

CHANGE

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

Air Traffic Organization Policy

**JO 7210.3BB
CHG 3**

Effective Date:
December 31, 2020

SUBJ: Facility Operation and Administration

- 1. Purpose of This Change.** This change transmits revised pages to Federal Aviation Administration Order JO 7210.3BB, Facility Operation and Administration, and the Briefing Guide.
- 2. Audience.** This change applies to all Air Traffic Organization (ATO) personnel and anyone using ATO directives.
- 3. Where Can I Find This Change?** This change is available on the FAA website at http://faa.gov/air_traffic/publications and https://employees.faa.gov/tools_resources/orders_notices/.
- 4. Explanation of Policy Change.** See the Explanation of Changes attachment which has editorial corrections and changes submitted through normal procedures. The Briefing Guide lists only new or modified material, along with background.
- 5. Distribution.** This change is distributed to selected offices in Washington headquarters, service area offices, regional offices, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, all air traffic field facilities, international aviation field offices, and interested aviation public.
- 6. Disposition of Transmittal.** Retain this transmittal until superseded by a new basic order.
- 7. Page Control Chart.** See the page control chart attachment.

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Explanation of Changes

Change 3

Direct questions through appropriate facility/service center office staff to the office of primary responsibility (OPR)

- a. 1-2-4. ABBREVIATIONS**
- 2-10-6. BROADCAST DENSITY**
- ALTITUDE ADVISORY**
- 14-1-4. ICSS INTRODUCTORY**
- ANNOUNCEMENT**
- 15-1-4. TELEPHONE LISTINGS**
- 15-3-1. STATION BROADCASTS**
- 15-3-2. COORDINATE WITH**
- WEATHER FORECAST OFFICE (WFO)**
- (ALASKA ONLY)**
- 15-3-3. COMMERCIAL BROADCAST**
- STATIONS**
- 15-3-4. REDUCING RECORDED**
- WEATHER INFORMATION SERVICES**
- 17-5-1. COMPLETION OF MONTHLY**
- ACTIVITY RECORD**

This change removes references to TIBS and TWEB as these services are no longer provided by Flight Service.

- b. 2-1-8. OPERATIONS DURING A**
- STAFFING CONSTRAINT**

This change clarifies the coordination process and actions that must be taken when any reduction of ATC service, traffic management initiatives, or ATC-0 is being considered due to staffing constraints.

- c. 2-1-36. TRANSPORTATION SECURITY**
- ADMINISTRATION AND FAA JOINT**
- OPERATING PROCEDURES**
- 2-7-6. SUSPICIOUS ACTIVITIES**
- 2-7-7. COOPERATION WITH LAW**
- ENFORCEMENT AGENCIES**

This change to paragraph 2-1-36 adds a reference Note related to suspicious activities under subparagraph b and modifies the application of delegation responsibilities to the paragraph in subparagraph e. This change to paragraph 2-7-6 retitles the paragraph and adds language instructing that information pertaining to suspicious activities around airports and FAA facilities must be reported on the DEN. Also a Note is added that refers to other paragraphs that pertain to reporting suspicious activities on the DEN.

This change to paragraph 2-7-7 deletes obsolete references to EPIC and adds the DEN as the reporting point for information pertaining to stolen aircraft and suspicious activities concerning aircraft. Also, information pertaining to the Blue Lightning Initiative is reformatted and clarified.

- d. 4-3-2. APPROPRIATE SUBJECTS**

This change removes the Note to paragraph 4-3-2k4. The Note was intended to convey the appropriate use of these LOAs but instead created confusion and inconsistent application.

- e. 5-3-2. IDENTIFICATION OF SPECIAL**
- DOE FLIGHTS**

- 5-3-3. NOTIFICATION OF DOE**
- REPORTED ACCIDENT/UNREPORTED**
- AIRCRAFT**

This change deletes paragraphs 5-3-2 and 5-3-3. The Department of Energy (DOE) Aviation Office and other U.S. Government agencies disclosed that R-A-C flights are no longer utilized.

- f. 5-3-7. OPEN SKIES TREATY**
- AIRCRAFT PRIORITY FLIGHTS (F AND D)**

This change inserts a Note to paragraph 5-3-7e that provides a pointer to the "Stop Buzzer" procedures located in FAA Order JO 7610.4.

- g. 10-3-9. VISUAL SEPARATION**

This changes the posting location of operational procedures, as contained in a Letter to Airmen, concerning tower-applied visual separation between adjacent airport traffic control towers, from the Special Notices Section of the Chart Supplement, to the Federal NOTAM System website.

- h. 18-23-1. PURPOSE**
- 18-23-2. DEFINITION**
- 18-23-3. RESPONSIBILITIES**
- 18-23-4. PROCEDURES**

This change deletes Chapter 18, Section 23, Contingency Plan Support System (CPSS). This change cancels and incorporates N JO 7210.927, which was effective September 25, 2020.

i. Editorial Changes

Editorial changes included reference corrections, additional ARTS removals, correcting Front Line Manager (FLM) to Operations Supervisor (OS) in paragraph 11-2-2, the removal of AFSS in paragraph 18-26-4, and correcting a change in paragraph 4-3-3

from Change 2, in which the word “examples” was missing.

j. Entire Publication

Additional editorial/format changes were made where necessary. Revision bars were not used because of the insignificant nature of these changes.

PAGE CONTROL CHART

Change 3

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Part 1. BASIC

Chapter 1. General

Section 1. Introduction

1-1-1. PURPOSE OF THIS ORDER

This order provides instructions, standards, and guidance for operating and managing air traffic facilities.

a. Part 1 contains information generally applicable to two or more options.

b. Part 2, Part 3, and Part 4 prescribe instructions unique to each discipline:

1. Air Route Traffic Control Centers (ARTCC).
2. Terminal Air Traffic Control Facilities.
3. Flight Service Stations.

c. Part 5 prescribes the instructions for traffic management applicable to the David J. Hurley Air Traffic Control System Command Center (ATCSCC), center, and terminal facilities.

d. Part 6 is regulatory information concerning waivers, authorizations, exemptions, and flight restrictions.

e. Part 7 provides the overview concerning System Operations Security, Strategic and Tactical Operations, which are further delineated in FAA Order JO 7610.4, Special Operations. Part 7 explains Air Traffic's role in the security realm, military activities, and other events which have impact on facilities and the NAS.

1-1-2. AUDIENCE

This order applies to all ATO personnel and anyone using ATO directives.

1-1-3. WHERE TO FIND THIS ORDER

This order is available on the FAA website at http://faa.gov/air_traffic/publications and https://employees.faa.gov/tools_resources/orders_notices/.

1-1-4. WHAT THIS ORDER CANCELS

FAA Order JO 7210.3AA, Facility Operation and Administration, dated October 12, 2017, and all changes to it are canceled.

1-1-5. EXPLANATION OF CHANGES

The significant changes to this order are identified in the Explanation of Changes page(s). It is advisable to retain the page(s) throughout the duration of the basic order.

1-1-6. EFFECTIVE DATES AND SUBMISSIONS FOR CHANGES

a. This order and its changes are scheduled to be published to coincide with AIRAC dates.

b. The "Cutoff Date for Completion" in the table below refers to the deadline for a proposed change to be fully coordinated and signed. Change initiators must submit their proposed changes well in advance of this cutoff date to meet the publication effective date. The process to review and coordinate changes often takes several months after the change is initially submitted.

Publication Schedule		
Basic or Change	Cutoff Date for Completion	Effective Date of Publication
JO 7210.3BB	2/28/19	8/15/19
Change 1	8/15/19	1/30/20
Change 2	1/30/20	7/16/20
Change 3	7/16/20	12/31/20
JO 7210.3CC	12/31/20	6/17/21

1-1-7. DELIVERY DATES

If an FAA facility **has not** received the order/changes at least 30 days before the above effective dates, the facility must notify its service area office distribution officer.

1-1-8. RECOMMENDATIONS FOR PROCEDURAL CHANGES

The responsibility associated with processing and coordinating revisions to this order is delegated to the Director, Policy, AJV-P.

a. Personnel should submit recommended changes in procedures to facility management.

b. Recommendations from other sources should be submitted through appropriate FAA, military, or industry/user channels.

c. Proposed changes must be submitted electronically to 9-AJV-P-HQ-Correspondence@faa.gov. The submission should include a description of the recommended change, and the proposed language to be used in the order.

NOTE-

For details on the submission process as well as additional AJV-P processing responsibilities, please see FAA Order JO 7000.5, Procedures for Submitting Changes to Air Traffic Control Publications.

d. Procedural changes will not be made to this order until the operational system software has been adapted to accomplish the revised procedures.

1-1-9. CONSTRAINTS GOVERNING SUPPLEMENTS AND PROCEDURAL DEVIATIONS

a. Exceptional or unusual requirements may dictate procedural deviations or supplementary procedures to this order. The written approval of the Vice President of System Operations Services must be obtained prior to issuing a supplemental or procedural deviation to this order which decreases the level, quality, or degree of service required by this order.

b. Prior approval by the following appropriate military headquarters is required for subsequent interface with the Federal Aviation Administration (FAA) if military operations or facilities are involved. (See TBL 1-1-1.)

TBL 1-1-1 **Military Headquarters**

<i>Branch</i>	<i>Address</i>
U.S. Air Force	HQ AFFSA/A3A 7919 Mid-America Blvd Suite 300 Oklahoma City, OK 73135
U.S. Army	Director USAASA (MOAS-AS) 9325 Gunston Road Suite N-319 Ft. Belvoir, VA 22060-5582
U.S. Navy	Department of the Navy Chief of Naval Operations (N885F) 2000 Navy Pentagon Washington, DC 20350-2000

1-1-10. SAFETY MANAGEMENT SYSTEM (SMS)

Every employee is responsible to ensure the safety of equipment and procedures used in the provision of services within the National Airspace System (NAS). Risk assessment techniques and mitigations, as appropriate, are intended for implementation of any planned safety significant changes within the NAS, as directed by FAA Order 1100.161, Air Traffic Safety Oversight. Direction regarding the Safety Management System (SMS) and its application can be found in the FAA Safety Management System Manual and FAA Order 1100.161. The Safety Management System will be implemented through a period of transitional activities. (Additional information pertaining to these requirements and processes can be obtained by contacting the service area offices.)

1-1-11. REFERENCES TO FAA NON-AIR TRAFFIC ORGANIZATION

When references are made to regional office organizations that are not part of the ATO (i.e., Communications Center, Flight Standards, Airport offices, etc.), the facility should contact the FAA region where the facility is physically located – not the region where the facility's Service Area office is located.

1-1-12. DISTRIBUTION

This order is distributed to selected offices in Washington headquarters, Service Area offices,

Section 2. Order Use

1-2-1. POLICY

This order prescribes information necessary to effectively operate and administer air traffic service facilities. When a conflict arises between its provisions and those in other agency issuances, supervisors must request clarification from their respective En Route and Oceanic Operations Area, Terminal Operations Area or Flight Services Operations Area Office. In the event a conflict arises between instructions in this order and the terms of a labor union contract, supervisors must abide by the contract.

1-2-2. ANNOTATIONS

Revised, new, or reprinted pages will be marked as follows:

- a. The change number and the effective date are printed on each revised or additional page.
- b. A reprinted page not requiring a change is reprinted in its original form.
- c. Bold vertical lines in the margin of the text mark the location of substantive procedural, operational, or policy changes; e.g., when material affecting the performance of duty is added, revised, or deleted.
- d. Statements of fact of a prefatory or explanatory nature relating to directive material are set forth as notes.
- e. If a facility has not received the order/changes at least 30 days before the above effective dates, the facility must notify its service area office distribution officer.

1-2-3. WORD MEANINGS

As used in this order:

- a. “Shall” or “must” means a procedure is mandatory.
- b. “Should” means a procedure is recommended.
- c. “May” and “need not” mean a procedure is optional.
- d. “Will” indicates futurity, not a requirement for application of a procedure.

e. “Shall not” or “must not” means a procedure is prohibited.

f. Singular words include the plural, and plural words include the singular.

1-2-4. ABBREVIATIONS

As used in this order, the following abbreviations have the meanings indicated: (See TBL 1-2-1.)

TBL 1-2-1
Abbreviations

Abbreviation	Meaning
AAR	Airport arrival rate
ACDO	Air Carrier District Office
ACE-IDS	ASOS Controller Equipment–Information Display System
ACID	Aircraft identification
ADC	Aerospace Defense Command
ADIZ	Air defense identification zone
ADL	Aggregate demand list
ADR	Airport departure rate
ADS-A	Automatic Dependant Surveillance–Addressable
ADS-B	Automatic Dependent Surveillance–Broadcast
AFP	Airspace Flow Program
AFRES	Air Force reserve
AFTN	Aeronautical fixed telecommunications network
AIDC	ATS Interfacility Data Communications
AIM	Aeronautical Information Manual
AIRAC	Aeronautical Information Regulation and Control
AIT	Automated information transfer
ALD	Available landing distance
ALS	Approach light system
ALTRV	Altitude reservation
AMASS	Airport Movement Area Safety System
APREQ	Approval request
ARAC	Army Radar Approach Control facility (US Army)
ARFF	Airport rescue and fire fighting
ARINC	Aeronautical Radio, Inc.
ARO	Airport Reservations Office
ARP	Airport reference point
ARSR	Air route surveillance radar
ART	ATO Resource Tool
ARTCC	Air route traffic control center

Abbreviation	Meaning
ASDE	Airport surface detection equipment
ASDE-X	Airport Surface Detection Equipment System – Model X
ASF	Airport stream filters
ASI	Altimeter setting indicator
ASOS	Automated Surface Observing System
ASP	Arrival sequencing program
ASPM	Aviation System Performance Metrics
ASR	Airport surveillance radar
ASSC	Airport Surface Surveillance Capability
AT	Air Traffic
ATA	Air traffic assistant
ATC	Air traffic control
ATCAA	Air traffic control assigned airspace
ATCRBS	Air traffic control radar beacon system
ATCS	Air traffic control specialist
ATCSCC	David J. Hurley Air Traffic Control System Command Center
ATCT	Airport traffic control tower
ATIS	Automatic terminal information service
ATM	Air Traffic Manager
ATO	Air Traffic Organization
ATOP	Advanced Technologies and Oceanic Procedures
ATPB	Air Traffic Procedures Bulletin
ATREP	Air Traffic representative
AWC	Aviation Weather Center
AWIS	Automated weather information service
AWOS	Automated Weather Observing System
BAASS	Bigelow Aerospace Advanced Space Studies
CA	Conflict alert
CAP	Civil Air Patrol
CARF	Central Altitude Reservation Function
CAS	Civil Aviation Security
CCFP	Collaborative Convective Forecast Product
CCSD	Collaborative Constraint Situation Display
CD	Clearance delivery
CDM	Collaborative decision making
CDR	Coded Departure Route(s)
CDR	Continuous Data Recording
CERAP	Combined Center/RAPCON
CFR	Code of Federal Regulations
CIC	Controller-in-charge
CIRNOT	Circuit Notice
COB	Close of business
CONUS	Continental/Contiguous/Conterminous United States
COO	Chief Operating Officer
COTC	Computer operator terminal console

Abbreviation	Meaning
CPDLC	Controller Pilot Data Link Communications
CTRD	Certified Tower Radar Display
CTA	Controlled times of arrival
CWA	Center weather advisory
CWSU	ARTCC Weather Service Unit
DAS	Delay assignment
DASI	Digital altimeter setting indicator
DCCWU	ATCSCC Weather Unit
DEDS	Data entry display system
DME	Distance measuring equipment
DOD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
DP	Instrument Departure Procedure
DRT	Diversion Recovery Tool
DSP	Departure sequencing program
DTM	Digital terrain maps
DVA	Diverse vector area
DVRSN	Diversion
E-MSAW	En Route Minimum Safe Altitude Warning
EASL	Existing automation service level
EBUS	Enhanced Backup Surveillance System
EDCT	Expect departure clearance time
EDST	En Route Decision Support Tool
EI	Early Intent
ELT	Emergency locator transmitter
EOVM	Emergency obstruction video map
EOSH	Environmental and Occupational Safety and Health
EPIC	El Paso Intelligence Center
ERIDS	En Route Information Display System
ESL	Emergency service level
ESP	En Route sequencing program
FAA	Federal Aviation Administration
FCA	Flow Constrained Area
FDEP	Flight data entry and printout
FDIO	Flight data input/output
FEA	Flow Evaluation Area
FICO	Flight Inspection Central Operations
FOIA	Freedom of Information Act
FOUO	For Official Use Only
FP	Flight plan
FPL	Full performance level
FRD	Fixed Radial Distance
FSA	Flight schedule analyzer
FSDO	Flight Standards district office
FSL	Full service level
FSM	Flight Schedule Monitor

Abbreviation	Meaning
FSS	Flight service station
GA	General aviation
GC	Ground control
GDP	Ground delay program(s)
GENOT	General notice
GI	General information message
GS	Ground stop(s)
HIRL	High intensity runway lights
HRPM	Human Resource Policy Manual
IAFDOF	Inappropriate Altitude for Direction of Flight
ICAO	International Civil Aviation Organization
ICR	Integrated Collaborative Rerouting
ICSS	Integrated communication center
IDS	Information Display System
IFR	Instrument flight rules
IFSS	International flight service station
ILS	Instrument landing system
INS	Immigration and Naturalization Service
IR	IFR MTR
ITWS	Integrated Terminal Weather System
LAA	Local airport advisory
LAANC	Low Altitude Authorization Notification Capability
LAAS	Low altitude alert system
LADP	Local Airport Deicing Plan
LAHSO	Land and hold short operations
LAWRS	Limited aviation weather reporting station
LC	Local control
LLWAS	Low level wind shear alert system
LLWAS NE	Low Level Wind Shear Alert System Network Expansion
LLWAS-RS	Low Level Wind Shear Alert System Relocation/Sustainment
LLWS	Low Level Wind Shear
LOA	Letter of agreement
LOGT	Log/tally print time
LSAS	Leased Service A System
MA	Monitor alert
MALS/RAIL	Medium approach light system and runway alignment indicator lights
MAPPS	Management Association for Private Photogrammetric Surveyors
MCI	Mode C intruder
MDM	Main display monitor
MEA	Minimum en route IFR altitude
MEARTS	Micro En Route Automated Radar Tracking System
METAR	Aviation Routine Weather Report
MIA	Minimum IFR altitude
MIAWS	Medium Intensity Airport Weather System

Abbreviation	Meaning
MIT	Miles-in-trail
MOA	Military operations area
MOCA	Minimum obstruction clearance altitude
MOR	Mandatory Occurrence Report
MOU	Memorandum of understanding
MSL	Mean sea level
MTI	Moving target indicator
MTR	Military training route
MVA	Minimum vectoring altitude
NAA	National aeronautical association
NADIN	National airspace data interchange network
NAR	National Automation Request
NAR	North American Routes
NAS	National Airspace System
NASA	National Aeronautics and Space Administration
NASE	National Airway Systems Engineering
NAVAID	Navigational aid
NCIC	National crime information center
NFDC	National Flight Data Center
NFDD	National Flight Data Digest
NHOP	National hurricane operations plan
NM	Nautical mile
NNCC	National Network Control Center
NOAA	National Oceanic and Atmospheric Administration
NOM	National Operations Manager
NORAD	North American Aerospace Defense Command
NOS	National Ocean Service
NOTAM	Notice to Airmen
NRP	North American Route Program
NTML	National Traffic Management Log
NTMO	National Traffic Management Officer
NTSB	National Transportation Safety Board
NWS	National Weather Service
NWSOP	National winter storm operations plan
OASIS	Operational and Supportability Implementation System
OM	Operations Manager
OPR	Office of primary responsibility
OS	Operations Supervisor
OSIC	Operations Supervisor-in-Charge
P-ACP	Prearranged coordination procedures
PAR	Precision approach radar
PB	Pilot briefing
PCS	Power Conditioning System
PDC	Pre-Departure Clearance
PIC	Pilot-in-command

Abbreviation	Meaning
PIREPS	Pilot reports
POC	Point of Contact
PVD	Planned view display
RA	Radar Associate
RAA	Remote Airport Advisory
RADLO	Regional air defense liaison officer
RAIL	Runway alignment indicator lights
RAIS	Remote Airport Information Service
RAPCON	Radar Approach Control facility (USAF, USN and USMC)
RATCF	Radar Air Traffic Control Facility (USN and USMC)
RCAG	Remote communications air ground facility
RCC	Rescue coordination center
RMT	Route Management Tool
ROC	Regional operations center
ROG	Route Options Generation
ROT	Runway occupancy time
RSU	Runway supervisory unit
RVR	Runway visual range
SAA	Special activity airspace
SAMS	Special Use Airspace Management System
SATCOM	Satellite Communication(s)
SAWS	Stand Alone Weather System
SDP	Surveillance Data Processing
SE	Systems engineer
SECM	Safety and Environmental Compliance Manager
SGI	Special Government Interest
SIA	Status information area
SID	Standard Instrument Departure
SIGMET	Significant meteorological information
SMGCS	Surface movement guidance and control system
SMIS	Safety Management Information System
SMO	System Management Office
SMR	Surface Movement Radar
SOP	Standard operating procedure
SP	Support Specialist(s)
SPECI	Nonroutine (Special) Aviation Weather Report
STARS	Standard terminal automation replacement system
STMC	Supervisor Traffic Management Coordinator
STMCIC	Supervisory Traffic Management Coordinator-in-Charge
STMP	Special traffic management program
SUA	Special use airspace
sUAS	Small Unmanned Aircraft System(s)
SVFR	Special visual flight rules

Abbreviation	Meaning
SWAP	Severe weather avoidance plan
SWS	Surface Weather System
T&A	Time and attendance
TAC	Terminal area chart
TACAN	Tactical air navigation aid
TCA	Tactical Customer Advocate
TCAS	Traffic alert collision and avoidance system
TCDD	Tower cab digital display
TCF	Traffic Flow Management Convective Forecast Produce
TDLS	Terminal Data Link System
TDW	Terminal display workstation
TDWR	Terminal Doppler weather radar
TEC	Tower en route control
TELCON	Telephone Conference
TERPS	Terminal instrument procedures
TFMS	Traffic Flow Management System
TFR	Temporary flight restriction
TM	Traffic management
TMC	Traffic management coordinator
TMI	Traffic management initiatives
TMU	Traffic management unit
TRACAB	Terminal radar approach control in tower cab
TRACON	Terminal radar approach control
TRSA	Terminal Radar Service Area
TSD	Traffic situation display
UA	routine PIREPs
UAS	Unmanned Aircraft System(s)
UASFM	Unmanned Aircraft System(s) Facility Map
USS	Unmanned Aircraft System(s) Service Supplier
UFO	Unidentified flying object
UHF	Ultrahigh frequency
UPT	User Preferred Trajectory
USAF	United States Air Force
USN	United States Navy
UTC	Coordinated universal time
UUA	urgent PIREPs
VAR	Volcanic activity report
VASI	Visual approach slope indicator
VCE	VSCS/Console Equipment
VEARS	VSCS Emergency Access Radio System
VFR	Visual flight rules
VHF	Very high frequency
VMC	Visual meteorological conditions
VOR	Omnidirectional VHF navigational aid
VORTAC	Collocated VOR and TACAN navigational aid
VR	VFR MTR

Abbreviation	Meaning
VSCS	Voice Switching and Control System
VTABS	Voice switching and control system training and backup system
WARP	Weather and Radar Processing
WC	Weather coordinator
WFO	Weather Forecast Office
WINGS	Weather Information and Navigational Graphics System
WMSCR	Weather Message Switching Center Replacement
WRA	Weather Reconnaissance Area
WSD	Web Situation Display
WSO	Weather Service Office
WSP	Weather System Processor

2-1-6. CHECKING ACCURACY OF PUBLISHED DATA

Air traffic managers and air traffic representatives (ATREPs) must ensure, upon receipt of official publications, that a review of data pertaining to their facilities and areas of concern is accomplished to ensure accuracy and completeness. When pertinent national procedures, aeronautical data (to include weather reporting locations), or flight procedures are created or changed, review facility standard operating procedures (SOPs) directives, position/sector binders, reference files, and/or letters of agreement (LOAs) and initiate corrections and briefings as required.

NOTE-

1. Information related to subscribing for alerts regarding upcoming changes to instrument flight procedures is available at the Instrument Flight Procedures Information Gateway: https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/

2. Additional digital AeroNav Products are available via the following websites:

a. https://www.faa.gov/air_traffic/flight_info/aeronav/procedures

b. <http://aerobase.faa.gov>

3. Information on aeronautical data changes, including weather reporting locations, is available at the National Flight Data Center (NFDC) web portal of which a subscription should be requested. Check NFDC 56-Day NASR Subscription and Transmittal Letters at <https://nfdc.faa.gov>.

4. Notice to Airman information may be viewed on the Aeronautical Information System Replacement (AISR) or at <https://notams.aim.faa.gov/notamSearch>.

REFERENCE-

FAA Order JO 7210.3, Para 2-1-2, Facility Standard Operating Procedures Directive

FAA Order JO 7210.3, Para 2-1-3, Position/Sector Binders

FAA Order JO 7210.3, Para 2-2-11, Personnel Briefings Regarding Orders, Published Aeronautical Data and Flight Procedures

FAA Order JO 7210.3, Para 4-3-3, Developing LOA

FAA Order JO 7210.3, Para 4-3-7, Annual Review/Revisions

FAA Order JO 7930.2, Notices to Airmen

FAA Order JO 8260.19, Flight Procedures and Airspace

FAA Order JO 8260.3, United States Standard for Terminal Instrument Procedures (TERPS)

FAA Order JO 8260.43, Flight Procedures Management Program

2-1-7. AIR TRAFFIC SERVICE DURING PLANNED AND UNPLANNED OUTAGES

Facilities must develop and maintain guidelines to provide continuity of required services during planned (for example, radar out for maintenance,

frequency out for repair) or unplanned outages (for example, power failures, natural disasters).

a. For planned outages, facilities must maintain a checklist that provides guidance on approving shutdowns. This checklist should be maintained at an operational manager's position (for example, OMIC desk, OS desk). Facilities should consider the following for inclusion on the checklist:

1. Traffic volume and complexity.

2. Weather.

3. Alternate means of providing air traffic services.

4. Procedures to notify affected facilities when planned outage begins and ends.

5. Other information related to the planned outage, as appropriate.

b. Facilities must develop and maintain operational plans for unplanned outages that provide continuity of services to the extent dictated by the outage (for example, power failures, fire, flood, storm damage, breakdown of critical system components, facility wide outages). The plans must be in accordance with JO 1900.47.

2-1-8. OPERATIONS DURING A STAFFING CONSTRAINT

The following steps must be followed when traffic management initiatives (TMI), ATC-0, or any reduction in ATC services are being considered due to staffing constraints:

a. The Air Traffic Manager (ATM) or their designee must contact the General Manager (GM) or Assistant General Manager (AGM) or their designee and provide the factors of the staffing shortage, expected duration, facility mitigations implemented, and any other related information. If the situation can be mitigated by other means and no TMIs, ATC-0 declaration, or reduction in services is required, the GM or AGM or their designee will determine if a Staffing Trigger Form should be initiated and coordinated with the Deputy Director of Operations (DDO).

b. If it is determined that TMIs are required, ATC-0 is unavoidable, or a reduction in services is required, then the GM, AGM, or their designee must notify the DDO for their concurrence. The GM or AGM or their designee must obtain DDO approval

before submitting the Staffing Trigger Form to the National Operations Manager (NOM) and Joint Air Traffic Operations Command (JATOC).

c. If the DDO agrees that TMIs, ATC-0, or reductions in service are required, the facility will submit the Staffing Trigger Form to the NOM. The DDO will also initiate an upward notification to the AJT Vice President/Deputy Vice President (VP/DVP) or their designee immediately, detailing the impact to the NAS.

NOTE—

1. *Situations involving a minor disruption of air traffic services or a short duration ATC-0 situation that does not have an impact on the NAS should be reported to the DDO. The DDO will determine if a Staffing Trigger Form is to be submitted to the NOM. (e.g., a facility is opening a few minutes late without flight delays, airborne holding, or flight diversions.)*

2. *The Staffing Trigger form is a fillable form created to ensure that the collection of key data elements related to a staffing constraint is captured and available to be forwarded to the NOM for upward distribution. The Staffing Trigger form is accessible at:*

<https://ksn2.faa.gov/ajt/Home/AJT23/BURST/Pages/default.aspx>

REFERENCE—

*FAA Order JO 7110.65, Para 11-1-2, Duties and Responsibilities
FAA Order JO 7210.3, Chapter 18, Section 6, Traffic Management Initiatives*

2-1-9. HANDLING BOMB THREAT INCIDENTS

Air Traffic facilities must establish procedures to carry out their functions in accordance with FAA Order 1600.6, Physical Security Management Program. The following provisions must be incorporated into facility plans:

a. All air traffic facilities must notify the respective regional operations center and other appropriate Service Area office element when a bomb threat occurs.

b. All personnel in the facility will be advised when a bomb threat has been received and of pertinent information regarding the bomb threat.

c. The decision to evacuate a facility will be made by the air traffic manager or his/her designee.

d. If the decision is made to evacuate and air safety is not a factor, immediately release nonessential personnel, instruct aircraft to contact the appropriate

facility designated in the facility contingency plan, advise adjacent facilities as appropriate (ARTCCs should advise the ATCSCC of pending evacuation), broadcast that the facility is being evacuated, and evacuate the building.

e. If the decision is made to evacuate and air safety is a factor, immediately release nonessential personnel, resolve traffic conflicts (aircraft on radar vectors should be cleared to resume normal navigation), instruct aircraft to contact the appropriate facility designated in the facility contingency plan, advise adjacent facilities (ARTCCs should advise the ATCSCC), broadcast that the facility is being evacuated, and evacuate the building as rapidly as personnel can be released. The appropriate actions should be accomplished quickly to minimize personnel exposure. Further, the air traffic manager or his/her designee will determine which personnel will remain on duty until the traffic situation is resolved. Personnel designated to perform this function normally will be selected from the supervisory ranks or persons volunteering temporary services. To be effective this action should be planned in advance. There are various ways in which this can be accomplished. One simple method is that at the beginning of each watch, supervisors will plan their watch coverage should the need to evacuate arise.

f. The evacuation plans will also include recall procedures.

g. Consideration should be given to establishing an alternate site to provide limited flight service or airport air traffic and approach control services.

h. During bomb threat situations, facility air traffic managers or their designees should exercise discretion regarding admittance of visitors to their facilities.

i. Facilities will take action to increase the security whenever such action is feasible. Measures to protect administrative and operational areas and equipment rooms should be taken. FAA Order 1600.6, Physical Security Management Program, provides additional guidance for the protection of agency facilities, installations, equipment, etc. Examples are:

1. Increase security forces and measures.

2. Ensure that facilities are kept tidy so that out-of-place articles can be easily detected. This concept should be emphasized to all personnel including contractors and their employees.

3. Room or area monitors can be assigned to “look over” the area at frequent intervals for suspicious objects. In this regard, air traffic personnel assigned temporary administrative duties would be given building warden responsibilities.

REFERENCE–

FAA Order JO 7210.3, Para 2–8–2, *Medical Clearance Requirements*.

4. Outside areas should be kept as neat as possible. Landscaping should, if possible, be done in a manner that will not enhance clandestine activities.

j. Although it is envisioned that the foregoing will be accomplished within existing resources, planning (including budgeting) should be initiated to establish a secure environment.

k. Release information on bomb threat incidents in accordance with the procedures established in current directives. Where no applicable procedures have been established, all information must be treated as “For Official Use Only.”

2–1–10. HANDLING MANPADS INCIDENTS

a. Air traffic managers must coordinate with federal, local, and other law enforcement agencies, as needed, to develop notification and contingency plans during a threat or attack from Man–Portable Air Defense Systems (MANPADS).

b. Air traffic managers must establish procedures to ensure the dissemination of MANPADS alert level 2 (credible threat)/alert level 3 (reported attack) and post-event activity via ATIS and/or controller-to-pilot transmissions. These reports must continue until notified otherwise by the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC).

REFERENCE–

FAA Order JO 7110.65, Para 2–9–3, *Content*.

FAA Order JO 7110.65, Para 10–2–13, *MANPADS Alert*.

FAA Order JO 7610.4, Para 15–1–3, *Responsibilities*.

c. Air traffic managers must ensure the Operations Manager/OS/controller-in-charge (CIC) notifies the DEN ATSC of any MANPADS threat or attack as soon as possible. In the event of an observed or reported MANPADS launch, the initial report to the DEN ATSC must include the following information:

1. Call sign (if known);
2. Type aircraft (if known);
3. Coordinated Universal time;

4. Position/location of event;

5. Altitude (if known); and

6. Any other pertinent information (e.g., contrail sighting, additional pilot or ATC observation reports, law enforcement contact, etc.).

2–1–11. AIRPORT EMERGENCY PLANS

a. Operational instructions covering airport emergency service at airports served by an ATCT and/or FSS must be issued by the air traffic manager (the ATCT manager at airports with both facilities) in the form of a LOA. Procedures and/or LOAs for alerting airport emergency equipment at other public–use airports served by the ATCT and/or FSS must also be developed, if deemed appropriate.

NOTE–

Facility managers or their designee should meet with Airport Rescue and Fire Fighting (ARFF) personnel on an annual basis to review the local airport emergency service LOA and the effectiveness of local procedures.

REFERENCE–

FAA Advisory Circular AC 150/5210–7, *Aircraft Rescue and Fire Fighting Communications*.

b. Responsibility for the prompt dispatch of equipment upon alert notice by the FAA ATCT or the FSSs is the joint responsibility of the airport management and the emergency equipment operator. The amount of equipment and number of personnel responding to the emergency will be determined by the equipment operator and should be kept to the minimum required. After receiving the alert and the route to be taken, the personnel operating the equipment are responsible for handling the emergency.

c. Procedures for alerting airport emergency equipment, including additional equipment which may be located off the airport, must consist only of:

1. Stating the nature and the location of the emergency by means of a signalling system; e.g., a siren and/or telephone. When required, the tower must indicate the route to be taken by the emergency equipment. FSSs must not specify such routes.

2. Specifying, when required, the category of alert applicable to the emergency.

3. Initiating the alert when, in the opinion of any of the following, a potential or actual emergency exists:

- (a) The FAA specialists on duty.

(b) The pilot of the aircraft concerned.

(c) The operator of the aircraft or his/her representative.

(d) A representative of the airport management.

d. Alert Phases: Operations personnel may categorize local alerts if the category or phase designations have been coordinated locally and agreed to. It may be desirable for emergency equipment to be alerted on a standby or ready basis by use of a two-phase or three-phase alert system, but keep these actions as inconspicuous as possible without impairing efficiency. A three-phase alert may be set up as follows:

1. Alert I: Indicating an aircraft approaching the airport is in minor difficulty; e.g., feathered propeller, oil leak, etc. The emergency equipment and crews would standby at the equipment house for further instructions.

2. Alert II: Indicating an aircraft approaching the airport is in major difficulty; e.g., engine on fire, faulty landing gear, no hydraulic pressure, etc. This could mean emergency equipment would proceed to a predetermined location (end of runway, etc.) to await development of the potential emergency.

3. Alert III: Indicating an aircraft involved in an accident on or near the airport and emergency equipment should proceed immediately to the scene.

e. After alerting the emergency equipment, notify only the local aircraft operator or his/her representative and the airport management.

NOTE–

Airport management is responsible for notifying other agencies or personnel.

REFERENCE–

■ Advisory Circular AC 150/5210–7, Aircraft Rescue and Fire Fighting Communications.

2–1–12. EXPLOSIVES DETECTION K–9 TEAMS

At many of our major airports a program has been established by the FAA and the Law Enforcement Assistance Administration to make available an explosives detection K–9 team. ATC facilities must take the following actions should they receive an

aircraft request for the location of the nearest explosives detection K–9 team:

a. The facility will relay the pilot's request to the FAA Washington Operations Center, AEO–100, telephone: commercial (202) 267–3333; ETN 521–0111; or DSN 851–3750 providing the aircraft's identification and position.

b. AEO–100 will provide the facility with the nearest location. The facility will have AEO–100 standby while the information is relayed to the pilot.

c. After it has been determined that the aircraft wishes to divert to the airport location provided, the air traffic facility will ascertain estimated arrival time and advise AEO–100. AEO–100 will then notify the appropriate airport authority at the diversion airport. In the event the K–9 team is not available at this airport, AEO–100 will relay this information to the air traffic facility providing them with the secondary location. ATC will then relay this to the pilot concerned for appropriate action.

2–1–13. INTERSECTION TAKEOFFS

Air traffic managers at ATCTs and at FSS facilities that provide LAA will prepare an airport diagram showing intersection takeoff information as follows:

a. Indicate the actual remaining runway length from each intersection; round all actual measurements “down” to the nearest 50–feet. Obtain measurements from an authentic source and record them on the diagram.

NOTE–

Some airports publish “declared distances” for a particular runway. These are published in the Chart Supplement U.S. or the Aeronautical Information Publication (AIP), and there is no requirement that facility personnel be made aware of them. These distances are a means of satisfying airport design criteria and are intended to be used by pilots and/or operators for preflight performance planning only. There are no special markings, signage, or lighting associated with declared distances, and they do not limit the actual runway available for use by an aircraft. Therefore, they cannot be used for any air traffic control purpose. If pilots inquire about the existence of declared distances, refer them to the Chart Supplement U.S. or the AIP.

b. If the airport authority requests that certain intersection takeoffs be denied, so indicate on the diagram.

EXAMPLE–

/NO TKOFF/

c. Indicate any access points to a runway from which an intersection takeoff may be made.

2-1-14. AIRCRAFT IDENTIFICATION PROBLEMS

To alleviate any potential misunderstandings of aircraft identifications caused by duplicate, phonetically similar-sounding, or hard to distinguish registration numbers or call signs operating in the same area, facility managers must ensure that operations supervisors report those occurrences to a facility officer and that the following actions be taken.

a. Scheduled air carrier aircraft: When two or more air carriers with duplicate flight numbers or phonetically similar-sounding call signs operate within 30 minutes of each other at the same airport or within the same sector and cause an identification problem on a recurring basis, request that the flight identification numbers be changed by:

NOTE-

Recurrent situations would be aircraft proceeding primarily the same direction through the same sectors three or more times a week, at least two weeks out of four consecutive weeks.

1. In the case of carriers listed in Appendix 2, Air Carrier Points of Contact for Aircraft Identification Problems, contact the appropriate airline office or officer.

2. If other than one of the carriers listed in Appendix 2, contact the operator or the chief pilot of the carrier concerned.

b. *Military aircraft:* Contact base operations of the departure airport and request that action be taken to have the flight identifications changed when duplicate, phonetically similar, or hard to distinguish call signs are causing a flight identification problem. If additional assistance is required, immediately advise the military representative assigned to the Service Area office.

c. Civil aircraft other than air carrier: Advise Mission Support Services, Aeronautical Information Services, at Callsigns@faa.gov when two or more designated call signs are found to be phonetically similar or difficult to pronounce and are causing a flight identification problem.

d. The designated facility officer must maintain a record of actions taken and provide feedback to operations supervisors. That record should include:

1. Date/time of occurrence.
2. Location (e.g., RUS VORTAC, sector 90, Shannon Airport).
3. Call signs involved in the occurrence.
4. Date occurrence is reported by facility.
5. Office/person that facility contacted.

2-1-15. APPROACH CONTROL AIRSPACE

With the advancement of technologies, the air traffic services provided by en route facilities and terminal facilities are becoming more integrated. Terminal airspace should be adjusted to match the services provided. Although en route services are an ARTCC function, terminal facilities may be expected to provide some en route service. There are some areas in which an ARTCC may not have adequate radar coverage or resources, and in these areas it may be necessary to expand the terminal airspace to provide service. Conversely, at locations with nonradar approach control facilities, en route facilities may have radar coverage, and better service would be provided if some approach control airspace is recalled to the ARTCC. At certain locations, the en route facility may be able to absorb all the airspace of a nonradar approach control. Prior to implementing airspace changes, en route and terminal facility managers must work together to ensure the delegated approach control airspace best meets the needs of the airspace area.

