

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

JO 7210.3AA CHG 3

Air Traffic Organization Policy

Effective Date: February 28, 2019

SUBJ: Facility Operation and Administration

1. Purpose of This Change. This change transmits revised pages to Federal Aviation Administration Order JO 7210.3AA, 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 Web site 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 Retain this transmittal until superseded by a new basic order.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.

Original Signed By: Jodí S. McCarthy

Jodi S. McCarthy Vice President, Mission Support Services Air Traffic Organization

Date: February 5, 2019

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 11–10–1. PROGRAM DESCRIPTION 11–10–2. UAS FACILITY MAPS (UASFM) 11–10–3. PART 101E NOTIFICATIONS 11–10–4. PART 107 ATC AUTHORIZATIONS 11–10–5. FURTHER COORDINATION 11–10–6. UAS SERVICE SUPPLIER (USS) 11–10–7. VOLUNTARY NOTIFICATION

11–10–7. VOLUNIARY NOTIFICATION 11–10–8. REQUIRED NOTIFICATION 11–10–9. REQUIRED AUTHORIZATION 11–10–10. FACILITY RESPONSIBILI-

TIES

This change adds a new section to Chapter 11, which provides guidance on Unmanned Airspace Systems (UAS) operations occurring in the National Airspace System (NAS). This change cancels and incorporates N JO 7210.909, effective April 30, 2018.

b. 2–1–6. CHECKING ACCURACY OF PUBLISHED DATA

This change removes obsolete information from the paragraph.

c. 2–1–8. OPERATIONS DURING A STAFFING CONSTRAINT

This change adds a new paragraph which outlines required steps that must be taken by a facility prior to submitting a Staffing Constraint Report to the National Operations Manager in order to request Traffic Management Initiatives to help mitigate a reduction in services as a result of staffing shortages.

d. 2–1–28. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT

This change adds a requirement for air traffic control to report laser illumination incidents to local law enforcement, and report law enforcement contact information via the DEN to the ATSC and via the comprehensive CEDAR program. ATC facilities are still required to document the incident as a MOR via CEDAR and in accordance with FAA Order JO 7210.632, Air Traffic Organization Occurrence Reporting.

e. 3-1-1. BASIC EQUIPMENT

This change removes TBL 3–1–1, Certified and Uncertified Systems, from the order. Maintaining which systems are certified or not certified is not appropriate in this order.

f. 3–3–12. USE OF CORDLESS HEADSETS IN OPERATIONAL AREAS

This change adds a new paragraph to chapter 3, section 3, which describes the authorization for use of cordless headsets, restrictions, technical specifications, and disposition.

g. 3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION (TERMINAL/MEARTS)

This change updates offices, ensures accurate references, and outlines current procedures.

h. 6–3–1. HANDLING SIGMETS, CWAS, AND PIREPS 6–3–4. FLIGHT DATA UNIT

17–26–4. RESPONSIBILITIES

This change incorporates the ATO's Top 5 PIREP Corrective Action Plan to ensure FAA Order JO 7210.3 contains consistent guidance regarding the solicitation and dissemination of PIREPs. This change includes special emphasis on dissemination of solicited and unsolicited routine PIREPs.

i. 6-3-4. FLIGHT DATA UNIT

This change instructs Flight Data Communications Specialists at ARTCCs on how to properly obtain and relay clearance requests.

j. 10-3-9. VISUAL SEPARATION

This change adds a new paragraph regarding special provisions, conditions, and limitations from each of the approved tower–applied visual separation waivers. This change cancels and incorporates N JO 7210.911, effective June 18, 2018.

k. Chapter 11. FAA Contract Tower Operation and Administration

This change adds the content of FAA Order JO 7210.54C into a new chapter in FAA Order JO 7210.3 entitled, FAA Contract Tower Operation and Administration.

I. 14–3–4. REDUCING RECORDED WEATHER INFORMATION SERVICES

This change documents that Telephone Information Briefing Services (TIBS) will only be provided by Alaska Flight Service Stations.

m. 17–8–2. IMPLEMENTATION PROCEDURES

This change is the initial phase of improving the Traffic Flow Management System (TFMS) Monitor Alert (MA) function. AJR, in conjunction with the MITRE Corporation, has developed a workload– based methodology to replace the current formula for computing MAP values. Specifically, the change will replace the average sector flight time table with a description of the workload–based methodology. This change cancels and incorporates N JO 7210.913, effective November 26, 2018.

n. Appendix 3 – Air Carrier Aircraft for Air Traffic Activity Operation Count

The aircraft type designators and associated aircraft models have been updated to reflect present aircraft types that meet the definition of an air carrier aircraft.

o. Editorial Changes

Editorial changes include updates to the DEN phone number and update to Appendix 5.

p. Entire Publication

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

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Abbreviation	Meaning
FSA	Flight schedule analyzer
FSDO	Flight Standards district office
FSL	Full service level
FSM	Flight Schedule Monitor
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 Ca-
	pability
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

Abbreviation	Meaning
MEARTS	Micro En Route Automated Radar Tracking System
METAR	Aviation Routine Weather Report
MIA	Minimum IFR altitude
MIAWS	Medium Intensity Airport Weather System
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
ОМ	Operations Manager
OPR	Office of primary responsibility
OS	Operations Supervisor
OSIC	Operations Supervisor-in-Charge
P-ACP	Prearranged coordination procedures

Abbreviation	Meaning
PAR	Precision approach radar
РВ	Pilot briefing
PCS	Power Conditioning System
PDC	Pre-Departure Clearance
PIC	Pilot-in-command
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)
RATCF	Radar Air Traffic Control Facility associated with the United States Navy
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
RVV	Runway visibility value
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
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

Abbreviation	Meaning
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
SWAP	Severe weather avoidance plan
SWS	Surface Weather System
Т&А	Time and attendance
ТАС	Terminal area chart
TACAN	Tactical air navigation aid
тса	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
TEL-TWEB	Telephone-transcribed weather broadcast
TERPS	Terminal instrument procedures
TFMS	Traffic Flow Management System
TFR	Temporary flight restriction
TIBS	Terminal information broadcast system
ТМ	Traffic management
ТМС	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
TWEB	Transcribed weather broadcast
UA	routine PIREPs
UAS	Unmanned Aircraft System(s)
UASFM	Unmanned Aircraft System(s) Facility Map
USS	Unmanned Aircraft System(s) Service Suppli-
	er
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

Abbreviation	Meaning
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
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/aer onav/ procedures

b. http://aerochart.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 4-3-6, 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) 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.

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

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

General

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 16–1–3, 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 150/5210–7C, 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 150/5210–7C, Airport 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

a. 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.

1. 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.

(a) 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.

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

2. *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.

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

(a) The designated facility official must email each occurrence to AFS-300 at 9-AWA-AFS-300-ADSB-FIDReport@faa.gov.

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

(a) Date/time of occurrence.

(b) Location (e.g., RUS VORTAC, sector 90, Shannon Airport).

(c) Call signs involved in the occurrence.

(d) Date occurrence is reported by facility.

(e) Office/person that facility contacted.

b. Each aircraft is expected to broadcast a unique ICAO address. Should two or more aircraft broadcast the same ICAO address within the same ADS-B

Service Volume (regardless of altitude), the ADS–B network may be unable to resolve the targets. Facility managers must ensure that operations supervisors report those occurrences to a designated facility official and that the following actions be taken:

1. Scheduled air carrier aircraft:

(a) 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 and request that action be taken to have the ICAO address reviewed for correctness.

(b) If other than one of the carriers listed in Appendix 2, Air Carrier Points of Contact for Aircraft Identification Problems, contact the operator or the chief pilot of the carrier concerned and request that action be taken to have the ICAO address reviewed for correctness.

2. Military aircraft: Contact base operations of the departure airport and request that action be taken to have the ICAO address reviewed for correctness. If additional assistance is required, immediately advise the military representative assigned to the Service Area office.

3. Civil aircraft other than air carrier: Advise Mission Support Services, Aeronautical Information Management, when two or more aircraft broadcast the same ICAO address within the same ADS–B Service Volume.

(a) The designated facility official must email each occurrence to AFS-300 at 9-AWA-AFS-300-ADSB-FIDReport@faa.gov.

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

(a) Date/time of occurrence.

(b) Location (e.g., RUS VORTAC, sector 90, Shannon Airport).

(c) Call signs involved in the occurrence.

(d) Date occurrence is reported by facility.

(e) 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 Identification, 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, Paragraph 7-3-1, 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-

Advisory Circular 91-57, Model Aircraft Operating Standards.

11. Any situation or pilot activity (for example, background noise, change in pilot's voice character-

istics, 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 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

2–1–33. 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

2-1-34. 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.

2–1–35. 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.

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 subparagraph 2–1–34a may be delegated as necessary.

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

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.

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.

b. Any inquires 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 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).

NOTE-

"Blue Lightning" is a code word used by the DEN and law enforcement agencies to refer to human trafficking activities.

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.

Chapter 3. Facility Equipment

Section 1. General

3-1-1. BASIC EQUIPMENT

a. The basic operating equipment for ARTCCs consists of flight progress boards, radar displays, communications, and automation equipment. At facilities utilizing ATOP, additional equipment consists of Air Traffic Situation Displays and Auxiliary Displays. This equipment is arranged in individual units called sectors and laid out in accordance with master plans maintained in the En Route and Oceanic Service Area offices. Air traffic managers may recommend changes to these plans.

b. The basic operating equipment for terminals consists of a control desk, frequency control panel, weather instruments, recorders and, as required, "data communication," radar, and automation equipment arranged in many different configurations according to the type of facility and generally conforming to master plans maintained in Terminal Service Area offices. Air traffic managers may recommend changes to these plans.

1. At terminal facilities where certified information display system (IDS) equipment is installed, the IDS must be the display source for the time, DASI, RVR, wind (including wind shear ribbon display terminals), and weather data from ASOS, AWOS, SAWS, SWS, etc.

2. If all control positions are using a certified IDS, no more than one legacy display for each type (DASI, RVR, etc.) may remain in the tower and/or TRACON for back-up purposes.

3. Facilities that use uncertified IDS must ensure the information is cross-checked with the actual source for accuracy in accordance with the facility's daily watch checklist (for example, ASOS, RVR, LLWAS, etc.).

NOTE-

For facilities using certified systems, these comparisons are performed by technical operations personnel.

4. Air traffic facilities that use electronic IDS must ensure that all displayed information is current. Facilities must ensure that any information with a scheduled expiration is removed from the controller display at the time of expiration. If the system is capable of automatically removing expired information, it must be configured to do so.

NOTE-

This includes Notice to Airmen (NOTAM) information which may be viewed on the Aeronautical Information System Replacement (AISR) or at: https://notams.aim.faa.gov/notamSearch.

c. The basic operating equipment for FSSs consist of radio and landline communications equipment, flight progress boards, pilot briefing equipment, recorders, "data communication" equipment, displays of aeronautical and meteorological information, direction-finding equipment, aircraft orientation plotting boards, "orientation, directionfinding equipment and aircraft orientation" arranged according to master plans maintained in Flight Service Area offices. Air traffic managers may recommend changes to these plans.

3-1-2. PERIODIC MAINTENANCE

a. Requests from Technical Operations personnel for approval to shut down air traffic system components for periodic maintenance are forwarded to the air traffic facility having approval authority.

b. If conditions prevent approval of the shutdown at the time requested, the OMIC/OSIC should cooperate fully and work with Technical Operations personnel in arranging an alternative time. Ordinarily, shutdowns of air traffic system components should be planned to occur during the hours of least traffic activity regardless of the time of day.

NOTE-

The OMIC/OSIC should coordinate with System Operations Traffic Management in determining alternate times.

c. When a NAVAID shutdown will affect another facility's operation, the facility having approval authority must coordinate with other facilities concerned.

3–1–3. NATIONAL AIRSPACE SYSTEM (NAS) CHANGES

When programs are initiated which will result in inauguration, commissioning, alteration, or decommissioning of NAS components (NAVAIDs, facilities, services, etc.), supervisors must ensure, to the extent practicable, that effective dates coincide with the U.S. 56-day cycle effective dates for charting publications.

3-1-4. TRAFFIC LIGHTS, GATES, AND SIGNALS

Air traffic personnel must not operate traffic lights, gates, signals, or similar devices for restricting or preventing transit of persons or vehicles between airport movement areas and other on/off airport areas, or to control vehicular traffic on streets, highways, rail, or other similar areas when traffic thereon may be incompatible with aircraft operations. The control of such traffic is the responsibility of airport management or other appropriate authorities.

3-1-5. CLEANING INSTRUMENT COVERS

Air traffic managers must ensure that personnel use a moist cloth when cleaning glass or plastic instrument covers to preclude the creation of static charges.

NOTE-

FSS OASIS facilities should exercise caution in the handling of flat panel monitors. Do not touch the screen with any object, including hands. Damage to the screen will occur. Detailed instructions for the care of the monitors can be found in the WINGS Systems Users Guide.

3–1–6. ENGINE GENERATOR TRANSFER PROCEDURES FOR ANTICIPATED POWER FAILURE

a. STMCIC or OSIC at terminal facilities and ARTCCs must inform the systems engineer (SE) or other appropriate Technical Operations supervisor of any severe storm activity approaching the facility. The STMCIC or OSIC must advise the OMIC.

b. At facilities without an operational power conditioning system (PCS), the STMCIC or OSIC must coordinate with the SE or other appropriate Technical Operations supervisor to determine a mutually acceptable time to change to/from generator power.

NOTE-

1. Air traffic and Technical Operations personnel are required to monitor weather reports and radar to determine when severe storm activity is approaching a facility. At least 30 minutes prior to the estimated arrival of a severe storm in the area of a facility, maintenance personnel will start engine generators at facilities as indicated in appropriate agency directives. (These include the Facilities Master File; FAAO JO 6030.31, National Airspace System Failure Response; local contingency/emergency plans, or any other directives pertaining to restoration of services.) This 30-minute start-up requirement does not apply at facilities where at least one of the following conditions exists:

a. The facility has an operational PCS.

b. Maintenance personnel are not on duty at the time action is required.

c. Air traffic has remote control of the engine generators.

2. After coordinating with air traffic, Technical Operations must (depending on the type of auxiliary power system) either place the facility on generator power or place the generator on the loadbank until the storm activity has left the area. (The change back to commercial power will be made at the coordinated time.)

3. It is important to note that at facilities with an operational PCS, no action other than the initial storm notification is required since the transfer to generator power occurs automatically with no power interruption when commercial power fails.

REFERENCE-

FAAO JO 6030.31, National Airspace System Failure Response

3-3-8. VSCS FREQUENCY BACKUP

a. Assign each "Radar Associate" position the identical frequencies as the "Radar" position except where precluded by system hardware/software limitations or facility needs.

b. If the conditions of paragraph a cannot be met, the frequencies needed to control each sector must be available at another position. This level of redundancy assures all A/G frequencies can readily be covered in the case of VCE outage.

3-3-9. VSCS RECONFIGURATIONS

a. Air traffic VSCS positions listed as "released to maintenance" must not be reconfigured unless prior approval has been received from Technical Operations.

b. When approval has been obtained and the reconfiguration action has been completed, return the previously released position to Technical Operations and continue to list the position as "released to maintenance," or as directed by Technical Operations.

NOTE-

During the period that the VSCS position is listed as "released to maintenance," this procedure must be utilized whenever a reconfiguration to the position is required.

3-3-10. VTABS (VSCS TRAINING AND BACKUP SYSTEM)

a. Facility air traffic managers must ensure that local procedures are developed which will accommodate switching from VSCS to a VTABS operation. These procedures must include, but not be limited to:

1. Controllers must, in the event that VSCS air/ground communications capabilities are lost, notify the operational supervisor and attempt to access all air/ground resources through the VSCS via Main, Standby, and BUEC.

2. The operational supervisor must notify the operations manager-in-charge (OMIC) and consider combining sectors within the area before going to a VTABS operation. The VTABS system is designed wherein the entire facility must be switched over to VTABS. Consider all alternatives before making the transition to VTABS. If these resources are

unsuccessful, the OMIC must coordinate with the NOM to transition to VTABS.

3. Operational supervisors must ensure the VTABS sector map configurations are appropriate for the operation.

4. Controllers must verify the appropriate VTABS frequency mode; i.e., main, standby, or BUEC, for their operating position, since the VTABS frequency selection will be in the same mode as when it was last used.

b. When a catastrophic loss of VSCS occurs and transfer to a VTABS configuration becomes necessary, the OMIC must assure that the procedures established in Paragraph 2–1–7, Air Traffic Service During Planned and Unplanned Outages, are adhered to.

3-3-11. HEADSET TONE INCIDENTS

FAA Contract Towers (FCT) NOT APPLICABLE.

a. Facility air traffic managers will ensure that reported headset tones are documented, the Safety Management Information System (SMIS) is updated, and affected equipment tested. Headset tone incidents must be handled in accordance with Appendix 5, Checklist for Reported Headset Tone Incidents.

b. If an employee wishes to file a claim due to a headset tone, the OS/CIC will ensure reporting is done in accordance with FAA Order 3900.19 Paragraph 702, Reporting Mishaps.

NOTE-

Headset tone incidents are automatically reported to the Environmental and Occupational Safety and Health (EOSH) Safety and Environmental Compliance Manager (SECM) through the SMIS.

REFERENCE– FAA Order 3900.19, FAA Occupational Safety and Health Program.

