAY V463

WOMAC, GA FIX	*ANNYE, GA FIX	**5000
*5900 - MCA ANNYE, GA FIX , N BND		
**4100 - MOCA		
ANNYE, GA FIX	HARRIS, GA VORTAC	7000

95.6465 VOR FEDERAL AIRWAY V465

BULLION, NV VOR/DME	*WELLS, NV VOR/DME	13000
*11800 - MCA WELLS, NV VOR/DME , SW BND		
WELLS, NV VOR/DME	SHEAR, UT FIX	12000
SHEAR, UT FIX	*MALAD CITY, ID VOR/DME	
	SW BND	11000
	NE BND	10000
*10700 - MCA MALAD CITY, ID VOR/DME , NE BND		
MALAD CITY, ID VOR/DME	LUNDI, ID FIX	#11500
#MTA V465 SW TO V21-257 NW 11000		
LUNDI, ID FIX	JACKSON, WY VOR/DME	#*15000
*13300 - MOCA		
*13300 - GNSS MEA		
#MTA V465 NE TO V330 W OR V520 W 16000		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
JACKSON, WY VOR/DME	DUNOIR, WY VOR/DME	13000
DUNOIR, WY VOR/DME	REDLO, MT FIX	*17000
*14500 - MOCA		
REDLO, MT FIX	LAREI, MT FIX	
	N BND	7200
	S BND	17000
LAREI, MT FIX	*BILLINGS, MT VORTAC	
	S BND	17000
	N BND	6000
*7000 - MCA BILLINGS, MT VORTAC , S BND		
BILLINGS, MT VORTAC	MILES CITY, MT VOR/DME	6000
MILES CITY, MT VOR/DME	WILLISTON, ND VOR/DME	*7000
*5200 - MOCA		
*6000 - GNSS MEA		

95.6466 VOR FEDERAL AIRWAY V466

VOLUNTEER, TN VORTAC	TAMPI, TN FIX	3500
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FROM	TO	MEA
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95.6466 VOR FEDERAL AIRWAY V466 - CONTINUED

TAMPI, TN FIX	YUMMY, VA FIX	4500
YUMMY, VA FIX	GLADE SPRING, VA VOR/DME	6000
GLADE SPRING, VA VOR/DME	*DORFF, VA FIX	6600
*7000 - MRA		
DORFF, VA FIX	PULASKI, VA VORTAC	6000

95.6468 VOR FEDERAL AIRWAY V468

*BATTLE GROUND, WA VORTAC	TROTS, WA FIX	**10000
*5300 - MCA BATTLE GROUND, WA VORTAC , NE BND		
**7200 - MOCA		
**8000 - GNSS MEA		
*TROTS, WA FIX	SWANY, WA FIX	**11500
*11500 - MCA TROTS, WA FIX , NE BND		
**6800 - MOCA		
**7000 - GNSS MEA		
*SWANY, WA FIX	HITCH, WA FIX	**8500
*11500 - MCA SWANY, WA FIX , SW BND		
**6800 - MOCA		
**7000 - GNSS MEA		
HITCH, WA FIX	YAKIMA, WA VORTAC	
	SW BND	*8500
	NE BND	*5000
*4400 - MOCA		
*5000 - GNSS MEA		
YAKIMA, WA VORTAC	GLEED, WA FIX	
	NW BND	5500
	SE BND	5000
GLEED, WA FIX	ELLENSBURG, WA VOR/DME	6000

95.6469 VOR FEDERAL AIRWAY V469

DANVILLE, VA VOR	LYNCHBURG, VA VOR/DME	3000
LYNCHBURG, VA VOR/DME	RADIA, VA FIX	#
#LYNCHBURG R-352 UNUSABLE		
RADIA, VA FIX	RELEE, VA FIX	#
#LYNCHBURG R-352 UNUSABLE		
RELEE, VA FIX	EXRAS, VA FIX	#GNSS - 5200
#LYNCHBURG R-352 UNUSABLE		
EXRAS, VA FIX	BRUCY, VA FIX	#GNSS - 6900
#LYNCHBURG R-352 UNUSABLE		
BRUCY, VA FIX	BOIER, WV FIX	*10000
*6900 - MOCA		
*6900 - GNSS MEA		
BOIER, WV FIX	ELKINS, WV VORTAC	6800
ELKINS, WV VORTAC	TYGAR, WV FIX	*5000
*4400 - MOCA		
TYGAR, WV FIX	MORGANTOWN, WV VOR/DME	4000
MORGANTOWN, WV VOR/DME	*NESTO, PA FIX	**5000
*10000 - MCA NESTO, PA FIX , E BND		
**4300 - MOCA		
NESTO, PA FIX	*JOHNSTOWN, PA VOR/DME	10000
*10000 - MCA JOHNSTOWN, PA VOR/DME , W BND		
JOHNSTOWN, PA VOR/DME	ST THOMAS, PA VORTAC	#5000
#JOHNSTOWN R-125 UNUSABLE USE ST THOMAS R-307		
ST THOMAS, PA VORTAC	BADDI, PA FIX	*5000
*4000 - MOCA		
BADDI, PA FIX	HARRISBURG, PA VORTAC	4000
HARRISBURG, PA VORTAC	JOANE, PA FIX	4000

FROM

TO

MEA

95.6469 VOR FEDERAL AIRWAY V469 - CONTINUED

JOANE, PA FIX	DUPONT, DE VORTAC	3000
DUPONT, DE VORTAC	WOODSTOWN, NJ VORTAC	2000
		MAA - 8000

95.6470 VOR FEDERAL AIRWAY V470

PULASKI, VA VORTAC	TABER, VA FIX	5500
TABER, VA FIX	*MONAT, VA FIX	**5600
*4000 - MRA		
**5100 - MOCA		
MONAT, VA FIX	LYNCHBURG, VA VOR/DME	
	W BND	*4000
	E BND	*3000
*2900 - MOCA		

95.6471 VOR FEDERAL AIRWAY V471

BANGOR, ME VORTAC	MILLINOCKET, ME VOR/DME	*2500
*2100 - MOCA		
MILLINOCKET, ME VOR/DME	HOULTON, ME VOR/DME	*2600
*2000 - MOCA		
HOULTON, ME VOR/DME	U.S. CANADIAN BORDER	*2600
*2100 - MOCA		

95.6472 VOR FEDERAL AIRWAY V472

ELIZABETH CITY, NC VOR/DME	BERTI, NC FIX	*4000
*1600 - MOCA		
BERTI, NC FIX	*ZAGGY, NC FIX	**7000
*7000 - MCA ZAGGY, NC FIX , NE BND		
**2100 - MOCA		
**2100 - GNSS MEA		
ZAGGY, NC FIX	KINSTON, NC VORTAC	#
#UNUSABLE		

95.6473 VOR FEDERAL AIRWAY V473

ROANOKE, VA VOR/DME	HOBOS, VA FIX	*6000
*5100 - MOCA		
HOBOS, VA FIX	MONTEBELLO, VA VOR/DME	6000
MONTEBELLO, VA VOR/DME	GORDONSVILLE, VA VORTAC	*6000
*5500 - MOCA		

95.6474 VOR FEDERAL AIRWAY V474

NESTO, PA FIX	PLEEZ, PA FIX	*4000
*3100 - MOCA		
PLEEZ, PA FIX	INDIAN HEAD, PA VORTAC	*5000
*4500 - MOCA		
INDIAN HEAD, PA VORTAC	ST THOMAS, PA VORTAC	*5000
*4500 - MOCA		
ST THOMAS, PA VORTAC	NOENO, PA FIX	*5000
*4000 - MOCA		
NOENO, PA FIX	DELRO, PA FIX	*5000
*3400 - MOCA		
*3400 - GNSS MEA		
DELRO, PA FIX	*MODENA, PA VORTAC	**10000
*10000 - MCA MODENA, PA VORTAC , W BND		
**4000 - GNSS MEA		

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95.6474 VOR FEDERAL AIRWAY V474 - CONTINUED

95.6475 VOR FEDERAL AIRWAY V475

LA GUARDIA, NY VOR/DME	DUNBO, NY FIX	2000
DUNBO, NY FIX	BRIDGEPORT, CT VOR/DME	*2000
*1500 - MOCA		
BRIDGEPORT, CT VOR/DME	MADISON, CT VOR/DME	*2000
*1500 - MOCA		
MADISON, CT VOR/DME	NORWICH, CT VOR/DME	#2600
#MADISON R-078 UNUSABLE BYD 16 NM USE NORWICH R-259		
NORWICH, CT VOR/DME	PROVIDENCE, RI VOR/DME	*2400
*1900 - MOCA		

95.6476 VOR FEDERAL AIRWAY V476

LYNCHBURG, VA VOR/DME	GORDONSVILLE, VA VORTAC	3300
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95.6477 VOR FEDERAL AIRWAY V477

HUMBLE, TX VORTAC	LEONA, TX VORTAC	*3000
*2000 - MOCA		
LEONA, TX VORTAC	CEDAR CREEK, TX VORTAC	2100

95.6479 VOR FEDERAL AIRWAY V479

DUPONT, DE VORTAC	WILJR, NJ FIX	2100
WILJR, NJ FIX	MENGE, NJ FIX	*4000
*1600 - MOCA		
*2000 - GNSS MEA		
MENGE, NJ FIX	YARDLEY, PA VOR/DME	2000

95.6481 VOR FEDERAL AIRWAY V481

EUGENE, OR VORTAC	CORVALLIS, OR VOR/DME	3500
CORVALLIS, OR VOR/DME	CRAAF, OR FIX	4000

95.6483 VOR FEDERAL AIRWAY V483

DEER PARK, NY VOR/DME	*RYMES, CT FIX	**2500
*5000 - MRA		
**2000 - MOCA		
RYMES, CT FIX	CARMEL, NY VOR/DME	2500
CARMEL, NY VOR/DME	KINGSTON, NY VOR/DME	3000
KINGSTON, NY VOR/DME	WEETS, NY FIX	
	NW BND	*6000
	SE BND	*4000
*3200 - MOCA		
WEETS, NY FIX	RIMBA, NY FIX	6400
RIMBA, NY FIX	DELANCEY, NY VOR/DME	5500
DELANCEY, NY VOR/DME	ROCKDALE, NY VOR/DME	4200
ROCKDALE, NY VOR/DME	STODA, NY FIX	4000
STODA, NY FIX	SYRACUSE, NY VORTAC	2400
SYRACUSE, NY VORTAC	*LYSAN, NY FIX	2300
*3000 - MRA		
LYSAN, NY FIX	ROCHESTER, NY VOR/DME	2300

95.6484 VOR FEDERAL AIRWAY V484

HAILEY, ID NDB/DME	KINZE, ID FIX	9300
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FROM	TO	MEA
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95.6484 VOR FEDERAL AIRWAY V484 - CONTINUED

KINZE, ID FIX	*TWIN FALLS, ID VORTAC	7000
*8000 - MCA TWIN FALLS, ID VORTAC , E BND		
TWIN FALLS, ID VORTAC	WODEN, ID FIX	8800
WODEN, ID FIX	*DRYAD, ID FIX	**12000
*13000 - MCA DRYAD, ID FIX , SE BND		
**9500 - MOCA		
DRYAD, ID FIX	SWITZ, UT FIX	#*16000
*11900 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
SWITZ, UT FIX	CAUSE, UT FIX	*11500
*8600 - MOCA		
CAUSE, UT FIX	*WASATCH, UT VORTAC	8600
*11000 - MCA WASATCH, UT VORTAC , E BND		
WASATCH, UT VORTAC	PARLE, UT FIX	11500
PARLE, UT FIX	MYTON, UT VOR/DME	13000
MYTON, UT VOR/DME	*WINDO, UT FIX	**10500
*13000 - MRA		
**9000 - MOCA		
WINDO, UT FIX	GRAND JUNCTION, CO VOR/DME	10500
GRAND JUNCTION, CO VOR/DME	BATTZ, CO FIX	12300
BATTZ, CO FIX	BLUE MESA, CO VOR/DME	14000
BLUE MESA, CO VOR/DME	HOMME, CO FIX	14600
HOMME, CO FIX	ALAMOSA, CO VORTAC	
	S BND	10000
	N BND	14600

95.6485 VOR FEDERAL AIRWAY V485

VENTURA, CA VOR/DME	*HENER, CA FIX	5000
*6500 - MCA HENER, CA FIX , NW BND		
HENER, CA FIX	FELLOWS, CA VOR/DME	9000

95.6487 VOR FEDERAL AIRWAY V487

LA GUARDIA, NY VOR/DME	DUNBO, NY FIX	2000
DUNBO, NY FIX	*BRIDGEPORT, CT VOR/DME	**2000
*8800 - MCA BRIDGEPORT, CT VOR/DME , N BND		
**1500 - MOCA		
BRIDGEPORT, CT VOR/DME	*MOONI, CT FIX	
	N BND	**12000
	S BND	**6000
*12000 - MCA MOONI, CT FIX , N BND		
*6000 - MCA MOONI, CT FIX , S BND		
**5500 - MOCA		
**6000 - GNSS MEA		
MOONI, CT FIX	*BOWAN, NY FIX	**12000
*12000 - MCA BOWAN, NY FIX , S BND		
**4900 - MOCA		
**6000 - GNSS MEA		
BOWAN, NY FIX	CAMBRIDGE, NY VOR/DME	
	N BND	5000
	S BND	6000
CAMBRIDGE, NY VOR/DME	WEIGH, VT FIX	4600
WEIGH, VT FIX	BURLINGTON, VT VOR/DME	
	N BND	3000
	S BND	4600
BURLINGTON, VT VOR/DME	U.S. CANADIAN BORDER	2800

95.6489 VOR FEDERAL AIRWAY V489

COATE, NJ FIX	HUGUENOT, NY VOR/DME	*4000
*3300 - MOCA		

FROM	TO	MEA
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95.6489 VOR FEDERAL AIRWAY V489 - CONTINUED

HUGUENOT, NY VOR/DME *3500 - MOCA	WEARD, NY FIX	*4000
WEARD, NY FIX *5700 - MOCA	SAGES, NY FIX	*7000
SAGES, NY FIX	ALBANY, NY VORTAC	6000

95.6490 VOR FEDERAL AIRWAY V490

UTICA, NY VORTAC *6000 - MRA **3300 - MOCA	*GALWA, NY FIX	**4000
GALWA, NY FIX *3300 - MOCA	CAMBRIDGE, NY VOR/DME	*4000
CAMBRIDGE, NY VOR/DME *5300 - MOCA	STRUM, NH FIX	*6000
STRUM, NH FIX	DUBIN, NH FIX	5000
DUBIN, NH FIX	LURCH, NH FIX	4000
LURCH, NH FIX *4000 - MCA MUGGY, NH FIX , W BND	*MUGGY, NH FIX	4000
MUGGY, NH FIX	MANCHESTER, NH VOR/DME	3000

95.6491 VOR FEDERAL AIRWAY V491

RAPID CITY, SD VORTAC	BFFLO, SD FIX	5000
BFFLO, SD FIX *5000 - MOCA	HAYNI, ND FIX	*9000
HAYNI, ND FIX *4500 - MOCA	DICKINSON, ND VORTAC	*5000
DICKINSON, ND VORTAC *4400 - MOCA	MINOT, ND VOR/DME	*6000

95.6492 VOR FEDERAL AIRWAY V492

LA BELLE, FL VORTAC *1500 - MOCA	PAHOKEE, FL VOR/DME	*2000
PAHOKEE, FL VOR/DME *1500 - MOCA	PALM BEACH, FL VORTAC	*2000
PALM BEACH, FL VORTAC *2000 - MOCA	STOOP, FL FIX	*3000
STOOP, FL FIX	MELBOURNE, FL VOR/DME	3000

95.6493 VOR FEDERAL AIRWAY V493

LIVINGSTON, TN VOR/DME	LEXINGTON, KY VOR/DME	3600
LEXINGTON, KY VOR/DME	BEAER, KY FIX	3000
BEAER, KY FIX	YORK, KY VORTAC	3300
YORK, KY VORTAC	TARTO, OH FIX	3300
TARTO, OH FIX	APPLETON, OH VORTAC	3000
MENOMINEE, MI VOR/DME	RHINELANDER, WI VOR/DME	3500

95.6494 VOR FEDERAL AIRWAY V494

CRESCENT CITY, CA VORTAC *3500 - MOCA	FORTUNA, CA VORTAC	*6000
FORTUNA, CA VORTAC *6100 - MOCA	MENDOCINO, CA VORTAC	*13000
MENDOCINO, CA VORTAC	SANTA ROSA, CA VOR/DME	6000
SANTA ROSA, CA VOR/DME	POPES, CA FIX	5000
POPES, CA FIX *8500 - MRA	*RAGGS, CA FIX	5100

FROM	TO	MEA
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95.6494 VOR FEDERAL AIRWAY V494 - CONTINUED

RAGGS, CA FIX	SACRAMENTO, CA VORTAC	5100
SACRAMENTO, CA VORTAC	ROZZY, CA FIX	*3500
*2300 - MOCA		
ROZZY, CA FIX	HAGAN, CA FIX	4000
HAGAN, CA FIX	*AUDIO, CA FIX	**6000
*9000 - MCA AUDIO, CA FIX , NE BND		
**4500 - MOCA		
AUDIO, CA FIX	SQUAW VALLEY, CA VOR/DME	11000
SQUAW VALLEY, CA VOR/DME	*VIKES, NV FIX	12000
*11000 - MCA VIKES, NV FIX , SW BND		
VIKES, NV FIX	*HAZEN, NV VORTAC	**10000
*9000 - MCA HAZEN, NV VORTAC , SW BND		
**9300 - MOCA		

95.6495 VOR FEDERAL AIRWAY V495

U.S. CANADIAN BORDER	WHATCOM, WA VORTAC	*3000
*1900 - MOCA		
WHATCOM, WA VORTAC	U.S. CANADIAN BORDER	3000
U.S. CANADIAN BORDER	JAWBN, WA FIX	#*5400
*4300 - MOCA		
#V495 SE TO V4 W 8000		
JAWBN, WA FIX	LOFAL, WA FIX	*5400
*4300 - MOCA		
LOFAL, WA FIX	SEATTLE, WA VORTAC	*4000
*2800 - MOCA		
SEATTLE, WA VORTAC	CIDUG, WA FIX	*5000
*3000 - MOCA		
*3000 - GNSS MEA		
CIDUG, WA FIX	ALDER, WA FIX	
	S BND	*9000
	N BND	*5000
*4000 - MOCA		
*4000 - GNSS MEA		
ALDER, WA FIX	*TOUTL, WA FIX	**9000
*9000 - MCA TOUTL, WA FIX , N BND		
**6800 - MOCA		
**7000 - GNSS MEA		
TOUTL, WA FIX	BATTLE GROUND, WA VORTAC	
	N BND	*9000
	S BND	*5300
*5300 - GNSS MEA		
BATTLE GROUND, WA VORTAC	NEWBERG, OR VOR/DME	4000
NEWBERG, OR VOR/DME	CORVALLIS, OR VOR/DME	*4000
*3400 - MOCA		
CORVALLIS, OR VOR/DME	HORTE, OR FIX	4000
HORTE, OR FIX	*VAUGN, OR FIX	
	S BND	7000
	N BND	4000
*7000 - MRA		
VAUGN, OR FIX	ROSEBURG, OR VOR/DME	*7000
*4400 - MOCA		
ROSEBURG, OR VOR/DME	MERLI, OR FIX	*8000
*7500 - MOCA		
MERLI, OR FIX	*PAPLE, OR FIX	**9000
*10100 - MRA		
**6500 - MOCA		
PAPLE, OR FIX	*BAYTS, OR FIX	**10100
*10000 - MRA		
**7300 - MOCA		

FROM	TO	MEA
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95.6495 VOR FEDERAL AIRWAY V495 - CONTINUED

BAYTS, OR FIX *9400 - MOCA	FORT JONES, CA VOR/DME	*10000
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95.6497 VOR FEDERAL AIRWAY V497

ROME, OR VOR/DME	WILDHORSE, OR VOR/DME	9000
WILDHORSE, OR VOR/DME	KIMBERLY, OR VOR/DME	9000
KIMBERLY, OR VOR/DME	KLICKITAT, OR VOR/DME	7300
KLICKITAT, OR VOR/DME	*SUNED, WA FIX	7000
*5500 - MRA		
SUNED, WA FIX	MOSES LAKE, WA VOR/DME	6000
MOSES LAKE, WA VOR/DME	EPHRATA, WA VORTAC	4000

95.6499 VOR FEDERAL AIRWAY V499

BALTIMORE, MD VORTAC	BELAY, MD FIX	2300
BELAY, MD FIX	LANCASTER, PA VOR/DME	2500
LANCASTER, PA VOR/DME	CHLSE, PA FIX	*8000
*4000 - MOCA		
CHLSE, PA FIX	*MEGSS, PA FIX	**8000
*8000 - MCA MEGSS, PA FIX , S BND		
**4300 - MOCA		
MEGSS, PA FIX	BINGHAMTON, NY VOR/DME	4900

95.6500 VOR FEDERAL AIRWAY V500

BATTLE GROUND, WA VORTAC	NEWBERG, OR VOR/DME	4000
NEWBERG, OR VOR/DME	GLARA, OR FIX	4000
GLARA, OR FIX	HARZL, OR FIX	
	W BND	*7200
	E BND	*10000
*6700 - MOCA		
*7000 - GNSS MEA		
HARZL, OR FIX	RATZZ, OR FIX	
	E BND	*10000
	W BND	*8000
*7400 - MOCA		
*8000 - GNSS MEA		
RATZZ, OR FIX	*GASHE, OR FIX	**10000
*10000 - MRA		
**8000 - MOCA		
**8000 - GNSS MEA		
GASHE, OR FIX	*KIMBERLY, OR VOR/DME	**9200
*8500 - MCA KIMBERLY, OR VOR/DME , E BND		
**8200 - MOCA		
KIMBERLY, OR VOR/DME	*POTSY, OR FIX	
	E BND	15000
	W BND	11100
*15000 - MRA		
POTSY, OR FIX	FONNA, OR FIX	*15000
*10000 - MOCA		
FONNA, OR FIX	*HOSTS, OR FIX	
	E BND	**11000
	W BND	**15000
*11700 - MRA		
**7800 - MOCA		
HOSTS, OR FIX	PARMO, ID FIX	
	E BND	7200
	W BND	15000

FROM	TO	MEA
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95.6500 VOR FEDERAL AIRWAY V500 - CONTINUED

PARMO, ID FIX	*BOISE, ID VORTAC	
	E BND	5400
	W BND	15000
*7400 - MCA BOISE, ID VORTAC , E BND		
BOISE, ID VORTAC	AROWS, ID FIX	
	E BND	9000
	W BND	8000
AROWS, ID FIX	*DERSO, ID FIX	**12500
*15200 - MCA DERSO, ID FIX , E BND		
**10000 - MOCA		
DERSO, ID FIX	SOLDE, ID FIX	*17000
*10400 - MOCA		
SOLDE, ID FIX	*REAPS, ID FIX	
	E BND	**14000
	W BND	**17000
*15400 - MCA REAPS, ID FIX , W BND		
**8200 - MOCA		
REAPS, ID FIX	BETRE, ID FIX	*9500
*7000 - MOCA		
BETRE, ID FIX	POCATELLO, ID VOR/DME	7500

95.6501 VOR FEDERAL AIRWAY V501

MARTINSBURG, WV VORTAC	HAGERSTOWN, MD VOR	3500
HAGERSTOWN, MD VOR	ST THOMAS, PA VORTAC	4000
ST THOMAS, PA VORTAC	PHILIPSBURG, PA VORTAC	*4500
*4000 - MOCA		

95.6502 VOR FEDERAL AIRWAY V502

DODGE CITY, KS VORTAC	*DISKS, KS FIX	**4500
*5000 - MCA DISKS, KS FIX , E BND		
**4000 - MOCA		
DISKS, KS FIX	*SPELT, KS FIX	**5000
*5000 - MRA		
**3300 - MOCA		
SPELT, KS FIX	HUTCHINSON, KS VOR/DME	3200
HUTCHINSON, KS VOR/DME	WAIVE, KS FIX	4000
WAIVE, KS FIX	*FLOSS, KS FIX	3300
*5000 - MRA		
FLOSS, KS FIX	EMPORIA, KS VORTAC	3300
EMPORIA, KS VORTAC	KANSAS CITY, MO VORTAC	3100
KANSAS CITY, MO VORTAC	BRAYMER, MO VOR/DME	2600
BRAYMER, MO VOR/DME	KIRKSVILLE, MO VORTAC	2900

95.6503 VOR FEDERAL AIRWAY V503

ROCHESTER, MN VOR/DME	CEDAR RAPIDS, IA VOR/DME	*4500
*3600 - MOCA		

95.6505 VOR FEDERAL AIRWAY V505

DES MOINES, IA VORTAC	GUMBO, IA FIX	2700
GUMBO, IA FIX	FORT DODGE, IA VORTAC	3000
FORT DODGE, IA VORTAC	MASON CITY, IA VOR/DME	3000
MASON CITY, IA VOR/DME	FREED, MN FIX	3000
FREED, MN FIX	*ALMAY, MN FIX	**4600
*5000 - MRA		
**2800 - MOCA		

FROM	TO	MEA
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95.6505 VOR FEDERAL AIRWAY V505 - CONTINUED

ALMAY, MN FIX	PRAGS, MN FIX	*5000
*2500 - MOCA		
PRAGS, MN FIX	GOPHER, MN VORTAC	3000
DULUTH, MN VORTAC	HIBBING, MN VOR/DME	3300
HIBBING, MN VOR/DME	SQEAK, MN FIX	*5000
*3100 - MOCA		
SQEAK, MN FIX	BEBEL, MN FIX	10000
BEBEL, MN FIX	JIBDU, MN FIX	
	N BND	7000
	S BND	10000
JIBDU, MN FIX	*INTERNATIONAL FALLS, MN VOR/DME	
	N BND	4000
	S BND	10000
*7800 - MCA INTERNATIONAL FALLS, MN VOR/DME , S BND		

95.6506 VOR FEDERAL AIRWAY V506

TULSA, OK VORTAC	VINTA, OK FIX	2700
VINTA, OK FIX	NEOSHO, MO VOR/DME	3000
NEOSHO, MO VOR/DME	BILIE, MO FIX	3000
BILIE, MO FIX	SPRINGFIELD, MO VORTAC	3000

95.6507 VOR FEDERAL AIRWAY V507

ARDMORE, OK VORTAC	WILL ROGERS, OK VORTAC	3100
WILL ROGERS, OK VORTAC	WAXEY, OK FIX	
	N BND	*9300
	S BND	*5000
*3300 - MOCA		
*4000 - GNSS MEA		
WAXEY, OK FIX	ROLLS, OK FIX	
	N BND	*11000
	S BND	*9300
*3800 - MOCA		
*4000 - GNSS MEA		
ROLLS, OK FIX	MITBEE, OK VORTAC	
	N BND	*4000
	S BND	*9300
*4000 - GNSS MEA		
MITBEE, OK VORTAC	LIBERAL, KS VORTAC	4700
LIBERAL, KS VORTAC	GARDEN CITY, KS VORTAC	4700

95.6508 VOR FEDERAL AIRWAY V508

HILL CITY, KS VORTAC	HAYS, KS VORTAC	*4500
*3900 - MOCA		
HAYS, KS VORTAC	*GLIDE, KS FIX	3900
*4500 - MRA		
GLIDE, KS FIX	SALINA, KS VORTAC	*3900
*3200 - MOCA		
SALINA, KS VORTAC	*VASCO, KS FIX	3000
*5000 - MRA		
VASCO, KS FIX	MANHATTAN, KS VOR/DME	3000
MANHATTAN, KS VOR/DME	TOPEKA, KS VORTAC	3000
TOPEKA, KS VORTAC	RUGBB, KS FIX	2800

95.6509 VOR FEDERAL AIRWAY V509

ST PETERSBURG, FL VORTAC	*CROWD, FL FIX	**5000
*5000 - MRA		
**2700 - MOCA		

FROM

TO

MEA

95.6509 VOR FEDERAL AIRWAY V509 - CONTINUED

CROWD, FL FIX	HALLR, FL FIX	*6000
*1800 - MOCA		

95.6510 VOR FEDERAL AIRWAY V510

DICKINSON, ND VORTAC	BISMARCK, ND VOR/DME	4600
BISMARCK, ND VOR/DME	*BEHQY, ND FIX	3900
*12000 - MRA		
BEHQY, ND FIX	JAMESTOWN, ND VOR/DME	3900
JAMESTOWN, ND VOR/DME	*CHAFE, ND FIX	3300
*6000 - MRA		
CHAFE, ND FIX	FARGO, ND VOR/DME	
	W BND	3300
	E BND	2700
FARGO, ND VOR/DME	ALEXANDRIA, MN VOR/DME	
	E BND	*3600
	NW BND	*6000
*3100 - MOCA		
ALEXANDRIA, MN VOR/DME	*DAYLE, MN FIX	5000
*5000 - MCA DAYLE, MN FIX , NW BND		
DAYLE, MN FIX	GOPHER, MN VORTAC	4000
GOPHER, MN VORTAC	*BITLR, WI FIX	3500
*5500 - MCA BITLR, WI FIX , SE BND		
BITLR, WI FIX	NODINE, MN VORTAC	5500
NODINE, MN VORTAC	DELLS, WI VORTAC	3000
BUFFALO, NY VOR/DME	*EHMAN, NY FIX	##*11000
*11000 - MCA EHMEN, NY FIX , SW BND		
*3000 - GNSS MEA		
#BUFFALO R-053 UNUSABLE BELOW 11000.		
EHMAN, NY FIX	ROCHESTER, NY VOR/DME	2400

95.6511 VOR FEDERAL AIRWAY V511

LAKELAND, FL VORTAC	HALLR, FL FIX	*4000
*2300 - MOCA		
HALLR, FL FIX	THNDR, FL FIX	*7000
*1700 - MOCA		
*5000 - GNSS MEA		
THNDR, FL FIX	DOLPHIN, FL VORTAC	*3000
*1500 - MOCA		

95.6512 VOR FEDERAL AIRWAY V512

POCKET CITY, IN VORTAC	HOLAN, IN FIX	2600
HOLAN, IN FIX	*SACKO, IN FIX	**3500
*10000 - MCA SACKO, IN FIX , E BND		
**2100 - MOCA		
*3000 - GNSS MEA		
SACKO, IN FIX	LOUISVILLE, KY VORTAC	10000
LOUISVILLE, KY VORTAC	*CLEGG, KY FIX	10000
*10000 - MCA CLEGG, KY FIX , W BND		
CLEGG, KY FIX	LEXINGTON, KY VOR/DME	2800

95.6513 VOR FEDERAL AIRWAY V513

LIVINGSTON, TN VOR/DME	NEW HOPE, KY VOR/DME	4000
NEW HOPE, KY VOR/DME	LOUISVILLE, KY VORTAC	2700

95.6514 VOR FEDERAL AIRWAY V514

MISSION BAY, CA VORTAC	*RYAHH, CA FIX	
	E BND	7000
	W BND	4000
*6400 - MCA RYAAH, CA FIX , E BND		

FROM	TO	MEA
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95.6514 VOR FEDERAL AIRWAY V514 - CONTINUED

RYAHH, CA FIX	BARET, CA FIX	
	E BND	*8400
	W BND	*7000
*6100 - MOCA		
BARET, CA FIX	CANNO, CA FIX	8400
CANNO, CA FIX	JULIAN, CA VORTAC	8800
JULIAN, CA VORTAC	THERMAL, CA VORTAC	9000
THERMAL, CA VORTAC	*TWENTYNINE PALMS, CA VORTAC	7000
*10200 - MCA TWENTYNINE PALMS, CA VORTAC , NE BND		
*TWENTYNINE PALMS, CA VORTAC	GOFFS, CA VORTAC	**12000
*10200 - MCA TWENTYNINE PALMS, CA VORTAC , NE BND		
**7900 - MOCA		
**8000 - GNSS MEA		
GOFFS, CA VORTAC	BOULDER CITY, NV VORTAC	7600

95.6516 VOR FEDERAL AIRWAY V516

PIONEER, OK VORTAC	TYROE, KS FIX	*3100
*2600 - MOCA		
TYROE, KS FIX	OSWEGO, KS VOR/DME	2700

95.6517 VOR FEDERAL AIRWAY V517

SNOWBIRD, TN VORTAC	MIAMI, TN FIX	6900
MIAMI, TN FIX	*LONDON, KY VOR/DME	5500
*6000 - MCA LONDON, KY VOR/DME , N BND		
LONDON, KY VOR/DME	*LOGIC, KY FIX	**6000
*6000 - MCA LOGIC, KY FIX , S BND		
*3700 - MOCA		
LOGIC, KY FIX	*CODEL, KY FIX	2800
*3000 - MRA		
CODEL, KY FIX	FALMOUTH, KY VOR/DME	2800
FALMOUTH, KY VOR/DME	CINCINNATI, KY VORTAC	2700

95.6518 VOR FEDERAL AIRWAY V518

FILLMORE, CA VORTAC	TWINE, CA FIX	5500
TWINE, CA FIX	*LANGE, CA FIX	7000
*7000 - MCA LANGE, CA FIX , NE BND		
LANGE, CA FIX	*PALMDALE, CA VORTAC	7000
*6300 - MCA PALMDALE, CA VORTAC , SW BND		

95.6519 VOR FEDERAL AIRWAY V519

VOLUNTEER, TN VORTAC	TAMPI, TN FIX	3500
TAMPI, TN FIX	YUMMY, VA FIX	4500
YUMMY, VA FIX	GLADE SPRING, VA VOR/DME	6000
GLADE SPRING, VA VOR/DME	*TELOC, VA FIX	6900
*13000 - MRA		
TELOC, VA FIX	BLUEFIELD, WV VOR/DME	
	NE BND	6100
	SW BND	6900
BLUEFIELD, WV VOR/DME	BECKLEY, WV VOR/DME	#*9000
*5900 - MOCA		
*5900 - GNSS MEA		
#BECKLEY R-193 UNUSABLE USE BLUEFIELD R-010		

95.6520 VOR FEDERAL AIRWAY V520

*BATTLE GROUND, WA VORTAC	KLICKITAT, OR VOR/DME	7000
*4700 - MCA BATTLE GROUND, WA VORTAC , E BND		

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95.6520 VOR FEDERAL AIRWAY V520 - CONTINUED

KLICKITAT, OR VOR/DME	AMPLE, WA FIX	6000
AMPLE, WA FIX	VIRTU, WA FIX	
	NE BND	4000
	SW BND	5000
VIRTU, WA FIX	PASCO, WA VOR/DME	4000
PASCO, WA VOR/DME	*WALLA WALLA, WA VOR/DME	3200
*5800 - MCA WALLA WALLA, WA VOR/DME , NE BND		
WALLA WALLA, WA VOR/DME	CLOVA, WA FIX	8000
CLOVA, WA FIX	NEZ PERCE, ID VOR/DME	
	NE BND	5500
	SW BND	8000
NEZ PERCE, ID VOR/DME	FERDI, ID FIX	
	W BND	6700
	E BND	12000
FERDI, ID FIX	SALMON, ID VOR/DME	12000
SALMON, ID VOR/DME	*DUBOIS, ID VORTAC	13600
*9000 - MCA DUBOIS, ID VORTAC , E BND		
*10600 - MCA DUBOIS, ID VORTAC , W BND		
DUBOIS, ID VORTAC	*JACKSON, WY VOR/DME	#15300
*15200 - MCA JACKSON, WY VOR/DME , W BND		
#MTA V520 E TO V330 W 14200		

95.6521 VOR FEDERAL AIRWAY V521

DOLPHIN, FL VORTAC	RUTHY, FL FIX	*3000
*1500 - MOCA		
RUTHY, FL FIX	LEE COUNTY, FL VORTAC	2300
LEE COUNTY, FL VORTAC	QUNCY, FL FIX	2600
QUNCY, FL FIX	LAKELAND, FL VORTAC	2300
LAKELAND, FL VORTAC	*DADES, FL FIX	**2300
*5000 - MRA		
**1800 - MOCA		
DADES, FL FIX	NITTS, FL FIX	*2300
*1800 - MOCA		
NITTS, FL FIX	*ORATE, FL FIX	**3000
*3000 - MRA		
**1700 - MOCA		
ORATE, FL FIX	CROSS CITY, FL VORTAC	*2000
*1500 - MOCA		
CROSS CITY, FL VORTAC	HEVVN, FL FIX	#*5000
*1400 - MOCA		
*2000 - GNSS MEA		
#CROSS CITY R-289 UNUSABLE BEYOND 60 NM.		
HEVVN, FL FIX	*TERES, FL FIX	***GNSS - 2000
*7000 - MRA		
**1300 - MOCA		
#GNSS REQUIRED		
TERES, FL FIX	CRESS, FL FIX	*4000
*1400 - MOCA		
*2000 - GNSS MEA		
CRESS, FL FIX	MARIANNA, FL VORTAC	2000
MARIANNA, FL VORTAC	WIREGRASS, AL VORTAC	2000
WIREGRASS, AL VORTAC	SKIPO, AL FIX	2300
SKIPO, AL FIX	*BANBI, AL FIX	**4000
*4000 - MCA BANBI, AL FIX , SE BND		
**1900 - MOCA		
**2300 - GNSS MEA		
BANBI, AL FIX	MONTGOMERY, AL VORTAC	2400
MONTGOMERY, AL VORTAC	KYLEE, AL FIX	3000

FROM	TO	MEA
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95.6521 VOR FEDERAL AIRWAY V521 - CONTINUED

KYLEE, AL FIX	VULCAN, AL VORTAC	3800
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95.6524 VOR FEDERAL AIRWAY V524

HAYDEN, CO VOR/DME	LARAMIE, WY VOR/DME	14200
LARAMIE, WY VOR/DME	SCOTTSBLUFF, NE VORTAC	*12000
*10900 - MOCA		
*11000 - GNSS MEA		
SCOTTSBLUFF, NE VORTAC	NORTH PLATTE, NE VOR/DME	7000

95.6526 VOR FEDERAL AIRWAY V526

NORTHBROOK, IL VOR/DME	*MINCE, MI FIX	2500
*3500 - MRA		
MINCE, MI FIX	MUSKY, MI FIX	2500
MUSKY, MI FIX	MAPER, MI FIX	*3500
*1700 - MOCA		
*2600 - GNSS MEA		
MAPER, MI FIX	GIPPER, MI VORTAC	2600