2-1-16. AUTHORIZATION FOR SEPARATION SERVICES BY TOWERS

a. Nonapproach control towers, not equipped with a tower radar display, may be authorized to provide appropriate separation between consecutive departures based upon time or diverging courses, and between arrivals and departures, provided:

1. A LOA exists with the IFR facility having control jurisdiction which authorizes the separation responsibilities and prescribes the procedures to be used;
2. The agreement has been approved by the Area Director of Terminal Operations; and

3. There is no delegation of airspace to the tower.

b. Towers equipped with certified tower radar displays (CTRD) may be authorized to provide separation services in accordance with Para 10-5-3, Functional Use of Certified Tower Radar Displays.

c. An authorization for towers to provide separation services other than those prescribed in subparas a and b must be supported by a staff study prepared by the authorizing facility or the Terminal Operations Service Area office which addresses at least:

1. The proposed procedures.
2. Operational benefits.
3. Operational impact.
4. Why the IFR facility is unable to provide an equal or superior level of service without the delegation.
5. Improved services to users.
6. Additional radar training.
7. The measures taken to ensure that the local controller's ability to satisfy the FAA's air traffic responsibilities regarding aircraft operating on the runways or within the surface area is not impaired.
8. On-site spares, maintenance support/restoration requirements.
9. Savings and/or additional costs.
10. The number of additional people required.

d. The staff study must, following the Terminal Operations Service Area review and concurrence, be forwarded to Terminal Services through System Operations Planning, and System Safety and Procedures for approval. System Operations Planning will coordinate with all affected Technical Operations Services Area Service Directors prior to finalizing their comments and recommendations.

2-1-17. BIRD HAZARDS

The air traffic manager of the ATCT must establish procedures to:

a. Ensure that any reported bird strikes or trend toward an increase in bird activity on or around the airport served by the ATCT are reported to airport management.

b. Ensure that coordination will be accomplished with airport management for the possible issuance of NOTAMs when flocks of birds roost on the runways.

NOTE-

It is the responsibility of airport management to issue any such NOTAMs.

c. Participate in local bird hazard programs when established by airport management.

2-1-18. PROHIBITED/RESTRICTED AREAS AND STATIONARY ALTRVS

FAA Order JO 7110.65, Air Traffic Control, prescribes separation requirements from special use, ATC-assigned airspace, and stationary ALTRVs. In recognition of the fact that prohibited/restricted areas and stationary ALTRVs may be established for security reasons or to contain hazardous activities not directly involving aircraft operations, provision is made for exempting these areas from vertical and radar separation minima if the areas have been identified by facility management. The intent in prescribing separation requirements from special use, ATC-assigned airspace, and stationary ALTRVs is to establish a buffer between nonparticipating aircraft and aircraft operations inside special use, ATC assigned airspace, and stationary ALTRVs. As such, the buffer serves as an extra safety margin in consideration of possible operational, procedural, or equipment variances. Application of the separation prescribed in FAA Order JO 7110.65 is not considered necessary whenever the prohibited/restricted airspace and stationary ALTRV does not contain aircraft operations because these areas typically provide an internal buffer based upon the exact type of activity taking place. In making a determination to exempt specific areas, air traffic facility managers must be guided by the following:

a. Determine the exact nature of prohibited/restricted area and stationary ALTRV utilization through direct liaison with the using agency.

b. Coordinate with the Service Area office during the analysis of area utilization.

c. The following types of activity are examples of restricted area utilization which often will not require application of separation minima:

1. Explosives detonation.
2. Ground firing of various types.
3. Aircraft operations associated with the above in a safety, observer, or command and control

capacity only; i.e., the aircraft is not directly engaging in activity for which the airspace was designated and is operating visual flight rules (VFR).

d. If area utilization varies between aircraft operations and other types of activity as described above, do not exempt the area from separation requirements unless a significant operational advantage can be obtained.

e. Restricted airspace with the same number but different letter suffixes are considered to be separate restricted areas. However, treat these types as one restricted area for the purpose of identifying areas for exemption from separation requirements in order to simplify application of separation minima unless a significant operational advantage can be obtained.

2-1-19. SPECIAL AIR TRAFFIC RULES (SATR) AND SPECIAL FLIGHT RULES AREA (SFRA)

The Code of Federal Regulations prescribes special air traffic rules for aircraft operating within the boundaries of certain designated airspace. These areas are listed in 14 CFR Part 93 and can be found throughout the NAS. Procedures, nature of operations, configuration, size, and density of traffic vary among the identified areas.

a. Special Flight Rules Areas are areas of airspace wherein the flight of aircraft is subject to special air traffic rules set forth in 14 CFR Part 93, unless otherwise authorized by air traffic control. Not all areas listed in 14 CFR Part 93 are Special Flight Rules Areas, but special air traffic rules apply to all areas designated as SFRA.

REFERENCE-

14 CFR Part 93, Special Air Traffic Rules

P/CG, SPECIAL AIR TRAFFIC RULES (SATR)

P/CG, SPECIAL FLIGHT RULES AREA (SFRA)

b. Each person operating an aircraft to, from, or within airspace designated as a SATR area or SFRA must adhere to the special air traffic rules set forth in 14 CFR Part 93, as applicable, unless otherwise authorized or required by ATC.

2-1-20. ATC SECURITY SERVICES FOR THE WASHINGTON, DC, SPECIAL FLIGHT RULES AREA (DC SFRA)

ATC security services are designed to support the national security mission of the FAA and other

agencies. A designated security services position has area responsibility for the purpose of security service. Such positions do not have airspace jurisdiction and are not ATC operational positions for purposes beyond the scope of this section, for example, transfer of control, communications, point-out, etc.

a. The OS/CIC must report all instances of loss of radio communication, intermittent transponder or transponder/Mode C failure, the inability to security track aircraft, and other unusual IFR/VFR flight information to the Domestic Events Network (DEN) through the appropriate lines of communication. Some examples are, but are not limited to; suspicious activities, deviation from assigned course/altitude, or other equipment malfunction that may cause an aircraft to operate in an unexpected manner. Relay all known information regarding the aircraft.

b. ATC Security Services Position: ATC Security Services Position is responsible for providing ATC security services as defined. This position does not provide air traffic control IFR separation or VFR flight following services, but is responsible for providing security services in an area comprising airspace assigned to one or more ATC operating sectors and as such, normal airspace jurisdictional constraints do not apply.

c. Facility manager must:

1. Designate in a facility directive which existing position(s) and frequencies will be utilized to provide Security Services when required and the transition procedures from the ATC operational status to the Security Services Position.

2. Ensure that contingency plan parent and support procedures are updated regarding operational capability level (OCL) changes that affect Special Security Areas.

NOTE-

The requirement to establish an ATC Security Services Position in addition to ATC operating position does not by itself constitute a need for additional staffing nor is its purposes intended to justify or deny facility staffing needs.

d. When the Security Services position and the ATC Operating position are both staffed, detailed position responsibilities must be defined in the facility directive.

NOTE-

Airspace sectorization and the workload associated with the normal use of that airspace may degrade the ability of an ATC operation position to provide security services.

When this occurs, pilots must be held outside of the security services area in accordance with FAA Order JO 7110.65, Paragraph 9-2-1, Aircraft Carrying Dangerous Materials, subpara b2.

1. When an ATC Security Services Position is not separately staffed, the appropriate ATC operating position responsible for that airspace will assume the security service responsibilities.

2. Requests for ATC services to VFR aircraft operating within the designated area to enter positive controlled airspace must be issued by the appropriate radar position in accordance with FAA Order JO 7110.65, Air Traffic Control, and other applicable directives.

e. Adjacent Airport Operations.

1. Aircraft that will enter the designated airspace after departing controlled airports within or adjacent to security areas must be provided security services by the appropriate ATC facility having jurisdiction over the affected airspace. Procedures for handling this situation must be covered in a Letter of Agreement (LOA) or facility directive as appropriate.

2. Aircraft departing uncontrolled airports within security areas must be handled using procedures contained in a NOTAM or rule designating the area where ATC security services are required.

2-1-21. AIRPORT TRAFFIC PATTERNS

a. The Area Directors of Terminal Operations are the focal point to review traffic patterns. Traffic patterns at airports without an operating control tower should be established in accordance with Advisory Circular, AC 90-66, Recommended Standard Traffic Patterns and Practices for Aeronautical Operations at Airports without Operating Control Towers.

b. FAA Order JO 7400.2, Procedures for Handling Airspace Matters, will be the source for handling technical matters pertaining to the establishment or the revision of traffic patterns.

2-1-22. OBSTACLE IDENTIFICATION SURFACES, OBSTACLE FREE ZONES, RUNWAY SAFETY AREAS, APPROACH/DEPARTURE HOLD AREAS, AND CLEARWAYS

a. Facility air traffic managers must monitor planned airport construction projects, work with the regional airports office and the airport manager in determining the need to modify any taxi routes normally used, and request notification from the airport manager when adequate signage and marking are completed on the new/different taxi routes, while ensuring that local procedures provide protected airspace from adjacent, nonintersecting runways and taxiways where simultaneous use could create hazards for arriving and departing aircraft. These procedures must be reviewed whenever new runways or taxiways are programmed or whenever new/different aircraft are scheduled to provide service to the airport.

b. Ensure that aircraft on the ground do not penetrate marked Obstacle Identification Surfaces, Obstacle Free Zones, Runway Safety Areas, Approach/Departure Hold Areas, Clearways, or other airspace designed to provide protection for departures and arrivals.

c. At locations where potential for conflict exists, take action to rectify the situation by developing proposed solutions and establishing local procedures to define conditions when the Approach/Departure Hold Areas and other surfaces must be protected. These procedures must be included in a facility directive and the signage at the intended hold position must be consistent with the phraseology identified in FAA Order JO 7110.65, Paragraph 3-7-2, Taxi and Ground Movement Operations.

d. ATMs must consult with the airport authority, Flight Standards, Airports, and the Regional Runway Safety Program Manager (RSPM) when developing proposed solutions and establishing local procedures. The RSPM will assist the ATM, as needed, in initiating contact with Flight Standards and Airports.

REFERENCE-

P/CG Term – Approach/Departure Hold.

2-1-23. FACILITY IDENTIFICATION

a. Service Area Directors are the focal point to review/approve requests for waivers for facility identification changes in FAA Order JO 7110.65, Air Traffic Control, Paragraph 2-4-19, Facility Identifi-

fication, subparas a, b, and c, and FAA Order JO 7110.10, Flight Services, Paragraph 14-1-14, Facility Identification, subparagraphs a, b, and c. If the waiver request is approved, the Service Area Director must ensure that all aeronautical publications are changed to reflect the new identification, and that a Letter to Airmen is published notifying the users of the change.

b. Service Area Directors must forward a copy of the approval to System Operations Services.

2-1-24. DISPOSITION OF OBSOLETE CHARTS

a. Obsolete charts may only be disposed of by destroying, including recycling, or by giving to flight schools and other training institutions where the charts are to be used only for training in the classroom. Under no circumstances should obsolete charts be given to pilots or the general public, regardless if they are marked obsolete or not.

b. There are hundreds of changes that appear on each new edition of a chart. When pilots are given obsolete charts they are not aware of critical changes that have occurred. Further, the use of such a chart could result in a Code of Federal Regulations (CFR) violation or an accident which would have serious legal implications for the agency.

2-1-25. OUTDOOR LASER DEMONSTRATIONS

a. The Area Directors of Terminal Operations Services are the focal point for reviewing/approving requests for outdoor laser demonstrations.

b. FAA Order JO 7400.2, Procedures for Handling Airspace Matters, is the source for processing outdoor laser demonstration requests.

2-1-26. COMBINE/RECOMBINE AN ATCT/TRACON

Prior to consideration for any ATCT/TRACON to combine or recombine, a detailed staff study will be required from the facility explaining the benefit to the agency and the customer. After the Terminal Operations Service Area office review, the staff study must be forwarded to the Director of Terminal Planning. A decision to combine or recombine an

ATCT/TRACON will require coordination with the ATO Chief Operating Officer.

2-1-27. SUBMISSION OF AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA) DATA

Air Traffic Service Area offices submit data on all ATCAAs used on a continuing/constant basis, and any subsequent changes to the ATCAA database to System Operations Airspace and Aeronautical Information Management for the purpose of updating the Special Use Airspace Management System (SAMS) and Aeronautical Information System. Include the following as applicable:

a. Transmittal memorandum containing a brief overview of the ATCAA, and/or changes to, FAA headquarters, and System Operations Airspace and Aeronautical Information Management. Summarize the ATCAAs or any amendments made to ATCAAs including additional changes, etc.

b. A separate attachment that contains a description of the area to include latitude/longitude points, boundaries, altitudes, times, controlling agency, using agency, and any other relative information.

NOTE-

If only part of the description of an existing area is being amended, the attachment should show just the changed information rather than the full legal description.

c. A sectional aeronautical chart depicting the final boundaries of the proposed area, including any subdivisions.

d. Any other information that should be considered by FAA headquarters.

NOTE-

ATCAA descriptive data will normally be submitted 9 weeks prior to the requested/required airspace effective date.

2-1-28. SUBMISSION OF SUA AND PAJA FREQUENCY INFORMATION

The Aeronautical Information Services maintain a national database of Special Use Airspace (SUA) and Parachute Jump Area (PAJA) controlling sector contact information. The database is used to publish frequencies for pilots to obtain status information for SUAs and PAJAs. Facility managers should ensure that the following information is forwarded to Aeronautical Information Services:

a. Contact frequencies for existing SUAs and PAJAs within your area of jurisdiction.

b. Any changes to contact frequencies for existing SUAs and PAJAs within your area of jurisdiction.

c. Contact frequencies for any new SUAs or PAJAs within your area of jurisdiction.

2-1-29. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT

Consistent with the provisions of Air Traffic Service, Duty and Operational Priorities; all Air Traffic Control facilities, FAA Contract Towers, and Flight Service Stations must report unauthorized laser illumination incidents as follows:

a. Contact local law enforcement or the Federal Bureau of Investigation (FBI) as soon as possible providing location, description, and other pertinent information regarding the incident;

b. Report the incident to the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC);

c. Record the incident via the Comprehensive Electronic Data Analysis and Reporting (CEDAR) program or, if CEDAR is not available, via the appropriate means, in accordance with FAA Order JO 7210.632, Air Traffic Organization Occurrence Reporting;

d. Provide the following information when reporting the incident via the DEN and CEDAR:

1. UTC date and time of event.
2. Call Sign, or aircraft registration number.
3. Type of aircraft.
4. Nearest major city.
5. Altitude.
6. Location of event (e.g., latitude/longitude and/or Fixed Radial Distance (FRD)).
7. Brief description of the event.
8. Any other pertinent information.
9. Law enforcement contact information.

NOTE-

Facilities without direct access to the DEN should forward the information through the Washington Operations Center Complex (WOCC) to the DEN.

REFERENCE-

FAA Order JO 7110.65, Para 2-9-3, Content

FAA Order JO 7110.65, Para 10-2-14, Unauthorized Laser Illumination of Aircraft.

2-1-30. REPORTING SUSPICIOUS AIRCRAFT/PILOT ACTIVITIES

a. Facility air traffic managers must ensure that the operational supervisor/controller-in-charge promptly reports any suspicious aircraft/pilot activities to the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC).

NOTE-

Additional information for ATC on identifying suspicious situations is located in FAA Order JO 7610.4, Special Operations, Chapter 7, Section 3, Suspicious Aircraft/Pilot Activity.

b. The DEN ATSC must be notified as soon as possible of any suspicious activity, including the following:

1. Radio communications are lost or not established. Consider any IFR aircraft that is NORDO for more than 5 minutes as suspicious. This includes all aircraft (for example, general aviation, law enforcement, military, medevac) regardless of transponder code. ATC actions taken to establish communications with the NORDO aircraft must be reported to the DEN ATSC.

2. An aircraft fails to turn on or changes from its assigned transponder beacon code (other than approved emergency/radio failure beacon code).

3. An aircraft deviates from its assigned route of flight/altitude and refuses to return to it when instructed.

4. Phantom or inappropriate transmissions such as unusual questions about military activities or sensitive/secure areas.

5. Inconsistent or abnormal repetitive aircraft activity such as; flights over/near sites of interest or prohibited/restricted airspace, inappropriate speed or rate of climb/descent, or missed crossing restrictions or reporting points.

6. Pilot reports flight difficulties with no eventual explanation or response to ATC.

7. Any air carrier, cargo, or scheduled air taxi that requests to divert from its original destination or route for any reason other than weather or routine route changes should be considered by ATC as suspicious activity.

8. Any general aviation arriving from an international departure point that requests to divert from the original U.S. destination airport.

9. Other general aviation and non-scheduled air taxi or charter services that request to divert from the original destination or route for any unusual reason (e.g., reasons other than weather, company request, passenger request, mechanical, etc.) should be considered by ATC as suspicious activity.

10. Any other situation that may indicate a suspicious aircraft, including any reported or observed unauthorized unmanned aircraft activity or remote controlled model aircraft that deviate from normal practice areas/flight activities would be considered suspicious or a safety hazard.

REFERENCE—

FAA Order JO 7110.65, Para 2-1-2, Duty Priority.
Advisory Circular 91-57, Model Aircraft Operating Standards.

11. Any situation or pilot activity (for example, background noise, change in pilot's voice characteristics, etc.) that may indicate a hijacked aircraft. Due to air to ground communications capabilities (e.g., data links, cellular phones), ATC facilities may learn of a hijack situation from alternate sources (for example, airline air operations center) rather than the aircrew itself.

2-1-31. REPORTING DIVERTED AIRCRAFT ARRIVING FROM INTERNATIONAL LOCATIONS

Any aircraft departing from an international location that diverts to a U.S. Airport, or is diverted and lands at a U.S. airport different from the original U.S. destination airport, must be reported to the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC). In addition, any diverted aircraft that ATC identifies as suspicious (in accordance with paragraph 2-1-30) must be promptly reported to the DEN ATSC.

NOTE—

Weather, airport/runway conditions, or other unforeseen reasons may necessitate an aircraft to divert or be diverted on short notice. Reporting via the DEN assists U.S. Customs and Border Protection (CBP) with real-time notification of the airport change.

2-1-32. REPORTING UNAUTHORIZED, HAZARDOUS, OR SUSPICIOUS UAS ACTIVITIES

All FAA Air Traffic Control facilities, Federal Contract Towers, and Flight Service Stations, must take the following actions for any reported or observed unauthorized, hazardous, or suspicious UAS activities:

a. Notify the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC) at (540) 422-4423/4424/4425 as soon as possible.

b. If the UAS activity is creating a hazard to air traffic, contact local law enforcement providing location, description, and other pertinent information regarding the activities.

c. Record the incident via the Comprehensive Electronic Data Analysis and Reporting (CEDAR) program or, if CEDAR is not available, via the appropriate means, in accordance with FAA Order JO 7210.632, Air Traffic Organization Occurrence Reporting.

2-1-33. REPORTING DEATH, ILLNESS, OR OTHER PUBLIC HEALTH RISK ON BOARD AIRCRAFT

a. When an air traffic control facility is advised of a death, illness, and/or other public health risk, the following information must be forwarded to the DEN:

1. Call sign.
2. Number of suspected cases of illness on board.
3. Nature of the illness or other public health risk, if known.
4. Number of persons on board.
5. Number of deaths, if applicable.
6. Pilot's intent (for example, continue to destination or divert).
7. Any request for assistance (for example, needing emergency medical services to meet the aircraft at arrival).

NOTE—

1. If the ATC facility is not actively monitoring the DEN or does not have a dedicated line to the DEN, they must call into the DEN directly via 844-432-2962 (toll free).

Additionally, if this phone number is out of service, alternate back-up bridge phone numbers should be used to contact the DEN: 405-225-2444 or 844-663-9723 (toll free).

2. Except in extraordinary circumstances, such as a situation requiring ATC intervention, follow-on coordination regarding the incident will not involve ATC frequencies.

3. The initial report to a U.S. ATC facility may be passed from a prior ATC facility along the route of flight.

b. Once notification of an in-flight death, illness, and/or other public health risk is provided by an ATC facility, the DEN Air Traffic Security Coordinator must ensure the Centers for Disease Control and Prevention (CDC) Emergency Operations Center (EOC) receives the following information:

1. Call sign.
2. Number of suspected cases of illness on board.
3. Nature of the illness or other public health risk, if known.
4. Number of persons on board.
5. Number of deaths, if applicable.
6. Departure airport.
7. Arrival airport.
8. Estimated time of arrival.
9. Pilot's intent (for example, continue to destination or divert).
10. Any request for assistance (for example, a need for emergency medical services to meet aircraft at arrival).

REFERENCE-

FAA Order JO 7110.65, Para 10-2-19, REPORTING DEATH, ILLNESS, OR OTHER PUBLIC HEALTH RISK ON BOARD AIRCRAFT

2-1-34. OPPOSITE DIRECTION OPERATIONS

Opposite Direction Operations consists of IFR/VFR Operations conducted to the same or parallel runway where an aircraft is operating in a reciprocal direction of another aircraft arriving, departing, or conducting an approach.

REFERENCE-

FAA Order JO 7110.65, Para 1-2-2, Course Definitions

- a.** Each facility must:

1. Determine the operational feasibility of conducting opposite direction operations.

2. At a minimum, develop the opposite direction operations procedures necessary to accommodate aircraft that have an operational need or receiving operational priority.

REFERENCE-

FAA Order JO 7110.65, Para 2-1-4, Operational Priority

b. For aircraft receiving IFR services that are conducting opposite direction operations to the same runway, facility directives must:

1. Define minimum cutoff points identified by distance or fixes between:

- (a)** An arrival and a departure.
- (b)** An arrival and an arrival.

2. Specify that use of Visual Separation is not authorized, except at those unique locations that are operationally impacted by terrain and when issued a Letter of Authorization by the Service Area Director of Operations.

3. Require traffic advisories to both aircraft.

EXAMPLE-

OPPOSITE DIRECTION TRAFFIC (distance) MILE FINAL, (type aircraft). OPPOSITE DIRECTION TRAFFIC DEPARTING RUNWAY (number), (type aircraft). OPPOSITE DIRECTION TRAFFIC, (position), (type aircraft).

4. Require the use of a memory aid.

5. Prohibit opposite direction same runway operations with opposing traffic inside the applicable cutoff point unless an emergency situation exists.

6. Specify the position/facility responsible for ensuring compliance with cutoff points between aircraft conducting opposite direction operations.

7. Contain the following minimum coordination requirements:

(a) Define the facility/position that is responsible for initiating coordination.

(b) All coordination must be on a recorded line and state "Opposite Direction." Initial coordination must include call sign, type, and arrival or departure runway.

c. The cutoff points established under subparagraph b1 must ensure that required lateral separation exists:

1. When a departing aircraft becomes airborne and has been issued a turn to avoid conflict; or

2. When the first aircraft has crossed the runway threshold for opposite direction arrivals.

3. If the conditions in subparagraphs c1 and c2 are not met, facility directives must require action be taken to ensure that control instructions are issued to protect the integrity of the cutoff points.

d. At a minimum, the following must be considered when developing cutoff points:

1. Aircraft performance.
2. Type of approach.
3. Operational position configuration.
4. Runway configuration.
5. Weather conditions.
6. Existing facility waivers.

e. For aircraft receiving IFR services that are conducting opposite direction operations to parallel runways regardless of the distance between centerlines, facility directives must:

1. Ensure that a turn away from opposing traffic is issued when opposing traffic is inside the cutoff points defined in b1 for the other runway.

2. Specify that use of Visual Separation is authorized once a turn away from opposing traffic is issued.

REFERENCE–

FAA Order JO 7110.65, Para 7-2-1, *Visual Separation*

3. Require traffic advisories to both aircraft.

EXAMPLE–

OPPOSITE DIRECTION TRAFFIC (distance) MILE FINAL, (type aircraft). OPPOSITE DIRECTION TRAFFIC DEPARTING RUNWAY (number), (type aircraft). OPPOSITE DIRECTION TRAFFIC, (position), (type aircraft).

4. Require the use of a memory aid.

5. Contain the following minimum coordination requirements:

(a) Define the facility/position that is responsible for initiating coordination.

(b) All coordination must be on a recorded line and state “Opposite Direction.” Initial coordination must include call sign, type, and arrival or departure runway.

(c) At those locations that routinely conduct Opposite Direction Operations due to noise abatement at night and when issued a Letter of Authorization by the Service Area Director of Operations, the provisions of paragraph e5 above are not required.

f. For VFR aircraft that are conducting opposite direction operations to same or parallel runways, facility directives must contain procedures requiring the use of the following, including but not limited to:

1. Ensuring departing VFR aircraft are issued a turn to avoid conflict with opposing IFR/VFR traffic.

2. Traffic advisories to both aircraft.

3. State the phrase “opposite direction” if coordination is required.

4. Memory Aids.

g. All facility directives and letters of agreement addressing opposite direction operations must be approved by the Service Area Director of Operations.

REFERENCE–

FAA Order JO 7110.65, Para 3-8-4, *Simultaneous Opposite Direction Operation*

2–1–35. SPECIAL INTEREST SITES

a. Supervisory/CIC personnel receiving any reports or information regarding unusual aircraft activities in the vicinity of special interest sites such as nuclear power plants, power plants, dams, refineries, etc., must immediately notify local law enforcement authorities of these reports/information and notify the overlying air traffic facility of any of these reports and the action taken. Supervisory/CIC personnel may receive reports/information from the Nuclear Regulatory Commission or other sources.

b. Air traffic facilities must promptly advise the Domestic Events Network (DEN) of any actions taken in accordance with this paragraph.

c. Individual facilities must determine which special interest sites, if any, should be displayed on maps, charts, and video displays.

2-1-36. TRANSPORTATION SECURITY ADMINISTRATION AND FAA JOINT OPERATING PROCEDURES

The requirements for Air Traffic Managers (ATM) to follow during security events, according to the Transportation Security Administration (TSA) and the FAA Joint Operating Procedures Agreement, are as follows:

a. If the TSA Federal Security Director (FSD) informs the ATM of an imminent and potentially life threatening security situation, the ATM, consistent with safety, must comply with the FSD's requested operational response. As soon as possible after action is taken, the ATM must contact the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC) and report any action taken.

b. The above guidance does not preclude the ATM from taking immediate action in the event the ATM learns of an imminent and potentially life threatening

security situation. In such situations, as soon as possible, the ATM must notify the DEN ATSC and the FSD of the situation, along with any action taken.

NOTE-

For information concerning reporting of suspicious activities around airports and FAA facilities, see JO 7210.3, paragraph 2-7-6, Suspicious Activities Around Airports or FAA Facilities.

c. For any security situation identified by TSA, in addition to those that are "imminent and life threatening," the ATM must contact the DEN ATSC and the FSD to report the situation.

d. At airports that have both an FAA and TSA presence, the ATM and FSD must meet at least every 6 months, or within sixty days of a new ATM or FSD entering into their position, to exchange/update contact information and to discuss security-related information and plans of mutual interest.

e. The responsibilities outlined in this paragraph may be delegated as necessary.

mail (e-mail), etc.

2. Facilities can improve the process of GENOT distribution by reporting the distribution/reception of multiple copies of the same GENOT to their respective Air Traffic Service Area office or Flight Services Information Area Group office.

b. Determine if the contents of the GENOT is applicable to their facility.

c. Use the content to determine the priority of distribution.

d. Ensure information required to achieve operational mission is briefed prior to an employee performing their duties.

NOTE—

Managers should update employee's Training and Proficiency Record in accordance with FAA Order JO 3120.4, Air Traffic Technical Training.

2-2-9. PERSONNEL BRIEFINGS REGARDING AIR TRAFFIC BULLETIN ITEMS

a. The Policy Directorate is the ATO authority on all matters pertaining to Air Traffic Procedures; hence, the development of an ATPB.

b. The ATPB is:

1. A tool that the Policy Directorate utilizes to share additional Air Traffic Procedures information with field facilities.

2. Published on an *as needed basis*, to provide additional clarity or to communicate useful information concerning the proper application of air traffic standards, policies, and procedures.

3. Is effective for one year from its publication date. The Policy Directorate may extend a bulletin's expiration date to accommodate topics that are still current.

c. While this list is not all inclusive, the ATPB can be used to:

1. Respond to field facility questions or concerns that are typically generated with the establishment of new separation minima.

2. Address the misapplication of existing procedures as identified through a Safety Assurance Program (e.g., internal/external audit).

3. Address safety recommendations received from any safety related program or organization (e.g., Runway Safety, ATSAP, AJI, AOV, and NTSB).

4. Communicate the need for changing air traffic procedures based on a pressing safety need (risk mitigation).

5. Communicate the development of new air traffic procedures associated with the deployment of new technologies.

d. Facility Air Traffic Managers must:

1. Ensure that their facility is on the distribution list for the Air Traffic Procedures Bulletin. Any corrections, additions or deletions should be directed through the appropriate Service Center.

2. Ensure that ATPB items that are appropriate to a particular facility are verbally briefed with facility personnel.

(a) The Policy Directorate will annotate the ATPB with the type of facilities that the subjects are applicable to.

(b) These briefings must take place within 45 days after receipt of the bulletin. Record briefings in accordance with FAA Order 3120.4, Appendix A.

3. Encourage submissions of suggested ATPB items that have an operational or procedural impact from facility personnel at regular crew and personnel briefings.

(a) Evaluate and forward those suggestions considered appropriate for Service Area office review.

(b) Service Center offices must evaluate the suggested items and forward those considered significant and/or national in scope to the Policy Directorate via the electronic mailbox at 9-AJV-P-HQ-Correspondence@faa.gov, in *Microsoft Word* format.

2-2-10. LAW ENFORCEMENT INFORMATION

Law enforcement information; e.g., aircraft identification, flight schedules, flight operations, procedures, aircraft lookouts, etc., is of great value to drug traffickers and others attempting to circumvent the law. Although law enforcement information is normally unclassified, it is considered to be inherently sensitive, of a confidential nature, and is to

be handled on a “For Official Use Only” (FOUO) basis. Facility air traffic managers must ensure that such information is safeguarded from disclosure in accordance with FAA Order 1600.2, Safeguarding Controls and Procedures for Classified National Security Information and Sensitive Information, whether the information is physically marked with the FOUO term or not. “Safeguarded from disclosure” includes precaution against oral disclosure, prevention of visual access, and precaution against unauthorized release, gratuitously or in response to a specific request.

2-2-11. PERSONNEL BRIEFINGS REGARDING ORDERS, PUBLISHED AERONAUTICAL DATA, AND FLIGHT PROCEDURES

a. Air traffic managers must ensure that facility air traffic personnel are verbally briefed on changes to FAA Order JO 7110.65, Air Traffic Control, FAA Order JO 7210.3, Facility Operation and Administration, and FAA Order JO 7110.10, Flight Services, and other appropriate directives, that have operational/procedural significance.

b. Air traffic managers must ensure that facility air traffic personnel are briefed prior to implementation on changes identified in the review of published aeronautical data and flight procedures that have operational/procedural significance or will likely have an effect on their facility’s air traffic services. To the extent possible these briefings should be initiated within 30 days prior to the date of the change.

REFERENCE–

FAA Order JO 7210.3, Para2-1-6, *Checking Accuracy of Published Data*

c. The Aeronautical Information System Replacement (AISR) is an authorized source for NOTAMs. To the extent available, Air Traffic Managers must permit review of AISR for NOTAMs impacting the facility’s area of jurisdiction, or an alternative authorized source; for example, the National Airspace System Aeronautical Information Management Enterprise System (FAA NAIMES) website at: <https://notams.aim.faa.gov/notamSearch>.

2-2-12. SYSTEMS MANAGEMENT OF VSCS EQUIPMENT

Air traffic facility managers must determine which VSCS console equipment (VCE) positions require tailored checklists. The checklist must include as a minimum, the configuration map in use and the specific position eligibility/capability (classmark) adapted to maintain operational continuity.

2-2-13. REPORTING EQUIPMENT TROUBLE

Equipment trouble reports are normally delivered by air traffic personnel to Technical Operations Control Center personnel in person or by telephone. Locally developed procedures that are agreed to jointly by the air traffic and Technical Operations managers may be used for trouble reporting. In the absence of locally developed procedures, the following must apply: Trouble reports must specify the facility, sector and position affected and include a brief description of the problem. In addition:

a. For air/ground communications problems, the frequency or frequencies affected must be specified.

EXAMPLE–

“Atlanta Sector 66R side 123.4 no transmit.”

b. For air/ground communications problems, the calling and the called locations must be specified.

EXAMPLE–

“Seattle Sector 46D side hot line to Salt Lake City is not working.”

2-2-14. FACILITY DIRECTIVES REPOSITORY (FDR)

The Facility Directives Repository (FDR) provides a centralized, automated web-based library for FAA employees to access all Letters of Agreement (LOA), Standard Operating Procedures (SOP), and FAA Facility Orders (FO) for Air Traffic Facilities throughout the National Airspace System.

NOTE–

Directive information for Flight Service Stations (LOAs, SOPs, FOs) will only be required for those located in Alaska.

a. The Vice President’s responsibility includes:

1. The Vice President for En Route and Oceanic Services must develop processes within the service unit to ensure repository entry functions are discharged effectively.

2. The Vice President for Terminal Services must develop processes within the service unit to ensure repository entry functions are discharged effectively.

3. The Vice President for System Operations Services must administer user functions and develop processes within the service unit to ensure repository entry functions are discharged effectively.

4. The Vice President for Operations Planning Services must administer system functions, provide access to the internet mirror site, and oversee the site operation and maintenance.

5. The Vice President for Safety Services oversees compliance.

b. Facility Managers must:

1. Ensure that current LOAs, SOPs and FOs are posted to the repository site.

2. Ensure that new and revised LOAs, SOPs and FOs are posted to the repository site before the effective date of the document.

3. Establish an internal administrative process to ensure the posting, completeness, and accuracy of their facility's documents.

4. Ensure Classified, Contractor Propriety, and For Official Use Only information, is removed or excluded from posted documents.

5. Ensure that all outdated and cancelled documents are removed from the FDR database.

c. General Managers must:

1. Assist in the posting of documents, required in b1 and 2 above, for facilities that do not have FAA intranet access or automation capability.

2. Establish an administrative process to ensure facility compliance.

3. Ensure Classified, Contractor Propriety, and For Official Use Only information, is removed or excluded from posted documents.

d. Safety/Quality Assurance Offices must ensure facility compliance with posting LOAs, SOPs and FOs in the repository site in facility evaluation checklists.

e. The repository database is an intranet site within the FAA automation network firewall at <https://loa.faa.gov>.

1. Personnel with access to the FAA intranet may view documents without the need for a log-in or user account.

2. Personnel external to the firewall may view documents on a mirrored internet site with authorization by an FAA sponsor. Access to the mirror site requires a User ID and password that are valid for the period necessary to execute the sponsored activity. Contact information and instructions are available on the internet site.

3. Personnel responsible for maintaining the facility's documents must register with the site to establish a user account.

4. A facility may have up to three user accounts. User information is located in the user manual on the site's homepage.

5. Facility/General managers are the approving authority for user account privileges for their facilities.

(a) Users must complete an electronic registration page on the site to request access.

(b) The Facility/General manager will be notified via an email message when a user makes a request for account privileges. Approval must be made via the automated privilege link.

(c) Users will be notified of their approval by e-mail.

(d) Direct problems or questions to the facility point of contact identified on the facility homepage in the repository.

Section 7. Appearance and Security

2-7-1. PERSONNEL APPEARANCE

Personnel must maintain a neat, clean, businesslike appearance during working hours. Personal grooming and clothing must be appropriate to the conduct of Government business.

2-7-2. QUARTERS APPEARANCE

The appearance of each air traffic facility must reflect the high standards of the agency at all times. Facility air traffic managers must ensure that adequate janitorial services are provided.

2-7-3. BULLETIN BOARDS

Air traffic bulletin boards should only display material authorized by the facility air traffic manager or his/her designee.

2-7-4. FOOD AND BEVERAGES

Food and beverages may be permitted in the operating quarters at the discretion of the facility air traffic manager.

2-7-5. FACILITY SECURITY

a. Facility air traffic managers are responsible for the security of operating quarters and must use appropriate agency directives for guidance in maintaining this security. This is not applicable to pilot briefing areas in flight service stations except when the FSS is collocated with an ARTCC.

b. When an ARTCC and a FSS are collocated, a LOA must be implemented to define the respective areas of security responsibility assigned to each facility.

REFERENCE-
FAA Order JO 7210.3, Subpara 4-3-2e, Appropriate Subjects.

c. Facility air traffic managers must determine that adequate locks or other suitable devices are installed and operated so as to ensure security control over access to operating quarters.

d. In no case must ARTCC buildings be used as public fallout shelters.

2-7-6. SUSPICIOUS ACTIVITIES AROUND AIRPORTS OR FAA FACILITIES

ATC facilities must report suspicious activities (for example, unauthorized use of aircraft, tampering with aircraft or other property around airports or FAA facilities, placing packages or other objects in unusual locations, and any activity performed in a manner that is suspect of malice) on the Domestic Events Network (DEN) at 844-432-2962 (toll-free). In addition, these types of suspicious activities must be reported to local law enforcement, the airport manager, aircraft operator, or any combination thereof as appropriate. Do not attempt to delay, detain, or question suspects, but do attempt to keep the person or persons under surveillance until law enforcement representatives arrive.

NOTE-

Procedures for reporting other suspicious activities or security events are located in JO 7210.3, paragraphs 2-1-30 (Reporting Suspicious Aircraft/Pilot Activities); 2-1-32 (Reporting Unauthorized, Hazardous, or Suspicious UAS Activities); 2-1-36 (Transportation Security Administration and FAA Joint Operating Procedures); and 2-7-7 (Cooperation with Law Enforcement Agencies).

2-7-7. COOPERATION WITH LAW ENFORCEMENT AGENCIES

a. Theft of aircraft and other suspicious activities concerning aircraft have complicated the task of law enforcement agencies, particularly with federal drug enforcement efforts. Any information the Federal Bureau of Investigation (FBI) and Department of Homeland Security (DHS) obtains on these activities could assist their investigations. ATC facilities must report information pertaining to stolen aircraft and other suspicious activities concerning aircraft on the Domestic Events Network (DEN) as described in subparagraph c.

REFERENCE-
FAA Order JO 7210.3, Para 2-7-6, Suspicious Activities Around Airports or FAA Facilities.

b. The Blue Lightning Initiative, led by U.S. Customs and Border Protection and the Department of Transportation, trains airline personnel to identify potential traffickers and human trafficking victims, and to report their suspicions to federal law enforcement. Reports of suspected human trafficking

must be reported on the DEN as described in subparagraph c.

c. Report on the DEN directly if the ATC facility is actively monitoring the DEN or has a dedicated line to the DEN. Otherwise, the ATC facility must immediately report the above referenced activities on the DEN via 844-432-2962 (toll free). Additionally, if this phone number is out of service, alternate back-up bridge phone numbers should be used to contact the DEN: 405-225-2444 or 844-663-9723 (toll free).

2-7-8. FACILITY VISITORS

a. Persons interested in the services and facilities provided by air traffic should be encouraged to visit facilities for familiarization. The facility air traffic

manager or a designated representative may authorize these visits if:

1. The presence of visitors does not interfere with the operation of the facility.
 2. There is no breach of security directives.
 3. Personnel are or will be available to conduct an escorted tour.
- b. Foreign national visits must be handled in accordance with current directives.

2-7-9. SECURITY OF JOINT-USE RADAR DATA

Personnel involved in a joint-use radar environment must be familiar with the provisions of directives concerning the security of joint-use radar.

2-10-6. BROADCAST DENSITY ALTITUDE ADVISORY

Terminal and FSS facilities at airports with field elevations of 2,000 feet MSL or higher must broadcast a density altitude advisory to departing general aviation (GA) aircraft whenever the temperature reaches a certain level. These broadcasts must be made on ground control (GC), clearance delivery (CD), airport advisory, or automatic terminal information service (ATIS) as appropriate. Use the following table to determine broadcast applicability: (See TBL 2-10-1.)

TBL 2-10-1
Broadcast Applicability

<i>Field Elevations (MSL)</i>	<i>Broadcast Advisory When Temperature is</i>
2,000 to 2,999	85°F and higher
3,000 to 3,999	80°F and higher
4,000 to 4,999	75°F and higher
5,000 to 5,999	70°F and higher
6,000 to 6,999	65°F and higher
7,000 and higher	60°F and higher

Section 2. Use of Communications

3-2-1. RESPONSIBILITY

The air traffic manager is responsible for taking action to detect, prevent, and report:

a. Obscene, indecent, or profane language used on any means of communications (e.g., voice frequencies, Satellite Communication(s) (SATCOM), Controller Pilot Data Link Communications (CPDLC)).

b. False, deceptive, or phantom controller communications to an aircraft or controller. The following must be accomplished when false or deceptive communications occur:

1. Collect pertinent information regarding the incident.

2. Notify the Regional Operations Center (ROC) of the phantom controller situation and request a conference call with the Technical Operations, System Management Office (SMO) manager, the Spectrum Management Officer, the Service Area Director and the Security and Hazardous Materials Division Manager.