3-3-12. USE OF CORDLESS HEADSETS IN OPERATIONAL AREAS

a. Plantronics cordless headsets, model CA12CD, may be used in operational areas by positions that require only monitoring of operations and/or to affect landline communications. These positions include: Operations Manager–in–Charge (OMIC), Operational Supervisor–in–Charge (OSIC), Operations Supervisor (OS), Controller–in–Charge (CIC),

Traffic Management Coordinator (TMC), and Coordinators.

b. Cordless headsets are not authorized for use in two-way communications with aircraft or for any other function that includes over-the-air broadcasting.

c. Air Traffic Managers must ensure operational personnel who use cordless headsets are trained on the use, application, and limitations of the CA12CD prior to operational use.

d. ATC facilities must not use more than 30 cordless headsets. Co-located facilities (control rooms within 150 feet) must not use more than 30 cordless headsets, combined.

1. Under ideal conditions, the maximum useable range between the base station and cordless

headset is 100 feet (Multiple users may reduce the effective range of the headsets).

2. Base stations must be separated by at least 3 feet from each other.

e. Use of cordless headsets during the conduct of a performance or certification skill check must be done in accordance with the provisions of direct monitoring.

REFERENCE-

FAA Order JO 3120.4, Air Traffic Technical Training

f. Cordless headsets that cause or receive interference must be immediately removed from service. Where applicable, FAA Technical Operations must be informed of the actual or suspected interference.

Section 8. Other Displays

3–8–1. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) FOR FACILITIES PROVIDING TERMINAL APPROACH CONTROL SERVICES

Air traffic managers must determine the location and the method for the display of vectoring altitude charts to provide controllers with the minimum vectoring altitudes as follows:

a. Where the system is configured to display single radar sensors, provide:

1. An MVAC that accommodates the largest separation minima of all available sensors; or

2. Unique MVACs that accommodate the appropriate separation minima of each available sensor.

b. Where the system is configured to simultaneously display multiple radar sensors, provide an MVAC that accommodates the largest separation minima of all available sensors; or

c. Where the system is utilizing FUSION mode, develop an MVAC that provides:

1. Three-mile separation minima or more from obstacles, except when applying the provision in paragraph 3–8–1c2. The MVAC must depict obstacle clearances, outward to the lateral limits of the associated approach control airspace and an appropriate buffer outside the lateral approach control airspace boundaries. As a minimum, this may be accomplished by using the existing single-sensor MVAC for the predominant radar sensor; and

2. Five-mile separation minima from obstacles for use whenever the FUSION system cannot provide 3-mile separation due to degraded status or system limitations.

d. At locations adding FUSION, provided the facility uses existing MVA charts with 3-mile buffers and an MVAC with 5-mile buffers, additional charts do not need to be developed to support FUSION.

NOTE-

Mission Support Services–Aeronautical Products, ATC Products Group should be contacted if assistance is required. (See FAAO 8260.3, United States Standard for Terminal Instrument Procedures (TERPS) Chapter 10.) **REFERENCE–** FAA Order JO 7110.65, Para 5–5–4, Minima.

3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION (TERMINAL/MEARTS)

Prepare a vectoring chart in accordance with the criteria contained in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

a. MVACs must be developed and maintained using the Web-based Sector Design and Analysis Tool (Web–SDAT). Facility Managers may request assistance in the development and maintenance of their MVAC or request SDAT user support by soliciting the Program Management Office, Aeronautical Services Group. MVACs developed in SDAT properly apply obstruction clearance criteria required by FAA Order 8260.3. SDAT completes FAA Form 7210-9 and automatically creates and sends the necessary data files to Mission Support Services, ATC Products Group upon certification for subsequent radar video map creation. Facility correspondence to ATC Products regarding MVACs and video maps must be accomplished via email to 9-AJV-HQ-ATCPRODUCTS.

NOTE-

MVAs are established without considering the flightchecked radar coverage in the sector concerned. They are based on obstruction clearance criteria and controlled airspace only. It is the responsibility of the controller to determine that a target return is adequate for radar control purposes.

b. At a minimum, the airspace considered for providing obstacle clearance information on MVA charts must accommodate the facility's delegated area of control as well as adjacent airspace where control responsibility is assumed because of early handoff or track initiation.

c. MVACs may be subdivided into sectors to gain relief from obstacles that are clear of the area in which flight is to be conducted. There is no prescribed limit on the size, shape, or orientation of the sectors.

d. Depict the sectors in relationship to true north from the antenna site.

e. Facility requests for reduced required obstruction clearance (ROC) in an area designated as

mountainous in accordance with 14 CFR, Part 95, Subpart B, must conform to the following procedures:

1. Designated mountainous terrain must be evaluated for precipitous terrain characteristics and the associated negative effects. Facility managers must use FAA Order 8260.3, paragraph 15–2–1, as a guide when considering ROC reductions in designated mountainous areas. ROC reductions are not authorized where negative effects of precipitous terrain are documented or known having followed the process contained in subparas e2 and 3 below. ROC reductions within designated mountainous areas are only authorized by complying with at least one of the following criteria:

REFERENCE-

FAA Order 8260.3, Appendix 1, Glossary Term, Precipitous Terrain.

(a) Where lower altitudes are required to achieve compatibility with terminal routes.

(b) To permit vectoring within the airport radar traffic pattern area for either a departure procedure, an instrument approach procedure, or a visual approach to an airport. Air traffic managers must define each airport's radar traffic pattern area for which ROC reductions are sought. These areas must include sufficient maneuvering airspace necessary for ATC sequencing and spacing of traffic in the vicinity of an airport.

2. Where mountainous terrain has been deemed precipitous by the air traffic facility, each ROC reduction request must include a query to an independent data source, such as NASA's Aviation Safety Reporting System to determine if any ground proximity warnings have been reported in the subject area. After completing the query, consider the facility's history and experiences with turbulence at the minimum altitude requested. Avoid ROC reductions where reported ground proximity warnings relate to both existing MVA sector altitude ROC reductions and rapid terrain elevation changes. ROC reduction requests in these areas may require additional evaluation and review.

REFERENCE-

FAA Order 8260.3, Appendix 1, Glossary Term, Precipitous Terrain.

3. The facility MVAC package must include a detailed account of the steps taken by the facility to determine if the sector will qualify for taking a ROC reduction in the sector. This data will be reviewed by the Service Center Operations Support Group (OSG)

and the ATC Products Group personnel for ROC reduction approval. Service Center Operations Support personnel must be the approving authority for ROC reduction criteria compliance with paragraph e1(a) and (b) above. Previously approved reductions in ROC justifications must be resubmitted for approval during a facility's recurring certification process.

NOTE-

Should a ROC reduction request be denied by Service Center Operations Support personnel, the manager may appeal the decision to the appropriate Service Area Director of Air Traffic Operartions.

4. In the advent of the development of an automated precipitous terrain algorithm certified by AFS, the automated method will be used in lieu of the manual method described above.

5. Ensure MVA areas submitted for ROC reductions do not cover large geographical areas that include locations that would not, individually, meet ROC reduction standards. In such cases, the ATC Products Group may work with the Service Center and the facility to design a sector that will pass the approval process for a particular approach/departure route.

6. Whenever a ROC reduction is taken, the rationale/justification for taking the ROC reduction as defined in subparagraph e1 must be included in the MVAC package by facility managers.

7. ROC reductions should only be requested when there is a demonstrated operational need.

f. An assumed adverse obstacle (AAO) additive is required in areas not designated as mountainous (ROC 1,000 feet) and in designated mountainous terrain areas when any ROC reduction is requested.

g. Resultant MVAs may be rounded down to the nearest 100-foot increment (those that are xx49 feet or less), except in the following cases:

1. Any locations outside of the Contiguous United States.

2. Where any part of an MVA Sector is more than 65 NM from the issued altimeter source.

3. When all of the following conditions are applicable:

(a) the MVA Sector is within designated mountainous areas by 14 CFR Part 95,

(b) the terrain is deemed precipitous by facility Air Traffic Management,

(c) the previous 5 year average low temperature at the primary airport is documented to be less than the temperature shown in TBL 3–8–1 for the amount of ROC reduction requested. Retain temperature documentation locally with approved 7210-9. Use TBL 3–8–1 to determine the extent of mountainous terrain reduction permitted if rounding down, based on the average low temperature. Comply with the following process to determine the average low temperature.

(1) Go to the National Climatic Data Center web site at www.NCDC.noaa.gov.

(2) Click on "Data Access" link on blue bar.

(3) Click on "Quick Links".

(4) Click on "Global Historical Climatology Network" link.

(5) Click on "Global Summary of the Year".

(6) Accept the default date, select "Stations" in the search for field, then enter the station representing the primary airport. Then click on search.

(7) Click on the airport name. When the page opens, scroll down to "View Station Data". Select the year interested in. Then view data.

(8) A report will appear, then go to the second page. Document the EMNT value. Select each relevant year and document the EMNT for that year. Then calculate the 5-year average.

TDT 2 0 7

1	BL 3-8-1
ROC Reduction/Temperature Table	
Requested ROC	Minimum Average Low
Reduction	Temperature

Reduction	Temperature
100'	-40°C/-40°F
200'	-35°C/-31°F
300'	-30°C/-22°F
400'	-25°C/-13°F
500'	-20°C/-4°F
600'	-15°C/5°F
700'	-10°C/14°F
800'	-5°C/23°F
900'	0°C/32°F
1000'	7°C/45°F(2°C/36°F when
	MVA sector is within 35
	NM of issued altimeter)

Other Displays

h. Managers requesting to waive criteria contained in FAA Order 8260.3, must submit FAA Form 8260-1, Flight Procedures/Standards Waiver in conjunction with the MVA project. This waiver form will contain the criteria requested to be waived, with the operational need fully explained, and examples of how the facility will achieve an equivalent level of safety, if approved. The package will be sent to the ATC Products Group through the Service Center OSG. Upon completion of the ATC Products Group review, the package will be forwarded to the Flight Procedure Implementation and Oversight Branch. For the Flight Standards Waiver process, facility managers do not need to complete a Safety Management System evaluation. An electronic copy of the completed waiver package must be sent to Operations Headquarters Directorate, AJT-2, at 9-AJT-HQ-Correspondence.

i. MVAs must not be below the floor of controlled airspace and should provide a 300-ft buffer above the floor of controlled airspace. In some cases, this application will result in an exceptionally high MVA (for example, in areas where the floor of controlled airspace is 14,500 MSL). When operationally required to vector aircraft in underlying Class G (uncontrolled) airspace, 2 MVAs may be established. The primary MVA must be based on obstruction clearance and the floor of controlled airspace. A second, lower MVA that provides obstruction clearance MVA must be uniquely identified; for example, by an asterisk (*). Do not consider buffer areas for controlled airspace evaluations.

j. If new charts prepared using SDAT create a significant impact on a facility's operation, the impact must be coordinated with Operations Headquarters Directorate, AJT-2, for joint coordination with System Operations.

NOTE-

Significant impacts include changes to flight tracks for turbine-powered aircraft, multiple losses of cardinal altitudes, and/or reductions in airport arrival/departure rates.

k. Air traffic managers may request to merge adjoining, like altitude MVA sectors that resulted from using differing design criteria provided the merged sectors are identified in the remarks on FAA Form 7210–9 and a statement is included with each affected sector that the merged sectors are for Radar Video Map (RVM) presentation only; for example,

Sector B, B1, and B2 are to be merged in SDAT shape files for RVM presentation only.

I. Air traffic managers must submit the request for MVACs to the appropriate Service Center OSG for review. The Service Center OSG must then forward the requested MVAC to the ATC Products Group for processing.

m. Each request must indicate the MVAC was accomplished in Web–SDAT, stored in the Web–SDAT database and when necessary, include a statement regarding the issued altimeter settings being within 65 NM of a rounded down sector and/or provides the 5–year average cold temperature.

n. Each request must include the SDAT generated Form 7210-9 with the manager's signature and point of contact at the submitting facility. Form 7210-9 must also be an electronic copy with the manager's signature, and imported into the MVA project file. When applicable, each Form 7210-9 must include explanations/justifications for ROC reduction requests. The MVA request with the 7210-9 will be electronically forwarded to the OSG. When the capability of electronic signatures is developed within SDAT, Form 7210-9 may be transmitted electronically between the facility, Service Center, and ATC Products Group in lieu of the paper process. SDAT will automatically store the approved MVAC package in the National Airspace System Resource (NASR).

o. When more than one chart is used, prepare those charts with the oldest review/certification date(s) first to help avoid lapses in annual review/certification requirements.

p. New charts that result in significant operational impacts must not be implemented by air traffic managers until associated changes to facility directives, letters of agreement, and controller training are completed within a period not to exceed 6-months from new chart certification.

q. Once a chart without significant operational impacts has been approved, it must be implemented as soon as possible. MVAC installations projected to be more than 60 days from date of approval must be coordinated with and approved by,the Service Center OSG.

r. Air traffic managers must ensure that MVACs are periodically reviewed for chart currency and simplicity and forwarded for certification to the ATC Products Group at least once every 2 years. Charts must be revised immediately when changes affecting MVAs occur.

3–8–3. ALTITUDE ASSIGNMENTS TO S/VFR AND VFR AIRCRAFT

Where procedures require altitude assignments to S/VFR and VFR aircraft less than the established IFR altitude or MVA, facility air traffic managers must determine the need and the method for displaying the appropriate minimum altitude information.

REFERENCE-FAA Order JO 7110.65, Para 7–5–4, Altitude Assignment. FAA Order JO 7110.65, Para 7–8–5, Altitude Assignments.

3-8-4. EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)

a. An EOVM must be established at all terminal radar facilities that have designated mountainous areas as defined in 14 CFR Part 95, Subpart B, within their delegated area of control and an available channel in their video mappers. This map is intended to facilitate advisory service to an aircraft in an emergency situation in the event an appropriate terrain/obstacle clearance minimum altitude cannot be maintained. (See FIG 3–8–1.)

NOTE-

Appropriate terrain/obstacle clearance minimum altitudes may be defined as MIA, MEA, Minimum Obstruction Clearance Altitude (MOCA), or MVA.

b. Alternatives, such as combining existing maps, eliminating a lower priority map or, as a least desirable alternative, merging the EOVM with the MVA map, must be considered when necessary to accommodate the EOVM.

c. EOVM Use: The EOVM must be used and the advisory service provided only when a pilot has declared an emergency or a controller determines that an emergency condition exists or is imminent because of the inability of an aircraft to maintain the appropriate terrain/obstacle clearance minimum altitude/s.

d. EOVM Design:

1. The basic design of the EOVM must incorporate the following minimum features:

Section 3. Operations

6-3-1. HANDLING OF SIGMETS, CWAS, AND PIREPS

a. SIGMETs and CWAs:

1. The CWSU meteorologist is the focal point for the review of SIGMETs to determine application to the ARTCC area of responsibility and may issue a CWA to modify or redefine the SIGMET information.

2. The CWSU meteorologist may also issue a CWA in advance of a SIGMET when the observed or the expected weather conditions meet SIGMET criteria or when conditions do not meet SIGMET criteria but are considered significant.

3. The weather coordinator (WC) has the primary responsibility for the inter/intrafacility dissemination of AIRMETs, SIGMETs, urgent PIREPs (UUA), routine PIREPs (UA), and CWAs and must ensure that sufficient information is disseminated to facilitate the required alert broadcasts.

REFERENCE-FAA Order JO 7210.3, Chapter 18, Section 26. Weather Management.

4. Terminal ATC facilities must relay the SIGMET and the CWA information to towers under their jurisdiction.

b. PIREPs:

1. The WC is the focal point for handling PIREP requests and for the dissemination of urgent and routine PIREPs within the ARTCC and to terminal ATC facilities without Leased Service A System (LSAS) which are or may be affected.

2. The CWSU meteorologist solicits PIREPs through the weather coordinator or directly from the controllers when required.

(a) Both solicited and unsolicited PIREPs that meet the urgent PIREP criteria must be distributed immediately via the LSAS.

(b) Solicited and unsolicited routine PIREPs must be distributed in a timely manner.

c. PIREP classification: Categorize **PIREPs** as follows:

1. URGENT: Weather phenomena reported by a pilot which represents a hazard or a potential hazard to flight operations. Disseminate reports of the following conditions as URGENT PIREPs:

(a) Tornadoes, funnel clouds, or waterspouts.

(b) Severe or extreme turbulence (including clear air turbulence).

(c) Severe icing.

(**d**) Hail.

(e) Low level wind shear.

NOTE-

Defined as wind shear within 2,000 feet of the surface.

(f) Volcanic eruptions and volcanic ash clouds.

(g) Detection of sulfur gases (SO₂ or H_2S), associated with volcanic activity, in the cabin.

NOTE-

The smell of sulfur gases in the cockpit may indicate volcanic activity that has not yet been detected or reported and/or possible entry into an ash-bearing cloud. SO_2 is identifiable as the sharp, acrid odor of a freshly struck match. H_2S has the odor of rotten eggs.

(h) Any other weather phenomena reported which are considered by the specialist as being hazardous or potentially hazardous to flight operations.

2. ROUTINE: Classify all solicited and unsolicited PIREPs as routine unless otherwise indicated.

6-3-2. RECEIPT OF NOTAM DATA

ARTCC air traffic managers must coordinate with other air traffic facilities in their area to ensure that adequate procedures are established for the receipt and distribution of NOTAMs. NOTAM distribution may be accomplished via the Aeronautical Information System Replacement (AISR) or accessed at https://notams.aim.faa.gov/notamSearch as a source for NOTAM information.