95.6527 VOR FEDERAL AIRWAY V527

*HOT SPRINGS, AR VOR/DME	HIDER, AR FIX	
	SE BND	3200
	NW BND	9500
*5700 - MCA HOT SPRINGS, AR VOR/DME , NW BND		
HIDER, AR FIX	ROVER, AR FIX	
	SE BND	*5500
	NW BND	*9500
*3200 - MOCA		
ROVER, AR FIX	*SCRAN, AR FIX	**9500
*9500 - MCA SCRAN, AR FIX , SE BND		
**3600 - MOCA		
SCRAN, AR FIX	CASKS, AR FIX	*6500
*3700 - MOCA		
CASKS, AR FIX	RAZORBACK, AR VORTAC	4000
RAZORBACK, AR VORTAC	GAMPS, AR FIX	3500
GAMPS, AR FIX	BILIE, MO FIX	*4000
*3200 - MOCA		
BILIE, MO FIX	SPRINGFIELD, MO VORTAC	3000

95.6528 VOR FEDERAL AIRWAY V528

*PHOENIX, AZ VORTAC	EAGUL, AZ FIX	**14500
*8000 - MCA PHOENIX, AZ VORTAC , NE BND		
**9400 - MOCA		
**10000 - GNSS MEA		
EAGUL, AZ FIX	*PAYSO, AZ FIX	**16000
*16000 - MCA PAYSO, AZ FIX , SW BND		
**10000 - MOCA		
PAYSO, AZ FIX	ST JOHNS, AZ VORTAC	*13000
*9800 - MOCA		

95.6529 VOR FEDERAL AIRWAY V529

*FAMIN, FL FIX	SWAGS, FL FIX	**5700
*5700 - MRA		
**1500 - MOCA		
SWAGS, FL FIX	LA BELLE, FL VORTAC	*2000
*1400 - MOCA		

FROM	TO	MEA
95.6530 VOR FEDERAL AIRWAY V530		
TEXICO, TX VORTAC	CHILDRESS, TX VORTAC	6000
95.6531 VOR FEDERAL AIRWAY V531		
PALM BEACH, FL VORTAC	*SHEDS, FL FIX	**3000
*3000 - MRA		
**2500 - MOCA		
SHEDS, FL FIX	*BAIRN, FL FIX	**6000
*6000 - MCA BAIRN, FL FIX , SE BND		
**2000 - MOCA		
BAIRN, FL FIX	ORLANDO, FL VORTAC	2700
95.6532 VOR FEDERAL AIRWAY V532		
LITTLE ROCK, AR VORTAC	*PARON, AR FIX	2600
*3500 - MRA		
PARON, AR FIX	*GATZY, AR FIX	**3700
*4800 - MCA GATZY, AR FIX , W BND		
**3100 - MOCA		
GATZY, AR FIX	*BLURB, AR FIX	**5500
*5000 - MRA		
*5500 - MCA BLURB, AR FIX , E BND		
**3200 - MOCA		
BLURB, AR FIX	BLIMP, AR FIX	*4100
*3600 - MOCA		
BLIMP, AR FIX	FORT SMITH, AR VORTAC	*2900
*2400 - MOCA		
FORT SMITH, AR VORTAC	*AKINS, OK FIX	2500
*3000 - MRA		
AKINS, OK FIX	OKMULGEE, OK VOR/DME	*3000
*2200 - MOCA		
OKMULGEE, OK VOR/DME	PIONEER, OK VORTAC	3000
PIONEER, OK VORTAC	WICHITA, KS VORTAC	3600
WICHITA, KS VORTAC	SALINA, KS VORTAC	3600
SALINA, KS VORTAC	LINCOLN, NE VORTAC	*5000
*3000 - MOCA		
95.6533 VOR FEDERAL AIRWAY V533		
ST PETERSBURG, FL VORTAC	LAKELAND, FL VORTAC	2000
LAKELAND, FL VORTAC	*CAMBE, FL FIX	2000
*4000 - MRA		
CAMBE, FL FIX	ORLANDO, FL VORTAC	2000
ORLANDO, FL VORTAC	OAKIE, FL FIX	2000
OAKIE, FL FIX	ORMOND BEACH, FL VORTAC	*4000
*1600 - MOCA		
95.6534 VOR FEDERAL AIRWAY V534		
LITTLE ROCK, AR VORTAC	BIBBS, AR FIX	3500
BIBBS, AR FIX	HAAWK, AR FIX	*4500
*2500 - MOCA		
HAAWK, AR FIX	SCRAN, AR FIX	*4500
*3100 - MOCA		
SCRAN, AR FIX	FORT SMITH, AR VORTAC	
	W BND	*3500
	E BND	*4500
*3000 - MOCA		

FROM	TO	MEA
95.6535 VOR FEDERAL AIRWAY V535		
SIDON, MS VORTAC *2100 - MOCA	HOLLY SPRINGS, MS VORTAC	*3000
95.6536 VOR FEDERAL AIRWAY V536		
NORTH BEND, OR VOR/DME	*RARES, OR FIX N BND S BND	6000 3700
*5500 - MRA		
RARES, OR FIX	CORVALLIS, OR VOR/DME	6000
CORVALLIS, OR VOR/DME	SHEDD, OR FIX	3000
SHEDD, OR FIX	LATHE, OR FIX	4000
LATHE, OR FIX	*JAIME, OR FIX	6000
*8300 - MCA JAIME, OR FIX , E BND		
JAIME, OR FIX	MANTE, OR FIX	*10000
*7800 - MOCA		
MANTE, OR FIX	DESCHUTES, OR VORTAC	10000
DESCHUTES, OR VORTAC	ZORNS, OR FIX NE BND SW BND	10000 7000
ZORNS, OR FIX	*RENCE, OR FIX	**10000
*10000 - MRA		
**7700 - MOCA		
RENCE, OR FIX	HEPPE, OR FIX	*10000
*7700 - MOCA		
HEPPE, OR FIX	PENDLETON, OR VORTAC NE BND SW BND	6000 10000
PENDLETON, OR VORTAC	WALLA WALLA, WA VOR/DME	4100
WALLA WALLA, WA VOR/DME	PULLMAN, WA VOR/DME	*6000
*5700 - MOCA		
PULLMAN, WA VOR/DME	MULLAN PASS, ID VOR/DME	9100
MULLAN PASS, ID VOR/DME	KALISPELL, MT VOR/DME	*11500
*9700 - MOCA		
*10000 - GNSS MEA		
KALISPELL, MT VOR/DME	GAPAR, MT FIX	*13000
*10900 - MOCA		
GAPAR, MT FIX	*PIKUN, MT FIX	**12000
*10600 - MCA PIKUN, MT FIX , W BND		
**11400 - MOCA		
PIKUN, MT FIX	*CHOTE, MT FIX W BND E BND	**10000 **9000
*9200 - MCA CHOTE, MT FIX , W BND		
**6900 - MOCA		
CHOTE, MT FIX	GREAT FALLS, MT VORTAC	7000
GREAT FALLS, MT VORTAC	SWEDD, MT FIX	*12000
*9700 - MOCA		
SWEDD, MT FIX	*MENAR, MT FIX	**10000
*9200 - MCA MENAR, MT FIX , NW BND		
**9400 - MOCA		
MENAR, MT FIX	*BOZEMAN, MT VOR/DME	8700
*9300 - MCA BOZEMAN, MT VOR/DME , SE BND		
SHERIDAN, WY VOR/DME	GILLETTE, WY VOR/DME	7000
GILLETTE, WY VOR/DME	NEWCASTLE, WY VOR	7500
NEWCASTLE, WY VOR	*ZAMBI, SD FIX	9300
*9300 - MRA		
ZAMBI, SD FIX	*RAPID CITY, SD VORTAC E BND W BND	8000 9300
*6500 - MCA RAPID CITY, SD VORTAC , W BND		

FROM	TO	MEA
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95.6537 VOR FEDERAL AIRWAY V537

PALM BEACH, FL VORTAC *2000 - MOCA	STOOP, FL FIX	*3000
STOOP, FL FIX	TREASURE, FL VORTAC	2000
TREASURE, FL VORTAC *2500 - MRA	*PRESK, FL FIX	3000
PRESK, FL FIX *2000 - MOCA	CERMO, FL FIX	*8000
CERMO, FL FIX	OCALA, FL VORTAC NW BND	2000
	SE BND	8000
OCALA, FL VORTAC *3000 - MRA	*LEJKO, FL FIX	2000
LEJKO, FL FIX	GATORS, FL VORTAC	2000
GATORS, FL VORTAC *2000 - MOCA	ALVIN, FL FIX	*3000
ALVIN, FL FIX	GREENVILLE, FL VORTAC	2000

95.6538 VOR FEDERAL AIRWAY V538

*TWENTYNINE PALMS, CA VORTAC *10200 - MCA TWENTYNINE PALMS, CA VORTAC , NE BND **7900 - MOCA **8000 - GNSS MEA	GOFFS, CA VORTAC	**12000
GOFFS, CA VORTAC	LAS VEGAS, NV VORTAC	9000

95.6539 VOR FEDERAL AIRWAY V539

KEY WEST, FL VORTAC	CORGI, FL FIX	1500
CORGI, FL FIX *1200 - MOCA	GOODY, FL FIX	*4000
GOODY, FL FIX	LEE COUNTY, FL VORTAC N BND	2100
	S BND	4000

95.6540 VOR FEDERAL AIRWAY V540

CUNNINGHAM, KY VOR/DME	TAMMS, IL FIX	2800
TAMMS, IL FIX	FARMINGTON, MO VORTAC	3500

95.6541 VOR FEDERAL AIRWAY V541

GADSDEN, AL VOR/DME *2800 - MOCA	HOBBI, AL FIX	*3600
HOBBI, AL FIX	DECATUR, AL VOR/DME	3000
DECATUR, AL VOR/DME	MUSCLE SHOALS, AL VORTAC	2500

95.6542 VOR FEDERAL AIRWAY V542

ELMIRA, NY VOR/DME	BINGHAMTON, NY VOR/DME	3500
BINGHAMTON, NY VOR/DME	OXFOR, NY FIX	3500
OXFOR, NY FIX	ROCKDALE, NY VOR/DME	4000

95.6543 VOR FEDERAL AIRWAY V543

LEEVILLE, LA VORTAC *1400 - MOCA	SAFES, LA FIX	*2000
SAFES, LA FIX *1600 - MOCA	WAVEZ, LA FIX	*4000

FROM	TO	MEA
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95.6543 VOR FEDERAL AIRWAY V543 - CONTINUED

WAVEZ, LA FIX *1800 - MOCA	OYSTY, LA FIX	*3000
OYSTY, LA FIX *4200 - MCA RYTHM, LA FIX , NE BND	*RYTHM, LA FIX	2000
RYTHM, LA FIX *2000 - MOCA	EATON, MS VORTAC	*4200
EATON, MS VORTAC *2000 - MOCA	BAING, MS FIX	*3000
BAING, MS FIX *5000 - MRA	*PAULD, MS FIX	3000
*3000 - MCA PAULD, MS FIX , SW BND		
PAULD, MS FIX	MERIDIAN, MS VORTAC	2100

95.6545 VOR FEDERAL AIRWAY V545

MILES CITY, MT VOR/DME *5300 - MOCA *6000 - GNSS MEA	WILLISTON, ND VOR/DME	*7000
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95.6546 VOR FEDERAL AIRWAY V546

WINK, TX VORTAC	YOGSU, TX FIX	5500
YOGSU, TX FIX	MIDLAND, TX VORTAC	5000
MIDLAND, TX VORTAC	BIG SPRING, TX VORTAC	4400

95.6547 VOR FEDERAL AIRWAY V547

CHEYENNE, WY VORTAC	HIPSHER, WY VOR/DME	9000
HIPSHER, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	7900

95.6548 VOR FEDERAL AIRWAY V548

COLLEGE STATION, TX VORTAC	BARBA, TX FIX	2500
BARBA, TX FIX	BOSEL, TX FIX	3600
BOSEL, TX FIX	WACO, TX VORTAC	
	N BND	2800
	S BND	3600

95.6549 VOR FEDERAL AIRWAY V549

HAYS, KS VORTAC	MANKATO, KS VORTAC	4100
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95.6550 VOR FEDERAL AIRWAY V550

COTULLA, TX VORTAC	LEMIG, TX FIX	2500
LEMIG, TX FIX	SAN ANTONIO, TX VORTAC	3000
SAN ANTONIO, TX VORTAC	CENTEX, TX VORTAC	3300

95.6551 VOR FEDERAL AIRWAY V551

SALINA, KS VORTAC *3100 - MOCA	MANKATO, KS VORTAC	*4500
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95.6552 VOR FEDERAL AIRWAY V552

BEAUMONT, TX VOR/DME	LAKE CHARLES, LA VORTAC	2000
LAKE CHARLES, LA VORTAC	HATHA, LA FIX	2000
HATHA, LA FIX	LAFAYETTE, LA VORTAC	2800

FROM	TO	MEA
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95.6552 VOR FEDERAL AIRWAY V552 - CONTINUED

LAFAYETTE, LA VORTAC	*GRICE, LA FIX	**2000
*4000 - MRA		
**1500 - MOCA		
GRICE, LA FIX	TIBBY, LA VOR/DME	2000
TIBBY, LA VOR/DME	HARVEY, LA VORTAC	2100
HARVEY, LA VORTAC	PICAYUNE, MS VOR/DME	2000
PICAYUNE, MS VOR/DME	*MINDO, MS FIX	2000
*6000 - MRA		
MINDO, MS FIX	SEMMES, AL VORTAC	2000
SEMMES, AL VORTAC	MONROEVILLE, AL VORTAC	2000

95.6553 VOR FEDERAL AIRWAY V553

SALINA, KS VORTAC	PAWNEE CITY, NE VORTAC	3400
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95.6554 VOR FEDERAL AIRWAY V554

NATCHEZ, MS VOR/DME	*TULLO, LA FIX	**6000
*6000 - MCA TULLO, LA FIX , SE BND		
**1800 - MOCA		
TULLO, LA FIX	MONROE, LA VORTAC	2000

95.6555 VOR FEDERAL AIRWAY V555

PICAYUNE, MS VOR/DME	MC COMB, MS VORTAC	2000
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95.6556 VOR FEDERAL AIRWAY V556

SAN ANGELO, TX VORTAC	CHILD, TX FIX	4000
CHILD, TX FIX	JUNCTION, TX VORTAC	*5000
*4000 - MOCA		
JUNCTION, TX VORTAC	STONEWALL, TX VORTAC	4000
STONEWALL, TX VORTAC	MARCS, TX FIX	4500
MARCS, TX FIX	SEEDS, TX FIX	*7500
*2000 - MOCA		
SEEDS, TX FIX	WEMAR, TX FIX	*2500
*2000 - MOCA		
WEMAR, TX FIX	EAGLE LAKE, TX VOR/DME	2000
EAGLE LAKE, TX VOR/DME	KEEDS, TX FIX	2500
KEEDS, TX FIX	SCHOLES, TX VOR/DME	3100
SCHOLES, TX VOR/DME	SABINE PASS, TX VOR/DME	2000

95.6558 VOR FEDERAL AIRWAY V558

LLANO, TX VORTAC	SLIMM, TX FIX	3100
SLIMM, TX FIX	CENTEX, TX VORTAC	4100
CENTEX, TX VORTAC	MOUZE, TX FIX	2200
MOUZE, TX FIX	INDUSTRY, TX VORTAC	2100
INDUSTRY, TX VORTAC	EAGLE LAKE, TX VOR/DME	2000

95.6559 VOR FEDERAL AIRWAY V559

LAFAYETTE, LA VORTAC	FIGHTING TIGER, LA VORTAC	2100
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95.6560 VOR FEDERAL AIRWAY V560

NEWMAN, TX VORTAC	MAYFY, TX FIX	9000
MAYFY, TX FIX	*CONNE, TX FIX	**10500
*10500 - MRA		
**9000 - MOCA		

FROM	TO	MEA
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95.6560 VOR FEDERAL AIRWAY V560 - CONTINUED

CONNE, TX FIX	SALT FLAT, TX VORTAC	9000
SALT FLAT, TX VORTAC	CARLSBAD, NM VORTAC	8000

95.6561 VOR FEDERAL AIRWAY V561

GRAND FORKS, ND VOR/DME	JAMESTOWN, ND VOR/DME	*4000
*3000 - MOCA		
JAMESTOWN, ND VOR/DME	PIERRE, SD VORTAC	*10000
*3400 - MOCA		

95.6562 VOR FEDERAL AIRWAY V562

PHOENIX, AZ VORTAC	KNOBB, AZ FIX	8000
KNOBB, AZ FIX	RADOM, AZ FIX	
	S BND	8000
	N BND	11000
RADOM, AZ FIX	*FERER, AZ FIX	
	N BND	**12000
	S BND	**11000
*12000 - MRA		
*11000 - MCA FERER, AZ FIX , S BND		
**8400 - MOCA		
**9000 - GNSS MEA		
FERER, AZ FIX	DRAKE, AZ VORTAC	*10000
*9200 - MOCA		
DRAKE, AZ VORTAC	PEACH SPRINGS, AZ VOR/DME	9200
PEACH SPRINGS, AZ VOR/DME	*MEADS, NV FIX	9000
*9000 - MCA MEADS, NV FIX , SE BND		
MEADS, NV FIX	LAS VEGAS, NV VORTAC	6000

95.6563 VOR FEDERAL AIRWAY V563

LUBBOCK, TX VORTAC	BIG SPRING, TX VORTAC	5200
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95.6564 VOR FEDERAL AIRWAY V564

COALDALE, NV VORTAC	MINA, NV VORTAC	11500
MINA, NV VORTAC	YERIN, NV FIX	11500
YERIN, NV FIX	CHIME, NV FIX	
	NW BND	10000
	SE BND	11500
CHIME, NV FIX	MUSTANG, NV VORTAC	10000

95.6565 VOR FEDERAL AIRWAY V565

LLANO, TX VORTAC	AMUSE, TX FIX	3500
AMUSE, TX FIX	CENTEX, TX VORTAC	*3300
*2900 - MOCA		
CENTEX, TX VORTAC	COLLEGE STATION, TX VORTAC	2400
COLLEGE STATION, TX VORTAC	LUFKIN, TX VORTAC	*4000
*2000 - MOCA		

95.6566 VOR FEDERAL AIRWAY V566

GREGG COUNTY, TX VORTAC	*WORKS, TX FIX	2300
*3000 - MRA		
WORKS, TX FIX	BELCHER, LA VORTAC	3100
BELCHER, LA VORTAC	KNELT, LA FIX	2300
KNELT, LA FIX	COVEX, LA FIX	*3500
*1800 - MOCA		

FROM	TO	MEA
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95.6566 VOR FEDERAL AIRWAY V566 - CONTINUED

COVEX, LA FIX	NUBOY, LA FIX	*5000
*1900 - MOCA		
NUBOY, LA FIX	ALEXANDRIA, LA VORTAC	
	W BND	5000
	E BND	2000
ALEXANDRIA, LA VORTAC	MUSHE, LA FIX	#*3000
*1700 - MOCA		
#ALEXANDRIA R-106 UNUSABLE BEYOND 48 NM		
MUSHE, LA FIX	FISTY, LA FIX	*4000
*1700 - MOCA		
FISTY, LA FIX	WRACK, LA FIX	#
#UNUSABLE		
WRACK, LA FIX	VEILS, LA FIX	*3000
*2100 - MOCA		
VEILS, LA FIX	RESERVE, LA VOR/DME	2000

95.6567 VOR FEDERAL AIRWAY V567

PHOENIX, AZ VORTAC	KNOBB, AZ FIX	8000
KNOBB, AZ FIX	RADOM, AZ FIX	
	S BND	8000
	N BND	11000
RADOM, AZ FIX	*FERER, AZ FIX	
	N BND	**12000
	S BND	**11000
*12000 - MRA		
*14000 - MCA FERER, AZ FIX , NE BND		
*11000 - MCA FERER, AZ FIX , S BND		
**8400 - MOCA		
**9000 - GNSS MEA		
FERER, AZ FIX	WINSLOW, AZ VORTAC	*14000
*10000 - GNSS MEA		

95.6568 VOR FEDERAL AIRWAY V568

CORPUS CHRISTI, TX VORTAC	THREE RIVERS, TX VORTAC	1800
THREE RIVERS, TX VORTAC	LEMIG, TX FIX	2000
LEMIG, TX FIX	SAN ANTONIO, TX VORTAC	3000
SAN ANTONIO, TX VORTAC	GUADA, TX FIX	*4000
*2800 - MOCA		
GUADA, TX FIX	STONEWALL, TX VORTAC	4000
STONEWALL, TX VORTAC	LLANO, TX VORTAC	3700
MILLSAP, TX VORTAC	KARYN, TX FIX	3000
KARYN, TX FIX	WICHITA FALLS, TX VORTAC	3100

95.6569 VOR FEDERAL AIRWAY V569

BEAUMONT, TX VOR/DME	SILBE, TX FIX	2000
SILBE, TX FIX	LUFKIN, TX VORTAC	2500
LUFKIN, TX VORTAC	FRANKSTON, TX VOR/DME	2300
FRANKSTON, TX VOR/DME	CEDAR CREEK, TX VORTAC	2500

95.6570 VOR FEDERAL AIRWAY V570

ALEXANDRIA, LA VORTAC	NATCHEZ, MS VOR/DME	2000
NATCHEZ, MS VOR/DME	MC COMB, MS VORTAC	2000

95.6571 VOR FEDERAL AIRWAY V571

HUMBLE, TX VORTAC	NAVASOTA, TX VOR/DME	2000
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95.6571 VOR FEDERAL AIRWAY V571 - CONTINUED

NAVASOTA, TX VOR/DME	LEONA, TX VORTAC	3000
LEONA, TX VORTAC	CEDAR CREEK, TX VORTAC	2300

95.6572 VOR FEDERAL AIRWAY V572

WINSLOW, AZ VORTAC	*FRISY, AZ FIX	10000
*10500 - MCA FRISY, AZ FIX , W BND		
FRISY, AZ FIX	FLAGSTAFF, AZ VOR/DME	11500

95.6573 VOR FEDERAL AIRWAY V573

WILL ROGERS, OK VORTAC	*ALEXX, OK FIX	3100
*7000 - MRA		
ALEXX, OK FIX	ARDMORE, OK VORTAC	#
#UNUSABLE		
ARDMORE, OK VORTAC	BONHAM, TX VORTAC	3600
BONHAM, TX VORTAC	SULPHUR SPRINGS, TX VOR/DME	2500
SULPHUR SPRINGS, TX VOR/DME	TEXARKANA, AR VORTAC	2000
TEXARKANA, AR VORTAC	ELMMO, AR FIX	
	SW BND	*3500
	NE BND	*5500
*2600 - MOCA		
ELMMO, AR FIX	MARKI, AR FIX	*5500
*2600 - MOCA		
MARKI, AR FIX	HOT SPRINGS, AR VOR/DME	
	NE BND	*3500
	SW BND	*5500
*2700 - MOCA		
HOT SPRINGS, AR VOR/DME	LITTLE ROCK, AR VORTAC	3000

95.6574 VOR FEDERAL AIRWAY V574

CENTEX, TX VORTAC	MOUZE, TX FIX	2200
MOUZE, TX FIX	NAVASOTA, TX VOR/DME	2100
NAVASOTA, TX VOR/DME	HUMBLE, TX VORTAC	2000
HUMBLE, TX VORTAC	DAISETTA, TX VORTAC	2000
DAISETTA, TX VORTAC	BEAUMONT, TX VOR/DME	2300
BEAUMONT, TX VOR/DME	LAKE CHARLES, LA VORTAC	2000

95.6575 VOR FEDERAL AIRWAY V575

LARAMIE, WY VOR/DME	*NIWOT, CO FIX	11300
*9500 - MCA NIWOT, CO FIX , NW BND		
NIWOT, CO FIX	MILE HIGH, CO VORTAC	8000

95.6576 VOR FEDERAL AIRWAY V576

PHILIPSBURG, PA VORTAC	WILLIAMSPORT, PA VOR/DME	4000
WILLIAMSPORT, PA VOR/DME	HANCOCK, NY VOR/DME	4000
HANCOCK, NY VOR/DME	DELANCEY, NY VOR/DME	4000

95.6577 VOR FEDERAL AIRWAY V577

CEDAR LAKE, NJ VOR/DME	BRIGS, NJ FIX	
	E BND	6000
	W BND	1700

95.6578 VOR FEDERAL AIRWAY V578

PECAN, GA VOR/DME	TIFT MYERS, GA VOR	*2500
*2300 - MOCA		

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95.6578 VOR FEDERAL AIRWAY V578 - CONTINUED

TIFT MYERS, GA VOR	ALMA, GA VORTAC	#*3000
*2100 - MOCA		
*2100 - GNSS MEA		
#ALMA R-263 UNUSABLE USE TIFT MYERS R-083.		
ALMA, GA VORTAC	SAVANNAH, GA VORTAC	*10000
*2600 - MOCA		
*3000 - GNSS MEA		

95.6579 VOR FEDERAL AIRWAY V579

LEE COUNTY, FL VORTAC	VIOLA, FL FIX	2000
VIOLA, FL FIX	SARASOTA, FL VOR/DME	*3000
*1600 - MOCA		
SARASOTA, FL VOR/DME	ST PETERSBURG, FL VORTAC	2000
ST PETERSBURG, FL VORTAC	BAYPO, FL FIX	2000
BAYPO, FL FIX	NITTS, FL FIX	*4000
*1500 - MOCA		
NITTS, FL FIX	GATORS, FL VORTAC	
	S BND	*4000
	N BND	*3000
*2100 - MOCA		
GATORS, FL VORTAC	CROSS CITY, FL VORTAC	2000
CROSS CITY, FL VORTAC	VALDOSTA, GA VOR/DME	2000
VALDOSTA, GA VOR/DME	TIFT MYERS, GA VOR	2200
TIFT MYERS, GA VOR	VIENNA, GA VORTAC	2100

95.6580 VOR FEDERAL AIRWAY V580

ST LOUIS, MO VORTAC	LEBOY, IL FIX	*3000
*2200 - MOCA		
LEBOY, IL FIX	SEXTN, IL FIX	4500
SEXTN, IL FIX	BURLINGTON, IA VOR/DME	*3000
*2200 - MOCA		

95.6581 VOR FEDERAL AIRWAY V581

ST PETERSBURG, FL VORTAC	TUMPY, FL FIX	2000
TUMPY, FL FIX	*DADES, FL FIX	**5000
*5000 - MRA		
**2000 - GNSS MEA		
DADES, FL FIX	OCALA, FL VORTAC	2000

95.6582 VOR FEDERAL AIRWAY V582

ST LOUIS, MO VORTAC	LEBOY, IL FIX	*3000
*2200 - MOCA		
LEBOY, IL FIX	QUINCY, IL VORTAC	3000

95.6583 VOR FEDERAL AIRWAY V583

CENTEX, TX VORTAC	COLLEGE STATION, TX VORTAC	2200
COLLEGE STATION, TX VORTAC	LEONA, TX VORTAC	2000
LEONA, TX VORTAC	FRANKSTON, TX VOR/DME	2300

95.6586 VOR FEDERAL AIRWAY V586

EXCEL, MO FIX	MACON, MO VOR/DME	*3000
*2300 - MOCA		
MACON, MO VOR/DME	QUINCY, IL VORTAC	2700

FROM	TO	MEA
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95.6586 VOR FEDERAL AIRWAY V586 - CONTINUED

QUINCY, IL VORTAC	PEORIA, IL VORTAC	2500
PEORIA, IL VORTAC	MAROC, IL FIX	*3000
*2400 - MOCA		
MAROC, IL FIX	PONTIAC, IL VOR/DME	2500
PONTIAC, IL VOR/DME	JOLIET, IL VOR/DME	*3000
*2300 - MOCA		

95.6587 VOR FEDERAL AIRWAY V587

HOMELAND, CA VOR	*LUCER, CA FIX	10500
*9300 - MCA LUCER, CA FIX , SW BND		
LUCER, CA FIX	BULGY, CA FIX	*9000
*8000 - MOCA		
BULGY, CA FIX	DAGGETT, CA VORTAC	8000
DAGGETT, CA VORTAC	*WHIGG, CA FIX	10500
*12000 - MRA		
WHIGG, CA FIX	BOULDER CITY, NV VORTAC	10500

95.6589 VOR FEDERAL AIRWAY V589

MEDICINE BOW, WY VOR/DME	ALCOS, WY FIX	10100
ALCOS, WY FIX	MUDDY MOUNTAIN, WY VOR/DME	*10000
*9400 - MOCA		

95.6591 VOR FEDERAL AIRWAY V591

GRAND JUNCTION, CO VOR/DME	*PACES, CO FIX	11500
*13000 - MRA		
PACES, CO FIX	SLOLM, CO FIX	#13000
#MTA V591 NE TO V220 NW 12900		
SLOLM, CO FIX	*GLENO, CO FIX	14000
*16000 - MRA		
GLENO, CO FIX	SNOW, CO VOR/DME	14000
SNOW, CO VOR/DME	*KREMMLING, CO VOR/DME	14600
*12500 - MCA KREMMLING, CO VOR/DME , W BND		

95.6595 VOR FEDERAL AIRWAY V595

*ROGUE VALLEY, OR VORTAC	CUTTR, OR FIX	
	NE BND	10500
	SW BND	6100
*5100 - MCA ROGUE VALLEY, OR VORTAC , NE BND		
CUTTR, OR FIX	COPPR, OR FIX	10500
COPPR, OR FIX	DRACK, OR FIX	
	NE BND	9900
	SW BND	10500
DRACK, OR FIX	*DESCHUTES, OR VORTAC	
	NE BND	6200
	SW BND	10500
*7900 - MCA DESCHUTES, OR VORTAC , SW BND		

95.6597 VOR FEDERAL AIRWAY V597

SAN MARCUS, CA VORTAC	*OHIGH, CA FIX	8000
*9000 - MRA		
OHIGH, CA FIX	*FILLMORE, CA VORTAC	8000
*6100 - MCA FILLMORE, CA VORTAC , W BND		
FILLMORE, CA VORTAC	VAN NUYS, CA VOR/DME	6000
VAN NUYS, CA VOR/DME	DARTS, CA FIX	5500

FROM	TO	MEA
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95.6597 VOR FEDERAL AIRWAY V597 - CONTINUED

DARTS, CA FIX	SEAL BEACH, CA VORTAC	
	NW BND	6000
	SE BND	4000
SEAL BEACH, CA VORTAC	BALBO, CA FIX	
	NW BND	3000
	SE BND	4000
BALBO, CA FIX	OCEANSIDE, CA VORTAC	4000
OCEANSIDE, CA VORTAC	MISSION BAY, CA VORTAC	3000

95.6599 VOR FEDERAL AIRWAY V599

LEE COUNTY, FL VORTAC	THNDR, FL FIX	*3000
*1500 - MOCA		
THNDR, FL FIX	DOLPHIN, FL VORTAC	*3000
*1500 - MOCA		

95.6601 VOR FEDERAL AIRWAY V601

PAHOKEE, FL VOR/DME	*DEEDS, FL FIX	**4000
*4000 - MRA		
*7000 - MCA DEEDS, FL FIX , S BND		
**1600 - MOCA		
**2000 - GNSS MEA		
DEEDS, FL FIX	KEY WEST, FL VORTAC	*7000
*1400 - MOCA		
*2000 - GNSS MEA		

95.6605 VOR FEDERAL AIRWAY V605

SPARTANBURG, SC VORTAC	*GENOD, NC FIX	***7000
*10000 - MCA GENOD, NC FIX , N BND		
**6000 - MOCA		
**6000 - GNSS MEA		
#5200 - MCA SPARTANBURG, SC VORTAC , N BND		
GENOD, NC FIX	*HOLSTON MOUNTAIN, TN VORTAC	**10000
*8500 - MCA HOLSTON MOUNTAIN, TN VORTAC , S BND		
**8500 - MOCA		

95.6607 VOR FEDERAL AIRWAY V607

MENDOCINO, CA VORTAC	YAGER, CA FIX	9000
YAGER, CA FIX	ARCATA, CA VOR/DME	8000

95.6609 VOR FEDERAL AIRWAY V609

SAGINAW, MI VOR/DME	BENNY, MI FIX	2400
BENNY, MI FIX	BANJO, MI FIX	*3000
*2300 - MOCA		
BANJO, MI FIX	*ZABLE, MI FIX	**5000
*5000 - MCA ZABLE, MI FIX , S BND		
**2900 - MOCA		
ZABLE, MI FIX	*RONDO, MI FIX	3200
*5000 - MRA		
RONDO, MI FIX	PELLSTON, MI VORTAC	*3200
*2500 - MOCA		

95.6611 VOR FEDERAL AIRWAY V611

NEWMAN, TX VORTAC	*MOLLY, NM FIX	9000
*10000 - MRA		

FROM	TO	MEA
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95.6611 VOR FEDERAL AIRWAY V611 - CONTINUED

MOLLY, NM FIX	TRUTH OR CONSEQUENCES, NM VORTAC	10000
TRUTH OR CONSEQUENCES, NM VORTAC	SOCORRO, NM VORTAC	9000
SOCORRO, NM VORTAC	ALBUQUERQUE, NM VORTAC	8000
ALBUQUERQUE, NM VORTAC	*SANTA FE, NM VORTAC	9000
*11600 - MCA SANTA FE, NM VORTAC , E BND		
SANTA FE, NM VORTAC	*FORT UNION, NM VORTAC	12500
*10900 - MCA FORT UNION, NM VORTAC , N BND		
*11300 - MCA FORT UNION, NM VORTAC , W BND		
FORT UNION, NM VORTAC	CIMARRON, NM VORTAC	*12000
*11100 - MOCA		
CIMARRON, NM VORTAC	GOSIP, CO FIX	*11000
*10200 - MOCA		
GOSIP, CO FIX	PUEBLO, CO VORTAC	8700
PUEBLO, CO VORTAC	*BLACK FOREST, CO VOR/DME	9500
*10000 - MCA BLACK FOREST, CO VOR/DME , NE BND		
BLACK FOREST, CO VOR/DME	LUFSE, CO FIX	#GNSS - 10000
#BLACK FOREST R-028 UNUSABLE		
LUFSE, CO FIX	JEFEL, CO FIX	GNSS - 10500
JEFEL, CO FIX	*LIMEX, CO FIX	GNSS - 8500
*10000 - MRA		
LIMEX, CO FIX	GILL, CO VOR/DME	7900
GILL, CO VOR/DME	CHEYENNE, WY VORTAC	8500
CHEYENNE, WY VORTAC	MOIST, WY FIX	9000
MOIST, WY FIX	DEALT, WY FIX	11500
DEALT, WY FIX	MUDDY MOUNTAIN, WY VOR/DME	
	NW BND	9000
	SE BND	10000
MUDDY MOUNTAIN, WY VOR/DME	CRAZY WOMAN, WY VOR/DME	7600
CRAZY WOMAN, WY VOR/DME	SHERIDAN, WY VOR/DME	9000
SHERIDAN, WY VOR/DME	KRONA, MT FIX	8000
KRONA, MT FIX	BILLINGS, MT VORTAC	
	SE BND	8000
	NW BND	6200
BILLINGS, MT VORTAC	SHELA, MT FIX	
	S BND	*6100
	N BND	*7700
*6000 - MOCA		
SHELA, MT FIX	LEWISTOWN, MT VOR/DME	7700
LEWISTOWN, MT VOR/DME	SHONK, MT FIX	7700
SHONK, MT FIX	HAVRE, MT VOR/DME	6000

95.6613 VOR FEDERAL AIRWAY V613

ALLENTOWN, PA VORTAC	WILKES-BARRE, PA VORTAC	4000
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95.6615 VOR FEDERAL AIRWAY V615

RALEIGH/DURHAM, NC VORTAC	DUFFI, NC FIX	2600
DUFFI, NC FIX	HOPEWELL, VA VORTAC	*5000
*2500 - MOCA		
*2500 - GNSS MEA		

95.6623 VOR FEDERAL AIRWAY V623

SPARTA, NJ VORTAC	CARMEL, NY VOR/DME	3000
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95.6625 VOR FEDERAL AIRWAY V625

U.S. MEXICAN BORDER	NOGALES, AZ VOR/DME	*10000
*9500 - MOCA		

FROM	TO	MEA
95.6626 VOR FEDERAL AIRWAY V626		
YMONT, UT FIX	MYTON, UT VOR/DME	*15000
*12600 - MOCA		
*12600 - GNSS MEA		
95.6629 VOR FEDERAL AIRWAY V629		
SHUSS, NV FIX	BOULDER CITY, NV VORTAC	7600

FROM

TO

MEA

§95.6301 ALASKA VOR FEDERAL AIRWAYS**95.6301 ALASKA VOR FEDERAL AIRWAY V301**

FAIRBANKS, AK VORTAC	DIFER, AK FIX	*8000
*7300 - MOCA		
DIFER, AK FIX	FORT YUKON, AK VORTAC	
	SE BND	8000
	NW BND	2300

95.6302 ALASKA VOR FEDERAL AIRWAY V302

FAIRBANKS, AK VORTAC	MAYPO, AK FIX	7000
MAYPO, AK FIX	FORT YUKON, AK VORTAC	
	SW BND	7000
	NE BND	2300

95.6308 ALASKA VOR FEDERAL AIRWAY V308

BETHEL, AK VORTAC	FISHH, AK FIX	
	E BND	*8000
	W BND	*2000
*1400 - MOCA		
FISHH, AK FIX	SPARREVOHN, AK VOR/DME	*8000
*6000 - MOCA		
*6000 - GNSS MEA		

95.6309 ALASKA VOR FEDERAL AIRWAY V309

U.S. CANADIAN BORDER	ANNETTE ISLAND, AK VOR/DME	*5000
*4900 - MOCA		

95.6311 ALASKA VOR FEDERAL AIRWAY V311

ANNETTE ISLAND, AK VOR/DME	*TOKEE, AK FIX	6000
*9000 - MCA TOKEE, AK FIX , NW BND		
TOKEE, AK FIX	WIBTA, AK FIX	*9000
*4700 - MOCA		
WIBTA, AK FIX	FLIPS, AK FIX	
	W BND	*7500
	E BND	*9000
*6300 - MOCA		
FLIPS, AK FIX	BIORKA ISLAND, AK VORTAC	
	W BND	6100
	E BND	7500