3. Report all relevant information pertaining to the incident on the telephone conference.

4. Remove the voice tape from service at the normal tape change interval and record the pertinent information on a cassette in accordance with FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation and Reporting, Chapter 6, Paragraph 93, Copies of Voice Recordings.

c. Identification used on frequencies not assigned or authorized by the FAA.

d. Willful or malicious interference with other communications.

e. Remarks of a personal nature on any means of communications (e.g., voice frequencies, SATCOM, CPDLC).

3-2-2. AUTHORIZED MESSAGES NOT DIRECTLY ASSOCIATED WITH AIR TRAFFIC SERVICES

Occasions may arise when messages by a third party pertaining to the safety of aircraft operation or the

preservation of life and/or property are necessary. Such messages may be authorized on FAA radio communications channels. They may be handled by air traffic specialists or the individuals making the request. The latter may be given access to facilities to personally issue such messages provided (See FAA Order 6050.32, Spectrum Management Regulations and Procedures Manual):

a. Control instructions must not be issued.

b. Transmission can be interrupted when required to continue ATC services.

REFERENCE-

Advisory Circular AC 150/5210-7, Aircraft Rescue and Fire Fighting Communications.

3-2-3. USE OF OTHER THAN FAA COMMUNICATIONS CIRCUITS

FAA personnel must be responsive to any State or local governmental agency offering to use their communications facilities for the relay of flight plan information and to cooperate with such agencies in developing procedures for relaying flight plan information to FAA facilities.

3-2-4. FBI USE OF FAA FREQUENCIES

Local FBI offices have been authorized to contact FSSs and ATCTs to consummate local agreements for emergency use of specific frequencies using FBI transceiver equipment in hijacking situations. To facilitate the handling of these requests, the guidelines set forth below must be followed (see Paragraph 3-2-2, Authorized Messages Not Directly Associated with Air Traffic Services):

a. Selection of FSS and ATCT radio frequencies is flexible, but it must be from existing local assignments and approved by the air traffic manager after coordination with the regional frequency management office.

b. Selection of tower radio frequencies is flexible, but it must be from existing local assignments and approved by the air traffic manager after coordination with the regional frequency management office. Requests for frequency between 121.60 and 121.90 MHz can be expected.

3-2-5. AERONAUTICAL ADVISORY STATIONS (UNICOM/MULTICOM)

Pursuant to FCC Rules and Regulations, Part 87, Subpart C, UNICOM stations are not authorized for ATC purposes other than the relay of certain ATC information between the pilot and the controller.

Relay of ATC information is limited to:

- a.** Takeoff, arrival, or flight plan cancellation times.
- b.** ATC clearances, provided there is a LOA between the licensee of the advisory station and the FAA facility.

Section 6. Surveillance Source Use

3-6-1. COMMISSIONING RADAR FACILITIES

a. Electronic Commissioning:

1. Subsequent to the initial installation of an ARSR/ASR system, the provisions of FAAO 8200.1, United States Standard Flight Inspection Manual, para 215 must be satisfied prior to the electronic commissioning of the facility.

2. Major equipment modifications or major component changes to existing installations may necessitate a special flight check to reaffirm that the radar is continuing to meet the original commissioning criteria. When such a change is made, the new type equipment must be electronically commissioned in accordance with subpara 1 above.

3. If ASR equipment cannot meet the surveillance approach requirement during the flight check, consider this phase of the flight check as secondary and commission the equipment for its primary purpose of providing radar traffic control service.

b. Operational Implementation:

1. When a radar facility is to be commissioned, a 60-day period of use (without the application of radar separation standards) should elapse between the electronic commissioning date and the inauguration of radar air traffic control service. This period will permit controllers to gain experience in tracking, vectoring, and identification. It will better ensure a full understanding of the equipment, procedures, and services to be provided. However, this 60-day period is not mandatory and may be reduced or eliminated provided NOTAM requirements can be satisfied and the Service Area office is assured that the intended service can be carried out in a safe and efficient manner.

2. Only one phase of service should be implemented at a time. A period of 30 to 60 days should elapse between the implementation of subsequent phases. For example, ARTCCs may initiate en route service on specific routes or within specified areas; terminals may implement either arrival or departure service 30 to 60 days prior to expanding to other areas/services. Advertised services must be implemented on an all-aircraft basis

and must be accomplished in accordance with FAA Order JO 7110.65, Air Traffic Control. If services are initially implemented on a "part-time" basis, the daily hours (preferably 8 hours or longer) must be specified in the aeronautical information message and the advertised services maintained during those hours. The extent and types of service will be dependent upon operational requirements, personnel, and equipment capabilities. The schedule of radar service implementation must be jointly determined by the facility air traffic manager and the Service Area office. Service Area office approval is required prior to the implementation of each phase of radar service.

3. A review of the existing LOA must be accomplished to ensure that necessary changes are made or that new agreements are consummated and approved prior to implementing any phase of radar traffic control. Airspace areas for which radar terminal facilities have responsibility should include sufficient vector areas for:

(a) Positioning and spacing of arriving aircraft en route to the airport from outer fixes or radar handoff points.

NOTE-

Normally, no less than two nor more than four outer fixes are used to serve a single approach course. These fixes are normally located to permit simultaneous holding at the same altitude. When only one radar approach control position is used, two outer fixes are optimum. If two radar approach positions are available, four fixes are optimum.

(b) Spacing and control of departing aircraft and aircraft executing missed approaches.

(c) Positioning and spacing transitioning aircraft.

c. Notification Procedures:

1. Issue an aeronautical information message for each location at least 30 days prior to and again immediately following implementation of radar ATC procedures containing the following:

(a) Nature of service; e.g., departure, arrival, en route.

(b) Proposed or effective date.

(c) Specific airspace affected.

(d) Hours of service if less than 24 hours per day.

EXAMPLE–

BAKERSFIELD, CALIFORNIA, SURVEILLANCE RADAR EXPECTED TO BE COMMISSIONED ON OR ABOUT JUNE 15, 2004. RADAR AIR TRAFFIC CONTROL SERVICE USING RADAR SEPARATION STANDARDS WILL BE APPLIED AS APPROPRIATE. SERVICE WILL BE PROVIDED DAILY BETWEEN THE HOURS OF 1400–2300Z WITHIN 40-MILE RADIUS OF BAKERSFIELD.

2. When an additional service is to be implemented or a change in programmed areas of application is made, issue an aeronautical information message delineating that new service. Advance notice is desirable. However, it is not mandatory, and the aeronautical information message may be issued concurrently with the inauguration of the extended radar service.

3. When a change in ARSR/ASR equipment is made, issue an aeronautical information message if a modification to existing service will result and/or if a break in service of more than 30 minutes will occur.

4. A copy of each memorandum/aeronautical information message for inclusion in the Domestic Notices website must be sent to Mission Support Services, Policy, Publications and Administration (AJV-P12) via 9-ATOR-HQ-PubGrp@faa.gov, Manager, Flight Service Safety and Operations Policy Group (AJR-B100) via 9-AJR-FSSOG@faa.gov, Aeronautical Information Group (AJV-A30) via <https://nfdc.faa.gov/nfd-cApps/controllers/PublicSecurity/nfdcLogin>, and the appropriate Service Area Directors.

3-6-2. ATC SURVEILLANCE SOURCE USE

a. Surveillance sources that are approved for ATC use are Primary Radar, Secondary Radar, ADS-B and WAM. Approved ATC Surveillance Sources may be used for:

1. Surveillance of aircraft to assure the effective use of airspace.
2. Vectoring aircraft to provide separation and radar navigation.
3. Vectoring aircraft to final approach.
4. Vectoring IFR aircraft to the airport of intended landing.
5. Monitoring instrument approaches.

6. Providing radar traffic, weather, chaff, and bird activity information.

7. Providing assistance to pilots of aircraft in distress.

b. Approved terminal ATC Surveillance Sources may also be used for:

1. Conducting precision or surveillance approaches.

2. Formulation of clearances and control instructions based on runways and movement areas observable on the ASDE.

NOTE–

In accordance with FAA Order JO 7110.65, Chapter 3, Airport Traffic Control – Terminal, Section 6, Airport Surface Detection Procedures.

c. Targets derived from WAM may not be used to provide 3 mile separation in the En Route Automation System (EAS).

NOTE–

3 NM targets are not derived from WAM within the EAS.

3-6-3. ATC RADAR BEACON SYSTEM DECODER CONTROL BOX CHECKS**NOTE–**

Not applicable to STARS.

Facility air traffic managers must ensure that radar controllers perform daily performance checks of the decoder control box as follows:

a. Each controller is responsible for determining on a day-to-day basis if the operation of his/her decoder control box is satisfactory for ATC purposes. Decoder control box performance can be determined by checking all switches, thumbwheel code selectors, and selected channels to ensure that they are functioning properly. The actual operation of each channel should be checked by decoding a known target sequentially on each channel and observing it on both double and single slash. Notify the OMIC/OSIC if a malfunction is observed.

b. OMICs/OSICs must make an entry on FAA Form 7230-4 of any malfunctions and report same to the Technical Operations personnel on duty.

3-6-4. MONITORING OF MODE 3/A RADAR BEACON CODES

a. Facility air traffic managers may assign Mode 3/A codes to be monitored in addition to those

required by FAA Order JO 7110.65, Air Traffic Control, Chapter 5, Section 2, Beacon Systems.

b. A facility directive must be issued establishing facility standards for displaying required transponder replies in all available operational modes.

c. Where desirable, beacon targets may be displaced at a slightly greater range than their respective primary returns. When beacon displacement is elected, issue a facility directive specifying the standard relationship between primary returns and the beacon control slash of secondary returns. The maximum allowable beacon target displacement which may be specified by the facility air traffic manager is 1/4 mile for STARS and 1/2 mile applied in 1/4 mile increments for all other facilities.

3-6-5. RADAR TARGET SIZING

a. Minimum target size for terminal radar systems using terminal digital radar or full digital target symbols, except for MEARTS, must not be less than the minimum target size shown in Technical Operations' orders concerning the maintenance of terminal digital radar. The target symbol must be centered on the terminal digital radar/full digital system type target presentation.

NOTE-

Target size is fixed in MEARTS regardless of range or data block character size.

b. When operating in FUSION, the minimum target size for Precision Approach Monitor (PAM) operations and for the normal use of tower radar displays is 1,200 feet. The target symbol must be centered on the terminal digital radar/full digital system type target presentation.

NOTE-

Increased separation required (ISR) will be required for aircraft outside the range for PAM or other normal use of certified tower radar displays.

3-6-6. TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS

a. The following system settings for the terminal digital radar/DVCP must be established in a facility directive.

1. Normal weather setting positions when 2-level weather is selected on the system control panel.

2. MEARTS normal weather setting positions when 3-level weather is selected on the system control panel.

3. Normal weather setting positions when 6-level weather is selected on the system control panel.

4. Name, range/azimuth, altitude, and coordinates of prominent obstructions.

5. Azimuth and range settings of moving target indicator (MTI) reflectors used for map alignment.

6. Position Adjustable Range Reference Orientation Transponders (PARROT) used for map alignment location. Not applicable to a Digital Terminal Automation System (DTAS).

b. The following display settings must be established in a facility directive, except for MEARTS:

1. Weather/Radar Gate normal setting.

2. Position startup weather level settings.

c. Facilities that utilize a digital system that does not concurrently display all levels of precipitation (ASR-8/TDX2000) must establish a procedure via facility directive that ensures periodic monitoring of all precipitation level ranges during precipitation events.

d. The air traffic manager and Technical Operations System Support Center (SSC) manager must prepare a local order defining the procedures needed to protect the antenna, shutdown the antenna, transfer power between high and low voltage, and transfer from one channel to another channel.

3-6-7. PREARRANGED COORDINATION

a. Air traffic managers at radar facilities must determine whether or not a clear operational benefit will result by establishing prearranged coordination procedures (P-ACP). Such procedures would allow aircraft under one controller's jurisdiction to penetrate or transit another controller's airspace in a manner that assures approved separation without individual coordination for each aircraft. When reviewing existing P-ACPs, or contemplating the establishment of these procedures, consideration must be given to airspace realignment to preclude coordination/penetration of another operational position's airspace. Prior to implementing a P-ACP, negotiations should be accomplished locally and all

affected personnel must be thoroughly trained in the application of the procedures.

b. When P-ACPs are established, a facility directive must be published. The directive must include, as a minimum:

1. Requirement that the following are fully operational.

(a) Terminal- STARS

(b) En Route- SDP, FDP, and safety alert (CA, MCI, E-MSAW) processing.

2. Procedures to be applied in the event that prearranged coordination procedures are not practicable.

3. The position(s) authorized to penetrate the protected airspace of an adjacent position.

4. Detailed responsibilities relating to P-ACP for each position.

5. The requirement that two positions of operation cannot be authorized to penetrate each other's airspace simultaneously.

6. Controllers who penetrate another controller's airspace using P-ACP must display data block information of that controller's aircraft which must contain, at a minimum, the position symbol and altitude information.

7. Controllers who penetrate another controller's airspace using P-ACP must determine whether the lead aircraft requires wake turbulence separation behind it.

REFERENCE-

FAA Order JO 7110.65, Para 5-5-4, *Minima, subparagraph f.*

8. Procedures to be applied for those modes of operation when the computer fails or is shut down, the beacon fails and only primary is available, and for nonbeacon aircraft or at automated facilities aircraft without an associated full data block.

REFERENCE-

FAA Order JO 7110.65, Para 5-4-10, *Prearranged Coordination.*

3-6-8. OPERATIONAL GUIDANCE FOR FUSION

a. During normal operations, Fusion must be the selected mode to the extent that it is operationally feasible. The terminal Air Traffic Manager, or their designee, must decide if the fusion tracker is usable.

1. If a decision is made to discontinue use of the fusion tracker at specific sectors or facility-wide, the Air Traffic Manager, or their designee, must notify Operations - Headquarters, AJT-2, through the appropriate service area Director of Air Traffic Operations.

2. The intent of this notification is to ensure the service area Director of Air Traffic Operations, Operations-Headquarters, and the program office are aware of the operational status and are providing all capable resources to return to Fusion operations at the affected position/facility.

3. Fusion outages due to a planned radar shutdown of short duration need not be reported.

b. During radar outages, operational alternatives, or contingency plans, must be developed and included in a facility directive that address requirements when there is degradation in the Fusion environment due to sensor availability. The steps must be pre-determined and may be implemented facility-wide or sector specific.

1. Facilities should switch to single sensor mode if there are impacts to the efficiency of facility operations due to degradation in the sensor environment while operating in Fusion mode.

2. Facilities should use single sensor mode in airspace that is restricted to the use of one long-range radar which can cause anomalies (for example, stitching or target jumping). Facilities should continue to operate in single sensor mode until adequate ADS-B equipage levels are reached, an additional sensor is available, or it is determined by management that an operational advantage is gained by remaining in Fusion.

Section 3. Letters of Agreement (LOA)

4-3-1. LETTERS OF AGREEMENT

An LOA should be negotiated if the Air Traffic Manager deems it necessary to clarify responsibilities of other persons/facilities/organizations when specific operational/procedural needs require their cooperation and concurrence. A LOA should be prepared when it is necessary to:

- a. Supplement established operational/procedural instructions.
- b. Define responsibilities and coordination requirements.
- c. Establish or standardize operating methods.
- d. Specify special operating conditions or specific air traffic control procedures.
- e. Delegate responsibility for ATC service; e.g., approach control service, control boundary jurisdiction, and procedures for coordinating and controlling aircraft where two or more airports have conflicting traffic patterns or overlapping conflicting traffic patterns.
- f. Establish responsibilities for:
 - 1. Operating airport equipment.
 - 2. Providing emergency services.
 - 3. Provide airport management with braking action reports. At a minimum, procedures must provide for the prompt notification which indicate runway braking conditions have deteriorated to “good to medium,” “medium,” “medium to poor,” “poor,” or “nil” or have improved to “good.”
 - 4. Reporting operating limitations and hazards.
- g. Describe procedures that supplement those contained in FAA Order JO 7110.65, Air Traffic Control, or FAA Order JO 7110.10, Flight Services, to satisfy a requirement of a military service.

REFERENCE—

FAA Order JO 7110.65, Para 1-1-11, *Constraints Governing Supplements and Procedural Deviations.*

- h. Define stereotyped flight plans used for special operations, such as training flights or flight test activities.
- i. Describe airspace areas required to segregate special operations.

j. Establish aircraft radiotelephony call signs to be used by the tower and the local operators.

k. Define the responsibilities of the tower and the airport management or other authority for movement and nonmovement areas by precisely delineating the loading ramps and parking areas under the jurisdiction of the airport management or other appropriate authority. Facility air traffic managers may, at their discretion, exclude from the movement area those portions of the airport surface normally designated movement areas that are not visible from the tower. Consideration must be given to the impact this may have on the movement of ground traffic. The agreement may include the following:

1. Airport management or other appropriate authority must require, by agreement or regulation, all ground vehicles and equipment operators and personnel to obtain tower approval prior to entry onto the airport movement area and comply with control instructions issued to them while on that area. This includes those vehicles used to conduct pushback operations and must require approval prior to moving aircraft/vehicles out of the loading ramps or parking areas onto the movement area.

2. Airport management or other appropriate authority may also require those aircraft which will not infringe upon the movement area but will impede ingress and egress to the parking area to contact the tower for advisories prior to conducting pushback operations. State that information related to aircraft movement on the loading ramps or parking areas is advisory in nature and does not imply control responsibility.

3. At those airports where vehicles not equipped with two-way radio are permitted by the airport management or other appropriate authority to enter or cross the defined movement area at specific locations without approval from the tower, enter into an LOA with the airport management, or other appropriate authority, specifying the conditions for such operations and include the clause as follows: “The airport owner/operator covenants and expressly agrees that with regard to any liability which may arise from the operation within (area/areas), that party must be solely and exclusively liable for the negligence of its own agents, servants, and/or employees, in accordance with applicable law, and

that neither party looks to the other to save or hold it harmless for the consequences of any negligence on the part of one of its own agents, servants, and/or employees.”

1. The airport operator must define the specific activities allowed in the Runway Safety Areas (RSA) during aircraft operations. Air Traffic, FAA Technical Operations and airport tenants that may be permitted into the RSA must be included in an LOA.

4-3-2. APPROPRIATE SUBJECTS

Examples of subjects of LOAs are:

- a. Between ARTCCs:
 - 1. Radar handoff procedures.
 - 2. Interfacility coordination procedures.
 - 3. Delegation of responsibility for IFR control jurisdiction.
- b. Between ATCTs:
 - 1. Tower en route control service.
 - 2. Interfacility coordination procedures.
- c. Between Flight Service Stations: Procedures for maintaining master flight plan files.
- d. Between an ARTCC and an ATCT:
 - 1. Approach control service.
 - 2. Interfacility coordination procedures.
 - 3. Tower/center en route control service.
- e. Between an ARTCC and an FSS: Define areas of security responsibility. (See Paragraph 2-7-5, Facility Security.)
- f. Between an ATCT and an FSS: Operation of airport lighting.
- g. Between an ARTCC or an approach control facility and a nonapproach control tower, an FSS, an airport manager, or a local operator: Special VFR Operations. (See FIG 4-3-1.)
- h. Between an ARTCC or an approach control facility and a nonapproach control tower:
 - 1. Authorization for separation services.
 - 2. Interfacility coordination procedures.
 - 3. Opposite direction operations procedures.

REFERENCE-

FAA Order 7210.3, Para 2-1-34, Opposite Direction Operations.

i. Between an ARTCC and another government agency:

- 1. Interfacility coordination for control of ADC aircraft.
- 2. Delegation of responsibility for approach control services.
- 3. MTR procedures.

j. Between a tower and another government agency:

- 1. Simulated flameout procedures.
- 2. Control of helicopter SVFR flights.
- 3. Operation of aircraft-arresting barriers.
- 4. MTR procedures.

k. Between a tower and/or FSS and an airport manager/aircraft operator at airports upon which the tower and/or FSS is located:

- 1. Airport emergency service.
- 2. Operation of airport lighting.

3. Reporting airport conditions, to include how all PIREP braking action reports of “good to medium,” “medium,” “medium to poor,” “poor,” or “nil” are to be immediately transmitted to airport management, and an agreement on actions by air traffic personnel for the immediate cessation of operations on runways subject to “nil” braking action reports.

REFERENCE-

Advisory Circular AC 150/5200-30D, Airport Winter Safety and Operations.

4. Control of vehicular traffic on airport movement areas.

5. Specific activities allowed in the RSA during aircraft operations.

REFERENCE-

FAA Order JO 7210.3, Para 2-1-22, Obstacle Identification Surfaces, Obstacle Free Zones, Runway Safety Areas. Approach/Departure Hold Areas and Clearways
AC-150/5210-20A, Appendix C

6. Operations under an exemption from Part 91, Appendix D, Section 3, the surface area of Class B, Class C, Class D, or Class E airspace within which Special VFR weather minimums are not authorized.

REFERENCE-

Advisory Circular AC 150/5210-7C, Airport Rescue and Fire Fighting Communications.

1. Between a tower and/or FSS and an airport manager/aircraft operator at airports upon which the tower is located but the FSS is not: Reporting airport runway conditions.

4-3-3. DEVELOPING LOA

Air traffic managers must take the following action when developing an LOA: (See examples FIG 4-3-1 and FIG 4-3-2. For commercial space example LOAs, see Appendix 6.)

a. Determine, through coordination, which FAA facility is principally responsible for processing the LOA.

b. Confine the material in each agreement to a single subject or purpose.

c. Describe the responsibilities and procedures applicable to each facility and organization involved. Review pertinent national procedures or local instrument flight procedures and incorporate into the new LOA(s) as necessary.

NOTE-

Information related to subscribing for alerts regarding upcoming changes to instrument flight procedures is available at the Instrument Flight Procedures Information Gateway: https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/

REFERENCE-

FAA Order JO 7210.3, Para 2-1-2, Facility Standard Operating Procedures Directive

FAA Order JO 7210.3, Para 2-1-6, Checking Accuracy of Published Data

FAA Order JO 7210.3, Para 4-3-7, Annual Review/Revisions

d. Delegate responsibility for control of IFR aircraft, where necessary, by taking the following action:

1. Describe the area within which responsibility is delegated. The area may be depicted in chart form.

2. Define the conditions governing use of the area. These include altitudes, routing configuration, and limitations or exceptions to the use of the applicable airspace.

3. Specify the details of control procedures to be used. These include clearance limits, reporting points, handoff points, and release points.

4. Identify clearance limits designated as Instrument Approach Fixes when they are to be used for holding aircraft.

5. Specify communications and coordination procedures.

e. Coordinate with other FAA facilities and military or civil organizations as appropriate.

f. Attach charts or other visual presentations, when appropriate, to depict the conditions of the LOA.

g. Coordinate with the Regional Flight Standards Division, All Weather Operations Program Manager if aircraft operations or pilot procedures will be affected.

h. Prepare a single supplement, if necessary, to augment the letter at a facility and attach it to the basic LOA. Do not repeat material from the basic LOA.

i. After coordination, send two copies of the proposed LOA, including supplements, to the service area office for approval if required.

4-3-4. REVIEW BY SERVICE AREA OFFICE

a. The Service Area office must review the proposed LOA, ensure coordination with other interested offices and affected user groups, as necessary, and approve the LOA if satisfactory.

b. The Service Area office may, in writing, delegate to air traffic managers, air traffic managers designees, ATREPs, or Region Air Defense Liaison Officer (RADLOs) the authority to develop, coordinate, approve, and implement LOAs except for:

1. Those which prescribe procedures or minima contrary to those contained in FAA Order JO 7110.65, Air Traffic Control, unless appropriate military authority has authorized application of reduced separation between military aircraft; or

REFERENCE-

FAA Order JO 7110.65, Para 1-1-9, Procedural Letters of Agreement.

2. Those between an IFR facility and a tower to authorize the separation services prescribed in Paragraph 2-1-16, Authorization for Separation Services by Towers, and Paragraph 10-5-3, Functional Use of Certified Tower Radar Displays.

4-3-5. APPROVAL

Upon receipt of Service Area office approval, the air traffic manager must:

a. Prepare the LOA in final form incorporating the Service Area office guidance.

b. Establish an effective date, acceptable to all parties involved, that permits sufficient time for distribution and for participating facilities and user groups to familiarize personnel, revise directives, flight charts, etc., and complete other actions.

c. Sign the LOA and obtain signatures of other authorities as required.

d. Distribute copies of the signed LOA to each participating facility or organization, the Service Area office, and other interested offices. Distribution of supplements outside the facility is not required.

e. Ensure that current, new, or revised LOA, Standard Operating Procedures (SOP), and FAA Facility Orders (FO) are posted in the Facility Directives Repository (FDR) before the effective date of the document.

EXCEPTION. LOAs containing contingency plan information must not be posted to the FDR. LOAs with such information must be posted to the National OCP database.

REFERENCE—

FAA Order JO 7210.3, Para 2–2–14, Facility Directives Repository (FDR).

4–3–6. COMMERCIAL SPACE LOAs

LOAs exist between ATC facilities and commercial space launch/reentry site, launch, and/or reentry operations proponents. FAA Order JO 7400.2, Procedures for Handling Airspace Matters contains responsibilities and procedures for Commercial Space operations. The following lists the roles and responsibilities of organizations and individuals involved in the commercial space LOA process:

a. The respective ATO Service Center OSG will serve as facilitator of the LOA development.

b. ATO Service Center OSG will coordinate with the appropriate Service Area, ATCSCC, the Office of Commercial Space Transportation (AST), the Office of Airports, and other offices having responsibilities in accordance with the operation.

c. Each LOA must include, but is not limited to:

1. Names and contact information for all parties involved.

2. For launch/reentry operation LOAs: Description of operation to include vehicle type and characteristics; anticipated frequency of operations; and requested airspace, altitude, vehicle positioning data transmittal, and Aircraft Hazard Area (AHA) information.

3. For launch/reentry site LOAs: Brief description of the launch/reentry site, types of anticipated operations, and anticipated frequency of proposed operations.

4. Operating procedures to include communications, real-time coordination, NOTAM content issuance, contingency, and emergency.

4–3–7. ANNUAL REVIEW/REVISIONS

a. Review LOAs at least annually and update as necessary. Examine current LOAs for practices and/or procedures that are no longer required. Reviewing includes both content and relevance that achieve full operational efficiency and customer flexibility. Review and, if necessary, update LOAs when new/revised instrument flight procedures are published or national procedures are implemented or changed.

NOTE—

Information related to subscribing for alerts regarding upcoming changes to instrument flight procedures is available at the Instrument Flight Procedures Information Gateway: https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/

REFERENCE—

FAA Order JO 7210.3, Para 2–1–2, Facility Standard Operating Procedures Directive

FAA Order JO 7210.3, Para 2–1–6, Checking Accuracy of Published Data

FAA Order JO 7210.3, Para 4–3–3, Developing LOA

b. Process revisions to LOAs and attachments or supplements thereto as page replacements. Mark the revisions as follows:

1. Place an asterisk or vertical line to the left of each new or revised paragraph or section to signify new material.

2. Identify page revisions by the “REV” number, e.g., “REV 1,” and the effective date in the lower right hand corner of each revised page.

c. Coordinate revisions to a LOA in the same manner and degree as for the original LOA.

4-3-8. CANCELLATION

After appropriate coordination with LOA signatories and the Service Area, cancel any agreement which is no longer applicable. Ensure that the FDR is updated.

FIG 4-3-1

Format for a Control Facility/FSS Letter of Agreement

<p>(Name) Center/Approach Control and (Name) FSS</p> <p style="text-align: center;">LETTER OF AGREEMENT</p> <p style="text-align: right;">EFFECTIVE: _____</p> <p>SUBJECT: Special VFR Operations within (Name) Airport Surface Area</p> <p>1. PURPOSE: To provide operating procedures for Special VFR flight handling in the (name) surface area without individual coordination.</p> <p>2. SCOPE: The procedures outlined herein are for use in the conduct of Special VFR operations within the (name) Airport surface area at or below _____ feet. These procedures are applicable only to aircraft equipped with functioning 2-way radio in order to effect a recall when required by traffic or weather conditions.</p> <p>3. RESPONSIBILITIES: Upon request by the (name) FSS, the Center/Approach Control Facility may authorize Special VFR operations in the (name) Airport surface area for specific periods of time. The Center/Approach Control Facility must retain the authority to withdraw the provisions of this agreement at any time.</p> <p>4. PROCEDURES:</p> <p style="padding-left: 20px;">a. Local Special VFR operations. The (name) FSS must not authorize more than one aircraft to operate simultaneously in the surface area unless pilots agree that they will maintain visual separation with other aircraft operating in the surface area.</p> <p style="padding-left: 20px;">b. IFR Arrivals and Departures. Special VFR operations must be controlled by the (name) Center/Approach Control during the following periods:</p> <p style="padding-left: 40px;">(1) From 10 minutes prior to the estimated time of arrival of an IFR aircraft over the approach fix until it is on the ground (IFR arrivals must not be cleared for an approach until the FSS confirms that there are no Special VFR operations in progress.)</p> <p style="padding-left: 40px;">(2) From 10 minutes prior to the estimated time of departure of an IFR aircraft until it departs the surface area.</p> <p style="padding-left: 20px;">c. Special VFR Arrivals and Departures:</p> <p style="padding-left: 40px;">(1) The (name) FSS may authorize aircraft to enter, depart, or fly through the surface area when no Special VFR operations are in progress. Authorization must be granted as outlined in 4a.</p> <p style="padding-left: 40px;">(2) Aircraft desiring to enter the surface area during times Special VFR operations are in progress must be instructed to maintain VFR conditions outside the surface area pending recall and landing of aircraft operating in the surface area.</p> <p style="padding-left: 20px;">d. Predesigned clearance phraseologies. To authorize Special VFR operations or to issue instructions or other messages pertinent thereto, the (name) FSS must use the following phraseology:</p> <p style="padding-left: 40px;">(1) To authorize operations: A-T-C CLEARS (identification) TO ENTER/OUT OF/THROUGH (name) SURFACE AREA. MAINTAIN SPECIAL VFR CONDITIONS AT OR BELOW (altitude). REPORT LANDING COMPLETED/LEAVING SURFACE AREA, or A-T-C CLEARS (identification) TO OPERATE WITHIN (name) SURFACE AREA. MAINTAIN SPECIAL VFR CONDITIONS AT OR BELOW (altitude).</p> <p style="padding-left: 40px;">(2) To deny operations when visibility is less than one mile: VISIBILITY (value). A-T-C UNABLE TO ISSUE DEPARTURE/ENTRY CLEARANCE.</p> <p style="padding-left: 40px;">(3) To suspend operations: SPECIAL VFR AUTHORIZATION DISCONTINUED. RETURN TO AIRPORT OR DEPART SURFACE AREA. ADVISE INTENTIONS (after response), REPORT LANDING COMPLETED/LEAVING SURFACE AREA.</p> <p style="padding-left: 40px;">(4) To advise an aircraft to remain outside the surface area: A-T-C ADVISES (identification) TO MAINTAIN VFR OUTSIDE THE (name) SURFACE AREA PENDING ARRIVAL/RECALL/DEPARTURE OF SPECIAL VFR AIRCRAFT.</p>
<p>_____ Air Traffic Manager, (Name) FSS</p>
<p>_____ Air Traffic Manager, (Name) ARTCC/Approach Control</p>

FIG 4-3-2
Format for an ARTCC/Air Division Letter of Agreement

(Name) Air Route Traffic Control Center and (Name) Air Division <div style="text-align: center;">LETTER OF AGREEMENT</div> <div style="text-align: right;">EFFECTIVE: _____</div> <p>SUBJECT: Interfacility Coordination for the Control of Aerospace Defense Command Interceptor Aircraft</p> <p>1. PURPOSE: (List responsibility and describe necessary coordination.)</p> <p>2. CANCELLATION: (As required.)</p> <p>3. SCOPE: (Specify area, names, and types of facilities involved.)</p> <p>4. RESPONSIBILITIES: (Specify.)</p> <p>5. PROCEDURES:</p> <ul style="list-style-type: none"> a. ATC Assigned Airspace. (List procedures to be followed for requesting and authorizing airspace, handling aircraft to and from the airspace, and notifying when no longer required.) b. Transfer of Control. (Specify transfer procedures.) c. Departure. (Specify required advanced time for filing flight plans. Outline additional items required in the flight plan; e.g., type of departure, CONAD control facility, and IND position number.) d. En Route. (including information that ATC is responsible for effecting separation in assigned airspace whenever nonparticipating aircraft are cleared to operate within such airspace.) e. Arrivals. (Outline handoff procedures and special instructions.) f. General. (Self-explanatory.) <p>6. ATTACHMENTS (List, as required, items such as chart of ATC-assigned airspace areas, common reference/handoff points, etc.)</p>
Air Traffic Manager, (Name) ARTCC
Commander, (Name) Air Division
(Title of other appropriate authority)

4-3-9. AUTOMATED INFORMATION TRANSFER (AIT)

a. Radar identification, altitude, and en route fourth line control information approval may be transferred via full data blocks without using point-out procedures or verbal coordination. Air traffic managers wishing to authorize the use of the AIT process must establish AIT procedures adapted to local traffic situations and use the process only within the context of those specific procedures. These precoordinated procedures and the controller responsibilities must be specifically defined in facility directives.

REFERENCE-

FAA Order JO 7110.65, Para 5-4-11, En Route Fourth Line Data Block Usage.

b. The controller who first transfers radar identification will also transfer aircraft communications. Either the transferring or the receiving controller, whoever is specified in a facility AIT

directive, may issue the altitude change, if any. Additionally, facility AIT directives must require that any deviation from the specified procedure invalidates the procedure for that situation and requires that verbal coordination be completed as per FAA Order JO 7110.65, Air Traffic Control, Paragraph 2-1-14, Coordinate Use of Airspace, Paragraph 2-1-15, Control Transfer, Paragraph 5-4-5, Transferring Controller Handoff, Paragraph 5-4-6, Receiving Controller Handoff, or Paragraph 5-4-7, Point Out. The following are general examples of the AIT process.

1. Transfer of radar identification only:

EXAMPLE-

Controller A initiates a transfer of radar identification to controller B before the aircraft enters controller B's airspace. Controller B accepts the transfer of radar identification before the aircraft enters his/her airspace. Controller B, traffic permitting, then initiates a transfer of radar identification to controller C before the aircraft enters controller C's airspace. Controller A transfers

aircraft communications to controller C before the aircraft enters controller C's airspace and after observing that controller C has accepted the transfer of radar identification.

2. Transfer of radar identification and altitude control:

EXAMPLE–

1. *Controller A initiates a transfer of radar identification to controller B; controller B accepts the transfer. Controller B amends either the interim or assigned altitude in the data block to an altitude within his/her altitude stratum as prescribed in a facility directive. Controller B initiates a transfer of radar identification to controller C before the aircraft enters controller C's airspace. Controller A, after observing controller B initiate a transfer of radar identification to controller C, clears the aircraft to the altitude displayed in the data block by controller B. Controller A, after observing that controller C has accepted the transfer of radar identification, transfers aircraft communication to controller C before the aircraft enters controller C's airspace.*

2. *Controller C may clear the aircraft to the altitude displayed by controller B if so established in a facility AIT directive.*

3. The following is an example of a precoordinated AIT procedure which might be written in a facility directive:

EXAMPLE–

The following procedure is established for implementation under the (AIT) process and is agreed to by the South and East areas. Aircraft departing ELP via J26 to ROW requesting FL 280 or above must be handled as follows:

(a) *Sector 20 must clear the aircraft to FL 270 within its airspace and then initiate a transfer of radar identification to sector 63.*

(b) *Sector 63 must accept the transfer of radar identification then display either an assigned or interim altitude in the data block.*

(c) *Sector 63 must then initiate a transfer of radar identification to sector 23 before the aircraft enters sector 23's airspace.*

(d) *Sector 20, after observing the assigned/interim altitude displayed in the data block and that a transfer of radar identification has been initiated to sector 23, must then clear the aircraft to the appropriate altitude.*

(e) *Sector 20 must transfer communications of the aircraft to sector 23 before the aircraft enters sector 23's airspace and after observing sector 23's acceptance of the transfer or radar identification.*

c. Due to system design, the transfer of data stored in the fourth line of the ERAM FDB will not be displayed to the controller when operating on the backup system in EBUS only mode.

1. When switching from the primary system to either mode of the backup system, ensure that the interfacility ERAM fourth line data transfer is disabled.

2. When notified that an adjacent facility has transitioned from their primary system to either mode of the backup system, ensure that the interfacility ERAM fourth line data transfer to that facility is disabled.

3. After successfully completing the transition back to the primary system, coordinate a time to enable interfacility ERAM fourth line data transfer.

4. The air traffic manager must ensure that these procedures are incorporated into a Standard Operating Procedure.

Section 3. DOE and Other Aircraft

5-3-1. DEPARTMENT OF ENERGY (DOE) FLIGHTS

DOE contracts for civil pilots to operate public aircraft to transport radioactive and/or high explosive materials within the conterminous United States. They will operate principally during daylight hours and, although they will be made in VFR conditions insofar as possible, an instrument flight plan will be filed and IFR procedures followed.

5-3-2. AERIAL SAMPLING/SURVEYING FOR NUCLEAR CONTAMINATION

a. The USAF, Department of Energy (DOE), or other U.S. Government agencies perform aerial sampling/surveying of suspected foreign or domestic nuclear, chemical, or hazardous material contamination. A planned aerial sampling/surveying schedule is established by the USAF. Although sampler/survey aircraft are flight planned to the suspected area of nuclear contamination, the aircraft are likely to require altitude and route changes which cannot be anticipated prior to departure. The purpose of those altitude and route changes is to permit direct contact with and sampling/surveying of the *cloud* debris whose exact location and altitude distribution cannot be accurately predicted.

b. To afford these operations optimum flexibility during in-flight profiles, ATC facilities must honor in-flight clearance requests for altitude and route changes to the maximum extent possible. If necessary, other IFR traffic may be re-cleared so that requests by sampler/survey aircraft are honored. However, in no case must the separation minima outlined in FAA Order JO 7110.65, Air Traffic Control, be compromised.

c. USAF aircraft engaged in aerial sampling/surveying missions must use the call sign "SAMP" followed by the last three digits of the aircraft's serial number.

REFERENCE-

FAA Order JO 7110.65, Para 9-2-18, SAMP Flights.

FAA Order JO 7610.4, Para 12-4-3, Aerial Sampling/Surveying for Nuclear Contamination.

5-3-3. DUE REGARD OPERATIONS

a. Article 3 of the International Civil Aviation Organization (ICAO) Chicago Convention of 1944 includes the following:

1. This Convention must be applicable to civil aircraft and must not be applicable to state aircraft.

2. Aircraft used in military, customs and police services must be deemed to be state aircraft.

3. The contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft.

b. Department of Defense and U.S. Customs Service have specified that one of the following conditions must be met for flight operations outside U.S. Domestic airspace which are conducted under the "due regard" or "operational" prerogative of state aircraft and not in accordance with standard ICAO flight procedures. Under these conditions the PIC assumes the responsibility for separating his/her aircraft from all other air traffic.

1. Aircraft must be operated in visual meteorological conditions (VMC); or

2. Aircraft must be operated within radar surveillance and radio communications of a surface radar facility; or

3. Aircraft must be equipped with airborne radar that is sufficient to provide separation from other aircraft; or

4. Aircraft must be operated within Class G airspace.

c. Search and rescue actions for flights conducted under due regard provision are the responsibility of the parent organization.

5-3-4. WEATHER RECONNAISSANCE FLIGHTS

The U.S. Air Force Reserve (AFRES) 53rd Weather Reconnaissance Squadron (53WRS) and the National Oceanic & Atmospheric Administration (NOAA) Aircraft Operations Center (AOC) are responsible for flying weather reconnaissance/research missions. 53WRS aircraft conducting these missions will

utilize the call-sign "TEAL," and aircraft from NOAA AOC will utilize the call-sign "NOAA." Due to the unique nature of these missions it is necessary to provide a degree of special handling to ensure that sufficient meteorological data is collected. The routes flown are dictated by storm movement, not traffic flows. The nature of these weather phenomena may result in very little time between the filing of a flight plan and the actual departure.

a. WINTER SEASON MISSIONS.