6-3-3. REVIEW AIRSPACE STRUCTURE

Although magnetic radials are used in planning airways/routes, conversion to true radials is required for designation. The final magnetic radials are not determined until the airspace action is charted. As a result, differences from planned magnetic radials may occur in the conversion of true to magnetic radials. Differences may also occur later due to changes in the magnetic variation, which is recomputed every 5 years. These differences could contribute to the misapplication of the VFR altitude hemispheric rule. Therefore, ARTCC air traffic managers must conduct a continuing review of the airway and jet route structures and proposed new airspace cases and bring any differences to the attention of the En Route and Oceanic Operations Service Area Office.

6-3-4. FLIGHT DATA UNIT

a. The Flight Data Unit (FDU) is responsible for processing and disseminating operational information necessary for NAS operations.

b. The FDU must provide system support during outage(s) of critical systems and/or software. These responsibilities include data recovery, manual processing, and disseminating information or data products as necessary for safe and efficient operations.

c. The Air Traffic Manager (ATM) must:

1. Ensure all FDU responsibilities and procedures listed below are established in local orders or directives.

2. Assign additional duties of a recurring nature based on unique facility requirements.

3. Provide FDU specialists a copy of, or access to, the following;

(a) FAA Order JO 7110.10, Flight Services.

(b) FAA Order JO 7110.65, Air Traffic Control.

(c) FAA Order JO 7900.5, Surface Weather Observing–METAR.

(d) FAA Order JO 7930.2, Notices to Airmen (NOTAM).

(e) Position binder, which includes:

(1) Procedures for accomplishing assigned position related duties and responsibilities.

(2) Examples and formats for seldom used procedures.

(3) Cross references to documents and lists contained in other publications which may be used where applicable.

d. Unless otherwise specified in a facility directive or a letter of agreement, the Flight Data Communications Specialist (FDCS) performs the following:

1. Flight Plan Data.

(a) Process domestic flight plan(s) proposals, corrections, amendments, and remove strip requests.

(b) Process international flight plan(s) proposals, corrections, amendments, remove strip requests, and departure messages.

(c) Process military flight plans.

(d) Provide data search assistance for Search and Rescue (SAR) information requests.

2. Weather Products:

(a) Support the TMU weather coordinator with inter/intrafacility dissemination of the weather data products described in the Weather Management section of this order. This should include both urgent PIREPs (UUA) and routine PIREPs (UA).

REFERENCE-

FAA Order JO 7210.3, Para 18-26-4 b1, Weather Management.

(b) Provide inter/ intrafacility dissemination of international weather products as needed.

(c) Perform altimeter and weather data checks and system updates as required.

(d) Provide backup services for terminal facility PIREP and METAR entries.

REFERENCE-

FAA Order JO 7110.65, Para 2-6-3 c, Weather Information.

3. NOTAMs:

(a) Process and disseminate FDC, Special Use Airspace (SUA), and Temporary Flight Restriction (TFR) NOTAMs.

(b) Provide assistance with formatting and inputting Special Activity Airspace (SAA) NO-TAMs.

(c) Process and disseminate NOTAM D information as necessary, to include ERIDS backup services.

4. System/Administrative Messages: Process and disseminate the following messages:

- (a) GENOTs,
- (b) CIRNOTs,
- (c) Oceanic track,
- (d) ALTRV movement/change.

5. Classified National Security Information (CNSI) and Communications Security (COMSEC): Handle, safeguard, and protect CNSI and COMSEC material in accordance with national policies, FAA orders, and local SOPs.

6. Clearance Relay:

(a) Responds to telephone requests for ATC clearances received from pilots by contacting the

appropriate sector within the ARTCC or approach control facility and relays clearance issued to the pilot verbatim.

(b) Advises appropriate ARTCC sector or approach control facility of IFR Flight Plan cancellations received over the telephone.

6–3–5. CHANGES TO MTR AND MOA PUBLISHED ACTIVITY SCHEDULES

ARTCCs must use the procedures as outlined in FAA Order JO 7930.2, Notices to Airmen (NOTAM), Paragraph 6-1-2, Special Activity Airspace (SAA), when MTR or MOA activity is scheduled to occur at other than published or charted times.

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-

FAAO 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-

FAAO 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOTE-

This is only applicable to those facilities not currently conducting SOIR 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-

FAAO 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*-

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

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

(g) Fleet mix.

REFERENCE-

FAAO JO 7110.65, Para 3-9-6, Same Runway Separation.

FAAO JO 7110.65, Para 3-9-7, Wake Turbulence Separation for Intersection Departures.

FAAO 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 in the Special Notices Section of the Chart Supplement.

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 Traffic Services Service Area Director prior to implementation.

e. ATMs must maintain a copy of the approval correspondence.

REFERENCE– FAA Order JO 7110.65, Para 7–2–1, Visual Separation. FAA Order JO 7210.3, Para 4–3–2, Appropriate Subjects.

10-3-10. TAKEOFF CLEARANCE

At those airports where the airport configuration does not allow for an aircraft to completely cross one runway and hold short of the departure runway and/or where airports do not have runway hold markings between runways, the ATM must establish guidelines for how aircraft are cleared for takeoff based on the airport configurations. These guidelines must ensure aircraft are still precluded from mistakenly departing from other than the assigned runway while taking into account factors affecting aircraft being "clear of the runway," for example, minimum distance between runways, presence of hold position markings, signage, etc. A facility directive must include where these procedures are able to be applied.

REFERENCE-

FAAO JO 7110.65, Para 3–9–9, Takeoff Clearance. Pilot/Controller Glossary Term – Clear of the Runway.

10-3-11. MULTIPLE RUNWAY CROSSINGS

a. Air traffic managers at airports where the taxi route between runway centerlines is 1,300 feet or less must submit a request to the appropriate Service Area Director of Air Traffic Operations for approval before authorizing multiple runway crossings.

REFERENCE-

FAAO JO 7110.65, Para 3-7-2, Taxi and Ground Movement Operations

FIG 10-3-1 Multiple Runway Crossings



b. The request must address the specific locations where multiple runway crossings will be authorized. This must only include locations where the intervening taxi route is 1,300 feet or less between runway centerlines.

c. Facilities must keep a copy of the approval correspondence issued by the appropriate Service Area Director of Air Traffic Operations.

d. Facility directives must include a diagram that depicts the runway/taxiway intersections where multiple runway crossings are authorized.

e. The Service Area Director of Air Traffic Operations must conduct an annual audit of multiple runway crossing operations authorized in their areas. The audit must ensure compliance with all applicable taxi procedures identified in FAAO JO 7110.65 paragraph 3–7–2. The audit should include a review of all runway incursions attributable to multiple runway crossing clearances and all necessary documentation required above.

NOTE-

Two or more Permission Based Exemptions may not be combined in multiple runway crossing clearances that exceed 1,300 feet.

10-3-12. AIRPORT CONSTRUCTION

Whenever there is construction on a movement area, or on a non-movement area that affects movement area operations, the ATM must:

a. Notify the Airport Construction Advisory Council via email to the following address: 9-AJA-ConstructionCouncil@faa.gov. The email should describe the construction project in detail.

b. Create, approve, and publish appropriate changes to local procedures.

c. Ensure training for all operational personnel is completed and documented.

d. Provide continued training and/or briefings for the duration of the construction project to ensure operational personnel are advised on construction changes as the project progresses.

e. Ensure the latest version of the "Runway-Taxiway Construction Best Practices" for preparation and operations is reviewed by appropriate personnel during construction.

f. Ensure the latest version of the "Runway-Taxiway Construction Checklist" for preparation and operations is used and completed by appropriate personnel.

NOTE-

Both the "Runway-Taxiway Construction Best Practices" and "Runway-Taxiway Construction Checklist" are available on the Runway Safety website. Go to the FAA homepage, search Runway Safety and click the Construction link.

REFERENCE-

FAAO JO 7110.65, Para 2-9-3, Content FAAO JO 7110.65, Para 3-7-1, Ground Traffic Movement FAAO JO 7110.65, Para 3-9-1, Departure Information FAAO JO 7110.65, Para 3-9-4, Line Up and Wait (LUAW) FAAO JO 7110.65, Para 3-9-9, Take-off Clearance FAAO JO 7110.65, Para 3-10-1, Landing Information FAAO JO 7110.65, Para 3-10-5, Landing Clearance FAAO JO 7210.3, Para 10–3–13, Change in Runway Length Due to

FAAO JO 7210.3, Para 10-5-13, Change in Runway Length Due to Construction

FAAO JO 7210.3, Para 10–4–1, Automatic Terminal Information Service (ATIS)

10–3–13. CHANGE IN RUNWAY LENGTH DUE TO CONSTRUCTION

When a runway length has been temporarily or permanently shortened, local procedures must be issued to include procedures covering the phraseology for all taxi, takeoff and landing clearances, ATIS broadcasts, NOTAMs, and other significant activities to ensure safety is not compromised. The ATM must:

a. Review and publish local weather criteria for each runway selected during periods of construction affecting the available runway length, for example:

1. 800' ceiling and 2 SM visibility – arrival/departure runway.

2. Weather less than 2 SM visibility - departure only runway.

b. Ensure training for operational personnel is completed prior to any runway length changes that include the following:

1. Use of the term "full length."

2. Use of the term "shortened."

3. Review of current and future national "Runway Construction Changes" training materials.

c. Provide continued training and/or briefings for the duration of the construction project to ensure operational personnel are advised of construction changes as the project progresses.

REFERENCE-

FAAO JO 7110.65, Para 2-9-3, Content FAAO JO 7110.65, Para 3-7-1, Ground Traffic Movement FAAO JO 7110.65, Para 3-9-1, Departure Information FAAO JO 7110.65, Para 3-9-4, Line Up and Wait (LUAW) FAAO JO 7110.65, Para 3-9-9, Take-off Clearance FAAO JO 7110.65, Para 3-10-1, Landing Information FAAO JO 7110.65, Para 3-10-5, Landing Clearance FAAO JO 7210.3, Para 10–3–12, Airport Construction FAAO JO 7210.3, Para 10–4–1, Automatic Terminal Information Service (ATIS)

10-3-14. APPROACHES TO PARALLEL RUNWAYS

a. Where vectors are provided to intercept parallel final approach courses, facilities must review and, where necessary, address speed requirements to reduce the potential for overshoot situations.

b. When determining speed requirements, consider, at a minimum, the following:

- 1. Airspace constraints.
- 2. Field elevation.
- 3. Fleet mix.
- 4. Airport layout.
- **5.** Traffic flow(s).
- **6.** Local weather.

c. When speed requirements are implemented, those requirements must be contained in a facility directive.

10–3–15. GO–AROUND/MISSED APPROACH

a. Tower facility directives must address procedures for go-arounds and/or missed approaches. The procedures must require controllers to issue control instructions as necessary to establish separation. During the development or review of these procedures, facilities must give consideration, at a minimum, to the following factors:

- 1. Operational position configuration.
- 2. Communication and/or control transfer.
- 3. Runway configuration.

4. Evaluation of existing waivers (for example, reduced separation on final).

- 5. Wake turbulence.
- 6. Weather conditions.
- 7. Type of approach (instrument or visual).

REFERENCE– P/CG Term – Go–around P/CG Term – Low Approach
P/CG Term – Missed Approach
FAAO JO 7110.65, Para 3–8–1, Sequence/Spacing Application
FAAO JO 7110.65, Para 3–8–2, Touch–and–Go or Stop–and–Go or Low
Approach
FAAO JO 7110.65, Para 4–8–11, Practice Approaches
FAAO JO 7110.65, Para 4–8–12, Low Approach and Touch–and–Go
FAAO JO 7110.65, Para 5–5–4, Minima
FAAO JO 7110.65, Para 5–6–3, Vectors Below Minimum Altitude
FAAO JO 7110.65, Para 5–8–4, Departure and Arrival
FAAO JO 7110.65, Para 5–8–5, Departures and Arrivals on Parallel or
Nonintersecting Diverging Runways
FAAO 7210.3, Para 10–4–8b4(b)
FAAO JO 7110.308, Para 6b1(d), Para 6c2(i)

b. Facility air traffic managers may develop procedural mitigations for non-intersecting converging runways when a 1 NM extension of the runway centerline crosses the centerline of the other runway or the 1 NM extensions of a runway cross the extension of another runway. Facility directives must:

1. Specify procedures to ensure that an arrival that executes a go-around does not conflict with a departure off the non-intersecting converging runway.

2. Define technological tools that could assist in the locally developed procedures.

3. Specify procedures to be used when conditions dictate that intersecting runway separation standards must be applied.

NOTE-

1. The locally developed procedure will ensure that the potential go around aircraft will not conflict with a departing aircraft that is departing the non-intersecting converging runways. All locally developed procedures will be approved by the Director of Operations, Headquarters. ATMs will determine what tools are needed in the development of local procedures. These may include, but are not limited to:

a. Arrival Departure Window (ADW)

b. ASDE-X/ASSC Virtual Runway Intersection Point (VRIP)

c. Cutoff Points (CP) developed with the use of enhanced TARGETS.

REFERENCE-

FAAO 7110.65, Para 3-9-9, Non-intersecting Converging Runway Operations.

c. The procedures must be evaluated on an annual basis to determine their effectiveness.

d. A facility may be permitted to conduct independent non-intersecting Converging Runway Operations (CRO) without use of the mitigations as defined in paragraph b, when the following conditions are met:

1. A documented independent safety analysis indicating that a specific non-intersecting CRO configuration meets FAA safety criteria.

2. Runway configurations for which these provisions are applied must be specified in a facility directive.

NOTE-

The above provisions will only be considered after review of a facility Safety Risk Management Document (SRMD).

10-3-16. EQUIVALENT LATERAL SPACING OPERATIONS (ELSO)

At locations conducting 10 degree course divergence for simultaneous or successive RNAV departures on the same runway or parallel runways that are separated by 2,500 feet or more, air traffic managers must complete the following:

a. Create radar video map overlays that depict the initial departure tracks from each affected runway end.

b. Develop and administer initial controller training for ELSO. Annual proficiency training on local ELSO procedures are required.

c. Include in the facility Standard Operating Procedures or a Letter of Agreement with a satellite tower, that the OM/OS/CIC assess the feasibility of continuing ELSO when wind conditions dictate that aircraft cannot consistently fly the intended RNAV track. This is due to the detrimental effects of a strong cross wind component affecting initial departure tracks.

e. Where possible, radio contact points and the routes between them and the airport are different from those used by IFR flights.

f. Pilot participation is encouraged rather than required, and compliance with the procedures is not made mandatory.

10-4-5. PRACTICE INSTRUMENT APPROACHES

a. VFR aircraft practicing instrument approaches at the approach control's primary airport must be provided IFR separation in accordance with FAAO JO 7110.65, Air Traffic Control, Chapter 4, Section 8, Approach Clearance Procedures.

NOTE-

The primary airport is the airport from which approach control service is provided, except for remoted facilities where the facility air traffic manager will designate the primary airport.

b. IFR separation to VFR aircraft in accordance with FAAO JO 7110.65, Chapter 4, Section 8, Approach Clearance Procedures, must be provided to all secondary airports under the approach control's jurisdiction to the extent possible within existing resources. Where separation service is provided to an airport with a FSS that provides LAA, or a nonapproach control tower, provisions for handling such aircraft must be included in a LOA.

c. Where IFR separation is not provided to VFR aircraft conducting practice approaches, instruct the aircraft to maintain VFR and provide traffic information.

d. At airports where the tower does not provide approach control service, handle practice instrument approaches in accordance with a LOA between the tower and the facility providing approach control service.

e. Facilities must issue a letter to airmen advising the users of those airports where IFR separation is provided for VFR aircraft conducting practice instrument approaches. The letter should specify which facility will handle the aircraft practicing instrument approaches and include the appropriate frequencies.

REFERENCE– Para 4–5–2, Letters to Airmen.

10–4–6. SIMULTANEOUS INDEPENDENT APPROACHES

a. Simultaneous independent approaches may be conducted when:

1. Dual parallel runway centerlines are at least 3,600 feet apart, or dual parallel runway centerlines are at least 3,000 feet apart with a 2.5° to 3.0° offset approach to either runway and the airport field elevation is 2,000 feet MSL or less.

NOTE-

Airport field elevation requirement does not apply to dual parallel runways that are 4,300 feet or more apart.

2. Triple parallel approaches may be conducted under one of the following conditions:

(a) Parallel runway centerlines are at least 3,900 feet apart and the airport field elevation is 2,000 feet MSL or less; or

(b) Parallel runway centerlines are at least 3,000 feet apart, a 2.5° to 3.0° offset approach to both outside runways, and the airport field elevation is 2,000 feet MSL or less; or

(c) Parallel runway centerlines are at least 3,000 feet apart, a single 2.5° to 3.0° offset approach to either outside runway while parallel approaches to the remaining two runways are separated by at least 3,900 feet, and the airport field elevation is 2,000 feet MSL or less.

b. Instrument approach procedures are annotated with "simultaneous approach authorized".

c. Equipment required to maintain communication, navigation, and surveillance systems is operational with the glide slope exception as noted below.

d. During glide slope outages, facilities may continue to conduct simultaneous independent approaches without vertical guidance for a period of no more than 29 days, provided the following requirements are identified in an Air Traffic Safety Oversight Service (AOV) approved contingency plan. Submit glide slope outage contingency plans for approval to the Director, Operations–Headquarters for processing. At a minimum, the following special provisions, conditions, and limitations must be identified in the plan, if applicable, along with any other facility–specific requirements:

1. An LOA with the ATCT (or facility directive for a combined facility) must contain a description of

the procedures, requirements, and any limitations as specified in the facility contingency plan for glide slope out of service procedures.