95.6317 ALASKA VOR FEDERAL AIRWAY V317

U.S. CANADIAN BORDER	ANNETTE ISLAND, AK VOR/DME	5000
ANNETTE ISLAND, AK VOR/DME	GESTI, AK FIX	
	SE BND	5000
	NW BND	7000
GESTI, AK FIX	LEVEL ISLAND, AK VOR/DME	*7000
*5300 - MOCA		
LEVEL ISLAND, AK VOR/DME	HOODS, AK FIX	*9000
*6000 - MOCA		
HOODS, AK FIX	*SISTERS ISLAND, AK VORTAC	
	SE BND	**9000
	NW BND	**7000
*7900 - MCA SISTERS ISLAND, AK VORTAC , W BND		
**5500 - MOCA		

FROM

TO

MEA

95.6317 ALASKA VOR FEDERAL AIRWAY V317 - CONTINUED

SISTERS ISLAND, AK VORTAC	CSPER, AK FIX	
	NE BND	*7000
	SW BND	*15000
*5300 - MOCA		
CSPER, AK FIX	*HAPIT, AK FIX	**15000
*15000 - MRA		
**4000 - MOCA		

95.6318 ALASKA VOR FEDERAL AIRWAY V318

ANNETTE ISLAND, AK VOR/DME	LEVEL ISLAND, AK VOR/DME	6000
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95.6319 ALASKA VOR FEDERAL AIRWAY V319

YAKUTAT, AK VOR/DME	MALAS, AK FIX	
	E BND	2400
	W BND	10000
MALAS, AK FIX	KATAT, AK FIX	#*10000
*5600 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
KATAT, AK FIX	CASEL, AK FIX	*7000
*3400 - MOCA		
CASEL, AK FIX	*JOHNSTONE POINT, AK VOR/DME	4800
*4800 - MCA JOHNSTONE POINT, AK VOR/DME , E BND		
JOHNSTONE POINT, AK VOR/DME	EDELE, AK FIX	
	E BND	4400
	W BND	10000
EDELE, AK FIX	SNRIS, AK FIX	10000
SNRIS, AK FIX	*ANCHORAGE, AK VOR/DME	
	W BND	8200
	E BND	10000
*8000 - MCA ANCHORAGE, AK VOR/DME , E BND		
ANCHORAGE, AK VOR/DME	YONEK, AK FIX	3000
YONEK, AK FIX	*TORTE, AK FIX	
	W BND	12000
	E BND	7000
*11400 - MCA TORTE, AK FIX , W BND		
TORTE, AK FIX	*VEILL, AK FIX	12000
*8000 - MCA VEILL, AK FIX , E BND		
VEILL, AK FIX	SPARREVOHN, AK VOR/DME	
	E BND	12000
	W BND	6600
SPARREVOHN, AK VOR/DME	ACRAN, AK FIX	
	W BND	*6000
	E BND	*5200
*5200 - MOCA		
ACRAN, AK FIX	VIDDA, AK FIX	6000
VIDDA, AK FIX	WEEKE, AK FIX	
	SW BND	*3000
	NE BND	*6000
*2100 - MOCA		
WEEKE, AK FIX	BETHEL, AK VORTAC	2000
BETHEL, AK VORTAC	ARSEN, AK FIX	2000
ARSEN, AK FIX	FANCI, AK FIX	*4000
*2000 - MOCA		
*2000 - GNSS MEA		
FANCI, AK FIX	HOOPER BAY, AK VOR/DME	2000
HOOPER BAY, AK VOR/DME	NANWAK, AK NDB/DME	2300

95.6320 ALASKA VOR FEDERAL AIRWAY V320

MC GRATH, AK VORTAC	ERLAN, AK FIX	
	E BND	10000
	W BND	5000

FROM	TO	MEA
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95.6320 ALASKA VOR FEDERAL AIRWAY V320 - CONTINUED

ERLAN, AK FIX	WINOR, AK FIX	
	E BND	10000
	W BND	8000
WINOR, AK FIX	*FRIDA, AK FIX	#10000
*9500 - MRA		
*7600 - MCA FRIDA, AK FIX , W BND		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
FRIDA, AK FIX	RUNTL, AK FIX	8500
RUNTL, AK FIX	KAYTI, AK FIX	6400
KAYTI, AK FIX	*ANCHORAGE, AK VOR/DME	3700
*6000 - MCA ANCHORAGE, AK VOR/DME , SE BND		
ANCHORAGE, AK VOR/DME	HOPER, AK FIX	
	SE BND	10000
	NW BND	6500
HOPER, AK FIX	NELLI, AK FIX	10000
NELLI, AK FIX	KEBAB, AK FIX	
	NW BND	10000
	SE BND	5000
KEBAB, AK FIX	JOHNSTONE POINT, AK VOR/DME	5000

95.6321 ALASKA VOR FEDERAL AIRWAY V321

CAPE NEWENHAM, AK NDB/DME	KING SALMON, AK VORTAC	*5000
*4300 - MOCA		
KING SALMON, AK VORTAC	BATTY, AK FIX	
	NE BND	7000
	SW BND	6000
BATTY, AK FIX	AUGEY, AK FIX	7000
AUGEY, AK FIX	HOMER, AK VOR/DME	*4000
*3000 - MOCA		

95.6322 ALASKA VOR FEDERAL AIRWAY V322

KING SALMON, AK VORTAC	KONIC, AK FIX	
	W BND	5000
	E BND	9000
KONIC, AK FIX	WORRI, AK FIX	*9000
*7700 - MOCA		
*7700 - GNSS MEA		
WORRI, AK FIX	MALLT, AK FIX	*9000
*8500 - MOCA		
MALLT, AK FIX	HOMER, AK VOR/DME	
	SW BND	9000
	NE BND	4000

95.6333 ALASKA VOR FEDERAL AIRWAY V333

HOOPER BAY, AK VOR/DME	HALEM, AK FIX	4500
HALEM, AK FIX	FAIRE, AK FIX	*8000
*2300 - MOCA		
FAIRE, AK FIX	NOME, AK VOR/DME	3000
NOME, AK VOR/DME	GAITS, AK FIX	
	N BND	10000
	S BND	4000
GAITS, AK FIX	SHISHMAREF, AK NDB	*10000
*6700 - MOCA		

95.6334 ALASKA VOR FEDERAL AIRWAY V334

AUGEY, AK FIX	CLAMS, AK FIX	*7000
*2000 - MOCA		
*2000 - GNSS MEA		

FROM	TO	MEA
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95.6334 ALASKA VOR FEDERAL AIRWAY V334 - CONTINUED

CLAMS, AK FIX	KENAI, AK VOR/DME	2000
KENAI, AK VOR/DME	ANCHORAGE, AK VOR/DME	2000

95.6350 ALASKA VOR FEDERAL AIRWAY V350

DILLINGHAM, AK VOR/DME	TOGIAC, AK NDB/DME	5000
TOGIAC, AK NDB/DME	BAFIN, AK FIX	5400
BAFIN, AK FIX	BETHEL, AK VORTAC	
	SE BND	5400
	NW BND	2000
BETHEL, AK VORTAC	DAHLS, AK FIX	
	W BND	3600
	E BND	2000
DAHLS, AK FIX	EMMONAK, AK VOR/DME	*3600
*3000 - MOCA		
*3000 - GNSS MEA		
EMMONAK, AK VOR/DME	NOME, AK VOR/DME	3000

95.6351 ALASKA VOR FEDERAL AIRWAY V351

DILLINGHAM, AK VOR/DME	PORT HEIDEN, AK NDB/DME	3000
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95.6357 ALASKA VOR FEDERAL AIRWAY V357

KODIAK, AK VOR/DME	INNOL, AK FIX	3500
INNOL, AK FIX	MOCHO, AK FIX	*4000
*3000 - MOCA		
MOCHO, AK FIX	GERKS, AK FIX	*7500
*2300 - MOCA		
*7000 - GNSS MEA		
GERKS, AK FIX	SANER, AK FIX	*9000
*3700 - MOCA		
*7000 - GNSS MEA		
SANER, AK FIX	HOMER, AK VOR/DME	6000

95.6385 ALASKA VOR FEDERAL AIRWAY V385

HOOPER BAY, AK VOR/DME	EMMONAK, AK VOR/DME	4500
EMMONAK, AK VOR/DME	UNALAKLEET, AK VOR/DME	*3500
*2800 - MOCA		
*3000 - GNSS MEA		

95.6388 ALASKA VOR FEDERAL AIRWAY V388

ANCHORAGE, AK VOR/DME	NAPTO, AK FIX	2300
NAPTO, AK FIX	KENAI, AK VOR/DME	2400

95.6401 ALASKA VOR FEDERAL AIRWAY V401

AMBLER, AK NDB	FARME, AK FIX	*5500
*4700 - MOCA		
FARME, AK FIX	KOTZEBUE, AK VOR/DME	2000
KOTZEBUE, AK VOR/DME	SHISHMAREF, AK NDB	*2500
*2000 - MOCA		

95.6414 ALASKA VOR FEDERAL AIRWAY V414

GAMBELL, AK NDB/DME	KUKULIAK, AK VOR/DME	3000
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FROM	TO	MEA
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95.6427 ALASKA VOR FEDERAL AIRWAY V427

*KING SALMON, AK VORTAC	TOMMY, AK FIX	
	SW BND	**3000
	NE BND	**16000
*7200 - MCA KING SALMON, AK VORTAC , NE BND		
**3000 - GNSS MEA		
TOMMY, AK FIX	NUTUW, AK FIX	
	SW BND	*7000
	NE BND	*16000
*5300 - MOCA		
*6000 - GNSS MEA		
NUTUW, AK FIX	RINGO, AK FIX	
	SW BND	*9000
	NE BND	*16000
*5300 - MOCA		
*6000 - GNSS MEA		
RINGO, AK FIX	*NONDA, AK FIX	**16000
*16000 - MCA NONDA, AK FIX , SW BND		
**9000 - MOCA		
**9000 - GNSS MEA		

95.6428 ALASKA VOR FEDERAL AIRWAY V428

BIORKA ISLAND, AK VORTAC	SISTERS ISLAND, AK VORTAC	*7000
*6000 - MOCA		
*6000 - GNSS MEA		
SISTERS ISLAND, AK VORTAC	HAINES, AK NDB	#*10000
*8500 - MOCA		
*8500 - GNSS MEA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
HAINES, AK NDB	U.S. CANADIAN BORDER	*10000
*9600 - MOCA		

95.6435 ALASKA VOR FEDERAL AIRWAY V435

HOMER, AK VOR/DME	KASSI, AK FIX	4400
KASSI, AK FIX	KENAI, AK VOR/DME	
	S BND	*4400
	N BND	*2000
*1700 - MOCA		
*2000 - GNSS MEA		

95.6436 ALASKA VOR FEDERAL AIRWAY V436

ANCHORAGE, AK VOR/DME	TAGER, AK FIX	2200
TAGER, AK FIX	*TALKEETNA, AK VOR/DME	3000
*3800 - MCA TALKEETNA, AK VOR/DME , N BND		
TALKEETNA, AK VOR/DME	*EGRAM, AK FIX	6000
*7600 - MCA EGRAM, AK FIX , N BND		
EGRAM, AK FIX	NENANA, AK VORTAC	10000
NENANA, AK VORTAC	GOLLY, AK FIX	4000
GOLLY, AK FIX	TOLLO, AK FIX	*4000
*3400 - MOCA		
TOLLO, AK FIX	LIVEN, AK FIX	5000
LIVEN, AK FIX	BEETE, AK FIX	*10000
*5500 - MOCA		
BEETE, AK FIX	CHANDALAR LAKE, AK NDB	*10000
*6900 - MOCA		
CHANDALAR LAKE, AK NDB	*ARTIC, AK FIX	10000
*7000 - MCA ARTIC, AK FIX , SE BND		

FROM	TO	MEA
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95.6436 ALASKA VOR FEDERAL AIRWAY V436 - CONTINUED

ARTIC, AK FIX	PIPET, AK FIX	
	SE BND	*10000
	NW BND	*6000
*4500 - MOCA		
*5000 - GNSS MEA		
PIPET, AK FIX	BIXER, AK FIX	
	SE BND	*10000
	NW BND	*5000
*3900 - MOCA		
*4000 - GNSS MEA		
BIXER, AK FIX	ARCON, AK FIX	
	SE BND	10000
	NW BND	3000
ARCON, AK FIX	DEADHORSE, AK VOR/DME	
	SE BND	10000
	NW BND	2000

95.6438 ALASKA VOR FEDERAL AIRWAY V438

KODIAK, AK VOR/DME	SHUYA, AK FIX	4000
SHUYA, AK FIX	HOMER, AK VOR/DME	*6000
*5900 - MOCA		
HOMER, AK VOR/DME	SKILA, AK FIX	5000
SKILA, AK FIX	NAPTO, AK FIX	2400
NAPTO, AK FIX	ANCHORAGE, AK VOR/DME	2300
ANCHORAGE, AK VOR/DME	*BIG LAKE, AK VORTAC	2000
*2600 - MCA BIG LAKE, AK VORTAC , N BND		
BIG LAKE, AK VORTAC	*SURES, AK FIX	7500
*10000 - MRA		
SURES, AK FIX	LIBER, AK FIX	#*11000
*8900 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
LIBER, AK FIX	*GLOWS, AK FIX	7500
*4800 - MCA GLOWS, AK FIX , S BND		
GLOWS, AK FIX	FAIRBANKS, AK VORTAC	3400
FAIRBANKS, AK VORTAC	CHATA, AK FIX	
	N BND	*8000
	S BND	*7000
*5000 - MOCA		
CHATA, AK FIX	BURMA, AK FIX	*8000
*7200 - MOCA		
BURMA, AK FIX	BIJOU, AK FIX	5000
BIJOU, AK FIX	FORT YUKON, AK VORTAC	2300
FORT YUKON, AK VORTAC	RIGGS, AK FIX	#*10000
*9500 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
RIGGS, AK FIX	OILEE, AK FIX	
	SE BND	10000
	NW BND	8000
OILEE, AK FIX	WIMAN, AK FIX	
	SE BND	10000
	NW BND	5000
WIMAN, AK FIX	UVALL, AK FIX	
	SE BND	*10000
	NW BND	*4000
*3200 - MOCA		
UVALL, AK FIX	DEADHORSE, AK VOR/DME	
	SE BND	10000
	NW BND	2000

FROM	TO	MEA
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95.6438 ALASKA VOR FEDERAL AIRWAY V438 - CONTINUED

DEADHORSE, AK VOR/DME	OOSIK, AK FIX	
	W BND	*6000
	E BND	*2000
*1300 - MOCA		
OOSIK, AK FIX	TUNDA, AK FIX	*6000
*1300 - MOCA		
TUNDA, AK FIX	BARROW, AK VOR/DME	
	E BND	*6000
	W BND	*3000
*1500 - MOCA		

95.6439 ALASKA VOR FEDERAL AIRWAY V439

KODIAK, AK VOR/DME	BAREL, AK FIX	*6000
*4300 - MOCA		
BAREL, AK FIX	HOMER, AK VOR/DME	*6000
*5300 - MOCA		

95.6440 ALASKA VOR FEDERAL AIRWAY V440

NOME, AK VOR/DME	*GOLOS, AK FIX	3000
*4500 - MRA		
GOLOS, AK FIX	UNALAKLEET, AK VOR/DME	3000
UNALAKLEET, AK VOR/DME	YUCON, AK FIX	
	W BND	4600
	E BND	8000
YUCON, AK FIX	GANES, AK FIX	*8000
*5600 - MOCA		
*7000 - GNSS MEA		
GANES, AK FIX	MC GRATH, AK VORTAC	
	E BND	6000
	W BND	8000
MC GRATH, AK VORTAC	ERLAN, AK FIX	
	E BND	10000
	W BND	5000
ERLAN, AK FIX	WINOR, AK FIX	
	E BND	10000
	W BND	8000
WINOR, AK FIX	*FRIDA, AK FIX	#10000
*9500 - MRA		
*7600 - MCA FRIDA, AK FIX , W BND		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
FRIDA, AK FIX	*IVANN, AK FIX	6600
*5900 - MCA IVANN, AK FIX , W BND		
IVANN, AK FIX	*ANCHORAGE, AK VOR/DME	2200
*6000 - MCA ANCHORAGE, AK VOR/DME , SE BND		
ANCHORAGE, AK VOR/DME	HOPER, AK FIX	
	SE BND	10000
	NW BND	6500
HOPER, AK FIX	MODDS, AK FIX	10000
MODDS, AK FIX	MIDDLETON ISLAND, AK VOR/DME	
	SE BND	6000
	NW BND	10000
MIDDLETON ISLAND, AK VOR/DME	OCULT, AK FIX	*8000
*2000 - MOCA		
*7000 - GNSS MEA		
OCULT, AK FIX	YAKUTAT, AK VOR/DME	2000
YAKUTAT, AK VOR/DME	CENTA, AK FIX	
	SE BND	9000
	NW BND	2000

FROM	TO	MEA
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95.6440 ALASKA VOR FEDERAL AIRWAY V440 - CONTINUED

CENTA, AK FIX	SALIS, AK FIX	#*9000
*2000 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
SALIS, AK FIX	BIORKA ISLAND, AK VORTAC	
	NW BND	9000
	SE BND	5100
BIORKA ISLAND, AK VORTAC	LATCH, AK FIX	
	NW BND	4500
	SE BND	12000
LATCH, AK FIX	U.S. CANADIAN BORDER	*12000
*4200 - MOCA		
*8000 - GNSS MEA		

95.6441 ALASKA VOR FEDERAL AIRWAY V441

MIDDLETON ISLAND, AK VOR/DME	DEALS, AK FIX	6000
DEALS, AK FIX	*SEWAR, AK FIX	**9000
*10000 - MRA		
**8400 - MOCA		
SEWAR, AK FIX	BROIL, AK FIX	*10000
*7700 - MOCA		
*7700 - GNSS MEA		
BROIL, AK FIX	*HATUL, AK FIX	7100
*5600 - MCA HATUL, AK FIX , SE BND		
HATUL, AK FIX	*ANCHORAGE, AK VOR/DME	4600
*4200 - MCA ANCHORAGE, AK VOR/DME , SE BND		

95.6444 ALASKA VOR FEDERAL AIRWAY V444

BARROW, AK VOR/DME	CHIPS, AK FIX	*2000
*1200 - MOCA		
CHIPS, AK FIX	BRONX, AK FIX	*5000
*1200 - MOCA		
BRONX, AK FIX	EVANSVILLE, AK NDB	*10000
*9100 - MOCA		
EVANSVILLE, AK NDB	BETTLES, AK VOR/DME	3500
BETTLES, AK VOR/DME	*CYCLE, AK FIX	3500
*4400 - MCA CYCLE, AK FIX , SE BND		
CYCLE, AK FIX	BRION, AK FIX	*6000
*5200 - MOCA		
BRION, AK FIX	LIVEN, AK FIX	*9000
*5200 - MOCA		
LIVEN, AK FIX	HESSE, AK FIX	*5000
*4400 - MOCA		
HESSE, AK FIX	FAIRBANKS, AK VORTAC	*5000
*4900 - MOCA		
FAIRBANKS, AK VORTAC	BIG DELTA, AK VORTAC	*5000
*4200 - MOCA		
BIG DELTA, AK VORTAC	NORTHWAY, AK VORTAC	*8000
*7800 - MOCA		
NORTHWAY, AK VORTAC	U.S. CANADIAN BORDER	*9600
*8900 - MOCA		

95.6445 ALASKA VOR FEDERAL AIRWAY V445

*FAIRBANKS, AK VORTAC	WILTS, AK FIX	5000
*4000 - MCA FAIRBANKS, AK VORTAC , W BND		
WILTS, AK FIX	TOLLO, AK FIX	*5000
*4200 - MOCA		

FROM	TO	MEA
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95.6445 ALASKA VOR FEDERAL AIRWAY V445 - CONTINUED

TOLLO, AK FIX	KANUT, AK FIX	7000
KANUT, AK FIX	BETTLES, AK VOR/DME	
	SE BND	7000
	NW BND	3500

95.6447 ALASKA VOR FEDERAL AIRWAY V447

FAIRBANKS, AK VORTAC	*DOMEY, AK FIX	**5000
*7000 - MRA		
**4400 - MOCA		
DOMEY, AK FIX	TATTA, AK FIX	
	NW BND	*11000
	SE BND	*7000
*5400 - MOCA		
TATTA, AK FIX	CHANDALAR LAKE, AK NDB	#*11000
*8000 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		

95.6452 ALASKA VOR FEDERAL AIRWAY V452

KUKULIAK, AK VOR/DME	NOME, AK VOR/DME	3000
NOME, AK VOR/DME	MOSES POINT, AK VOR/DME	*5000
*4200 - MOCA		
MOSES POINT, AK VOR/DME	*DIBVY, AK FIX	**6000
*6000 - MRA		
**5200 - MOCA		
DIBVY, AK FIX	GALENA, AK VOR/DME	3000
GALENA, AK VOR/DME	HORSI, AK FIX	
	E BND	*8000
	W BND	*4000
*4000 - GNSS MEA		
HORSI, AK FIX	BONET, AK FIX	*8000
*4000 - MOCA		
*4000 - GNSS MEA		
BONET, AK FIX	NENANA, AK VORTAC	*7000
*4400 - MOCA		
*4400 - GNSS MEA		

95.6453 ALASKA VOR FEDERAL AIRWAY V453

KING SALMON, AK VORTAC	DILLINGHAM, AK VOR/DME	2100
DILLINGHAM, AK VOR/DME	EDUCE, AK FIX	*7000
*6500 - MOCA		
EDUCE, AK FIX	BETHEL, AK VORTAC	
	S BND	*7000
	N BND	*4000
*2500 - MOCA		
*3000 - GNSS MEA		
BETHEL, AK VORTAC	WAPRO, AK FIX	*9000
*4300 - MOCA		
WAPRO, AK FIX	UNALAKLEET, AK VOR/DME	*11000
*5100 - MOCA		

95.6454 ALASKA VOR FEDERAL AIRWAY V454

KING SALMON, AK VORTAC	DILLINGHAM, AK VOR/DME	*5000
*4300 - MOCA		

95.6456 ALASKA VOR FEDERAL AIRWAY V456

COLD BAY, AK VORTAC	BINAL, AK FIX	
	SW BND	*4000
	NE BND	*14000
*3400 - MOCA		

FROM

TO

MEA

95.6456 ALASKA VOR FEDERAL AIRWAY V456 - CONTINUED

BINAL, AK FIX	TANIE, AK FIX	#*14000
*3400 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
TANIE, AK FIX	KING SALMON, AK VORTAC	#*3000
*1600 - MOCA		
#MEA 14000 SW WHEN DLG FSS SHUT DOWN		
*KING SALMON, AK VORTAC	STREW, AK FIX	
	SW BND	**3000
	NE BND	**11000
*5400 - MCA KING SALMON, AK VORTAC , NW BND		
**2300 - MOCA		
STREW, AK FIX	BITOP, AK FIX	
	SW BND	*5000
	NE BND	*11000
*5000 - MOCA		
*6000 - GNSS MEA		
BITOP, AK FIX	*NOSKY, AK FIX	**11000
*15000 - MCA NOSKY, AK FIX , NE BND		
**5900 - MOCA		
**6000 - GNSS MEA		
NOSKY, AK FIX	*TUCKS, AK FIX	**15000
*10300 - MCA TUCKS, AK FIX , SW BND		
**12300 - MOCA		
**13000 - GNSS MEA		
TUCKS, AK FIX	KENAI, AK VOR/DME	*5000
*3300 - MOCA		
KENAI, AK VOR/DME	ANCHORAGE, AK VOR/DME	2000
ANCHORAGE, AK VOR/DME	*BIG LAKE, AK VORTAC	2000
*5000 - MCA BIG LAKE, AK VORTAC , NE BND		
BIG LAKE, AK VORTAC	MATTA, AK FIX	7000
MATTA, AK FIX	*UREKA, AK FIX	**10000
*7200 - MCA UREKA, AK FIX , SW BND		
**9400 - MOCA		
UREKA, AK FIX	SMOKY, AK FIX	
	NE BND	*7000
	SW BND	*10000
*6300 - MOCA		
*7000 - GNSS MEA		
SMOKY, AK FIX	GULKANA, AK VOR/DME	
	NE BND	*5000
	SW BND	*10000
*5000 - GNSS MEA		
GULKANA, AK VOR/DME	*SANKA, AK FIX	
	NE BND	11000
	SW BND	6000
*8000 - MCA SANKA, AK FIX , NE BND		
SANKA, AK FIX	NORTHWAY, AK VORTAC	*11000
*10500 - MOCA		

95.6457 ALASKA VOR FEDERAL AIRWAY V457

ILIAMNA, AK NDB/DME	*AWOMY, AK FIX	
	W BND	5700
	E BND	9000
*7000 - MCA AWOMY, AK FIX , E BND		
AWOMY, AK FIX	*MOFOF, AK FIX	9000
*7000 - MCA MOFOF, AK FIX , W BND		
MOFOF, AK FIX	KENAI, AK VOR/DME	
	W BND	9000
	E BND	3000

FROM	TO	MEA
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95.6459 ALASKA VOR FEDERAL AIRWAY V459

EMMONAK, AK VOR/DME	ST MARYS, AK NDB	3000
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95.6462 ALASKA VOR FEDERAL AIRWAY V462

CAPE NEWENHAM, AK NDB/DME	DILLINGHAM, AK VOR/DME	*5000
*4300 - MOCA		
DILLINGHAM, AK VOR/DME	KOWOK, AK FIX	*3000
*2500 - MOCA		
KOWOK, AK FIX	SAHOK, AK FIX	*5000
*3800 - MOCA		
SAHOK, AK FIX	NONDA, AK FIX	#*14000
*8800 - MOCA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		
NONDA, AK FIX	*BLUGA, AK FIX	**14000
*10000 - MCA BLUGA, AK FIX , SW BND		
**12400 - MOCA		
BLUGA, AK FIX	*AMOTT, AK FIX	7000
*7400 - MCA AMOTT, AK FIX , SW BND		
AMOTT, AK FIX	ANCHORAGE, AK VOR/DME	4000

95.6473 ALASKA VOR FEDERAL AIRWAY V473

LEVEL ISLAND, AK VOR/DME	FLIPS, AK FIX	*7000
*6300 - MOCA		
FLIPS, AK FIX	BIORKA ISLAND, AK VORTAC	
	W BND	6100
	E BND	7500

95.6477 ALASKA VOR FEDERAL AIRWAY V477

GALENA, AK VOR/DME	HUSLIA, AK VOR/DME	3000
HUSLIA, AK VOR/DME	ATAGO, AK FIX	
	W BND	*4000
	E BND	*3500
*2500 - MOCA		
ATAGO, AK FIX	DESOY, AK FIX	4000
DESOY, AK FIX	SELAWIK, AK VOR/DME	
	W BND	2500
	E BND	4000
SELAWIK, AK VOR/DME	JELLE, AK FIX	3500
JELLE, AK FIX	AMBLER, AK NDB	
	NE BND	5000
	SW BND	4000

95.6480 ALASKA VOR FEDERAL AIRWAY V480

MOUNT MOFFETT, AK NDB/DME	ST PAUL ISLAND, AK NDB/DME	6000
ST PAUL ISLAND, AK NDB/DME	ZESKA, AK FIX	*10000
*1800 - MOCA		
ZESKA, AK FIX	BETHEL, AK VORTAC	
	SW BND	*10000
	NE BND	*2000
*1400 - MOCA		
BETHEL, AK VORTAC	CABOT, AK FIX	
	W BND	*2000
	E BND	*4000
*1400 - MOCA		
CABOT, AK FIX	ANIAK, AK FIX	*4000
*2300 - MOCA		

FROM	TO	MEA
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95.6480 ALASKA VOR FEDERAL AIRWAY V480 - CONTINUED

ANIAC, AK FIX	JOANY, AK FIX	#*8000
*5600 - MOCA		
#CONTINUOUS NAV SIGNAL COVERAGE DOES NOT EXIST BETWEEN BETHEL 110 NM & MCGRATH 60 NM		
#MEA IS ESTABLIS		
JOANY, AK FIX	MC GRATH, AK VORTAC	
	W BND	*8000
	E BND	*6000
*5200 - MOCA		
MC GRATH, AK VORTAC	MEFRA, AK FIX	
	W BND	4000
	E BND	8000
MEFRA, AK FIX	NENANA, AK VORTAC	*8000
*5000 - MOCA		
NENANA, AK VORTAC	FAIRBANKS, AK VORTAC	*4000
*2700 - MOCA		

95.6481 ALASKA VOR FEDERAL AIRWAY V481

*JOHNSTONE POINT, AK VOR/DME	FIDAL, AK FIX	14000
*14000 - MCA JOHNSTONE POINT, AK VOR/DME , N BND		
FIDAL, AK FIX	ROBES, AK FIX	14000
ROBES, AK FIX	*KLUNG, AK FIX	14000
*11200 - MCA KLUNG, AK FIX , S BND		
KLUNG, AK FIX	GULKANA, AK VOR/DME	
	S BND	10000
	N BND	7000
GULKANA, AK VOR/DME	DOZEY, AK FIX	
	N BND	12000
	S BND	4000
DOZEY, AK FIX	PAXON, AK FIX	
	S BND	7000
	N BND	12000
PAXON, AK FIX	*DONEL, AK FIX	**12000
*10500 - MCA DONEL, AK FIX , S BND		
**11500 - MOCA		
DONEL, AK FIX	*BIG DELTA, AK VORTAC	
	N BND	7000
	S BND	12000
*7800 - MCA BIG DELTA, AK VORTAC , S BND		
BIG DELTA, AK VORTAC	FORT YUKON, AK VORTAC	#7000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		

95.6482 ALASKA VOR FEDERAL AIRWAY V482

JOHNSTONE POINT, AK VOR/DME	TOSIN, AK FIX	*10000
*9300 - MOCA		
TOSIN, AK FIX	RIVVA, AK FIX	6000
RIVVA, AK FIX	GULKANA, AK VOR/DME	*5000
*4500 - MOCA		

95.6488 ALASKA VOR FEDERAL AIRWAY V488

HOOPER BAY, AK VOR/DME	AKELT, AK FIX	
	NE BND	10000
	SW BND	4000
AKELT, AK FIX	ALMOT, AK FIX	*10000
*4000 - MOCA		
ALMOT, AK FIX	UNALAKLEET, AK VOR/DME	
	SW BND	10000
	NE BND	3000

FROM	TO	MEA
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95.6488 ALASKA VOR FEDERAL AIRWAY V488 - CONTINUED

UNALAKLEET, AK VOR/DME	EDMON, AK FIX	
	NE BND	*5500
	SW BND	*4000
*4000 - MOCA		
EDMON, AK FIX	VENCE, AK FIX	*5500
*4900 - MOCA		
VENCE, AK FIX	GALENA, AK VOR/DME	
	SW BND	*5500
	NE BND	*3000
*2500 - MOCA		
GALENA, AK VOR/DME	KUHZE, AK FIX	*5000
*4400 - MOCA		
KUHZE, AK FIX	CHOKK, AK FIX	6000
CHOKK, AK FIX	TANANA, AK VOR/DME	
	SW BND	6000
	NE BND	3000
TANANA, AK VOR/DME	*REEBA, AK FIX	
	E BND	**7000
	W BND	**4000
*7000 - MRA		
**4000 - MOCA		
REEBA, AK FIX	GOLLY, AK FIX	*7000
*5000 - MOCA		
GOLLY, AK FIX	*FAIRBANKS, AK VORTAC	5000
*4700 - MCA FAIRBANKS, AK VORTAC , W BND		

95.6489 ALASKA VOR FEDERAL AIRWAY V489

GALENA, AK VOR/DME	HORSI, AK FIX	
	E BND	*8000
	W BND	*4000
*4000 - GNSS MEA		
HORSI, AK FIX	ROSII, AK FIX	
	NE BND	*6000
	SW BND	*8000
*4000 - MOCA		
ROSII, AK FIX	TANANA, AK VOR/DME	
	NE BND	3400
	SW BND	6000

95.6491 ALASKA VOR FEDERAL AIRWAY V491

BIG LAKE, AK VORTAC	TALKEETNA, AK VOR/DME	3000
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95.6496 ALASKA VOR FEDERAL AIRWAY V496

HOOPER BAY, AK VOR/DME	ST MARYS, AK NDB	3500
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95.6498 ALASKA VOR FEDERAL AIRWAY V498

MC GRATH, AK VORTAC	NIXON, AK FIX	
	NW BND	*6000
	SE BND	*4500
*4500 - MOCA		
NIXON, AK FIX	AHVUH, AK FIX	*6000
*5500 - MOCA		
AHVUH, AK FIX	GALENA, AK VOR/DME	
	SE BND	*6000
	NW BND	*4000
*4000 - MOCA		

FROM	TO	MEA
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95.6498 ALASKA VOR FEDERAL AIRWAY V498 - CONTINUED

GALENA, AK VOR/DME	EBIKY, AK FIX	*3000
*2500 - MOCA		
EBIKY, AK FIX	*KATEL, AK FIX	
	NW BND	**8000
	SE BND	**4000
*8000 - MRA		
**4000 - MOCA		
KATEL, AK FIX	BALIN, AK FIX	*8000
*5300 - MOCA		
BALIN, AK FIX	KOTZEBUE, AK VOR/DME	
	SE BND	*8000
	NW BND	*2000
*2000 - MOCA		

95.6504 ALASKA VOR FEDERAL AIRWAY V504

NENANA, AK VORTAC	KANUT, AK FIX	7000
KANUT, AK FIX	BETTLES, AK VOR/DME	
	NW BND	3500
	SE BND	7000
BETTLES, AK VOR/DME	EVANSVILLE, AK NDB	3500
EVANSVILLE, AK NDB	DERIK, AK FIX	*10000
*9500 - MOCA		
DERIK, AK FIX	MUKTU, AK FIX	
	S BND	*10000
	N BND	*7000
*3800 - MOCA		
MUKTU, AK FIX	SHELO, AK FIX	
	S BND	*10000
	N BND	*5000
*3000 - MOCA		
SHELO, AK FIX	DEADHORSE, AK VOR/DME	
	S BND	10000
	N BND	2000

95.6506 ALASKA VOR FEDERAL AIRWAY V506

CJAYY, AK FIX	KODIAK, AK VOR/DME	4000
KODIAK, AK VOR/DME	BREMI, AK FIX	*12000
*9900 - MOCA		
*10000 - GNSS MEA		
BREMI, AK FIX	KING SALMON, AK VORTAC	
	E BND	12000
	W BND	5000
KING SALMON, AK VORTAC	KOWOK, AK FIX	*3000
*2400 - MOCA		
KOWOK, AK FIX	CAYON, AK FIX	*8000
*7000 - MOCA		
*7000 - GNSS MEA		
CAYON, AK FIX	BETHEL, AK VORTAC	
	E BND	8000
	W BND	4000
BETHEL, AK VORTAC	MARSI, AK FIX	
	W BND	16000
	E BND	2000
MARSI, AK FIX	JOHNI, AK FIX	*16000
*3200 - MOCA		
*4000 - GNSS MEA		
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE		

FROM	TO	MEA
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95.6506 ALASKA VOR FEDERAL AIRWAY V506 - CONTINUED

JOHNI, AK FIX *3200 - MOCA *4000 - GNSS MEA	DACIA, AK FIX	*8000
DACIA, AK FIX	NOME, AK VOR/DME S BND N BND	*8000 *4000
*3200 - MOCA NOME, AK VOR/DME	BAIME, AK FIX N BND S BND	7000 6000
BAIME, AK FIX *5700 - MOCA *6000 - GNSS MEA	SETUP, AK FIX	*7000
SETUP, AK FIX	KOTZEBUE, AK VOR/DME S BND N BND	7000 2000
KOTZEBUE, AK VOR/DME HOTHAM, AK NDB *5000 - MOCA *5000 - GNSS MEA	HOTHAM, AK NDB SHOKK, AK FIX	2000 *6000
SHOKK, AK FIX *7000 - MOCA *8000 - GNSS MEA	MEADE, AK FIX	*10000
MEADE, AK FIX	BARROW, AK VOR/DME S BND N BND	*10000 *2000
*1100 - MOCA		

95.6507 ALASKA VOR FEDERAL AIRWAY V507

NOME, AK VOR/DME	PHOTO, AK FIX NW BND SE BND	*13000 *6000
*5700 - MOCA PHOTO, AK FIX *6000 - MOCA *6000 - GNSS MEA	ESKAR, AK FIX	*13000
ESKAR, AK FIX	KOTZEBUE, AK VOR/DME SW BND NE BND	*13000 *2100
*2100 - MOCA		

95.6508 ALASKA VOR FEDERAL AIRWAY V508

MIDDLETON ISLAND, AK VOR/DME DEALS, AK FIX *10000 - MRA **8400 - MOCA	DEALS, AK FIX *SEWAR, AK FIX	6000 **9000
SEWAR, AK FIX *5100 - MCA SKILA, AK FIX , E BND **7800 - MOCA **8000 - GNSS MEA	*SKILA, AK FIX	**9000
SKILA, AK FIX ROJAR, AK FIX KENAI, AK VOR/DME *7600 - MCA NEARR, AK FIX , W BND **2500 - MOCA	ROJAR, AK FIX KENAI, AK VOR/DME *NEARR, AK FIX	2400 2000 **3000
NEARR, AK FIX AKGAS, AK FIX	AKGAS, AK FIX SPARREVOHN, AK VOR/DME W BND E BND	12000 6000 12000

FROM	TO	MEA
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95.6508 ALASKA VOR FEDERAL AIRWAY V508 - CONTINUED

SPARREVOHN, AK VOR/DME	ANIAK, AK NDB	6000
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95.6510 ALASKA VOR FEDERAL AIRWAY V510

EMMONAK, AK VOR/DME	ANVIK, AK NDB	3900
ANVIK, AK NDB	SABOC, AK FIX	
	E BND	*10000
	W BND	*9000
*6200 - MOCA		
*7000 - GNSS MEA		
SABOC, AK FIX	MC GRATH, AK VORTAC	*10000
*6200 - MOCA		
*7000 - GNSS MEA		
MC GRATH, AK VORTAC	ERLAN, AK FIX	
	E BND	10000
	W BND	5000
ERLAN, AK FIX	WINOR, AK FIX	
	E BND	10000
	W BND	8000
WINOR, AK FIX	FFITZ, AK FIX	10000
FFITZ, AK FIX	ROHHN, AK FIX	*10000
*8800 - MOCA		
*9000 - GNSS MEA		
ROHHN, AK FIX	BIG LAKE, AK VORTAC	*4000
*3400 - MOCA		