1. Winter season missions are flown in support of the National Winter Season Operations Plan (NWSOP). The NWSOP states the 53WRS and NOAA AOC will:

(a) Ensure the appropriate ARTCC(s) has access to the Winter Season Plan of the Day (WSPOD) prior to the mission:

NOTE–

The WSPOD describes the mission and includes, for example, type aircraft call sign, departure airfield, and route of flight.

(b) Coordinate the mission directly with the ARTCC(s) upon receipt of the mission tasking:

NOTE–

The 53WRS and NOAA AOC are responsible for coordinating airspace access directly with DOD for missions on the U.S. east coast.

(c) File a flight plan as soon as practicable prior to departure time:

(d) Request a NOTAM by filing directly with the U.S. NOTAM office:

(e) Coordinate dropsonde instrument releases with ATC prior to release and broadcast on 121.5 and 243.0 to advise any traffic in the area of the pending drop:

NOTE–

1. A dropsonde is a cardboard cylinder weighing less than a pound, that has a parachute attached, and is used for collecting weather data.

2. ATC responsibilities pertaining to dropsonde releases are described in FAA Order JO 7110.65, Paragraph 9–2–20, Weather Reconnaissance Flights.

2. TEAL or NOAA flights may request the Chief, Aerial Reconnaissance Coordinator, All Hurricanes (CARCAH) to relay an en route clearance request to the ARTCC if the flight is unable to contact ATC.

NOTE–

ATC responsibilities pertaining to clearance requests via CARCAH are described in FAA Order JO 7110.65, Paragraph 9–2–20, Weather Reconnaissance Flights.

3. ATC will provide TEAL and NOAA aircraft priority handling in accordance with FAA Order JO 7110.65, Paragraph 2–1–4, Operational Priority.

b. HURRICANE AND TROPICAL CYCLONE MISSIONS.

1. These reconnaissance/research missions are flown in support of the National Hurricane Operations Plan (NHOP) and in accordance with:

(a) The Memorandum of Agreement between the National Oceanic and Atmospheric Administration (NOAA) Aircraft Operations Center (AOC), U.S. Air Force Reserve Command 53rd Weather Reconnaissance Squadron (WRS), and the Federal Aviation Administration (FAA) Air Traffic Organization (ATO) in Support of the National Hurricane Operations Plan; and

(b) Associated letters of agreement.

2. Prior to an NHOP reconnaissance/ research mission, the 53rd WRS or NOAA AOC will:

(a) Provide the Mission Coordination Sheet to the appropriate ARTCC and the ATCSCC at least one hour prior to the mission.

NOTE–

The Mission Coordination Sheet describes the reconnaissance/research mission and includes, for example, the aircraft call sign, departure airfield, and route of flight.

(b) Submit a request to the appropriate ARTCC for a Weather Reconnaissance Area (WRA) NOTAM at least one hour prior to the mission.

(c) File a flight plan as soon as practicable before departure time.

NOTE–

Providing the Mission Coordination Sheet does not pre-empt the mission commander's responsibility to file a flight plan, nor does it constitute an ATC clearance.

3. The ATCSCC must:

(a) Review the Tropical Cyclone Plan of the Day (TCPOD) by 1830 UTC.

(b) Activate the Hurricane Desk, if required.

(c) Review the Mission Coordination Sheet and prepare a public Flow Evaluation Area (FEA) based on the latitude/longitude points specified in the

Mission Coordination Sheet when a mission is scheduled to be flown. The FEA naming convention is the aircraft call sign. Modify the FEA when requested by the affected facilities.

(d) Coordinate with the impacted ARTCCs as required, and designate a primary ARTCC when the reconnaissance/research flights are expected to operate through airspace managed by multiple ATC facilities.

(e) Assist ATC facilities with traffic flow priorities if the hurricane reconnaissance/ research flight will impact terminal traffic.

4. The ARTCC(s) must:

(a) Review the Mission Coordination Sheet.

(b) Coordinate with all impacted ATC facilities within their area(s) of responsibility;

(c) Coordinate with SUA Using Agencies in accordance with WRA Letters of Agreement (LOA), unless other coordination procedures are established by an agreement.

NOTE–

An example of an agreement containing other coordination procedures for SUA is the LOA between Washington Center, New York Center, Boston Center, Jacksonville Center, Air Traffic Control System Command Center and Fleet Area Control and Surveillance Facility, Virginia Capes that defines coordination and control procedures governing the use of SUA operated by FACSAC VACAPES.

(d) Issue the WRA NOTAM, as applicable.

(e) Relay any operational concerns to the ATCSCC for further evaluation and coordination.

(f) When designated by ATCSCC as the Primary ATC Facility, ARTCC responsibilities include:

(1) When necessary, coordinate with the Chief, Aerial Reconnaissance Coordinator, All Hurricanes (CARCAH) and aircrew(s) on flight plan specifics.

(2) If the mission profile changes, coordinate with the ATCSCC for FEA modifications, ensure other affected ATC facilities are aware of the change.

(3) Advise the ATCSCC and other affected ATC facilities of any mission cancellation or delay information received from the flying unit.

(g) Should it become necessary for ATC to contact a TEAL or NOAA flight and all other methods of communication are not possible (e.g., direct radio, ARINC, aircraft relay), CARCAH may be requested to relay messages to/from the aircraft. CARCAH may phone the appropriate ATC facility to authenticate the request.

5. Requests to change any portion of the NHOP or MOA must be coordinated with ATO System Operations Security.

5–3–5. OPEN SKIES TREATY AIRCRAFT PRIORITY FLIGHTS (F and D)

a. The ATCSCC CARF must be the FAA coordination unit between the Defense Threat Reduction Agency (DTRA) and field facilities for all OPEN SKIES operational information. This includes initial notification and follow-up information on each mission that requires priority handling.

NOTE–

OPEN SKIES flights that require priority handling are located in FAA Order JO 7110.65, Para 9-2-23.

b. ARTCCs/CERAPs/HCF must designate and advise the CARF of a focal point within that facility for OPEN SKIES information.

c. Advance scheduled movement information of OPEN SKIES aircraft received from the DTRA will be forwarded by the CARF.

d. Upon initial notification of a priority OPEN SKIES flight, the affected ARTCCs/CERAPs/HCF must inform all SUA-using/scheduling agencies along the route of flight and any other facility/agency it deems necessary within their area of responsibility of the flight path and possible deviation path of the aircraft. A letter of agreement is required between the using agency and the controlling agency for Open Skies (F and D) aircraft to transit active SUA. When Open Skies (F and D) aircraft transit SUA, an ATC facility must provide approved separation services at all times.

NOTE–

OPEN SKIES flights will not deviate from approved route of flight without ATC clearance.

REFERENCE–

FAA Order JO 7110.65, Para 9-2-23.c.1(a)(1), Open Skies Treaty Aircraft.

e. The air traffic manager of each facility through which the priority OPEN SKIES aircraft transits must ensure that a supervisory specialist(s)/CIC monitors

the aircraft while in the facility's airspace. The supervisory specialist(s)/CIC must monitor the movement of the priority OPEN SKIES aircraft from the flight's entry into the facility's airspace until the flight exits the facility's airspace to ensure that priority handling, separation, control, and coordination are accomplished.

NOTE—

Procedures that address GPS Radio Frequency Interference (RFI) when transiting an active GPS interference mission area are described in FAA Order JO 7610.4, paragraph 2-7-7, Stop Buzzer Procedures for GPS Interference Missions.

REFERENCE—

FAA Order JO 7110.65, Subpara 2-1-4n, Operational Priority.

FAA Order JO 7110.65, Para 9-2-22, Open Skies Treaty Aircraft.

TREATY ON OPEN SKIES, TREATY DOC. 102-37.

f. Air traffic facilities must notify the CARF (540-422-4212/4213) and DTRA Operations (703-767-2003) immediately in the event of any

incidents or problems generated by OPEN SKIES aircraft.

g. The CARF must immediately notify System Operations Security/Strategic Operations Security for resolution of problems or incidents, if necessary.

5-3-6. FOREIGN STATE DIPLOMATIC FLIGHTS

Diplomatic clearances that authorize foreign state aircraft (military or non-military) to operate in U.S. territorial airspace for a specific time and purpose are approved by the U.S. State Department. Except for Open Skies Treaty priority flights, foreign state diplomatic flights are non-priority. Contact the FAA System Operations Support Center (SOSC) (202-267-8276 or email 9-ATOR-HQ-RT-REQ@faa.gov) with questions or issues concerning foreign state diplomatic flights.

NOTE—

Appropriate Flight Standards offices are: the ACDO for air carrier operations or the FSDO or both/either.

2. Prepare a facility directive using the information as specified in the current LAHSO directive prescribing procedures for conducting these operations. The directive must contain a diagram that depicts the airport runway configuration, identifies the configuration to be used, and specifies the Available Landing Distance (ALD) from the landing threshold to the Hold-Short Point.

NOTE—

Any aircraft that is not listed in the current LAHSO directive must not be considered for LAHSO.

REFERENCE—

FAA Order JO 7110.65, Para 3–10–4, Intersecting Runway Separations.

3. Ensure the directive identifies the eligible aircraft which may operate on each runway, based on the ALD, current LAHSO directive, and/or FAA Order JO 7360.1, Aircraft Type Designators.

4. Provide a list of runways authorized for LAHSO, along with the appropriate ALD to System Operations Airspace and Aeronautical Information Management, for publication in the Chart Supplement U.S. and appropriate U.S. Terminal Procedures Publications.

5. Conduct user briefings at least 45 days before implementation.

c. Air traffic managers must obtain concurrence from the appropriate Flight Standards field offices and conduct a preliminary environmental review before conducting LAHSO.

REFERENCE—

FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOTE—

This is only applicable to those facilities not currently conducting LAHSO operations.

10–3–8. LINE UP AND WAIT (LUAW) OPERATIONS

a. The ATM must:

1. Determine an operational need exists before conducting LUAW operations.

2. Before authorizing LUAW operations, conduct a review of the impact that airport configuration and local conditions may have on the application of LUAW procedures.

3. Prepare a facility directive. The directive must prescribe items (a) through (d). Items (e) through (i) must be included if applicable.

(a) Local procedures for conducting these operations.

(b) Methods to assist the local controller in maintaining awareness of aircraft positions on the airport, for example, annotating flight progress strips or marking the location of aircraft with color-coded chips on a magnetic diagram of the airport.

REFERENCE—

FAA Order JO 7210.3, Para 10–1–7, Use of Active Runways.

(c) The consolidation and staffing of positions.

(d) The requirements necessary for issuing a landing clearance with an aircraft holding in position.

(1) The safety logic system must be operated in full core alert runway configuration.

(2) The reported weather must be ceiling of 800 feet or more.

(3) The reported visibility must be 2 miles or more.

REFERENCE—

FAA Order JO 7110.65, Para 3–9–4, Line Up and Wait (LUAW), subpara c1

FAA Order JO 7110.65, Para 3–10–5, Landing Clearance, subpara b

(e) Runway geometry, for example, the physical configuration of runways and other airport movement areas.

(f) Weather conditions, time of day, for example, prevailing light conditions.

REFERENCE—

FAA Order JO 7110.65, Para 3–9–4, Line Up and Wait (LUAW), subpara c1 and g.

(g) Fleet mix.

REFERENCE—

FAA Order JO 7110.65, Para 3–9–6, Same Runway Separation.

FAA Order JO 7110.65, Para 3–9–7, Wake Turbulence Separation for Intersection Departures.

FAA Order JO 7110.65, Para 3–9–8, Intersecting Runway Separation.

(h) Traffic volume; complexity restrictions.

(i) Obstructions or limitations to visibility from controller-to-aircraft and aircraft-to-aircraft perspectives.

4. Local control position must not be consolidated/combined with any other non-local control position. For example, local control must not be consolidated/combined with the operations

supervisor (OS)/controller-in-charge (CIC) position, clearance delivery, flight data, ground control, cab coordinator, etc. Local control can be combined with other local control positions to include tower associate (local assist) or local monitor position. When a Class B/helicopter position with defined control tower airspace is established, this position can be combined with local control.

5. The tower associate (local assist) position or a local monitor position must be staffed to permit more than one aircraft at a time to LUAW on the same runway between sunrise and sunset.

6. The OS/CIC position should not be combined with any other position.

7. Ensure OS/CICs review Paragraph 2-6-1a, Watch Supervision, with an emphasis on maintaining situational awareness and management of the operational environment with a goal toward eliminating distractions.

8. Do not authorize LUAW operations at an intersection between sunset and sunrise unless the following is implemented:

(a) The runway is used as a departure-only runway.

(b) Only one aircraft at a time is permitted to LUAW on the same runway.

(c) Document on FAA Form 7230-4, Daily Record of Facility Operation, the following: "LUAW at INT of RWY (number) and TWY (name) IN EFFECT" when using runway as a departure-only runway. "LUAW at INT of RWY (number) and TWY (name) SUSPENDED" when the runway is not used as a departure-only runway.

(d) At least 90 days before planned implementation, ATMs must submit the local directive outlining this operation to the appropriate Service Area Director of Air Traffic Operations for approval. The appropriate Service Area Director of Air Traffic Operations must be notified of any proposed operational changes (for example, a change to the runway or taxiway for conducting LUAW operations).

b. ATMs must submit operational need for LUAW and a facility directive to the appropriate Service Area Director of Air Traffic Operations for approval. ATMs must maintain a copy of the approval

correspondence from the appropriate Service Area Director of Air Traffic Operations.

c. The appropriate Service Area Director of Air Traffic Operations must ensure an annual review of LUAW operations is conducted for those facilities employing LUAW. The results of this review must be sent to the Director of Operations-Headquarters.

10-3-9. VISUAL SEPARATION

Air traffic managers at adjacent ATCTs who wish to conduct tower-applied visual separation are required to complete the following:

a. Prepare a facility directive at each facility and enter into an LOA between the concerned facilities. At a minimum, the LOA must include:

1. Required equipment to conduct the operation.

2. Clear definition of the specific runway configurations and flows for the operation.

3. Ceiling and visibility requirements.

4. Missed approach instructions, where applicable.

5. A requirement that the aircraft type and intentions be made known to all controllers providing visual separation under these procedures.

6. Procedures for OS/CIC personnel to:

(a) Accomplish coordination between all concerned facilities prior to conducting and upon termination of the specified operation,

(b) Assess the operation during equipment failures.

(c) Terminate the operation when not permitted due to weather conditions.

b. Ensure that all personnel receive initial, and when appropriate, recurrent/annual refresher training.

c. Document the operation in a Letter to Airmen and publish it on the Federal NOTAM System (FNS) website.

d. Submit an operational needs request along with an update adding tower-applied visual separation procedures to their facility directives. These documents must be approved by the appropriate Air

Section 5. Terminal Radar

10-5-1. SHUTDOWN OF PAR ANTENNAS

When PAR equipment is not required for ATC controller training, maintenance, or other use, shut down the antenna. Keep the main power supply and the high voltage system energized to permit immediate restoration of PAR equipment for operational use.

10-5-2. RADAR DISPLAY INDICATORS

a. Radar approach and departure control functions will normally be conducted from a TRACON. Either direct view or a CTRD may be used. These functions may be performed from the tower cab:

1. If not more than two radar operating positions are required and CTRDs are used on a permanent basis.

2. If more than two operating positions are required and CTRDs are installed on an interim basis pending the establishment of a TRACON.

3. On a temporary basis if other than CTRDs are installed.

b. Consider the following if scan conversion type bright display equipment is used:

1. A standard bright display installation consists of one operational and one standby scan conversion unit. The range and centering selected for the master bright display will be the same on all slaved bright display indicators.

2. If the particular radar operating positions concerned require a capability for individual beacon decoding, each bright display position will require a separate scan conversion unit.

3. That a determination must be made if surveillance approach capability would be lost using only scan conversion bright display indicators. If the determination is that it would be lost, at least one direct view indicator must be retained.

c. VFR Radar Advisory Service functions will normally be conducted from the TRACON.

d. A CTRD installed in the tower cab for LC use must be positioned where it can be conveniently

viewed from the local controller's normal sitting or standing position.

e. PAR functions will normally be conducted in a TRACON.

f. ASDE indicators must be placed in the tower cab so as to serve the LC and GC positions.

g. The CTRD may be used for any terminal radar function.

h. The 12-inch or larger display monitor may be used in lieu of a CTRD when authorized by the region and the display is certified by Technical Operations (Tech Ops). Any display monitor less than 12 inches must not be used for ATC separation purposes. It is primarily to provide alphanumeric readout capability to the CD/FD position at locations where that position has keyboard access to STARS.

10-5-3. FUNCTIONAL USE OF CERTIFIED TOWER RADAR DISPLAYS

a. At towers combined with full radar approach control facilities where controllers rotate between the approach control and the tower, CTRDs may be used by local controllers for any terminal radar function provided their ability to satisfy FAA's air traffic responsibilities regarding the aircraft operating on the runways or within the surface area for which the tower has responsibility is not impaired. The conditions and/or limitations for the radar usage must be specified by a facility directive.

b. At towers combined with full radar approach control facilities where controllers do not rotate between the approach control and the tower, or at towers not combined with full radar approach control facilities, CTRDs may be used by local controllers for the following functions:

1. To determine an aircraft's identification, exact location, or spatial relationship to other aircraft.

NOTE-

This authorization does not alter visual separation procedures. When employing visual separation, the provisions of FAA Order JO 7110.65, Air Traffic Control, para 7-2-1, Visual Separation, apply.

2. To provide aircraft with radar traffic advisories.

3. To provide a direction or suggested headings to VFR aircraft as a method for radar identification or as an advisory aid to navigation.

4. To provide information and instructions to aircraft operating within the surface area for which the tower has responsibility.

5. To ensure separation between successive departures, between arrivals and departures, and between overflights and departures within the surface area for which the tower has responsibility provided:

(a) There is no airspace delegated to the tower;

(b) The local controllers have radar training and certification commensurate with their radar duties;

(c) A LOA, approved by the respective Terminal Operations Service Area Office, exists with the IFR facility having control jurisdiction which authorizes the specific radar function and prescribes the procedures to be used;

(d) The LOA prescribes the process for a transition to nonradar procedures or the suspension of separation authority in the event of a radar outage;

(e) The procedures for giving and receiving radar handoffs or pointouts do not impair the local controller's ability to satisfy FAA's air traffic responsibilities regarding the aircraft operating on the runways or within the surface area for which the tower has responsibility; and

(f) The procedures for ensuring radar separation do not require the tower to provide radar vectors.

c. At locations where uncertified tower displays are in use, the services and phraseology set forth in FAA Order JO 7110.65, Air Traffic Control, Chapter 5, Radar, must not be utilized. Uncertified displays must be used only as an aid to assist controllers in visually locating aircraft or in determining their spatial relationship to known geographical points.

d. Operational applications of tower radar displays other than those outlined in subparas a and b, and/or the delegation of airspace to a tower require a staff study as prescribed in Para 2-1-16, Authorization for Separation Services by Towers.

10-5-4. ASR PERFORMANCE CHECKS

Each radar controller is responsible for determining on a day-to-day basis if the quality of their radar display and video display accuracy is satisfactory for ATC purposes.

a. At locations using digital terminal automation systems (DTAS) such as STARS or MEARTS, daily ASR performance checks are not required. DTAS conducts continuous self-monitoring checks for performance and alignment.

b. At facilities that do not use a DTAS, radar quality and performance is determined by comparing identified targets against data obtained during the commissioning flight check or through minimum performance criteria determined jointly by air traffic and Technical Operations personnel. Radar controllers must be familiar with commissioning flight check and minimum performance data. Air traffic managers must make this information available to the controllers. Aircraft selected for these daily checks should be small aircraft similar in size to those used in the commissioning flight checks.

c. The daily radar performance check must be a part of the routine checks of equipment. (See para 4-6-5, Preparation of FAA Form 7230-4). The check must be accomplished once each watch. It is recognized that on some watches this check may not be accomplished because of the lack of traffic.

REFERENCE-

FAA Order JO 7110.65, Para 5-1-2, Alignment Check.

10-5-5. DEFICIENCIES IN SYSTEM

Note deficiencies in the radar system on FAA Form 7230-4. Reconcile them as follows:

a. After consultation with the Technical Operations representative, the terminal air traffic manager or his/her representative must decide if this radar system is usable. Consider atmospheric or other phenomena that may temporarily affect radar performance.

b. Certification by Technical Operations personnel that a malfunction has been corrected must be entered on FAA Form 7230-4.

NOTE-

Technical Operations representatives may ground check the equipment to determine if the radar system is operating satisfactorily or request a special flight check.

Section 2. Operations and Staffing

11-2-1. REQUESTS FOR ADDITIONAL SERVICES

a. The FCT contracts specify the terms under which ATC services will be provided, including hours of operation for each FCT.

b. FAA personnel must not require actions of the contractor that fall outside the scope of the contract; for example, extension of the hours of operation or requests for additional staffing. Only the CO can effect modifications to a contract.

11-2-2. FAA STAFFING FOR SPECIAL EVENTS

AJT district offices must coordinate with AJT-22 whenever FAA staffing for special events (for example, Sun 'n Fun, EAA AirVenture Oshkosh, etc.) will be needed at an FCT, and provide staffing and supervisory schedules for the tower during the event.

NOTE-

At no time can an FAA controller act in a supervisory capacity (OM/OS/CIC/Trainer, etc.) over an FCT controller, nor can an FCT controller act in a supervisory capacity over an FAA controller.

11-2-3. LETTERS OF AGREEMENT (LOA)

FCTs are authorized to negotiate with, and enter into LOAs with FAA facilities, National Airspace System (NAS) users, and airport operators/tenants in accordance with FAA directives.

a. The AJT district must provide assistance to the FCT air traffic manager for the development of local procedures, facility LOAs, etc.

b. The contractor must comply with the service area's LOA processing procedures.

c. Within 90 days of assuming air traffic manager responsibilities, the FCT Air Traffic Manager (ATM)

will conduct and document a review of the facility LOAs to determine if they are operationally valid and accurately reflect the facility's procedures.

11-2-4. EMERGENCY AND CONTINGENCY SITUATIONS

FAA facilities must provide assistance to FCTs during emergency and/or contingency situations. Requests outside the scope of an LOA or approved contingency plan must be coordinated through the Service Center.

11-2-5. FACILITY DIRECTIVES REPOSITORY (FDR)

In addition to other required directives, FCT ATMs will ensure the most current version of all facility LOAs are uploaded into the Facility Directives Repository. Directives deemed proprietary will have only the dated or revision-numbered cover page uploaded.

NOTE-

LOAs containing contingency plan information must not be posted to the FDR. LOAs with such information must be posted to the National Operational Contingency Plan database.

11-2-6. FCT AIR TRAFFIC CONTROLLER ELIGIBILITY

a. To be an air traffic controller in the FAA FCT Program:

1. A person must meet the requirements of Code of Federal Regulations (CFR), Title 14, Aeronautics and Space, Part 65 and Part 67 and,

2. FCT controllers must have held a previous Control Tower Operator Certificate or FAA Air Traffic Safety Oversight Credential.

b. There is no maximum age restriction for FCT air traffic controllers.

Section 6. Standard Terminal Automation Replacement System (STARS)

12-6-1. OPERATIONAL USE

a. Do not use STARS data when the system is released to Technical Operations Services.

b. Verify the operational status of all STARS components daily.

c. Advise affected facilities when STARS equipment will not be operational at normal startup time, when it fails, is shut down, resumes operation, or when interfacility mode is lost/regained.

12-6-2. DATA ENTRIES

Facility directives must prescribe the use of the scratch pad and the specific responsibility for entering the current ATIS alpha character, the current general system information (GSI), and the system altimeter setting. When a STARS facility serves more than one controlled airport, an average of the altimeter settings for those airports may be specified as the system altimeter setting. A remote altimeter setting may be used in accordance with paragraph 2-10-4, Comparison Checks, in the event that all local altimeter indicators fail. Do not use this procedure whenever conditions indicate the probability of a steep pressure gradient between two locations.

12-6-3. DISPLAY DATA

a. When a malfunction causes repeated discrepancies of 300 feet or more between the automatic altitude readouts and pilot reported altitudes, request Technical Operations personnel to inhibit the automatic altitude report (Mode C) display until the malfunction has been corrected.

b. Display Mode C on untracked (unassociated) targets within each controller's area of responsibility by setting the altitude filters to encompass all altitudes within the controller's jurisdiction. Set the upper limits no lower than 1,000 feet above the highest altitude for which the controller is responsible. In those stratified positions, set the upper and lower limit to encompass at least 1,000 feet above and below the altitudes for which the controller

is responsible. When the position's area of responsibility includes down to an airport field elevation, the facility will normally set the lower altitude filter limit to encompass the field elevation, so that provisions of FAA Order JO 7110.65, Air Traffic Control, Paragraph 2-1-6, Safety Alert, and subparagraph 5-2-17a2, Validation of Mode C Readout, may be applied. Air traffic managers may authorize the temporary suspension of this requirement when target clutter is excessive.

REFERENCE-

FAA Order JO 7110.65, Para 5-2-24, Altitude Filters.

12-6-4. USE OF STARS QUICK LOOK FUNCTIONS

a. When operational benefits are gained by using the QUICK LOOK function, specify the following in a facility directive or an LOA:

1. Procedures for data transfer between the TRACON and the tower cab.
2. Communications changeover points.
3. Transfer of control points.
4. Hours or conditions under which facility policy prohibits use of these functions.
5. The responsibility of the local control position to determine whether use of QUICK LOOK function is satisfactory or some other mode of data transfer is to be used; e.g., voice call or computer handoff.

b. Factors to be considered by the controller in determining use of the QUICK LOOK function and by the facilities for prohibiting their use include, but are not limited to, light on the face of the TDW or supplemental display, traffic volume, other duties requiring the controller's attention, and the number of controllers available in the tower.

12-6-5. AUTOMATION PROGRAM CHANGES

The air traffic manager of STARS facilities must:

- a. Approve all requests for automation changes sent to the respective Operational Support Facility

via the National Automation Request form, FAA Form 6000–14.

b. Review each SITE PROGRAM BULLETIN (TERMINAL) issued by the Terminal Automation Support for local program functionality, and changes to the data base to determine any operational/procedural impact. When necessary:

1. Issue a facility directive describing the functional change/s and any resulting procedural change/s.

2. Coordinate any functional, procedural, and airspace change/s with the ARTCC providing automation interface.

c. Ensure that operational suitability acceptance for software modifications is recorded on FAA Form 7230–4.

EXAMPLE–

“National operating system suitability testing completed, acceptable.”

12–6–6. AUTOMATIC ACQUISITION/TERMINATION AREAS

a. Facility air traffic managers must:

1. Establish automatic acquisition areas for arrivals and overflights at ranges permitting auto–acquisition of targets prior to the ARTCC/STARS–to–STARS automatic handoff area.

2. Coordinate with the adjacent automated facilities to ensure that computer handoffs will only be initiated after the aircraft is within their facility’s automatic acquisition area. Where this is not feasible due to airspace assignment, facility directives must require the use of an appropriate procedure specified in FAA Order JO 7110.65, Air Traffic Control, to confirm the identity of all aircraft handed off prior to auto–acquisition.

3. Establish automatic acquisition areas for departing aircraft 1 mile or less from the runway end.

4. Establish automatic termination areas for arriving aircraft 1 mile or less from the runway threshold or, at satellite airports, the minimum radar coverage range/altitude whichever is greater.

5. Prescribe in a facility directive the operating position responsibility for determining if automatic acquisition of a departure track has occurred.

NOTE–

This is intended for operations where automatic acquisition responsibility could be confused, e.g., uncontrolled airports within a single sector, or between different radar sectors that serve the same airport.

b. The appropriate Service Area Director of Air Traffic Operations, may authorize a distance greater than specified in subparagraphs 3 and 4 above, where the operational conditions dictate.

12–6–7. MINIMUM SAFE ALTITUDE WARNING (MSAW) AND CONFLICT ALERT (CA)

a. Facility air traffic managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA functions when their continued use would adversely impact operational priorities. Inform the appropriate Service Area Director of Air Traffic Operations when equipment or site adaptation problems preclude these functions from being used.

b. Facility air traffic managers are authorized to inhibit CA at specific operating positions if an operational advantage is gained.

c. MSAW General Terrain Maps (GTMs) must be kept current.

d. Facility air traffic managers must ensure that:

1. The magnetic variation of the facility’s MSAW GTM coincides with the magnetic variation of the facility’s adapted radar site settings.

NOTE–

The DTM is constructed to align with the radar antenna offset for magnetic north. Consequently, any change in antenna offset will result in a corresponding change in relative positions of the terrain points and obstacles used to determine DTM bin altitude assignments. This will require not only generating and verifying a new DTM, but also readapting the MSAW and CA data bases; e.g., airport areas, inhibit volume areas, capture boxes, etc., to coincide with the changed declination.

2. MSAW parameters are modified, as appropriate, to minimize the extent of inhibit areas as specified in the Standards and Guidelines for STARS.

3. An aural test of the MSAW speakers located in the operational quarters is included as part of the equipment checklist required during each watch. The purpose of this test is to ensure the aural alarm is functioning and audible to the appropriate operational personnel.

Section 10. UAS Facility Maps (UASFM)

12-10-1. POLICY

a. UASFM must be developed in accordance with FAA Order JO 7210.3, Chapter 12, Section 10.

b. The ATM will review the maps annually, or whenever modifications are necessary. Reasons for modifications include, but are not limited to:

1. Airspace changes.
2. Runway or airport property changes.
3. Changes in procedures.
4. Changes in volume of traffic.

c. If changes need to be made to the UASFM, forward your request to uasfm@faa.gov.

12-10-2. RESPONSIBILITY

The ATM will designate a primary and secondary UASFM Point of Contact (POC). When there are changes to the POCs, notify Headquarters at uasfm@faa.gov.

NOTE-

Facilities may use the facility group email address as their POC.

12-10-3. ASSUMPTIONS

a. There are portions of each facility's airspace at very low altitudes that a sUAS could operate without impacting IFR or VFR operations.

b. Part 107 operations by rule are exempt from the Part 91 rules that define VFR and IFR operations. Therefore, Part 107 operations are not defined as VFR or IFR and require no separation or services by ATC.

c. Evaluate each segment for the impact of the UAS flight to your operation (i.e., If a UAS flew in segment A1 at 400 feet, would that affect your operation? What about 300 feet or 200 feet?).

d. All runways are in use for arrival and departure.

e. Altitudes will be listed in 50-foot increments, starting at 0 feet (0, 50, etc.) and ending at 400 feet. Altitudes are listed as AGL.

NOTE-

Part 107 allows operators to fly 400 feet AGL and if within a 400-foot radius of a structure/obstacle, they can fly to the height of the structure plus 400 feet. However, the maps will only be evaluated to 400 feet AGL. For any request above 400 feet AGL, regardless of proximity to a structure/obstacle, headquarters will coordinate with the facility.

f. All UAS operations that are requested at or below the altitude listed for the segment for where the flight will occur will be approved without facility coordination. However, the facility will receive a copy of the authorization.

g. Zero (0) altitude means no UA flights authorized without facility coordination.

h. For UAS flights that take place in two or more segments, the lowest published altitude will be used.

i. When a UA operation has been approved, the affected facilities will receive an email that will include the responsible person's contact information, location, altitude, time and date of UA operation.

j. In the event two facilities overlap the same segment, the lowest altitude will be used for both facilities.

k. Items to consider:

1. Part 107 operators must comply with all parts of the Part 107 rule (i.e., Part 107 operators must maintain visual line of site with their UA, they must yield right-of-way to all aircraft, they are solely responsible for not operating in prohibited or restricted areas without prior permission, they are solely responsible for not operating in temporary flight restricted airspace, and they are solely responsible for not operating over nonparticipating people).

2. Diverse vector areas (DVA) and aircraft performing minimum departure climbs at 200 feet per mile.

3. Obstructions already present (i.e., a segment with 60-foot trees would allow UA to operate safely at 50 feet).

4. Low altitude operations (i.e., helipads).

5. The UA operator is solely responsible for avoiding ground hazards, sensitive areas (e.g.,

nuclear power plants, critical infrastructure and federal facilities), and areas where drone operations are prohibited.

12-10-4. AUTHORIZATION MAP DESIGN PROCEDURES CLASS B/C/D AIRSPACE

a. Each facility must review the assumptions section.

b. Each facility will work collaboratively with their workforce to develop the UA map. Each segment must be evaluated to determine the highest altitude a UA could operate without any coordination to the facility.

c. Facilities must evaluate all segments for the maximum altitude they will allow without further coordination within their area of jurisdiction for flights between 0–400 feet in 50–foot increments.

d. For partial segments, facilities only need to evaluate the area they have jurisdiction over but will show the altitude for the entire segment.

e. For segments outside your area of jurisdiction, leave the segments on the spreadsheet blank.

f. In areas where the overriding rule/law specifies no UAS operations (e.g., the DC FRZ), we are still asking facilities to complete the map as though operations could be permitted without the overriding regulations. There may be situations where law enforcement, DOD, etc. could ask for authorization under Part 107 and have the ability to operate in the area.

g. Once you have finished the spreadsheets, email them to uasfm@faa.gov.

12-10-5. UAS FACILITY MAP (UASFM) DESIGN

a. Each facility will need three files: a facility map (.pdf), a Google Earth (.kmz) file, and a spreadsheet (.xls). To receive the files, send an email to uasfm@faa.gov.

b. The map will display the facility's airspace as defined in FAA Order JO 7400.11, Airspace Designations and Reporting Points. A latitude/longitude grid will be placed over the maps creating rectangular divisions, referred to as "segments". The map will have a satellite image as its background. (See FIG 12-10-1.)

c. A .kmz file is a file that opens using Google Earth Pro. It is not a requirement to use a .kmz file, but the .kmz file may be easier to work with because of the program's zoom and pan feature. The facility map is a .pdf file of the .kmz. If the facility does not have Google Earth Pro, contact the IT department for program installation. The FAA facilities IT support number is 1-844-322-6948.

d. Each segment will be identified by a letter and number. The latitude segments will be labeled with letters and will increase by one for each segment (A, B, etc.). The longitude segments will be labeled with 1 and increase by one for each segment (1, 2, etc.).

e. Assign each segment a value of 0–400 feet, in 50–foot increments. Only evaluate segments that are within the surface area of your Class B/C/D airspace. Leave the segments outside the surface area blank. In the event that a surrounding facility owns or abuts your surface area, you must work with that facility (i.e., TRACON owns 1 mile from the runway.) Only complete sheet 1 of the spreadsheet. Sheet 2 and sheet 3 self-populate and the data must not be changed. They will be used to develop a Google Earth graphical overlay. (See FIG 12-10-2.)

Part 4. FLIGHT SERVICE STATIONS

Chapter 14. Flight Service Operations and Services

Section 1. General

14-1-1. OPERATING POSITION DESIGNATORS

a. The following designators may be used to identify operating positions in an FSS. (See TBL 14-1-1.)

TBL 14-1-1

Operating Position Designators

	<i>Designator</i>	<i>Position</i>
1.	AA	Airport Advisory
2.	BC	Broadcast
3.	C	Coordinator
4.	DSC	Data Systems Coordinator
5.	FD	Flight Data
6.	IF	Inflight
7.	N	NOTAM
8.	OM	Operations Manager
9.	OS	Operations Supervisor
10.	PF	Preflight
11.	STMCIC	Supervisory Traffic Management Coordinator-in-Charge
12.	WO	Weather Observer

b. Facility managers may use designators other than those listed to accommodate local situations.

14-1-2. TEMPORARY FSS

a. Employ temporary FSSs to assure that the aviation public is afforded adequate services. Temporary facilities may be established when requested by flying organizations, cities, and other political subdivisions to assist in the operation of fly-ins, air races, etc.

b. Each request for a detail of FAA personnel and/or equipment should be carefully considered with regard to the actual need for the service. When it is determined that the service is required and that the required personnel/equipment can be made

available without jeopardizing FAA activities, Flight Services Operations Service Area Offices should accede to the request.

14-1-3. FLIGHT PLAN AREA

The Chart Supplement U.S. lists each public use airport and its associated FSS. As changes occur, determine the flight plan area assignments as follows:

a. The Flight Services Safety and Operations Group must assign a new airport to the nearest FSS regardless of regional boundaries. This criterion must also be used as the determining factor for establishing flight plan areas or airport reassignments associated with FSS commissioning, decommissioning, or functional changes.

b. Make adjustments to the flight plan area assignment through interfacility coordination with Flight Services Safety and Operations Group approval.

c. Where databases are shared, facility managers may develop local procedures to facilitate the handling of flight data across flight plan area boundaries.

EXAMPLE-

An aircraft departs Dillingham but activates a VFR flight plan with Kenai Radio. Since both facilities share a database, Kenai may activate the flight plan, providing local procedures have been developed.

14-1-4. ICSS INTRODUCTORY ANNOUNCEMENT

a. FSS facilities using ICSS equipment must provide an introductory announcement to alert pilots they are accessing the ICSS system.

EXAMPLE-

WELCOME TO THE (facility name) FLIGHT SERVICE STATION. FOR FLIGHTS OUTSIDE OF UNITED STATES CONTROLLED AIRSPACE, CHECK DATA AS SOON AS PRACTICAL AFTER ENTERING FOREIGN AIRSPACE, AS OUR INTERNATIONAL DATA MAY BE INACCURATE OR INCOMPLETE. ADVISE THE

BRIEFER YOU HAVE THE INTERNATIONAL CAUTIONARY ADVISORY. TOUCH-TONE USERS MAY PRESS (appropriate code) FOR A BRIEFER OR (appropriate code) FOR THE MAIN MENU OF SERVICES. IF YOU ARE USING A PULSE OR ROTARY TELEPHONE, PLEASE REMAIN ON THE LINE AND YOUR CALL WILL BE SEQUENCED FOR THE NEXT AVAILABLE BRIEFER.

- b.** Newly commissioned facilities may expand the

introductory announcement to include additional access instructions until users become familiar with the system— for a period not to exceed 6 months from the date of system commissioning.

- c.** With Flight Services Operations Service Area Office approval, facilities may add additional menu instruction for special purpose requirements, for example, coastal routes.

Chapter 15. Aviation Meteorological Services and Equipment

Section 1. General

15-1-1. FAA-NWS AGREEMENT

By interagency agreement, FAA and NWS cooperate in providing aviation meteorological services to the aviation public. This cooperation is designed to provide maximum service within the combined capabilities of the two agencies.

15-1-2. CERTIFICATES OF AUTHORITY

a. FSS personnel must obtain a certificate of authority from the FAA before performing the following functions:

1. Weather observing.
2. Pilot weather briefing.

REFERENCE-

FAA Order JO 7220.4, *FAA Certification of Pilot Weather Briefing*

15-1-3. LIAISON WITH AVIATION INTERESTS

a. Because of their aviation service responsibilities, FSS supervisors should establish and maintain cordial relations with aviation interests within their flight plan areas. They should keep apprised of aviation users' weather and aeronautical information needs and assist them in making effective use of the available services. This liaison should include other FAA facilities, NWS facilities, airport management, airline and military operations offices, fixed base operators, pilot organizations, and Civil Air Patrol (CAP).

b. Some aviation operations (e.g., emergency medical flights) require time critical services. Immediate dispatch of the mission is imperative and delays in obtaining required weather and aeronautical information may be life endangering. FSS managers must cooperate to the fullest extent possible with organizations making requests for special arrangements to satisfy their requirement.

15-1-4. TELEPHONE LISTINGS

FSS air traffic managers must ensure that appropriate telephone numbers are properly listed in telephone directories (including yellow pages when applicable) and in the Chart Supplement U.S. Include Fast File in the local directories and ensure that Foreign Exchange, Enterprise, etc., are listed in the directories of the areas which they serve. Numbers should always be listed under the subheading Flight Service Station under United States Government, Department of Transportation, Federal Aviation Administration. When possible, list the primary pilot weather briefing number under the Frequently Requested Numbers section at the beginning of United States Government listings.

EXAMPLE-

United States Government
Department of Transportation
Federal Aviation Administration
Flight Service Station
(Address)
Pilot Weather Briefing ¹
Fast File Flight Plan
Facility Supervisor ²

/1/ Parent FSS number for part-time FSSs.

/2/ Administrative number.

15-1-5. MINIMUM WEATHER EQUIPMENT

FSSs taking basic weather observations must have:

- a. A ceilometer (balloons and ceiling lights are acceptable until replaced).
- b. A hygrothermometer and a sling psychrometer for use in the event the hygrothermometer is inoperative.
- c. A wind direction and speed system. (A gust recorder, if required, will be furnished by NWS.)
- d. A standard 8-inch rain gauge (furnished by NWS if the station reports precipitation).
- e. An altimeter setting indicator and a traceable pressure standard. (A barograph, if required, will be furnished by NWS.)