2. The ATC facility must notify Technical Operations personnel of the glide slope outage.

REFERENCE-

FAAO JO 7210.3, Para 3-5-2, System Component Malfunctions

3. The ATC facility must notify arriving pilots that the glide slope is out of service. This can be accomplished via the ATIS broadcast.

4. Any other requirements specified in the local facility contingency plan for glide slope out procedures must be complied with before conducting simultaneous independent approach procedures.

5. Controllers must be trained and provided annual refresher training concerning the application of these procedures.

6. The ATC facility must record when the glide slope outage occurs and any adverse impact on the operation on FAA Form 7230–4, Daily Record of Facility Operation.

7. Any loss of separation or break out associated with operations under a contingency plan for glide slope out must be reported to the Director, Operations- Headquarters.

8. The facility must have radar coverage down to the decision altitude or minimum descent altitude, as applicable.

9. Approaches must be terminated to the runway without a glide slope whenever the reported visibility is below the straight–in localizer minimum for that runway.

10. Any required equipment for the approach with the glide slope out of service must be operational, such as DME or VORTAC.

e. Simultaneous approaches with the glide slope unusable must be discontinued after 29 days unless granted a Letter of Authorization by AOV. (See Appendix 4.)

f. When simultaneous approaches are being conducted, the pilot is expected to inform approach control, prior to departing an outer fix, if the aircraft does not have the appropriate airborne equipment or they do not choose to conduct a simultaneous

approach. Provide individual handling to such aircraft.

g. Prior to implementing Established on RNP (EoR) operations to parallel runways with centerline spacing 9,000 feet or less (9,200 feet or less at field locations above 5,000 MSL), air traffic managers must:

1. Document all approach and/or transition pairings to be used during EoR operations. Document any existing approach and/or transition that requires application of incorrect flight procedure track separation (see FAA Order 8260.3, Chapter 16).

2. Ensure approved EoR approach pairings comply with the EoR procedure criteria identified in FAA Order 8260.3, Chapter 16.

3. Obtain authorization from the Service Area Director of Air Traffic Operations for the approved instrument approach pairings.

4. Ensure facility directives/letters of agreement list the authorized approach pairs and address the integration of EoR operations with straight–in operations to the same or parallel runway/s. Facility directives/letters of agreement must address, at a minimum, breakout procedures, monitoring, and training requirements.

REFERENCE-

FAA Order JO 7110.65, Para 5–9–7, Simultaneous Independent Approaches–Dual & Triple P/CG Term – Established on RNP Concept

10-4-7. SIMULTANEOUS WIDELY-SPACED PARALLEL OPERATIONS

a. Simultaneous independent approaches to widely-spaced parallel runways without final monitors may be conducted when:

1. Instrument approach procedures are annotated with "Simultaneous Approach Authorized."

2. A separate approach system is required for each parallel runway. A minimum distance of more than 9,000 feet between centerlines is required when approaches are conducted at airports with field elevations at or below 5,000 feet MSL, or 9,200 feet between runway centerlines is required with a field elevation above 5,000 feet MSL. Other integral parts of the total Simultaneous Approach System include radar, communications, ATC procedures, and appropriate airborne equipment.
Chapter 11. FAA Contract Tower Operation and Administration

Section 1. Organizational Responsibilities

11-1-1. ATO LEVEL OF SUPPORT

a. The FAA Contract Tower (FCT) Program is a federally funded program that provides contract air traffic control services at designated towers.

b. FAA organizations must provide the same level of operational support and guidance to contract towers as provided to similar FAA Airport Traffic Control Towers (ATCT).

11-1-2. FAA HEADQUARTERS

a. The Vice President of Air Traffic Services (AJT) is responsible for the FCT Program, and the AJT Technical Advisory Group (AJT-22) provides guidance and direction for Headquarters, Service Area, and FCT personnel, in the provision of air traffic control services at FCT locations. AJT-22 must provide:

1. The name of the Contracting Officer Representative (COR) for the FCT national contracts to the Contracting Officer (CO).

2. Timely assistance and technical guidance to FAA and contractor personnel on operational issues.

b. The Director, FAA Acquisition and Contracting (AAQ-1) must designate a CO for the FCT national contracts.

1. The CO has sole responsibility for modifications and/or changes to the contract. Other FAA personnel that deal directly with contractor personnel must be familiar with the terms of the contract and must use caution not to require actions of the contractor that fall within the purview of the CO. **2.** The CO must coordinate all contract modifications with AJT-22 prior to execution.

11-1-3. ATO SERVICE CENTERS

a. Planning & Requirements Group (PRG) must:

1. Appoint the FCT Program Implementation Manager (PIM) as the point of contact (POC) at the Service Center for coordinating issues affecting the FCT Program.

2. Provide FCT applicant contact information to appropriate FAA lines of business (LOB).

b. Operations Support Group (OSG) must provide a POC for coordinating FCT issues.

c. Quality Control Group (QCG) must provide a POC for coordinating FCT issues.

1. Assign each FCT to a district.

11-1-4. AJT DISTRICT OFFICES

ATC facilities that interface with an FCT must contact the district whenever FCT issues cannot be resolved at the local level.

a. Operational FCT issues that cannot be resolved at the district level must be coordinated with the respective OSG.

b. Non–operational FCT issues that cannot be resolved at the district level must be coordinated with the respective FCT Program Implementation Manager (PIM).

c. The district may delegate day-to-day operational support and/or certification responsibilities to other FAA facilities.

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 which 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/FLM/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 3. Training

11-3-1. TESTING AND CERTIFICATION

a. The AJT district must ensure that facility rating, control tower operator (CTO) certification, or FAA Air Traffic Safety Oversight Credentials are performed. The FCT ATM must contact the district in a timely manner to schedule CTO certification.

b. At Limited Aviation Weather Reporting Stations (LAWRS) designated FCTs, the FCT ATM must arrange initial LAWRS observer training and testing via CBI or ELMS and coordinate certification or certificate transfer with AJT-22 via email requests to 9-AJT-HQ-ASWO@faa.gov.

11-3-2. BRIEFING/TRAINING ITEMS

a. ATO Headquarters organizations, Service Center Offices, and districts must ensure that required briefing materials are distributed in a format that can be utilized by FCT facilities.

b. AJT districts must ensure that all required briefing items are forwarded to their assigned FCTs.

11-4-1. OPERATIONAL DIRECTIVES

a. The FCT PIM must ensure that "New Start" FCT locations are included on the distribution list.

b. Districts must:

1. Ensure that FCTs are equipped with appropriate copies (print or digital) of regulations and FAA directives (excluding FARs and CFRs), including changes and/or amendments to those directives; and

2. Assist FCTs when additional copies are required.

c. Contractors must notify the district whenever additional copies of the regulations and FAA directives are needed.

11-4-2. PROVISION OF INFORMATION AND DATA

a. The Service Center and/or district may request operational information from FCTs and/or ask for access to operational data. Voluminous or unusual

requests should be routed to AJT-22, through the Service Area POC, for direct coordination with contractor management personnel.

b. The contractor must provide hourly traffic count data to the FAA in addition to operational data reporting requirements, per FAA Order JO 7210.55.

11-4-3. FORMS AND CHARTS

a. The districts must ensure that FCTs are provided with a sufficient supply of operational forms required by the documents, directives, and regulations (excluding FARs and CFRs); and

b. Current operational charts and publications, such as terminal area charts, sectionals, etc.

11-4-4. TRAINING MATERIAL

a. The FAA must ensure all locations are provided with required training material.

b. The contractor must contact the district to request additional material.

Section 5. Operational Documents, Directives, and Regulations

11–5–1. FAA DOCUMENTS, DIRECTIVES, AND REGULATIONS

FAA documents, directives, and regulations identified in the FCT Contract and FAA directives which are applicable and incorporated in whole or relevant part will be available (print or digital) at the FCT facility.

NOTE-

1. FCTs may utilize the FAA online directives library to the extent consistent with FAA directives and the facility's existing telecommunications capabilities.

2. In addition to directives required by the FCT Contract, other FAA orders, directives or policies may contain additional pertinent information beneficial to operation of an FCT.

3. Copies of CFRs required by the FCT Contract are not required to be on site at FCTs, but will be maintained and/or accessible at contractor corporate offices.

4. Guidance contained in FAA Order JO 7210.78, FAA Contract Tower (FCT) New Start and Replacement Tower Process, may be used to assist the FAA, airport sponsors, and others in meeting FCT minimum equipment requirements.

Chapter 12. National Programs Section 1. Terminal VFR Radar Services

12–1–1. PROGRAM INTENT

Basic Radar Service, TRSA Service, Class B and Class C services are the four types of Radar Services designed to enhance safety by providing air traffic services to VFR aircraft. The services were designed to provide the maximum level of radar services possible with existing equipment. Additional resources (displays, communications, telco, space, etc.) must be justified by requirements other than the volume of radar service provided to VFR aircraft. Pilots should be encouraged to participate by all available methods. This is best accomplished through effective procedures and a clear understanding of the Terminal VFR Radar Services available.

REFERENCE-

Pilot/Controller Glossary Term– Terminal VFR Radar Services. FAA Order JO 7110.65, Chapter 7, Section 6, Basic Radar Service to VFR Aircraft– Terminal.

12-1-2. IMPLEMENTATION

a. Facilities unable to meet the following requirements must submit justification to the respective Terminal Operations Area Office:

1. Newly commissioned terminal radar facilities must implement basic radar services to VFR aircraft, as prescribed in FAA Order JO 7110.65, Air Traffic Control, para 7–6–1, Application, within 30 to 60 days after full IFR service is available. All radar facilities must provide basic radar service at primary airports and, where operationally feasible, at satellite airports with a control tower.

2. TRSA Service: In addition to basic radar service, provide separation between all participating aircraft operating in an established TRSA. If a need exists, facilities may develop coded VFR departure routes for TRSA service. When such routes are established, the following provisions apply:

(a) Prior to implementing coded VFR departure routes, the facility must coordinate with local user groups.

(b) A letter to airmen must be issued advising pilots of the procedure.

(c) These routes must only be issued to local users familiar with the procedure.

(d) Detailed departure instructions must be furnished when requested by the pilot.

3. Facility air traffic managers must address in writing, as a minimum, the following pertinent factors when submitting for service area office approval, either a recommendation for revision or withdrawal of an existing TRSA.

(a) Safety record/NMAC analysis.

(b) Airspace and operational efficiency.

(c) Unique geographical features.

(d) Hourly air carrier traffic density.

(e) User input. (User meetings, while highly desirable, are not required for withdrawals.)

b. Revisions to TRSAs must be submitted to System Operations Airspace and Aeronautical Information Management, NFDC, at least 9 weeks prior to one of the appropriate publication dates; i.e., Sectional Charts, Notice to Airmen, or the Chart Supplement U.S. The following are considered sufficient justification to warrant revision:

1. Changes in configuration, frequencies, or primary airport status (name, elevation, closed, abandoned, etc.).

2. Additions or deletions to the VFR check-points/NAVAIDs.

3. Typographical errors.

c. Advertising Basic Radar Services:

1. A sufficient number of user group meetings must be held to publicize implementation of basic radar services to as many local pilots as practicable.

2. Disseminate a letter to airmen explaining the program and including a drawing of the basic radar service area. The drawing should be on a cutout from the appropriate sectional chart and should show the following:

(a) Lateral and vertical dimensions.

(b) Frequency for each sector.

(c) Initial VFR checkpoints indicated by flags.

3. The facility air traffic manager must seek the cooperation of the FSDO in informing aviation interests about their responsibilities while operating in a basic radar service environment. Special emphasis should be placed on such points as:

(a) Pilot participation is urged, but it is not mandatory.

(b) Pilots should be aware that aircraft sequencing and traffic advisories are primarily based on aircraft maintaining assigned headings and altitudes.

(c) If a pilot cannot abide with an ATC instruction or clearance, he/she should notify ATC immediately.

4. Follow-up meetings ("HOW GOES IT" type) must be conducted.

12-1-3. TRSA

a. TRSAs are not officially designated by airspace action and were established solely to define an area within which a separation service will be provided. Therefore, at all TRSA locations it is intended that facilities must provide the full extent of TRSA services throughout the entire advertised TRSA area. Although the TRSA area extends downward to the surface within the surface area of Class D airspace at the primary airport, a base should be established outside this surface area of Class D airspace to permit free movement of nonparticipating aircraft. The base of the TRSA must not be below the base of an associated Class E airspace.

b. The size and shape (laterally/vertically) of the TRSA will vary depending upon operational requirements. However, each TRSA must reflect the most efficient and reasonable configuration to contain large turbine–powered aircraft while achieving a higher level of overall safety.

NOTE-

There is no requirement for the TRSA facility to retain operational jurisdiction of the airspace in its entirety if another facility can more effectively manage a particular portion of the airspace. The requirement is that the system provides the required service.

c. All IFR procedures used by large turbinepowered aircraft arriving and departing designated airports must be fully contained in the TRSA. Each TRSA should be configured to ensure the most efficient use of airspace.

d. Arriving and departing large turbine-powered aircraft should enter/exit the TRSA through the ceiling. However, arriving aircraft at altitudes below the ceiling are not required to climb to achieve this objective, nor are departing aircraft filed at lower altitudes.

12-1-4. CLASS C AIRSPACE

Class C airspace must be officially designated by airspace action in 14 CFR Part 71 and is established solely to define the airspace in which all aircraft are subject to operating rules and equipment requirements specified in 14 CFR Part 91.

NOTE-

While the regulatory nature of this airspace requires pilots to establish two-way communications with ATC prior to entering, aircraft should not be unnecessarily prohibited from entering Class C airspace.

a. Facility managers who determine a need for Class C airspace establishment must prepare and submit a staff study in accordance with FAA Order JO 7400.2, Procedures for Handling Airspace Matters.

b. The physical dimensions of the Class C airspace will normally be a 10 NM radius capped at 4,000 feet above the primary airport elevation. This airspace must extend no lower than 1,200 feet above the surface, except that an inner core with a 5 NM radius must extend down to the surface.

c. Encompassing each Class C airspace must be a site specific Outer Area with a normal radius of 20 NM. The Outer Area must extend outward from the primary Class C airspace airport and extend from the lower limits of radar/radio coverage up to the ceiling of the approach control delegated airspace excluding the Class C airspace and other airspace as appropriate.

d. After issuance of the final rule designating a Class C airspace, user education meetings must be held to publicize implementation of Class C service to as many pilots as practicable.

e. Issue a letter to airmen explaining the program and including a drawing of the Class C airspace. The drawing should depict, as a minimum, the following:

1. The lateral and vertical dimensions of the Class C airspace and the associated Outer Area.

2. Any procedural exclusions when the Class C airspace overlaps an adjacent Class D airspace.

3. Initial VFR checkpoints located outside the Class C airspace.

4. Frequencies.

f. Followup meetings ("HOW GOES IT" type) must be conducted after implementation.

g. Exceptions to Class C services may be established within the Class C airspace for special activities; i.e., practice areas, banner tows, gliders, ultralights, etc., provided the procedures are outlined in a letter of agreement with the users.

h. Where the Class C airspace overlaps the Class D airspace of an adjacent airport, facility managers must include in a letter of agreement procedures defining responsibility for the control of aircraft in the overlapping area.

i. The *National Terminal Radar Program* includes military as well as civil airports. Each case of military airport inclusion or establishment of Class C airspace must be processed through appropriate military channels for thorough examination and individual justification.

j. When recommending a location for withdrawal from the Class C airspace, facility air traffic managers must prepare and submit a staff study to Washington headquarters, Airspace and Rules through the appropriate Terminal Operations Service Area Office in accordance with FAA Order JO 7400.2, Procedures for Handling Airspace Matters.

12-1-5. CLASS B AIRSPACE

a. Class B airspace must be officially designated by airspace action in 14 CFR Part 71 and is

established solely to define the airspace in which all aircraft are subject to operating rules and pilot and equipment requirements specified in 14 CFR Section 91.131.

b. The size and shape (laterally/vertically) of the Class B airspace will vary depending upon operational requirements. However, each Class B airspace must reflect the most efficient and reasonable configuration to contain large turbine–powered aircraft while achieving a higher level of overall safety.

NOTE-

There is no requirement for the Class B airspace facility to retain operational jurisdiction of the airspace in its entirety if another facility can more effectively manage a particular portion of the airspace. The requirement is that the system provide the required service.

c. All IFR procedures used by large turbine– powered aircraft arriving and departing designated airports must be fully contained in the Class B airspace. Each Class B airspace should be configured to ensure the most efficient use of airspace.

d. Arriving and departing large turbine–powered aircraft should enter/exit the Class B airspace through the ceiling. However, arriving aircraft at altitudes below the ceiling are not required to climb to achieve this objective, nor are departing aircraft filed at lower altitudes.

e. Procedures must be developed to accommodate VFR aircraft desiring to transit the Class B airspace. If VFR corridors are published, recommend the establishment of frequency 122.750 for pilots to exchange position information when transiting the associated Class B airspace VFR corridor.

Section 2. Automated Terminal Tracking Systems (ATTS)

12-2-1. OPERATIONAL USE

a. Do not use ATTS data when the system, or that portion of the systems, is released to Technical Operations technicians.

b. Verify the operational status of all ATTS components daily prior to operational use.