95.6515 ALASKA VOR FEDERAL AIRWAY V515

GULKANA, AK VOR/DME	MERIE, AK FIX	5000
MERIE, AK FIX	*BIG DELTA, AK VORTAC	12000
*8100 - MCA BIG DELTA, AK VORTAC , S BND		

95.6531 ALASKA VOR FEDERAL AIRWAY V531

*FAIRBANKS, AK VORTAC	GOLLY, AK FIX	5000
*4700 - MCA FAIRBANKS, AK VORTAC , W BND		
GOLLY, AK FIX	*REEBA, AK FIX	**7000
*7000 - MRA		
**5000 - MOCA		
REEBA, AK FIX	TANANA, AK VOR/DME	
	E BND	*7000
	W BND	*4000
*4000 - MOCA		
TANANA, AK VOR/DME	ELCON, AK FIX	
	W BND	*6500
	E BND	*5400
*5400 - MOCA		
ELCON, AK FIX	CENSE, AK FIX	*6500
*5700 - MOCA		
CENSE, AK FIX	HUSLIA, AK VOR/DME	
	W BND	*3500
	E BND	*6500
*3000 - MOCA		
HUSLIA, AK VOR/DME	ATAGO, AK FIX	
	W BND	*4000
	E BND	*3500
*2500 - MOCA		
ATAGO, AK FIX	DESOY, AK FIX	*4000
*3900 - MOCA		

FROM	TO	MEA
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95.6531 ALASKA VOR FEDERAL AIRWAY V531 - CONTINUED

DESOY, AK FIX	SELAWIK, AK VOR/DME	
	W BND	*2500
	E BND	*4000
*2500 - MOCA		
SELAWIK, AK VOR/DME	KOTZEBUE, AK VOR/DME	2500
KOTZEBUE, AK VOR/DME	BERJO, AK FIX	
	SE BND	*2500
	NW BND	*8000
*2500 - MOCA		
BERJO, AK FIX	POINT HOPE, AK NDB	*8000
*4000 - MOCA		

95.6593 ALASKA VOR FEDERAL AIRWAY V593

BIORKA ISLAND, AK VORTAC	LYRIC, AK FIX	
	SE BND	*6000
	NW BND	*8000
*4800 - MOCA		
LYRIC, AK FIX	SISTERS ISLAND, AK VORTAC	*8000
*5800 - MOCA		
*5800 - GNSS MEA		

95.6603 ALASKA VOR FEDERAL AIRWAY V603

ELFEE, AK NDB	DILLINGHAM, AK VOR/DME	2700
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95.6617 ALASKA VOR FEDERAL AIRWAY V617

HOMER, AK VOR/DME	JOHNSTONE POINT, AK VOR/DME	*12000
*8600 - MOCA		
*9000 - GNSS MEA		

95.6619 ALASKA VOR FEDERAL AIRWAY V619

PORT HEIDEN, AK NDB/DME	CHINOOK, AK NDB	4000
CHINOOK, AK NDB	DILLINGHAM, AK VOR/DME	3000

95.6621 ALASKA VOR FEDERAL AIRWAY V621

BARROW, AK VOR/DME	ATQASUK, AK NDB	2000
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FROM

TO

MEA

§95.6401 HAWAII VOR FEDERAL AIRWAYS**95.6401 HAWAII VOR FEDERAL AIRWAY V1**

KONA, HI VORTAC	*REEFS, HI FIX	5000
*4100 - MCA REEFS, HI FIX , SE BND		
REEFS, HI FIX	MOANA, HI FIX	*2000
*1300 - MOCA		
MOANA, HI FIX	ROWIN, HI FIX	*4000
*1300 - MOCA		
ROWIN, HI FIX	*LAVAS, HI FIX	**8000
*7000 - MRA		
**1300 - MOCA		
LAVAS, HI FIX	MAKEN, HI FIX	*7000
*5000 - MOCA		
MAKEN, HI FIX	HARPO, HI FIX	6300
HARPO, HI FIX	MAUI, HI VORTAC	6000

95.6402 HAWAII VOR FEDERAL AIRWAY V2

HONOLULU, HI VORTAC	PALAY, HI FIX	3500
PALAY, HI FIX	LANAI, HI VORTAC	4000
LANAI, HI VORTAC	KEIKI, HI FIX	5000
KEIKI, HI FIX	*HARPO, HI FIX	**5000
*5600 - MCA HARPO, HI FIX , SE BND		
**2500 - MOCA		
HARPO, HI FIX	UPOLU POINT, HI VORTAC	6300
UPOLU POINT, HI VORTAC	WAPIO, HI FIX	*7000
*6000 - MOCA		
WAPIO, HI FIX	PARIS, HI FIX	
	E BND	*4500
	W BND	*6000
*4000 - MOCA		
PARIS, HI FIX	*ARBOR, HI FIX	**4000
*8000 - MRA		
**3000 - MOCA		
ARBOR, HI FIX	HILO, HI VORTAC	3000

95.6403 HAWAII VOR FEDERAL AIRWAY V3

MYNAH, HI FIX	*JASON, HI FIX	3500
*5400 - MCA JASON, HI FIX , NE BND		
JASON, HI FIX	KAMUELA, HI VOR/DME	6700
KAMUELA, HI VOR/DME	TIGAH, HI FIX	6500
TIGAH, HI FIX	PARIS, HI FIX	5000

95.6404 HAWAII VOR FEDERAL AIRWAY V4

HONOLULU, HI VORTAC	*GECKO, HI FIX	**4000
*10000 - MRA		
**2800 - MOCA		
GECKO, HI FIX	*ZUKEY, HI FIX	
	W BND	16000
	E BND	4000
*16000 - MRA		
ZUKEY, HI FIX	BINJO, HI FIX	
	W BND	29000
	E BND	16000

FROM	TO	MEA
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95.6405 HAWAII VOR FEDERAL AIRWAY V5

KONA, HI VORTAC	*MYNAH, HI FIX	5200
*4400 - MCA MYNAH, HI FIX , SE BND		
MYNAH, HI FIX	*HEFTI, HI FIX	**2000
*4100 - MCA HEFTI, HI FIX , NW BND		
**1300 - MOCA		
HEFTI, HI FIX	MAKEN, HI FIX	7600

95.6406 HAWAII VOR FEDERAL AIRWAY V6

BLUSH, HI FIX	PLUMB, HI FIX	*5000
*1200 - MOCA		
PLUMB, HI FIX	MAUI, HI VORTAC	6300

95.6407 HAWAII VOR FEDERAL AIRWAY V7

KONA, HI VORTAC	*REEFS, HI FIX	5000
*4100 - MCA REEFS, HI FIX , SE BND		
REEFS, HI FIX	MOANA, HI FIX	*2000
*1300 - MOCA		
MOANA, HI FIX	ROWIN, HI FIX	*4000
*1300 - MOCA		
ROWIN, HI FIX	LANAI, HI VORTAC	4000
LANAI, HI VORTAC	MOLOKAI, HI VORTAC	4000
JOELE, OP FIX	ATINE, HI FIX	4000
ATINE, HI FIX	BERLE, HI FIX	7000
BERLE, HI FIX	ZIGIE, OP FIX	22000

95.6408 HAWAII VOR FEDERAL AIRWAY V8

HONOLULU, HI VORTAC	*ALANA, HI FIX	3000
*5000 - MRA		
ALANA, HI FIX	HAUNA, HI FIX	3000
HAUNA, HI FIX	LOKIE, HI FIX	2000
LOKIE, HI FIX	MOLOKAI, HI VORTAC	3500
MOLOKAI, HI VORTAC	BLUSH, HI FIX	5000
BLUSH, HI FIX	FISHE, HI FIX	*4000
*1200 - MOCA		

95.6411 HAWAII VOR FEDERAL AIRWAY V11

REEFS, HI FIX	*FLITT, HI FIX	**3000
*4600 - MCA FLITT, HI FIX , N BND		
**2000 - MOCA		
**2000 - GNSS MEA		
FLITT, HI FIX	UPOLU POINT, HI VORTAC	5700
UPOLU POINT, HI VORTAC	LNBRG, HI FIX	5400
LNBRG, HI FIX	BARBY, HI FIX	5500
BARBY, HI FIX	*SWEEP, HI FIX	5400
*5400 - MCA SWEEP, HI FIX , S BND		
SWEEP, HI FIX	MAUI, HI VORTAC	5000

95.6412 HAWAII VOR FEDERAL AIRWAY V12

*KATHS, HI FIX	**NONNI, OP FIX	29000
*29000 - MRA		
**29000 - MRA		
NONNI, OP FIX	*LEANE, HI FIX	
	W BND	29000
	E BND	16000
*16000 - MRA		

FROM	TO	MEA
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95.6412 HAWAII VOR FEDERAL AIRWAY V12 - CONTINUED

LEANE, HI FIX	*KEOLA, HI FIX	
	W BND	16000
	E BND	5000
*10000 - MRA		
KEOLA, HI FIX	*SHIGI, HI FIX	4000
*5000 - MRA		
SHIGI, HI FIX	HONOLULU, HI VORTAC	4000
HONOLULU, HI VORTAC	*KOKO HEAD, HI VORTAC	5000
*4500 - MCA KOKO HEAD, HI VORTAC , W BND		
KOKO HEAD, HI VORTAC	BAMBO, OP FIX	4500
BAMBO, OP FIX	MAGGI, HI FIX	5000
MAGGI, HI FIX	*SHARK, HI FIX	
	NE BND	**16000
	SW BND	**5000
*16000 - MRA		
**1200 - MOCA		

95.6413 HAWAII VOR FEDERAL AIRWAY V13

KOKO HEAD, HI VORTAC	BAMBO, OP FIX	4500
BAMBO, OP FIX	TOADS, HI FIX	5000

95.6415 HAWAII VOR FEDERAL AIRWAY V15

CANON, HI FIX	LILIA, OP FIX	
	W BND	32000
	E BND	8000
LILIA, OP FIX	SOUTH KAUAI, HI VORTAC	*8000
*4800 - MOCA		
SOUTH KAUAI, HI VORTAC	LIHUE, HI VORTAC	5000
LIHUE, HI VORTAC	BOOKE, HI FIX	4000
BOOKE, HI FIX	*SHIGI, HI FIX	5000
*5000 - MRA		
SHIGI, HI FIX	HONOLULU, HI VORTAC	4000
HONOLULU, HI VORTAC	*KOKO HEAD, HI VORTAC	5000
*4500 - MCA KOKO HEAD, HI VORTAC , W BND		
KOKO HEAD, HI VORTAC	MABBL, HI FIX	
	E BND	3500
	W BND	4500
MABBL, HI FIX	*MOLOKAI, HI VORTAC	
	E BND	3500
	W BND	4500
*5000 - MCA MOLOKAI, HI VORTAC , E BND		
MOLOKAI, HI VORTAC	*LORET, HI FIX	7000
*7800 - MCA LORET, HI FIX , E BND		
LORET, HI FIX	*MAUI, HI VORTAC	8000
*6800 - MCA MAUI, HI VORTAC , W BND		
MAUI, HI VORTAC	*BARBY, HI FIX	8400
*9800 - MCA BARBY, HI FIX , E BND		
BARBY, HI FIX	*RABAT, HI FIX	**10000
*10000 - MCA RABAT, HI FIX , W BND		
*2700 - MOCA		
RABAT, HI FIX	*PUMIC, HI FIX	6000
*10000 - MRA		
PUMIC, HI FIX	PARIS, HI FIX	4000
PARIS, HI FIX	*ARBOR, HI FIX	**4000
*8000 - MRA		
*3000 - MOCA		
ARBOR, HI FIX	HILO, HI VORTAC	3000

FROM	TO	MEA
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95.6415 HAWAII VOR FEDERAL AIRWAY V15 - CONTINUED

HILO, HI VORTAC	HODAY, HI FIX	2000
HODAY, HI FIX	EELIC, HI FIX	10000
EELIC, HI FIX	KUMME, HI FIX	
	W BND	10000
	E BND	31000
KUMME, HI FIX	MAITI, HI FIX	31000

95.6416 HAWAII VOR FEDERAL AIRWAY V16

*SYVAD, OP FIX	**PUPPI, OP FIX	
	W BND	32000
	E BND	14000
*32000 - MRA		
**11000 - MRA		
PUPPI, OP FIX	*OHANA, HI FIX	
	W BND	14000
	E BND	5000
*5000 - MRA		
OHANA, HI FIX	SOUTH KAUAI, HI VORTAC	
	W BND	14000
	SE BND	5000
SOUTH KAUAI, HI VORTAC	MORKE, HI FIX	
	NW BND	5000
	SE BND	3000
MORKE, HI FIX	*NAPUA, HI FIX	3000
*6000 - MRA		
NAPUA, HI FIX	*GRAIL, HI FIX	6000
*9000 - MRA		
GRAIL, HI FIX	*KEOLA, HI FIX	9000
*10000 - MRA		
KEOLA, HI FIX	*GECKO, HI FIX	10000
*10000 - MRA		
GECKO, HI FIX	*ALANA, HI FIX	7000
*5000 - MRA		
ALANA, HI FIX	JULLE, HI FIX	5000
JULLE, HI FIX	GRAMY, HI FIX	2000
GRAMY, HI FIX	LANAI, HI VORTAC	4000
LANAI, HI VORTAC	*LAVAS, HI FIX	4300
*7000 - MRA		
LAVAS, HI FIX	*UPOLU POINT, HI VORTAC	6000
*5800 - MCA UPOLU POINT, HI VORTAC	E BND	
UPOLU POINT, HI VORTAC	TIGAH, HI FIX	7000
TIGAH, HI FIX	*OKALA, HI FIX	**8000
*6500 - MCA OKALA, HI FIX , W BND		
**5500 - MOCA		
OKALA, HI FIX	*ARBOR, HI FIX	**8000
*8000 - MRA		
**5500 - MOCA		
ARBOR, HI FIX	HILO, HI VORTAC	3000

95.6417 HAWAII VOR FEDERAL AIRWAY V17

HARPO, HI FIX	MAUI, HI VORTAC	6000
STAIT, HI FIX	FREDI, HI FIX	*17000
*1200 - MOCA		
FREDI, HI FIX	REXIE, HI FIX	*28000
*1200 - MOCA		

95.6420 HAWAII VOR FEDERAL AIRWAY V20

HONOLULU, HI VORTAC	HAUNA, HI FIX	3000
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FROM	TO	MEA
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95.6420 HAWAII VOR FEDERAL AIRWAY V20 - CONTINUED

HAUNA, HI FIX	JULLE, HI FIX	4000
JULLE, HI FIX	JORDA, HI FIX	5000
JORDA, HI FIX	*FIRES, HI FIX	
	NW BND	**10000
	SE BND	**13000
*13000 - MRA		
**1300 - MOCA		
FIRES, HI FIX	*HOKLA, HI FIX	**13000
*13000 - MRA		
**1300 - MOCA		
HOKLA, HI FIX	TYPHO, HI FIX	*8000
*1300 - MOCA		
TYPHO, HI FIX	*ROBYN, HI FIX	
	SE BND	**3000
	NW BND	**8000
*3900 - MCA ROBYN, HI FIX , SE BND		
**1300 - MOCA		
ROBYN, HI FIX	KONA, HI VORTAC	5000

95.6421 HAWAII VOR FEDERAL AIRWAY V21

HONOLULU, HI VORTAC	*ALANA, HI FIX	3000
*5000 - MRA		
ALANA, HI FIX	JULLE, HI FIX	5000
JULLE, HI FIX	GRAMY, HI FIX	2000
GRAMY, HI FIX	LANAI, HI VORTAC	4000
LANAI, HI VORTAC	KEIKI, HI FIX	5000
KEIKI, HI FIX	*HARPO, HI FIX	**5000
*8200 - MCA HARPO, HI FIX , E BND		
**2500 - MOCA		
HARPO, HI FIX	FUNKI, HI FIX	*10000
*9000 - MOCA		
FUNKI, HI FIX	*PUMIC, HI FIX	10000
*10000 - MRA		
PUMIC, HI FIX	BISEN, HI FIX	14000
BISEN, HI FIX	CUTLE, HI FIX	21000
CUTLE, HI FIX	OSTAH, HI FIX	24000
OSTAH, HI FIX	SCOON, OP FIX	22000

95.6422 HAWAII VOR FEDERAL AIRWAY V22

*MOLOKAI, HI VORTAC	PLUMB, HI FIX	7000
*5000 - MCA MOLOKAI, HI VORTAC , E BND		
PLUMB, HI FIX	MAUI, HI VORTAC	6300
MAUI, HI VORTAC	*BARBY, HI FIX	8400
*12000 - MCA BARBY, HI FIX , SE BND		
BARBY, HI FIX	SARDS, HI FIX	12000
SARDS, HI FIX	BONUS, HI FIX	8000
BONUS, HI FIX	HILO, HI VORTAC	6000
HILO, HI VORTAC	SESAW, HI FIX	2000
SESAW, HI FIX	BATES, HI FIX	8000
BATES, HI FIX	OSTAH, HI FIX	10000
OSTAH, HI FIX	SCOON, OP FIX	22000

95.6423 HAWAII VOR FEDERAL AIRWAY V23

UPOLU POINT, HI VORTAC	JESSI, HI FIX	*6000
*5000 - MOCA		
JESSI, HI FIX	*FIRES, HI FIX	8000
*13000 - MRA		

FROM

TO

MEA

95.6423 HAWAII VOR FEDERAL AIRWAY V23 - CONTINUED

95.6424 HAWAII VOR FEDERAL AIRWAY V24

*LANAI, HI VORTAC	MAUI, HI VORTAC	**9000
*5100 - MCA LANAI, HI VORTAC , NE BND		
**7800 - MOCA		

95.6425 HAWAII VOR FEDERAL AIRWAY V25

HILO, HI VORTAC	COOKE, HI FIX	3000
COOKE, HI FIX	BASSY, HI FIX	6000
BASSY, HI FIX	CODDY, HI FIX	9000
CODDY, HI FIX	ARROW, HI FIX	26000
ARROW, HI FIX	CLUTS, OP FIX	*26000
*1200 - MOCA		

FROM	TO	MEA	MAA
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§95.7001 JET ROUTES

95.7001 JET ROUTE J1

U.S. MEXICAN BORDER	MISSION BAY, CA VORTAC	18000	45000
MISSION BAY, CA VORTAC	OCEANSIDE, CA VORTAC	18000	45000
OCEANSIDE, CA VORTAC	LOS ANGELES, CA VORTAC	18000	45000
LOS ANGELES, CA VORTAC	FILLMORE, CA VORTAC	18000	45000
FILLMORE, CA VORTAC	AVENAL, CA VOR/DME	18000	45000
AVENAL, CA VOR/DME	OAKLAND, CA VOR/DME	18000	45000
OAKLAND, CA VOR/DME	RED BLUFF, CA VORTAC	18000	45000
RED BLUFF, CA VORTAC	ROGUE VALLEY, OR VORTAC	18000	45000
ROGUE VALLEY, OR VORTAC	BATTLE GROUND, WA VORTAC	18000	45000
BATTLE GROUND, WA VORTAC	SEATTLE, WA VORTAC	18000	45000

95.7002 JET ROUTE J2

MISSION BAY, CA VORTAC	IMPERIAL, CA VORTAC	18000	45000
IMPERIAL, CA VORTAC	BARD, CA VORTAC	18000	45000
BARD, CA VORTAC	GILA BEND, AZ VORTAC	18000	45000
GILA BEND, AZ VORTAC	TUCSON, AZ VORTAC	18000	45000
TUCSON, AZ VORTAC	EL PASO, TX VORTAC	#25000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
EL PASO, TX VORTAC	FORT STOCKTON, TX VORTAC	18000	45000
FORT STOCKTON, TX VORTAC	JUNCTION, TX VORTAC	18000	45000
JUNCTION, TX VORTAC	SAN ANTONIO, TX VORTAC	18000	45000
SAN ANTONIO, TX VORTAC	HUMBLE, TX VORTAC	18000	45000
HUMBLE, TX VORTAC	LAKE CHARLES, LA VORTAC	18000	45000
LAKE CHARLES, LA VORTAC	FIGHTING TIGER, LA VORTAC	18000	45000
FIGHTING TIGER, LA VORTAC	SEMMES, AL VORTAC	18000	45000
SEMMES, AL VORTAC	CRESTVIEW, FL VORTAC	18000	45000
CRESTVIEW, FL VORTAC	DEFUN, FL FIX	18000	45000

95.7003 JET ROUTE J3

OAKLAND, CA VOR/DME	RED BLUFF, CA VORTAC	18000	45000
RED BLUFF, CA VORTAC	LAKEVIEW, OR VORTAC	18000	45000
LAKEVIEW, OR VORTAC	KIMBERLY, OR VOR/DME	18000	45000
KIMBERLY, OR VOR/DME	SPOKANE, WA VORTAC	18000	45000

95.7004 JET ROUTE J4

LOS ANGELES, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	18000	45000
TWENTYNINE PALMS, CA VORTAC	PARKER, CA VORTAC	18000	45000
PARKER, CA VORTAC	BUCKEYE, AZ VORTAC	18000	45000
BUCKEYE, AZ VORTAC	SAN SIMON, AZ VORTAC	18000	45000
SAN SIMON, AZ VORTAC	NEWMAN, TX VORTAC	18000	45000
NEWMAN, TX VORTAC	WINK, TX VORTAC	18000	45000
WINK, TX VORTAC	ABILENE, TX VORTAC	18000	45000
ABILENE, TX VORTAC	RANGER, TX VORTAC	18000	45000
RANGER, TX VORTAC	BELCHER, LA VORTAC	18000	45000
BELCHER, LA VORTAC	MAGNOLIA, MS VORTAC	18000	45000
MAGNOLIA, MS VORTAC	MERIDIAN, MS VORTAC	18000	45000
MERIDIAN, MS VORTAC	MONTGOMERY, AL VORTAC	18000	45000
MONTGOMERY, AL VORTAC	COLLIERS, SC VORTAC	18000	45000

95.7005 JET ROUTE J5

LOS ANGELES, CA VORTAC	SHAFTER, CA VORTAC	18000	45000
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FROM	TO	MEA	MAA
95.7005 JET ROUTE J5 - CONTINUED			
SHAFTER, CA VORTAC	MUSTANG, NV VORTAC	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
MUSTANG, NV VORTAC	LAKEVIEW, OR VORTAC	18000	45000
LAKEVIEW, OR VORTAC	POWEL, OR FIX	18000	45000
POWEL, OR FIX	SUMMA, WA FIX	24000	45000
SUMMA, WA FIX	SEATTLE, WA VORTAC	18000	45000
SEATTLE, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	18000	45000
95.7006 JET ROUTE J6			
SALINAS, CA VORTAC	AVENAL, CA VOR/DME	18000	45000
AVENAL, CA VOR/DME	PALMDALE, CA VORTAC	18000	45000
PALMDALE, CA VORTAC	HECTOR, CA VORTAC	18000	45000
HECTOR, CA VORTAC	NEEDLES, CA VORTAC	18000	45000
NEEDLES, CA VORTAC	DRAKE, AZ VORTAC	18000	45000
DRAKE, AZ VORTAC	PYRIT, AZ FIX	22000	45000
PYRIT, AZ FIX	ZUNI, NM VORTAC	18000	45000
ZUNI, NM VORTAC	ALBUQUERQUE, NM VORTAC	18000	45000
ALBUQUERQUE, NM VORTAC	TUCUMCARI, NM VORTAC	18000	45000
TUCUMCARI, NM VORTAC	PANHANDLE, TX VORTAC	18000	45000
PANHANDLE, TX VORTAC	WILL ROGERS, OK VORTAC	18000	45000
WILL ROGERS, OK VORTAC	LITTLE ROCK, AR VORTAC	18000	45000
CHARLESTON, WV VOR/DME	MARTINSBURG, WV VORTAC	18000	45000
MARTINSBURG, WV VORTAC	LANCASTER, PA VOR/DME	18000	32000
LANCASTER, PA VOR/DME	BROADWAY, NJ VOR/DME	18000	45000
BROADWAY, NJ VOR/DME	SPARTA, NJ VORTAC	18000	45000
SPARTA, NJ VORTAC	ALBANY, NY VORTAC	18000	45000
95.7007 JET ROUTE J7			
LOS ANGELES, CA VORTAC	FILLMORE, CA VORTAC	18000	45000
FILLMORE, CA VORTAC	FRIANT, CA VORTAC	18000	45000
FRIANT, CA VORTAC	MUSTANG, NV VORTAC	18000	45000
MUSTANG, NV VORTAC	ROME, OR VOR/DME	#19000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
ROME, OR VOR/DME	BOISE, ID VORTAC	18000	45000
BOISE, ID VORTAC	SALMON, ID VOR/DME	18000	45000
SALMON, ID VOR/DME	GREAT FALLS, MT VORTAC	18000	45000
GREAT FALLS, MT VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7008 JET ROUTE J8			
NEEDLES, CA VORTAC	FLAGSTAFF, AZ VOR/DME	18000	45000
FLAGSTAFF, AZ VOR/DME	GALLUP, NM VORTAC	18000	45000
GALLUP, NM VORTAC	FORT UNION, NM VORTAC	18000	45000
FORT UNION, NM VORTAC	BORGER, TX VORTAC	18000	45000
BORGER, TX VORTAC	KINGFISHER, OK VORTAC	18000	45000
KINGFISHER, OK VORTAC	SPRINGFIELD, MO VORTAC	18000	45000
SPRINGFIELD, MO VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	LOUISVILLE, KY VORTAC	18000	45000
LOUISVILLE, KY VORTAC	CHARLESTON, WV VOR/DME	18000	45000
CHARLESTON, WV VOR/DME	CASANOVA, VA VORTAC	18000	45000
95.7009 JET ROUTE J9			
LOS ANGELES, CA VORTAC	DAGGETT, CA VORTAC	18000	45000
DAGGETT, CA VORTAC	LAS VEGAS, NV VORTAC	18000	45000
LAS VEGAS, NV VORTAC	MILFORD, UT VORTAC	18000	45000

FROM	TO	MEA	MAA
95.7009 JET ROUTE J9 - CONTINUED			
MILFORD, UT VORTAC	FAIRFIELD, UT VORTAC	18000	45000
FAIRFIELD, UT VORTAC	WASATCH, UT VORTAC	18000	45000
WASATCH, UT VORTAC	DUBOIS, ID VORTAC	18000	45000
DUBOIS, ID VORTAC	DILLON, MT VOR/DME	18000	45000
DILLON, MT VOR/DME	GREAT FALLS, MT VORTAC	18000	45000
95.7010 JET ROUTE J10			
LOS ANGELES, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	18000	45000
TWENTYNINE PALMS, CA VORTAC	HIPPI, AZ FIX	23000	40000
HIPPI, AZ FIX	FLAGSTAFF, AZ VOR/DME	23000	40000
FLAGSTAFF, AZ VOR/DME	RATTLESNAKE, NM VORTAC	18000	40000
RATTLESNAKE, NM VORTAC	BLUE MESA, CO VOR/DME	18000	45000
BLUE MESA, CO VOR/DME	FALCON, CO VORTAC	18000	45000
FALCON, CO VORTAC	NORTH PLATTE, NE VOR/DME	18000	45000
NORTH PLATTE, NE VOR/DME	WOLBACH, NE VORTAC	18000	41000
WOLBACH, NE VORTAC	DES MOINES, IA VORTAC	18000	45000
DES MOINES, IA VORTAC	IOWA CITY, IA VOR/DME	18000	45000
95.7011 JET ROUTE J11			
TUCSON, AZ VORTAC	PHOENIX, AZ VORTAC	18000	45000
PHOENIX, AZ VORTAC	DRAKE, AZ VORTAC	18000	45000
DRAKE, AZ VORTAC	BRYCE CANYON, UT VORTAC	18000	45000
BRYCE CANYON, UT VORTAC	FAIRFIELD, UT VORTAC	18000	45000
FAIRFIELD, UT VORTAC	WASATCH, UT VORTAC	18000	45000
95.7012 JET ROUTE J12			
SEATTLE, WA VORTAC	EPHRATA, WA VORTAC	18000	45000
EPHRATA, WA VORTAC	DONNELLY, ID VOR/DME	18000	45000
DONNELLY, ID VOR/DME	TWIN FALLS, ID VORTAC	18000	45000
TWIN FALLS, ID VORTAC	WASATCH, UT VORTAC	22000	45000
WASATCH, UT VORTAC	FAIRFIELD, UT VORTAC	18000	45000
FAIRFIELD, UT VORTAC	GRAND JUNCTION, CO VOR/DME	18000	45000
95.7013 JET ROUTE J13			
U.S. MEXICAN BORDER	TRUTH OR CONSEQUENCES, NM VORTAC	18000	45000
TRUTH OR CONSEQUENCES, NM VORTAC	ALBUQUERQUE, NM VORTAC	18000	45000
ALBUQUERQUE, NM VORTAC	ALAMOSA, CO VORTAC	18000	45000
ALAMOSA, CO VORTAC	FALCON, CO VORTAC	23000	45000
FALCON, CO VORTAC	CHEYENNE, WY VORTAC	18000	45000
CHEYENNE, WY VORTAC	MUDDY MOUNTAIN, WY VOR/DME	18000	45000
MUDDY MOUNTAIN, WY VOR/DME	BILLINGS, MT VORTAC	18000	45000
BILLINGS, MT VORTAC	GREAT FALLS, MT VORTAC	18000	45000
GREAT FALLS, MT VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7014 JET ROUTE J14			
PANHANDLE, TX VORTAC	WILL ROGERS, OK VORTAC	18000	45000
WILL ROGERS, OK VORTAC	LITTLE ROCK, AR VORTAC	18000	45000
LITTLE ROCK, AR VORTAC	VULCAN, AL VORTAC	18000	45000
GREENSBORO, NC VORTAC	RICHMOND, VA VORTAC	18000	45000
RICHMOND, VA VORTAC	PATUXENT, MD VORTAC	18000	45000
95.7015 JET ROUTE J15			
HUMBLE, TX VORTAC	MARCS, TX FIX	19000	45000

FROM	TO	MEA	MAA
95.7015 JET ROUTE J15 - CONTINUED			
MARCS, TX FIX	JUNCTION, TX VORTAC	18000	45000
JUNCTION, TX VORTAC	WINK, TX VORTAC	18000	45000
WINK, TX VORTAC	CHISUM, NM VORTAC	18000	45000
CHISUM, NM VORTAC	CORONA, NM VORTAC	18000	45000
CORONA, NM VORTAC	ALBUQUERQUE, NM VORTAC	18000	45000
ALBUQUERQUE, NM VORTAC	RATTLESNAKE, NM VORTAC	18000	45000
RATTLESNAKE, NM VORTAC	GRAND JUNCTION, CO VOR/DME	18000	45000
GRAND JUNCTION, CO VOR/DME	WASATCH, UT VORTAC	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
WASATCH, UT VORTAC	TWIN FALLS, ID VORTAC	22000	45000
TWIN FALLS, ID VORTAC	BOISE, ID VORTAC	18000	45000
BOISE, ID VORTAC	KIMBERLY, OR VOR/DME	18000	45000
KIMBERLY, OR VOR/DME	BATTLE GROUND, WA VORTAC	18000	45000
95.7016 JET ROUTE J16			
BATTLE GROUND, WA VORTAC	PENDLETON, OR VORTAC	18000	45000
PENDLETON, OR VORTAC	WHITEHALL, MT VOR/DME	#29000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
WHITEHALL, MT VOR/DME	BILLINGS, MT VORTAC	18000	45000
BILLINGS, MT VORTAC	DUPREE, SD VOR/DME	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DUPREE, SD VOR/DME	SIOUX FALLS, SD VORTAC	18000	45000
SIOUX FALLS, SD VORTAC	MASON CITY, IA VOR/DME	18000	45000
MASON CITY, IA VOR/DME	BADGER, WI VOR/DME	18000	45000
95.7017 JET ROUTE J17			
SAN ANTONIO, TX VORTAC	ABILENE, TX VORTAC	18000	45000
ABILENE, TX VORTAC	PANHANDLE, TX VORTAC	18000	45000
PANHANDLE, TX VORTAC	TOBE, CO VOR/DME	18000	45000
TOBE, CO VOR/DME	PUEBLO, CO VORTAC	18000	45000
PUEBLO, CO VORTAC	FALCON, CO VORTAC	18000	45000
FALCON, CO VORTAC	CHEYENNE, WY VORTAC	18000	45000
CHEYENNE, WY VORTAC	RAPID CITY, SD VORTAC	18000	45000
95.7018 JET ROUTE J18			
MISSION BAY, CA VORTAC	IMPERIAL, CA VORTAC	18000	45000
IMPERIAL, CA VORTAC	BARD, CA VORTAC	18000	45000
BARD, CA VORTAC	GILA BEND, AZ VORTAC	18000	45000
GILA BEND, AZ VORTAC	PHOENIX, AZ VORTAC	18000	45000
PHOENIX, AZ VORTAC	ST JOHNS, AZ VORTAC	18000	45000
ST JOHNS, AZ VORTAC	ALBUQUERQUE, NM VORTAC	18000	45000
ALBUQUERQUE, NM VORTAC	FORT UNION, NM VORTAC	18000	45000
FORT UNION, NM VORTAC	GARDEN CITY, KS VORTAC	18000	45000
GARDEN CITY, KS VORTAC	SALINA, KS VORTAC	18000	45000
SALINA, KS VORTAC	ST JOSEPH, MO VORTAC	18000	45000
ST JOSEPH, MO VORTAC	MOLINE, IL VOR/DME	18000	35000
MOLINE, IL VOR/DME	JOLIET, IL VOR/DME	18000	35000
95.7019 JET ROUTE J19			
PHOENIX, AZ VORTAC	ZUNI, NM VORTAC	19000	45000
ZUNI, NM VORTAC	BUKKO, NM FIX	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
BUKKO, NM FIX	FORT UNION, NM VORTAC	18000	45000
FORT UNION, NM VORTAC	LIBERAL, KS VORTAC	18000	45000
LIBERAL, KS VORTAC	WICHITA, KS VORTAC	18000	45000