15-1-6. SUPPLY-SUPPORT

Equipment used exclusively for aviation observations will be procured, installed, operated, maintained, and supply-supported by FAA. Observational equipment; e.g., gust recorders, barographs, and rain gauges, serving multiple NWS/FAA purposes will be procured, installed, maintained, and supply-supported by NWS unless otherwise agreed to. To the maximum extent possible, each agency should avail itself of the facilities offered by the other in contracting for, installing, maintaining, and supply-supporting observational equipment on a non-reimbursable basis where appropriate.

15-1-7. NWS OPERATIONS MANUAL

a. Specialized Weather Services, Chapter D-20 through Chapter D-27, are distributed by Washington headquarters to all FSS facilities. When other D Chapters are required, facility managers must arrange for routine distribution through the respective Flight Services Operations Service Area Office.

b. If the listed Weather Service Operations Manuals (WSOM) and associated Operational Manual Letters (OML) are not available through FAA Distribution, those items annotated with an asterisk may be obtained from:

National Oceanic and Atmospheric Administration
(NOAA) Logistics Supply Center
1510 East Bannister Road
Building 1
Kansas City, Missouri 64131

Remaining documents may be obtained by contacting the Weather Service Evaluation Officer (WSEO) servicing your area.

c. Following is a list of the available chapters. They are amended and supplemented by the issuance of either a revision or an Operations Manual Letter (OML). When ordering, specify the effected D chapter, the revision or the OML, and include the issuance number and the date. (See TBL 15-1-1.)

TBL 15-1-1
D-Chapter Listing

<i>Chapter Title/Amendments</i>	<i>Issuance Number</i>	<i>Issuance Date</i>
WSOMD-20 Aviation Area Forecasts* OML 10-92* OML 11-92* OML 12-92*	91-3	5/3/91
WSOMD-21 Aviation Terminal Forecasts Rev 1 Rev 2 OML 3-85 OML 11-86 OML 1-91* OML 6-92* OML 5-93	84-14 85-1 88-4	10/26/84 1/22/85 3/11/88
WSOMD-22 Aviation In-Flight Weather Advisories*	91-7	5/22/91
WSOMD-23 Special Aviation Forecasts and Events	79-11	8/23/79
WSOMD-24 Wind and Temperature Aloft Forecasts OML 4-83	81-18 4-83	11/4/81 2/7/83
WSOMD-25 Support to AT Facilities OML 2-84	84-1 2-84	2/10/84
WSOMD-26 Aviation Weather Warnings and Pilot Briefings Rev 1 OML 13-92* OML 7-92* OML 1-92*	85-9 88-8	8/26/85 8/1/88
WSOMD-27 In-Flight Reports from Pilots (PIREPs)	73-1	1/23/73
WSOMD-30 Transcribed Weather Broadcast Text Products	88-3	2/5/88
WSOMD-35 International Aviation Area Forecasts Rev OML 7-89	74-20 75-11	9/27/74 5/29/75
WSOMD-37 International Aviation Aerodrome Forecasts OML 7-88	88-6	6/1/88
WSOMD-38 International Aviation In-Flight Advisories OML 3-91* OML 3-90 OML 8-89	88-5	5/27/88
WSOMD-79 National Weather Service Flight Operations	83-8	4/27/83
WSOMD-82 Training Program for Pilot Weather Briefers Rev 1 Rev 2* OML 8-92	89-8 90-10 92-2	8/17/89 11/27/90 4/28/92

Section 3. Broadcasts

15-3-1. STATION BROADCASTS

Facility air traffic managers must select the specific reports to be included in the Scheduled Weather Broadcast (SWB). Include a sufficient number of reports to serve the users' needs. The selection of the reports and any proposed changes must be coordinated with known users of the station broadcast. The reports should be broadcast in clockwise order, beginning with the report nearest to but east of true north from the broadcast station. Changes may be implemented immediately unless prior Flight Services Operations Area Office approval is required.

15-3-2. COMMERCIAL BROADCAST STATIONS

Requests to broadcast scheduled or transcribed weather broadcasts which may be useful to the

aviation community may be approved on an individual basis provided:

- a. Any such request is coordinated with the FAA and the NWS regional office before approval.
- b. The radio station identifies the source of the information.
- c. The broadcast is confined to within 1 hour of the time announced on the SWB.
- d. If feasible, the broadcast is not identified or associated with a sponsor. The FAA and the NWS prefer such a program be carried as a public service feature of the standard broadcast station.
- e. FAA personnel must not make direct or recorded broadcasts regularly over a standard broadcast station. A waiver to this policy must be approved by the respective Flight Services Operations Area Office and the Vice President of Flight Services.

Section 5. Other Reports and Information

17-5-1. COMPLETION OF MONTHLY ACTIVITY RECORD

a. This form is to be completed by all FSSs. All computerized, or automated versions of FAA Form 7230-13 must be pre-approved by the Office of Aviation Policy and Plans, Planning Analysis Division, Statistics and Forecast Branch, APO-110, prior to use.

b. Enter daily totals for each applicable category on the daily activity record. Leave sections that do not apply to an individual facility blank. Any time there is an equipment failure, and actual figures are unavailable, provide estimated figures where appropriate. Annotate such estimates in the "Reserved" column on side 2 of the form.

c. To facilitate automatic data processing, complete the header and the monthly total rows on both sides of the form. Follow the instructions below to complete the form:

1. Facility Name: Enter the facility name as specified in FAA Order JO 7350.9, Location Identifiers.

2. Location: Enter city and state.

3. Communications Equipment: Check as appropriate.

4. Facility Type: Check as appropriate.

5. Month: Enter the month using two digits (e.g., 01 – for month of January).

6. Year: Enter the year using the last two numerals of the calendar year (CY).

7. Location Identifiers: Enter the three-letter identifier specified in FAA Order JO 7350.9.

8. Aircraft Contacted: Enter the number of aircraft contacted in accordance with Para 17-2-1, Aircraft Contacted.

9. Flight Plans Originated: Enter the number of flight plans in accordance with Para 17-3-1, Flight Plan Count.

10. Pilots Briefs: Enter the number of pilot briefings in accordance with Para 17-4-1, Pilot Briefing Count.

11. NOTAMs issued: Enter the total number of NOTAMs issued. Do not count NOTAM cancellations.

12. Calls to Briefers: Enter the total number of calls. Do not use decimals. Indicate the number of call as follows:

(a) Litton facilities enter the number of "calls offered" from the Gate 1 Report.

(b) Denro facilities enter the number of calls received ("RCVD") from the Automatic Call Director (ACD) Call History -- Briefer Calls.

13. Calls Lost: All calls lost after zero (0) seconds delay must be counted.

(a) Litton facilities enter the "average speed answered" in whole seconds for calls to briefers from the Gate 1 Report.

(b) Denro facilities enter the average delay ("AVDLY") History--Briefer Calls.

14. Airport Advisories: Enter the number of airport advisories in accordance with Para 17-2-2, Local Airport Advisory (LAA)/Remote Airport Advisory (RAA)/Remote Airport Information Service (RAIS).

15. Radio Contacts: Enter the number of radio contacts in accordance with Para 17-2-3, Radio Contacts.

17-5-2. DISTRIBUTION AND AMENDMENT

a. Distribute FAA Form 7230-13 (FSS Activity) as follows:

1. Forward the original form to the Flight Services Operations Area Office not later than the 2nd workday (Monday-Friday) of the following month.

2. Retain a copy of the form in the facility's files.

b. Correct any errors in the forms sent in prior months by completing a new form, circling the revised fields, and marking the form "AMENDED COPY." Amended copies of the forms more than one month old will not be accepted unless approval has been obtained from the Statistics and Forecast Branch, APO-110, by the Flight Services Operations

Area Office. Send amended copies, along with the current reporting month's forms, to the Flight Services Operations Area Office.

17-5-3. MESSAGE TRAFFIC NUMBER RECORD

Use FAA Form 7233-6 or local substitute to record message traffic.

17-5-4. UNANNOUNCED MILITARY AIRCRAFT ARRIVALS

The destination and departure tie-in stations must record on or attach to unannounced arrival messages all available related information and must coordinate with the local military bases for corrective action when necessary. These messages must be filed with the military daily traffic and unless a part of an incident, alleged violation, or accident, be retained for 15 days before disposal.

Section 23. Route Test

18-23-1. PURPOSE

This section describes policies and guidelines for conducting and evaluating route tests.

18-23-2. DEFINITION

a. Route test – a process established for the purpose of:

1. Assessing new routing concepts.
2. Exploring alternative routing possibilities.
3. Developing new routes to enhance system efficiency and safety.

b. Route test will:

1. Last for a pre-determined length of time, usually 90 days.

2. Include, but not be limited to, the following NAS elements:

- (a) NRS waypoints.
- (b) RNAV waypoints.
- (c) NAVAIDs.
- (d) Departure Procedures (DP).
- (e) Standard Terminal Arrival Routes (STAR).

18-23-3. POLICY

Route tests must be conducted only after collaboration and coordination between the ATCSCC, affected en route and terminal facilities, and stakeholders. Route tests will include existing certified NAS elements. The ATCSCC is the final approval authority for all route tests.

18-23-4. RESPONSIBILITIES

a. The requesting facility must:

1. Ensure coordination is accomplished with all affected FAA facilities and stakeholders.

2. Submit a formal letter, in memorandum format, to the ATCSCC Procedures Office, through the DDSO. The memorandum must include:

(a) Detailed summary of the route test being requested and the anticipated results.

(b) List of affected FAA facilities and stakeholders with which coordination has been completed.

(c) Length of time for which the route test will be in effect, not to exceed 180 days.

(d) Detailed summary of the possible impact to the NAS, surrounding facilities, and stakeholders.

3. Perform an air traffic safety analysis in accordance with FAA Order 1100.161, Air Traffic Safety Oversight.

4. After the above items have been completed and the test approved, conduct the test as requested.

5. Determine if the route test timeframe is adequate. A facility may be granted an extension of up to 90 days with the approval of the ATCSCC. Submit requests for extension through the DDSO to the ATCSCC Procedures Office, with supporting documentation. Facilities requesting extensions exceeding 180 days must review and comply with FAA Order 1050.1, Environmental Impacts: Policies and Procedures, to ensure environmental studies are completed. Include the studies with your request.

6. Within 30 days of completion of the test:

(a) Conduct a review and analysis with the stakeholders and accept comments.

(b) Determine if the proposed route is viable or if other alternatives should be explored.

(c) Document test results and prepare a post-test report in accordance with Air Traffic Safety Analysis and with FAA Order 1100.161, Air Traffic Safety Oversight.

7. If the route is determined to be beneficial, initiate implementation and have the route published in appropriate charts, databases, letters of agreement, and any other appropriate FAA publications.

b. The ATCSCC must:

1. Review the route test memorandum and approve the test or provide justification for disapproval.

2. Review and approve requests for test extensions or provide justification for disapproval.

3. Issue any necessary traffic management advisories.

4. Be the approving authority for any TMIs requested in association with the route test.

Section 24. Time-Based Flow Management (TBFM)

18-24-1. GENERAL

a. TBFM is the hardware, software, methods, processes, and initiatives to manage air traffic flows based on time to balance air traffic demand with system capacity, and support the management of Performance Based Navigation (PBN).

b. TBFM provides a dynamic timed based environment, which increases efficiency and minimizes delays, compared to the use of static miles-in-trail. TBFM is a comprehensive, automated method of departure scheduling, en route adjustments, and arrival management. TBFM increases situational awareness through its graphical displays, timelines, and load graphs. TBFM trajectories are optimized for each aircraft to permit an accurate estimated time of arrival at an airport and provide scheduled times of arrival (meter times) that optimize the flow of traffic into a terminal area by adding more predictability to the ATC system. TBFM enables the routine use of Performance Based Operations (PBO).

18-24-2. PURPOSE

a. This section establishes the purpose of TBFM.

b. TBFM is the expanded use of time based metering to enable gate-to-gate improvements in both fuel and throughput efficiencies by:

1. Applying spacing only where needed.
2. Allowing for the routine use of PBO.
3. Capitalizing on advanced aircraft Flight Management System (FMS) capabilities.
4. Adding more predictability to the ATC system.

18-24-3. POLICY

When departure and or arrival flows are subject to TMIs, or when supporting PBN procedures, TBFM must be used to the maximum extent feasible in preference to miles-in-trail initiatives. Procedures for use of the capabilities within TBFM, in support of PBN operations and TMIs, must be documented in facility directives.

NOTE-

The benefits of TBFM are best realized through the coordinated effort of all facilities supporting PBN procedures or TMIs.

18-24-4. DEFINITIONS

a. Adjacent Center Metering (ACM). An extension of Single Center Metering (SCM) that provides time-based metering capability to neighboring facilities. There are three categories of ACM processing and control at a facility:

1. Managing Facility (Full Control Graphic User Interface (GUI)) – That facility which exercises control over SCM and/or ACM settings and the relevant metering operation.

2. Limited Control (Partial Control GUI) - The ability to manage specific ACM settings and activities for relevant metering operations.

3. Non-Controlling (Non-Control GUI) - A facility that only has monitoring capability.

b. Constraint Satisfaction Point (CSP) – A meter arc, meter fix, meter point or other meter reference elements.

c. *Coupled Scheduling*. Adds additional CSPs for an aircraft to meet the scheduled time of arrival along their route. This results in more optimal balancing and distribution of delays over a greater distance from the airport or CSP.

d. *En Route Departure Capability (EDC)*. Scheduling capability that assists personnel providing traffic management services in formulating release times to a CSP to manage a mile-in-trail restrictions.

e. Extended Metering. Adds additional CSPs for an aircraft to meet the scheduled time of arrival along their route. This results in more optimal balancing and distribution of delays over a greater distance from the airport or CSP.

f. Ground-Interval Management-Spacing (GIM-S). Capability that provides automated speed advisories prior to descent to enable en route controllers to meet the Scheduled Time of Arrival (STA).

g. Integrated Departure/Arrival Capability (IDAC). Capability that automates the Call for Release process for departure scheduling and EDC.

h. Reschedule/Global Reschedule – The recalculation of generated frozen scheduled times of arrival (STA) resulting from an action taken at the TBFM GUI. Reschedule/Global Reschedule also commonly referred to as “rescheduling” or “rippling,” can be executed as an independent function but is also accomplished when changes to TBFM configurations or settings occur.

i. Single Center Metering (SCM). Capability that provides personnel providing traffic management services with the ability to view and manage arrival flows to an ARTCC’s internal airports.

j. Supporting Facility. A facility, which maintains an ancillary relationship to the managing facility in supporting TBFM-related functions.

k. Time Based Flow Management (TBFM) is the hardware, software, methods, processes, and initiatives to manage air traffic flows based on time to balance air traffic demand with system capacity, and support the management of PBN. This includes, but not limited to, TBM, ACM, SCM, EDC, TBS, IDAC, GIM-S, and Extended/Coupled Metering.

l. Time-Based Metering (TBM). The action of personnel providing air traffic services to meet a scheduled time at which airborne aircraft should cross a CSP.

m. Time-Based Scheduling (TBS)/Departure Scheduling. The action of personnel providing traffic management services to formulate time parameters for release of aircraft into an arrival flow.

■ 18-24-5. RESPONSIBILITIES

a. The ATCSCC must:

1. Be the final decision authority for TBFM-related operations and initiatives.

2. Manage the equity of overall system delays throughout the NAS.

3. Maintain awareness of all TBFM-related operational activities within the NAS.

4. Include the status of pertinent TBFM related information on the planning telecons and on the National Airspace System Status display.

5. Prioritize day-to-day TBFM activity based on NAS and/or facility constraints.

6. Establish and maintain multifacility communications when necessary for TBFM operations.

7. Log TBFM related activities.

b. The Managing Facility must:

1. Determine appropriate TBFM settings and parameters.

2. Ensure TBFM settings are entered via TBFM TGUI, kept current, and coordination is accomplished.

3. Determine TBFM activity timeframes and coordinate start/stop times with the ATCSCC and affected facilities.

4. Communicate TBFM activity start/stop information to operational areas, operating positions, and supporting facilities, and log.

5. Enable/Disable sector meter list as coordinated, where applicable.

6. Monitor internal internal and upstream compliance and take appropriate action.

7. Monitor TBFM airborne delays and initiate actions, as appropriate, when values exceed or are projected to exceed delays that can be absorbed by control sectors. Notify the OS or affected areas/sectors of actions taken and expected outcomes.

8. Notify ATCSCC when unable to use TBFM capabilities, provide supporting justification, and log.

9. Coordinate internally with affected areas and with supporting facilities before taking action when changes to the metering strategy or updates to the TBFM schedule are necessary.

NOTE–

To the extent possible, avoid making any changes in TBFM that cause a reschedule/global reschedule during metering operations. Coordinate with affected facilities and sectors before a reschedule/global reschedule.

10. Ensure TBFM coordination procedures are placed into local SOP or LOAs between facilities.

REFERENCE–

FAA Order JO 7210.3, 4-3-1, Letters Of Agreement.

11. Use TBFM to determine release times for facility controlled departures to a metered airport.

12. Ensure TBFM adaptations are maintained to reflect current operations.

13. Ensure trouble reports are submitted and reconciled.

14. Ensure TBFM training is completed.

15. Provide support to other local facilities with TBFM equipment.

c. Supporting facilities (ARTCC/TRACON/Tower) must:

1. Determine appropriate local TBFM settings.

2. Ensure TBFM settings are entered via TBFM TGUI, kept current, and coordination is accomplished.

3. Determine TBFM activity timeframes and coordinate start/stop times with the ATCSCC and affected facilities.

4. Communicate TBFM activity start/stop information to operational areas, operating positions, and supporting facilities, and log.

5. Enable/Disable sector meter list as coordinated, where applicable.

6. Use TBFM to determine release times for facility controlled departures to a metered airport.

7. Monitor arrival and departure flows for potential metering actions/changes.

8. Notify managing facility when unable to use TBFM capabilities, provide supporting justification, and log.

9. Monitor internal and upstream compliance and take appropriate action.

10. Ensure TBFM training is completed.

11. Through the appropriate managing facility, supporting facilities must:

(a) Ensure adaptations are maintained to reflect current operations.

(b) Ensure trouble reports are submitted and reconciled.

(c) Provide support to other local facilities with TBFM equipment.

Section 25. Weather Management

18-25-1. GENERAL

This section prescribes policy and responsibilities to ensure required weather products and services are provided in a timely manner.

18-25-2. BACKGROUND

The FAA (AJR) maintains an Inter-Agency Agreement (IA) with the National Oceanic and Atmospheric Administration/National Weather Service (NWS) for the provision of meteorological services to FAA facilities and specifies assignment of NWS meteorologists to the ATCSCC and to each ARTCC. The meteorologists provide ATC operational personnel advised of weather conditions that may be hazardous to aviation or impede the flow of air traffic in the NAS sixteen hours a day/seven days a week. Specific duties of the meteorologists are outlined below in paragraph 18-25-4 for FAA personnel awareness. Additional details can be found in the IA Statement of Work (SOW) and NWS Instruction 10-803, Support to Air Traffic Control Facilities.

18-25-3. POLICY

Facility managers will designate an operational ATC representative to serve as the Weather Coordinator (WC). The WC position is required for all shifts and is the primary interface between the NWS meteorologist and the facilities air traffic staff. The WC position is located in the TMU of each ARTCC. This position is a 24 hour position and can be combined with the OMIC when there are no TMU personnel present. All personnel assigned to this function must receive training for the associated responsibilities. If weather conditions warrant and workload permits, the WC may perform other operational or administrative functions.

18-25-4. RESPONSIBILITIES

a. Facility Managers must:

1. Have operational responsibility for the NWS meteorologists although responsibility for day to day activities can be delegated to the TMO. For example, if weather conditions warrant that the CWSU staff

needed to be continued beyond the typical 16 hour day, the TMO could approve this.

2. Work with the local NWS Meteorologist-in-Charge (MIC) to ensure local orders and procedures define the NWS support expected and that compliance in the provision of the support is attained.

3. Ensure NWS meteorologists receive facility and air traffic control system familiarization training, as appropriate.

4. Forward any unresolved issues with NWS support to the appropriate Service Area and the FAA COTR for the IA.

5. Maintain a copy of the current IA and SOW.

b. The Weather Coordinator must:

1. Disseminate inter/intrafacility SIGMETs, AIRMETs, CWAs, urgent PIREPs (UUA), and routine PIREPs (UA).

2. Provide assistance in the collection and dissemination of other significant weather information. WC priority of duties and responsibilities include:

- (a) Inter/intrafacility dissemination of SIGMETs.

- (b) Dissemination of CWAs within the ARTCC.

- (c) Dissemination of urgent PIREPs within the ARTCC.

- (d) Dissemination of CWAs to other facilities (via other than LSAS).

- (e) Dissemination of AIRMETs within the ARTCC.

- (f) Inter/intrafacility dissemination of Meteorological Impact Statements as required (via other than LSAS).

- (g) Dissemination of other weather intelligence within the ARTCC as specified by local requirements.

- (h) Receipt and handling of requests for PIREP/SIGMET/AIRMET/CWAs and other pertinent weather information.

c. NWS meteorologists' duties include:

1. Provide meteorological advice and consultation to ARTCC operational personnel and other designated FAA air traffic facilities, terminal, and FSS, within the ARTCC area of responsibility.

2. Provide scheduled and unscheduled briefings and products as needed per the IA SOW, NWS Instruction 10-803, and the operational direction of the Facility Manager. Examples include:

(a) Scheduled Briefings generally consist of forecast weather conditions pertinent to the ARTCC area during a specified period, plus an extended outlook. These briefings are scheduled and provided as required by the facility manager.

(b) Unscheduled products include the Meteorological Impact Statement (MIS) which is an unscheduled planning forecast describing conditions expected to begin within 4 to 12 hours which will, in the forecaster's judgment, impact the flow of air traffic within the ARTCC's area of responsibility and the Center Weather Advisory (CWA) which is an unscheduled air traffic and aircrew advisory statement for conditions currently in existence or beginning within the next 2 (two) hours.

3. The MIC will work with the Facility Manager to ensure local orders and procedures define the NWS support expected, to include operating hours. The MIC will also ensure back-up support plans are in place when and if the meteorologists at the center are not available.

Appendix 4. Glideslope Outage Authorization Request

Request for Authorization to Conduct Simultaneous Independent Approaches with Glideslope Out After 29 Days	
<div style="display: flex; justify-content: space-between;"> <div>AJV-P</div> <div>Submit via Email to: 9-AJV-P-HQ-Correspondence@faa.gov</div> </div>	
Section 1	
Facility Identification: (KXYZ)	
Runway (###) Glideslope OTS:	
Dates of Expected Outage: (xx/xx/xx to xx/xx/xx)	
Reason Glideslope is OTS:	
Section 2	
(Simultaneous) Approaches Impacted:	
Runway Usage Percentage:	
IFR Limits/Weather Minimum:	
RNAV Capability/Equipage:	
Peak IFR Airport Arrival Rate:	
Section 3	
Impact if Authorization is Not Granted:	
Facility Manager must include a narrative of the operational impact if continuation of this procedure is not approved.	
Section 4	
Attach a copy of the facility Contingency Authorization for Glideslope Out Procedures.	

PILOT/CONTROLLER GLOSSARY

PURPOSE

a. This Glossary was compiled to promote a common understanding of the terms used in the Air Traffic Control system. It includes those terms which are intended for pilot/controller communications. Those terms most frequently used in pilot/controller communications are printed in ***bold italics***. The definitions are primarily defined in an operational sense applicable to both users and operators of the National Airspace System. Use of the Glossary will preclude any misunderstandings concerning the system's design, function, and purpose.

b. Because of the international nature of flying, terms used in the Lexicon, published by the International Civil Aviation Organization (ICAO), are included when they differ from FAA definitions. These terms are followed by "[ICAO]." For the reader's convenience, there are also cross references to related terms in other parts of the Glossary and to other documents, such as the Code of Federal Regulations (CFR) and the Aeronautical Information Manual (AIM).

c. This Glossary will be revised, as necessary, to maintain a common understanding of the system.

EXPLANATION OF CHANGES

d. Terms Added:

AUTOMATED EMERGENCY DESCENT
EMERGENCY AUTOLAND SYSTEM
EMERGENCY DESCENT MODE
STNR ALT RESERVATION

e. Terms Deleted:

TELEPHONE INFORMATION BRIEFING SERVICE
TIBS
TRANSCRIBED WEATHER BROADCAST (TWEB)
TWEB

f. Terms Modified:

GROSS NAVIGATION ERROR (GNE)
GROUND COMMUNICATION OUTLET (GCO)
STATIONARY RESERVATIONS

g. Editorial/format changes were made where necessary. Revision bars were not used due to the insignificant nature of the changes.

A

AAI–

(See ARRIVAL AIRCRAFT INTERVAL.)

AAR–

(See AIRPORT ARRIVAL RATE.)

ABBREVIATED IFR FLIGHT PLANS– An authorization by ATC requiring pilots to submit only that information needed for the purpose of ATC. It includes only a small portion of the usual IFR flight plan information. In certain instances, this may be only aircraft identification, location, and pilot request. Other information may be requested if needed by ATC for separation/control purposes. It is frequently used by aircraft which are airborne and desire an instrument approach or by aircraft which are on the ground and desire a climb to VFR-on-top.

(See VFR-ON-TOP.)

(Refer to AIM.)

ABEAM– An aircraft is “abeam” a fix, point, or object when that fix, point, or object is approximately 90 degrees to the right or left of the aircraft track. Abeam indicates a general position rather than a precise point.

ABORT– To terminate a preplanned aircraft maneuver; e.g., an aborted takeoff.

ACC [ICAO]–

(See ICAO term AREA CONTROL CENTER.)

ACCELERATE-STOP DISTANCE AVAILABLE– The runway plus stopway length declared available and suitable for the acceleration and deceleration of an airplane aborting a takeoff.

ACCELERATE-STOP DISTANCE AVAILABLE [ICAO]– The length of the take-off run available plus the length of the stopway if provided.

ACDO–

(See AIR CARRIER DISTRICT OFFICE.)

ACKNOWLEDGE– Let me know that you have received and understood this message.

ACL–

(See AIRCRAFT LIST.)

ACLS–

(See AUTOMATIC CARRIER LANDING SYSTEM.)

ACLT–

(See ACTUAL CALCULATED LANDING TIME.)

ACROBATIC FLIGHT– An intentional maneuver involving an abrupt change in an aircraft’s attitude, an abnormal attitude, or abnormal acceleration not necessary for normal flight.

(See ICAO term ACROBATIC FLIGHT.)

(Refer to 14 CFR Part 91.)

ACROBATIC FLIGHT [ICAO]– Maneuvers intentionally performed by an aircraft involving an abrupt change in its attitude, an abnormal attitude, or an abnormal variation in speed.

ACTIVE RUNWAY–

(See RUNWAY IN USE/ACTIVE RUNWAY/DUTY RUNWAY.)

ACTUAL CALCULATED LANDING TIME– ACLT is a flight’s frozen calculated landing time. An actual time determined at freeze calculated landing time (FCLT) or meter list display interval (MLDI) for the adapted vertex for each arrival aircraft based upon runway configuration, airport acceptance rate, airport arrival delay period, and other metered arrival aircraft. This time is either the vertex time of arrival (VTA) of the aircraft or the tentative calculated landing time (TCLT)/ACLT of the previous aircraft plus the arrival aircraft interval (AAI), whichever is later. This time will not be updated in response to the aircraft’s progress.

ACTUAL NAVIGATION PERFORMANCE (ANP)–

(See REQUIRED NAVIGATION PERFORMANCE.)

ADDITIONAL SERVICES– Advisory information provided by ATC which includes but is not limited to the following:

a. Traffic advisories.

b. Vectors, when requested by the pilot, to assist aircraft receiving traffic advisories to avoid observed traffic.

c. Altitude deviation information of 300 feet or more from an assigned altitude as observed on a verified (reading correctly) automatic altitude readout (Mode C).

d. Advisories that traffic is no longer a factor.

e. Weather and chaff information.

f. Weather assistance.

g. Bird activity information.

h. Holding pattern surveillance. Additional services are provided to the extent possible contingent only upon the controller's capability to fit them into the performance of higher priority duties and on the basis of limitations of the radar, volume of traffic, frequency congestion, and controller workload. The controller has complete discretion for determining if he/she is able to provide or continue to provide a service in a particular case. The controller's reason not to provide or continue to provide a service in a particular case is not subject to question by the pilot and need not be made known to him/her.

(See TRAFFIC ADVISORIES.)

(Refer to AIM.)

ADF–

(See AUTOMATIC DIRECTION FINDER.)

ADIZ–

(See AIR DEFENSE IDENTIFICATION ZONE.)

ADLY–

(See ARRIVAL DELAY.)

ADMINISTRATOR– The Federal Aviation Administrator or any person to whom he/she has delegated his/her authority in the matter concerned.

ADR–

(See AIRPORT DEPARTURE RATE.)

ADS [ICAO]–

(See ICAO term AUTOMATIC DEPENDENT SURVEILLANCE.)

ADS-B–

(See AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST.)

ADS-C–

(See AUTOMATIC DEPENDENT SURVEILLANCE–CONTRACT.)

ADVISE INTENTIONS– Tell me what you plan to do.

ADVISORY– Advice and information provided to assist pilots in the safe conduct of flight and aircraft movement.

(See ADVISORY SERVICE.)

ADVISORY FREQUENCY– The appropriate frequency to be used for Airport Advisory Service.

(See LOCAL AIRPORT ADVISORY.)

(See UNICOM.)

(Refer to ADVISORY CIRCULAR NO. 90-66.)

(Refer to AIM.)

ADVISORY SERVICE– Advice and information provided by a facility to assist pilots in the safe conduct of flight and aircraft movement.

(See ADDITIONAL SERVICES.)

(See LOCAL AIRPORT ADVISORY.)

(See RADAR ADVISORY.)

(See SAFETY ALERT.)

(See TRAFFIC ADVISORIES.)

(Refer to AIM.)

AERIAL REFUELING– A procedure used by the military to transfer fuel from one aircraft to another during flight.

(Refer to VFR/IFR Wall Planning Charts.)

AERODROME– A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure, and movement of aircraft.

AERODROME BEACON [ICAO]– Aeronautical beacon used to indicate the location of an aerodrome from the air.

AERODROME CONTROL SERVICE [ICAO]– Air traffic control service for aerodrome traffic.

AERODROME CONTROL TOWER [ICAO]– A unit established to provide air traffic control service to aerodrome traffic.

AERODROME ELEVATION [ICAO]– The elevation of the highest point of the landing area.

AERODROME TRAFFIC CIRCUIT [ICAO]– The specified path to be flown by aircraft operating in the vicinity of an aerodrome.

AERONAUTICAL BEACON– A visual NAVAID displaying flashes of white and/or colored light to indicate the location of an airport, a heliport, a landmark, a certain point of a Federal airway in mountainous terrain, or an obstruction.

(See AIRPORT ROTATING BEACON.)

(Refer to AIM.)

AERONAUTICAL CHART– A map used in air navigation containing all or part of the following: topographic features, hazards and obstructions,

clearance and other pertinent information is provided in the approach clearance when required.

(See CLEARED APPROACH.)

(See INSTRUMENT APPROACH PROCEDURE.)

(Refer to AIM.)

(Refer to 14 CFR Part 91.)

APPROACH CONTROL FACILITY– A terminal ATC facility that provides approach control service in a terminal area.

(See APPROACH CONTROL SERVICE.)

(See RADAR APPROACH CONTROL FACILITY.)

APPROACH CONTROL SERVICE– Air traffic control service provided by an approach control facility for arriving and departing VFR/IFR aircraft and, on occasion, en route aircraft. At some airports not served by an approach control facility, the ARTCC provides limited approach control service.

(See ICAO term APPROACH CONTROL SERVICE.)

(Refer to AIM.)

APPROACH CONTROL SERVICE [ICAO]– Air traffic control service for arriving or departing controlled flights.

APPROACH GATE– An imaginary point used within ATC as a basis for vectoring aircraft to the final approach course. The gate will be established along the final approach course 1 mile from the final approach fix on the side away from the airport and will be no closer than 5 miles from the landing threshold.

APPROACH/DEPARTURE HOLD AREA– The locations on taxiways in the approach or departure areas of a runway designated to protect landing or departing aircraft. These locations are identified by signs and markings.

APPROACH LIGHT SYSTEM–

(See AIRPORT LIGHTING.)

APPROACH SEQUENCE– The order in which aircraft are positioned while on approach or awaiting approach clearance.

(See LANDING SEQUENCE.)

(See ICAO term APPROACH SEQUENCE.)

APPROACH SEQUENCE [ICAO]– The order in which two or more aircraft are cleared to approach to land at the aerodrome.

APPROACH SPEED– The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration.

APPROACH WITH VERTICAL GUIDANCE (APV)– A term used to describe RNAV approach procedures that provide lateral and vertical guidance but do not meet the requirements to be considered a precision approach.

APPROPRIATE ATS AUTHORITY [ICAO]– The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned. In the United States, the “appropriate ATS authority” is the Program Director for Air Traffic Planning and Procedures, ATP-1.

APPROPRIATE AUTHORITY–

a. Regarding flight over the high seas: the relevant authority is the State of Registry.

b. Regarding flight over other than the high seas: the relevant authority is the State having sovereignty over the territory being overflown.

APPROPRIATE OBSTACLE CLEARANCE MINIMUM ALTITUDE– Any of the following:

(See MINIMUM EN ROUTE IFR ALTITUDE.)

(See MINIMUM IFR ALTITUDE.)

(See MINIMUM OBSTRUCTION CLEARANCE ALTITUDE.)

(See MINIMUM VECTORING ALTITUDE.)

APPROPRIATE TERRAIN CLEARANCE MINIMUM ALTITUDE– Any of the following:

(See MINIMUM EN ROUTE IFR ALTITUDE.)

(See MINIMUM IFR ALTITUDE.)

(See MINIMUM OBSTRUCTION CLEARANCE ALTITUDE.)

(See MINIMUM VECTORING ALTITUDE.)

APRON– A defined area on an airport or heliport intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance. With regard to seaplanes, a ramp is used for access to the apron from the water.

(See ICAO term APRON.)

APRON [ICAO]– A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, refueling, parking or maintenance.

ARC– The track over the ground of an aircraft flying at a constant distance from a navigational aid by reference to distance measuring equipment (DME).

AREA CONTROL CENTER [ICAO]– An air traffic control facility primarily responsible for ATC services being provided IFR aircraft during the en route phase of flight. The U.S. equivalent facility is an air route traffic control center (ARTCC).

AREA NAVIGATION (RNAV)– A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground– or space–based navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

Note: Area navigation includes performance–based navigation as well as other operations that do not meet the definition of performance–based navigation.

AREA NAVIGATION (RNAV) APPROACH CONFIGURATION:

a. STANDARD T– An RNAV approach whose design allows direct flight to any one of three initial approach fixes (IAF) and eliminates the need for procedure turns. The standard design is to align the procedure on the extended centerline with the missed approach point (MAP) at the runway threshold, the final approach fix (FAF), and the initial approach/intermediate fix (IAF/IF). The other two IAFs will be established perpendicular to the IF.

b. MODIFIED T– An RNAV approach design for single or multiple runways where terrain or operational constraints do not allow for the standard T. The “T” may be modified by increasing or decreasing the angle from the corner IAF(s) to the IF or by eliminating one or both corner IAFs.

c. STANDARD I– An RNAV approach design for a single runway with both corner IAFs eliminated. Course reversal or radar vectoring may be required at busy terminals with multiple runways.

d. TERMINAL ARRIVAL AREA (TAA)– The TAA is controlled airspace established in conjunction with the Standard or Modified T and I RNAV approach configurations. In the standard TAA, there are three areas: straight-in, left base, and right base. The arc boundaries of the three areas of the TAA are published portions of the approach and allow aircraft to transition from the en route structure direct to the nearest IAF. TAAs will also eliminate or reduce feeder routes, departure extensions, and procedure turns or course reversal.

1. STRAIGHT-IN AREA– A 30 NM arc centered on the IF bounded by a straight line extending through the IF perpendicular to the intermediate course.

2. LEFT BASE AREA– A 30 NM arc centered on the right corner IAF. The area shares a boundary with the straight-in area except that it extends out for 30 NM from the IAF and is bounded on the other side by a line extending from the IF through the FAF to the arc.

3. RIGHT BASE AREA– A 30 NM arc centered on the left corner IAF. The area shares a boundary with the straight-in area except that it extends out for 30 NM from the IAF and is bounded on the other side by a line extending from the IF through the FAF to the arc.

AREA NAVIGATION (RNAV) GLOBAL POSITIONING SYSTEM (GPS) PRECISION RUNWAY MONITORING (PRM) APPROACH–

A GPS approach, which requires vertical guidance, used in lieu of another type of PRM approach to conduct approaches to parallel runways whose extended centerlines are separated by less than 4,300 feet and at least 3,000 feet, where simultaneous close parallel approaches are permitted. Also used in lieu of an ILS PRM and/or LDA PRM approach to conduct Simultaneous Offset Instrument Approach (SOIA) operations.

ARINC– An acronym for Aeronautical Radio, Inc., a corporation largely owned by a group of airlines. ARINC is licensed by the FCC as an aeronautical station and contracted by the FAA to provide communications support for air traffic control and meteorological services in portions of international airspace.

ARMY AVIATION FLIGHT INFORMATION BULLETIN– A bulletin that provides air operation data covering Army, National Guard, and Army Reserve aviation activities.

ARO–

(See AIRPORT RESERVATION OFFICE.)

ARRESTING SYSTEM– A safety device consisting of two major components, namely, engaging or catching devices and energy absorption devices for the purpose of arresting both tailhook and/or nontailhook-equipped aircraft. It is used to prevent aircraft from overrunning runways when the aircraft cannot be stopped after landing or during aborted

takeoff. Arresting systems have various names; e.g., arresting gear, hook device, wire barrier cable.

(See ABORT.)

(Refer to AIM.)

ARRIVAL AIRCRAFT INTERVAL– An internally generated program in hundredths of minutes based upon the AAR. AAI is the desired optimum interval between successive arrival aircraft over the vertex.

ARRIVAL CENTER– The ARTCC having jurisdiction for the impacted airport.

ARRIVAL DELAY– A parameter which specifies a period of time in which no aircraft will be metered for arrival at the specified airport.

ARRIVAL SECTOR– An operational control sector containing one or more meter fixes.

ARRIVAL SECTOR ADVISORY LIST– An ordered list of data on arrivals displayed at the PVD/MDM of the sector which controls the meter fix.

ARRIVAL SEQUENCING PROGRAM– The automated program designed to assist in sequencing aircraft destined for the same airport.

ARRIVAL TIME– The time an aircraft touches down on arrival.

ARSR–

(See AIR ROUTE SURVEILLANCE RADAR.)

ARTCC–

(See AIR ROUTE TRAFFIC CONTROL CENTER.)

ASDA–

(See ACCELERATE-STOP DISTANCE AVAILABLE.)

ASDA [ICAO]–

(See ICAO Term ACCELERATE-STOP DISTANCE AVAILABLE.)

ASDE–

(See AIRPORT SURFACE DETECTION EQUIPMENT.)

ASF–

(See AIRPORT STREAM FILTER.)

ASLAR–

(See AIRCRAFT SURGE LAUNCH AND RECOVERY.)

ASP–

(See ARRIVAL SEQUENCING PROGRAM.)

ASR–

(See AIRPORT SURVEILLANCE RADAR.)

ASR APPROACH–

(See SURVEILLANCE APPROACH.)

ASSOCIATED– A radar target displaying a data block with flight identification and altitude information.

(See UNASSOCIATED.)

ATC–

(See AIR TRAFFIC CONTROL.)

ATC ADVISES– Used to prefix a message of noncontrol information when it is relayed to an aircraft by other than an air traffic controller.

(See ADVISORY.)

ATC ASSIGNED AIRSPACE– Airspace of defined vertical/lateral limits, assigned by ATC, for the purpose of providing air traffic segregation between the specified activities being conducted within the assigned airspace and other IFR air traffic.

(See SPECIAL USE AIRSPACE.)

ATC CLEARANCE–

(See AIR TRAFFIC CLEARANCE.)

ATC CLEARS– Used to prefix an ATC clearance when it is relayed to an aircraft by other than an air traffic controller.