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

12-2-2. 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 an ATTS 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 para 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.

NOTE-

The ARTS II system does not provide a GSI area; however, it does provide the capability to enter and display an assigned altitude.

12-2-3. DISPLAY DATA

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

b. If available, operate the field inhibit/select switches in the select position for the leader line, ACID, altitude, and handoff fields. The control position symbol and other full data block fields must be selected/inhibited in accordance with facility directives.

c. 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, para 2–1–6, Safety Alert, and subpara 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.

12–2–4. USE OF MODIFY AND QUICK LOOK FUNCTIONS

a. Where ATTS data from a system common to the TRACON and the tower is presented on a CTRD, and if operational benefits will accrue by using the MODIFY or QUICK LOOK functions, a facility directive or a LOA must be prepared specifying:

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 MODIFY or QUICK LOOK functions 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 MODIFY or QUICK LOOK functions and by the facilities for prohibiting their use include, but are not limited to, light on the face of the

CTRD, traffic volume, other duties requiring the controller's attention, and the number of controllers available in the tower.

12–2–5. AUTOMATION PROGRAM CHANGES

The air traffic manager of automated 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-

ARTS IIIA:

"A3.06, National Patch Level P operational suitability testing completed, acceptable."

COMMON ARTS:

"A605, REV 20 operational suitability testing completed, acceptable."

"A2.09, REV 20 operational suitability testing completed, acceptable."

MICRO EARTS:

"M4.08R, operational suitability testing completed, acceptable."

12–2–6. AUTOMATIC ACQUISITION/TERMI-NATION 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/

ATTS-to-ATTS automatic handoff area when the center is in the surveillance data processing (SDP) mode.

2. Coordinate with the adjacent automated facilities to ensure that computer handoffs will be initiated only after the aircraft is within their facility's automatic acquisition area. Where this is not feasible due to airspace assignment, facility directives must require 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 ATTS 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. Terminal Operations Service Area Directors may authorize a distance greater than specified in subparas a3 and 4 above, where the operational conditions dictate.

12–2–7. MINIMUM SAFE ALTITUDE WARNING (MSAW), CONFLICT ALERT (CA), AND MODE C INTRUDER (MCI)

a. MSAW, CA and MCI values must be set in accordance with the standards specified in the Standards and Guidelines for CARTS Appendix D, Standards and Guidelines for ARTS IIIA, and Standards and Guidelines for MEARTS. Any instances of requests for values outside the standards must require a waiver from Vice President, Terminal Services.

b. When their continued use would adversely impact operational priorities, air traffic managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA and/or MCI functions. Except when equipment or site adaptation problems preclude these functions

being used, a brief written report must be sent to the appropriate Service Area Director of Air Traffic Operations whenever they are inhibited. A copy of the report must be sent to Director of Operations– Headquarters.

c. Facility air traffic managers are authorized to inhibit CA at specific operating positions if an operational advantage will occur.

d. Facility air traffic managers must ensure that:

1. MSAW and CA nuisance alarms are minimized by monitoring alarm frequency and location and forwarding suspected problem areas to the servicing Operational Support Facility along with any supporting documentation, via a National Automation Request (NAR) form.

2. A visual inspection and aural test of the MSAW speakers located in the operational quarters by supervisory personnel is included as part of the equipment check list required during each watch. The purpose of this inspection is to ensure the aural alarm is functioning and audible to the appropriate operational personnel.

3. The operational support facility has adapted the software functionality to ensure the aural alarms operate in the ATCT.

4. Aural alarms are received in the ATCT upon transfer of communications.

5. Controllers are aware of the towers geographic locations where aural alarms sound. (MSAW aural alarm areas.)

6. Tower aural alarm areas are identified.

12–2–8. MAGNETIC VARIATION OF VIDEO MAPS/GEO MAPS AT ARTS FACILITIES

Air traffic managers must ensure that:

a. The magnetic variation of radar video maps/geo maps, MSAW, DTMs/GTMs and radar site settings coincide and is verified annually.

b. Affected map or maps are recompiled when the official magnetic variation of record is changed/implemented.

NOTE-

1. The video map is the primary reference for maintaining radar antenna alignment.

2. 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 the relative positions of the terrain points and obstacles used to determine DTM bin altitude assignments. This will require generating and verifying a new DTM.

3. The GTM is constructed to align with true north offset by the site adaptable radar antenna magnetic variation. Consequently, any change in antenna offset will result in a corresponding change in the relative position of bin locations.

4. In both cases, DTM or GTM, any change in antenna offset will result in re-adaptation of the MSAW and CA databases; e.g., airport areas, inhibit volume areas, capture boxes, etc., to coincide with the changed declination.

5. Technical Operations Aviation System Standards has the responsibility to assign and maintain the Magnetic Variation of record for navigational facilities and airports.

REFERENCE-

Para 11–2–9, MSAW DTM Cartographic Certification, Updates, and Recompilation.

FAAO 8260.19, Flight Procedures and Airspace.

12–2–9. MSAW DTM CARTOGRAPHIC CERTIFICATION, UPDATES, AND RECOMPILATION

a. System Operations Airspace and Aeronautical Information, must be responsible for assuring that the National Aeronautical Charting Office (NACO) performs the certification of the terrain elevations and the obstacle elevations. Each new or recompiled MSAW DTM must be certified by the NACO through the AT/NACO Precise Geographic Position and Elevation Program (PREGPEP). Also, NACO must certify the periodic update of the MSAW obstacle elevation files.

b. The MSAW DTM must be recompiled by NACO if:

1. The ASR antenna on which the map is based is relocated more than 300 feet away from its original position and/or,

2. The magnetic variation of the site changes by two degrees or more.

NOTE-

Requests for new or recompiled DTMs are routed to System Operations Airspace and Aeronautical Information.

12–2–10. DIGITAL MAP VERIFICATION

Verification of the accuracy of new or modified digital maps must be accomplished through the use of "targets of opportunity" flying over displayed fixes, navigational aids, etc. Any observed discrepancies must be documented to indicate the observed direction and displacement. If any identified error cannot be corrected or if a facility is otherwise dissatisfied with the results from "targets of opportunity," a request may be made through the FICO for a flight inspection.

Section 3. Data Recording and Retention

12-3-1. DATA RECORDING

a. Type or write the date on the console printout at the start of each operational day or as specified in a facility directive. The facility directive must require the time that the date must be entered daily.

NOTE-

The operational day for a 24-hour facility begins at 0000 local time. The operational day at a part time facility begins with the first operational shift in each calendar day.

b. As a minimum, record on the console failure/error messages regarding Data Acquisition Subsystem (DAS), Data Entry and Display Subsystem (DEDS), and Interfacility (IF).

NOTE-

When a failure is known to exist, that particular failure printout may be inhibited to minimize its impact on the system.

c. Facilities having continuous data recording capabilities must extract and record on tape or disc:

1. Tracking messages, target reports, and sector time.

2. Automatic functions and keyboard input data.

3. Interfacility messages.

4. MSAW and CA warning message data. Other data available in the extraction routine may be extracted.

d. Air traffic facilities using a teletype emulator (TTYE) in lieu of a console printout (TTY) must store and retain data in accordance with Paragraphs 12–3–1, Data Recording, and 12–3–2, Data Retention. However, the data may be retained on a disc or hard drive as specified in a facility directive.

12-3-2. DATA RETENTION

a. Write on each data extraction tape/disc:

- 1. The tape/disc drive number.
- 2. The date.

3. The times (UTC) the extraction started and ended.

4. The items listed in subpara 12–3–1c not extracted.

5. The data extracted in addition to that required by subpara 12-3-1c.

6. The initials of the person changing the recording.

b. Retain data extraction recordings for 45 days except:

1. Accidents: Retain data extraction recordings in accordance with FAA JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting.

2. Incidents: Retain data extraction recordings in accordance with FAA JO 8020.16.

3. Tarmac Delay: When a facility is notified that an aircraft has or may have exceeded the "Three/Four-Hour Tarmac Rule," retain data recordings relevant to the event for 1 year.

c. If a request is received to retain data information following an accident or incident, the printout of the relative data will suffice. The tape/disc may then be returned to service through the normal established rotational program. The printout data are considered a permanent record and must be retained in accordance with aircraft accident/incident retention requirements. Reduction of the extracted data to hard–copy format will be made at the earliest time convenient to the facility involved without derogation of the ATC function and without prematurely taking the computer out of service. Do not make these data and printouts a part of the accident/incident package.

d. If a request is received to retain a specific data recording and the data are available and contained on tape, the tape must be retained in its entirety. If the data are contained on disc, the facility may transfer all pertinent data to magnetic tape and label the tape a *Duplicate Original*. After successful transfer, the disc pack may be returned to service through the normal rotational cycle. However, if a specific request is received to retain the disc, the disc pack must be retained in its entirety.

e. Treat data extraction recordings pertaining to hijack aircraft the same as voice recorder tapes.

REFERENCE-Para 3–4–4, Handling Recorder Tapes DATs, or DALR Storage.

12-3-3. FAULT LOG

a. Whenever the computer fails during normal operations, all pertinent data must be recorded on the Fault Log. However, if the computer failure is the first of a particular nature and an operational requirement exists to resume normal computer

operation as soon as possible, a Fault Log need not be recorded.

b. When you anticipate the need for assistance from the National Field Support Group (NFSG), record the entire contents of memory before restarting the operational program.

c. Retain the Fault Log and the memory dump until the cause of the fault has been determined or NFSG requests them.

Section 4. Charted VFR Flyway Planning Chart Program

12-4-1. DEFINITION

VFR flyways are general flight paths not defined as a specific course, for use by pilots in planning flights into, out of, through, or near complex terminal airspace to avoid Class B airspace. An ATC clearance is NOT required to fly these routes.

12-4-2. CRITERIA

Use the following criteria for establishing VFR Flyway Planning Charts:

a. Flyway Course: The flight paths used to describe VFR flyways, must, to the maximum extent practicable, reference ground objects that can be readily identified from the air. If necessary, and if an operational benefit can be derived, radio NAVAID references may be used.

b. Flyway Altitudes: Each segment of a charted VFR flyway should contain recommended altitudes.

1. Recommended altitudes must avoid airspace requiring prior authorization or clearance to enter.

2. Care should be exercised to avoid recommending altitudes which could cause the aircraft on a flyway to encounter inflight wake turbulence generated by large aircraft.

3. When altitude changes are required, they should be based on a descent rate of 250–350 feet per nautical mile.

c. Altitude Compression: Charted VFR flyways established under the floors of Class B airspace require careful evaluation to avoid compression of the airspace and the altitudes available for VFR operations.

d. Military Considerations: Avoid establishing VFR Flyways which would conflict with military ground control radar approach paths. When charting VFR flyways which cross or are in proximity to an MTR, include communications instructions for pilots to determine the status of the MTR.

e. Once a flyway is charted, it will only be moved when it significantly interferes with other operations.

12-4-3. RESPONSIBILITIES

a. Flyway Development: The facility air traffic manager develops requirements for VFR flyways charting. All actions leading to the development of a VFR Flyway Planning Chart should be initiated by the facility air traffic manager.

1. Initial Action: The requesting facility air traffic manager must establish a task force of air traffic, FSDO, military, and local aviation interests, as appropriate, to recommend where the charted VFR flyways should be located.

2. Flyway Justification: As a minimum, the facility air traffic manager must address in writing the following pertinent factors:

(a) Background information pertaining to the development of the chart, such as the composition of the task group.

(b) The major areas examined.

(c) Special VFR procedures.

(d) Recommendations by the task group.

(e) Reasons supporting the establishment of a VFR Flyway Planning Chart for the area.

3. Charts and Description: A narrative description of the flyway and the appropriate VFR Terminal Area Chart or a drawing must depict the following data:

(a) VFR flyway flight paths with named visual checkpoints, NAVAID magnetic radials, and altitudes;

(b) Any large turbine-powered aircraft arrival/departure routes that cross the charted VFR flyway;

(c) Procedural notes positioned on the drawing or the VFR TAC; and

(d) The communication frequencies if frequencies are recommended for advisories. Indicate the flyway segment/s associated with each frequency.

b. Flyway Approval: Terminal Operations Service Area Offices are responsible for approving the proposed VFR Flyway Planning Charts and ensuring that they comply with the prescribed criteria. If approval is granted, the Terminal Operations Area

Offices must forward the proposal to System Operations Airspace and Aeronautical Information Office at least 9 weeks prior to the planned implementation date. The planned implementation date must coincide with a publication date of the respective VFR TAC.

c. Annual Review: Terminal Operations Area Offices are responsible for reviewing existing VFR Flyway Planning Charts on an annual basis to determine their continued need.

d. Revision to Flyways: In order that System Operations Airspace and Aeronautical Information Office can meet its responsibilities, revisions to VFR Flyway Planning Charts must be submitted to System Operations Airspace and Aeronautical Information Office at least 9 weeks prior to the publication date of the respective VFR Terminal Area Chart. Revisions may be initiated by the facility air traffic manager or the Terminal Operations Area Office. The following are considered sufficient justification to warrant revision: **1.** Changes, additions, or deletions to VFR flyways or altitudes, frequencies, procedural notes, or changes to airport status; i.e., name, closed, abandoned, etc.

2. Changes in large turbine–powered aircraft arrival/departure routes.

3. Additions or deletions to checkpoints/ NAVAIDs.

e. Publicity: The facility air traffic manager must seek the cooperation of the FSDO in informing aviation interests about the VFR Flyway Planning Chart Program. Special emphasis should be placed on:

1. Pilot adherence to flyways and recommended altitudes is voluntary.

2. Flyways are not devoid of IFR or military traffic. They represent flight paths that are believed to have the least IFR or military activity.

3. A "see and avoid" environment must be maintained and emphasized.

Section 5. Helicopter Route Chart Program

12-5-1. POLICY

a. The Helicopter Route Chart Program has been established to enhance helicopter access into, egress from, and operation within high density traffic areas by depicting discrete and/or common use helicopter routes, operating zones, and, where necessary, radio frequencies. The program had been designed to improve operational safety in areas where significant helicopter operations occur, and to establish a systematic process for chart development, modification, and acquisition.

b. Pilot adherence to charted helicopter routes and the recommended altitudes or flight ceilings associated with them will normally be voluntary. However, controllers may assign charted routes and altitudes and expect or request pilot compliance with them, provided such procedures are called for in specific FAA–operator Letters of Agreement, or are necessitated by traffic density and/or safety considerations; controllers also may restrict operations within designated operating zones when requested by local law enforcement officials and the restriction would not adversely affect other aircraft operations.

c. Helicopter route charts must be published individually, on a site-specific basis. They are not updated on a regular basis as are other visual charts. They will be updated when a significant number of changes have accumulated, or when safety related or major airspace modifications warrant the printing of a new chart. The *Dates of Latest Editions*, published by the National Ocean Service will serve as a notice when a new chart is about to be published and which editions of charts are currently in use.

12-5-2. DEFINITION

Helicopter Route Charts are graphic portrayals of discrete and/or common use helicopter routes and/or operating zones located in high density traffic areas; their purpose is to facilitate helicopter pilot access into, egress from, or operation within charted areas. They generally will include associated altitude or flight ceiling information to facilitate IFR traffic avoidance and pilot adherence to minimum safe altitude requirements. The charts provide expanded, and in some cases unique, ground reference symbology to improve visual navigation.

12-5-3. CRITERIA

Use the following criteria when determining the need for a new or revised helicopter route chart:

a. Routes:

1. Recommended altitudes/flight ceilings/ floors must avoid restricted/military airspace requiring prior authorization or clearance to enter.

2. All routes depicted on a helicopter route chart must, to the maximum extent practicable, reference ground objects that can be readily identified from the air.

b. Operating zones: Airspace encompassed by a helicopter route chart must, when necessary and required by operational considerations, be divided into a sufficient number of operating zones or sectors to permit local law enforcement agencies to operate within them on an exclusive basis.

c. Altitudes and flight ceilings/floors: Each segment of a helicopter route may contain recommended altitudes or flight ceilings/floors. It is the discretion of the local air traffic tower if such altitudes will be depicted, or, assigned at a later date when the pilot contacts the tower.

1. Recommended altitudes/flight ceilings/ floors must avoid airspace requiring prior authorization or clearance to enter.

2. Care should be exercised to avoid recommending altitudes or flight ceilings/floors which could cause helicopters operating on a designated route to encounter inflight wake turbulence generated by large, fixed wing traffic.

3. When altitude/flight ceiling changes are required, they should be based on a descent rate of 250–350 feet per nautical mile.

d. Communications information: Each helicopter route chart must include sufficient radio communications information to permit pilot compliance with all pertinent regulatory requirements, and facilitate the acquisition and dissemination of air traffic advisory information.

e. Military considerations: Avoid establishing helicopter routes or operating zones which would conflict with military ground control radar approach paths. When charting a route or operating zone which crosses or is located in close proximity to a MTR, include communications instructions that will permit pilots to determine the status of the MTR.

f. Helicopter routes may be changed or modified whenever a new chart is updated. It is recommended that all route modifications be coordinated with operating groups in the local area.

12-5-4. RESPONSIBILITIES

a. Helicopter route chart development: Facility air traffic managers are responsible for determining the need for chart development or revision, and for compliance with the following:

1. Initial action: Facility air traffic managers who desire to establish a new route chart or revise an existing chart must establish a task force or planning group comprised of local air traffic, FSDO, military, law enforcement, and helicopter operator personnel to recommend the area of chart coverage and the paths, routes, and operating zones that will comprise it.