FROM	TO	MEA	MAA
95.7019 JET ROUTE J19 - CONTINUED			
WICHITA, KS VORTAC	BUTLER, MO VORTAC	18000	45000
BUTLER, MO VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	ROBERTS, IL VOR/DME	18000	35000
ROBERTS, IL VOR/DME	NORTHBROOK, IL VOR/DME	18000	35000
95.7020 JET ROUTE J20			
SEATTLE, WA VORTAC	YAKIMA, WA VORTAC	18000	45000
YAKIMA, WA VORTAC	PENDLETON, OR VORTAC	18000	45000
PENDLETON, OR VORTAC	DONNELLY, ID VOR/DME	18000	45000
DONNELLY, ID VOR/DME	POCATELLO, ID VOR/DME	18000	45000
POCATELLO, ID VOR/DME	ROCK SPRINGS, WY VOR/DME	21000	45000
ROCK SPRINGS, WY VOR/DME	FALCON, CO VORTAC	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
FALCON, CO VORTAC	HUGO, CO VOR/DME	18000	45000
HUGO, CO VOR/DME	LAMAR, CO VOR/DME	18000	45000
LAMAR, CO VOR/DME	LIBERAL, KS VORTAC	18000	45000
LIBERAL, KS VORTAC	WILL ROGERS, OK VORTAC	18000	45000
WILL ROGERS, OK VORTAC	BELCHER, LA VORTAC	18000	45000
BELCHER, LA VORTAC	MAGNOLIA, MS VORTAC	18000	45000
MAGNOLIA, MS VORTAC	MERIDIAN, MS VORTAC	18000	45000
MERIDIAN, MS VORTAC	MONTGOMERY, AL VORTAC	18000	45000
95.7021 JET ROUTE J21			
U.S. MEXICAN BORDER	LAREDO, TX VORTAC	18000	45000
LAREDO, TX VORTAC	SAN ANTONIO, TX VORTAC	18000	45000
SAN ANTONIO, TX VORTAC	CENTEX, TX VORTAC	18000	45000
CENTEX, TX VORTAC	WACO, TX VORTAC	18000	45000
WACO, TX VORTAC	RANGER, TX VORTAC	18000	45000
RANGER, TX VORTAC	ARDMORE, OK VORTAC	18000	45000
ARDMORE, OK VORTAC	WILL ROGERS, OK VORTAC	18000	45000
WILL ROGERS, OK VORTAC	WICHITA, KS VORTAC	18000	45000
WICHITA, KS VORTAC	OMAHA, IA VORTAC	18000	45000
OMAHA, IA VORTAC	GOPHER, MN VORTAC	18000	45000
GOPHER, MN VORTAC	DULUTH, MN VORTAC	18000	45000
95.7022 JET ROUTE J22			
U.S. MEXICAN BORDER	LAREDO, TX VORTAC	18000	45000
LAREDO, TX VORTAC	CORPUS CHRISTI, TX VORTAC	18000	45000
CORPUS CHRISTI, TX VORTAC	PALACIOS, TX VORTAC	18000	45000
PALACIOS, TX VORTAC	LAKE CHARLES, LA VORTAC	18000	45000
LAKE CHARLES, LA VORTAC	MC COMB, MS VORTAC	18000	45000
MC COMB, MS VORTAC	MERIDIAN, MS VORTAC	18000	45000
MERIDIAN, MS VORTAC	VULCAN, AL VORTAC	18000	45000
VULCAN, AL VORTAC	VOLUNTEER, TN VORTAC	18000	45000
VOLUNTEER, TN VORTAC	PULASKI, VA VORTAC	18000	45000
PULASKI, VA VORTAC	MONTEBELLO, VA VOR/DME	18000	45000
95.7023 JET ROUTE J23			
SAN ANTONIO, TX VORTAC	MILLSAP, TX VORTAC	18000	45000
MILLSAP, TX VORTAC	WILL ROGERS, OK VORTAC	18000	45000
WILL ROGERS, OK VORTAC	PIONEER, OK VORTAC	18000	45000
PIONEER, OK VORTAC	WICHITA, KS VORTAC	18000	45000
95.7024 JET ROUTE J24			
MYTON, UT VOR/DME	HAYDEN, CO VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7024 JET ROUTE J24 - CONTINUED			
HUGO, CO VOR/DME	HAYS, KS VORTAC	18000	45000
HAYS, KS VORTAC	SALINA, KS VORTAC	18000	45000
SALINA, KS VORTAC	KANSAS CITY, MO VORTAC	18000	45000
KANSAS CITY, MO VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	BRICKYARD, IN VORTAC	18000	45000
BRICKYARD, IN VORTAC	FALMOUTH, KY VOR/DME	18000	45000
FALMOUTH, KY VOR/DME	CHARLESTON, WV VOR/DME	18000	45000
CHARLESTON, WV VOR/DME	MONTEBELLO, VA VOR/DME	18000	41000
MONTEBELLO, VA VOR/DME	FLAT ROCK, VA VORTAC	18000	41000
FLAT ROCK, VA VORTAC	HARCUM, VA VORTAC	18000	29000
95.7025 JET ROUTE J25			
U.S. MEXICAN BORDER	BROWNSVILLE, TX VORTAC	18000	45000
BROWNSVILLE, TX VORTAC	CORPUS CHRISTI, TX VORTAC	18000	45000
CORPUS CHRISTI, TX VORTAC	SAN ANTONIO, TX VORTAC	18000	45000
SAN ANTONIO, TX VORTAC	CENTEX, TX VORTAC	18000	45000
CENTEX, TX VORTAC	WACO, TX VORTAC	18000	45000
WACO, TX VORTAC	RANGER, TX VORTAC	18000	45000
RANGER, TX VORTAC	TULSA, OK VORTAC	18000	45000
TULSA, OK VORTAC	KANSAS CITY, MO VORTAC	18000	45000
KANSAS CITY, MO VORTAC	DES MOINES, IA VORTAC	18000	45000
DES MOINES, IA VORTAC	MASON CITY, IA VOR/DME	18000	45000
MASON CITY, IA VOR/DME	GOPHER, MN VORTAC	18000	45000
95.7026 JET ROUTE J26			
U.S. MEXICAN BORDER	EL PASO, TX VORTAC	18000	45000
EL PASO, TX VORTAC	CHISUM, NM VORTAC	18000	45000
CHISUM, NM VORTAC	PANHANDLE, TX VORTAC	18000	45000
PANHANDLE, TX VORTAC	MITBEE, OK VORTAC	18000	45000
MITBEE, OK VORTAC	WICHITA, KS VORTAC	18000	45000
WICHITA, KS VORTAC	KANSAS CITY, MO VORTAC	18000	45000
KANSAS CITY, MO VORTAC	KIRKSVILLE, MO VORTAC	18000	45000
KIRKSVILLE, MO VORTAC	BRADFORD, IL VORTAC	18000	45000
BRADFORD, IL VORTAC	JOLIET, IL VOR/DME	18000	45000
95.7027 JET ROUTE J27			
SAN ANTONIO, TX VORTAC	LUFKIN, TX VORTAC	18000	45000
95.7028 JET ROUTE J28			
MILFORD, UT VORTAC	HANKSVILLE, UT VORTAC	18000	45000
HANKSVILLE, UT VORTAC	BLUE MESA, CO VOR/DME	18000	45000
BLUE MESA, CO VOR/DME	PUEBLO, CO VORTAC	18000	45000
PUEBLO, CO VORTAC	GARDEN CITY, KS VORTAC	18000	45000
GARDEN CITY, KS VORTAC	WICHITA, KS VORTAC	18000	45000
95.7029 JET ROUTE J29			
U.S. MEXICAN BORDER	CORPUS CHRISTI, TX VORTAC	24000	45000
CORPUS CHRISTI, TX VORTAC	PALACIOS, TX VORTAC	18000	45000
PALACIOS, TX VORTAC	HUMBLE, TX VORTAC	18000	45000
HUMBLE, TX VORTAC	EL DORADO, AR VOR/DME	18000	45000
EL DORADO, AR VOR/DME	MEMPHIS, TN VORTAC	18000	45000
MEMPHIS, TN VORTAC	POCKET CITY, IN VORTAC	18000	45000
95.7030 JET ROUTE J30			
NODINE, MN VORTAC	JOLIET, IL VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7030 JET ROUTE J30 - CONTINUED			
JOLIET, IL VOR/DME	APPLETON, OH VORTAC	18000	45000
APPLETON, OH VORTAC	BUCKO, WV FIX	20000	39000
BUCKO, WV FIX	KESSEL, WV VOR/DME	18000	45000
KESSEL, WV VOR/DME	TRIXY, VA FIX	19000	29000
95.7031 JET ROUTE J31			
LEEVILLE, LA VORTAC	HARVEY, LA VORTAC	18000	45000
HARVEY, LA VORTAC	MERIDIAN, MS VORTAC	18000	45000
MERIDIAN, MS VORTAC	VULCAN, AL VORTAC	18000	45000
95.7032 JET ROUTE J32			
OAKLAND, CA VOR/DME	SACRAMENTO, CA VORTAC	18000	45000
SACRAMENTO, CA VORTAC	MUSTANG, NV VORTAC	18000	45000
MUSTANG, NV VORTAC	LOVELOCK, NV VORTAC	18000	45000
LOVELOCK, NV VORTAC	BATTLE MOUNTAIN, NV VORTAC	18000	45000
BATTLE MOUNTAIN, NV VORTAC	MALAD CITY, ID VOR/DME	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
MALAD CITY, ID VOR/DME	BOYSEN RESERVOIR, WY VOR/DME	18000	45000
BOYSEN RESERVOIR, WY VOR/DME	CRAZY WOMAN, WY VOR/DME	18000	45000
CRAZY WOMAN, WY VOR/DME	DUPREE, SD VOR/DME	18000	45000
DUPREE, SD VOR/DME	ABERDEEN, SD VOR/DME	18000	45000
ABERDEEN, SD VOR/DME	DULUTH, MN VORTAC	18000	45000
95.7033 JET ROUTE J33			
HUMBLE, TX VORTAC	DONIE, TX FIX	18000	45000
DONIE, TX FIX	RANGER, TX VORTAC	18000	45000
95.7034 JET ROUTE J34			
HOQUIAM, WA VORTAC	OLYMPIA, WA VORTAC	18000	45000
OLYMPIA, WA VORTAC	MOSES LAKE, WA VOR/DME	18000	45000
MOSES LAKE, WA VOR/DME	HELENA, MT VORTAC	#28000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
HELENA, MT VORTAC	BILLINGS, MT VORTAC	18000	45000
BILLINGS, MT VORTAC	DUPREE, SD VOR/DME	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DUPREE, SD VOR/DME	REDWOOD FALLS, MN VOR/DME	18000	45000
REDWOOD FALLS, MN VOR/DME	NODINE, MN VORTAC	18000	45000
NODINE, MN VORTAC	DELLS, WI VORTAC	18000	45000
DELLS, WI VORTAC	BADGER, WI VOR/DME	18000	45000
BADGER, WI VOR/DME	VICTORY, MI VOR/DME	18000	45000
VICTORY, MI VOR/DME	CARLETON, MI VOR/DME	18000	45000
CARLETON, MI VOR/DME	DRYER, OH VOR/DME	18000	45000
DRYER, OH VOR/DME	BELLAIRE, OH VOR/DME	18000	45000
BELLAIRE, OH VOR/DME	BUCKO, WV FIX	18000	45000
BUCKO, WV FIX	KESSEL, WV VOR/DME	18000	45000
KESSEL, WV VOR/DME	TRIXY, VA FIX	19000	29000
95.7035 JET ROUTE J35			
LEEVILLE, LA VORTAC	MC COMB, MS VORTAC	18000	45000
MC COMB, MS VORTAC	SIDON, MS VORTAC	18000	45000
SIDON, MS VORTAC	MEMPHIS, TN VORTAC	18000	45000
MEMPHIS, TN VORTAC	FARMINGTON, MO VORTAC	18000	45000
FARMINGTON, MO VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	SPINNER, IL VORTAC	18000	45000

FROM	TO	MEA	MAA
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95.7035 JET ROUTE J35 - CONTINUED

SPINNER, IL VORTAC	PONTIAC, IL VOR/DME	18000	31000
PONTIAC, IL VOR/DME	JOLIET, IL VOR/DME	18000	35000
JOLIET, IL VOR/DME	NORTHBROOK, IL VOR/DME	18000	45000

95.7036 JET ROUTE J36

MULLAN PASS, ID VOR/DME	GREAT FALLS, MT VORTAC	18000	45000
GREAT FALLS, MT VORTAC	HILGR, MT FIX	18000	45000
HILGR, MT FIX	DICKINSON, ND VORTAC	#28000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DICKINSON, ND VORTAC	FARGO, ND VOR/DME	18000	45000
FARGO, ND VOR/DME	GOPHER, MN VORTAC	18000	45000
GOPHER, MN VORTAC	NODINE, MN VORTAC	18000	45000
NODINE, MN VORTAC	BADGER, WI VOR/DME	18000	45000
BADGER, WI VOR/DME	FLINT, MI VORTAC	18000	45000

95.7037 JET ROUTE J37

HARVEY, LA VORTAC	SEMMES, AL VORTAC	18000	45000
SEMMES, AL VORTAC	MONTGOMERY, AL VORTAC	18000	
LYNCHBURG, VA VOR/DME	GORDONSVILLE, VA VORTAC	18000	45000
GORDONSVILLE, VA VORTAC	BROOKE, VA VORTAC	18000	45000
BROOKE, VA VORTAC	NALES, DE FIX	18000	31000
NALES, DE FIX	COYLE, NJ VORTAC	18000	45000
KENNEDY, NY VOR/DME	KINGSTON, NY VOR/DME	18000	45000
KINGSTON, NY VOR/DME	ALBANY, NY VORTAC	18000	45000

95.7039 JET ROUTE J39

MONTGOMERY, AL VORTAC	VULCAN, AL VORTAC	18000	45000
VULCAN, AL VORTAC	NASHVILLE, TN VORTAC	18000	45000
NASHVILLE, TN VORTAC	LOUISVILLE, KY VORTAC	18000	45000
LOUISVILLE, KY VORTAC	ROSEWOOD, OH VORTAC	18000	45000

95.7041 JET ROUTE J41

MONTGOMERY, AL VORTAC	VULCAN, AL VORTAC	18000	45000
VULCAN, AL VORTAC	MEMPHIS, TN VORTAC	18000	45000
MEMPHIS, TN VORTAC	SPRINGFIELD, MO VORTAC	18000	45000
SPRINGFIELD, MO VORTAC	KANSAS CITY, MO VORTAC	18000	45000
KANSAS CITY, MO VORTAC	OMAHA, IA VORTAC	18000	45000

95.7042 JET ROUTE J42

U.S. MEXICAN BORDER	FORT STOCKTON, TX VORTAC	18000	45000
FORT STOCKTON, TX VORTAC	ABILENE, TX VORTAC	18000	45000
ABILENE, TX VORTAC	RANGER, TX VORTAC	18000	45000
RANGER, TX VORTAC	TEXARKANA, AR VORTAC	18000	45000
TEXARKANA, AR VORTAC	MEMPHIS, TN VORTAC	18000	45000
MEMPHIS, TN VORTAC	NASHVILLE, TN VORTAC	18000	45000
NASHVILLE, TN VORTAC	FOUNT, KY FIX	18000	45000
FOUNT, KY FIX	TONIO, KY FIX	*20000	35000
*18000 - GNSS MEA			
TONIO, KY FIX	BECKLEY, WV VOR/DME	18000	35000
BECKLEY, WV VOR/DME	MONTEBELLO, VA VOR/DME	#18000	41000
#BECKLEY R-091 UNUSABLE			
MONTEBELLO, VA VOR/DME	GORDONSVILLE, VA VORTAC	18000	41000
GORDONSVILLE, VA VORTAC	NOTTINGHAM, MD VORTAC	18000	45000
NOTTINGHAM, MD VORTAC	*GRACO, MD FIX	18000	35000
*10000 - MRA			

FROM	TO	MEA	MAA
95.7042 JET ROUTE J42 - CONTINUED			
GRACO, MD FIX	WOODSTOWN, NJ VORTAC	18000	45000
WOODSTOWN, NJ VORTAC	ROBBINSVILLE, NJ VORTAC	18000	45000
ROBBINSVILLE, NJ VORTAC	HARTFORD, CT VOR/DME	18000	45000
HARTFORD, CT VOR/DME	PUTNAM, CT VOR/DME	18000	45000
PUTNAM, CT VOR/DME	BOSTON, MA VOR/DME	18000	45000
95.7043 JET ROUTE J43			
VOLUNTEER, TN VORTAC	FALMOUTH, KY VOR/DME	18000	45000
FALMOUTH, KY VOR/DME	ROSEWOOD, OH VORTAC	18000	45000
ROSEWOOD, OH VORTAC	CARLETON, MI VOR/DME	18000	45000
95.7044 JET ROUTE J44			
PHOENIX, AZ VORTAC	WINSLOW, AZ VORTAC	18000	45000
WINSLOW, AZ VORTAC	RATTLESNAKE, NM VORTAC	18000	45000
RATTLESNAKE, NM VORTAC	ALAMOSA, CO VORTAC	18000	45000
ALAMOSA, CO VORTAC	FALCON, CO VORTAC	23000	45000
FALCON, CO VORTAC	MC COOK, NE VOR/DME	18000	45000
MC COOK, NE VOR/DME	LINCOLN, NE VORTAC	18000	41000
95.7045 JET ROUTE J45			
ATLANTA, GA VORTAC	NASHVILLE, TN VORTAC	18000	45000
NASHVILLE, TN VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	KIRKSVILLE, MO VORTAC	18000	45000
KIRKSVILLE, MO VORTAC	DES MOINES, IA VORTAC	#18000	45000
#DES MOINES R-141 UNUSABLE, USE KIRKSVILLE R-323			
DES MOINES, IA VORTAC	SIOUX FALLS, SD VORTAC	18000	45000
SIOUX FALLS, SD VORTAC	ABERDEEN, SD VOR/DME	18000	45000
95.7046 JET ROUTE J46			
TULSA, OK VORTAC	WALNUT RIDGE, AR VORTAC	18000	45000
WALNUT RIDGE, AR VORTAC	NASHVILLE, TN VORTAC	18000	45000
NASHVILLE, TN VORTAC	VOLUNTEER, TN VORTAC	18000	45000
95.7048 JET ROUTE J48			
*LANNA, NJ FIX	POTTSTOWN, PA VORTAC	18000	45000
*5000 - MRA			
POTTSTOWN, PA VORTAC	WESTMINSTER, MD VORTAC	18000	45000
WESTMINSTER, MD VORTAC	CASANOVA, VA VORTAC	18000	45000
CASANOVA, VA VORTAC	MONTEBELLO, VA VOR/DME	18000	41000
MONTEBELLO, VA VOR/DME	FOOTHILLS, SC VOR/DME	18000	41000
95.7049 JET ROUTE J49			
PHILIPSBURG, PA VORTAC	HANCOCK, NY VOR/DME	18000	45000
HANCOCK, NY VOR/DME	ALBANY, NY VORTAC	18000	45000
ALBANY, NY VORTAC	BANGOR, ME VORTAC	18000	45000
BANGOR, ME VORTAC	PRESQUE ISLE, ME VOR/DME	18000	45000
95.7050 JET ROUTE J50			
SHAFTER, CA VORTAC	PARADISE, CA VORTAC	18000	45000
PARADISE, CA VORTAC	BLYTHE, CA VORTAC	18000	45000
BLYTHE, CA VORTAC	GILA BEND, AZ VORTAC	18000	45000

FROM	TO	MEA	MAA
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95.7050 JET ROUTE J50 - CONTINUED

GILA BEND, AZ VORTAC	STANFIELD, AZ VORTAC	18000	45000
STANFIELD, AZ VORTAC	SAN SIMON, AZ VORTAC	18000	45000
SAN SIMON, AZ VORTAC	EL PASO, TX VORTAC	18000	45000
EL PASO, TX VORTAC	WINK, TX VORTAC	18000	45000
WINK, TX VORTAC	ABILENE, TX VORTAC	18000	45000
ABILENE, TX VORTAC	WACO, TX VORTAC	18000	45000
WACO, TX VORTAC	LUFKIN, TX VORTAC	18000	45000
LUFKIN, TX VORTAC	ALEXANDRIA, LA VORTAC	18000	45000
ALEXANDRIA, LA VORTAC	MC COMB, MS VORTAC	18000	45000
MC COMB, MS VORTAC	CRESTVIEW, FL VORTAC	18000	45000

95.7052 JET ROUTE J52

U.S. CANADIAN BORDER	SPOKANE, WA VORTAC	18000	45000
SPOKANE, WA VORTAC	SALMON, ID VOR/DME	18000	45000
SALMON, ID VOR/DME	DUBOIS, ID VORTAC	18000	45000
DUBOIS, ID VORTAC	ROCK SPRINGS, WY VOR/DME	18000	45000
ROCK SPRINGS, WY VOR/DME	FALCON, CO VORTAC	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
FALCON, CO VORTAC	HUGO, CO VOR/DME	18000	45000
HUGO, CO VOR/DME	LAMAR, CO VOR/DME	18000	45000
LAMAR, CO VOR/DME	LIBERAL, KS VORTAC	18000	45000
LIBERAL, KS VORTAC	ARDMORE, OK VORTAC	18000	45000
ARDMORE, OK VORTAC	TEXARKANA, AR VORTAC	18000	45000
TEXARKANA, AR VORTAC	SIDON, MS VORTAC	18000	45000
SIDON, MS VORTAC	BIGBEE, MS VORTAC	18000	45000
BIGBEE, MS VORTAC	VULCAN, AL VORTAC	18000	45000
TUBAS, NC FIX	RALEIGH/DURHAM, NC VORTAC	18000	45000
RALEIGH/DURHAM, NC VORTAC	RICHMOND, VA VORTAC	18000	45000

95.7054 JET ROUTE J54

TATOOSH, WA VORTAC	OLYMPIA, WA VORTAC	18000	45000
OLYMPIA, WA VORTAC	BAKER CITY, OR VOR/DME	#24000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
BAKER CITY, OR VOR/DME	BOISE, ID VORTAC	18000	45000
BOISE, ID VORTAC	POCATELLO, ID VOR/DME	18000	45000
POCATELLO, ID VOR/DME	CHEROKEE, WY VOR/DME	25000	45000
CHEROKEE, WY VOR/DME	LARAMIE, WY VOR/DME	18000	45000

95.7055 JET ROUTE J55

TUBAS, NC FIX	RALEIGH/DURHAM, NC VORTAC	18000	45000
RALEIGH/DURHAM, NC VORTAC	HOPEWELL, VA VORTAC	18000	45000
HOPEWELL, VA VORTAC	HUBBS, VA FIX	18000	20000
SEA ISLE, NJ VORTAC	HAMPTON, NY VORTAC	18000	45000
HAMPTON, NY VORTAC	PROVIDENCE, RI VOR/DME	18000	45000
PROVIDENCE, RI VOR/DME	BOSTON, MA VOR/DME	18000	45000
BOSTON, MA VOR/DME	KENNEBUNK, ME VOR/DME	18000	45000
KENNEBUNK, ME VOR/DME	PRESQUE ISLE, ME VOR/DME	19000	45000

95.7056 JET ROUTE J56

MINA, NV VORTAC	WASATCH, UT VORTAC	#33000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
WASATCH, UT VORTAC	HAYDEN, CO VOR/DME	25000	45000
HAYDEN, CO VOR/DME	FALCON, CO VORTAC	18000	45000

95.7057 JET ROUTE J57

TRUTH OR CONSEQUENCES, NM VORTAC	SOCORRO, NM VORTAC	18000	45000
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FROM	TO	MEA	MAA
95.7057 JET ROUTE J57 - CONTINUED			
SOCORRO, NM VORTAC	ALBUQUERQUE, NM VORTAC	18000	45000
95.7058 JET ROUTE J58			
COALDALE, NV VORTAC	WILSON CREEK, NV VORTAC	18000	45000
WILSON CREEK, NV VORTAC	MILFORD, UT VORTAC	18000	45000
MILFORD, UT VORTAC	RATTLESNAKE, NM VORTAC	33000	45000
RATTLESNAKE, NM VORTAC	FORT UNION, NM VORTAC	18000	45000
FORT UNION, NM VORTAC	PANHANDLE, TX VORTAC	18000	45000
PANHANDLE, TX VORTAC	WICHITA FALLS, TX VORTAC	18000	45000
WICHITA FALLS, TX VORTAC	RANGER, TX VORTAC	18000	45000
RANGER, TX VORTAC	ALEXANDRIA, LA VORTAC	18000	45000
ALEXANDRIA, LA VORTAC	HARVEY, LA VORTAC	18000	45000
95.7059 JET ROUTE J59			
PHILIPSBURG, PA VORTAC	SYRACUSE, NY VORTAC	18000	45000
95.7060 JET ROUTE J60			
LOS ANGELES, CA VORTAC	PARADISE, CA VORTAC	18000	45000
PARADISE, CA VORTAC	HECTOR, CA VORTAC	18000	45000
HECTOR, CA VORTAC	BOULDER CITY, NV VORTAC	18000	45000
BOULDER CITY, NV VORTAC	BRYCE CANYON, UT VORTAC	18000	45000
BRYCE CANYON, UT VORTAC	HANKSVILLE, UT VORTAC	18000	45000
HANKSVILLE, UT VORTAC	RED TABLE, CO VOR/DME	18000	45000
RED TABLE, CO VOR/DME	MILE HIGH, CO VORTAC	18000	45000
MILE HIGH, CO VORTAC	HAYES CENTER, NE VORTAC	18000	45000
HAYES CENTER, NE VORTAC	LINCOLN, NE VORTAC	18000	45000
LINCOLN, NE VORTAC	IOWA CITY, IA VOR/DME	18000	45000
IOWA CITY, IA VOR/DME	JOLIET, IL VOR/DME	18000	45000
JOLIET, IL VOR/DME	GOSHEN, IN VORTAC	18000	45000
GOSHEN, IN VORTAC	DRYER, OH VOR/DME	18000	45000
DRYER, OH VOR/DME	PHILIPSBURG, PA VORTAC	18000	45000
PHILIPSBURG, PA VORTAC	SPARTA, NJ VORTAC	18000	45000
95.7061 JET ROUTE J61			
WESTMINSTER, MD VORTAC	PHILIPSBURG, PA VORTAC	18000	45000
95.7064 JET ROUTE J64			
LOS ANGELES, CA VORTAC	HECTOR, CA VORTAC	18000	45000
HECTOR, CA VORTAC	PEACH SPRINGS, AZ VOR/DME	18000	45000
PEACH SPRINGS, AZ VOR/DME	TUBA CITY, AZ VORTAC	18000	45000
TUBA CITY, AZ VORTAC	RATTLESNAKE, NM VORTAC	18000	45000
RATTLESNAKE, NM VORTAC	PUEBLO, CO VORTAC	20000	45000
PUEBLO, CO VORTAC	HILL CITY, KS VORTAC	18000	45000
HILL CITY, KS VORTAC	PAWNEE CITY, NE VORTAC	18000	45000
PAWNEE CITY, NE VORTAC	LAMONI, IA VOR/DME	18000	45000
LAMONI, IA VOR/DME	BRADFORD, IL VORTAC	18000	45000
BRADFORD, IL VORTAC	FORT WAYNE, IN VORTAC	18000	45000
FORT WAYNE, IN VORTAC	ELLWOOD CITY, PA VOR/DME	18000	45000
ELLWOOD CITY, PA VOR/DME	RAVINE, PA VORTAC	18000	45000
RAVINE, PA VORTAC	SARAA, PA FIX	18000	45000
95.7065 JET ROUTE J65			
SAN ANTONIO, TX VORTAC	ABILENE, TX VORTAC	18000	45000

FROM	TO	MEA	MAA
95.7065 JET ROUTE J65 - CONTINUED			
ABILENE, TX VORTAC	CHISUM, NM VORTAC	25000	45000
CHISUM, NM VORTAC	TRUTH OR CONSEQUENCES, NM VORTAC	24000	45000
TRUTH OR CONSEQUENCES, NM VORTAC	PHOENIX, AZ VORTAC	#23000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
PHOENIX, AZ VORTAC	BLYTHE, CA VORTAC	18000	45000
BLYTHE, CA VORTAC	PALMDALE, CA VORTAC	18000	45000
PALMDALE, CA VORTAC	SHAFTER, CA VORTAC	18000	45000
SACRAMENTO, CA VORTAC	RED BLUFF, CA VORTAC	18000	45000
RED BLUFF, CA VORTAC	KLAMATH FALLS, OR VORTAC	18000	45000
KLAMATH FALLS, OR VORTAC	SEATTLE, WA VORTAC	#31000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
95.7066 JET ROUTE J66			
NEWMAN, TX VORTAC	BIG SPRING, TX VORTAC	#19000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
BIG SPRING, TX VORTAC	ABILENE, TX VORTAC	18000	45000
ABILENE, TX VORTAC	RANGER, TX VORTAC	18000	45000
RANGER, TX VORTAC	BONHAM, TX VORTAC	18000	45000
BONHAM, TX VORTAC	LITTLE ROCK, AR VORTAC	18000	45000
LITTLE ROCK, AR VORTAC	MEMPHIS, TN VORTAC	18000	45000
MEMPHIS, TN VORTAC	ROME, GA VORTAC	18000	45000
95.7067 JET ROUTE J67			
LINDEN, CA VOR/DME	LAKEVIEW, OR VORTAC	18000	45000
LAKEVIEW, OR VORTAC	BATTLE GROUND, WA VORTAC	18000	45000
95.7068 JET ROUTE J68			
GOPHER, MN VORTAC	DELLS, WI VORTAC	18000	45000
DELLS, WI VORTAC	BADGER, WI VOR/DME	18000	45000
BADGER, WI VOR/DME	FLINT, MI VORTAC	18000	45000
HANCOCK, NY VOR/DME	PUTNAM, CT VOR/DME	18000	45000
PUTNAM, CT VOR/DME	PROVIDENCE, RI VOR/DME	18000	45000
PROVIDENCE, RI VOR/DME	NANTUCKET, MA VOR/DME	18000	45000
95.7069 JET ROUTE J69			
SEMMES, AL VORTAC	DELBE, AL FIX	22000	45000
DELBE, AL FIX	VULCAN, AL VORTAC	18000	45000
95.7070 JET ROUTE J70			
HOQUIAM, WA VORTAC	SEATTLE, WA VORTAC	18000	45000
SEATTLE, WA VORTAC	EPHRATA, WA VORTAC	18000	45000
EPHRATA, WA VORTAC	MULLAN PASS, ID VOR/DME	18000	45000
MULLAN PASS, ID VOR/DME	LEWISTOWN, MT VOR/DME	18000	45000
LEWISTOWN, MT VOR/DME	DICKINSON, ND VORTAC	18000	45000
DICKINSON, ND VORTAC	ABERDEEN, SD VOR/DME	24000	45000
ABERDEEN, SD VOR/DME	GOPHER, MN VORTAC	18000	45000
GOPHER, MN VORTAC	NICKL, WI FIX	18000	45000
NICKL, WI FIX	AUGER, WI FIX	25000	45000
*25000 - MCA AUGER, WI FIX , W BND			
AUGER, WI FIX	BADGER, WI VOR/DME	18000	45000
BADGER, WI VOR/DME	PULLMAN, MI VOR/DME	18000	45000
PULLMAN, MI VOR/DME	SALEM, MI VORTAC	18000	45000
SALEM, MI VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	JAMESTOWN, NY VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7070 JET ROUTE J70 - CONTINUED			
JAMESTOWN, NY VOR/DME	WILKES-BARRE, PA VORTAC	18000	45000
WILKES-BARRE, PA VORTAC	STILLWATER, NJ VOR/DME	18000	45000
STILLWATER, NJ VOR/DME	LA GUARDIA, NY VOR/DME	18000	24000
LA GUARDIA, NY VOR/DME	KENNEDY, NY VOR/DME	18000	45000
95.7071 JET ROUTE J71			
MEMPHIS, TN VORTAC	CENTRALIA, IL VORTAC	18000	45000
CENTRALIA, IL VORTAC	ROBERTS, IL VOR/DME	18000	35000
ROBERTS, IL VOR/DME	NORTHBROOK, IL VOR/DME	18000	35000
95.7072 JET ROUTE J72			
BOULDER CITY, NV VORTAC	PEACH SPRINGS, AZ VOR/DME	18000	45000
PEACH SPRINGS, AZ VOR/DME	GALLUP, NM VORTAC	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
GALLUP, NM VORTAC	ALBUQUERQUE, NM VORTAC	18000	45000
ALBUQUERQUE, NM VORTAC	TEXICO, TX VORTAC	18000	45000
TEXICO, TX VORTAC	WICHITA FALLS, TX VORTAC	18000	45000
95.7073 JET ROUTE J73			
LAGRANGE, GA VORTAC	NASHVILLE, TN VORTAC	18000	45000
NASHVILLE, TN VORTAC	POCKET CITY, IN VORTAC	18000	45000
POCKET CITY, IN VORTAC	NORTHBROOK, IL VOR/DME	18000	45000
95.7074 JET ROUTE J74			
LOS ANGELES, CA VORTAC	PARADISE, CA VORTAC	18000	45000
PARADISE, CA VORTAC	PARKER, CA VORTAC	18000	45000
PARKER, CA VORTAC	NABOB, AZ FIX	21000	45000
NABOB, AZ FIX	ST JOHNS, AZ VORTAC	18000	45000
ST JOHNS, AZ VORTAC	CORONA, NM VORTAC	18000	45000
CORONA, NM VORTAC	TEXICO, TX VORTAC	18000	45000
TEXICO, TX VORTAC	WILL ROGERS, OK VORTAC	18000	45000
95.7076 JET ROUTE J76			
LAS VEGAS, NV VORTAC	TUBA CITY, AZ VORTAC	18000	45000
TUBA CITY, AZ VORTAC	FORT UNION, NM VORTAC	#27000	45000
#MEA GAP			
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
FORT UNION, NM VORTAC	TUCUMCARI, NM VORTAC	18000	45000
TUCUMCARI, NM VORTAC	WICHITA FALLS, TX VORTAC	18000	45000
95.7078 JET ROUTE J78			
LOS ANGELES, CA VORTAC	SEAL BEACH, CA VORTAC	18000	45000
SEAL BEACH, CA VORTAC	THERMAL, CA VORTAC	18000	45000
THERMAL, CA VORTAC	PARKER, CA VORTAC	18000	45000
PARKER, CA VORTAC	DRAKE, AZ VORTAC	18000	45000
DRAKE, AZ VORTAC	PYRIT, AZ FIX	22000	45000
PYRIT, AZ FIX	ZUNI, NM VORTAC	18000	45000
ZUNI, NM VORTAC	ALBUQUERQUE, NM VORTAC	18000	45000
ALBUQUERQUE, NM VORTAC	TUCUMCARI, NM VORTAC	18000	45000
TUCUMCARI, NM VORTAC	PANHANDLE, TX VORTAC	18000	45000
PANHANDLE, TX VORTAC	WILL ROGERS, OK VORTAC	18000	45000
WILL ROGERS, OK VORTAC	TULSA, OK VORTAC	18000	45000
TULSA, OK VORTAC	FARMINGTON, MO VORTAC	18000	45000

FROM	TO	MEA	MAA
95.7078 JET ROUTE J78 - CONTINUED			
FARMINGTON, MO VORTAC	POCKET CITY, IN VORTAC	18000	45000
POCKET CITY, IN VORTAC	LOUISVILLE, KY VORTAC	18000	45000
LOUISVILLE, KY VORTAC	CHARLESTON, WV VOR/DME	18000	45000
95.7079 JET ROUTE J79			
CHARLESTON, SC VORTAC	TAR RIVER, NC VORTAC	18000	45000
TAR RIVER, NC VORTAC	FRANKLIN, VA VORTAC	18000	45000
FRANKLIN, VA VORTAC	SALISBURY, MD VORTAC	18000	45000
SALISBURY, MD VORTAC	KENNEDY, NY VOR/DME	18000	45000
KENNEDY, NY VOR/DME	CUJKE, MA FIX	18000	45000
CUJKE, MA FIX	MARCONI, MA VOR/DME	#	
#UNUSABLE			
MARCONI, MA VOR/DME	BANGOR, ME VORTAC	18000	45000
95.7080 JET ROUTE J80			
COALDALE, NV VORTAC	WILSON CREEK, NV VORTAC	18000	45000
WILSON CREEK, NV VORTAC	MILFORD, UT VORTAC	18000	45000
MILFORD, UT VORTAC	GRAND JUNCTION, CO VOR/DME	18000	45000
GRAND JUNCTION, CO VOR/DME	RED TABLE, CO VOR/DME	18000	45000
RED TABLE, CO VOR/DME	FALCON, CO VORTAC	18000	45000
FALCON, CO VORTAC	GOODLAND, KS VORTAC	18000	45000
GOODLAND, KS VORTAC	HILL CITY, KS VORTAC	18000	45000
HILL CITY, KS VORTAC	KANSAS CITY, MO VORTAC	18000	45000
KANSAS CITY, MO VORTAC	SPINNER, IL VORTAC	18000	45000
SPINNER, IL VORTAC	BRICKYARD, IN VORTAC	18000	45000
BRICKYARD, IN VORTAC	BELLAIRE, OH VOR/DME	18000	45000
95.7082 JET ROUTE J82			
BATTLE GROUND, WA VORTAC	DONNELLY, ID VOR/DME	22000	45000
DONNELLY, ID VOR/DME	DUBOIS, ID VORTAC	18000	45000
DUBOIS, ID VORTAC	CRAZY WOMAN, WY VOR/DME	#25000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
CRAZY WOMAN, WY VOR/DME	RAPID CITY, SD VORTAC	18000	45000
RAPID CITY, SD VORTAC	SIOUX FALLS, SD VORTAC	18000	45000
SIOUX FALLS, SD VORTAC	FORT DODGE, IA VORTAC	18000	45000
FORT DODGE, IA VORTAC	DUBUQUE, IA VORTAC	18000	45000
DUBUQUE, IA VORTAC	JOLIET, IL VOR/DME	18000	45000
JOLIET, IL VOR/DME	GOSHEN, IN VORTAC	18000	45000
95.7083 JET ROUTE J83			
SPARTANBURG, SC VORTAC	APPLETON, OH VORTAC	23000	45000
APPLETON, OH VORTAC	DRYER, OH VOR/DME	#18000	45000
#APPLETON R-021 UNUSABLE.			
95.7084 JET ROUTE J84			
OAKLAND, CA VOR/DME	LINDEN, CA VOR/DME	18000	45000
LINDEN, CA VOR/DME	MINA, NV VORTAC	18000	45000
MINA, NV VORTAC	DELTA, UT VORTAC	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DELTA, UT VORTAC	MEEKER, CO VOR/DME	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
MEEKER, CO VOR/DME	SIDNEY, NE VOR/DME	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
SIDNEY, NE VOR/DME	WOLBACH, NE VORTAC	18000	45000

FROM	TO	MEA	MAA
95.7084 JET ROUTE J84 - CONTINUED			
WOLBACH, NE VORTAC	DUBUQUE, IA VORTAC	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DUBUQUE, IA VORTAC	NORTHBROOK, IL VOR/DME	18000	45000
NORTHBROOK, IL VOR/DME	DANVILLE, IL VORTAC	18000	35000
95.7085 JET ROUTE J85			
SPARTANBURG, SC VORTAC	CHARLESTON, WV VOR/DME	18000	45000
CHARLESTON, WV VOR/DME	DRYER, OH VOR/DME	18000	45000
95.7086 JET ROUTE J86			
BEATTY, NV VORTAC	FUZZY, NV FIX	18000	45000
FUZZY, NV FIX	BOULDER CITY, NV VORTAC	29000	45000
BOULDER CITY, NV VORTAC	PEACH SPRINGS, AZ VOR/DME	18000	45000
PEACH SPRINGS, AZ VOR/DME	BAVPE, AZ FIX	18000	45000
BAVPE, AZ FIX	WINSLOW, AZ VORTAC	18000	45000
WINSLOW, AZ VORTAC	EL PASO, TX VORTAC	#27000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
EL PASO, TX VORTAC	FORT STOCKTON, TX VORTAC	18000	45000
FORT STOCKTON, TX VORTAC	JUNCTION, TX VORTAC	18000	45000
JUNCTION, TX VORTAC	HUMBLE, TX VORTAC	18000	45000
HUMBLE, TX VORTAC	LEEVILLE, LA VORTAC	18000	45000
95.7087 JET ROUTE J87			
HUMBLE, TX VORTAC	NAVASOTA, TX VOR/DME	18000	45000
NAVASOTA, TX VOR/DME	TORNNN, TX FIX	18000	45000
TORNNN, TX FIX	COWBOY, TX VOR/DME	18000	45000
COWBOY, TX VOR/DME	TULSA, OK VORTAC	18000	45000
TULSA, OK VORTAC	BUTLER, MO VORTAC	18000	45000
BUTLER, MO VORTAC	KIRKSVILLE, MO VORTAC	18000	45000
KIRKSVILLE, MO VORTAC	MOLINE, IL VOR/DME	18000	35000
MOLINE, IL VOR/DME	JOLIET, IL VOR/DME	18000	35000
JOLIET, IL VOR/DME	NORTHBROOK, IL VOR/DME	18000	45000
95.7088 JET ROUTE J88			
LOS ANGELES, CA VORTAC	SAN MARCUS, CA VORTAC	18000	45000
SAN MARCUS, CA VORTAC	SALINAS, CA VORTAC	18000	45000
SALINAS, CA VORTAC	POINT REYES, CA VOR/DME	18000	45000
95.7089 JET ROUTE J89			
ATLANTA, GA VORTAC	LOUISVILLE, KY VORTAC	18000	45000
LOUISVILLE, KY VORTAC	BOILER, IN VORTAC	18000	45000
BOILER, IN VORTAC	NORTHBROOK, IL VOR/DME	18000	45000
NORTHBROOK, IL VOR/DME	BADGER, WI VOR/DME	18000	45000
BADGER, WI VOR/DME	DULUTH, MN VORTAC	#18000	45000
#BADGER R-322 UNUSABLE			
DULUTH, MN VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7090 JET ROUTE J90			
SEATTLE, WA VORTAC	MOSES LAKE, WA VOR/DME	18000	45000
MOSES LAKE, WA VOR/DME	HELENA, MT VORTAC	#28000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
HELENA, MT VORTAC	MILES CITY, MT VOR/DME	28000	45000
MILES CITY, MT VOR/DME	ABERDEEN, SD VOR/DME	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