ATC INSTRUCTIONS– Directives issued by air traffic control for the purpose of requiring a pilot to take specific actions; e.g., “Turn left heading two five zero,” “Go around,” “Clear the runway.”

(Refer to 14 CFR Part 91.)

ATC PREFERRED ROUTE NOTIFICATION– EDST notification to the appropriate controller of the need to determine if an ATC preferred route needs to be applied, based on destination airport.

(See ROUTE ACTION NOTIFICATION.)

(See EN ROUTE DECISION SUPPORT TOOL.)

ATC PREFERRED ROUTES– Preferred routes that are not automatically applied by Host.

ATC REQUESTS– Used to prefix an ATC request when it is relayed to an aircraft by other than an air traffic controller.

ATC SECURITY SERVICES– Communications and security tracking provided by an ATC facility in

support of the DHS, the DOD, or other Federal security elements in the interest of national security. Such security services are only applicable within designated areas. ATC security services do not include ATC basic radar services or flight following.

ATC SECURITY SERVICES POSITION– The position responsible for providing ATC security services as defined. This position does not provide ATC, IFR separation, or VFR flight following services, but is responsible for providing security services in an area comprising airspace assigned to one or more ATC operating sectors. This position may be combined with control positions.

ATC SECURITY TRACKING– The continuous tracking of aircraft movement by an ATC facility in support of the DHS, the DOD, or other security elements for national security using radar (i.e., radar tracking) or other means (e.g., manual tracking) without providing basic radar services (including traffic advisories) or other ATC services not defined in this section.

ATS SURVEILLANCE SERVICE [ICAO]– A term used to indicate a service provided directly by means of an ATS surveillance system.

ATC SURVEILLANCE SOURCE– Used by ATC for establishing identification, control and separation using a target depicted on an air traffic control facility's video display that has met the relevant safety standards for operational use and received from one, or a combination, of the following surveillance sources:

- a. Radar (See RADAR.)
- b. ADS-B (See AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST.)
- c. WAM (See WIDE AREA MULTILATERATION.)
(See INTERROGATOR.)
(See TRANSPONDER.)
(See ICAO term RADAR.)
(Refer to AIM.)

ATS SURVEILLANCE SYSTEM [ICAO]– A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.

Note: A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than monopulse SSR.

ATCAA–
(See ATC ASSIGNED AIRSPACE.)

ATCRBS–
(See RADAR.)

ATCSCC–
(See AIR TRAFFIC CONTROL SYSTEM COMMAND CENTER.)

ATCT–
(See TOWER.)

ATD–
(See ALONG-TRACK DISTANCE.)

ATIS–
(See AUTOMATIC TERMINAL INFORMATION SERVICE.)

ATIS [ICAO]–
(See ICAO Term AUTOMATIC TERMINAL INFORMATION SERVICE.)

ATS ROUTE [ICAO]– A specified route designed for channeling the flow of traffic as necessary for the provision of air traffic services.

Note: The term “ATS Route” is used to mean variously, airway, advisory route, controlled or uncontrolled route, arrival or departure, etc.

ATTENTION ALL USERS PAGE (AAUP)– The AAUP provides the pilot with additional information relative to conducting a specific operation, for example, PRM approaches and RNAV departures.

AUTOLAND APPROACH–An autoland system aids by providing control of aircraft systems during a precision instrument approach to at least decision altitude and possibly all the way to touchdown, as well as in some cases, through the landing rollout. The autoland system is a sub-system of the autopilot system from which control surface management occurs. The aircraft autopilot sends instructions to the autoland system and monitors the autoland system performance and integrity during its execution.

AUTOMATED EMERGENCY DESCENT–
(See EMERGENCY DESCENT MODE.)

AUTOMATED INFORMATION TRANSFER (AIT)– A precoordinated process, specifically defined in facility directives, during which a transfer of altitude control and/or radar identification is accomplished without verbal coordination between controllers using information communicated in a full data block.

AUTOMATED MUTUAL-ASSISTANCE VESSEL RESCUE SYSTEM– A facility which can deliver, in a matter of minutes, a surface picture (SURPIC) of vessels in the area of a potential or actual search and rescue incident, including their predicted positions and their characteristics.

(See FAA Order JO 7110.65, Para 10–6–4, INFLIGHT CONTINGENCIES.)

AUTOMATED PROBLEM DETECTION (APD)– An Automation Processing capability that compares trajectories in order to predict conflicts.

AUTOMATED PROBLEM DETECTION BOUNDARY (APB)– The adapted distance beyond a facilities boundary defining the airspace within which EDST performs conflict detection.

(See EN ROUTE DECISION SUPPORT TOOL.)

AUTOMATED PROBLEM DETECTION INHIBITED AREA (APDIA)– Airspace surrounding a terminal area within which APD is inhibited for all flights within that airspace.

AUTOMATED WEATHER SYSTEM– Any of the automated weather sensor platforms that collect weather data at airports and disseminate the weather information via radio and/or landline. The systems currently consist of the Automated Surface Observing System (ASOS) and Automated Weather Observation System (AWOS).

AUTOMATED UNICOM– Provides completely automated weather, radio check capability and airport advisory information on an Automated UNICOM system. These systems offer a variety of features, typically selectable by microphone clicks, on the UNICOM frequency. Availability will be published in the Chart Supplement U.S. and approach charts.

AUTOMATIC ALTITUDE REPORT–

(See ALTITUDE READOUT.)

AUTOMATIC ALTITUDE REPORTING– That function of a transponder which responds to Mode C interrogations by transmitting the aircraft's altitude in 100-foot increments.

AUTOMATIC CARRIER LANDING SYSTEM– U.S. Navy final approach equipment consisting of precision tracking radar coupled to a computer data link to provide continuous information to the aircraft, monitoring capability to the pilot, and a backup approach system.

AUTOMATIC DEPENDENT SURVEILLANCE (ADS) [ICAO]– A surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position fixing systems, including aircraft identification, four dimensional position and additional data as appropriate.

AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST (ADS-B)– A surveillance system in which an aircraft or vehicle to be detected is fitted with cooperative equipment in the form of a data link transmitter. The aircraft or vehicle periodically broadcasts its GNSS-derived position and other required information such as identity and velocity, which is then received by a ground-based or space-based receiver for processing and display at an air traffic control facility, as well as by suitably equipped aircraft.

(See AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST IN.)

(See AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST OUT.)

(See COOPERATIVE SURVEILLANCE.)

(See GLOBAL POSITIONING SYSTEM.)

(See SPACE–BASED ADS–B.)

AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST IN (ADS–B In)– Aircraft avionics capable of receiving ADS–B Out transmissions directly from other aircraft, as well as traffic or weather information transmitted from ground stations.

(See AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST OUT.)

(See AUTOMATIC DEPENDENT SURVEILLANCE–REBROADCAST.)

(See FLIGHT INFORMATION SERVICE–BROADCAST.)

(See TRAFFIC INFORMATION SERVICE–BROADCAST.)

AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST OUT (ADS–B Out)– The transmitter onboard an aircraft or ground vehicle that periodically broadcasts its GNSS-derived position along with other required information, such as identity, altitude, and velocity.

(See AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST.)

(See AUTOMATIC DEPENDENT SURVEILLANCE–BROADCAST IN.)

AUTOMATIC DEPENDENT SURVEILLANCE-CONTRACT (ADS-C)– A data link position reporting system, controlled by a ground station, that establishes contracts with an aircraft's avionics that occur automatically whenever specific events occur, or specific time intervals are reached.

AUTOMATIC DEPENDENT SURVEILLANCE-REBROADCAST (ADS-R)– A datalink translation function of the ADS-B ground system required to accommodate the two separate operating frequencies (978 MHz and 1090 MHz). The ADS-B system receives the ADS-B messages transmitted on one frequency and ADS-R translates and reformats the information for rebroadcast and use on the other frequency. This allows ADS-B In equipped aircraft to see nearby ADS-B Out traffic regardless of the operating link of the other aircraft. Aircraft operating on the same ADS-B frequency exchange information directly and do not require the ADS-R translation function.

AUTOMATIC DIRECTION FINDER– An aircraft radio navigation system which senses and indicates the direction to a L/MF nondirectional radio beacon (NDB) ground transmitter. Direction is indicated to the pilot as a magnetic bearing or as a relative bearing to the longitudinal axis of the aircraft depending on the type of indicator installed in the aircraft. In certain applications, such as military, ADF operations may be based on airborne and ground transmitters in the VHF/UHF frequency spectrum.

(See BEARING.)

(See NONDIRECTIONAL BEACON.)

AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) – ALASKA FSSs ONLY– The continuous broadcast of recorded non-control information at airports in Alaska where a FSS provides local airport advisory service. The AFIS broadcast automates the repetitive transmission of essential but routine information such as weather, wind, altimeter, favored runway, braking action, airport NOTAMs, and other applicable information. The information is continuously broadcast over a discrete VHF radio frequency (usually the ASOS/AWOS frequency).

AUTOMATIC TERMINAL INFORMATION SERVICE– The continuous broadcast of recorded noncontrol information in selected terminal areas. Its purpose is to improve controller effectiveness and to

relieve frequency congestion by automating the repetitive transmission of essential but routine information; e.g., “Los Angeles information Alfa. One three zero zero Coordinated Universal Time. Weather, measured ceiling two thousand overcast, visibility three, haze, smoke, temperature seven one, dew point five seven, wind two five zero at five, altimeter two niner niner six. I-L-S Runway Two Five Left approach in use, Runway Two Five Right closed, advise you have Alfa.”

(See ICAO term AUTOMATIC TERMINAL INFORMATION SERVICE.)

(Refer to AIM.)

AUTOMATIC TERMINAL INFORMATION SERVICE [ICAO]– The provision of current, routine information to arriving and departing aircraft by means of continuous and repetitive broadcasts throughout the day or a specified portion of the day.

AUTOROTATION– A rotorcraft flight condition in which the lifting rotor is driven entirely by action of the air when the rotorcraft is in motion.

a. Autorotative Landing/Touchdown Autorotation. Used by a pilot to indicate that the landing will be made without applying power to the rotor.

b. Low Level Autorotation. Commences at an altitude well below the traffic pattern, usually below 100 feet AGL and is used primarily for tactical military training.

c. 180 degrees Autorotation. Initiated from a downwind heading and is commenced well inside the normal traffic pattern. “Go around” may not be possible during the latter part of this maneuver.

AVAILABLE LANDING DISTANCE (ALD)– The portion of a runway available for landing and roll-out for aircraft cleared for LAHSO. This distance is measured from the landing threshold to the hold-short point.

AVIATION WEATHER SERVICE– A service provided by the National Weather Service (NWS) and FAA which collects and disseminates pertinent weather information for pilots, aircraft operators, and ATC. Available aviation weather reports and forecasts are displayed at each NWS office and FAA FSS.

(See TRANSCRIBED WEATHER BROADCAST.)

(See WEATHER ADVISORY.)

(Refer to AIM.)

AWW–

(See SEVERE WEATHER FORECAST
ALERTS.)

B

BACK-TAXI– A term used by air traffic controllers to taxi an aircraft on the runway opposite to the traffic flow. The aircraft may be instructed to back-taxi to the beginning of the runway or at some point before reaching the runway end for the purpose of departure or to exit the runway.

BASE LEG–

(See TRAFFIC PATTERN.)

BEACON–

(See AERONAUTICAL BEACON.)

(See AIRPORT ROTATING BEACON.)

(See AIRWAY BEACON.)

(See MARKER BEACON.)

(See NONDIRECTIONAL BEACON.)

(See RADAR.)

BEARING– The horizontal direction to or from any point, usually measured clockwise from true north, magnetic north, or some other reference point through 360 degrees.

(See NONDIRECTIONAL BEACON.)

BELOW MINIMUMS– Weather conditions below the minimums prescribed by regulation for the particular action involved; e.g., landing minimums, takeoff minimums.

BLAST FENCE– A barrier that is used to divert or dissipate jet or propeller blast.

BLAST PAD– A surface adjacent to the ends of a runway provided to reduce the erosive effect of jet blast and propeller wash.

BLIND SPEED– The rate of departure or closing of a target relative to the radar antenna at which cancellation of the primary radar target by moving target indicator (MTI) circuits in the radar equipment causes a reduction or complete loss of signal.

(See ICAO term BLIND VELOCITY.)

BLIND SPOT– An area from which radio transmissions and/or radar echoes cannot be received. The term is also used to describe portions of the airport not visible from the control tower.

BLIND TRANSMISSION–

(See TRANSMITTING IN THE BLIND.)

BLIND VELOCITY [ICAO]– The radial velocity of a moving target such that the target is not seen on primary radars fitted with certain forms of fixed echo suppression.

BLIND ZONE–

(See BLIND SPOT.)

BLOCKED– Phraseology used to indicate that a radio transmission has been distorted or interrupted due to multiple simultaneous radio transmissions.

BOTTOM ALTITUDE– In reference to published altitude restrictions on a STAR or STAR runway transition, the lowest altitude authorized.

BOUNDARY LIGHTS–

(See AIRPORT LIGHTING.)

BRAKING ACTION (GOOD, GOOD TO MEDIUM, MEDIUM, MEDIUM TO POOR, POOR, OR NIL)– A report of conditions on the airport movement area providing a pilot with a degree/quality of braking to expect. Braking action is reported in terms of good, good to medium, medium, medium to poor, poor, or nil.

(See RUNWAY CONDITION READING.)

(See RUNWAY CONDITION REPORT.)

(See RUNWAY CONDITION CODES.)

BRAKING ACTION ADVISORIES– When tower controllers receive runway braking action reports which include the terms “medium,” “poor,” or “nil,” or whenever weather conditions are conducive to deteriorating or rapidly changing runway braking conditions, the tower will include on the ATIS broadcast the statement, “Braking Action Advisories are in Effect.” During the time braking action advisories are in effect, ATC will issue the most current braking action report for the runway in use to each arriving and departing aircraft. Pilots should be prepared for deteriorating braking conditions and should request current runway condition information if not issued by controllers. Pilots should also be prepared to provide a descriptive runway condition report to controllers after landing.

BREAKOUT– A technique to direct aircraft out of the approach stream. In the context of simultaneous (independent) parallel operations, a breakout is used to direct threatened aircraft away from a deviating aircraft.

BROADCAST– Transmission of information for which an acknowledgement is not expected.

(See ICAO term **BROADCAST**.)

BROADCAST [ICAO]– A transmission of information relating to air navigation that is not addressed to a specific station or stations.

BUFFER AREA– As applied to an MVA or MIA chart, a depicted 3 NM or 5 NM radius MVA/MIA sector isolating a displayed obstacle for which the sector is established. A portion of a buffer area can also be inclusive of a MVA/MIA sector polygon boundary.

COMMON ROUTE– Typically the portion of a RNAV STAR between the en route transition end point and the runway transition start point; however, the common route may only consist of a single point that joins the en route and runway transitions.

COMMON TRAFFIC ADVISORY FREQUENCY (CTAF)– A frequency designed for the purpose of carrying out airport advisory practices while operating to or from an airport without an operating control tower. The CTAF may be a UNICOM, Multicom, FSS, or tower frequency and is identified in appropriate aeronautical publications.

(See DESIGNATED COMMON TRAFFIC ADVISORY FREQUENCY (CTAF) AREA.)

(Refer to AC 90-66, Non-Towered Airport Flight Operations.)

COMPASS LOCATOR– A low power, low or medium frequency (L/MF) radio beacon installed at the site of the outer or middle marker of an instrument landing system (ILS). It can be used for navigation at distances of approximately 15 miles or as authorized in the approach procedure.

a. Outer Compass Locator (LOM)– A compass locator installed at the site of the outer marker of an instrument landing system.

(See OUTER MARKER.)

b. Middle Compass Locator (LMM)– A compass locator installed at the site of the middle marker of an instrument landing system.

(See MIDDLE MARKER.)

(See ICAO term LOCATOR.)

COMPASS ROSE– A circle, graduated in degrees, printed on some charts or marked on the ground at an airport. It is used as a reference to either true or magnetic direction.

COMPLY WITH RESTRICTIONS– An ATC instruction that requires an aircraft being vectored back onto an arrival or departure procedure to comply with all altitude and/or speed restrictions depicted on the procedure. This term may be used in lieu of repeating each remaining restriction that appears on the procedure.

COMPOSITE FLIGHT PLAN– A flight plan which specifies VFR operation for one portion of flight and IFR for another portion. It is used primarily in military operations.

(Refer to AIM.)

COMPULSORY REPORTING POINTS– Reporting points which must be reported to ATC. They are designated on aeronautical charts by solid triangles or filed in a flight plan as fixes selected to define direct routes. These points are geographical locations which are defined by navigation aids/fixes. Pilots should discontinue position reporting over compulsory reporting points when informed by ATC that their aircraft is in “radar contact.”

COMPUTER NAVIGATION FIX (CNF)– A Computer Navigation Fix is a point defined by a latitude/longitude coordinate and is required to support Performance-Based Navigation (PBN) operations. A five-letter identifier denoting a CNF can be found next to an “x” on en route charts and on some approach charts. Eventually, all CNFs will be labeled and begin with the letters “CF” followed by three consonants (e.g., ‘CFWBG’). CNFs are not recognized by ATC, are not contained in ATC fix or automation databases, and are not used for ATC purposes. Pilots should not use CNFs for point-to-point navigation (e.g., proceed direct), filing a flight plan, or in aircraft/ATC communications. Use of CNFs has not been adopted or recognized by the International Civil Aviation Organization (ICAO).

(REFER to AIM 1-1-17b5(i)(2), Global Positioning System (GPS).)

CONDITIONS NOT MONITORED– When an airport operator cannot monitor the condition of the movement area or airfield surface area, this information is issued as a NOTAM. Usually necessitated due to staffing, operating hours or other mitigating factors associated with airport operations.

CONFIDENCE MANEUVER– A confidence maneuver consists of one or more turns, a climb or descent, or other maneuver to determine if the pilot in command (PIC) is able to receive and comply with ATC instructions.

CONFLICT ALERT– A function of certain air traffic control automated systems designed to alert radar controllers to existing or pending situations between tracked targets (known IFR or VFR aircraft) that require his/her immediate attention/action.

(See MODE C INTRUDER ALERT.)

CONFLICT RESOLUTION– The resolution of potential conflicts between aircraft that are radar identified and in communication with ATC by ensuring that radar targets do not touch. Pertinent

traffic advisories shall be issued when this procedure is applied.

Note: This procedure shall not be provided utilizing mosaic radar systems.

CONFORMANCE– The condition established when an aircraft’s actual position is within the conformance region constructed around that aircraft at its position, according to the trajectory associated with the aircraft’s Current Plan.

CONFORMANCE REGION– A volume, bounded laterally, vertically, and longitudinally, within which an aircraft must be at a given time in order to be in conformance with the Current Plan Trajectory for that aircraft. At a given time, the conformance region is determined by the simultaneous application of the lateral, vertical, and longitudinal conformance bounds for the aircraft at the position defined by time and aircraft’s trajectory.

CONSOLAN– A low frequency, long-distance NAVAID used principally for transoceanic navigations.

CONTACT–

a. Establish communication with (followed by the name of the facility and, if appropriate, the frequency to be used).

b. A flight condition wherein the pilot ascertains the attitude of his/her aircraft and navigates by visual reference to the surface.

(See CONTACT APPROACH.)

(See RADAR CONTACT.)

CONTACT APPROACH– An approach wherein an aircraft on an IFR flight plan, having an air traffic control authorization, operating clear of clouds with at least 1 mile flight visibility and a reasonable expectation of continuing to the destination airport in those conditions, may deviate from the instrument approach procedure and proceed to the destination airport by visual reference to the surface. This approach will only be authorized when requested by the pilot and the reported ground visibility at the destination airport is at least 1 statute mile.

(Refer to AIM.)

CONTAMINATED RUNWAY– A runway is considered contaminated whenever standing water, ice, snow, slush, frost in any form, heavy rubber, or other substances are present. A runway is contaminated with respect to rubber deposits or other

friction-degrading substances when the average friction value for any 500-foot segment of the runway within the ALD fails below the recommended minimum friction level and the average friction value in the adjacent 500-foot segments falls below the maintenance planning friction level.

CONTERMINOUS U.S.– The 48 adjoining States and the District of Columbia.

CONTINENTAL UNITED STATES– The 49 States located on the continent of North America and the District of Columbia.

CONTINGENCY HAZARD AREA (CHA)– Used by ATC. Areas of airspace that are defined and distributed in advance of a launch or reentry operation and are activated in response to a failure.

(See AIRCRAFT HAZARD AREA.)

(See REFINED HAZARD AREA.)

(See TRANSITIONAL HAZARD AREA.)

CONTINUE– When used as a control instruction should be followed by another word or words clarifying what is expected of the pilot. Example: “continue taxi,” “continue descent,” “continue inbound,” etc.

CONTROL AREA [ICAO]– A controlled airspace extending upwards from a specified limit above the earth.

CONTROL SECTOR– An airspace area of defined horizontal and vertical dimensions for which a controller or group of controllers has air traffic control responsibility, normally within an air route traffic control center or an approach control facility. Sectors are established based on predominant traffic flows, altitude strata, and controller workload. Pilot communications during operations within a sector are normally maintained on discrete frequencies assigned to the sector.

(See DISCRETE FREQUENCY.)

CONTROL SLASH– A radar beacon slash representing the actual position of the associated aircraft. Normally, the control slash is the one closest to the interrogating radar beacon site. When ARTCC radar is operating in narrowband (digitized) mode, the control slash is converted to a target symbol.

CONTROLLED AIRSPACE– An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

a. Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E airspace.

b. Controlled airspace is also that airspace within which all aircraft operators are subject to certain pilot qualifications, operating rules, and equipment requirements in 14 CFR Part 91 (for specific operating requirements, please refer to 14 CFR Part 91). For IFR operations in any class of controlled airspace, a pilot must file an IFR flight plan and receive an appropriate ATC clearance. Each Class B, Class C, and Class D airspace area designated for an airport contains at least one primary airport around which the airspace is designated (for specific designations and descriptions of the airspace classes, please refer to 14 CFR Part 71).

c. Controlled airspace in the United States is designated as follows:

1. CLASS A– Generally, that airspace from 18,000 feet MSL up to and including FL 600, including the airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States and Alaska. Unless otherwise authorized, all persons must operate their aircraft under IFR.

2. CLASS B– Generally, that airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports in terms of airport operations or passenger enplanements. The configuration of each Class B airspace area is individually tailored and consists of a surface area and two or more layers (some Class B airspace areas resemble upside-down wedding cakes), and is designed to contain all published instrument procedures once an aircraft enters the airspace. An ATC clearance is required for all aircraft to operate in the area, and all aircraft that are so cleared receive separation services within the airspace. The cloud clearance requirement for VFR operations is "clear of clouds."

3. CLASS C– Generally, that airspace from the surface to 4,000 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations or passenger enplanements. Although the configuration of each Class C area is individually tailored, the airspace usually consists of a surface area with a 5 NM radius, a circle with a 10 NM radius that extends no lower than 1,200

feet up to 4,000 feet above the airport elevation, and an outer area that is not charted. Each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while within the airspace. VFR aircraft are only separated from IFR aircraft within the airspace.

(See OUTER AREA.)

4. CLASS D– Generally, that airspace from the surface to 2,500 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower. The configuration of each Class D airspace area is individually tailored and when instrument procedures are published, the airspace will normally be designed to contain the procedures. Arrival extensions for instrument approach procedures may be Class D or Class E airspace. Unless otherwise authorized, each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while in the airspace. No separation services are provided to VFR aircraft.

5. CLASS E– Generally, if the airspace is not Class A, Class B, Class C, or Class D, and it is controlled airspace, it is Class E airspace. Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. When designated as a surface area, the airspace will be configured to contain all instrument procedures. Also in this class are Federal airways, airspace beginning at either 700 or 1,200 feet AGL used to transition to/from the terminal or en route environment, en route domestic, and offshore airspace areas designated below 18,000 feet MSL. Unless designated at a lower altitude, Class E airspace begins at 14,500 MSL over the United States, including that airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States and Alaska, up to, but not including 18,000 feet MSL, and the airspace above FL 600.

CONTROLLED AIRSPACE [ICAO]– An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

Note: Controlled airspace is a generic term which covers ATS airspace Classes A, B, C, D, and E.

CONTROLLED TIME OF ARRIVAL– Arrival time assigned during a Traffic Management Program. This time may be modified due to adjustments or user options.

CONTROLLER–

(See **AIR TRAFFIC CONTROL SPECIALIST**.)

CONTROLLER [ICAO]– A person authorized to provide air traffic control services.

CONTROLLER PILOT DATA LINK COMMUNICATIONS (CPDLC)– A two-way digital communications system that conveys textual air traffic control messages between controllers and pilots using ground or satellite-based radio relay stations.

CONVECTIVE SIGMET– A weather advisory concerning convective weather significant to the safety of all aircraft. Convective SIGMETs are issued for tornadoes, lines of thunderstorms, embedded thunderstorms of any intensity level, areas of thunderstorms greater than or equal to VIP level 4 with an area coverage of $\frac{4}{10}$ (40%) or more, and hail $\frac{3}{4}$ inch or greater.

(See **AIRMET**.)

(See **AWW**.)

(See **CWA**.)

(See **SIGMET**.)

(Refer to **AIM**.)

CONVECTIVE SIGNIFICANT METEOROLOGICAL INFORMATION–

(See **CONVECTIVE SIGMET**.)

COOPERATIVE SURVEILLANCE– Any surveillance system, such as secondary surveillance radar (SSR), wide-area multilateration (WAM), or ADS-B, that is dependent upon the presence of certain equipment onboard the aircraft or vehicle to be detected.

(See **AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST**.)

(See **NON-COOPERATIVE SURVEILLANCE**.)

(See **RADAR**.)

(See **WIDE AREA MULTILATERATION**.)

COORDINATES– The intersection of lines of reference, usually expressed in degrees/minutes/seconds of latitude and longitude, used to determine position or location.

COORDINATION FIX– The fix in relation to which facilities will handoff, transfer control of an aircraft,

or coordinate flight progress data. For terminal facilities, it may also serve as a clearance for arriving aircraft.

COPTER–

(See **HELICOPTER**.)

CORRECTION– An error has been made in the transmission and the correct version follows.

COUPLED APPROACH– An instrument approach performed by the aircraft autopilot, and/or visually depicted on the flight director, which is receiving position information and/or steering commands from onboard navigational equipment. In general, coupled non-precision approaches must be flown manually (autopilot disengaged) at altitudes lower than 50 feet AGL below the minimum descent altitude, and coupled precision approaches must be flown manually (autopilot disengaged) below 50 feet AGL unless authorized to conduct autoland operations. Coupled instrument approaches are commonly flown to the allowable IFR weather minima established by the operator or PIC, or flown VFR for training and safety.

COURSE–

a. The intended direction of flight in the horizontal plane measured in degrees from north.

b. The ILS localizer signal pattern usually specified as the front course or the back course.

(See **BEARING**.)

(See **INSTRUMENT LANDING SYSTEM**.)

(See **RADIAL**.)

CPDLC–

(See **CONTROLLER PILOT DATA LINK COMMUNICATIONS**.)

CPL [ICAO]–

(See ICAO term **CURRENT FLIGHT PLAN**.)

CRITICAL ENGINE– The engine which, upon failure, would most adversely affect the performance or handling qualities of an aircraft.

CROSS (FIX) AT (ALTITUDE)– Used by ATC when a specific altitude restriction at a specified fix is required.

CROSS (FIX) AT OR ABOVE (ALTITUDE)– Used by ATC when an altitude restriction at a specified fix is required. It does not prohibit the aircraft from crossing the fix at a higher altitude than specified; however, the higher altitude may not be one that will

E

EAS–

(See EN ROUTE AUTOMATION SYSTEM.)

EDCT–

(See EXPECT DEPARTURE CLEARANCE TIME.)

EDST–

(See EN ROUTE DECISION SUPPORT TOOL)

EFC–

(See EXPECT FURTHER CLEARANCE (TIME).)

ELT–

(See EMERGENCY LOCATOR TRANSMITTER.)

EMERGENCY– A distress or an urgency condition.

EMERGENCY AUTOLAND SYSTEM– This system, if activated, will determine an optimal airport, plot a course, broadcast the aircraft's intentions, fly to the airport, land, and (depending on the model) shut down the engines. Though the system will broadcast the aircraft's intentions, the controller should assume that transmissions to the aircraft will not be acknowledged.

EMERGENCY DESCENT MODE– This automated system senses conditions conducive to hypoxia (cabin depressurization). If an aircraft is equipped and the system is activated, it is designed to turn the aircraft up to 90 degrees, then descend to a lower altitude and level off, giving the pilot(s) time to recover.

EMERGENCY LOCATOR TRANSMITTER (ELT)– A radio transmitter attached to the aircraft structure which operates from its own power source on 121.5 MHz and 243.0 MHz. It aids in locating downed aircraft by radiating a downward sweeping audio tone, 2-4 times per second. It is designed to function without human action after an accident.

(Refer to 14 CFR Part 91.)

(Refer to AIM.)

E-MSAW–

(See EN ROUTE MINIMUM SAFE ALTITUDE WARNING.)

ENHANCED FLIGHT VISION SYSTEM (EFVS)–

An EFVS is an installed aircraft system which uses

an electronic means to provide a display of the forward external scene topography (the natural or man-made features of a place or region especially in a way to show their relative positions and elevation) through the use of imaging sensors, including but not limited to forward-looking infrared, millimeter wave radiometry, millimeter wave radar, or low-light level image intensification. An EFVS includes the display element, sensors, computers and power supplies, indications, and controls. An operator's authorization to conduct an EFVS operation may have provisions which allow pilots to conduct IAPs when the reported weather is below minimums prescribed on the IAP to be flown.

EN ROUTE AIR TRAFFIC CONTROL SERVICES– Air traffic control service provided aircraft on IFR flight plans, generally by centers, when these aircraft are operating between departure and destination terminal areas. When equipment, capabilities, and controller workload permit, certain advisory/assistance services may be provided to VFR aircraft.

(See AIR ROUTE TRAFFIC CONTROL CENTER.)

(Refer to AIM.)

EN ROUTE AUTOMATION SYSTEM (EAS)– The complex integrated environment consisting of situation display systems, surveillance systems and flight data processing, remote devices, decision support tools, and the related communications equipment that form the heart of the automated IFR air traffic control system. It interfaces with automated terminal systems and is used in the control of en route IFR aircraft.

(Refer to AIM.)

EN ROUTE CHARTS–

(See AERONAUTICAL CHART.)

EN ROUTE DECISION SUPPORT TOOL (EDST)–

An automated tool provided at each Radar Associate position in selected En Route facilities. This tool utilizes flight and radar data to determine present and future trajectories for all active and proposal aircraft and provides enhanced automated flight data management.

EN ROUTE DESCENT– Descent from the en route cruising altitude which takes place along the route of flight.

EN ROUTE HIGH ALTITUDE CHARTS–
(See AERONAUTICAL CHART.)

EN ROUTE LOW ALTITUDE CHARTS–
(See AERONAUTICAL CHART.)

EN ROUTE MINIMUM SAFE ALTITUDE WARNING (E-MSAW)– A function of the EAS that aids the controller by providing an alert when a tracked aircraft is below or predicted by the computer to go below a predetermined minimum IFR altitude (MIA).

EN ROUTE SPACING PROGRAM (ESP)– A program designed to assist the exit sector in achieving the required in-trail spacing.

EN ROUTE TRANSITION–

a. Conventional STARs/SIDs. The portion of a SID/STAR that connects to one or more en route airway/jet route.

b. RNAV STARs/SIDs. The portion of a STAR preceding the common route or point, or for a SID the portion following, that is coded for a specific en route fix, airway or jet route.

ESP–

(See EN ROUTE SPACING PROGRAM.)

EST–

(See ESTIMATED.)

ESTABLISHED– To be stable or fixed at an altitude or on a course, route, route segment, heading, instrument approach or departure procedure, etc.

ESTABLISHED ON RNP (EoR) CONCEPT– A system of authorized instrument approaches, ATC procedures, surveillance, and communication requirements that allow aircraft operations to be safely conducted with approved reduced separation criteria once aircraft are established on a PBN segment of a published instrument flight procedure.

ESTIMATED (EST)–When used in NOTAMs “EST” is a contraction that is used by the issuing authority only when the condition is expected to return to service prior to the expiration time. Using “EST” lets the user know that this NOTAM has the possibility of returning to service earlier than the

expiration time. Any NOTAM which includes an “EST” will be auto-expired at the designated expiration time.

ESTIMATED ELAPSED TIME [ICAO]– The estimated time required to proceed from one significant point to another.

(See ICAO Term TOTAL ESTIMATED ELAPSED TIME.)

ESTIMATED OFF-BLOCK TIME [ICAO]– The estimated time at which the aircraft will commence movement associated with departure.

ESTIMATED POSITION ERROR (EPE)–
(See Required Navigation Performance)

ESTIMATED TIME OF ARRIVAL– The time the flight is estimated to arrive at the gate (scheduled operators) or the actual runway on times for nonscheduled operators.

ESTIMATED TIME EN ROUTE– The estimated flying time from departure point to destination (lift-off to touchdown).

ETA–

(See ESTIMATED TIME OF ARRIVAL.)

ETE–

(See ESTIMATED TIME EN ROUTE.)

EXECUTE MISSED APPROACH– Instructions issued to a pilot making an instrument approach which means continue inbound to the missed approach point and execute the missed approach procedure as described on the Instrument Approach Procedure Chart or as previously assigned by ATC. The pilot may climb immediately to the altitude specified in the missed approach procedure upon making a missed approach. No turns should be initiated prior to reaching the missed approach point. When conducting an ASR or PAR approach, execute the assigned missed approach procedure immediately upon receiving instructions to “execute missed approach.”

(Refer to AIM.)

EXPECT (ALTITUDE) AT (TIME) or (FIX)– Used under certain conditions to provide a pilot with an altitude to be used in the event of two-way communications failure. It also provides altitude information to assist the pilot in planning.

(Refer to AIM.)

EXPECT DEPARTURE CLEARANCE TIME (EDCT)– The runway release time assigned to an aircraft in a traffic management program and shown on the flight progress strip as an EDCT.

(See GROUND DELAY PROGRAM.)

EXPECT FURTHER CLEARANCE (TIME)– The time a pilot can expect to receive clearance beyond a clearance limit.

EXPECT FURTHER CLEARANCE VIA (AIRWAYS, ROUTES OR FIXES)– Used to inform a

pilot of the routing he/she can expect if any part of the route beyond a short range clearance limit differs from that filed.

EXPEDITE– Used by ATC when prompt compliance is required to avoid the development of an imminent situation. Expedite climb/descent normally indicates to a pilot that the approximate best rate of climb/descent should be used without requiring an exceptional change in aircraft handling characteristics.

G

GATE HOLD PROCEDURES– Procedures at selected airports to hold aircraft at the gate or other ground location whenever departure delays exceed or are anticipated to exceed 15 minutes. The sequence for departure will be maintained in accordance with initial call-up unless modified by flow control restrictions. Pilots should monitor the ground control/clearance delivery frequency for engine start/taxi advisories or new proposed start/taxi time if the delay changes.

GCA–

(See **GROUND CONTROLLED APPROACH**.)

GDP–

(See **GROUND DELAY PROGRAM**.)

GENERAL AVIATION– That portion of civil aviation that does not include scheduled or unscheduled air carriers or commercial space operations.

(See ICAO term **GENERAL AVIATION**.)

GENERAL AVIATION [ICAO]– All civil aviation operations other than scheduled air services and nonscheduled air transport operations for remuneration or hire.

GEO MAP– The digitized map markings associated with the ASR-9 Radar System.

GLIDEPATH–

(See **GLIDESLOPE**.)

GLIDEPATH [ICAO]– A descent profile determined for vertical guidance during a final approach.

GLIDEPATH INTERCEPT ALTITUDE–

(See **GLIDESLOPE INTERCEPT ALTITUDE**.)

GLIDESLOPE– Provides vertical guidance for aircraft during approach and landing. The glideslope/glidepath is based on the following:

a. Electronic components emitting signals which provide vertical guidance by reference to airborne instruments during instrument approaches such as ILS; or,

b. Visual ground aids, such as VASI, which provide vertical guidance for a VFR approach or for

the visual portion of an instrument approach and landing.

c. PAR. Used by ATC to inform an aircraft making a PAR approach of its vertical position (elevation) relative to the descent profile.

(See ICAO term **GLIDEPATH**.)

GLIDESLOPE INTERCEPT ALTITUDE– The published minimum altitude to intercept the glideslope in the intermediate segment of an instrument approach. Government charts use the lightning bolt symbol to identify this intercept point. This intersection is called the Precise Final Approach fix (PFAF). ATC directs a higher altitude, the resultant intercept becomes the PFAF.

(See **FINAL APPROACH FIX**.)

(See **SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE**.)

GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)– GNSS refers collectively to the worldwide positioning, navigation, and timing determination capability available from one or more satellite constellations. A GNSS constellation may be augmented by ground stations and/or geostationary satellites to improve integrity and position accuracy.

(See **GROUND-BASED AUGMENTATION SYSTEM**.)

(See **SATELLITE-BASED AUGMENTATION SYSTEM**.)

GLOBAL NAVIGATION SATELLITE SYSTEM MINIMUM EN ROUTE IFR ALTITUDE (GNSS MEA)– The minimum en route IFR altitude on a published ATS route or route segment which assures acceptable Global Navigation Satellite System reception and meets obstacle clearance requirements. (Refer to 14 CFR Part 91.) (Refer to 14 CFR Part 95.)

GLOBAL POSITIONING SYSTEM (GPS)– GPS refers to the worldwide positioning, navigation and timing determination capability available from the U.S. satellite constellation. The service provided by GPS for civil use is defined in the GPS Standard Positioning System Performance Standard. GPS is composed of space, control, and user elements.

GNSS [ICAO]–

(See GLOBAL NAVIGATION SATELLITE SYSTEM.)

GNSS MEA–

(See GLOBAL NAVIGATION SATELLITE SYSTEM MINIMUM EN ROUTE IFR ALTITUDE.)

GO AHEAD– Proceed with your message. Not to be used for any other purpose.

GO AROUND– Instructions for a pilot to abandon his/her approach to landing. Additional instructions may follow. Unless otherwise advised by ATC, a VFR aircraft or an aircraft conducting visual approach should overfly the runway while climbing to traffic pattern altitude and enter the traffic pattern via the crosswind leg. A pilot on an IFR flight plan making an instrument approach should execute the published missed approach procedure or proceed as instructed by ATC; e.g., “Go around” (additional instructions if required).

(See LOW APPROACH.)

(See MISSED APPROACH.)

GPD–

(See GRAPHIC PLAN DISPLAY.)

GPS–

(See GLOBAL POSITIONING SYSTEM.)

GRAPHIC PLAN DISPLAY (GPD)– A view available with EDST that provides a graphic display of aircraft, traffic, and notification of predicted conflicts. Graphic routes for Current Plans and Trial Plans are displayed upon controller request.

(See EN ROUTE DECISION SUPPORT TOOL.)

GROSS NAVIGATION ERROR (GNE) – A lateral deviation of 10 NM or more from the aircraft’s cleared route.

GROUND BASED AUGMENTATION SYSTEM (GBAS)– A ground based GNSS station which provides local differential corrections, integrity parameters and approach data via VHF data broadcast to GNSS users to meet real-time performance requirements for CAT I precision approaches. The aircraft applies the broadcast data to improve the accuracy and integrity of its GNSS signals and computes the deviations to the selected approach. A single ground station can serve multiple runway ends up to an approximate radius of 23 NM.

GROUND BASED AUGMENTATION SYSTEM (GBAS) LANDING SYSTEM (GLS)– A type of precision IAP based on local augmentation of GNSS data using a single GBAS station to transmit locally corrected GNSS data, integrity parameters and approach information. This improves the accuracy of aircraft GNSS receivers’ signal in space, enabling the pilot to fly a precision approach with much greater flexibility, reliability and complexity. The GLS procedure is published on standard IAP charts, features the title GLS with the designated runway and minima as low as 200 feet DA. Future plans are expected to support Cat II and CAT III operations.

GROUND CLUTTER– A pattern produced on the radar scope by ground returns which may degrade other radar returns in the affected area. The effect of ground clutter is minimized by the use of moving target indicator (MTI) circuits in the radar equipment resulting in a radar presentation which displays only targets which are in motion.

(See CLUTTER.)