2. Justification: All recommendations for new and/or revised charting must include justifying information that includes, as a minimum, the following information:

(a) Background information pertinent to chart development or revision, including the composition of the task force or planning group;

(b) The airspace areas and proposed routes, operating zones, and altitude/flight ceiling/floor considerations examined;

(c) Special VFR procedural implications;

(d) Task force or planning group recommendations; and

(e) Supporting rationale.

3. Charts and description: Facility air traffic managers must provide a narrative description or drawing of the chart area, including:

(a) Identification of all integral routes or operating zones, with named visual checkpoints and

elevations, and associated altitude or flight ceiling limitations;

(b) Any IFR routes that fall within the charted area;

(c) Procedural notes pertinent to operations within the charted area or an operating zone, and on designated routes; and

(d) Traffic advisory radio communications frequencies and ATC facility names associated with area, route, or zone operations.

b. Chart approval: Terminal Operations Service Area Directors are responsible for reviewing and approving new or revised helicopter route chart proposals, and assuring that they comply with all prescribed criteria. However, procedural implementation may not occur until the proposal has been reviewed by System Operations Airspace and Aeronautical Information Management, and subsequently published. Consequently, managers should forward their approved packets through System Operations Airspace and Aeronautical Information Management as far in advance of the desired publication/implementation date as possible.

NOTE-

The publication lead times for new charts and minor chart revisions will routinely approximate 6–9 months and 3-4 months, respectively.

c. Annual review: Terminal Operations Service Area Directors are responsible for the conduct of annual reviews of existing VFR helicopter route charts to determine their accuracy and continued utility.

d. Chart revisions:

1. Revisions to existing helicopter route charts may be initiated by any facility air traffic manager, but can only be approved by the Terminal Operations Service Area Directors. However, to assure completion of all requisite Airspace and Rules review and publication requirements, proposals must be submitted through System Operations Airspace and Aeronautical Information Management to Airspace and Rules at least 6-9 months or 3-4 months (as appropriate) prior to their expected or recommended implementation date.

2. The following are considered sufficient justification for a revision:

(a) Changes, additions, or deletions to area coverage, designated routes or operating zones,

controlling agencies and/or frequencies, procedural notes, or airport/heliport/helistop status;

(b) Changes in IFR routes within the chart coverage area; and

(c) Additions or deletions to visual checkpoints.

e. Publicity: Facility air traffic managers must seek the cooperation of local FSDO personnel in informing local aviation interests about the Helicopter Route Chart Program. Special emphasis should be placed on:

1. The voluntary nature of pilot adherence to designated routes, operating zones, altitudes/flight ceilings, and procedural notes;

2. The importance of chart use to operational safety and IFR traffic avoidance; and

3. The "see and avoid" nature of operations within the chart area.

Terminal Area VFR Routes are specific flight courses

depicted on the chart(s), which may include recommended altitudes, and described by reference to electronic navigational aids and/or prominent visual landmarks for optional use by pilots to avoid Class B, Class C, and Class D airspace while operating in complex terminal airspace. An ATC clearance is not required to fly these routes.

a. The Terminal Area VFR Route Chart Program

has been developed to assist pilots operating under

VFR who do not wish to communicate with ATC to

b. Pilot adherence to Terminal Area VFR Routes.

and the recommended altitudes associated with them.

is strictly voluntary and in no way relieves pilots from

requirements to comply with all applicable Federal

avoid airspace requiring such contact.

12–6–3. CRITERIA

Use the following criteria for establishing Terminal Area VFR Routes:

a. Routes:

1. Recommended routes should avoid the flow of IFR traffic.

2. Recommended routes must, to the maximum extent practical, reference prominent landmarks that can be readily identified from the air.

3. The course must be described by magnetic compass headings and latitude/longitude. Radio aids to navigation may be used as supplemental course guidance when feasible.

b. Recommended Altitudes: Each segment of a route must have recommended minimum/maximum altitudes.

1. Recommended altitudes must avoid airspace requiring prior ATC authorization or contact to enter.

2. Recommended altitude must be in accordance with VFR cruising altitudes.

3. Recommended altitudes must avoid areas of expected wake turbulence from large aircraft.

4. Altitude changes should be based on climb/descent rate of 250–350 feet per nautical mile.

5. Recommended altitudes beneath the floors of Class B and Class C airspace, require careful evaluation to avoid compression of uncontrolled traffic.

c. Military considerations: Avoid establishing routes which conflict with military ground control radar approach paths. Recommended routes which cross or are close to MTR should include communication instructions to allow pilots to determine MTR status.

12-6-4. RESPONSIBILITIES

a. Terminal Area VFR Route Development: Terminal Operations Service Area Directors are responsible for determining the need for recommended routes and for compliance with the following:

1. Initial action: Terminal Operations Service Area Directors desiring to establish recommended routes must form a task group consisting of local air traffic, FSDO, military, and other interested parties.

2. Justification: Recommendations for routes must include as a minimum:

(a) Background information including composition of the task group.

(b) Airspace areas, proposed routes, recommended altitudes, and other pertinent considerations.

3. The task force must develop descriptions of the recommended routes which must include as a minimum:

(a) Arrival/departure airports.

(b) Latitude/longitude of each turning point on the route. The description must include a sufficient number of points to establish the desired turn radius. NAVAID data may be included if appropriate: e.g., VOR radials.

(c) Recommended altitudes for each route segment and flight status: i.e., level, climbing, or descending.

(d) A list of recommended VFR checkpoints (including latitude/longitude) may be included, if appropriate.

12-6-1. POLICY

Aviation Regulations.

12-6-2. DEFINITION

b. Route Review: Terminal Operations Service Area Directors are responsible for reviewing recommended VFR routes and for ensuring that they comply with all prescribed criteria. Terminal Operations Service Area Directors must submit route descriptions to the System Operations Airspace and Aeronautical Information Management in a tabular format suitable for publication in the National Flight Data Digest without additional processing.

c. Annual Review: Terminal Operations Service

Area Directors must as a minimum, on an annual basis, review routes and submit revisions to System Operations Airspace and Aeronautical Information Management in format described above.

d. Route Revisions: The System Operations Airspace and Aeronautical Information Management office, must ensure that route descriptions/revisions submitted by Service Area offices are published in the National Flight Data Digest for the use of chart makers and other interested parties.

Section 7. Standard Terminal Automation Replacement System (STARS)

12-7-1. 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.

12–7–2. 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 an ARTS 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 para 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.

12-7-3. 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 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, para 2–1–6, Safety Alert, and subpara 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 5–2–23, Altitude Filters.

12-7-4. 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.

12-7-5. 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."

12–7–6. AUTOMATIC ACQUISITION/TERMI-NATION 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.

12–7–7. 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.

REFERENCE-

Para 11–2–8, Magnetic Variation of Video Maps/Geo Maps at ARTS Facilities.

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.

4. Controllers are aware of the towers geographic locations where aural alarms sound. (MSAW aural alarm areas.)

5. Tower aural alarm areas are identified.

6. MSAW and CA nuisance alarms are minimized by monitoring alarm frequency and location and forwarding suspected problem areas to the servicing Operational Support Facility along with any supporting documentation, via a National Automation Request (NAR) form.

12–7–8. MAGNETIC VARIATION AT STARS FACILITIES

Air traffic managers must ensure that the magnetic variation of MSAW GTMs, and radar site settings coincide. The magnetic variation must be verified annually and a change of 3 degrees or more requires a recompiling of the affected map or maps.

NOTE-

The adapted radar site settings are the primary reference for maintaining radar antenna alignment.

REFERENCE-

Para 11–7–7, Minimum Safe Altitude Warning (MSAW) and Conflict Alert (CA).

Para 11–7–9, MSAW GTM Cartographic Certification, Updates, and Recompilation.

12–7–9. MSAW GTM CARTOGRAPHIC CERTIFICATION, UPDATES, AND RECOMPILATION

a. Aeronautical Information Services, Air Traffic Support Team (AJV-5) performs the certification of the terrain elevations and the obstacle elevations. Each new or recompiled MSAW GTM must be certified by AJV-5.

b. The MSAW GTM must be recompiled by the AJV-5 if:

1. The Point of Tangency on which the map is based is relocated more than 300 feet away from its original position and/or,

2. The magnetic variation of the site changes by 3 degrees or more.

NOTE-

Requests for new or recompiled MSAW GTMs are routed to AJV-5. AJV-5 can take up to eight weeks to build and

deliver a GTM, particularly for mountainous terrain areas.

12-7-10. DIGITAL MAP VERIFICATION

Verification of the accuracy of new or modified digital maps must be accomplished through the use of "targets of opportunity" flying over displayed fixes, navigational aids, etc. Any observed discrepancies must be documented to indicate the observed direction and displacement. If any identified error cannot be corrected or if a facility is otherwise dissatisfied with the results from "targets of opportunity," a request may be made through the FICO for a flight inspection.

12-7-11. MODE C INTRUDER (MCI) ALERT ARAMETERS

a. Use the nominal value of parameters specified in the appropriate NAS Configuration Management Document and Site Program Bulletins for the MCI Alert functions, except for the base altitude parameter, as specified in subparagraphs b or c below. These parameters are set by the Operational Support Facility (OSF).

b. MCI Alert base altitude must be set at any value between ground level and 500 feet AGL at the discretion of the facility air traffic manager. Any instance of base altitudes above 500 feet AGL must be documented by the OSF.

c. Facility air traffic managers are authorized to temporarily adjust the MCI Alert base altitude at a sector(s)/position(s) when excessive MCI Alerts derogate the separation of IFR traffic. For the purpose of this section, temporary is considered to be of less than 4 hours duration, not necessarily continuous, during any calendar day. Log each occurrence on FAA Form 7230–4, when this procedure is being used, including the sector/position and temporary altitude.

d. Facility air traffic managers are authorized to inhibit the display of MCI Alert at specified sectors/position.

12–7–12. OPERATIONAL MODE TRANSITION PROCEDURES

a. Facilities must develop and maintain current detailed procedures for transition to and from the

various automated and nonautomated modes of operation.

NOTE-

The architecture of STARS allows for different operational modes during display component failures. For example, a system component failure could result in positions within the same facility operating in EASL, ESL, or FSL mode. Facilities are encouraged to take advantage of this capability to minimize the impact of display system outages.

b. The transition plans must include as a minimum:

1. Transition decision authority; i.e., the individual responsible for making the transition decision.

2. Specific transition procedures.

3. Detailed checklists specifying the duties and the responsibilities for the OSIC and other appropriate positions. The checklist must include, as a minimum, the following information/procedures:

(a) Transition decision authority.

(b) Coordination/notification procedures (intra- and interfacility).

(c) Specific duties/responsibilities (including detection and resolution of potential conflicts).

NOTE-

Whenever possible, coordination/notification procedures and duties/responsibilities should be listed in the sequence in which they are to be accomplished.

12–7–13. RADAR SELECTION PROCEDURES

a. Facilities must develop and maintain current detailed procedures for selection of radar sites.

NOTE-

The architecture of STARS allows for the selection of up to 16 different radars including short range and long-range radars at each display. This could result in positions within the same facility working and receiving radar information from different radars. Facilities are encouraged to take advantage of this capability to minimize the impact of radar outages, blind areas, limited radar coverage, etc.

b. The selection plans must include as a minimum:

1. Radar selection decision authority; i.e., the individual responsible for making the radar selection decision.

2. Specific radar selection procedures.

3. Detailed checklists specifying the duties and the responsibilities for the OSIC and other appropriate positions. The checklist must include, as a minimum, the following information/procedures:

(a) Radar selection decision authority.

(b) Coordination/notification procedures (intra- and interfacility).

(c) Specific duties/responsibilities (including detection and resolution of potential conflicts).

NOTE-

Whenever possible, coordination/notification procedures and duties/responsibilities should be listed in the sequence in which they are to be accomplished.

12-7-14. MULTI-SENSOR RADAR OPERATIONS

a. Facilities must develop and maintain current detailed procedures for selection and use of multi-sensor radar operations.

NOTE-

The architecture of STARS allows for the use of multi-sensor radar coverage. This could result in positions within the same facility working in both single sensor slant range mode and multi-sensor mode. Facilities are encouraged to take advantage of this capability to minimize the impact of radar outages, blind areas, limited radar coverage, etc.

b. The plans must include as a minimum:

1. Decision authority to use multi-sensor coverage; i.e., the individual responsible for making the decision.

2. Specific multi-sensor radar procedures.

3. Detailed checklists specifying the duties and the responsibilities for the OSIC and other appropriate positions. The checklist must include, as a minimum, the following information/procedures:

(a) Decision authority to use multi-sensor radar coverage.

(b) Coordination/notification procedures (intra- and interfacility).

(c) Specific duties/responsibilities (including detection and resolution of potential conflicts).

NOTE-

Whenever possible, coordination/notification procedures and duties/responsibilities should be listed in the sequence in which they are to be accomplished.

Section 8. Safety Logic Systems Operations Supervisor/CIC Procedures

12-8-1. ASDE SYSTEM OPERATION

a. Safety logic systems are software enhancements to the ASDE systems (ASDE–3, ASDE–X and ASSC) that predict the path of aircraft landing and/or departing, and/or vehicular movements on runways. Visual and aural alerts are activated when the safety logic projects a potential collision.

b. The safety logic system must be operated in a full core alert runway configuration. (In ASDE-X/ASSC, when rain configuration is selected, it includes full core alerting capabilities.)

c. In the event of a Multilateration (MLAT) failure, ASDE-X/ASSC will stay operational. In this case, ASDE-X/ASSC will operate in radar-only mode. The system automatically transitions to radar-only mode when it senses an MLAT fault. No action is required by the operator to enable radar-only mode.

1. The controller displays will keep maps and track data. Tracks that were currently being tracked when MLAT failed will keep their data blocks while in the coverage area. Tracks on arrival with ASR coverage will also keep a data block while in the coverage area. Tracks moving from a radar–only mode zone to a fully operational zone will display the tracks as it enters the operational zone.

2. New tracks will start as unknown icons and must be manually tagged to receive a data block. ASDE-X/ASSC safety logic processing is not affected by radar-only mode operation. The system automatically transitions to normal operation once the MLAT subsystem is back online. Full core alerting capabilities are provided in radar-only mode.

d. When ASDE–3 and/or AMASS is in maintenance mode, AMASS data must be considered invalid and the system must be taken offline. The OS/CIC must validate, upon resuming normal AMASS operations, that runway configurations and other user settings are adequate for operational use.

NOTE-

Action to change AMASS online/offline status is a technical operations function. ASDE-X/ASSC safety logic will automatically be disabled when the system is in maintenance mode.

e. When a runway becomes unavailable for aircraft operations for an extended period of time, the runway should be entered as "closed" in the safety logic system. Facility procedures should be developed to address using the safety logic system in this capacity.

f. Construction projects in the vicinity of runways may cause nuisance or false alerts. It is the responsibility of air traffic facility management to mitigate alerts.

1. Air traffic facilities must use the ASDE-X/ASSC "Inhibit Area" map feature to manage construction related alerts when possible.

2. National Airway Systems Engineering (NAS Engineering) is able to assist facilities that do not have access to the ASDE-X/ASSC "Inhibit Area" map feature to manage construction related alerts. Facilities must contact NAS Engineering for assistance 30 to 45 days before construction via email at 9–AMC–ATOW–ASDES@faa.gov.

g. Changes to the airport movement areas which require updated ASDE-X/ASSC Maps can be provided by NAS Engineering. Facilities must contact NAS Engineering for assistance 30 to 45 days before construction via email at 9–AMC–ATOW–ASDES@faa.gov.

h. ASDE–X/ASSC false targets may be temporarily track dropped after positive verification has been done by pilot/vehicle operator position report or controller visual observation. When a false target is temporarily dropped, it must be noted on FAA Form 7230–4, Daily Record of Facility Operation.

REFERENCE-

FAAO JO 7110.65, Para 3-6-2, Identification.

i. The air traffic manager may authorize a real target to be inhibited from safety logic processing when the target will likely generate a nuisance alert.

12-8-2. ENSURE STATUS

a. The OS/CIC is responsible for ensuring that the Safety Logic System is set for the correct runway configuration.

b. The OS/CIC must ensure that the operational status of the Safety Logic System is known to all operational personnel.

c. When a status change is made to the Safety Logic System all personnel assigned an operational position must be notified verbally.

d. When any status change is made to the Safety Logic System it must be noted on FAA Form 7230–4, Daily Record of Facility Operation. Such status must be shown in the facility Status Information Area (SIA). The OS/CIC must ensure that all outages are carried over on applicable logs.

12–8–3. MONITOR ALERTS AND ENSURE CORRECTIVE ACTION

a. The OS/CIC must ensure that the Safety Logic System is monitored and all alerts are complied with.

b. All Safety Logic System alerts generated must be documented on FAA Form 7230–4. If unable to determine the origin of an alert, treat the alert as false and notify Technical Operations so that corrective action can be taken.

REFERENCE-

Pilot/Controller Glossary Term- Safety Logic System Alerts.

12-8-4. RAIN CONFIGURATION

a. Due to the required sensitivity of surface movement radars, numerous false targets may be generated by moderate to extreme precipitation. During these periods the ASDE Safety Logic Systems should be operated in rain configuration. Should precipitation of this magnitude occur or be imminent, rain configuration may be applied to avoid the likelihood of false alerts.

b. When the event that led to placing the system into rain configuration is no longer a factor, the Safety Logic System must be reset to a normal configuration.