FROM	TO	MEA	MAA
95.7090 JET ROUTE J90 - CONTINUED			
ABERDEEN, SD VOR/DME	REDWOOD FALLS, MN VOR/DME	18000	45000
REDWOOD FALLS, MN VOR/DME	MASON CITY, IA VOR/DME	18000	45000
MASON CITY, IA VOR/DME	NORTHBROOK, IL VOR/DME	18000	45000
95.7091 JET ROUTE J91			
VOLUNTEER, TN VORTAC	HENDERSON, WV VORTAC	18000	45000
95.7092 JET ROUTE J92			
KLAMATH FALLS, OR VORTAC	MUSTANG, NV VORTAC	18000	45000
MUSTANG, NV VORTAC	COALDALE, NV VORTAC	18000	45000
COALDALE, NV VORTAC	BEATTY, NV VORTAC	18000	45000
BEATTY, NV VORTAC	BOULDER CITY, NV VORTAC	24000	45000
BOULDER CITY, NV VORTAC	DRAKE, AZ VORTAC	18000	45000
DRAKE, AZ VORTAC	PHOENIX, AZ VORTAC	18000	45000
PHOENIX, AZ VORTAC	STANFIELD, AZ VORTAC	18000	45000
STANFIELD, AZ VORTAC	TUCSON, AZ VORTAC	18000	45000
TUCSON, AZ VORTAC	U.S. MEXICAN BORDER	18000	45000
95.7093 JET ROUTE J93			
U.S. MEXICAN BORDER	JULIAN, CA VORTAC	18000	45000
JULIAN, CA VORTAC	PARADISE, CA VORTAC	18000	45000
PARADISE, CA VORTAC	LOS ANGELES, CA VORTAC	18000	45000
95.7094 JET ROUTE J94			
MUSTANG, NV VORTAC	LOVELOCK, NV VORTAC	18000	45000
LOVELOCK, NV VORTAC	BATTLE MOUNTAIN, NV VORTAC	18000	45000
BATTLE MOUNTAIN, NV VORTAC	LUCIN, UT VORTAC	18000	45000
LUCIN, UT VORTAC	ROCK SPRINGS, WY VOR/DME	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
ROCK SPRINGS, WY VOR/DME	SCOTTSBLUFF, NE VORTAC	18000	45000
SCOTTSBLUFF, NE VORTAC	O NEILL, NE VORTAC	18000	45000
O NEILL, NE VORTAC	FORT DODGE, IA VORTAC	18000	45000
FORT DODGE, IA VORTAC	DUBUQUE, IA VORTAC	18000	45000
DUBUQUE, IA VORTAC	NORTHBROOK, IL VOR/DME	18000	45000
NORTHBROOK, IL VOR/DME	PULLMAN, MI VOR/DME	18000	45000
PULLMAN, MI VOR/DME	FLINT, MI VORTAC	18000	45000
95.7095 JET ROUTE J95			
DEER PARK, NY VOR/DME	GAYEL, NY FIX	18000	45000
GAYEL, NY FIX	BINGHAMTON, NY VOR/DME	18000	45000
95.7096 JET ROUTE J96			
LOS ANGELES, CA VORTAC	PARADISE, CA VORTAC	18000	45000
PARADISE, CA VORTAC	PARKER, CA VORTAC	18000	45000
PARKER, CA VORTAC	DRAKE, AZ VORTAC	18000	45000
DRAKE, AZ VORTAC	GALLUP, NM VORTAC	18000	45000
GALLUP, NM VORTAC	CIMARRON, NM VORTAC	#23000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
CIMARRON, NM VORTAC	GARDEN CITY, KS VORTAC	18000	45000
GARDEN CITY, KS VORTAC	SALINA, KS VORTAC	18000	45000
SALINA, KS VORTAC	KIRKSVILLE, MO VORTAC	18000	45000
KIRKSVILLE, MO VORTAC	PEORIA, IL VORTAC	18000	35000
PEORIA, IL VORTAC	JOLIET, IL VOR/DME	18000	35000

FROM	TO	MEA	MAA
95.7098 JET ROUTE J98			
LIBERAL, KS VORTAC	MITBEE, OK VORTAC	18000	45000
MITBEE, OK VORTAC	WILL ROGERS, OK VORTAC	18000	45000
WILL ROGERS, OK VORTAC	TULSA, OK VORTAC	18000	45000
TULSA, OK VORTAC	SPRINGFIELD, MO VORTAC	18000	45000
SPRINGFIELD, MO VORTAC	FARMINGTON, MO VORTAC	18000	45000
95.7099 JET ROUTE J99			
COLLIERS, SC VORTAC	VOLUNTEER, TN VORTAC	18000	45000
VOLUNTEER, TN VORTAC	LOUISVILLE, KY VORTAC	18000	45000
95.7100 JET ROUTE J100			
LOS ANGELES, CA VORTAC	DAGGETT, CA VORTAC	18000	45000
DAGGETT, CA VORTAC	LAS VEGAS, NV VORTAC	18000	45000
LAS VEGAS, NV VORTAC	BRYCE CANYON, UT VORTAC	18000	45000
BRYCE CANYON, UT VORTAC	MEEKER, CO VOR/DME	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
MEEKER, CO VOR/DME	SIDNEY, NE VOR/DME	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
SIDNEY, NE VOR/DME	WOLBACH, NE VORTAC	18000	45000
WOLBACH, NE VORTAC	DUBUQUE, IA VORTAC	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DUBUQUE, IA VORTAC	NORTHBROOK, IL VOR/DME	18000	45000
95.7101 JET ROUTE J101			
HUMBLE, TX VORTAC	LUFKIN, TX VORTAC	18000	45000
LUFKIN, TX VORTAC	LITTLE ROCK, AR VORTAC	18300	45000
LITTLE ROCK, AR VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	SPINNER, IL VORTAC	18000	45000
SPINNER, IL VORTAC	PONTIAC, IL VOR/DME	18000	31000
PONTIAC, IL VOR/DME	JOLIET, IL VOR/DME	18000	35000
JOLIET, IL VOR/DME	NORTHBROOK, IL VOR/DME	18000	45000
NORTHBROOK, IL VOR/DME	BADGER, WI VOR/DME	18000	45000
BADGER, WI VOR/DME	GREEN BAY, WI VORTAC	18000	45000
GREEN BAY, WI VORTAC	SAULT STE MARIE, MI VOR/DME	18000	45000
95.7102 JET ROUTE J102			
PHOENIX, AZ VORTAC	ZUNI, NM VORTAC	18000	45000
ZUNI, NM VORTAC	GALLUP, NM VORTAC	18000	45000
GALLUP, NM VORTAC	ALAMOSA, CO VORTAC	18000	45000
ALAMOSA, CO VORTAC	LAMAR, CO VOR/DME	18000	45000
LAMAR, CO VOR/DME	SALINA, KS VORTAC	18000	45000
95.7104 JET ROUTE J104			
LOS ANGELES, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	18000	45000
TWENTYNINE PALMS, CA VORTAC	PARKER, CA VORTAC	18000	45000
PARKER, CA VORTAC	GILA BEND, AZ VORTAC	18000	45000
GILA BEND, AZ VORTAC	TUCSON, AZ VORTAC	18000	45000
TUCSON, AZ VORTAC	SAN SIMON, AZ VORTAC	18000	45000
SAN SIMON, AZ VORTAC	SOCORRO, NM VORTAC	20000	45000
SOCORRO, NM VORTAC	FORT UNION, NM VORTAC	18000	45000
FORT UNION, NM VORTAC	PUEBLO, CO VORTAC	18000	45000
95.7106 JET ROUTE J106			
JAMESTOWN, NY VOR/DME	WILKES-BARRE, PA VORTAC	18000	45000

FROM	TO	MEA	MAA
95.7106 JET ROUTE J106 - CONTINUED			
WILKES-BARRE, PA VORTAC	STILLWATER, NJ VOR/DME	18000	45000
STILLWATER, NJ VOR/DME	LA GUARDIA, NY VOR/DME	18000	24000
95.7107 JET ROUTE J107			
LOS ANGELES, CA VORTAC	HECTOR, CA VORTAC	18000	45000
HECTOR, CA VORTAC	BOULDER CITY, NV VORTAC	18000	45000
BOULDER CITY, NV VORTAC	MILFORD, UT VORTAC	18000	45000
MILFORD, UT VORTAC	ROCK SPRINGS, WY VOR/DME	#33000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
ROCK SPRINGS, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	18000	45000
MUDDY MOUNTAIN, WY VOR/DME	DUPREE, SD VOR/DME	18000	45000
DUPREE, SD VOR/DME	HUMBOLDT, MN VORTAC	21000	45000
HUMBOLDT, MN VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	18000	45000
95.7108 JET ROUTE J108			
WINSLOW, AZ VORTAC	ST JOHNS, AZ VORTAC	18000	45000
ST JOHNS, AZ VORTAC	TRUTH OR CONSEQUENCES, NM VORTAC	18000	45000
TRUTH OR CONSEQUENCES, NM VORTAC	WINK, TX VORTAC	24000	45000
95.7110 JET ROUTE J110			
BOULDER CITY, NV VORTAC	RATTLESNAKE, NM VORTAC	#28000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
RATTLESNAKE, NM VORTAC	ALAMOSA, CO VORTAC	18000	45000
ALAMOSA, CO VORTAC	GARDEN CITY, KS VORTAC	#19000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
GARDEN CITY, KS VORTAC	BUTLER, MO VORTAC	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
BUTLER, MO VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	BRICKYARD, IN VORTAC	18000	45000
BRICKYARD, IN VORTAC	BELLAIRE, OH VOR/DME	18000	45000
BELLAIRE, OH VOR/DME	VINSE, PA FIX	18000	45000
VINSE, PA FIX	KIPPI, PA FIX	26000	45000
KIPPI, PA FIX	COYLE, NJ VORTAC	22000	45000
95.7111 JET ROUTE J111			
NOME, AK VOR/DME	UNALAKLEET, AK VOR/DME	18000	45000
UNALAKLEET, AK VOR/DME	MC GRATH, AK VORTAC	18000	45000
MC GRATH, AK VORTAC	ANCHORAGE, AK VOR/DME	18000	45000
95.7112 JET ROUTE J112			
BUTLER, MO VORTAC	FARMINGTON, MO VORTAC	18000	45000
FARMINGTON, MO VORTAC	POCKET CITY, IN VORTAC	18000	45000
POCKET CITY, IN VORTAC	LOUISVILLE, KY VORTAC	18000	45000
95.7114 JET ROUTE J114			
MILE HIGH, CO VORTAC	SIDNEY, NE VOR/DME	18000	45000
SIDNEY, NE VOR/DME	O NEILL, NE VORTAC	23000	45000
O NEILL, NE VORTAC	SIOUX FALLS, SD VORTAC	18000	45000
SIOUX FALLS, SD VORTAC	GOPHER, MN VORTAC	18000	45000
95.7115 JET ROUTE J115			
SHEMYA, AK NDB	MOUNT MOFFETT, AK NDB/DME	18000	45000

FROM	TO	MEA	MAA
95.7115 JET ROUTE J115 - CONTINUED			
MOUNT MOFFETT, AK NDB/DME	DUTCH HARBOR, AK NDB/DME	18000	45000
DUTCH HARBOR, AK NDB/DME	COLD BAY, AK VORTAC	18000	45000
COLD BAY, AK VORTAC	KING SALMON, AK VORTAC	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
KING SALMON, AK VORTAC	KENAI, AK VOR/DME	18000	45000
KENAI, AK VOR/DME	ANCHORAGE, AK VOR/DME	18000	45000
ANCHORAGE, AK VOR/DME	BIG LAKE, AK VORTAC	18000	45000
BIG LAKE, AK VORTAC	FAIRBANKS, AK VORTAC	18000	45000
FAIRBANKS, AK VORTAC	CHANDALAR LAKE, AK NDB	18000	45000
CHANDALAR LAKE, AK NDB	DEADHORSE, AK VOR/DME	18000	45000
95.7116 JET ROUTE J116			
WASATCH, UT VORTAC	FAIRFIELD, UT VORTAC	18000	45000
FAIRFIELD, UT VORTAC	MEEKER, CO VOR/DME	18000	45000
MEEKER, CO VOR/DME	FALCON, CO VORTAC	20000	45000
95.7117 JET ROUTE J117			
MC GRATH, AK VORTAC	GALENA, AK VOR/DME	18000	45000
GALENA, AK VOR/DME	KOTZEBUE, AK VOR/DME	18000	45000
95.7118 JET ROUTE J118			
MEMPHIS, TN VORTAC	CHOO CHOO, TN VORTAC	18000	45000
CHOO CHOO, TN VORTAC	SPARTANBURG, SC VORTAC	18000	45000
95.7120 JET ROUTE J120			
MOUNT MOFFETT, AK NDB/DME	ST PAUL ISLAND, AK NDB/DME	18000	45000
ST PAUL ISLAND, AK NDB/DME	BETHEL, AK VORTAC	28000	45000
BETHEL, AK VORTAC	MC GRATH, AK VORTAC	18000	45000
MC GRATH, AK VORTAC	FAIRBANKS, AK VORTAC	18000	45000
FAIRBANKS, AK VORTAC	FORT YUKON, AK VORTAC	18000	45000
95.7121 JET ROUTE J121			
CHARLESTON, SC VORTAC	KINSTON, NC VORTAC	18000	45000
KINSTON, NC VORTAC	NORFOLK, VA VORTAC	18000	45000
NORFOLK, VA VORTAC	SNOW HILL, MD VORTAC	18000	45000
SNOW HILL, MD VORTAC	SEA ISLE, NJ VORTAC	18000	45000
SEA ISLE, NJ VORTAC	BRIGS, NJ FIX	18000	45000
95.7122 JET ROUTE J122			
FAIRBANKS, AK VORTAC	GALENA, AK VOR/DME	18000	45000
GALENA, AK VOR/DME	NOME, AK VOR/DME	18000	45000
95.7123 JET ROUTE J123			
CJAYY, AK FIX	KODIAK, AK VOR/DME	18000	45000
KODIAK, AK VOR/DME	KING SALMON, AK VORTAC	18000	45000
KING SALMON, AK VORTAC	BETHEL, AK VORTAC	18000	45000
BETHEL, AK VORTAC	NOME, AK VOR/DME	18000	45000
NOME, AK VOR/DME	KOTZEBUE, AK VOR/DME	18000	45000
KOTZEBUE, AK VOR/DME	BARROW, AK VOR/DME	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
95.7124 JET ROUTE J124			
BIG LAKE, AK VORTAC	GULKANA, AK VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7124 JET ROUTE J124 - CONTINUED			
GULKANA, AK VOR/DME	NORTHWAY, AK VORTAC	18000	45000
95.7125 JET ROUTE J125			
KODIAK, AK VOR/DME	ANCHORAGE, AK VOR/DME	18000	45000
ANCHORAGE, AK VOR/DME	TALKEETNA, AK VOR/DME	18000	45000
TALKEETNA, AK VOR/DME	NENANA, AK VORTAC	18000	45000
95.7126 JET ROUTE J126			
LOS ANGELES, CA VORTAC	SAN MARCUS, CA VORTAC	18000	45000
SAN MARCUS, CA VORTAC	SALINAS, CA VORTAC	18000	45000
SALINAS, CA VORTAC	SACRAMENTO, CA VORTAC	18000	45000
SACRAMENTO, CA VORTAC	RED BLUFF, CA VORTAC	18000	45000
RED BLUFF, CA VORTAC	ROGUE VALLEY, OR VORTAC	18000	45000
ROGUE VALLEY, OR VORTAC	EUGENE, OR VORTAC	18000	45000
EUGENE, OR VORTAC	NEWBERG, OR VOR/DME	18000	45000
NEWBERG, OR VOR/DME	OLYMPIA, WA VORTAC	18000	45000
OLYMPIA, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	18000	45000
95.7127 JET ROUTE J127			
KING SALMON, AK VORTAC	RINGO, AK FIX	18000	45000
RINGO, AK FIX	NONDA, AK FIX	18000	45000
95.7128 JET ROUTE J128			
LOS ANGELES, CA VORTAC	RUSTT, CA FIX	18000	45000
RUSTT, CA FIX	PEACH SPRINGS, AZ VOR/DME	25000	45000
PEACH SPRINGS, AZ VOR/DME	TUBA CITY, AZ VORTAC	18000	45000
TUBA CITY, AZ VORTAC	BLUE MESA, CO VOR/DME	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
BLUE MESA, CO VOR/DME	FALCON, CO VORTAC	18000	45000
FALCON, CO VORTAC	HAYES CENTER, NE VORTAC	18000	45000
HAYES CENTER, NE VORTAC	WOLBACH, NE VORTAC	18000	45000
WOLBACH, NE VORTAC	DUBUQUE, IA VORTAC	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DUBUQUE, IA VORTAC	NORTHBROOK, IL VOR/DME	18000	45000
95.7129 JET ROUTE J129			
NOME, AK VOR/DME	KOTZEBUE, AK VOR/DME	18000	45000
95.7130 JET ROUTE J130			
MC COOK, NE VOR/DME	PAWNEE CITY, NE VORTAC	18000	41000
95.7131 JET ROUTE J131			
SAN ANTONIO, TX VORTAC	EDNAS, TX FIX	18000	45000
EDNAS, TX FIX	RANGER, TX VORTAC	18000	45000
RANGER, TX VORTAC	TEXARKANA, AR VORTAC	18000	45000
TEXARKANA, AR VORTAC	LITTLE ROCK, AR VORTAC	18000	45000
LITTLE ROCK, AR VORTAC	POCKET CITY, IN VORTAC	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
95.7132 JET ROUTE J132			
ELMIRA, NY VOR/DME	HUGUENOT, NY VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7133 JET ROUTE J133			
SITKA, AK NDB	ORCA BAY, AK NDB	18000	45000
ORCA BAY, AK NDB	JOHNSTONE POINT, AK VOR/DME	18000	45000
JOHNSTONE POINT, AK VOR/DME	ANCHORAGE, AK VOR/DME	18000	45000
ANCHORAGE, AK VOR/DME	GALENA, AK VOR/DME	18000	45000
95.7134 JET ROUTE J134			
LOS ANGELES, CA VORTAC	SEAL BEACH, CA VORTAC	18000	45000
SEAL BEACH, CA VORTAC	THERMAL, CA VORTAC	18000	45000
THERMAL, CA VORTAC	PARKER, CA VORTAC	18000	45000
PARKER, CA VORTAC	DRAKE, AZ VORTAC	18000	45000
DRAKE, AZ VORTAC	GALLUP, NM VORTAC	18000	45000
GALLUP, NM VORTAC	CIMARRON, NM VORTAC	#23000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
CIMARRON, NM VORTAC	LIBERAL, KS VORTAC	18000	45000
LIBERAL, KS VORTAC	WICHITA, KS VORTAC	18000	45000
WICHITA, KS VORTAC	BUTLER, MO VORTAC	18000	45000
BUTLER, MO VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	FALMOUTH, KY VOR/DME	18000	45000
FALMOUTH, KY VOR/DME	HENDERSON, WV VORTAC	18000	45000
HENDERSON, WV VORTAC	LINDEN, VA VORTAC	18000	45000
95.7135 JET ROUTE J135			
BETHEL, AK VORTAC	UNALAKLEET, AK VOR/DME	18000	45000
95.7136 JET ROUTE J136			
NEWPORT, OR VORTAC	BATTLE GROUND, WA VORTAC	18000	45000
BATTLE GROUND, WA VORTAC	YAKIMA, WA VORTAC	18000	45000
YAKIMA, WA VORTAC	SPOKANE, WA VORTAC	18000	45000
SPOKANE, WA VORTAC	MULLAN PASS, ID VOR/DME	18000	45000
MULLAN PASS, ID VOR/DME	HELENA, MT VORTAC	18000	45000
HELENA, MT VORTAC	BILLINGS, MT VORTAC	18000	45000
BILLINGS, MT VORTAC	MEDICINE BOW, WY VOR/DME	28000	45000
95.7137 JET ROUTE J137			
SPINNER, IL VORTAC	FARMINGTON, MO VORTAC	18000	45000
FARMINGTON, MO VORTAC	WALNUT RIDGE, AR VORTAC	18000	45000
WALNUT RIDGE, AR VORTAC	LITTLE ROCK, AR VORTAC	18000	45000
95.7138 JET ROUTE J138			
FORT STOCKTON, TX VORTAC	CENTER POINT, TX VORTAC	18000	45000
CENTER POINT, TX VORTAC	SAN ANTONIO, TX VORTAC	18000	45000
LAKE CHARLES, LA VORTAC	FIGHTING TIGER, LA VORTAC	18000	45000
FIGHTING TIGER, LA VORTAC	SEMMES, AL VORTAC	18000	45000
95.7139 JET ROUTE J139			
BETTLES, AK VOR/DME	DEADHORSE, AK VOR/DME	18000	45000
95.7140 JET ROUTE J140			
FARGO, ND VOR/DME	DULUTH, MN VORTAC	18000	45000
DULUTH, MN VORTAC	SAULT STE MARIE, MI VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7141 JET ROUTE J141			
EL PASO, TX VORTAC	U.S. MEXICAN BORDER	18000	45000
95.7142 JET ROUTE J142			
SOCORRO, NM VORTAC	ANTON CHICO, NM VORTAC	18000	45000
ANTON CHICO, NM VORTAC	BORGER, TX VORTAC	18000	45000
95.7143 JET ROUTE J143			
POINT REYES, CA VOR/DME	MENDOCINO, CA VORTAC	18000	45000
MENDOCINO, CA VORTAC	ROSEBURG, OR VOR/DME	18000	45000
ROSEBURG, OR VOR/DME	EUGENE, OR VORTAC	18000	45000
EUGENE, OR VORTAC	KLICKITAT, OR VOR/DME	18000	45000
KLICKITAT, OR VOR/DME	SPOKANE, WA VORTAC	18000	45000
95.7144 JET ROUTE J144			
WOLBACH, NE VORTAC	DES MOINES, IA VORTAC	18000	45000
DES MOINES, IA VORTAC	DUBUQUE, IA VORTAC	18000	45000
95.7145 JET ROUTE J145			
FOOTHILLS, SC VOR/DME	CHARLESTON, WV VOR/DME	18000	45000
95.7146 JET ROUTE J146			
LOS ANGELES, CA VORTAC	DAGGETT, CA VORTAC	18000	45000
DAGGETT, CA VORTAC	LAS VEGAS, NV VORTAC	18000	45000
LAS VEGAS, NV VORTAC	NOOTN, AZ FIX	18000	45000
NOOTN, AZ FIX	DOVE CREEK, CO VORTAC	#25000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
DOVE CREEK, CO VORTAC	BLUE MESA, CO VOR/DME	18000	45000
BLUE MESA, CO VOR/DME	GOODLAND, KS VORTAC	#23000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
GOODLAND, KS VORTAC	LINCOLN, NE VORTAC	18000	45000
LINCOLN, NE VORTAC	IOWA CITY, IA VOR/DME	18000	45000
IOWA CITY, IA VOR/DME	JOLIET, IL VOR/DME	18000	45000
JOLIET, IL VOR/DME	GIPPER, MI VORTAC	18000	45000
GIPPER, MI VORTAC	CHARDON, OH VOR/DME	18000	45000
CHARDON, OH VOR/DME	KEATING, PA VORTAC	18000	45000
KEATING, PA VORTAC	MILTON, PA VORTAC	18000	45000
MILTON, PA VORTAC	ALLENTOWN, PA VORTAC	18000	45000
ALLENTOWN, PA VORTAC	KENNEDY, NY VOR/DME	#18000	45000
#ALLENTOWN R-104 UNUSABLE. USE KENNEDY R-287.			
95.7148 JET ROUTE J148			
COALDALE, NV VORTAC	DELTA, UT VORTAC	27000	45000
DELTA, UT VORTAC	MYTON, UT VOR/DME	18000	45000
MYTON, UT VOR/DME	CHEYENNE, WY VORTAC	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
CHEYENNE, WY VORTAC	O NEILL, NE VORTAC	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
O NEILL, NE VORTAC	MASON CITY, IA VOR/DME	18000	45000
95.7149 JET ROUTE J149			
ARMEL, VA VOR/DME	EYTEE, WV FIX	#*31000	41000
*18000 - GNSS MEA			
#ARMEL R-281 UNUSABLE BYD 119 NM. NA EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.			

FROM	TO	MEA	MAA
95.7149 JET ROUTE J149 - CONTINUED			
EYTEE, WV FIX *18000 - GNSS MEA #GNSS REQUIRED	GEFFS, WV FIX	#*31000	41000
GEFFS, WV FIX *18000 - GNSS MEA	HACKS, WV FIX	*29000	41000
HACKS, WV FIX *18000 - GNSS MEA	ROSEWOOD, OH VORTAC	*23000	45000
ROSEWOOD, OH VORTAC	FORT WAYNE, IN VORTAC	18000	45000
95.7150 JET ROUTE J150			
GORDONSVILLE, VA VORTAC	NOTTINGHAM, MD VORTAC	18000	45000
NOTTINGHAM, MD VORTAC *10000 - MRA	*GRACO, MD FIX	18000	35000
GRACO, MD FIX	WOODSTOWN, NJ VORTAC	18000	45000
WOODSTOWN, NJ VORTAC	COYLE, NJ VORTAC	18000	45000
COYLE, NJ VORTAC	HAMPTON, NY VORTAC	18000	45000
HAMPTON, NY VORTAC #UNUSABLE	MONTT, NY FIX	#	
MONTT, NY FIX #UNUSABLE	MARCONI, MA VOR/DME	#	
MARCONI, MA VOR/DME #UNUSABLE	STOOL, MA FIX	#	
95.7151 JET ROUTE J151			
VULCAN, AL VORTAC	FARMINGTON, MO VORTAC	25000	41000
FARMINGTON, MO VORTAC	ST LOUIS, MO VORTAC	18000	45000
ST LOUIS, MO VORTAC	KIRKSVILLE, MO VORTAC	18000	45000
KIRKSVILLE, MO VORTAC	OMAHA, IA VORTAC	18000	45000
OMAHA, IA VORTAC	O NEILL, NE VORTAC	18000	45000
O NEILL, NE VORTAC	RAPID CITY, SD VORTAC	18000	45000
RAPID CITY, SD VORTAC	BILLINGS, MT VORTAC	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
BILLINGS, MT VORTAC	WHITEHALL, MT VOR/DME	18000	45000
95.7152 JET ROUTE J152			
ROSEWOOD, OH VORTAC	JOHNSTOWN, PA VOR/DME	18000	45000
JOHNSTOWN, PA VOR/DME	HARRISBURG, PA VORTAC	18000	40000
95.7153 JET ROUTE J153			
ROME, OR VOR/DME	BAKER CITY, OR VOR/DME	18000	45000
BAKER CITY, OR VOR/DME	SPOKANE, WA VORTAC	18000	45000
95.7154 JET ROUTE J154			
BATTLE MOUNTAIN, NV VORTAC	BONNEVILLE, UT VORTAC	18000	45000
BONNEVILLE, UT VORTAC	WASATCH, UT VORTAC	18000	45000
WASATCH, UT VORTAC	ROCK SPRINGS, WY VOR/DME	18000	45000
ROCK SPRINGS, WY VOR/DME	MILE HIGH, CO VORTAC	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
MILE HIGH, CO VORTAC	GARDEN CITY, KS VORTAC	21000	45000
95.7155 JET ROUTE J155			
CHANDALAR LAKE, AK NDB	NENANA, AK VORTAC	18000	45000
95.7156 JET ROUTE J156			
WILSON CREEK, NV VORTAC	MEEKER, CO VOR/DME	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

FROM	TO	MEA	MAA
95.7157 JET ROUTE J157			
MYTON, UT VOR/DME	LARAMIE, WY VOR/DME	#23000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
LARAMIE, WY VOR/DME	SCOTTSBLUFF, NE VORTAC	18000	45000
SCOTTSBLUFF, NE VORTAC	RAPID CITY, SD VORTAC	18000	45000
95.7158 JET ROUTE J158			
MINA, NV VORTAC	LUCIN, UT VORTAC	#23000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
LUCIN, UT VORTAC	MALAD CITY, ID VOR/DME	18000	45000
MALAD CITY, ID VOR/DME	BIG PINEY, WY VOR/DME	18000	45000
BIG PINEY, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	18000	45000
MUDDY MOUNTAIN, WY VOR/DME	RAPID CITY, SD VORTAC	18000	45000
RAPID CITY, SD VORTAC	ABERDEEN, SD VOR/DME	18000	45000
95.7159 JET ROUTE J159			
BATTLE GROUND, WA VORTAC	DESCHUTES, OR VORTAC	18000	45000
95.7160 JET ROUTE J160			
FAIRBANKS, AK VORTAC	FORT YUKON, AK VORTAC	18000	45000
FORT YUKON, AK VORTAC	ADREW, AK FIX	18000	45000
95.7161 JET ROUTE J161			
ZUNI, NM VORTAC	RATTLESNAKE, NM VORTAC	18000	45000
95.7162 JET ROUTE J162			
DRYER, OH VOR/DME	BELLAIRE, OH VOR/DME	18000	45000
BELLAIRE, OH VOR/DME	MORGANTOWN, WV VOR/DME	18000	45000
MORGANTOWN, WV VOR/DME	MARTINSBURG, WV VORTAC	18000	29000
95.7163 JET ROUTE J163			
BAKER CITY, OR VOR/DME	BOISE, ID VORTAC	18000	45000
BOISE, ID VORTAC	POCATELLO, ID VOR/DME	18000	45000
POCATELLO, ID VOR/DME	ROCK SPRINGS, WY VOR/DME	21000	45000
ROCK SPRINGS, WY VOR/DME	HAYDEN, CO VOR/DME	18000	45000
95.7165 JET ROUTE J165			
DWYTE, SC FIX	RICHMOND, VA VORTAC	18000	45000
95.7166 JET ROUTE J166			
SAN SIMON, AZ VORTAC	TRUTH OR CONSEQUENCES, NM VORTAC	18000	45000
TRUTH OR CONSEQUENCES, NM VORTAC	CHISUM, NM VORTAC	24000	45000
CHISUM, NM VORTAC	WICHITA FALLS, TX VORTAC	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
95.7167 JET ROUTE J167			
JOHNSTONE POINT, AK VOR/DME	GULKANA, AK VOR/DME	18000	45000
GULKANA, AK VOR/DME	BIG DELTA, AK VORTAC	18000	45000
BIG DELTA, AK VORTAC	FORT YUKON, AK VORTAC	18000	45000

FROM	TO	MEA	MAA
95.7167 JET ROUTE J167 - CONTINUED			
FORT YUKON, AK VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7168 JET ROUTE J168			
WICHITA FALLS, TX VORTAC	LAMAR, CO VOR/DME	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
95.7169 JET ROUTE J169			
LOS ANGELES, CA VORTAC	SEAL BEACH, CA VORTAC	18000	45000
SEAL BEACH, CA VORTAC	THERMAL, CA VORTAC	18000	45000
THERMAL, CA VORTAC	BLYTHE, CA VORTAC	18000	45000
BLYTHE, CA VORTAC	STANFIELD, AZ VORTAC	18000	45000
95.7170 JET ROUTE J170			
CRAZY WOMAN, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	18000	45000
MUDDY MOUNTAIN, WY VOR/DME	MEDICINE BOW, WY VOR/DME	18000	45000
95.7171 JET ROUTE J171			
TOBE, CO VOR/DME	HUGO, CO VOR/DME	18000	45000
95.7173 JET ROUTE J173			
WASATCH, UT VORTAC	MEEKER, CO VOR/DME	18000	45000
95.7174 JET ROUTE J174			
CHARLESTON, SC VORTAC	WILMINGTON, NC VORTAC	18000	45000
WILMINGTON, NC VORTAC	DIXON, NC NDB	18000	45000
DIXON, NC NDB	NORFOLK, VA VORTAC	18000	45000
NORFOLK, VA VORTAC	SNOW HILL, MD VORTAC	18000	45000
SNOW HILL, MD VORTAC	HAMPTON, NY VORTAC	18000	45000
HAMPTON, NY VORTAC	MONTT, NY FIX	#	
#UNUSABLE			
MONTT, NY FIX	MARCONI, MA VOR/DME	#	
#UNUSABLE			
MARCONI, MA VOR/DME	HERIN, MA FIX	#	
#UNUSABLE			
95.7175 JET ROUTE J175			
CHEYENNE, WY VORTAC	LARAMIE, WY VOR/DME	18000	45000
LARAMIE, WY VOR/DME	DUBOIS, ID VORTAC	#29000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
95.7177 JET ROUTE J177			
PALACIOS, TX VORTAC	U.S. MEXICAN BORDER	31000	45000
95.7178 JET ROUTE J178			
FORT WAYNE, IN VORTAC	APPLETON, OH VORTAC	18000	45000
95.7179 JET ROUTE J179			
MIDDLETON ISLAND, AK VOR/DME	KENAI, AK VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7179 JET ROUTE J179 - CONTINUED			
KENAI, AK VOR/DME	SPARREVOHN, AK VOR/DME	18000	45000
SPARREVOHN, AK VOR/DME	ANIAK, AK NDB	18000	45000
ANIAK, AK NDB	ST MARYS, AK NDB	18000	45000
ST MARYS, AK NDB	EMMONAK, AK VOR/DME	18000	45000
95.7180 JET ROUTE J180			
HUMBLE, TX VORTAC	DAISETTA, TX VORTAC	18000	45000
DAISETTA, TX VORTAC	CIDOR, LA FIX	18000	45000
CIDOR, LA FIX	FOSIN, LA FIX	19000	45000
FOSIN, LA FIX	SAWMILL, LA VOR/DME	18000	45000
SAWMILL, LA VOR/DME	LITTLE ROCK, AR VORTAC	18000	45000
LITTLE ROCK, AR VORTAC	FORISTELL, MO VORTAC	18000	45000
95.7181 JET ROUTE J181			
RANGER, TX VORTAC	OKMULGEE, OK VOR/DME	18000	45000
OKMULGEE, OK VOR/DME	NEOSHO, MO VOR/DME	18000	45000
NEOSHO, MO VOR/DME	HALLSVILLE, MO VORTAC	18000	45000
HALLSVILLE, MO VORTAC	BAYLI, IL FIX	18000	23000
BAYLI, IL FIX	BRADFORD, IL VORTAC	18000	45000
95.7182 JET ROUTE J182			
GOODLAND, KS VORTAC	WICHITA, KS VORTAC	18000	45000
WICHITA, KS VORTAC	RAZORBACK, AR VORTAC	18000	45000
95.7183 JET ROUTE J183			
EL PASO, TX VORTAC	PECOS, TX VOR/DME	18000	45000
PECOS, TX VOR/DME	LLANO, TX VORTAC	20000	45000
LLANO, TX VORTAC	COLLEGE STATION, TX VORTAC	18000	45000
95.7184 JET ROUTE J184			
BUCKEYE, AZ VORTAC	DEMING, NM VORTAC	23000	45000
DEMING, NM VORTAC	NEWMAN, TX VORTAC	18000	45000
95.7186 JET ROUTE J186			
FOOTHILLS, SC VOR/DME	SNOWBIRD, TN VORTAC	18000	45000
SNOWBIRD, TN VORTAC	APPLETON, OH VORTAC	18000	45000
95.7187 JET ROUTE J187			
MEMPHIS, TN VORTAC	FORISTELL, MO VORTAC	18000	45000
95.7188 JET ROUTE J188			
BETHEL, AK VORTAC	SPARREVOHN, AK VOR/DME	18000	45000
95.7189 JET ROUTE J189			
AVENAL, CA VOR/DME	LINDEN, CA VOR/DME	18000	45000
LINDEN, CA VOR/DME	KLAMATH FALLS, OR VORTAC	#18000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
KLAMATH FALLS, OR VORTAC	BATTLE GROUND, WA VORTAC	#19000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

FROM	TO	MEA	MAA
95.7189 JET ROUTE J189 - CONTINUED			
BATTLE GROUND, WA VORTAC	SEATTLE, WA VORTAC	18000	45000
95.7190 JET ROUTE J190			
CARLETON, MI VOR/DME #FOR THAT AIRSPACE OVER U.S. TERRITORY	SLATE RUN, PA VORTAC	#18000	45000
SLATE RUN, PA VORTAC	BINGHAMTON, NY VOR/DME	18000	45000
BINGHAMTON, NY VOR/DME	ROCKDALE, NY VOR/DME	18000	45000
ROCKDALE, NY VOR/DME	ALBANY, NY VORTAC	18000	45000
95.7191 JET ROUTE J191			
ROBBINSVILLE, NJ VORTAC	DAVYS, NJ FIX	18000	45000
DAVYS, NJ FIX	SMYRNA, DE VORTAC	18000	33000
SMYRNA, DE VORTAC	PATUXENT, MD VORTAC	18000	45000
PATUXENT, MD VORTAC	HUBBS, VA FIX	18000	45000
HUBBS, VA FIX	HOPEWELL, VA VORTAC	18000	22000
HOPEWELL, VA VORTAC	WILMINGTON, NC VORTAC	18000	45000
95.7192 JET ROUTE J192			
GOODLAND, KS VORTAC	PAWNEE CITY, NE VORTAC	18000	45000
PAWNEE CITY, NE VORTAC	IOWA CITY, IA VOR/DME	18000	45000
95.7193 JET ROUTE J193			
WILMINGTON, NC VORTAC	COFIELD, NC VORTAC	18000	45000
COFIELD, NC VORTAC	HARCUM, VA VORTAC	18000	29000
HARCUM, VA VORTAC	HUBBS, VA FIX	18000	28000
95.7195 JET ROUTE J195			
ANNETTE ISLAND, AK VOR/DME	BIORKA ISLAND, AK VORTAC	18000	45000
95.7196 JET ROUTE J196			
BRYCE CANYON, UT VORTAC	MEEKER, CO VOR/DME	33000	45000
95.7197 JET ROUTE J197			
DOVE CREEK, CO VORTAC	HUGO, CO VOR/DME	33000	45000
HUGO, CO VOR/DME	GOODLAND, KS VORTAC	18000	45000
GOODLAND, KS VORTAC	WOLBACH, NE VORTAC	18000	45000
WOLBACH, NE VORTAC	SIOUX FALLS, SD VORTAC	18000	45000
95.7198 JET ROUTE J198			
MINA, NV VORTAC	WILSON CREEK, NV VORTAC	18000	45000
WILSON CREEK, NV VORTAC	MEEKER, CO VOR/DME	33000	45000
95.7199 JET ROUTE J199			
WILSON CREEK, NV VORTAC	DELTA, UT VORTAC	18000	45000
DELTA, UT VORTAC	MEEKER, CO VOR/DME	33000	45000
95.7202 JET ROUTE J202			
FAIRFIELD, UT VORTAC	ROCK SPRINGS, WY VOR/DME	20000	45000