GROUND COMMUNICATION OUTLET (GCO)– An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF radio to a telephone connection. If the connection goes to ATC, the pilot can obtain an IFR clearance or close an IFR flight plan. If the connection goes to Flight Service, the pilot can open or close a VFR flight plan; obtain an updated weather briefing prior to takeoff; close an IFR flight plan; or, for Alaska or MEDEVAC only, obtain an IFR clearance. Pilots will use four “key clicks” on the VHF radio to contact the appropriate ATC facility or six “key clicks” to contact the FSS. The GCO system is intended to be used only on the ground.

GROUND CONTROLLED APPROACH– A radar approach system operated from the ground by air traffic control personnel transmitting instructions to the pilot by radio. The approach may be conducted with surveillance radar (ASR) only or with both surveillance and precision approach radar (PAR). Usage of the term “GCA” by pilots is discouraged except when referring to a GCA facility. Pilots should specifically request a “PAR” approach when a precision radar approach is desired or request an “ASR” or “surveillance” approach when a nonprecision radar approach is desired.

(See RADAR APPROACH.)

INCERFA (Uncertainty Phase) [ICAO]– A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.

INCREASED SEPARATION REQUIRED (ISR)– Indicates the confidence level of the track requires 5 NM separation, 3 NM separation, 1 ½ NM separation, and target resolution cannot be used.

INCREASE SPEED TO (SPEED)–
(See **SPEED ADJUSTMENT**.)

INERTIAL NAVIGATION SYSTEM (INS)– An RNAV system which is a form of self-contained navigation.
(See **Area Navigation/RNAV**.)

INFLIGHT REFUELING–
(See **AERIAL REFUELING**.)

INFLIGHT WEATHER ADVISORY–
(See **WEATHER ADVISORY**.)

INFORMATION REQUEST (INREQ)– A request originated by an FSS for information concerning an overdue VFR aircraft.

INITIAL APPROACH FIX (IAF)– The fixes depicted on instrument approach procedure charts that identify the beginning of the initial approach segment(s).
(See **FIX**.)
(See **SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE**.)

INITIAL APPROACH SEGMENT–
(See **SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE**.)

INITIAL APPROACH SEGMENT [ICAO]– That segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approach fix or point.

INLAND NAVIGATION FACILITY– A navigation aid on a North American Route at which the common route and/or the noncommon route begins or ends.

INNER MARKER– A marker beacon used with an ILS (CAT II) precision approach located between the middle marker and the end of the ILS runway, transmitting a radiation pattern keyed at six dots per second and indicating to the pilot, both aurally and visually, that he/she is at the designated decision height (DH), normally 100 feet above the touchdown

zone elevation, on the ILS CAT II approach. It also marks progress during a CAT III approach.

(See **INSTRUMENT LANDING SYSTEM**.)
(Refer to **AIM**.)

INNER MARKER BEACON–
(See **INNER MARKER**.)

INREQ–
(See **INFORMATION REQUEST**.)

INS–
(See **INERTIAL NAVIGATION SYSTEM**.)

INSTRUMENT APPROACH–
(See **INSTRUMENT APPROACH PROCEDURE**.)

INSTRUMENT APPROACH OPERATIONS [ICAO]– An approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:

a. A two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and

b. A three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance.

Note: Lateral and vertical navigation guidance refers to the guidance provided either by:

- a) a ground-based radio navigation aid; or
- b) computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.

(See **ICAO term INSTRUMENT APPROACH PROCEDURE**.)

INSTRUMENT APPROACH PROCEDURE– A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority.

(See **SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE**.)

(Refer to **14 CFR Part 91**.)

(Refer to **AIM**.)

a. U.S. civil standard instrument approach procedures are approved by the FAA as prescribed under **14 CFR Part 97** and are available for public use.

b. U.S. military standard instrument approach procedures are approved and published by the Department of Defense.

c. Special instrument approach procedures are approved by the FAA for individual operators but are not published in 14 CFR Part 97 for public use.

(See ICAO term INSTRUMENT APPROACH PROCEDURE.)

INSTRUMENT APPROACH PROCEDURE [ICAO]– A series of predetermined maneuvers by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply.

(See ICAO term INSTRUMENT APPROACH OPERATIONS)

INSTRUMENT APPROACH PROCEDURE CHARTS–

(See AERONAUTICAL CHART.)

INSTRUMENT DEPARTURE PROCEDURE (DP)– A preplanned instrument flight rule (IFR) departure procedure published for pilot use, in graphic or textual format, that provides obstruction clearance from the terminal area to the appropriate en route structure. There are two types of DP, Obstacle Departure Procedure (ODP), printed either textually or graphically, and, Standard Instrument Departure (SID), which is always printed graphically.

(See IFR TAKEOFF MINIMUMS AND DEPARTURE PROCEDURES.)

(See OBSTACLE DEPARTURE PROCEDURES.)

(See STANDARD INSTRUMENT DEPARTURES.)

(Refer to AIM.)

INSTRUMENT DEPARTURE PROCEDURE (DP) CHARTS–

(See AERONAUTICAL CHART.)

INSTRUMENT FLIGHT RULES (IFR)– Rules governing the procedures for conducting instrument

flight. Also a term used by pilots and controllers to indicate type of flight plan.

(See INSTRUMENT METEOROLOGICAL CONDITIONS.)

(See VISUAL FLIGHT RULES.)

(See VISUAL METEOROLOGICAL CONDITIONS.)

(See ICAO term INSTRUMENT FLIGHT RULES.)

(Refer to AIM.)

INSTRUMENT FLIGHT RULES [ICAO]– A set of rules governing the conduct of flight under instrument meteorological conditions.

INSTRUMENT LANDING SYSTEM (ILS)– A precision instrument approach system which normally consists of the following electronic components and visual aids:

a. Localizer.

(See LOCALIZER.)

b. Glideslope.

(See GLIDESLOPE.)

c. Outer Marker.

(See OUTER MARKER.)

d. Middle Marker.

(See MIDDLE MARKER.)

e. Approach Lights.

(See AIRPORT LIGHTING.)

(Refer to 14 CFR Part 91.)

(Refer to AIM.)

INSTRUMENT METEOROLOGICAL CONDITIONS (IMC)– Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions.

(See INSTRUMENT FLIGHT RULES.)

(See VISUAL FLIGHT RULES.)

(See VISUAL METEOROLOGICAL CONDITIONS.)

INSTRUMENT RUNWAY– A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved.

(See ICAO term INSTRUMENT RUNWAY.)

INSTRUMENT RUNWAY [ICAO]– One of the following types of runways intended for the operation of aircraft using instrument approach procedures:

Approaches (SOIA) to parallel runways whose centerlines are separated by less than 3,000 feet and at least 750 feet. NTZ monitoring is required to conduct these approaches.

(See SIMULTANEOUS OFFSET INSTRUMENT APPROACH (SOIA).)

(Refer to AIM.)

LOCALIZER USABLE DISTANCE– The maximum distance from the localizer transmitter at a specified altitude, as verified by flight inspection, at which reliable course information is continuously received.

(Refer to AIM.)

LOCATOR [ICAO]– An LM/MF NDB used as an aid to final approach.

Note: A locator usually has an average radius of rated coverage of between 18.5 and 46.3 km (10 and 25 NM).

LONG RANGE NAVIGATION–

(See LORAN.)

LONGITUDINAL SEPARATION– The longitudinal spacing of aircraft at the same altitude by a minimum distance expressed in units of time or miles.

(See SEPARATION.)

(Refer to AIM.)

LORAN– An electronic navigational system by which hyperbolic lines of position are determined by measuring the difference in the time of reception of synchronized pulse signals from two fixed transmitters. Loran A operates in the 1750-1950 kHz frequency band. Loran C and D operate in the 100-110 kHz frequency band. In 2010, the U.S. Coast Guard terminated all U.S. LORAN-C transmissions.

(Refer to AIM.)

LOST COMMUNICATIONS– Loss of the ability to communicate by radio. Aircraft are sometimes referred to as NORDO (No Radio). Standard pilot procedures are specified in 14 CFR Part 91. Radar controllers issue procedures for pilots to follow in the event of lost communications during a radar approach when weather reports indicate that an aircraft will likely encounter IFR weather conditions during the approach.

(Refer to 14 CFR Part 91.)

(Refer to AIM.)

LOST LINK (LL)– An interruption or loss of the control link, or when the pilot is unable to effect control of the aircraft and, as a result, the UA will perform a predictable or planned maneuver. Loss of command and control link between the Control Station and the aircraft. There are two types of links:

a. An uplink which transmits command instructions to the aircraft, and

b. A downlink which transmits the status of the aircraft and provides situational awareness to the pilot.

LOST LINK PROCEDURE– Preprogrammed or predetermined mitigations to ensure the continued safe operation of the UA in the event of a lost link (LL). In the event positive link cannot be established, flight termination must be implemented.

LOW ALTITUDE AIRWAY STRUCTURE– The network of airways serving aircraft operations up to but not including 18,000 feet MSL.

(See AIRWAY.)

(Refer to AIM.)

LOW ALTITUDE ALERT, CHECK YOUR ALTITUDE IMMEDIATELY–

(See SAFETY ALERT.)

LOW APPROACH– An approach over an airport or runway following an instrument approach or a VFR approach including the go-around maneuver where the pilot intentionally does not make contact with the runway.

(Refer to AIM.)

LOW FREQUENCY (LF)– The frequency band between 30 and 300 kHz.

(Refer to AIM.)

LOCALIZER PERFORMANCE WITH VERTICAL GUIDANCE (LPV)– A type of approach with vertical guidance (APV) based on WAAS, published on RNAV (GPS) approach charts. This procedure takes advantage of the precise lateral guidance available from WAAS. The minima is published as a decision altitude (DA).

LUAW–

(See LINE UP AND WAIT.)

terminates at the approach gate or where the glideslope or other appropriate minimum altitude is intercepted.

PROGRESS REPORT–

(See POSITION REPORT.)

PROGRESSIVE TAXI– Precise taxi instructions given to a pilot unfamiliar with the airport or issued in stages as the aircraft proceeds along the taxi route.

PROHIBITED AREA–

(See SPECIAL USE AIRSPACE.)

(See ICAO term PROHIBITED AREA.)

PROHIBITED AREA [ICAO]– An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.

PROMINENT OBSTACLE– An obstacle that meets one or more of the following conditions:

a. An obstacle which stands out beyond the adjacent surface of surrounding terrain and immediately projects a noticeable hazard to aircraft in flight.

b. An obstacle, not characterized as low and close in, whose height is no less than 300 feet above the departure end of takeoff runway (DER) elevation, is within 10 NM from the DER, and that penetrates that airport/heliport's diverse departure obstacle clearance surface (OCS).

c. An obstacle beyond 10 NM from an airport/heliport that requires an obstacle departure procedure (ODP) to ensure obstacle avoidance.

(See OBSTACLE.)

(See OBSTRUCTION.)

PROPELLER (PROP) WASH (PROP BLAST)– The disturbed mass of air generated by the motion of a propeller.

PROPOSED BOUNDARY CROSSING TIME– Each center has a PBCT parameter for each internal airport. Proposed internal flight plans are transmitted

to the adjacent center if the flight time along the proposed route from the departure airport to the center boundary is less than or equal to the value of PBCT or if airport adaptation specifies transmission regardless of PBCT.

PROPOSED DEPARTURE TIME– The time that the aircraft expects to become airborne.

PROTECTED AIRSPACE– The airspace on either side of an oceanic route/track that is equal to one-half the lateral separation minimum except where reduction of protected airspace has been authorized.

PROTECTED SEGMENT– The protected segment is a segment on the amended TFM route that is to be inhibited from automatic adapted route alteration by ERAM.

PT–

(See PROCEDURE TURN.)

PTP–

(See POINT-TO-POINT.)

PTS–

(See POLAR TRACK STRUCTURE.)

PUBLISHED INSTRUMENT APPROACH PROCEDURE VISUAL SEGMENT– A segment on an IAP chart annotated as "Fly Visual to Airport" or "Fly Visual." A dashed arrow will indicate the visual flight path on the profile and plan view with an associated note on the approximate heading and distance. The visual segment should be flown as a dead reckoning course while maintaining visual conditions.

PUBLISHED ROUTE– A route for which an IFR altitude has been established and published; e.g., Federal Airways, Jet Routes, Area Navigation Routes, Specified Direct Routes.

PWS–

(See PREDICTIVE WIND SHEAR ALERT SYSTEM.)

b. “Increase/reduce speed to (speed in knots)” or “Increase/reduce speed (number of knots) knots.”

SPEED BRAKES– Moveable aerodynamic devices on aircraft that reduce airspeed during descent and landing.

SPEED SEGMENTS– Portions of the arrival route between the transition point and the vertex along the optimum flight path for which speeds and altitudes are specified. There is one set of arrival speed segments adapted from each transition point to each vertex. Each set may contain up to six segments.

SPOOFING– Denotes emissions of GNSS-like signals that may be acquired and tracked in combination with or instead of the intended signals by civil receivers. The onset of spoofing effects can be instantaneous or delayed, and effects can persist after the spoofing has ended. Spoofing can result in false and potentially confusing, or hazardously misleading, position, navigation, and/or date/time information in addition to loss of GNSS use.

SQUAWK (Mode, Code, Function)– Used by ATC to instruct a pilot to activate the aircraft transponder and ADS-B Out with altitude reporting enabled, or (military) to activate only specific modes, codes, or functions. Examples: “Squawk five seven zero seven;” “Squawk three/alpha, two one zero five.”

(See TRANSPONDER.)

STA–

(See SCHEDULED TIME OF ARRIVAL.)

STAGING/QUEUING– The placement, integration, and segregation of departure aircraft in designated movement areas of an airport by departure fix, EDCT, and/or restriction.

STAND BY– Means the controller or pilot must pause for a few seconds, usually to attend to other duties of a higher priority. Also means to wait as in “stand by for clearance.” The caller should reestablish contact if a delay is lengthy. “Stand by” is not an approval or denial.

STANDARD INSTRUMENT APPROACH PROCEDURE (SIAP)–

(See INSTRUMENT APPROACH PROCEDURE.)

STANDARD INSTRUMENT DEPARTURE (SID)– A preplanned instrument flight rule (IFR) air traffic control (ATC) departure procedure printed for pilot/controller use in graphic form to provide

obstacle clearance and a transition from the terminal area to the appropriate en route structure. SIDs are primarily designed for system enhancement to expedite traffic flow and to reduce pilot/controller workload. ATC clearance must always be received prior to flying a SID.

(See IFR TAKEOFF MINIMUMS AND DEPARTURE PROCEDURES.)

(See OBSTACLE DEPARTURE PROCEDURE.)

(Refer to AIM.)

STANDARD RATE TURN– A turn of three degrees per second.

STANDARD TERMINAL ARRIVAL (STAR)– A preplanned instrument flight rule (IFR) air traffic control arrival procedure published for pilot use in graphic and/or textual form. STARs provide transition from the en route structure to an outer fix or an instrument approach fix/arrival waypoint in the terminal area.

STANDARD TERMINAL ARRIVAL CHARTS–

(See AERONAUTICAL CHART.)

STANDARD TERMINAL AUTOMATION REPLACEMENT SYSTEM (STARS)–

(See DTAS.)

STAR–

(See STANDARD TERMINAL ARRIVAL.)

STATE AIRCRAFT– Aircraft used in military, customs and police service, in the exclusive service of any government or of any political subdivision thereof, including the government of any state, territory, or possession of the United States or the District of Columbia, but not including any government-owned aircraft engaged in carrying persons or property for commercial purposes.

STATIC RESTRICTIONS– Those restrictions that are usually not subject to change, fixed, in place, and/or published.

STATIONARY ALTITUDE RESERVATION (STATIONARY ALTRV)– An altitude reservation which encompasses activities in a fixed area. Stationary ALTRVs may include activities such as special tests of weapons systems or equipment; certain U.S. Navy carrier, fleet, and anti-submarine operations; rocket, missile, and drone operations; and certain aerial refueling or similar operations.

STEP TAXI– To taxi a float plane at full power or high RPM.

STEP TURN– A maneuver used to put a float plane in a planing configuration prior to entering an active sea lane for takeoff. The STEP TURN maneuver should only be used upon pilot request.

STEPDOWN FIX– A fix permitting additional descent within a segment of an instrument approach procedure by identifying a point at which a controlling obstacle has been safely overflown.

STEREO ROUTE– A routinely used route of flight established by users and ARTCCs identified by a coded name; e.g., ALPHA 2. These routes minimize flight plan handling and communications.

STNR ALT RESERVATION– An abbreviation for Stationary Altitude Reservation commonly used in NOTAMs.

(See STATIONARY ALTITUDE RESERVATION.)

STOL AIRCRAFT–

(See SHORT TAKEOFF AND LANDING AIRCRAFT.)

STOP ALTITUDE SQUAWK– Used by ATC to instruct a pilot to turn off the automatic altitude reporting feature of the aircraft transponder and ADS-B Out. It is issued when a verbally reported altitude varies by 300 feet or more from the automatic altitude report.

(See ALTITUDE READOUT.)

(See TRANSPONDER.)

STOP AND GO– A procedure wherein an aircraft will land, make a complete stop on the runway, and then commence a takeoff from that point.

(See LOW APPROACH.)

(See OPTION APPROACH.)

STOP BURST–

(See STOP STREAM.)

STOP BUZZER–

(See STOP STREAM.)

STOP SQUAWK (Mode or Code)– Used by ATC to instruct a pilot to stop transponder and ADS-B transmissions, or to turn off only specified functions of the aircraft transponder (military).

(See STOP ALTITUDE SQUAWK.)

(See TRANSPONDER.)

STOP STREAM– Used by ATC to request a pilot to suspend electronic attack activity.

(See JAMMING.)

STOPOVER FLIGHT PLAN– A flight plan format which permits in a single submission the filing of a sequence of flight plans through interim full-stop destinations to a final destination.

STOPWAY– An area beyond the takeoff runway no less wide than the runway and centered upon the extended centerline of the runway, able to support the airplane during an aborted takeoff, without causing structural damage to the airplane, and designated by the airport authorities for use in decelerating the airplane during an aborted takeoff.

STRAIGHT-IN APPROACH IFR– An instrument approach wherein final approach is begun without first having executed a procedure turn, not necessarily completed with a straight-in landing or made to straight-in landing minimums.

(See LANDING MINIMUMS.)

(See STRAIGHT-IN APPROACH VFR.)

(See STRAIGHT-IN LANDING.)

STRAIGHT-IN APPROACH VFR– Entry into the traffic pattern by interception of the extended runway centerline (final approach course) without executing any other portion of the traffic pattern.

(See TRAFFIC PATTERN.)

STRAIGHT-IN LANDING– A landing made on a runway aligned within 30° of the final approach course following completion of an instrument approach.

(See STRAIGHT-IN APPROACH IFR.)

STRAIGHT-IN LANDING MINIMUMS–

(See LANDING MINIMUMS.)

STRAIGHT-IN MINIMUMS–

(See STRAIGHT-IN LANDING MINIMUMS.)

STRATEGIC PLANNING– Planning whereby solutions are sought to resolve potential conflicts.

SUBSTITUTE ROUTE– A route assigned to pilots when any part of an airway or route is unusable because of NAVAID status. These routes consist of:

a. Substitute routes which are shown on U.S. Government charts.

b. Routes defined by ATC as specific NAVAID radials or courses.

c. Routes defined by ATC as direct to or between NAVAIDs.

SUNSET AND SUNRISE– The mean solar times of sunset and sunrise as published in the Nautical Almanac, converted to local standard time for the locality concerned. Within Alaska, the end of evening civil twilight and the beginning of morning civil twilight, as defined for each locality.

SUPPLEMENTAL WEATHER SERVICE LOCATION– Airport facilities staffed with contract personnel who take weather observations and provide current local weather to pilots via telephone or radio. (All other services are provided by the parent FSS.)

SUPPS– Refers to ICAO Document 7030 Regional Supplementary Procedures. SUPPS contain procedures for each ICAO Region which are unique to that Region and are not covered in the worldwide provisions identified in the ICAO Air Navigation Plan. Procedures contained in Chapter 8 are based in part on those published in SUPPS.

SURFACE AREA– The 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.

SURPIC– A description of surface vessels in the area of a Search and Rescue incident including their predicted positions and their characteristics.

(Refer to FAA Order JO 7110.65, Para 10–6–4, INFLIGHT CONTINGENCIES.)

SURVEILLANCE APPROACH– An instrument approach wherein the air traffic controller issues instructions, for pilot compliance, based on aircraft position in relation to the final approach course (azimuth), and the distance (range) from the end of the runway as displayed on the controller's radar scope. The controller will provide recommended altitudes on final approach if requested by the pilot.

(Refer to AIM.)

SWAP–

(See SEVERE WEATHER AVOIDANCE PLAN.)

SWSL–

(See SUPPLEMENTAL WEATHER SERVICE LOCATION.)

SYSTEM STRATEGIC NAVIGATION– Military activity accomplished by navigating along a preplanned route using internal aircraft systems to maintain a desired track. This activity normally requires a lateral route width of 10 NM and altitude range of 1,000 feet to 6,000 feet AGL with some route segments that permit terrain following.

T

TACAN–

(See TACTICAL AIR NAVIGATION.)

TACAN-ONLY AIRCRAFT– An aircraft, normally military, possessing TACAN with DME but no VOR navigational system capability. Clearances must specify TACAN or VORTAC fixes and approaches.

TACTICAL AIR NAVIGATION (TCAN)– An ultra-high frequency electronic rho-theta air navigation aid which provides suitably equipped aircraft a continuous indication of bearing and distance to the TACAN station.

(See VORTAC.)

(Refer to AIM.)

TAILWIND– Any wind more than 90 degrees to the longitudinal axis of the runway. The magnetic direction of the runway shall be used as the basis for determining the longitudinal axis.

TAKEOFF AREA–

(See LANDING AREA.)

TAKEOFF DISTANCE AVAILABLE (TODA)– The takeoff run available plus the length of any remaining runway or clearway beyond the far end of the takeoff run available.

(See ICAO term TAKEOFF DISTANCE AVAILABLE.)

TAKEOFF DISTANCE AVAILABLE [ICAO]– The length of the takeoff run available plus the length of the clearway, if provided.

TAKEOFF HOLD LIGHTS (THL)– The THL system is composed of in-pavement lighting in a double, longitudinal row of lights aligned either side of the runway centerline. The lights are focused toward the arrival end of the runway at the “line up and wait” point, and they extend for 1,500 feet in front of the holding aircraft. Illuminated red lights indicate to an aircraft in position for takeoff or rolling that it is unsafe to takeoff because the runway is occupied or about to be occupied by an aircraft or vehicle.

TAKEOFF ROLL – The process whereby an aircraft is aligned with the runway centerline and the aircraft is moving with the intent to take off. For helicopters,

this pertains to the act of becoming airborne after departing a takeoff area.

TAKEOFF RUN AVAILABLE (TORA) – The runway length declared available and suitable for the ground run of an airplane taking off.

(See ICAO term TAKEOFF RUN AVAILABLE.)

TAKEOFF RUN AVAILABLE [ICAO]– The length of runway declared available and suitable for the ground run of an aeroplane take-off.

TARGET– The indication shown on a display resulting from a primary radar return, a radar beacon reply, or an ADS-B report. The specific target symbol presented to ATC may vary based on the surveillance source and automation platform.

(See ASSOCIATED.)

(See DIGITAL TARGET.)

(See DIGITIZED RADAR TARGET.)

(See FUSED TARGET.)

(See PRIMARY RADAR TARGET.)

(See RADAR.)

(See SECONDARY RADAR TARGET.)

(See ICAO term TARGET.)

(See UNASSOCIATED.)

TARGET [ICAO]– In radar:

a. Generally, any discrete object which reflects or retransmits energy back to the radar equipment.

b. Specifically, an object of radar search or surveillance.

TARGET RESOLUTION– A process to ensure that correlated radar targets do not touch. Target resolution must be applied as follows:

a. Between the edges of two primary targets or the edges of the ASR-9/11 primary target symbol.

b. Between the end of the beacon control slash and the edge of a primary target.

c. Between the ends of two beacon control slashes.

Note 1: Mandatory traffic advisories and safety alerts must be issued when this procedure is used.

Note 2: This procedure must not be used when utilizing mosaic radar systems or multi-sensor mode.

TARGET SYMBOL–

(See TARGET.)

(See ICAO term TARGET.)

TARMAC DELAY– The holding of an aircraft on the ground either before departure or after landing with no opportunity for its passengers to deplane.

TARMAC DELAY AIRCRAFT– An aircraft whose pilot-in-command has requested to taxi to the ramp, gate, or alternate deplaning area to comply with the Three-hour Tarmac Rule.

TARMAC DELAY REQUEST– A request by the pilot-in-command to taxi to the ramp, gate, or alternate deplaning location to comply with the Three-hour Tarmac Rule.

TAS–

(See **TERMINAL AUTOMATION SYSTEMS**.)

TAWS–

(See **TERRAIN AWARENESS WARNING SYSTEM**.)

TAXI– The movement of an airplane under its own power on the surface of an airport (14 CFR Section 135.100 [Note]). Also, it describes the surface movement of helicopters equipped with wheels.

(See **AIR TAXI**.)

(See **HOVER TAXI**.)

(Refer to 14 CFR Section 135.100.)

(Refer to **AIM**.)

TAXI PATTERNS– Patterns established to illustrate the desired flow of ground traffic for the different runways or airport areas available for use.

TCAS–

(See **TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM**.)

TCH–

(See **THRESHOLD CROSSING HEIGHT**.)

TCLT–

(See **TENTATIVE CALCULATED LANDING TIME**.)

TDLS–

(See **TERMINAL DATA LINK SYSTEM**.)

TDZE–

(See **TOUCHDOWN ZONE ELEVATION**.)

TEMPORARY FLIGHT RESTRICTION (TFR)– A TFR is a regulatory action issued by the FAA via the U.S. NOTAM System, under the authority of United States Code, Title 49. TFRs are issued within the sovereign airspace of the United States and its

territories to restrict certain aircraft from operating within a defined area on a temporary basis to protect persons or property in the air or on the ground. While not all inclusive, TFRs may be issued for disaster or hazard situations such as: toxic gas leaks or spills, fumes from flammable agents, aircraft accident/incident sites, aviation or ground resources engaged in wildfire suppression, or aircraft relief activities following a disaster. TFRs may also be issued in support of VIP movements, for reasons of national security; or when determined necessary for the management of air traffic in the vicinity of aerial demonstrations or major sporting events. NAS users or other interested parties should contact a FSS for TFR information. Additionally, TFR information can be found in automated briefings, NOTAM publications, and on the internet at <http://www.faa.gov>. The FAA also distributes TFR information to aviation user groups for further dissemination.

TENTATIVE CALCULATED LANDING TIME (TCLT)– A projected time calculated for adapted vertex for each arrival aircraft based upon runway configuration, airport acceptance rate, airport arrival delay period, and other metered arrival aircraft. This time is either the VTA of the aircraft or the TCLT/ACLT of the previous aircraft plus the AAI, whichever is later. This time will be updated in response to an aircraft's progress and its current relationship to other arrivals.

TERMINAL AREA– A general term used to describe airspace in which approach control service or airport traffic control service is provided.

TERMINAL AREA FACILITY– A facility providing air traffic control service for arriving and departing IFR, VFR, Special VFR, and on occasion en route aircraft.

(See **APPROACH CONTROL FACILITY**.)

(See **TOWER**.)

TERMINAL AUTOMATION SYSTEMS (TAS)– TAS is used to identify the numerous automated tracking systems including STARS and MEARTS.

TERMINAL DATA LINK SYSTEM (TDLS)– A system that provides Digital Automatic Terminal Information Service (D-ATIS) both on a specified radio frequency and also, for subscribers, in a text message via data link to the cockpit or to a gate printer. TDLS also provides Pre-departure Clearances (PDC), at selected airports, to subscribers, through a service provider, in text to the cockpit or to

a gate printer. In addition, TDLS will emulate the Flight Data Input/Output (FDIO) information within the control tower.

TERMINAL RADAR SERVICE AREA– Airspace surrounding designated airports wherein ATC provides radar vectoring, sequencing, and separation on a full-time basis for all IFR and participating VFR aircraft. The AIM contains an explanation of TRSA. TRSAs are depicted on VFR aeronautical charts. Pilot participation is urged but is not mandatory.

TERMINAL VFR RADAR SERVICE– A national program instituted to extend the terminal radar services provided instrument flight rules (IFR) aircraft to visual flight rules (VFR) aircraft. The program is divided into four types service referred to as basic radar service, terminal radar service area (TRSA) service, Class B service and Class C service. The type of service provided at a particular location is contained in the Chart Supplement U.S.

a. Basic Radar Service– These services are provided for VFR aircraft by all commissioned terminal radar facilities. Basic radar service includes safety alerts, traffic advisories, limited radar vectoring when requested by the pilot, and sequencing at locations where procedures have been established for this purpose and/or when covered by a letter of agreement. The purpose of this service is to adjust the flow of arriving IFR and VFR aircraft into the traffic pattern in a safe and orderly manner and to provide traffic advisories to departing VFR aircraft.

b. TRSA Service– This service provides, in addition to basic radar service, sequencing of all IFR and participating VFR aircraft to the primary airport and separation between all participating VFR aircraft. The purpose of this service is to provide separation between all participating VFR aircraft and all IFR aircraft operating within the area defined as a TRSA.

c. Class C Service– This service provides, in addition to basic radar service, approved separation between IFR and VFR aircraft, and sequencing of VFR aircraft, and sequencing of VFR arrivals to the primary airport.

d. Class B Service– This service provides, in addition to basic radar service, approved separation

of aircraft based on IFR, VFR, and/or weight, and sequencing of VFR arrivals to the primary airport(s).

(See CONTROLLED AIRSPACE.)

(See TERMINAL RADAR SERVICE AREA.)

(Refer to AIM.)

(Refer to CHART SUPPLEMENT U.S.)

TERMINAL-VERY HIGH FREQUENCY OMNI-DIRECTIONAL RANGE STATION (TVOR)– A very high frequency terminal omnirange station located on or near an airport and used as an approach aid.

(See NAVIGATIONAL AID.)

(See VOR.)

TERRAIN AWARENESS WARNING SYSTEM (TAWS)– An on-board, terrain proximity alerting system providing the aircrew ‘Low Altitude warnings’ to allow immediate pilot action.

TERRAIN FOLLOWING– The flight of a military aircraft maintaining a constant AGL altitude above the terrain or the highest obstruction. The altitude of the aircraft will constantly change with the varying terrain and/or obstruction.

TETRAHEDRON– A device normally located on uncontrolled airports and used as a landing direction indicator. The small end of a tetrahedron points in the direction of landing. At controlled airports, the tetrahedron, if installed, should be disregarded because tower instructions supersede the indicator.

(See SEGMENTED CIRCLE.)

(Refer to AIM.)

TF–

(See TERRAIN FOLLOWING.)

THAT IS CORRECT– The understanding you have is right.

THA–

(See TRANSITIONAL HAZARD AREA.)

THREE-HOUR TARMAC RULE– Rule that relates to Department of Transportation (DOT) requirements placed on airlines when tarmac delays are anticipated to reach 3 hours.

360 OVERHEAD–

(See OVERHEAD MANEUVER.)

THRESHOLD– The beginning of that portion of the runway usable for landing.

(See AIRPORT LIGHTING.)

(See DISPLACED THRESHOLD.)

THRESHOLD CROSSING HEIGHT– The theoretical height above the runway threshold at which the aircraft’s glideslope antenna would be if the aircraft maintains the trajectory established by the mean ILS glideslope or the altitude at which the calculated glidepath of an RNAV or GPS approaches.

(See GLIDESLOPE.)

(See THRESHOLD.)

THRESHOLD LIGHTS–

(See AIRPORT LIGHTING.)

TIE-IN FACILITY– The FSS primarily responsible for providing FSS services, including telecommunications services for landing facilities or navigational aids located within the boundaries of a flight plan area (FPA). Three-letter identifiers are assigned to each FSS/FPA and are annotated as tie-in facilities in the Chart Supplement U.S., the Alaska Supplement, the Pacific Supplement, and FAA Order JO 7350.9, Location Identifiers. Large consolidated FSS facilities may have many tie-in facilities or FSS sectors within one facility.

(See FLIGHT PLAN AREA.)

(See FLIGHT SERVICE STATION.)

TIME-BASED FLOW MANAGEMENT (TBFM)–

The hardware, software, methods, processes, and initiatives to manage air traffic flows based on time to balance air traffic demand with system capacity, and support the management of PBN. This includes, but not limited to, Adjacent Center Metering (ACM), En Route Departure Capability (EDC), Ground-based Interval Management-Spacing (GIM-S), Integrated Departure/Arrival Capability (IDAC), Single Center Metering (SCM), Time-Based Metering (TBM), Time-Based Scheduling (TBS), and Extended/Coupled Metering.

TIME GROUP– Four digits representing the hour and minutes from the Coordinated Universal Time (UTC) clock. FAA uses UTC for all operations. The term “ZULU” may be used to denote UTC. The word “local” or the time zone equivalent shall be used to denote local when local time is given during radio and telephone communications. When written, a time zone designator is used to indicate local time; e.g., “0205M” (Mountain). The local time may be based on the 24-hour clock system. The day begins at 0000 and ends at 2359.

TIS-B–

(See TRAFFIC INFORMATION SERVICE–BROADCAST.)

TMPA–

(See TRAFFIC MANAGEMENT PROGRAM ALERT.)

TMU–

(See TRAFFIC MANAGEMENT UNIT.)

TODA–

(See TAKEOFF DISTANCE AVAILABLE.)

(See ICAO term TAKEOFF DISTANCE AVAILABLE.)

TOI–

(See TRACK OF INTEREST.)

TOP ALTITUDE– In reference to SID published altitude restrictions, the charted “maintain” altitude contained in the procedure description or assigned by ATC.

TORA–

(See TAKEOFF RUN AVAILABLE.)

(See ICAO term TAKEOFF RUN AVAILABLE.)

TORCHING– The burning of fuel at the end of an exhaust pipe or stack of a reciprocating aircraft engine, the result of an excessive richness in the fuel air mixture.

TOS–

(See TRAJECTORY OPTIONS SET)

TOTAL ESTIMATED ELAPSED TIME [ICAO]– For IFR flights, the estimated time required from takeoff to arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the destination aerodrome, to arrive over the destination aerodrome. For VFR flights, the estimated time required from takeoff to arrive over the destination aerodrome.

(See ICAO term ESTIMATED ELAPSED TIME.)

TOUCH-AND-GO– An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway.

TOUCH-AND-GO LANDING–

(See TOUCH-AND-GO.)

TOUCHDOWN–

a. The point at which an aircraft first makes contact with the landing surface.

b. Concerning a precision radar approach (PAR), it is the point where the glide path intercepts the landing surface.

(See ICAO term TOUCHDOWN.)

TOUCHDOWN [ICAO]– The point where the nominal glide path intercepts the runway.

Note: Touchdown as defined above is only a datum and is not necessarily the actual point at which the aircraft will touch the runway.

TOUCHDOWN RVR–

(See VISIBILITY.)

TOUCHDOWN ZONE– The first 3,000 feet of the runway beginning at the threshold. The area is used for determination of Touchdown Zone Elevation in the development of straight-in landing minimums for instrument approaches.

(See ICAO term TOUCHDOWN ZONE.)

TOUCHDOWN ZONE [ICAO]– The portion of a runway, beyond the threshold, where it is intended landing aircraft first contact the runway.

TOUCHDOWN ZONE ELEVATION– The highest elevation in the first 3,000 feet of the landing surface. TDZE is indicated on the instrument approach procedure chart when straight-in landing minimums are authorized.

(See TOUCHDOWN ZONE.)

TOUCHDOWN ZONE LIGHTING–

(See AIRPORT LIGHTING.)

TOWER– A terminal facility that uses air/ground communications, visual signaling, and other devices to provide ATC services to aircraft operating in the vicinity of an airport or on the movement area. Authorizes aircraft to land or takeoff at the airport controlled by the tower or to transit the Class D airspace area regardless of flight plan or weather conditions (IFR or VFR). A tower may also provide approach control services (radar or nonradar).

(See AIRPORT TRAFFIC CONTROL SERVICE.)

(See APPROACH CONTROL FACILITY.)

(See APPROACH CONTROL SERVICE.)

(See MOVEMENT AREA.)

(See TOWER EN ROUTE CONTROL SERVICE.)

(See ICAO term AERODROME CONTROL TOWER.)

(Refer to AIM.)

TOWER EN ROUTE CONTROL SERVICE– The control of IFR en route traffic within delegated airspace between two or more adjacent approach control facilities. This service is designed to expedite traffic and reduce control and pilot communication requirements.

TOWER TO TOWER–

(See TOWER EN ROUTE CONTROL SERVICE.)

TRACEABLE PRESSURE STANDARD– The facility station pressure instrument, with certification/calibration traceable to the National Institute of Standards and Technology. Traceable pressure standards may be mercurial barometers, commissioned ASOS or dual transducer AWOS, or portable pressure standards or DASI.

TRACK– The actual flight path of an aircraft over the surface of the earth.

(See COURSE.)

(See FLIGHT PATH.)

(See ROUTE.)

(See ICAO term TRACK.)

TRACK [ICAO]– The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (True, Magnetic, or Grid).

TRACK OF INTEREST (TOI)– Displayed data representing an airborne object that threatens or has the potential to threaten North America or National Security. Indicators may include, but are not limited to: noncompliance with air traffic control instructions or aviation regulations; extended loss of communications; unusual transmissions or unusual flight behavior; unauthorized intrusion into controlled airspace or an ADIZ; noncompliance with issued flight restrictions/security procedures; or unlawful interference with airborne flight crews, up to and including hijack. In certain circumstances, an object may become a TOI based on specific and credible intelligence pertaining to that particular aircraft/object, its passengers, or its cargo.

TRACK OF INTEREST RESOLUTION– A TOI will normally be considered resolved when: the aircraft/object is no longer airborne; the aircraft complies with air traffic control instructions, aviation regulations, and/or issued flight restrictions/security procedures; radio contact is re-established and authorized control of the aircraft is verified; the aircraft is intercepted and intent is verified to be

nonthreatening/nonhostile; TOI was identified based on specific and credible intelligence that was later determined to be invalid or unreliable; or displayed data is identified and characterized as invalid.

TRAFFIC–

a. A term used by a controller to transfer radar identification of an aircraft to another controller for the purpose of coordinating separation action. Traffic is normally issued:

1. In response to a handoff or point out,
2. In anticipation of a handoff or point out, or
3. In conjunction with a request for control of an aircraft.

b. A term used by ATC to refer to one or more aircraft.

TRAFFIC ADVISORIES– Advisories issued to alert pilots to other known or observed air traffic which may be in such proximity to the position or intended route of flight of their aircraft to warrant their attention. Such advisories may be based on:

- a. Visual observation.
- b. Observation of radar identified and nonidentified aircraft targets on an ATC radar display, or
- c. Verbal reports from pilots or other facilities.

Note 1: The word “traffic” followed by additional information, if known, is used to provide such advisories; e.g., “Traffic, 2 o’clock, one zero miles, southbound, eight thousand.”

Note 2: Traffic advisory service will be provided to the extent possible depending on higher priority duties of the controller or other limitations; e.g., radar limitations, volume of traffic, frequency congestion, or controller workload. Radar/nonradar traffic advisories do not relieve the pilot of his/her responsibility to see and avoid other aircraft. Pilots are cautioned that there are many times when the controller is not able to give traffic advisories concerning all traffic in the aircraft’s proximity; in other words, when a pilot requests or is receiving traffic advisories, he/she should not assume that all traffic will be issued.

(Refer to AIM.)

TRAFFIC ALERT (aircraft call sign), TURN (left/right) IMMEDIATELY, (climb/descend) AND MAINTAIN (altitude).

(See SAFETY ALERT.)

TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)– An airborne collision

avoidance system based on radar beacon signals which 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.

TRAFFIC INFORMATION–

(See TRAFFIC ADVISORIES.)

TRAFFIC INFORMATION SERVICE–BROADCAST (TIS–B)– The broadcast of ATC derived traffic information to ADS–B equipped (1090ES or UAT) aircraft. The source of this traffic information is derived from ground–based air traffic surveillance sensors, typically from radar targets. TIS–B service will be available throughout the NAS where there are both adequate surveillance coverage (radar) and adequate broadcast coverage from ADS–B ground stations. Loss of TIS–B will occur when an aircraft enters an area not covered by the GBT network. If this occurs in an area with adequate surveillance coverage (radar), nearby aircraft that remain within the adequate broadcast coverage (ADS–B) area will view the first aircraft. TIS–B may continue when an aircraft enters an area with inadequate surveillance coverage (radar); nearby aircraft that remain within the adequate broadcast coverage (ADS–B) area will not view the first aircraft.