NOTE-

When AMASS is in rain configuration all safety logic

alerts with the exception of arrivals to a closed runway are inhibited and AMASS is not in full core alert status.

12-8-5. LIMITED CONFIGURATION

a. Under certain circumstances, there may be a need to operate the Safety Logic System in limited configuration. The limited configuration must only be used to temporarily inhibit persistent false alerts. The term "persistent false alert" refers to frequent false alerts caused by continuous or repetitive circumstances. False alerts caused by random events or circumstances of short duration are not considered "persistent false alerts." The determination of "persistent false alerts" is at the discretion of each OS/CIC.

b. Due to the required sensitivity of surface movement radars, numerous false targets may be caused by precipitation of moderate or greater intensity. Should precipitation of this magnitude occur or be imminent at locations where ASDE does not have rain configuration availability, limited configuration may be applied to avoid the likelihood of false alerts.

c. When it is necessary to operate the ASDE–X/ASSC Safety Logic System in limited configuration due to "persistent false alerts," notify Technical Operations so that corrective action can be taken.

d. When an AMASS false alert is received, limited configuration must only be used until Technical Operations verifies that the system is functioning properly and that the data necessary to analyze the alert has been obtained. Analysis and resolution of the circumstances surrounding the false alert will be determined by Technical Operations at a later date.

e. When limited configuration is applied, it must be noted on FAA Form 7230–4, Daily Record of Facility Operation, including the reason for the configuration change. Ensure that all limited configurations are carried over on applicable logs.

NOTE-

1. For AMASS, the limited configuration disables all alerts except arrivals to a closed runway and is not considered full-core alert status.

2. For ASDE-X/ASSC the limited configuration disables all alerts except arrivals to and departures on a closed runway and is not considered full-core alert status.
12-8-6. WATCH CHECKLIST

The Safety Logic System status must be included in the facility watch checklist. At a minimum, the following items must be reviewed:

a. Operational status.

b. Runway configuration.

c. Presentation of the Safety Logic System data on all ASDE system displays.

d. When test button is activated, the aural alert is heard, and the speaker volume is adequate.

Section 9. VFR Waypoint Chart Program

12-9-1. POLICY

a. The VFR Waypoint Chart Program was established to provide VFR pilots with a supplemental tool to assist with position awareness while navigating visually in aircraft equipped with area navigation (RNAV) receivers. The program's purpose is to enhance safety, reduce pilot deviations, and provide navigation aids for pilots unfamiliar with an area in or around Class B, Class C, and Special Use Airspace (SUA). The use of VFR waypoints does not relieve the pilot of any responsibility to comply with the requirements of 14 CFR Part 91.

b. This program contains the process for developing and submitting requests for inclusion of VFR waypoints on VFR navigational charts.

12-9-2. DEFINITION

A VFR waypoint is a predetermined geographical point depicted on a chart for transitioning and/or circumventing controlled and/or SUA, that is defined relative to a visual reporting point or in terms of latitude/longitude coordinates.

12-9-3. CRITERIA

Use the following criteria for establishing VFR waypoints on VFR navigation charts. Establishment of VFR waypoints should be minimized to reduce chart clutter and complexity. RNAV and Global Positioning System aircraft will more accurately fly over a specific point and this should be considered when developing VFR waypoints. Avoid placement of VFR waypoints directly over heavily populated or sensitive structures or areas; e.g., hospitals, government buildings, schools, power plants, etc.

a. Applications.

1. Avoidance of specific airspace; e.g., Class B, SUA, etc. VFR waypoints must not be used to define airspace boundaries.

2. Support VFR flyway routes with entry and exit points, and, when necessary, intermediate waypoints.

NOTE-

For VFR routes, refer to Section 7, Terminal Area VFR Route Program.

3. Assist in identifying VFR checkpoints (visual reporting points) where the associated landmark is difficult to discern.

NOTE-

When a VFR waypoint is associated with a VFR checkpoint, the name of that checkpoint must be used in ATC communications.

4. Guidance for the development of VFR waypoints to identify mountain passes/routes is or will be provided in Flight Standards' directives.

5. VFR waypoints are not for use in ATC communications; therefore, the VFR waypoint names are not pronounceable. If it is desired that a VFR waypoint be used for communications, then a new VFR checkpoint must be established. VFR checkpoints can be established by submitting a request to Aeronautical Information Services, through the Service Area Operations Support Group (OSG) describing the checkpoint and providing the latitude/longitude location.

6. VFR waypoints must not be used for those navigational aids, airports, etc., which currently exist in the National Flight Data Center database. When a VFR waypoint is desired where a fix already exists in the database, locate the VFR waypoint in the general vicinity considered the next most desired location.

b. VFR chart depiction:

1. VFR waypoint names (for computer–entry and flight plans) consist of five letters beginning with the letters "VP" and are retrievable from navigation databases.

2. VFR waypoints associated with VFR checkpoints will not have the waypoint symbology depicted; the Interagency Air Cartographic Committee (IACC) checkpoint symbol will remain. Only the five-letter identifier will be charted next to the name of the checkpoint.

3. VFR waypoints will be illustrated using the IACC waypoint symbology.

4. The latitude/longitude for each waypoint will be published in FAA Order JO 7350.9, Location

Identifiers, and on one of the panels of the appropriate chart.

12-9-4. RESPONSIBILITIES

a. Proponent. Any interested party may recommend the addition of VFR waypoints to VFR navigation charts or helicopter charts via the appropriate air traffic facility.

b. Air traffic facilities must:

1. Prepare VFR waypoint recommendations. The most important task in preparing the recommendation is coordination with local aviation interests; i.e., Aircraft Owners and Pilots Association, Flight Standards District Office, Flight Service Station (FSS), military, law enforcement, etc.

NOTE-

As FSSs play an integral part in the VFR flight planning process, they may serve as a valuable resource in identifying VFR waypoint recommendations.

2. After consensus with all affected air traffic facilities and local aviation interests on the need and location of the proposed VFR waypoints, submit a package to the respective Service Area OSG containing:

(a) A new or revised VFR navigation chart depicting the location and five-letter name of each waypoint/checkpoint.

(b) A completed Appendix D, FAA Form 8260–2, Data Worksheet, in accordance with FAAO 8260.19, Flight Procedures and Airspace. A list of available VFR waypoint five–letter names can be obtained from the Service Area OSG or from Aeronautical Information Services, National Flight Data Center. Flight checks are not required.

(c) A textual description of each waypoint including the name and latitude/longitude.

(d) A graphic or satellite image with the precise point of the VFR waypoint depicted. It is critical that the depictions be easily readable by the En route and Visual Charting Group, Visual Charting Team in order to verify the position for accurate charting.

(e) Justification/supporting rationale.

c. The Service Area OSG must:

1. Provide assistance to the air traffic facility, if requested, to prepare the textual description of each waypoint including the name and latitude/longitude and/or to depict the VFR waypoints on a satellite image.

2. Approve the VFR waypoint charting and ensure compliance with the prescribed criteria. If approval is granted, the Service Area OSG must forward the package to Aeronautical Information Services, National Flight Data Center at least 12 weeks prior to the planned implementation date. The planned implementation date must coincide with a publication date of the respective VFR navigation chart.

3. Coordinate overall activity when multiple facilities are affected by the planned use of VFR waypoints such as numerous VFR waypoints on a VFR chart.

4. Maintain the VFR waypoint forms (FAA Form 8260–2, Radio Fix and Holding Data Record) to include corrections, changes, or modifications, as necessary.

5. Conduct annual reviews.

d. Aeronautical Information Services, National Flight Data Center must:

1. Review the incoming VFR waypoint proposals for completeness.

2. Verify that the requested five-letter "VP" combinations are available for use.

3. Forward the package to En Route and Visual Charting Group, Visual Charting Team for verification of the geographic positions.

4. Upon verification, the Visual Charting Team must notify the National Flight Data Center prior to publication in the National Flight Data Digest (NFDD).

5. Maintain VFR waypoint forms (FAA Form 8260–2) to include corrections, changes, or modifications, as necessary.

6. After coordination, publish VFR waypoint geographic position in FAA Order JO 7350.9.

e. Visual Charting Team must:

1. Review the incoming VFR waypoint proposals for completeness.

2. Coordinate with the National Flight Data Center for the resolution of any geographic positions

that require FAA Form 8260–2 revisions; provide the National Flight Data Center with verification that geographic positions are ready for publication in the NFDD.

3. Coordinate with the National Flight Data Center to ensure that any new or revised VFR checkpoints are published in the NFDD.

4. Publish VFR waypoint geographic positions in the Chart Supplement U.S. and on appropriate VFR charts.

Section 10. Low Altitude Authorization Notification Capability

12-10-1. PROGRAM DESCRIPTION

a. LAANC is the term for the software used to automate small Unmanned Aircraft System(s) (sUAS) operator requests for access to airspace and receive FAA issued authorizations for Part 107 operations. Additionally, LAANC allows model aircraft (Part 101E) operators to notify ATC of planned operations within 5 miles of an airport. LAANC major elements include the FAA air traffic facility's Unmanned Aircraft System(s) Facility Map (UASFM) data for use in determining authorizations, the use of sUAS Service Suppliers (USS) to process notification and authorization information to operators, and the ability for multiple USSs to provide services.

b. LAANC functions at the operational planning stage, identifying intended operations and managing the associated authorizations and notifications. Operators may submit a request for access to airspace up to 90 days in advance. To provide adequate time for ATC situational awareness, sUAS operators are encouraged to submit their Part 107 requests at least one or two days before the operation commences. Most LAANC information exchanges occur in near real time (notifications and automatic authorizations) and provide immediate feedback to operators.

12-10-2. UAS FACILITY MAPS (UASFM)

UASFMs have been developed by FAA facilities to establish the altitude thresholds at and below which sUAS may be granted automatic authorization under Part 107. USSs will use current FAA-approved UASFMs and will operate within agreed LAANC USS operating rules. An authorization request made within a UASFM altitude will be issued by the FAA to the USS. The USS will relay the authorization to the receiving facility. The facility retains the ability to cancel any such specific authorization(s) as needed. UASFMs also serve as a warning threshold for Part 101E operations, as the airspace above automatic authorization limits indicates an area that an FAA facility has identified as potentially active with controlled manned air traffic.

NOTE-

For UAS facility map design, see FAA Order JO 7200.23.

12-10-3. PART 101E NOTIFICATIONS

Part 101E notifications sent through LAANC by sUAS operators to ATC facilities provide situational awareness about planned sUAS operators in a particular airspace. Notifications are sent from sUAS operators, also known as hobbyists, to ATC facilities with a USS acting as an intermediary.

12–10–4. PART 107 ATC AUTHORIZATIONS

Part 107 authorizations or denials are sent to an operator in response to a request to operate in controlled airspace. A request for authorization will contain data from a sUAS operator to a USS providing flight information about the area of operation. If the area of operation falls within a UASFM altitude, LAANC will provide an automatic authorization. If the area of operation falls above a UASFM altitude, LAANC facilitates a further coordination process. The facility may approve or deny such requests through LAANC.

12-10-5. UAS SERVICE SUPPLIER (USS)

LAANC uses industry partner UAS Service Suppliers (USS) to provide services specific to sUAS operations. Such services are provided through an exchange of information between the FAA and the USS, whereby the USS is the primary interface to the operator. The USS accesses UASFMs and USS operating rules provided by the FAA to grant the automatic authorization of sUAS operations that meet the requirement of 14 CFR Part 107 operations and fall within a UASFM altitude.

12-10-6. VOLUNTARY NOTIFICATION

LAANC will inform the sUAS operator when an operation entered into LAANC takes place in areas where ATC authorization/notification is not required (outside controlled airspace/beyond 5 statute miles from an airport). LAANC will provide confirmation to the operator that the flight information has been received and a record will be submitted to the FAA.

12-10-7. REQUIRED NOTIFICATION

If ATC notification is required (Part 101E), the operator may submit their proposed flight information to a USS. The USS will check if a notification is required based on whether or not the operation falls within 5 statute miles of an airport. If notification is required, the USS will facilitate the notification via LAANC.

12-10-8. REQUIRED AUTHORIZATION

a. If ATC authorization is required (Part 107), the sUAS operator may submit their proposed flight information to a USS. The USS will use the appropriate UASFM to determine if an operation can be automatically authorized. If the flight falls within the UASFM altitude, FAA authorization is provided to the operator. Flight details are provided via the LAANC website to the facility.

b. If the proposed flight operation is above a UASFM altitude, further coordination is required at the facility level. The USS makes LAANC further coordination processes an option available to the operator, with the understanding that further coordination requires the consideration of ATC personnel and a response will not be immediate. Resources permitting, facility personnel may provide authorization or denial electronically back through LAANC, which will be delivered to the operator via the USS.

c. If an operation which requires further coordination has been authorized, the sUAS operator may proceed to operate within the authorized parameters.

12-10-9. FURTHER COORDINATION

a. Further coordination is the term used when an authorization processed via LAANC cannot be automatically approved. For example, if a Part 107 authorization request is sent by an operator to a USS, and the planned operation is above a UASFM altitude, the request cannot be automatically approved. Facility personnel must be involved in approving or denying the request. The USS can submit the request for further coordination, in which case LAANC will direct it to the appropriate facility, and when a response is provided, LAANC will send it back to the operator.

b. Further coordination requests require longer periods of processing time (e.g., hours, days) than other LAANC processes, based upon the availability of ATC facilities/ATM personnel to consider an authorization request. If a response is not provided, further coordination requests will expire within 30 days after submission or the proposed operator's start time, whichever comes first.

NOTE-

LAANC further coordination is not the same as a waiver defined by Part 107 Subpart D. Waivers are not within the scope of LAANC. Furthermore, Part 107 requires a waiver for operations above 400 feet. Therefore, LAANC can only provide Part 107 authorizations, whether automatically or by further coordination, for operations at or below 400 feet.

12-10-10. FACILITY RESPONSIBILITIES

a. The ATM will request access to LAANC by providing their email address and that of any designee to 9–ajt–laancpoc@faa.gov.

b. Using Chrome web browser, LAANC can be accessed at https://laanc-atc.faa.gov. My Access is used to sign in to LAANC.

c. Review the "Facility Preferences" page to ensure the "Approval Facilities" information is correct.

d. The ATM or designee will periodically review LAANC to maintain situational awareness of sUAS activity in their airspace.

e. The ATM or designee, workload permitting, will review further coordination requests for approval consideration. The only actions available for requests awaiting further coordination are to "APPROVE" or "DENY" the operation.

f. When receiving a Part 107 authorization or approving a Part 107 authorization above a UASFM altitude, the ATM or designee will use their best judgement to determine if the information needs to be disseminated to the controller. If it is determined that the controller should know, then it will be distributed to the appropriate position(s).

NOTE-

LAANC will allow an operator to request an altitude above a UASFM altitude as long as the requested altitude is not above 400 ft agl as per 14 CFR Part 107.

g. Any previously issued authorization(s) may be rescinded via LAANC. The operator must acknowl-

edge the action before the previously issued authorization is cancelled. If no acknowledgement is received and/or timeliness is a factor, the operator may be contacted via telephone.

Chapter 13. Facility Statistical Data, Reports, and Forms

Section 1. General Information

13-1-1. GENERAL

Since the inception of ATC, there has been some method of recording the volume of air traffic activity. OPSNET is the official data reporting system as per FAAO JO 7210.55, Operational Data Reporting Requirements. All air traffic facilities, except FSSs, must report traffic count information daily through OPSNET.

The FAA collects and analyzes these data to make decisions on, but not limited to, budgeting, forecasting, planning, programming new equipment, public dissemination, and historical analysis. Because of its broad application and national use, it is imperative the gathering of data be both standardized and accurate. Two basic requirements must be met for an operation count: the facility must be responsible for providing service to the aircraft, and the service provided must qualify using the guidelines established throughout the remainder of this chapter. Air traffic managers must ensure that the intent of the provisions in this chapter is fulfilled.

13-1-2. COUNTING METHODS

Traffic counts may be counted either manually or

through the use of nationally deployed automated counting programs (i.e., CountOps). The accuracy of automated counts must be validated annually to be within plus/minus 3 percent of the actual traffic count. Annual validation of traffic counts for other purposes such as "classification" meets this requirement.

13-1-3. QUESTIONS OR CHANGES

Any questions as to how an operation should be counted or recommendations for changes to procedures should be forwarded to the appropriate service area for resolution. Service areas will forward their questions or recommendations to the appropriate service unit.

13–1–4. SUMMARY OF STATISTICAL REPORTS AND FORMS

The table below provides a quick reference for reporting requirements in this chapter. The OPSNET system provides the ability to input the required data as described below. (See TBL 13-1-1.)