FROM	TO	MEA	MAA
95.7202 JET ROUTE J202 - CONTINUED			
ROCK SPRINGS, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	18000	45000
95.7203 JET ROUTE J203			
BILLINGS, MT VORTAC	GREAT FALLS, MT VORTAC	18000	45000
95.7204 JET ROUTE J204			
DUPREE, SD VOR/DME	MILES CITY, MT VOR/DME	18000	45000
MILES CITY, MT VOR/DME	HILGR, MT FIX	19000	45000
HILGR, MT FIX	GREAT FALLS, MT VORTAC	18000	45000
95.7206 JET ROUTE J206			
ALAMOSA, CO VORTAC	BLUE MESA, CO VOR/DME	18000	45000
BLUE MESA, CO VOR/DME	RED TABLE, CO VOR/DME	18000	45000
RED TABLE, CO VOR/DME	ROCK SPRINGS, WY VOR/DME	18000	45000
95.7207 JET ROUTE J207			
FLORENCE, SC VORTAC	RALEIGH/DURHAM, NC VORTAC	31000	45000
RALEIGH/DURHAM, NC VORTAC	FRANKLIN, VA VORTAC	18000	45000
95.7209 JET ROUTE J209			
RALEIGH/DURHAM, NC VORTAC	TAR RIVER, NC VORTAC	18000	45000
TAR RIVER, NC VORTAC	NORFOLK, VA VORTAC	18000	45000
NORFOLK, VA VORTAC	SALISBURY, MD VORTAC	18000	45000
SALISBURY, MD VORTAC	COYLE, NJ VORTAC	18000	45000
COYLE, NJ VORTAC	WHITE, NJ FIX	18000	45000
95.7211 JET ROUTE J211			
YOUNGSTOWN, OH VORTAC	JOHNSTOWN, PA VOR/DME	18000	45000
JOHNSTOWN, PA VOR/DME	WESTMINSTER, MD VORTAC	18000	45000
95.7212 JET ROUTE J212			
STANFIELD, AZ VORTAC	BUCKEYE, AZ VORTAC	18000	45000
BUCKEYE, AZ VORTAC	PALM SPRINGS, CA VORTAC	26000	45000
95.7213 JET ROUTE J213			
BECKLEY, WV VOR/DME #BECKLEY R-072 UNUSABLE	ARMEL, VA VOR/DME	#18000	45000
95.7217 JET ROUTE J217			
HANCOCK, NY VOR/DME	KEATING, PA VORTAC	18000	45000
95.7220 JET ROUTE J220			
ARMEL, VA VOR/DME #ARMEL R-009 UNUSABLE BEYOND 74 NM	STONYFORK, PA VOR/DME	#18000	23000
95.7222 JET ROUTE J222			
ROBBINSVILLE, NJ VORTAC	KENNEDY, NY VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7222 JET ROUTE J222 - CONTINUED			
KENNEDY, NY VOR/DME	CAMBRIDGE, NY VOR/DME	18000	31000
95.7223 JET ROUTE J223			
LA GUARDIA, NY VOR/DME	CORDS, PA FIX	18000	25000
95.7225 JET ROUTE J225			
CEDAR LAKE, NJ VOR/DME	KENNEDY, NY VOR/DME	18000	45000
KENNEDY, NY VOR/DME	PROVIDENCE, RI VOR/DME	18000	45000
95.7227 JET ROUTE J227			
ARMEL, VA VOR/DME	ELMIRA, NY VOR/DME	#18000	23000
#ARMEL R-009 UNUSABLE BYD 74 NM			
#ELMIRA R-205 UNUSABLE BYD 73 NM			
95.7231 JET ROUTE J231			
TWENTYNINE PALMS, CA VORTAC	HIPPI, AZ FIX	23000	40000
HIPPI, AZ FIX	DRAKE, AZ VORTAC	18000	45000
DRAKE, AZ VORTAC	ST JOHNS, AZ VORTAC	18000	45000
ST JOHNS, AZ VORTAC	ANTON CHICO, NM VORTAC	18000	45000
ANTON CHICO, NM VORTAC	LIBERAL, KS VORTAC	18000	45000
95.7232 JET ROUTE J232			
MOLINE, IL VOR/DME	KIRKSVILLE, MO VORTAC	18000	35000
95.7233 JET ROUTE J233			
ST LOUIS, MO VORTAC	KIRKSVILLE, MO VORTAC	18000	45000
KIRKSVILLE, MO VORTAC	WATERLOO, IA VOR/DME	18000	27000
95.7236 JET ROUTE J236			
THERMAL, CA VORTAC	NEEDLES, CA VORTAC	18000	45000
NEEDLES, CA VORTAC	TUBA CITY, AZ VORTAC	18000	45000
95.7239 JET ROUTE J239			
ATLANTA, GA VORTAC	MERIDIAN, MS VORTAC	24000	45000
95.7240 JET ROUTE J240			
MYTON, UT VOR/DME	BLUE MESA, CO VOR/DME	19000	45000
95.7244 JET ROUTE J244			
FORT UNION, NM VORTAC	ZUNI, NM VORTAC	21000	45000
ZUNI, NM VORTAC	PHOENIX, AZ VORTAC	19000	45000
95.7478 JET ROUTE J478			
GLASGOW, MT VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7483 JET ROUTE J483			
MINOT, ND VOR/DME	U.S. CANADIAN BORDER	18000	45000

FROM	TO	MEA	MAA
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95.7483 JET ROUTE J483 - CONTINUED

95.7501 JET ROUTE J501

SAN MARCUS, CA VORTAC	BIG SUR, CA VORTAC	18000	45000
BIG SUR, CA VORTAC	POINT REYES, CA VOR/DME	18000	45000
POINT REYES, CA VOR/DME	ROGUE VALLEY, OR VORTAC	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
ROGUE VALLEY, OR VORTAC	HOQUIAM, WA VORTAC	#22000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
HOQUIAM, WA VORTAC	TATOOSH, WA VORTAC	18000	45000
TATOOSH, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	BIORKA ISLAND, AK VORTAC	18000	45000
BIORKA ISLAND, AK VORTAC	YAKUTAT, AK VOR/DME	18000	45000
YAKUTAT, AK VOR/DME	JOHNSTONE POINT, AK VOR/DME	18000	45000
JOHNSTONE POINT, AK VOR/DME	ANCHORAGE, AK VOR/DME	18000	45000
ANCHORAGE, AK VOR/DME	SPARREVOHN, AK VOR/DME	18000	45000
SPARREVOHN, AK VOR/DME	BETHEL, AK VORTAC	18000	45000

95.7502 JET ROUTE J502

SEATTLE, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	ANNETTE ISLAND, AK VOR/DME	22000	45000
ANNETTE ISLAND, AK VOR/DME	LEVEL ISLAND, AK VOR/DME	18000	45000
LEVEL ISLAND, AK VOR/DME	SISTERS ISLAND, AK VORTAC	18000	45000
SISTERS ISLAND, AK VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	NORTHWAY, AK VORTAC	18000	45000
NORTHWAY, AK VORTAC	FAIRBANKS, AK VORTAC	18000	45000
FAIRBANKS, AK VORTAC	KOTZEBUE, AK VOR/DME	#27000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

95.7503 JET ROUTE J503

SEATTLE, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
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95.7505 JET ROUTE J505

SEATTLE, WA VORTAC	U.S. CANADIAN BORDER	#24000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

95.7506 JET ROUTE J506

MILLINOCKET, ME VOR/DME	U.S. CANADIAN BORDER	18000	45000
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95.7507 JET ROUTE J507

BARROW, AK VOR/DME	DEADHORSE, AK VOR/DME	18000	45000
DEADHORSE, AK VOR/DME	FORT YUKON, AK VORTAC	18000	45000
FORT YUKON, AK VORTAC	NORTHWAY, AK VORTAC	18000	45000
NORTHWAY, AK VORTAC	U.S. CANADIAN BORDER	21000	45000
U.S. CANADIAN BORDER	YAKUTAT, AK VOR/DME	22000	45000

95.7511 JET ROUTE J511

DILLINGHAM, AK VOR/DME	ANCHORAGE, AK VOR/DME	21000	45000
ANCHORAGE, AK VOR/DME	GULKANA, AK VOR/DME	18000	45000
GULKANA, AK VOR/DME	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	18000	

95.7512 JET ROUTE J512

EMMONAK, AK VOR/DME	UNALAKLEET, AK VOR/DME	18000	45000
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FROM	TO	MEA	MAA
95.7512 JET ROUTE J512 - CONTINUED			
UNALAKLEET, AK VOR/DME	GALENA, AK VOR/DME	18000	45000
95.7515 JET ROUTE J515			
FARGO, ND VOR/DME	HUMBOLDT, MN VORTAC	18000	45000
HUMBOLDT, MN VORTAC	ZOMTA, ND FIX	18000	45000
U.S. CANADIAN BORDER	NORTHWAY, AK VORTAC	18000	45000
NORTHWAY, AK VORTAC	FAIRBANKS, AK VORTAC	18000	45000
FAIRBANKS, AK VORTAC	BETTLES, AK VOR/DME	18000	45000
BETTLES, AK VOR/DME	BARROW, AK VOR/DME	#20000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
95.7516 JET ROUTE J516			
GREAT FALLS, MT VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7517 JET ROUTE J517			
BOISE, ID VORTAC	SPOKANE, WA VORTAC	18000	45000
SPOKANE, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7518 JET ROUTE J518			
DRYER, OH VOR/DME	INDIAN HEAD, PA VORTAC	#18000	45000
#INDIAN HEAD R-310 UNUSABLE			
#J518 UNUSABLE FROM KOZAR TO INDIAN HEAD			
INDIAN HEAD, PA VORTAC	BALTIMORE, MD VORTAC	18000	35000
95.7523 JET ROUTE J523			
BRYCE CANYON, UT VORTAC	ELY, NV VOR/DME	18000	45000
ELY, NV VOR/DME	ROME, OR VOR/DME	29000	45000
ROME, OR VOR/DME	KIMBERLY, OR VOR/DME	18000	45000
KIMBERLY, OR VOR/DME	KLICKITAT, OR VOR/DME	18000	45000
KLICKITAT, OR VOR/DME	SEATTLE, WA VORTAC	18000	45000
SEATTLE, WA VORTAC	TATOOSH, WA VORTAC	18000	45000
TATOOSH, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	ANNETTE ISLAND, AK VOR/DME	18000	45000
95.7526 JET ROUTE J526			
BECKLEY, WV VOR/DME	LOUISVILLE, KY VORTAC	18000	45000
95.7530 JET ROUTE J530			
GREAT FALLS, MT VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7533 JET ROUTE J533			
DULUTH, MN VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7534 JET ROUTE J534			
IWACK, WA FIX	WHATCOM, WA VORTAC	18000	45000
WHATCOM, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7536 JET ROUTE J536			
SISTERS ISLAND, AK VORTAC	U.S. CANADIAN BORDER	#21000	45000
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

FROM	TO	MEA	MAA
95.7536 JET ROUTE J536 - CONTINUED			
95.7537 JET ROUTE J537			
ROME, OR VOR/DME	MULLAN PASS, ID VOR/DME	22000	45000
MULLAN PASS, ID VOR/DME	U.S. CANADIAN BORDER	#18000	45000
#GNSS REQUIRED			
#MULLAN PASS R-002 UNUSABLE			
95.7538 JET ROUTE J538			
U.S. CANADIAN BORDER	DULUTH, MN VORTAC	18000	45000
DULUTH, MN VORTAC	DELLS, WI VORTAC	18000	45000
DELLS, WI VORTAC	BADGER, WI VOR/DME	18000	45000
95.7539 JET ROUTE J539			
GLASGOW, MT VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7540 JET ROUTE J540			
MULLAN PASS, ID VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7541 JET ROUTE J541			
YAKUTAT, AK VOR/DME	SISTERS ISLAND, AK VORTAC	18000	45000
95.7547 JET ROUTE J547			
NORTHBROOK, IL VOR/DME	PULLMAN, MI VOR/DME	18000	45000
PULLMAN, MI VOR/DME	FLINT, MI VORTAC	18000	45000
95.7548 JET ROUTE J548			
PULLMAN, MI VOR/DME	TRAVERSE CITY, MI VOR/DME	18000	45000
95.7549 JET ROUTE J549			
WILLISTON, ND VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7554 JET ROUTE J554			
GIPPER, MI VORTAC	CARLETON, MI VOR/DME	18000	45000
CARLETON, MI VOR/DME	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	JAMESTOWN, NY VOR/DME	18000	45000
95.7561 JET ROUTE J561			
PRESQUE ISLE, ME VOR/DME	U.S. CANADIAN BORDER	18000	45000
U.S. CANADIAN BORDER	U.S. CANADIAN BORDER	18000	45000
95.7562 JET ROUTE J562			
DICKINSON, ND VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7563 JET ROUTE J563			
ALBANY, NY VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7569 JET ROUTE J569			
GREAT FALLS, MT VORTAC	U.S. CANADIAN BORDER	18000	45000

FROM	TO	MEA	MAA
95.7569 JET ROUTE J569 - CONTINUED			
95.7573 JET ROUTE J573			
KENNEBUNK, ME VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7582 JET ROUTE J582			
PRESQUE ISLE, ME VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7584 JET ROUTE J584			
NORTHBROOK, IL VOR/DME	CARLETON, MI VOR/DME	18000	45000
CARLETON, MI VOR/DME	SLATE RUN, PA VORTAC	#18000	45000
#FOR THAT AIRSPACE OVER U.S. TERRITORY			
SLATE RUN, PA VORTAC	WILLIAMSPORT, PA VOR/DME	18000	33000
WILLIAMSPORT, PA VOR/DME	BROADWAY, NJ VOR/DME	18000	31000
95.7585 JET ROUTE J585			
NANTUCKET, MA VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7589 JET ROUTE J589			
ROSEBURG, OR VOR/DME	CORVALLIS, OR VOR/DME	18000	45000
CORVALLIS, OR VOR/DME	U.S. CANADIAN BORDER	28000	45000
95.7590 JET ROUTE J590			
LAKE CHARLES, LA VORTAC	FIGHTING TIGER, LA VORTAC	18000	45000
FIGHTING TIGER, LA VORTAC	GREENE COUNTY, MS VORTAC	18000	45000
GREENE COUNTY, MS VORTAC	MONTGOMERY, AL VORTAC	18000	45000
95.7591 JET ROUTE J591			
WHATCOM, WA VORTAC	U.S. CANADIAN BORDER	18000	45000
95.7599 JET ROUTE J599			
MULLAN PASS, ID VOR/DME	U.S. CANADIAN BORDER	18000	45000
95.7603 JET ROUTE J603			
ELFEE, AK NDB	DILLINGHAM, AK VOR/DME	18000	45000
95.7604 JET ROUTE J604			
BORLAND, AK NDB/DME	WOODY ISLAND, AK NDB	18000	45000
95.7605 JET ROUTE J605			
BIORKA ISLAND, AK VORTAC	MIDDLETON ISLAND, AK VOR/DME	23000	45000
95.7606 JET ROUTE J606			
ST PAUL ISLAND, AK NDB/DME	CHINOOK, AK NDB	18000	45000
95.7617 JET ROUTE J617			
HOMER, AK VOR/DME	JOHNSTONE POINT, AK VOR/DME	18000	45000

FROM	TO	MEA	MAA
95.7617 JET ROUTE J617 - CONTINUED			
95.7618 JET ROUTE J618			
MOUNT MOFFETT, AK NDB/DME	ELFEE, AK NDB	18000	45000
95.7619 JET ROUTE J619			
CAPE NEWENHAM, AK NDB/DME	ST PAUL ISLAND, AK NDB/DME	18000	45000
95.7623 JET ROUTE J623			
PORT HEIDEN, AK NDB/DME	COLD BAY, AK VORTAC	18000	45000
COLD BAY, AK VORTAC	ST PAUL ISLAND, AK NDB/DME	18000	45000
95.7713 JET ROUTE J713			
BILLINGS, MT VORTAC	BOYSEN RESERVOIR, WY VOR/DME	18000	45000
BOYSEN RESERVOIR, WY VOR/DME	BIG PINEY, WY VOR/DME	18000	45000
BIG PINEY, WY VOR/DME	WASATCH, UT VORTAC	26000	45000

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM

§95.8003 VOR FEDERAL AIRWAYS CHANGEOVER POINTS

V1			
CRAIG, FL VORTAC	CHARLESTON, SC VORTAC	96	CRAIG
CHARLESTON, SC VORTAC	GRAND STRAND, SC VORTAC	46	CHARLESTON
V2			
SEATTLE, WA VORTAC	ELLENSBURG, WA VOR/DME	47	SEATTLE
ELLENSBURG, WA VOR/DME	MOSES LAKE, WA VOR/DME	28	ELLENSBURG
SPOKANE, WA VORTAC	MULLAN PASS, ID VOR/DME	32	SPOKANE
MISSOULA, MT VOR/DME	HELENA, MT VORTAC	35	MISSOULA
MILES CITY, MT VOR/DME	DICKINSON, ND VORTAC	60	MILES CITY
GOPHER, MN VORTAC	NODINE, MN VORTAC	50	GOPHER
BUFFALO, NY VOR/DME	ROCHESTER, NY VOR/DME	45	BUFFALO
V3			
FLORENCE, SC VORTAC	SANDHILLS, NC VORTAC	20	FLORENCE
SANDHILLS, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	10	SANDHILLS
MODENA, PA VORTAC	SOLBERG, NJ VOR/DME	10	MODENA
V4			
YAKIMA, WA VORTAC	PENDLETON, OR VORTAC	26	YAKIMA
BAKER CITY, OR VOR/DME	BOISE, ID VORTAC	25	BAKER CITY
CHARLESTON, WV VOR/DME	ELKINS, WV VORTAC	27	CHARLESTON
V5			
DUBLIN, GA VORTAC	ATHENS, GA VOR/DME	47	DUBLIN
LOUISVILLE, KY VORTAC	CINCINNATI, KY VORTAC	38	LOUISVILLE
CINCINNATI, KY VORTAC	APPLETON, OH VORTAC	64	CINCINNATI
V6			
OAKLAND, CA VOR/DME	SACRAMENTO, CA VORTAC	34	OAKLAND
SACRAMENTO, CA VORTAC	SQUAW VALLEY, CA VOR/DME	40	SACRAMENTO
OGDEN, UT VORTAC	FORT BRIDGER, WY VOR/DME	25	OGDEN
GRAND ISLAND, NE VOR/DME	OMAHA, IA VORTAC	52	GRAND ISLAND
V7			
SEMINOLE, FL VORTAC	WIREGRASS, AL VORTAC	53	SEMINOLE
V8			
SEAL BEACH, CA VORTAC	PARADISE, CA VORTAC	13	SEAL BEACH
PARADISE, CA VORTAC	HECTOR, CA VORTAC	44	PARADISE
HECTOR, CA VORTAC	GOFFS, CA VORTAC	38	HECTOR
HANKSVILLE, UT VORTAC	GRAND JUNCTION, CO VOR/DME	40	HANKSVILLE
GRAND JUNCTION, CO VOR/DME	RIFLE, CO VOR/DME	37	GRAND JUNCTION
RIFLE, CO VOR/DME	KREMMLING, CO VOR/DME	20	RIFLE
GRAND ISLAND, NE VOR/DME	OMAHA, IA VORTAC	52	GRAND ISLAND
MARTINSBURG, WV VORTAC	WASHINGTON, DC VOR/DME	29	MARTINSBURG

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V12			
PALMDALE, CA VORTAC	HECTOR, CA VORTAC	60	PALMDALE
HECTOR, CA VORTAC	NEEDLES, CA VORTAC	41	HECTOR
DRAKE, AZ VORTAC	WINSLOW, AZ VORTAC	39	DRAKE
ALBUQUERQUE, NM VORTAC	OTTO, NM VOR	23	ALBUQUERQUE
ANTON CHICO, NM VORTAC	TUCUMCARI, NM VORTAC	30	ANTON CHICO
PANHANDLE, TX VORTAC	MITBEE, OK VORTAC	46	PANHANDLE
BIBLE GROVE, IL VORTAC	SHELBYVILLE, IN VOR/DME	70	BIBLE GROVE
JOHNSTOWN, PA VOR/DME	HARRISBURG, PA VORTAC	62	JOHNSTOWN
V13			
CORPUS CHRISTI, TX VORTAC	BROWNSVILLE, TX VORTAC	47	CORPUS CHRISTI
LUFKIN, TX VORTAC	BELCHER, LA VORTAC	64	LUFKIN
NAPOLEON, MO VORTAC	LAMONI, IA VOR/DME	40	NAPOLEON
V14			
MUNCIE, IN VOR/DME	FLAG CITY, OH VORTAC	44	MUNCIE
V15			
CEDAR CREEK, TX VORTAC	BONHAM, TX VORTAC	20	CEDAR CREEK
V16			
LOS ANGELES, CA VORTAC	PARADISE, CA VORTAC	25	LOS ANGELES
PARADISE, CA VORTAC	PALM SPRINGS, CA VORTAC	34	PARADISE
BLYTHE, CA VORTAC	BUCKEYE, AZ VORTAC	44	BLYTHE
SALT FLAT, TX VORTAC	WINK, TX VORTAC	42	SALT FLAT
TEXARKANA, AR VORTAC	PINE BLUFF, AR VOR/DME	62	TEXARKANA
VOLUNTEER, TN VORTAC	HOLSTON MOUNTAIN, TN VORTAC	38	VOLUNTEER
V20			
MONTGOMERY, AL VORTAC	TUSKEGEE, AL VOR/DME	30	MONTGOMERY
ATHENS, GA VOR/DME	ELECTRIC CITY, SC VORTAC	20	ATHENS
V21			
SEAL BEACH, CA VORTAC	PARADISE, CA VORTAC	13	SEAL BEACH
PARADISE, CA VORTAC	HECTOR, CA VORTAC	44	PARADISE
HECTOR, CA VORTAC	BOULDER CITY, NV VORTAC	23	HECTOR
DUBOIS, ID VORTAC	DILLON, MT VOR/DME	46	DUBOIS
V23			
LOS ANGELES, CA VORTAC	GORMAN, CA VORTAC	36	LOS ANGELES
GORMAN, CA VORTAC	SHAFTER, CA VORTAC	10	GORMAN
RED BLUFF, CA VORTAC	FORT JONES, CA VOR/DME	53	RED BLUFF
ROGUE VALLEY, OR VORTAC	EUGENE, OR VORTAC	40	ROGUE VALLEY
EUGENE, OR VORTAC	BATTLE GROUND, WA VORTAC	57	EUGENE
WHATCOM, WA VORTAC	VANCOUVER, CA VOR/DME	10	WHATCOM

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V25			
MISSION BAY, CA VORTAC	LOS ANGELES, CA VORTAC	40	MISSION BAY
KLAMATH FALLS, OR VORTAC	DESCHUTES, OR VORTAC	23	KLAMATH FALLS
V26			
MONTROSE, CO VOR/DME	GRAND JUNCTION, CO VOR/DME	23	MONTROSE
MEEKER, CO VOR/DME	CHEROKEE, WY VOR/DME	35	MEEKER
MUDDY MOUNTAIN, WY VOR/DME	RAPID CITY, SD VORTAC	92	MUDDY MOUNTAIN
EAU CLAIRE, WI VORTAC	WAUSAU, WI VOR/DME	71	EAU CLAIRE
WAUSAU, WI VOR/DME	GREEN BAY, WI VORTAC	8	WAUSAU
V27			
SANTA CATALINA, CA VORTAC	OCEANSIDE, CA VORTAC	31	SANTA CATALINA
GAVIOTA, CA VORTAC	MORRO BAY, CA VORTAC	20	GAVIOTA
MENDOCINO, CA VORTAC	FORTUNA, CA VORTAC	67	MENDOCINO
NEWPORT, OR VORTAC	ASTORIA, OR VOR/DME	66	NEWPORT
V30			
SELINGROVE, PA VOR/DME	EAST TEXAS, PA VOR/DME	20	SELINGROVE
V31			
HARRISBURG, PA VORTAC	SELINGROVE, PA VOR/DME	19	HARRISBURG
V32			
BATTLE MOUNTAIN, NV VORTAC	BULLION, NV VOR/DME	24	BATTLE MOUNTAIN
BULLION, NV VOR/DME	BONNEVILLE, UT VORTAC	40	BULLION
WASATCH, UT VORTAC	FORT BRIDGER, WY VOR/DME	17	WASATCH
V33			
HARRISBURG, PA VORTAC	PHILIPSBURG, PA VORTAC	35	HARRISBURG
V34			
ROCHESTER, NY VOR/DME	HANCOCK, NY VOR/DME	60	ROCHESTER
V35			
PHILIPSBURG, PA VORTAC	STONYFORK, PA VOR/DME	25	PHILIPSBURG
V37			
SAVANNAH, GA VORTAC	ALLENDAL, SC VOR	36	SAVANNAH
COLUMBIA, SC VORTAC	CHARLOTTE, NC VOR/DME	26	COLUMBIA
CHARLOTTE, NC VOR/DME	PULASKI, VA VORTAC	74	CHARLOTTE

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V38			
ELKINS, WV VORTAC	GORDONSVILLE, VA VORTAC	46	ELKINS
V39			
MARTINSBURG, WV VORTAC	LANCASTER, PA VOR/DME	34	MARTINSBURG
SOARS, CT FIX	ALBANY, NY VORTAC	8	SOARS
V44			
MORGANTOWN, WV VOR/DME	MARTINSBURG, WV VORTAC	53	MORGANTOWN
V45			
HENDERSON, WV VORTAC	APPLETON, OH VORTAC	59	HENDERSON
V47			
PINE BLUFF, AR VOR/DME	GILMORE, AR VOR/DME	41	PINE BLUFF
V49			
VULCAN, AL VORTAC	DECATUR, AL VOR/DME	35	VULCAN
V51			
CRAIG, FL VORTAC	ALMA, GA VORTAC	48	CRAIG
DUBLIN, GA VORTAC	ATHENS, GA VOR/DME	47	DUBLIN
V54			
CHOO CHOO, TN VORTAC	HARRIS, GA VORTAC	36	CHOO CHOO
HARRIS, GA VORTAC	SPARTANBURG, SC VORTAC	52	HARRIS
V56			
MONTGOMERY, AL VORTAC	TUSKEGEE, AL VOR/DME	30	MONTGOMERY
V59			
BECKLEY, WV VOR/DME	PARKERSBURG, WV VOR/DME	46	BECKLEY
V62			
SANTA FE, NM VORTAC	ANTON CHICO, NM VORTAC	30	SANTA FE
ANTON CHICO, NM VORTAC	TEXICO, TX VORTAC	61	ANTON CHICO
V64			
SEAL BEACH, CA VORTAC	THERMAL, CA VORTAC	59	SEAL BEACH
THERMAL, CA VORTAC	BLYTHE, CA VORTAC	29	THERMAL

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V66			
MISSION BAY, CA VORTAC	IMPERIAL, CA VORTAC	39	MISSION BAY
GILA BEND, AZ VORTAC	TUCSON, AZ VORTAC	48	GILA BEND
DOUGLAS, AZ VORTAC	COLUMBUS, NM VOR/DME	*44	DOUGLAS
#UTILIZE DEMING VORTAC 233 M	RAD FROM COP TO ANIMA FIX		
MIDLAND, TX VORTAC	ABILENE, TX VORTAC	51	MIDLAND
GREENWOOD, SC VORTAC	SANDHILLS, NC VORTAC	64	GREENWOOD
SANDHILLS, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	10	SANDHILLS
V67			
CEDAR RAPIDS, IA VOR/ DME	WATERLOO, IA VOR/DME	37	CEDAR RAPIDS
V68			
CORONA, NM VORTAC	CHISUM, NM VORTAC	33	CORONA
SAN ANGELO, TX VORTAC	JUNCTION, TX VORTAC	25	SAN ANGELO
V71			
EL DORADO, AR VOR/DME	HOT SPRINGS, AR VOR/DME	49	EL DORADO
HOT SPRINGS, AR VOR/DME	HARRISON, AR VOR/DME	47	HOT SPRINGS
V74			
TULSA, OK VORTAC	FORT SMITH, AR VORTAC	48	TULSA
V77			
ABILENE, TX VORTAC	WICHITA FALLS, TX VORTAC	56	ABILENE
V83			
CARLSBAD, NM VORTAC	CHISUM, NM VORTAC	31	CARLSBAD
CHISUM, NM VORTAC	CORONA, NM VORTAC	48	CHISUM
CORONA, NM VORTAC	OTTO, NM VOR	20	CORONA
V86			
MISSOULA, MT VOR/DME	COPPERTOWN, MT VOR/DME	35	MISSOULA
SHERIDAN, WY VOR/DME	RAPID CITY, SD VORTAC	*100	SHERIDAN
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
V87			
SAN FRANCISCO, CA VOR/ DME	SCAGGS ISLAND, CA VORTAC	19	SAN FRANCISCO
V91			
BRIDGEPORT, CT VOR/DME	ALBANY, NY VORTAC	30	BRIDGEPORT

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V94			
STANFIELD, AZ VORTAC	SAN SIMON, AZ VORTAC	82	STANFIELD
DEMING, NM VORTAC	NEWMAN, TX VORTAC	35	DEMING
SALT FLAT, TX VORTAC	WINK, TX VORTAC	42	SALT FLAT
MIDLAND, TX VORTAC	TUSCOLA, TX VOR/DME	51	MIDLAND
V95			
WINSLOW, AZ VORTAC	RATTLESNAKE, NM VORTAC	91	WINSLOW
BLUE MESA, CO VOR/DME	FALCON, CO VORTAC	*77	BLUE MESA
#USE THE HUGO (HGO) VORTAC FROM THE COP TO THE GORJE INT			
V97			
ST PETERSBURG, FL VORTAC	SEMINOLE, FL VORTAC	97	ST PETERSBURG
CINCINNATI, KY VORTAC	SHELBYVILLE, IN VOR/DME	39	CINCINNATI
NODINE, MN VORTAC	GOPHER, MN VORTAC	60	NODINE
V101			
GILL, CO VOR/DME	HAYDEN, CO VOR/DME	71	GILL
HAYDEN, CO VOR/DME	VERNAL, UT VOR/DME	56	HAYDEN
VERNAL, UT VOR/DME	WASATCH, UT VORTAC	75	VERNAL
OGDEN, UT VORTAC	BURLEY, ID VOR/DME	61	OGDEN
V102			
SALT FLAT, TX VORTAC	CARLSBAD, NM VORTAC	24	SALT FLAT
V103			
GREENSBORO, NC VORTAC	ROANOKE, VA VOR/DME	28	GREENSBORO
V105			
DRAKE, AZ VORTAC	BOULDER CITY, NV VORTAC	55	DRAKE
BEATTY, NV VORTAC	COALDALE, NV VORTAC	34	BEATTY
COALDALE, NV VORTAC	MUSTANG, NV VORTAC	55	COALDALE
V107			
FILLMORE, CA VORTAC	AVENAL, CA VOR/DME	31	FILLMORE
AVENAL, CA VOR/DME	PANOCHE, CA VORTAC	45	AVENAL
V111			
BIG SUR, CA VORTAC	SALINAS, CA VORTAC	21	BIG SUR
SALINAS, CA VORTAC	MODESTO, CA VOR/DME	22	SALINAS
V112			
PENDLETON, OR VORTAC	SPOKANE, WA VORTAC	57	PENDLETON

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V113			
MORRO BAY, CA VORTAC	PASO ROBLES, CA VORTAC	7	MORRO BAY
MUSTANG, NV VORTAC	SOD HOUSE, NV VORTAC	48	MUSTANG
BOISE, ID VORTAC	SALMON, ID VOR/DME	45	BOISE
SALMON, ID VOR/DME	COPPERTOWN, MT VOR/DME	60	SALMON
HELENA, MT VORTAC	LEWISTOWN, MT VOR/DME	40	HELENA
V115			
VULCAN, AL VORTAC	CHOO CHOO, TN VORTAC	59	VULCAN
V120			
SEATTLE, WA VORTAC	WENATCHEE, WA VOR/DME	51	SEATTLE
WENATCHEE, WA VOR/DME	EPHRATA, WA VORTAC	10	WENATCHEE
MULLAN PASS, ID VOR/DME	GREAT FALLS, MT VORTAC	80	MULLAN PASS
LEWISTOWN, MT VOR/DME	MILES CITY, MT VOR/DME	74	LEWISTOWN
MILES CITY, MT VOR/DME	DUPREE, SD VOR/DME	90	MILES CITY
SIOUX FALLS, SD VORTAC	MASON CITY, IA VOR/DME	82	SIOUX FALLS
V121			
KIMBERLY, OR VOR/DME	BAKER CITY, OR VOR/DME	67	KIMBERLY
V123			
WOODSTOWN, NJ VORTAC	ROBBINSVILLE, NJ VORTAC	19	WOODSTOWN
V124			
PARIS, TX VOR/DME	HOT SPRINGS, AR VOR/DME	75	PARIS
HOT SPRINGS, AR VOR/DME	LITTLE ROCK, AR VORTAC	14	HOT SPRINGS
V128			
CINCINNATI, KY VORTAC	YORK, KY VORTAC	38	CINCINNATI
YORK, KY VORTAC	CHARLESTON, WV VOR/DME	29	YORK
CHARLESTON, WV VOR/DME	CASANOVA, VA VORTAC	114	CHARLESTON
V133			
BARRETTS MOUNTAIN, NC VOR/DME	CHARLESTON, WV VOR/DME	77	BARRETTS MOUNTAIN
CHARLESTON, WV VOR/DME	ZANESVILLE, OH VOR/DME	52	CHARLESTON
V134			
FAIRFIELD, UT VORTAC	CARBON, UT VOR/DME	*20	FAIRFIELD
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
CARBON, UT VOR/DME	GRAND JUNCTION, CO VOR/DME	25	CARBON
GRAND JUNCTION, CO VOR/DME	RED TABLE, CO VOR/DME	*56	GRAND JUNCTION
#THE COP IS AT THE SLOLM INT.			