TRAFFIC IN SIGHT– Used by pilots to inform a controller that previously issued traffic is in sight.

(See NEGATIVE CONTACT.)

(See TRAFFIC ADVISORIES.)

TRAFFIC MANAGEMENT PROGRAM ALERT– A term used in a Notice to Airmen (NOTAM) issued in conjunction with a special traffic management program to alert pilots to the existence of the program and to refer them to a special traffic management program advisory message for program details. The contraction TMPA is used in NOTAM text.

TRAFFIC MANAGEMENT UNIT– The entity in ARTCCs and designated terminals directly involved in the active management of facility traffic. Usually under the direct supervision of an assistant manager for traffic management.

TRAFFIC NO FACTOR– Indicates that the traffic described in a previously issued traffic advisory is no factor.

TRAFFIC NO LONGER OBSERVED– Indicates that the traffic described in a previously issued traffic advisory is no longer depicted on radar, but may still be a factor.

TRAFFIC PATTERN– The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach.

a. Upwind Leg– A flight path parallel to the landing runway in the direction of landing.

b. Crosswind Leg– A flight path at right angles to the landing runway off its upwind end.

c. Downwind Leg– A flight path parallel to the landing runway in the direction opposite to landing. The downwind leg normally extends between the crosswind leg and the base leg.

d. Base Leg– A flight path at right angles to the landing runway off its approach end. The base leg normally extends from the downwind leg to the intersection of the extended runway centerline.

e. Final Approach– A flight path in the direction of landing along the extended runway centerline. The final approach normally extends from the base leg to the runway. An aircraft making a straight-in approach VFR is also considered to be on final approach.

(See STRAIGHT-IN APPROACH VFR.)

(See TAXI PATTERNS.)

(See ICAO term AERODROME TRAFFIC CIRCUIT.)

(Refer to 14 CFR Part 91.)

(Refer to AIM.)

TRAFFIC SITUATION DISPLAY (TSD)– TSD is a computer system that receives radar track data from all 20 CONUS ARTCCs, organizes this data into a mosaic display, and presents it on a computer screen. The display allows the traffic management coordinator multiple methods of selection and highlighting of individual aircraft or groups of aircraft. The user has the option of superimposing these aircraft positions over any number of background displays. These background options include ARTCC boundaries, any stratum of en route sector boundaries, fixes, airways, military and other special use airspace, airports, and geopolitical boundaries. By using the TSD, a coordinator can monitor any number of traffic situations or the entire systemwide traffic flows.

TRAJECTORY– A EDST representation of the path an aircraft is predicted to fly based upon a Current Plan or Trial Plan.

(See EN ROUTE DECISION SUPPORT TOOL.)

TRAJECTORY MODELING– The automated process of calculating a trajectory.

TRAJECTORY OPTIONS SET (TOS)– A TOS is an electronic message, submitted by the operator, that is used by the Collaborative Trajectory Options Program (CTOP) to manage the airspace captured in the traffic management program. The TOS will allow the operator to express the route and delay trade-off options that they are willing to accept.

TRANSFER OF CONTROL– That action whereby the responsibility for the separation of an aircraft is transferred from one controller to another.

(See ICAO term TRANSFER OF CONTROL.)

TRANSFER OF CONTROL [ICAO]– Transfer of responsibility for providing air traffic control service.

TRANSFERRING CONTROLLER– A controller/facility transferring control of an aircraft to another controller/facility.

(See ICAO term TRANSFERRING UNIT/CONTROLLER.)

TRANSFERRING FACILITY–

(See TRANSFERRING CONTROLLER.)

TRANSFERRING UNIT/CONTROLLER [ICAO]– Air traffic control unit/air traffic controller in the process of transferring the responsibility for providing air traffic control service to an aircraft to the next air traffic control unit/air traffic controller along the route of flight.

Note: See definition of accepting unit/controller.

TRANSITION–

a. The general term that describes the change from one phase of flight or flight condition to another; e.g., transition from en route flight to the approach or transition from instrument flight to visual flight.

b. A published procedure (DP Transition) used to connect the basic DP to one of several en route airways/jet routes, or a published procedure (STAR Transition) used to connect one of several en route airways/jet routes to the basic STAR.

(Refer to DP/STAR Charts.)

TRANSITION POINT– A point at an adapted number of miles from the vertex at which an arrival aircraft would normally commence descent from its en route altitude. This is the first fix adapted on the arrival speed segments.

TRANSITION WAYPOINT– The waypoint that defines the beginning of a runway or en route transition on an RNAV SID or STAR.

TRANSITIONAL AIRSPACE– That portion of controlled airspace wherein aircraft change from one phase of flight or flight condition to another.

TRANSITIONAL HAZARD AREA (THA)– Used by ATC. Airspace normally associated with an Aircraft Hazard Area within which the flight of aircraft is subject to restrictions.

(See AIRCRAFT HAZARD AREA.)

(See CONTINGENCY HAZARD AREA.)

(See REFINED HAZARD AREA.)

TRANSMISSOMETER– An apparatus used to determine visibility by measuring the transmission of light through the atmosphere. It is the measurement source for determining runway visual range (RVR).

(See VISIBILITY.)

TRANSMITTING IN THE BLIND– A transmission from one station to other stations in circumstances where two-way communication cannot be established, but where it is believed that the called stations may be able to receive the transmission.

TRANSPONDER– The airborne radar beacon receiver/transmitter portion of the Air Traffic Control Radar Beacon System (ATCRBS) which automatically receives radio signals from interrogators on the ground, and selectively replies with a specific reply pulse or pulse group only to those interrogations being received on the mode to which it is set to respond.

(See INTERROGATOR.)

(See ICAO term TRANSPONDER.)

(Refer to AIM.)

TRANSPONDER [ICAO]– A receiver/transmitter which will generate a reply signal upon proper interrogation; the interrogation and reply being on different frequencies.

TRANSPONDER CODES–

(See CODES.)

TRANSPONDER OBSERVED – Phraseology used to inform a VFR pilot the aircraft's assigned beacon code and position have been observed. Specifically, this term conveys to a VFR pilot the transponder

reply has been observed and its position correlated for transit through the designated area.

TRIAL PLAN– A proposed amendment which utilizes automation to analyze and display potential conflicts along the predicted trajectory of the selected aircraft.

TRSA–

(See TERMINAL RADAR SERVICE AREA.)

TSD–

(See TRAFFIC SITUATION DISPLAY.)

TURBOJET AIRCRAFT– An aircraft having a jet engine in which the energy of the jet operates a turbine which in turn operates the air compressor.

TURBOPROP AIRCRAFT– An aircraft having a jet engine in which the energy of the jet operates a turbine which drives the propeller.

TURBULENCE– An atmospheric phenomenon that causes changes in aircraft altitude, attitude, and or airspeed with aircraft reaction depending on intensity. Pilots report turbulence intensity according to aircraft's reaction as follows:

a. Light – Causes slight, erratic changes in altitude and or attitude (pitch, roll, or yaw).

b. Moderate– Similar to Light but of greater intensity. Changes in altitude and or attitude occur but the aircraft remains in positive control at all times. It usually causes variations in indicated airspeed.

c. Severe– Causes large, abrupt changes in altitude and or attitude. It usually causes large variations in indicated airspeed. Aircraft may be momentarily out of control.

d. Extreme– The aircraft is violently tossed about and is practically impossible to control. It may cause structural damage.

(See CHOP.)

(Refer to AIM.)

TURN ANTICIPATION– (maneuver anticipation).

TVOR–

(See TERMINAL-VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE STATION.)

TWO-WAY RADIO COMMUNICATIONS FAILURE–

(See LOST COMMUNICATIONS.)

U

UHF–

(See **ULTRAHIGH FREQUENCY**.)

ULTRAHIGH FREQUENCY (UHF)– The frequency band between 300 and 3,000 MHz. The bank of radio frequencies used for military air/ground voice communications. In some instances this may go as low as 225 MHz and still be referred to as UHF.

ULTRALIGHT VEHICLE– A single-occupant aeronautical vehicle operated for sport or recreational purposes which does not require FAA registration, an airworthiness certificate, or pilot certification. Operation of an ultralight vehicle in certain airspace requires authorization from ATC.

(Refer to 14 CFR Part 103.)

UNABLE– Indicates inability to comply with a specific instruction, request, or clearance.

UNASSOCIATED– A radar target that does not display a data block with flight identification and altitude information.

(See **ASSOCIATED**.)

UNCONTROLLED AIRSPACE– Airspace in which aircraft are not subject to controlled airspace (Class A, B, C, D, or E) separation criteria.

UNDER THE HOOD– Indicates that the pilot is using a hood to restrict visibility outside the cockpit while simulating instrument flight. An appropriately rated pilot is required in the other control seat while this operation is being conducted.

(Refer to 14 CFR Part 91.)

UNFROZEN– The Scheduled Time of Arrival (STA) tags, which are still being rescheduled by the time-based flow management (TBFM) calculations. The aircraft will remain unfrozen until the time the corresponding estimated time of arrival (ETA) tag passes the preset freeze horizon for that aircraft's stream class. At this point the automatic rescheduling will stop, and the STA becomes "frozen."

UNICOM– A nongovernment communication facility which may provide airport information at certain airports. Locations and frequencies of UNICOMs are shown on aeronautical charts and publications.

(See **CHART SUPPLEMENT U.S.**)

(Refer to **AIM**.)

UNMANNED AIRCRAFT (UA)– A device used or intended to be used for flight that has no onboard pilot. This device can be any type of airplane, helicopter, airship, or powered-lift aircraft. Unmanned free balloons, moored balloons, tethered aircraft, gliders, and unmanned rockets are not considered to be a UA.

UNMANNED AIRCRAFT SYSTEM (UAS)– An unmanned aircraft and its associated elements related to safe operations, which may include control stations (ground, ship, or air based), control links, support equipment, payloads, flight termination systems, and launch/recovery equipment. It consists of three elements: unmanned aircraft, control station, and data link.

UNPUBLISHED ROUTE– A route for which no minimum altitude is published or charted for pilot use. It may include a direct route between NAVAIDs, a radial, a radar vector, or a final approach course beyond the segments of an instrument approach procedure.

(See **PUBLISHED ROUTE**.)

(See **ROUTE**.)

UNRELIABLE (GPS/WAAS)– An advisory to pilots indicating the expected level of service of the GPS and/or WAAS may not be available. Pilots must then determine the adequacy of the signal for desired use.

UNSERVICEABLE (U/S)

(See **OUT OF SERVICE/UNSERVICEABLE**.)

UPWIND LEG–

(See **TRAFFIC PATTERN**.)

URGENCY– A condition of being concerned about safety and of requiring timely but not immediate assistance; a potential distress condition.

(See **ICAO term URGENCY**.)

URGENCY [ICAO]– A condition concerning the safety of an aircraft or other vehicle, or of person on board or in sight, but which does not require immediate assistance.

USAFIB–

(See **ARMY AVIATION FLIGHT INFORMATION BULLETIN**.)

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BRIEFING GUIDE



**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

**Initiated By: AJV-0
Vice President, Mission Support Services**

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1. PARAGRAPH NUMBER AND TITLE:

1–2–4. ABBREVIATIONS

2–10–6. BROADCAST DENSITY ALTITUDE ADVISORY

14–1–4. ICSS INTRODUCTORY ANNOUNCEMENT

15–1–4. TELEPHONE LISTINGS

15–3–1. STATION BROADCASTS

15–3–2. COORDINATE WITH WEATHER FORECAST OFFICE (WFO) (ALASKA ONLY)

15–3–3. COMMERCIAL BROADCAST STATIONS

15–3–4. REDUCING RECORDED WEATHER INFORMATION SERVICES (ALASKA ONLY)

17–5–1. COMPLETION OF MONTHLY ACTIVITY RECORD

2. BACKGROUND: Flight Service has provided Telephone Information Briefings Service (TIBS) and the Transcribed Weather Broadcast (TWEB) since the 1980s. Both TIBS and TWEB were recordings produced by Flight Service specialists working the Broadcast position which provided weather and aeronautical information that pilots could access without going through a specialist. At the time they were voice recordings, and today they are produced using text-to-voice technology. TIBS can be accessed via the telephone and TWEB via radio. Both recordings are tailored to fit the needs of an individual facility and its geographic location, and updated as necessary.

When these broadcasts were originally conceived there was a large demand to speak with a specialist and wait times could be extremely long. These recordings alleviated the workload of the specialists and helped to reduce wait times for pilots. Pilots at that time had no other choice but to call Flight Service to obtain weather and NOTAMs for the route of flight. With the advent of the Internet and other technology, the demand for the services of a Flight Service specialist has dropped considerably. Pilots no longer need to “call” a Flight Service specialist or listen to telephone recordings of route and area briefings containing aviation weather and aeronautical information to adhere to 14 CFR 91.103. Currently, there are multiple sources providing access to weather and aeronautical information at the pilot’s fingertips. It is often presented in a graphical format, making it much easier to visualize conditions along their proposed route of flight at little to no cost.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
1–2–4. ABBREVIATIONS	1–2–4. ABBREVIATIONS
As used in this order, the following abbreviations have the meanings indicated: (See TBL 1–2–1.)	No Change
<i>TBL 1–2–1</i>	No Change
ABBREVIATIONS	
<u>TEL–TWEB Telephone–transcribed weather broadcast</u>	Delete
<u>TIBS Terminal information broadcast system</u>	Delete
<u>TWEB Transcribed weather broadcast</u>	Delete

OLD**2-10-6. BROADCAST DENSITY ALTITUDE ADVISORY**

Terminal and FSS facilities at airports with field elevations of 2,000 feet MSL or higher must broadcast a density altitude advisory to departing general aviation (GA) aircraft whenever the temperature reaches a certain level. These broadcasts must be made on ground control (GC), clearance delivery (CD), airport advisory, transcribed weather broadcast (TWEB, Alaska only), or automatic terminal information service (ATIS) as appropriate. Use the following table to determine broadcast applicability: (See TBL 2-10-1.)

OLD**14-1-4. ICSS INTRODUCTORY ANNOUNCEMENT****Title through b**

c. With Flight Services Operations Service Area Office approval, facilities may add additional menu instruction for special purpose requirements, e.g., coastal route, TIBS sectorization, etc.

OLD**15-1-4. TELEPHONE LISTINGS**

FSS air traffic managers must ensure that appropriate telephone numbers are properly listed in telephone directories (including yellow pages when applicable) and in the Chart Supplement U.S. Include TEL-TWEB (Alaska only), and Fast File in the local directories, and ensure that Foreign Exchange, Enterprise, etc., are listed in the directories of the areas which they serve. Numbers should always be listed under the subheading Flight Service Station under United States Government, Department of Transportation, Federal Aviation Administration. When possible, list the primary pilot weather briefing number under the Frequently Requested Numbers section at the beginning of United States Government listings.

NEW**2-10-6. BROADCAST DENSITY ALTITUDE ADVISORY**

Terminal and FSS facilities at airports with field elevations of 2,000 feet MSL or higher must broadcast a density altitude advisory to departing general aviation (GA) aircraft whenever the temperature reaches a certain level. These broadcasts must be made on ground control (GC), clearance delivery (CD), airport advisory, or automatic terminal information service (ATIS) as appropriate. Use the following table to determine broadcast applicability: (See TBL 2-10-1.)

NEW**14-1-4. ICSS INTRODUCTORY ANNOUNCEMENT****No Change**

c. With Flight Services Operations Service Area Office approval, facilities may add additional menu instruction for special purpose requirements, **for example**, coastal routes.

NEW**15-1-4. TELEPHONE LISTINGS**

FSS air traffic managers must ensure that appropriate telephone numbers are properly listed in telephone directories (including yellow pages when applicable) and in the Chart Supplement U.S. Include Fast File in the local directories and ensure that Foreign Exchange, Enterprise, etc., are listed in the directories of the areas which they serve. Numbers should always be listed under the subheading Flight Service Station under United States Government, Department of Transportation, Federal Aviation Administration. When possible, list the primary pilot weather briefing number under the Frequently Requested Numbers section at the beginning of United States Government listings.

EXAMPLE–

United States Government
 Department of Transportation
 Federal Aviation Administration
 Flight Service Station
 (Address)
 Pilot Weather Briefing ¹
 Fast File Flight Plan
 Facility Supervisor ²
 /1/ Parent FSS number for part-time FSSs.
 /2/ Administrative number.

No Change

OLD**15-3-1. STATION BROADCASTS**

Facility air traffic managers must select the specific reports to be included in the Scheduled Weather Broadcast (SWB) and the Transcribed Weather Broadcast (TWEB). Include in each type broadcast a sufficient number of reports to serve the users' needs. The selection of the reports and any proposed changes must be coordinated with known users of the station broadcast. In addition, facility air traffic managers at TWEB transcribing locations must coordinate with facility air traffic managers at remote outlets to ensure adequate service to the users in all areas covered by the TWEB facility. The reports should be broadcast in clockwise order, beginning with the report nearest to but east of true north from the broadcast station. Changes may be implemented immediately unless prior Flight Services Operations Area Office approval is required.

NEW**15-3-1. STATION BROADCASTS**

Facility air traffic managers must select the specific reports to be included in the Scheduled Weather Broadcast (SWB). Include a sufficient number of reports to serve the users' needs. The selection of the reports and any proposed changes must be coordinated with known users of the station broadcast. The reports should be broadcast in clockwise order, beginning with the report nearest to but east of true north from the broadcast station. Changes may be implemented immediately unless prior Flight Services Operations Area Office approval is required.

OLD**15-3-2. COORDINATE WITH WEATHER FORECAST OFFICE (WFO) (ALASKA ONLY)**

FSS air traffic managers at TWEB transcribing locations must coordinate with the associated WFO to ensure that TWEB forecast texts are adjusted as requirements change.

NEW

Delete

Delete

OLD**15-3-3. COMMERCIAL BROADCAST STATIONS**

Requests to broadcast scheduled or transcribed weather broadcasts which may be useful to the aviation community may be approved on an individual basis provided:

NEW**15-3-2. COMMERCIAL BROADCAST STATIONS**

No Change

a and b

c. The broadcast is confined to within 1 hour of the time announced on the TWEB or the SWB.

d. If feasible, the broadcast is not identified or associated with a sponsor. The FAA and the NWS prefer such a program be carried as a public service feature of the standard broadcast station.

e. No commercial broadcast station or other special equipment is located in the FSS.

f. FAA personnel must not make direct or recorded broadcasts regularly over a standard broadcast station. A waiver to this policy must be approved by the respective Flight Services Operations Area Office and the Vice President of Flight Services.

NOTE–

TWEB procedures apply only to FSS facilities in Alaska.

No Change

c. The broadcast is confined to within 1 hour of the time announced on the SWB.

No Change

Delete

e. FAA personnel must not make direct or recorded broadcasts regularly over a standard broadcast station. A waiver to this policy must be approved by the respective Flight Services Operations Area Office and the Vice President of Flight Services.

Delete

OLD

15–3–4. REDUCING RECORDED WEATHER INFORMATION SERVICES (ALASKA ONLY)

Recorded weather services are TWEB and TIBS. These services are very valuable and cost effective when utilized by the aviation community. The following guidelines will assist facility managers when adjusting services.

a. Minimum service hours for recorded weather services must be from 0600 thru 1800 local. Waivers must not be granted.

b. The facility manager may increase or reduce services between the hours of 1800 thru 0600 hours. To assist in the decision process the manager must proactively solicit user input at least twice annually.

c. A record summarizing the semi-annual solicitation activities must be maintained to justify and support the decision process and resultant changes in service. The record must contain an evaluation section with conclusions, as statement of actions taken in response to the information, and a 60-day follow-up plan to verify use of the requested services.

NEW

Delete

Delete

Delete

Delete

Delete

d. The record must be retained locally for three years then destroyed.

Delete

e. When services are added in direct response to a request for services from local aviators and the 60-day evaluation determines a lack of use or very low use, prior to discontinuing the new services discuss the issues with the group's representative.

Delete

OLD

17-5-1. COMPLETION OF MONTHLY ACTIVITY RECORD

Title through c10

11. TIBS Calls Received: Enter the total number of calls to the TIBS.

12. NOTAMs issued: Enter the total number of NOTAMs issued. Count all NOTAM D, and NOTAM L. Do not count NOTAM cancellations.

13. Calls to Briefers: Calls to Briefers and TIBS Calls Received are separate categories and are not to be combined. Do not use decimals. Indicate the number of call as follows:

(a) Litton facilities enter the number of "calls offered" from the Gate 1 Report.

(b) Denro facilities enter the number of calls received ("#RCVD") from the Automatic Call Director (ACD) Call History -- Briefer Calls.

c14 through c16

NEW

17-5-1. COMPLETION OF MONTHLY ACTIVITY RECORD

No Change

Delete

11. NOTAMs issued: Enter the total number of NOTAMs issued. Do not count NOTAM cancellations.

12. Calls to Briefers: **Enter the total number of calls.** Do not use decimals. Indicate the number of call as follows:

No Change

No Change

Renumber c13 through c15

1. PARAGRAPH NUMBER AND TITLE:

2-1-8. OPERATIONS DURING A STAFFING CONSTRAINT

2. BACKGROUND: Changes in the leadership structure of the Service Area Districts, as well as previous staffing events, have demonstrated a need for more specific guidance for ATC facility management when reduced staffing situations have the potential to adversely affect the facility's ability to carry out the agency's mission. Quick and effective upward communication with management is key to addressing these staffing situations to determine the facility's needs and capabilities, as well as whether the circumstances require a Staffing Trigger Form be submitted, especially if there is a potential for traffic management initiatives, reduced services, or ATC-0.

3. CHANGE:**OLD****2-1-8. OPERATIONS DURING A STAFFING CONSTRAINT**

The following steps must be followed when traffic management initiatives (TMI) are being considered for the purpose of minimizing the impact of a staffing constraint:

a. The Air Traffic Manager (ATM) must contact the General Manager (GM) or designated staff: District Manager of Operations or Traffic Management Officer, and provide the factors of the shortage, expected duration, facility mitigations implemented and any other related information. The GM, or GM designated staff must evaluate the information provided and determine what actions are appropriate.

b. If a determination is made that TMIs are required, the GM, or GM designated staff must notify the appropriate Deputy Director of Operations (DDO) for their concurrence.

c. If the DDO agrees that TMIs are required, the GM or designee will notify the requesting facility to submit a Staffing Constraint Report to the National Operations Manager (NOM) at the Air Traffic Control System Command Center (ATCSCC). If, in the event the GM or GM staff cannot be reached, the facility should take whatever actions it deems necessary to ensure the safety of the operation.

Add

NEW**2-1-8. OPERATIONS DURING A STAFFING CONSTRAINT**

The following steps must be followed when traffic management initiatives (TMI), **ATC-0, or any reduction in ATC services** are being considered **due to** staffing constraints:

a. The Air Traffic Manager (ATM) **or their designee** must contact the General Manager (GM) **or Assistant General Manager (AGM) or their designee** and provide the factors of the **staffing** shortage, expected duration, facility mitigations implemented, and any other related information. **If the situation can be mitigated by other means and no TMIs, ATC-0 declaration, or reduction in services is required, the GM or AGM or their designee will determine if a Staffing Trigger Form should be initiated and coordinated with the Deputy Director of Operations (DDO).**

b. If **it is determined** that TMIs are required, **ATC-0 is unavoidable, or a reduction in services is required, then** the GM, **AGM, or their designee** must notify the DDO for their concurrence. **The GM or AGM or their designee must obtain DDO approval before submitting the Staffing Trigger Form to the National Operations Manager (NOM) and Joint Air Traffic Operations Command (JATOC).**

c. If the DDO agrees that TMIs, **ATC-0, or reductions in service are required**, the facility will **submit the Staffing Trigger Form to the NOM. The DDO will also initiate an upward notification to the AJT Vice President/Deputy Vice President (VP/DVP) or their designee immediately, detailing the impact to the NAS.**

NOTE-

1. Situations involving a minor disruption of air traffic services or a short duration ATC-0 situation that does not have an impact on the NAS should be reported to the DDO. The DDO will determine if a Staffing Trigger Form is to be submitted to the NOM. (e.g., a facility is opening a few minutes late without flight delays, airborne holding, or flight diversions.)

Add

2. The Staffing Trigger form is a fillable form created to ensure that the collection of key data elements related to a staffing constraint is captured and available to be forwarded to the NOM for upward distribution. The Staffing Trigger form is accessible at: <https://ksn2.faa.gov/ajt/Home/AJT23/BURST/Pages/default.aspx>

REFERENCE–

FAA Order JO 7110.65, Para 11–1–2, Duties and Responsibilities
|FAA Order JO 7210.3, Chapter 18, Section 6, Traffic Management Initiatives
FAA Form 7219–15, Staffing Constraint Report

REFERENCE–

FAA Order JO 7110.65, Para 11–1–2, Duties and Responsibilities
FAA Order JO 7210.3, Chapter 18, Section 6, Traffic Management Initiatives

1. PARAGRAPH NUMBER AND TITLE:

2–1–36. TRANSPORTATION SECURITY ADMINISTRATION AND FAA JOINT OPERATING PROCEDURES

2–7–6. SUSPICIOUS ACTIVITIES

2–7–7. COOPERATION WITH LAW ENFORCEMENT AGENCIES

2. BACKGROUND: These Document Change Proposals (DCPs) harmonize air traffic facility responsibilities for reporting information pertaining to security situations and suspicious activities to the Domestic Events Network (DEN). In paragraph 2–1–36, a reference is added that ties the reporting of security situations to suspicious activities around airports and FAA facilities. In paragraph 2–7–6, the DEN is added as a notification point for any suspicious activities around an airport or FAA facility. However, this change does not dismiss any responsibility of having to contact other entities as appropriate (such as local law enforcement). In paragraph 2–7–7, this Document Change Proposal (DCP) deletes obsolete references to the El Paso Intelligence Center (EPIC) and replaces them with notification to the DEN for any information pertaining to stolen aircraft. An additional DCP is in coordination for FAA Order JO 7110.65, paragraph 9–2–13, Law Enforcement Operations by Civil and Military Organizations, that adds the DEN as the reporting point for stolen aircraft and other suspicious activities concerning aircraft.

3. CHANGE:**OLD****2–1–36. TRANSPORTATION SECURITY ADMINISTRATION AND FAA JOINT OPERATING PROCEDURES****Title through a**

b. The above guidance does not preclude the ATM from taking immediate action in the event the ATM learns of an imminent and potentially life threatening security situation. In such situations, as soon as possible, the ATM must notify the DEN ATSC and the FSD of the situation, along with any action taken.

Add

NEW**2–1–36. TRANSPORTATION SECURITY ADMINISTRATION AND FAA JOINT OPERATING PROCEDURES**

No Change

No Change

NOTE–

For information concerning reporting of suspicious activities around airports and FAA facilities, see JO 7210.3, paragraph 2–7–6, Suspicious Activities Around Airports or FAA Facilities.

c and d

e. The responsibilities outlined in subparagraph 2-1-36a may be delegated as necessary.

OLD

2-7-6. SUSPICIOUS ACTIVITIES

FAA personnel must report suspicious activities to the nearest law enforcement agency, FBI, airport manager, aircraft operator, or any combination thereof as appropriate. These activities include, but are not limited to, unauthorized use of aircraft, tampering with aircraft or other property around airports or FAA facilities, placing packages or other objects in unusual locations, and performing in a manner that is suspect of malice. Do not attempt to delay, detain, or question suspects, but do attempt to keep the person or persons under surveillance until law enforcement representatives arrive.

Add

OLD

2-7-7. COOPERATION WITH LAW ENFORCEMENT AGENCIES

a. FAA personnel must cooperate in every reasonable way with law enforcement agencies. Theft of aircraft and use of aircraft for illegal purposes have complicated the task of the Federal law enforcement agencies. The FBI and Department of Homeland Security (DHS) have requested the FAA to assist them by furnishing information of suspicious activities regarding use of aircraft.

Add

No Change

e. The responsibilities outlined in **this paragraph** may be delegated as necessary.

NEW

2-7-6. SUSPICIOUS ACTIVITIES AROUND AIRPORTS OR FAA FACILITIES

ATC facilities must report suspicious activities (for example, unauthorized use of aircraft, tampering with aircraft or other property around airports or FAA facilities, placing packages or other objects in unusual locations, and any activity performed in a manner that is suspect of malice) on the Domestic Events Network (DEN) at 844-432-2962 (toll-free). In addition, these types of suspicious activities must be reported to local law enforcement, the airport manager, aircraft operator, or any combination thereof as appropriate. Do not attempt to delay, detain, or question suspects, but do attempt to keep the person or persons under surveillance until law enforcement representatives arrive.

NOTE-

Procedures for reporting other suspicious activities or security events are located in JO 7210.3, paragraphs 2-1-30 (Reporting Suspicious Aircraft/Pilot Activities); 2-1-32 (Reporting Unauthorized, Hazardous, or Suspicious UAS Activities); 2-1-36 (Transportation Security Administration and FAA Joint Operating Procedures); and 2-7-7 (Cooperation with Law Enforcement Agencies).

NEW

2-7-7. COOPERATION WITH LAW ENFORCEMENT AGENCIES

a. Theft of aircraft and other suspicious activities concerning aircraft have complicated the task of law enforcement agencies, particularly with federal drug enforcement efforts. Any information the Federal Bureau of Investigation (FBI) and Department of Homeland Security (DHS) obtains on these activities could assist their investigations. ATC facilities must report information pertaining to stolen aircraft and other suspicious activities concerning aircraft on the Domestic Events Network (DEN) as described in subparagraph c.

REFERENCE-

FAA Order JO 7210.3, Para 2-7-6, Suspicious Activities Around Airports or FAA Facilities.

b. Any inquiries from airport managers, aircraft owners, or others to initiate an alert message must be directed to the El Paso Intelligence Center (EPIC). EPIC is interfaced with the National Crime Information Center (NCIC), which gives them access to any stolen aircraft report entered by law enforcement agencies. FAA facilities must not volunteer to relay this information to EPIC. Assistance must be limited to providing the EPIC phone number, (915) 564-2220, or advising the inquiring party to go through normal law enforcement channels.

c. Reports of suspected human trafficking must be reported on the Domestic Events Network (DEN). If the ATC facility is not actively monitoring the DEN or does not have a dedicated line to the DEN, they must immediately report the above referenced activity on the DEN via (202) 267-4700 or 844-432-2962 (toll free). Either phone may be used to contact the DEN. Additionally, if these phone numbers are out of service, alternate back-up bridge phone numbers should be used to contact the DEN: 405-225-2444 or 844-663-9723 (toll free).

NOTE-

“Blue Lightning” is a code word used by the DEN and law enforcement agencies to refer to human trafficking activities.

b. The Blue Lightning Initiative, led by U.S. Customs and Border Protection and the Department of Transportation, trains airline personnel to identify potential traffickers and human trafficking victims, and to report their suspicions to federal law enforcement. Reports of suspected human trafficking must be reported on the DEN as described in subparagraph c.

c. Report on the DEN directly if the ATC facility is actively monitoring the DEN or has a dedicated line to the DEN. Otherwise the ATC facility must immediately report the above referenced activities on the DEN via 844-432-2962 (toll free). Additionally, if this phone number is out of service, alternate back-up bridge phone numbers should be used to contact the DEN: 405-225-2444 or 844-663-9723 (toll free).

Delete

1. PARAGRAPH NUMBER AND TITLE: 4-3-2. APPROPRIATE SUBJECTS

2. BACKGROUND: External Compliance Verifications have revealed there is confusion with the intent of the Note to FAA Order JO 7210.3BB, paragraph 4-3-2k4. The Note was intended to convey the appropriate use of these types of LOAs. However, the Note has been found to be contributory to the misapplication of the paragraph.

3. CHANGE:

OLD

4-3-2. APPROPRIATE SUBJECTS

Title through k3 REFERENCE

4. Control of vehicular traffic on airport movement areas.

NOTE-

The intent of these LOAs is to use them where airports have standard routes that traverse movement areas on a long term basis. These LOAs are not intended to allow short term operations, single situations, or “open-field” clearances.

NEW

4-3-2. APPROPRIATE SUBJECTS

No Change

No Change

Delete

1. PARAGRAPH NUMBER AND TITLE:

5-3-2. IDENTIFICATION OF SPECIAL DOE FLIGHTS

5-3-3. NOTIFICATION OF DOE REPORTED ACCIDENT/UNREPORTED AIRCRAFT

2. BACKGROUND: AJR-222 conducted discussions with the Department of Energy (DOE) Aviation Office on their use of the R-A-C call sign. Those discussions disclosed that the call sign is no longer used by DOE. DOE recommended AJR-222 contact the Federal Bureau of Investigation and the United States Air Force on their use of the call sign. They advised that they either never used or no longer utilize the R-A-C call sign.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
<u>5-3-2. IDENTIFICATION OF SPECIAL DOE FLIGHTS</u>	Delete
<u>a. When transporting radioactive/high explosive materials, DOE flights will be identified by using the prefix "RAC" followed by the last four digits of the aircraft registration number.</u>	Delete
<u>b. The special characteristics of the cargo dictate that the flight be carefully planned along selected routes. Pilots may refuse clearances that require route or altitude changes.</u>	Delete
<u>5-3-3. NOTIFICATION OF DOE REPORTED ACCIDENT/UNREPORTED AIRCRAFT</u>	Delete
<u>In the event a "RAC" flight is involved in an accident, inform the STMCIC of the appropriate ARTCC so that he/she may immediately notify local and state rescue and law enforcement authorities of the accident and tell them that the flight was transporting radioactive/high explosive materials. The STMCIC must then notify the DEN air traffic security coordinator (ATSC), and the ATSC will notify the DOE Operations Control Center of the accident via urgent telephone call at (702) 295-0311. The STMCIC must be informed whenever a loss of radio/radar occurs en route or the flight is overdue at the destination. The STMCIC must then notify the OMIC and the ATSC, and the ATSC will notify the DOE duty officer.</u>	Delete
<u>5-3-4</u> through <u>5-3-8</u>	Renumber <u>5-3-2</u> through <u>5-3-6</u>

1. PARAGRAPH NUMBER AND TITLE:

5-3-7. OPEN SKIES TREATY AIRCRAFT PRIORITY FLIGHTS (F and D)

2. BACKGROUND: “Stop Buzzer” procedures for OPEN SKIES Treaty priority flights (F or D) are being updated in FAA Order JO 7610.4, Special Operations, paragraph 2-7-7 (Stop Buzzer Procedures for GPS Interference Missions), via the DCP process. This DCP adds a Note to FAA Order JO 7210.3, paragraph 5-3-7, that points to the “Stop Buzzer” procedures in FAA Order 7610.4, paragraph 2-7-7. Both were in the coordination process together.

3. CHANGE:**OLD****5-3-7. OPEN SKIES TREATY AIRCRAFT PRIORITY FLIGHTS (F and D)****Title through d** *REFERENCE*

e. The air traffic manager of each facility through which the priority OPEN SKIES aircraft transits must ensure that a supervisory specialist(s)/CIC monitors the aircraft while in the facility’s airspace. The supervisory specialist(s)/CIC must monitor the movement of the priority OPEN SKIES aircraft from the flight’s entry into the facility’s airspace until the flight exits the facility’s airspace to ensure that priority handling, separation, control, and coordination are accomplished.

Add

REFERENCE-

FAA Order JO 7110.65, Subpara 2-1-4n, Operational Priority.
FAA Order JO 7110.65, Para 9-2-23, Open Skies Treaty Aircraft.
TREATY ON OPEN SKIES, TREATY DOC. 102-37.

NEW**5-3-5. OPEN SKIES TREATY AIRCRAFT PRIORITY FLIGHTS (F and D)**

No Change

No Change

NOTE-

Procedures that address GPS Radio Frequency Interference (RFI) when transiting an active GPS interference mission area are described in FAA Order JO 7610.4, paragraph 2-7-7, Stop Buzzer Procedures for GPS Interference Missions.

REFERENCE-

FAA Order JO 7110.65, Subpara 2-1-4n, Operational Priority.
FAA Order JO 7110.65, Para 9-2-22, Open Skies Treaty Aircraft.
TREATY ON OPEN SKIES, TREATY DOC. 102-37.

1. PARAGRAPH NUMBER AND TITLE: 10-3-9. VISUAL SEPARATION

2. BACKGROUND: NOTAM System Modernization has prompted simplification of the Chart Supplement. This Document Change Proposal seeks to change the posting location of operational procedures, as contained in a Letter to Airmen, concerning tower-applied visual separation between adjacent airport traffic control towers.

3. CHANGE:**OLD****10-3-9. VISUAL SEPARATION****Title through b**

c. Document the operation in a Letter to Airmen and publish it in the Special Notices Section of the Chart Supplement.

NEW**10-3-9. VISUAL SEPARATION**

No Change

c. Document the operation in a Letter to Airmen and publish it **on the Federal NOTAM System (FNS) website.**

1. PARAGRAPH NUMBER AND TITLE:

18-23-1. PURPOSE

18-23-2. DEFINITION

18-23-3. RESPONSIBILITIES

18-23-4. PROCEDURES

2. BACKGROUND: Revision F of JO 1900.47, Air Traffic Control Operational Contingency Plans, effective March 31, 2020, eliminated the requirement for Air Route Traffic Control Centers (ARTCCs) to maintain non-radar contingency routes in the Air Traffic Control System Command Center's (ATCSCC) Contingency Plan Support System (CPSS). With the removal of this requirement, the CPSS is no longer needed, and the policies and guidelines for managing data within the CPSS as contained in JO 7210.3, Facility Operation and Administration, are no longer applicable.

3. CHANGE:**OLD****NEW****Section 23. Contingency Plan Support System (CPSS)**

Delete

OLD**NEW****18-23-1. PURPOSE**

Delete

This section prescribes policies and guidelines for managing ARTCC Operational Contingency Plan (OCP) data within the Contingency Plan Support System (CPSS). The CPSS is maintained via the RMT.

Delete

OLD**NEW****18-23-2. DEFINITION**

Delete

CPSS is a collection of contingency non-radar routes maintained by the ATCSCC on an internal website. CPSS data is available via the "Contingency Plan" tab located at: <http://www.atcsc.faa.gov/ois>.

Delete

OLD**NEW****18-23-3. RESPONSIBILITIES**

Delete

a. The ATCSCC must designate a POC for the management of the CPSS.

Delete

b. ARTCCs must:

Delete

1. Develop and maintain the accuracy of OCP data within CPSS following FAA Order JO 1900.47, Air Traffic Organization Operational Contingency Plan.

Delete

2. Designate a POC to coordinate with the ATCSCC on the management of the ARTCC's CPSS database information.

Delete

3. Coordinate with all affected facilities when changing CPSS data before including them in the CPSS database.

Delete

4. Ensure that CPSS data are available to operational positions.

Delete

NOTE-

Before publication in the CPSS, the facility must ensure that hardcopy, or other electronic means of making this information available, is provided to operational personnel and the ATCSCC.

Delete

5. Tell all affected offices when making any change to the National Airspace System that might affect internal or adjacent ARTCC contingency plans (for example, airway changes, frequency changes, airspace redesign, airway realignment, etc.)

Delete

6. Report unusable, inaccurate, or unsatisfactory CPSS information directly to the ATCSCC CPSS POC. Real-time implementation problems should be reported to the ATCSCC National System Strategy Team and to the ATCSCC CPSS POC. Reports must include the facility plan name, affected sectors, specific description of the impact, and if appropriate, suggestion for modification.

Delete

7. Coordinate with underlying terminal facilities for all matters pertaining to CPSS data information.

Delete

c. Service Center Operations Support Group must:

Delete

1. Review CPSS data for currency and consistency.

Delete

2. Serve as liaison between ARTCCs and ATCSCC on CPSS matters.

Delete

3. Serve as information and training resource for ARTCCs to help them maintain current and accurate information in CPSS.

Delete

OLD

18-23-4. PROCEDURES

NEW

a. Contingency non-radar route data must be published in CPSS. Updates will coincide with the 56-day chart update cycle.

Delete

Delete

b. Non-radar data is processed via the RMT in accordance with the following timelines:

Delete

1. All revisions to CPSS data must be provided to the ATCSCC CPSS POC at least 30 days before each chart date.

Delete

2. The ATCSCC POC must enter all revisions to the CPSS data at least 14 days before the chart update. The RMT database will then be locked.

Delete

Section 24 through **26**

Renumber **Section 23** through **25**