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V135			
GOFFS, CA VORTAC	BEATTY, NV VORTAC	31	GOFFS
BEATTY, NV VORTAC	COALDALE, NV VORTAC	*34	BEATTY
#COP 53 NM FROM AND UTILIZES COALDALE, NV VORTAC ON THE 129 M RAD.			
V136			
VOLUNTEER, TN VORTAC	SNOWBIRD, TN VORTAC	25	VOLUNTEER
V137			
PALM SPRINGS, CA VORTAC	PALMDALE, CA VORTAC	30	PALM SPRINGS
GORMAN, CA VORTAC	AVENAL, CA VOR/DME	31	GORMAN
V139			
CAPE CHARLES, VA VORTAC	SNOW HILL, MD VORTAC	38	CAPE CHARLES
SNOW HILL, MD VORTAC	SEA ISLE, NJ VORTAC	25	SNOW HILL
V140			
PANHANDLE, TX VORTAC	BURNS FLAT, OK VORTAC	56	PANHANDLE
V142			
MALAD CITY, ID VOR/DME	FORT BRIDGER, WY VOR/DME	32	MALAD CITY
V143			
MARTINSBURG, WV VORTAC	LANCASTER, PA VOR/DME	34	MARTINSBURG
V146			
ALBANY, NY VORTAC	CHESTER, MA VOR/DME	8	ALBANY
V148			
THURMAN, CO VORTAC	HAYES CENTER, NE VORTAC	65	THURMAN
V155			
SANDHILLS, NC VORTAC	RALEIGH/DURHAM, NC VORTAC	10	SANDHILLS
FLAT ROCK, VA VORTAC	BROOKE, VA VORTAC	43	FLAT ROCK
V157			
ALMA, GA VORTAC	ALLENDALE, SC VOR	58	ALMA
VANCE, SC VORTAC	FLORENCE, SC VORTAC	21	VANCE
WOODSTOWN, NJ VORTAC	ROBBINSVILLE, NJ VORTAC	19	WOODSTOWN
V159			
OCALA, FL VORTAC	CROSS CITY, FL VORTAC	28	OCALA

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V161			
NAPOLEON, MO VORTAC	LAMONI, IA VOR/DME	40	NAPOLEON
INTERNATIONAL FALLS, MN VOR/DME	WINNIPEG, CA VORTAC	77	INTERNATIONAL FALLS
V162			
ALLENTOWN, PA VORTAC	HUGUENOT, NY VOR/DME	10	ALLENTOWN
V163			
BROWNSVILLE, TX VORTAC	CORPUS CHRISTI, TX VORTAC	71	BROWNSVILLE
V165			
MUSTANG, NV VORTAC	LAKEVIEW, OR VORTAC	70	MUSTANG
LAKEVIEW, OR VORTAC	DESCHUTES, OR VORTAC	73	LAKEVIEW
DESCHUTES, OR VORTAC	NEWBERG, OR VOR/DME	43	DESCHUTES
V166			
WESTMINSTER, MD VORTAC	DUPONT, DE VORTAC	40	WESTMINSTER
WOODSTOWN, NJ VORTAC	SEA ISLE, NJ VORTAC	28	WOODSTOWN
V168			
LAGRANGE, GA VORTAC	VULCAN, AL VORTAC	45	LAGRANGE
V181			
OMAHA, IA VORTAC	NORFOLK, NE VOR/DME	51	OMAHA
V182			
NEWPORT, OR VORTAC	NEWBERG, OR VOR/DME	29	NEWPORT
KLICKITAT, OR VOR/DME	BAKER CITY, OR VOR/DME	119	KLICKITAT
V183			
SAN MARCUS, CA VORTAC	SHAFTER, CA VORTAC	20	SAN MARCUS
V186			
VAN NUYS, CA VOR/DME	PARADISE, CA VORTAC	39	VAN NUYS
V187			
ALBUQUERQUE, NM VORTAC	RATTLESNAKE, NM VORTAC	58	ALBUQUERQUE
RATTLESNAKE, NM VORTAC	GRAND JUNCTION, CO VOR/DME	90	RATTLESNAKE
GRAND JUNCTION, CO VOR/DME	ROCK SPRINGS, WY VOR/DME	86	GRAND JUNCTION
BOYSEN RESERVOIR, WY VOR/DME	BILLINGS, MT VORTAC	97	BOYSEN RESERVOIR
GREAT FALLS, MT VORTAC	MISSOULA, MT VOR/DME	84	GREAT FALLS
MISSOULA, MT VOR/DME	NEZ PERCE, ID VOR/DME	30	MISSOULA

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V189			
WRIGHT BROTHERS, NC VOR/DME	TAR RIVER, NC VORTAC	25	WRIGHT BROTHERS
V190			
PHOENIX, AZ VORTAC	ST JOHNS, AZ VORTAC	67	PHOENIX
ALBUQUERQUE, NM VORTAC	FORT UNION, NM VORTAC	38	ALBUQUERQUE
V191			
IRONWOOD, MI VOR/DME	DULUTH, MN VORTAC	32	IRONWOOD
V194			
SABINE PASS, TX VOR/DME	LAFAYETTE, LA VORTAC	50	SABINE PASS
V198			
SAN ANTONIO, TX VORTAC	EAGLE LAKE, TX VOR/DME	63	SAN ANTONIO
HARVEY, LA VORTAC	BROOKLEY, AL VORTAC	61	HARVEY
V200			
WILLIAMS, CA VORTAC	MUSTANG, NV VORTAC	84	WILLIAMS
FAIRFIELD, UT VORTAC	MYTON, UT VOR/DME	32	FAIRFIELD
V201			
LOS ANGELES, CA VORTAC	PALMDALE, CA VORTAC	19	LOS ANGELES
V203			
ALBANY, NY VORTAC	SARANAC LAKE, NY VOR/DME	60	ALBANY
V204			
HOQUIAM, WA VORTAC	OLYMPIA, WA VORTAC	31	HOQUIAM
V208			
SANTA CATALINA, CA VORTAC	OCEANSIDE, CA VORTAC	31	SANTA CATALINA
THERMAL, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	20	THERMAL
NEEDLES, CA VORTAC	PEACH SPRINGS, AZ VOR/DME	39	NEEDLES
PEACH SPRINGS, AZ VOR/ DME	GRAND CANYON, AZ VOR/DME	57	PEACH SPRINGS
PAGE, AZ VOR/DME	HANKSVILLE, UT VORTAC	61	PAGE
CARBON, UT VOR/DME	MYTON, UT VOR/DME	17	CARBON
VERNAL, UT VOR/DME	CHEROKEE, WY VOR/DME	54	VERNAL
V210			
POMONA, CA VORTAC	HECTOR, CA VORTAC	16	POMONA
HECTOR, CA VORTAC	GOFFS, CA VORTAC	38	HECTOR
GOFFS, CA VORTAC	PEACH SPRINGS, AZ VOR/DME	42	GOFFS
PEACH SPRINGS, AZ VOR/ DME	GRAND CANYON, AZ VOR/DME	57	PEACH SPRINGS

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V212			
SAN ANTONIO, TX VORTAC	EAGLE LAKE, TX VOR/DME	63	SAN ANTONIO
LUFKIN, TX VORTAC	ALEXANDRIA, LA VORTAC	65	LUFKIN
V213			
TAR RIVER, NC VORTAC	HOPEWELL, VA VORTAC	43	TAR RIVER
V217			
RHINELANDER, WI VOR/DME	DULUTH, MN VORTAC	49	RHINELANDER
V218			
GRAND RAPIDS, MN VOR/ DME	GOPHER, MN VORTAC	46	GRAND RAPIDS
V220			
GRAND JUNCTION, CO VOR/DME	RIFLE, CO VOR/DME	*56	GRAND JUNCTION
#COP - THE COP IS AT THE SLOLM INT			
V222			
SALT FLAT, TX VORTAC	FORT STOCKTON, TX VORTAC	52	SALT FLAT
BARRETTS MOUNTAIN, NC VOR/DME	LYNCHBURG, VA VOR/DME	62	BARRETTS MOUNTAIN
V229			
BRIDGEPORT, CT VOR/DME	HARTFORD, CT VOR/DME	19	BRIDGEPORT
V230			
SALINAS, CA VORTAC	PANOCHÉ, CA VORTAC	30	SALINAS
FRIANT, CA VORTAC	MINA, NV VORTAC	40	FRIANT
V231			
MISSOULA, MT VOR/DME	KALISPELL, MT VOR/DME	29	MISSOULA
V234			
DALHART, TX VORTAC	LIBERAL, KS VORTAC	45	DALHART
V235			
FAIRFIELD, UT VORTAC	FORT BRIDGER, WY VOR/DME	32	FAIRFIELD
ROCK SPRINGS, WY VOR/ DME	MUDDY MOUNTAIN, WY VOR/DME	65	ROCK SPRINGS
V237			
NEEDLES, CA VORTAC	BOULDER CITY, NV VORTAC	60	NEEDLES

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V240			
HARVEY, LA VORTAC	BROOKLEY, AL VORTAC	61	HARVEY
V243			
WAYCROSS, GA VORTAC	VIENNA, GA VORTAC	30	WAYCROSS
V244			
COALDALE, NV VORTAC	TONOPAH, NV VORTAC	14	COALDALE
TONOPAH, NV VORTAC	WILSON CREEK, NV VORTAC	50	TONOPAH
WILSON CREEK, NV VORTAC	MILFORD, UT VORTAC	40	WILSON CREEK
MILFORD, UT VORTAC	HANKSVILLE, UT VORTAC	40	MILFORD
BLUE MESA, CO VOR/DME	PUEBLO, CO VORTAC	53	BLUE MESA
V245			
NATCHEZ, MS VOR/DME	MAGNOLIA, MS VORTAC	25	NATCHEZ
V252			
GENESEO, NY VOR/DME	BINGHAMTON, NY VOR/DME	34	GENESEO
V253			
LUCIN, UT VORTAC	TWIN FALLS, ID VORTAC	40	LUCIN
TWIN FALLS, ID VORTAC	BOISE, ID VORTAC	48	TWIN FALLS
NEZ PERCE, ID VOR/DME	PULLMAN, WA VOR/DME	13	NEZ PERCE
V257			
GRAND CANYON, AZ VOR/ DME	BRYCE CANYON, UT VORTAC	36	GRAND CANYON
DELTA, UT VORTAC	MALAD CITY, ID VOR/DME	63	DELTA
DUBOIS, ID VORTAC	DILLON, MT VOR/DME	46	DUBOIS
DILLON, MT VOR/DME	COPPERTOWN, MT VOR/DME	27	DILLON
V258			
CHARLESTON, WV VOR/DME	BECKLEY, WV VOR/DME	20	CHARLESTON
V259			
GRAND STRAND, SC VORTAC	FLORENCE, SC VORTAC	25	GRAND STRAND
V263			
SANTA FE, NM VORTAC	FORT UNION, NM VORTAC	21	SANTA FE
FORT UNION, NM VORTAC	CIMARRON, NM VORTAC	28	FORT UNION
V264			
POMONA, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	37	POMONA
DRAKE, AZ VORTAC	WINSLOW, AZ VORTAC	39	DRAKE

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V265			
HARRISBURG, PA VORTAC	PHILIPSBURG, PA VORTAC	35	HARRISBURG
V266			
SOUTH BOSTON, VA VORTAC	LAWRENCEVILLE, VA VORTAC	38	SOUTH BOSTON
V267			
DUBLIN, GA VORTAC	ATHENS, GA VOR/DME	47	DUBLIN
V268			
WESTMINSTER, MD VORTAC	BALTIMORE, MD VORTAC	12	WESTMINSTER
V269			
WELLS, NV VOR/DME	TWIN FALLS, ID VORTAC	33	WELLS
V272			
BORGER, TX VORTAC	BURNS FLAT, OK VORTAC	51	BORGER
V273			
HANCOCK, NY VOR/DME	GEORGETOWN, NY VORTAC	31	HANCOCK
V277			
FORT WAYNE, IN VORTAC	KEELER, MI VOR/DME	38	FORT WAYNE
V280			
PANHANDLE, TX VORTAC	MITBEE, OK VORTAC	46	PANHANDLE
V282			
SARANAC LAKE, NY VOR/ DME	MONTREAL, CA VOR/DME	37	SARANAC LAKE
V283			
SEAL BEACH, CA VORTAC	HOMELAND, CA VOR	24	SEAL BEACH
HECTOR, CA VORTAC	BOULDER CITY, NV VORTAC	23	HECTOR
V286			
ELKINS, WV VORTAC	CASANOVA, VA VORTAC	43	ELKINS
BROOKE, VA VORTAC	CAPE CHARLES, VA VORTAC	22	BROOKE
V287			
BATTLE GROUND, WA VORTAC	OLYMPIA, WA VORTAC	41	BATTLE GROUND

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V291			
ALBUQUERQUE, NM VORTAC	GALLUP, NM VORTAC	44	ALBUQUERQUE
FLAGSTAFF, AZ VOR/DME	PEACH SPRINGS, AZ VOR/DME	39	FLAGSTAFF
V293			
ELY, NV VOR/DME	BULLION, NV VOR/DME	*26	ELY
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
BULLION, NV VOR/DME	TWIN FALLS, ID VORTAC	66	BULLION
V295			
OCALA, FL VORTAC	CROSS CITY, FL VORTAC	28	OCALA
V298			
SEATTLE, WA VORTAC	ELLENSBURG, WA VOR/DME	47	SEATTLE
DONNELLY, ID VOR/DME	DUBOIS, ID VORTAC	109	DONNELLY
DUBOIS, ID VORTAC	DUNOIR, WY VOR/DME	68	DUBOIS
DUNOIR, WY VOR/DME	BOYSEN RESERVOIR, WY VOR/DME	15	DUNOIR
V299			
LOS ANGELES, CA VORTAC	VENTURA, CA VOR/DME	18	LOS ANGELES
V300			
SAULT STE MARIE, MI VOR/DME	THUNDER BAY, CA VOR/DME	94	SAULT STE MARIE
V306			
DAISETTA, TX VORTAC	LAKE CHARLES, LA VORTAC	30	DAISETTA
V316			
IRONWOOD, MI VOR/DME	SAWYER, MI VOR/DME	94	IRONWOOD
V317			
POGGI, CA VORTAC	IMPERIAL, CA VORTAC	25	POGGI
V319			
WORLAND, WY VOR/DME	CODY, WY VOR/DME	39	WORLAND
V321			
SHELBYVILLE, TN VOR/DME	LIVINGSTON, TN VOR/DME	40	SHELBYVILLE
V323			
MONTGOMERY, AL VORTAC	EUFAULA, AL VORTAC	32	MONTGOMERY

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V324			
CRAZY WOMAN, WY VOR/DME	WORLAND, WY VOR/DME	15	CRAZY WOMAN
V325			
ATHENS, GA VOR/DME	COLUMBIA, SC VORTAC	24	ATHENS
V328			
JACKSON, WY VOR/DME	BIG PINEY, WY VOR/DME	20	JACKSON
V330			
IDAHO FALLS, ID VOR/DME	JACKSON, WY VOR/DME	48	IDAHO FALLS
DUNOIR, WY VOR/DME	RIVERTON, WY VOR/DME	15	DUNOIR
V336			
ELLENSBURG, WA VOR/DME	EPHRATA, WA VORTAC	19	ELLENSBURG
V343			
DUBOIS, ID VORTAC	BOZEMAN, MT VOR/DME	60	DUBOIS
V361			
RATTLESNAKE, NM VORTAC	MONTROSE, CO VOR/DME	61	RATTLESNAKE
V365			
HELENA, MT VORTAC	CUT BANK, MT VOR/DME	51	HELENA
V370			
LOS ANGELES, CA VORTAC	PARADISE, CA VORTAC	25	LOS ANGELES
PARADISE, CA VORTAC	PALM SPRINGS, CA VORTAC	34	PARADISE
V372			
SEAL BEACH, CA VORTAC	HOMELAND, CA VOR	24	SEAL BEACH
V373			
GREENSBORO, NC VORTAC	SANDHILLS, NC VORTAC	43	GREENSBORO
V375			
ROANOKE, VA VOR/DME	GORDONSVILLE, VA VORTAC	48	ROANOKE
V376			
RICHMOND, VA VORTAC	WASHINGTON, DC VOR/DME	53	RICHMOND

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V393			
NOGALES, AZ VOR/DME	HERMOSILLO, MX VOR/DME	64	NOGALES
V394			
POMONA, CA VORTAC	DAGGETT, CA VORTAC	16	POMONA
DAGGETT, CA VORTAC	LAS VEGAS, NV VORTAC	59	DAGGETT
V401			
WORLAND, WY VOR/DME	MUDDY MOUNTAIN, WY VOR/DME	35	WORLAND
V413			
EAU CLAIRE, WI VORTAC	IRONWOOD, MI VOR/DME	45	EAU CLAIRE
V417			
ATHENS, GA VOR/DME	COLLIERS, SC VORTAC	24	ATHENS
V419			
MODENA, PA VORTAC	SOLBERG, NJ VOR/DME	10	MODENA
V430			
DEVILS LAKE, ND VOR/DME	MINOT, ND VOR/DME	40	DEVILS LAKE
DULUTH, MN VORTAC	IRONWOOD, MI VOR/DME	55	DULUTH
IRONWOOD, MI VOR/DME	IRON MOUNTAIN, MI VOR/DME	44	IRONWOOD
V432			
THERMAL, CA VORTAC	PARKER, CA VORTAC	30	THERMAL
V433			
LA GUARDIA, NY VOR/DME	BRIDGEPORT, CT VOR/DME	9	LA GUARDIA
V437			
ORMOND BEACH, FL VORTAC	SAVANNAH, GA VORTAC	80	ORMOND BEACH
V442			
HECTOR, CA VORTAC	PARKER, CA VORTAC	*41	HECTOR
#USE THE NEEDLES (EED) VORTAC FROM THE COP TO THE CLIPP INT.			
V444			
BAKER CITY, OR VOR/DME	BOISE, ID VORTAC	25	BAKER CITY
BOISE, ID VORTAC	POCATELLO, ID VOR/DME	66	BOISE

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V448			
YAKIMA, WA VORTAC	MOSES LAKE, WA VOR/DME	15	YAKIMA
SPOKANE, WA VORTAC	KALISPELL, MT VOR/DME	105	SPOKANE
V452			
EUGENE, OR VORTAC	KLAMATH FALLS, OR VORTAC	67	EUGENE
V454			
LIBERTY, NC VORTAC	LAWRENCEVILLE, VA VORTAC	82	LIBERTY
V458			
SANTA CATALINA, CA VORTAC	OCEANSIDE, CA VORTAC	31	SANTA CATALINA
V465			
BULLION, NV VOR/DME	WELLS, NV VOR/DME	25	BULLION
WELLS, NV VOR/DME	MALAD CITY, ID VOR/DME	40	WELLS
MALAD CITY, ID VOR/DME	JACKSON, WY VOR/DME	*63	MALAD CITY
#MEA GAP AT COP			
DUNOIR, WY VOR/DME	BILLINGS, MT VORTAC	45	DUNOIR
V469			
HARRISBURG, PA VORTAC	DUPONT, DE VORTAC	32	HARRISBURG
V475			
LA GUARDIA, NY VOR/DME	BRIDGEPORT, CT VOR/DME	9	LA GUARDIA
MADISON, CT VOR/DME	NORWICH, CT VOR/DME	16	MADISON
V484			
TWIN FALLS, ID VORTAC	WASATCH, UT VORTAC	59	TWIN FALLS
WASATCH, UT VORTAC	MYTON, UT VOR/DME	28	WASATCH
V487			
LA GUARDIA, NY VOR/DME	BRIDGEPORT, CT VOR/DME	9	LA GUARDIA
BRIDGEPORT, CT VOR/DME	BRIDGEPORT, CT VOR/DME	30	BRIDGEPORT
V490			
CAMBRIDGE, NY VOR/DME	MANCHESTER, NH VOR/DME	37	CAMBRIDGE
V494			
MENDOCINO, CA VORTAC	SANTA ROSA, CA VOR/DME	25	MENDOCINO
SANTA ROSA, CA VOR/DME	SACRAMENTO, CA VORTAC	25	SANTA ROSA

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V495			
WHATCOM, WA VORTAC	VICTORIA, CA VOR/DME	10	WHATCOM
SEATTLE, WA VORTAC	VICTORIA, CA VOR/DME	50	SEATTLE
BATTLE GROUND, WA VORTAC	SEATTLE, WA VORTAC	82	BATTLE GROUND
V500			
NEWBERG, OR VOR/DME	KIMBERLY, OR VOR/DME	79	NEWBERG
BOISE, ID VORTAC	POCATELLO, ID VOR/DME	66	BOISE
V501			
ST THOMAS, PA VORTAC	PHILIPSBURG, PA VORTAC	22	ST THOMAS
V502			
EMPORIA, KS VORTAC	KANSAS CITY, MO VORTAC	40	EMPORIA
V514			
THERMAL, CA VORTAC	TWENTYNINE PALMS, CA VORTAC	20	THERMAL
GOFFS, CA VORTAC	BOULDER CITY, NV VORTAC	*60	GOFFS
#COP MEASURED FROM NEEDLES VORTAC.			
V520			
NEZ PERCE, ID VOR/DME	SALMON, ID VOR/DME	53	NEZ PERCE
DUBOIS, ID VORTAC	JACKSON, WY VOR/DME	60	DUBOIS
V527			
HOT SPRINGS, AR VOR/DME	RAZORBACK, AR VORTAC	42	HOT SPRINGS
V532			
SALINA, KS VORTAC	LINCOLN, NE VORTAC	51	SALINA
V536			
MULLAN PASS, ID VOR/DME	KALISPELL, MT VOR/DME	45	MULLAN PASS
KALISPELL, MT VOR/DME	GREAT FALLS, MT VORTAC	35	KALISPELL
V569			
FRANKSTON, TX VOR/DME	CEDAR CREEK, TX VORTAC	5	FRANKSTON
V571			
HUMBLE, TX VORTAC	NAVASOTA, TX VOR/DME	24	HUMBLE
V573			
HOT SPRINGS, AR VOR/DME	LITTLE ROCK, AR VORTAC	14	HOT SPRINGS

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
V574			
NAVASOTA, TX VOR/DME	HUMBLE, TX VORTAC	18	NAVASOTA
V591			
GRAND JUNCTION, CO VOR/DME	RED TABLE, CO VOR/DME	*56	GRAND JUNCTION
#THE COP IS AT THE SLOLM INT			
V611			
SANTA FE, NM VORTAC	FORT UNION, NM VORTAC	21	SANTA FE
FORT UNION, NM VORTAC	CIMARRON, NM VORTAC	28	FORT UNION
CIMARRON, NM VORTAC	PUEBLO, CO VORTAC	30	CIMARRON

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
ALASKA V311			
ANNETTE ISLAND, AK VOR/DME	BIORKA ISLAND, AK VORTAC	103	ANNETTE ISLAND
ALASKA V317			
ANNETTE ISLAND, AK VOR/DME	LEVEL ISLAND, AK VOR/DME	64	ANNETTE ISLAND
LEVEL ISLAND, AK VOR/ DME	SISTERS ISLAND, AK VORTAC	74	LEVEL ISLAND
ALASKA V319			
YAKUTAT, AK VOR/DME	JOHNSTONE POINT, AK VOR/DME	119	YAKUTAT
SPARREVOHN, AK VOR/DME	BETHEL, AK VORTAC	92	SPARREVOHN
ALASKA V320			
MC GRATH, AK VORTAC	ANCHORAGE, AK VOR/DME	95	MC GRATH
ALASKA V321			
KING SALMON, AK VORTAC	HOMER, AK VOR/DME	70	KING SALMON
ALASKA V333			
HOOPER BAY, AK VOR/DME	NOME, AK VOR/DME	70	HOOPER BAY
NOME, AK VOR/DME	SHISHMAREF, AK NDB	65	NOME
ALASKA V401			
AMBLER, AK NDB	KOTZEBUE, AK VOR/DME	40	AMBLER
KOTZEBUE, AK VOR/DME	SHISHMAREF, AK NDB	60	KOTZEBUE
ALASKA V428			
BIORKA ISLAND, AK VORTAC	SISTERS ISLAND, AK VORTAC	55	BIORKA ISLAND
SISTERS ISLAND, AK VORTAC	HAINES, AK NDB	*21	SISTERS ISLAND
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
HAINES, AK NDB	WHITEHORSE, CA VOR/DME	30	HAINES
ALASKA V436			
TALKEETNA, AK VOR/DME	NENANA, AK VORTAC	50	TALKEETNA
NENANA, AK VORTAC	CHANDALAR LAKE, AK NDB	120	NENANA
CHANDALAR LAKE, AK NDB	DEADHORSE, AK VOR/DME	63	CHANDALAR LAKE
ALASKA V438			
KODIAK, AK VOR/DME	HOMER, AK VOR/DME	66	KODIAK
HOMER, AK VOR/DME	ANCHORAGE, AK VOR/DME	53	HOMER

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
ALASKA V440			
NOME, AK VOR/DME	UNALAKLEET, AK VOR/DME	45	NOME
MC GRATH, AK VORTAC	ANCHORAGE, AK VOR/DME	95	MC GRATH
YAKUTAT, AK VOR/DME	BIORKA ISLAND, AK VORTAC	108	YAKUTAT
BIORKA ISLAND, AK VORTAC	SANDSPIT, CA VOR/DME	134	BIORKA ISLAND
ALASKA V441			
MIDDLETON ISLAND, AK VOR/DME	KENAI, AK VOR/DME	84	MIDDLETON ISLAND
ALASKA V444			
BARROW, AK VOR/DME	EVANSVILLE, AK NDB	105	BARROW
BETTLES, AK VOR/DME	FAIRBANKS, AK VORTAC	89	BETTLES
ALASKA V447			
FAIRBANKS, AK VORTAC	CHANDALAR LAKE, AK NDB	103	FAIRBANKS
ALASKA V452			
KUKULIAK, AK VOR/DME	NOME, AK VOR/DME	67	KUKULIAK
MOSES POINT, AK VOR/DME	GALENA, AK VOR/DME	70	MOSES POINT
GALENA, AK VOR/DME	NENANA, AK VORTAC	75	GALENA
ALASKA V453			
BETHEL, AK VORTAC	UNALAKLEET, AK VOR/DME	109	BETHEL
ALASKA V457			
ILIAMNA, AK NDB/DME	KENAI, AK VOR/DME	47	ILIAMNA
ALASKA V459			
EMMONAK, AK VOR/DME	ST MARYS, AK NDB	40	EMMONAK
ALASKA V480			
ST PAUL ISLAND, AK NDB/DME	BETHEL, AK VORTAC	223	ST PAUL ISLAND
BETHEL, AK VORTAC	MC GRATH, AK VORTAC	128	BETHEL
MC GRATH, AK VORTAC	NENANA, AK VORTAC	70	MC GRATH
ALASKA V481			
GULKANA, AK VOR/DME	BIG DELTA, AK VORTAC	63	GULKANA
BIG DELTA, AK VORTAC	FORT YUKON, AK VORTAC	*69	BIG DELTA
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
ALASKA V488			
HOOPER BAY, AK VOR/DME	HOOPER BAY, AK VOR/DME	91	HOOPER BAY
TANANA, AK VOR/DME	FAIRBANKS, AK VORTAC	40	TANANA
ALASKA V496			
HOOPER BAY, AK VOR/DME	ST MARYS, AK NDB	40	HOOPER BAY
ALASKA V498			
GALENA, AK VOR/DME	KOTZEBUE, AK VOR/DME	85	GALENA
ALASKA V504			
NENANA, AK VORTAC	BETTLES, AK VOR/DME	67	NENANA
BETTLES, AK VOR/DME	DEADHORSE, AK VOR/DME	116	BETTLES
ALASKA V506			
KODIAK, AK VOR/DME	KING SALMON, AK VORTAC	55	KODIAK
KING SALMON, AK VORTAC	BETHEL, AK VORTAC	102	KING SALMON
NOME, AK VOR/DME	KOTZEBUE, AK VOR/DME	64	NOME
HOTHAM, AK NDB	BARROW, AK VOR/DME	186	HOTHAM
ALASKA V508			
MIDDLETON ISLAND, AK VOR/DME	KENAI, AK VOR/DME	85	MIDDLETON ISLAND
KENAI, AK VOR/DME	SPARREVOHN, AK VOR/DME	67	KENAI
SPARREVOHN, AK VOR/DME	ANIAK, AK NDB	68	SPARREVOHN
ALASKA V510			
EMMONAK, AK VOR/DME	ANVIK, AK NDB	69	EMMONAK
ANVIK, AK NDB	MC GRATH, AK VORTAC	87	ANVIK
ALASKA V531			
FAIRBANKS, AK VORTAC	TANANA, AK VOR/DME	69	FAIRBANKS
TANANA, AK VOR/DME	HUSLIA, AK VOR/DME	40	TANANA
SELAWIK, AK VOR/DME	KOTZEBUE, AK VOR/DME	30	SELAWIK
KOTZEBUE, AK VOR/DME	POINT HOPE, AK NDB	116	KOTZEBUE
ALASKA V603			
ELFEE, AK NDB	DILLINGHAM, AK VOR/DME	207	ELFEE
ALASKA V617			
HOMER, AK VOR/DME	JOHNSTONE POINT, AK VOR/DME	63	HOMER

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
HAWAII V15			
MOLOKAI, HI VORTAC	MAUI, HI VORTAC	31	MOLOKAI
HAWAII V16			
LANAI, HI VORTAC	UPOLU POINT, HI VORTAC	47	LANAI

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
§95.8005 JET ROUTES CHANGEOVER POINTS			
J1			
ROGUE VALLEY, OR VORTAC	BATTLE GROUND, WA VORTAC	90	ROGUE VALLEY
J5			
LAKEVIEW, OR VORTAC	SEATTLE, WA VORTAC	156	LAKEVIEW
J6			
DRAKE, AZ VORTAC	ZUNI, NM VORTAC	76	DRAKE
MARTINSBURG, WV VORTAC	LANCASTER, PA VOR/DME	24	MARTINSBURG
J8			
GALLUP, NM VORTAC	FORT UNION, NM VORTAC	103	GALLUP
J10			
BLUE MESA, CO VOR/DME	FALCON, CO VORTAC	50	BLUE MESA
J15			
RATTLESNAKE, NM VORTAC	GRAND JUNCTION, CO VOR/DME	90	RATTLESNAKE
J16			
BATTLE GROUND, WA VORTAC	PENDLETON, OR VORTAC	60	BATTLE GROUND
J17			
CHEYENNE, WY VORTAC	RAPID CITY, SD VORTAC	90	CHEYENNE
J18			
PHOENIX, AZ VORTAC	ST JOHNS, AZ VORTAC	88	PHOENIX
MOLINE, IL VOR/DME	JOLIET, IL VOR/DME	45	MOLINE
J19			
FORT UNION, NM VORTAC	GALLUP, NM VORTAC	80	FORT UNION
ROBERTS, IL VOR/DME	NORTHBROOK, IL VOR/DME	40	ROBERTS
J20			
POCATELLO, ID VOR/DME	ROCK SPRINGS, WY VOR/DME	82	POCATELLO
J21			
GOPHER, MN VORTAC	DULUTH, MN VORTAC	81	GOPHER

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
J24			
HUGO, CO VOR/DME	HAYS, KS VORTAC	80	HUGO
CHARLESTON, WV VOR/DME	MONTEBELLO, VA VOR/DME	104	CHARLESTON
J32			
ABERDEEN, SD VOR/DME	DULUTH, MN VORTAC	130	ABERDEEN
J37			
KENNEDY, NY VOR/DME	KINGSTON, NY VOR/DME	37	KENNEDY
J42			
MEMPHIS, TN VORTAC	NASHVILLE, TN VORTAC	119	MEMPHIS
BECKLEY, WV VOR/DME	MONTEBELLO, VA VOR/DME	56	BECKLEY
J44			
FALCON, CO VORTAC	MC COOK, NE VOR/DME	90	FALCON
MC COOK, NE VOR/DME	LINCOLN, NE VORTAC	51	MC COOK
J48			
CASANOVA, VA VORTAC	MONTEBELLO, VA VOR/DME	58	CASANOVA
J52			
BIGBEE, MS VORTAC	VULCAN, AL VORTAC	25	BIGBEE
J54			
OLYMPIA, WA VORTAC	BAKER CITY, OR VOR/DME	*143	OLYMPIA
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
J55			
BOSTON, MA VOR/DME	KENNEBUNK, ME VOR/DME	38	BOSTON
J56			
WASATCH, UT VORTAC	HAYDEN, CO VOR/DME	66	WASATCH
HAYDEN, CO VOR/DME	GILL, CO VOR/DME	*55	HAYDEN
#USE THE GILL (GLL) VORTAC FROM THE COP TO THE RIDGE INT			
J58			
COALDALE, NV VORTAC	WILSON CREEK, NV VORTAC	44	COALDALE
MILFORD, UT VORTAC	RATTLESNAKE, NM VORTAC	92	MILFORD
J60			
HANKSVILLE, UT VORTAC	RED TABLE, CO VOR/DME	75	HANKSVILLE
RED TABLE, CO VOR/DME	MILE HIGH, CO VORTAC	39	RED TABLE
GOSHEN, IN VORTAC	DRYER, OH VOR/DME	90	GOSHEN

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
J64			
RATTLESNAKE, NM VORTAC	PUEBLO, CO VORTAC	93	RATTLESNAKE
PUEBLO, CO VORTAC	HILL CITY, KS VORTAC	80	PUEBLO
FORT WAYNE, IN VORTAC	ELLWOOD CITY, PA VOR/DME	112	FORT WAYNE
J68			
DELLS, WI VORTAC	GOPHER, MN VORTAC	115	DELLS
J70			
DICKINSON, ND VORTAC	ABERDEEN, SD VOR/DME	60	DICKINSON
J71			
CENTRALIA, IL VORTAC	ROBERTS, IL VOR/DME	98	CENTRALIA
ROBERTS, IL VOR/DME	NORTHBROOK, IL VOR/DME	40	ROBERTS
J78			
DRAKE, AZ VORTAC	ZUNI, NM VORTAC	76	DRAKE
J79			
FRANKLIN, VA VORTAC	SALISBURY, MD VORTAC	20	FRANKLIN
J80			
COALDALE, NV VORTAC	WILSON CREEK, NV VORTAC	44	COALDALE
MILFORD, UT VORTAC	GRAND JUNCTION, CO VOR/DME	50	MILFORD
J82			
BATTLE GROUND, WA VORTAC	DONNELLY, ID VOR/DME	90	BATTLE GROUND
RAPID CITY, SD VORTAC	SIOUX FALLS, SD VORTAC	125	RAPID CITY
J83			
APPLETON, OH VORTAC	DRYER, OH VOR/DME	75	APPLETON
J84			
NORTHBROOK, IL VOR/DME	DANVILLE, IL VORTAC	67	NORTHBROOK
J86			
HUMBLE, TX VORTAC	LEEVILLE, LA VORTAC	135	HUMBLE
J87			
MOLINE, IL VOR/DME	JOLIET, IL VOR/DME	45	MOLINE

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
J88			
SAN MARCUS, CA VORTAC	SALINAS, CA VORTAC	71	SAN MARCUS
J89			
ATLANTA, GA VORTAC	VALDOSTA, GA VOR/DME	90	ATLANTA
LOUISVILLE, KY VORTAC	ATLANTA, GA VORTAC	148	LOUISVILLE
J90			
HELENA, MT VORTAC	MILES CITY, MT VOR/DME	115	HELENA
J91			
VOLUNTEER, TN VORTAC	HENDERSON, WV VORTAC	135	VOLUNTEER
J92			
BEATTY, NV VORTAC	BOULDER CITY, NV VORTAC	12	BEATTY
J94			
ROCK SPRINGS, WY VOR/ DME	SCOTTSBLUFF, NE VORTAC	105	ROCK SPRINGS
J96			
DRAKE, AZ VORTAC	GALLUP, NM VORTAC	77	DRAKE
GALLUP, NM VORTAC	CIMARRON, NM VORTAC	*146	GALLUP
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
J107			
MILFORD, UT VORTAC	ROCK SPRINGS, WY VOR/DME	*120	MILFORD
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
J110			
BELLAIRE, OH VOR/DME	COYLE, NJ VORTAC	132	BELLAIRE
J115			
CHANDALAR LAKE, AK NDB	DEADHORSE, AK VOR/DME	15	CHANDALAR LAKE
J116			
MEEKER, CO VOR/DME	FALCON, CO VORTAC	60	MEEKER
J118			
MEMPHIS, TN VORTAC	CHOO CHOO, TN VORTAC	130	MEMPHIS

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
J120			
ST PAUL ISLAND, AK NDB/DME	BETHEL, AK VORTAC	190	ST PAUL ISLAND
J121			
CHARLESTON, SC VORTAC SNOW HILL, MD VORTAC	KINSTON, NC VORTAC SEA ISLE, NJ VORTAC	128 20	CHARLESTON SNOW HILL
J123			
KODIAK, AK VOR/DME	KING SALMON, AK VORTAC	60	KODIAK
J125			
KODIAK, AK VOR/DME	ANCHORAGE, AK VOR/DME	103	KODIAK
J126			
SAN MARCUS, CA VORTAC	SALINAS, CA VORTAC	71	SAN MARCUS
J128			
BLUE MESA, CO VOR/DME	FALCON, CO VORTAC	50	BLUE MESA
J130			
MC COOK, NE VOR/DME	PAWNEE CITY, NE VORTAC	72	MC COOK
J134			
DRAKE, AZ VORTAC	GALLUP, NM VORTAC	77	DRAKE
GALLUP, NM VORTAC	CIMARRON, NM VORTAC	*146	GALLUP
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
HENDERSON, WV VORTAC	LINDEN, VA VORTAC	133	HENDERSON
J136			
YAKIMA, WA VORTAC	SPOKANE, WA VORTAC	50	YAKIMA
MULLAN PASS, ID VOR/DME	HELENA, MT VORTAC	100	MULLAN PASS
BILLINGS, MT VORTAC	MEDICINE BOW, WY VOR/DME	149	BILLINGS
J139			
BETTLES, AK VOR/DME	DEADHORSE, AK VOR/DME	83	BETTLES
J140			
DULUTH, MN VORTAC	SAULT STE MARIE, MI VOR/DME	171	DULUTH
J143			
MENDOCINO, CA VORTAC	ROSEBURG, OR VOR/DME	150	MENDOCINO

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
J152			
JOHNSTOWN, PA VOR/DME	HARRISBURG, PA VORTAC	62	JOHNSTOWN
J153			
ROME, OR VOR/DME	BAKER CITY, OR VOR/DME	120	ROME
BAKER CITY, OR VOR/DME	SPOKANE, WA VORTAC	60	BAKER CITY
J154			
WASATCH, UT VORTAC	ROCK SPRINGS, WY VOR/DME	35	WASATCH
ROCK SPRINGS, WY VOR/DME	GILL, CO VOR/DME	*104	ROCK SPRINGS
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
J157			
MYTON, UT VOR/DME	LARAMIE, WY VOR/DME	*112	MYTON
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
J163			
POCATELLO, ID VOR/DME	ROCK SPRINGS, WY VOR/DME	82	POCATELLO
J173			
WASATCH, UT VORTAC	MEEKER, CO VOR/DME	47	WASATCH
J180			
SAWMILL, LA VOR/DME	LITTLE ROCK, AR VORTAC	105	SAWMILL
LITTLE ROCK, AR VORTAC	FORISTELL, MO VORTAC	118	LITTLE ROCK
J181			
RANGER, TX VORTAC	OKMULGEE, OK VOR/DME	139	RANGER
OKMULGEE, OK VOR/DME	NEOSHO, MO VOR/DME	58	OKMULGEE
NEOSHO, MO VOR/DME	HALLSVILLE, MO VORTAC	130	NEOSHO
J183			
LLANO, TX VORTAC	COLLEGE STATION, TX VORTAC	93	LLANO
J187			
MEMPHIS, TN VORTAC	FORISTELL, MO VORTAC	96	MEMPHIS
J189			
KLAMATH FALLS, OR VORTAC	BATTLE GROUND, WA VORTAC	*78	KLAMATH FALLS
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
J193			
COFIELD, NC VORTAC	HARCUM, VA VORTAC	36	COFIELD
J197			
DOVE CREEK, CO VORTAC	HUGO, CO VOR/DME	105	DOVE CREEK
J209			
NORFOLK, VA VORTAC	SALISBURY, MD VORTAC	42	NORFOLK
J220			
ARMEL, VA VOR/DME	STONYFORK, PA VOR/DME	122	ARMEL
J233			
KIRKSVILLE, MO VORTAC	WATERLOO, IA VOR/DME	78	KIRKSVILLE
J236			
THERMAL, CA VORTAC	NEEDLES, CA VORTAC	53	THERMAL
NEEDLES, CA VORTAC	TUBA CITY, AZ VORTAC	72	NEEDLES
J240			
MYTON, UT VOR/DME	BLUE MESA, CO VOR/DME	60	MYTON
J244			
FORT UNION, NM VORTAC	ZUNI, NM VORTAC	86	FORT UNION
J501			
BIORKA ISLAND, AK VORTAC	SANDSPIT, CA VOR/DME	153	BIORKA ISLAND
YAKUTAT, AK VOR/DME	BIORKA ISLAND, AK VORTAC	108	YAKUTAT
JOHNSTONE POINT, AK VOR/DME	YAKUTAT, AK VOR/DME	100	JOHNSTONE POINT
J502			
SEATTLE, WA VORTAC	VICTORIA, CA VOR/DME	50	SEATTLE
J505			
SEATTLE, WA VORTAC	CRANBROOK, CA VOR/DME	*108	SEATTLE
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
J507			
NORTHWAY, AK VORTAC	YAKUTAT, AK VOR/DME	135	NORTHWAY

AIRWAY SEGMENT		CHANGEOVER POINTS	
FROM	TO	DISTANCE	FROM
J515			
BETTLES, AK VOR/DME	BARROW, AK VOR/DME	*130	BETTLES
#MEA IS ESTABLISHED WITH A GAP IN NAVIGATION SIGNAL COVERAGE			
J517			
BOISE, ID VORTAC	SPOKANE, WA VORTAC	100	BOISE
J518			
INDIAN HEAD, PA VORTAC	BALTIMORE, MD VORTAC	20	INDIAN HEAD
J523			
ELY, NV VOR/DME	BRYCE CANYON, UT VORTAC	20	ELY
J589			
CORVALLIS, OR VOR/DME	VICTORIA, CA VOR/DME	100	CORVALLIS
J617			
HOMER, AK VOR/DME	JOHNSTONE POINT, AK VOR/DME	63	HOMER
J713			
BIG PINEY, WY VOR/DME	WASATCH, UT VORTAC	94	BIG PINEY