TBL 13-1-1 Reporting Requirements

Facility Type	Report	
Type 1 tower without radar		
<i>Type 3 combination radar approach control and tower with radar (tower portion)</i> <i>Type 4 combination nonradar approach control and tower without radar (tower portion)</i>	Itinerant IFR arrivals and departures Itinerant VFR arrivals and departures	
Type 5 nonapproach control tower Type 6 combined control facility (tower portion) Type 7 tower with radar	Local operations IFR overflights VFR overflights	
Type 11 Federal Contract Tower		
Type 2 terminal radar approach control (TRACON) Type 3 combination radar approach control and tower with radar (TRACON portion) Type 4 combination nonnedar approach control and tower without radar	Itinerant IFR arrivals and departures to all airports Itinerant VFR arrivals and departures to all	
Type 4 combination nonradar approach control and tower without radar (TRACON portion) Type 6 combined control facility (TRACON portion) Type 9 combined TRACON	airports IFR overflights VFR overflights	

13-1-5. CATEGORIES OF OPERATIONS

a. All itinerant and overflight operations are reported in the following categories:

1. Air Carrier: Operations by aircraft identified in Appendix 3, Air Carrier for Air Traffic Activity Operations Count, which use three-letter company designators.

2. Air Taxi: Operations by aircraft other than those identified in Appendix 3 which use three–letter company designators or the prefix "T" (TANGO) or "L" (MEDEVAC).

NOTE-

Air Taxi operators who do not have an FAA-issued designator have been authorized to use the prefix "T" or "L".

3. Military: All classes of military operations.

4. General Aviation: Civil operations not classified as air carrier or air taxi.

b. All local operations are reported in the following categories:

1. Civil: All civilian operations, including local flights by air carrier and air taxi aircraft.

2. Military: All classes of military operations.

13–2–1. TABULATION

a. Count IFR itinerant operations as follows:

1. One count for an aircraft on an IFR flight plan or a special visual flight rule (SVFR) clearance that:

(a) Takes off.

(b) Lands.

2. One count for aircraft on an IFR flight plan that executes a missed approach procedure.

3. One count for a VFR aircraft that requests to practice the published missed approach procedure when approved separation is provided by the tower and TRACON.

4. One count for a SVFR clearance operating wholly within the Class D or Class E surface area, e.g., local SVFR making a series of landings and takeoffs (towers).

NOTE-

When an aircraft operates on a SVFR clearance for a series of VFR patterns and landings, only one instrument count must be taken for the SVFR clearance, while each takeoff and landing is tabulated as a local operation. **5.** One count for each aircraft practicing instrument procedures either on an IFR flight plan or VFR (if approved separation is provided) that:

(a) Takes off from a complete stop and practices an instrument departure.

(b) Practices an instrument approach procedure.

b. Count VFR itinerant operations as follows:

- 1. One count for an aircraft operating VFR that:
 - (a) Takes off.
 - (b) Lands.

2. Two counts for each low approach below traffic pattern altitude (one landing and one taking off), a stop and go operation, or touch-and-go operation.

NOTE-

Consider operations of more than one aircraft operating in a formation as a single aircraft. If the formation breaks up into smaller formations, consider each additional formation as a separate aircraft.

Section 3. Local Operations

13-3-1. TABULATION

Count local operations as follows:

a. One count for an aircraft departing the airport area for a designated practice area and one count for

the aircraft returning from the designated practice area.

b. Two counts for each low approach below traffic pattern altitude that is a stop and go or touch–and–go operation.

Section 4. Overflight Operations

13-4-1. TABULATION

a. Count IFR overflight operations as follows: One count for each segment of flight when an aircraft on an IFR flight plan or SVFR clearance transits the airspace. A TRACON that hands an aircraft off to the tower and the aircraft returns to the TRACON, count the additional portion as a separate segment.

b. Count VFR overflight operations as follows:

One count for each segment when an aircraft operating VFR transits the airspace. A TRACON that hands an aircraft off to the tower and the aircraft returns to the TRACON, count the additional portion as a separate segment.

NOTE-

Consider operations of more than one aircraft operating in a formation as a single aircraft. If the formation breaks up into smaller formations, consider each additional formation as a separate aircraft.

Section 5. Amending and Reviewing Data

13-5-1. AMENDED OPSNET DATA

Corrections must be entered into OPSNET no later than the 15th day of the following reporting month. Exceptions to this rule must be requested and approved through the Office of Performance Analysis, NAS Data and Integration.

13-5-2. ANALYSIS AND REVIEW

Data are available for analysis and review through the following Web site: https://aspm.faa.gov. Select the OPSNET link to view data. Use the ASPM website links for inquires about data or to request enhancements to the reporting system.

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	

	Designator	Position
1.	AA	Airport Advisory
2.	BC	Broadcast
3.	С	Coordinator
4.	DSC	Data Systems Coordinator
5.	FD	Flight Data
6.	IF	Inflight
7.	Ν	NOTAM
8.	ОМ	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, e.g., coastal route, TIBS sectorization, etc.

Section 2. Position/Service Information Binders

14-2-1. RESPONSIBILITY

a. The air traffic manager must provide position binders to include, but not be limited to, procedures for accomplishing position related duties and responsibilities as outlined below. Additionally, examples and formats must be included for seldom used procedures. Cross references to documents and lists contained in other publications may be used where applicable. The air traffic manager may assign those functions, detailed below, to the appropriate position(s) as facility needs dictate but must provide those items appropriate for each position in the binders.

b. The air traffic manager must retain one copy of the completed facility standard operating procedures directive in the operations area and distribute applicable sections to the positions to which they apply.

14-2-2. BOUNDARIES

Flight Plan Area: Provide a narrative and/or graphic depiction of the flight plan area. This includes areas covered when accepting flight plan responsibility for part-time facilities.

14-2-3. POSITIONS/SERVICES

a. Broadcast:

- 1. Define broadcast area and list outlets.
- 2. List locations and weather products.
- **3.** Specify broadcast hours.

b. Pilot Briefing:

- 1. List and/or specify preflight briefing display.
- 2. Specify flight plan handling procedures.
- **c.** In–Flight:

1. Document aircraft contacts.

2. List control frequencies/dial code information.

3. Specify local airport advisory/remote airport information service (RAIS)/remote airport advisory (RAA) procedures.

4. Specify SVFR procedures.

5. Specify aircraft orientation/emergency procedures.

6. Specify PIREP handling procedures.

7. Specify procedures for altimeter check.

d. NOTAM Handling:

1. List authorized sources/telephone numbers. Data may be stored and displayed electronically, where available.

2. Specify NOTAM dissemination procedures.

3. Specify NOTAM currency/display procedures.

e. Flight Data:

1. Specify military flight plan handling/co-ordination procedures.

2. Specify notification procedures for military training activities, including MTRs and MOAs.

3. Specify IFR/Defense VFR (DVFR), ADIZ, Canadian, Mexican, and ICAO procedures with examples.

4. Specify customs notification procedures.

5. Specify search and rescue notification procedures.

6. List airport search/contact telephone numbers.

Section 3. Operations

14–3–1. AIRPORT CONDITION FILE

Maintain a current file of all public use civil landing areas within the FSSs flight plan area. Post the latest available information regarding airport conditions and facilities on the current FAA Airport Master Record (FAA Form 5010-1). Review the National Flight Data Digest, and post changes not previously received.

14-3-2. LANDING AREA STATUS CHECKS

To the extent that their operational duties permit, FSS air traffic managers are encouraged to visit airports and to contact airport managers. Operational changes in airport conditions, facilities, or services that are observed by or reported to the FSS must be transmitted to System Operations Airspace and Aeronautical Information Management.

14–3–3. AIRPORT SEARCH ARRANGEMENTS

FSS air traffic managers must arrange with the airport management of each civil landing area in the FSSs flight plan area, including private landing areas as appropriate, to be searched for an overdue or unreported aircraft upon request from the station. Request police assistance in searching unattended landing areas.

■ 14-3-4. LIAISON VISITS

As practicable:

a. Visit attended landing areas at least once each year. Visit unattended fields at the discretion of the FSS air traffic manager. Rotate liaison visits among professional level specialists.

b. Make familiarization flights over the FSSs flight plan area and particularly the area within 100 miles of the station. This will enable specialists to acquire and maintain knowledge of the landmarks

and the facilities used in aircraft orientation and pilot briefings. Combine familiarization flights and liaison visits as practicable.

14-3-5. DUTIES

Typical duties for liaison visits and familiarization flights include:

a. Acquiring knowledge of airports, facilities, and topography.

b. Becoming familiar with landmarks.

c. Becoming familiar with the operation of aircraft equipment and navigation procedures.

d. Discussing FAA services.

e. Checking arrangements for handling NOTAMs.

f. Checking arrangements for the search of airports for missing aircraft.

g. Checking arrangements for alerting airport emergency equipment.

h. Checking the listing of airports and other facilities in aeronautical publications and their depiction on aeronautical charts.

i. Collecting information for the Airport Condition File and the aircraft orientation board.

j. Ascertaining the number of based aircraft and/or itinerant operations for planning FX or other communications needs to the associated FSS.

k. Obtaining pilots' opinions of the services provided by the station.

I. Practicing aircraft orientation procedures.

14-3-6. TIE-IN NOTAM RESPONSIBILITY

Tie-in FSSs must make arrangements with other agencies and facilities (NWS, U.S. Army, control tower, etc.) for the proper exchange of NOTAM information.

Section 4. Services

14-4-1. PREFILED FLIGHT PLANS

When an aircraft operator regularly makes two or more identical flights per week and the FSS air traffic manager believes that a prefiled flight plan program would provide beneficial service, a LOA must be executed between the concerned FSS and the scheduled operator, preferably operators certificated under 14 CFR Part 121 or 14 CFR Part 135, or the military desiring to prefile flight plans. The following criteria must be used in coordinating and implementing the prefiled flight plan program:

a. The LOA must provide for but not be limited to:

1. Each operator will furnish the appropriate FSS with a specific contact for coordination including the name, address, and telephone number of the party to notify if an aircraft becomes overdue, day or night.

2. Prefiled flight plans must be furnished for each flight, and signed by an authorized representative of the company.

3. Immediate notification by the operator of permanent cancellation or change of prefiled flight plans. This permanent data change must be accepted any time prior to the activation of the flight plan.

4. Separate and complete flight plans must be required when the operator desires to deviate from the prefiled data.

5. The operator must request activation with the appropriate FSS not more than 24 hours or less than 1 hour in advance of the estimated time of departure for prefiled flight plans. Flight plans may be automatically activated if this is contained in a LOA.

6. Violations of these procedures by the operator will be grounds to terminate the program with the operator.

b. Only those prefiled flight plans for which the operator has requested activation must be transmitted. Prefiled flight plans which are known to be in error, not going to depart, or any other reason which will cause a cancellation or a resubmission must not be transmitted to a control facility.

14–4–2. PRACTICE INSTRUMENT APPROACHES

At locations providing Local Airport Advisories (LAA) where either an ARTCC or an approach control facility provides IFR separation to VFR aircraft practicing instrument approaches, provisions for handling such aircraft must be included in a letter of agreement.

REFERENCE-

FAA JO 7110.65, Para 4-8-11, Practice Approaches

14-4-3. OPERATION OF AIRPORT LIGHTS

a. When a FSS is located at an airport or at a part-time tower location, the FSS air traffic manager may, under the terms of a LOA with the airport manager and the tower, assume this responsibility provided that:

1. The controls are extended into the station and are located conveniently at the operating position.

2. The operating quarters afford a sufficient view to determine the operating status of the lights without the specialist having to leave his/her post of duty or an indicator is provided in the station quarters which will show the actual operating status.

b. FSS operating less than 24 hours a day which have lighting control responsibility must be guided by the instructions in Part 3., Chapter 10, Section 6, Airport Lighting.

14–4–4. RUNWAY EDGE LIGHTS ASSOCIATED WITH MEDIUM APPROACH LIGHT SYSTEM/RUNWAY ALIGNMENT INDICATOR LIGHTS

FSSs having responsibility for the control of MALS/RAIL brightness must comply with the instructions in Paragraph 10–6–9, Runway Edge Lights Associated with Medium Approach Light System/Runway Alignment Indicator Lights.

14–4–5. LOCAL AIRPORT ADVISORY (LAA)/REMOTE AIRPORT ADVISORY (RAA)/REMOTE AIRPORT INFORMATION SERVICE (RAIS)

a. Provide LAA at FSSs during the published service hours when:

1. Located on the airport.

2. There is no operating control tower on the airport.

3. The facility has a continuous display of the automated weather data or manual weather observations.

4. A discrete frequency or the tower frequency, when the tower is closed, is available.

5. The pilot says, "I have the automated weather."

b. Provide RAA at FSSs during the published service hours when:

1. The airport authority or airport manager has requested the service and the facility has the resources available to provide the service.

2. The annual traffic density and employee productivity factor is high enough to justify the cost of providing the service. Published service times may be adjusted by the facility manager to accommodate anticipated or forecast traffic density changes.

EXAMPLE-

Winter service hours may be longer than summer service hours at airports that service several popular ski resorts. Therefore, the manager may choose to reduce or suspend summer service to mitigate short-term productivity concerns.

3. There is no operating control tower on the RAA airport.

4. The facility has a continuous display of the automated weather data or manual observations are reported to the facility.

5. There is a remote discrete frequency or the tower frequency is remoted to the FSS, when the tower is closed.

6. The airport has a traffic density of 25,000 or more aircraft operations per year.

NOTE-

If a new airport fails to deliver 25,000 aircraft operations during the first year of service, RAA must be discontinued. After the first year is completed and yields 25,000 or more aircraft operations, the decision to continue services is evaluated on the anniversary date and based on a minimum of 25,000 aircraft operations at the target airport during any consecutive twelve months of the previous 3 years. 7. The facility's productivity factor is determined by dividing the annual RAA service count by 16,000.

NOTE-

The productivity factor is compared to the number of employees used to provide the service and must be equal to or greater than the number of employees needed to provide the service. Normally about 2.5 employees are factored annually to provide 10 hours of service per day. (The .5 factor ensures employee vacations, training periods, sick days, and daily break periods).

c. Provide RAIS to support special events at airports during NOTAM D service hours when:

1. The airport authority has requested the service at least 30 days in advance and the facility has the resources available to provide the service.

2. There is no operating control tower at the airport.

3. The facility has discrete communications capability at the airport.

4. The RAIS airport has automated weather reporting for the pilots with voice capability.

5. The pilot says, "I have the automated weather."

6. A NOTAM D has been issued at least 24 hours in advance.

14–4–6. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) – ALASKA FSSs ONLY

a. AFIS provides a 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 frequency). Pilots are urged to listen to AFIS when arriving, departing, and operating within the airport advisory area as it relieves frequency. AFIS is not used in terminal areas and does not contain approach information.

b. Before transmitting, the voice message must be reviewed to ensure content is complete and accurate. Ensure specialist speech rate does not exceed 100

words per minute, the enunciation is of the highest quality, and each part of the message is easily understood.

c. Keep messages as brief and as concise as practical.

d. ASOS must not be allowed to broadcast weather concurrent with AFIS.

e. During hours of non-operation of Alaska FSS AFIS, ASOS broadcast capability must allow the automated weather report to be broadcast on the ASOS frequency in the one minute update mode and include the following information:

1. The FSS hours of operation or in the case of a seasonal FSS, a statement that the FSS is closed for the season.

2. The appropriate common traffic advisory frequency (CTAF).

3. The frequency for operating pilot controlled lighting.

4. The FSS and frequency for additional information.

f. The FSS air traffic manager that has responsibility for a FSS utilizing AFIS equipment must ensure that ATCS personnel assigned to duty in that FSS are in compliance with the AFIS requirements and that they receive training to utilize AFIS equipment and are familiar with required procedures.

14–4–7. TRANSMISSION OF MESSAGES FROM AIRPORT INSPECTORS

Accept administrative messages from airport inspectors for transmission to NFDC and other FAA offices as prescribed in Chapter 2 of FAAO 5010.4, Airport Safety Data Program.

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 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.

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.)

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**

Chapter Title/Amendments	Issuance Number	Issuance Date
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 Temper- ature Aloft Forecasts OML 4-83	81–18	11/4/81
	4-83	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	85–9	8/26/85
OML 13–92* OML 7–92* OML 1–92*	88-8	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	74–20	9/27/74
OML 7-89	75–11	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	89–8	8/17/89
Rev 2* OML 8–92	90–10 92–2	11/27/90 4/28/92

D-Chapter Listing – *continued*

Chapter Title/Amendments	Issuance Number	Issuance Date			
WSOMD-83 Aviation Weather Seminars and Safety Clinics	74–19	9/16/74			
WSOMD-90 Weather Support for Accident Investigations and Litigation OML 3-92	89–1	2/15/89			
* If not available through FAA Distribution, may be obtained from: NOAA Logistics Supply Center 1510 East Bannister Road Building 1					
Kansas City, Missouri 64131.					

Section 2. Pilot Weather Briefing

15-2-1. BRIEFING RESPONSIBILITY

FSSs are responsible for providing weather briefings to users of aviation weather information calling in person, by radio, or telephone. These briefings are fulfilled by direct application or interpretation of NWS guidance forecasts supplemented by the latest observations and pilot reports.

15-2-2. WEATHER CHART DISPLAY

Some of the more useful weather charts for pilot weather briefings are: surface and upper air analysis, freezing level analysis, stability index analysis, radar depiction, weather depiction, surface and upper air prognosis, significant weather (high and low level) prognosis, and maximum wind and wind shear analysis and prognosis. Weather chart displays should include but not necessarily be limited to these charts.

15-2-3. TELEVISION EQUIPMENT

Closed circuit television equipment (CCTV) is available in a number of high-activity FSSs. Facilities should use the equipment to display weather graphic information. Facilities that have additional television cameras available, after graphics requirements are met, may display alphanumeric data.

15-2-4. FSS-WSO/WFO ADJOINING

When the offices are adjoining, the aviation briefing facilities should be combined to the extent practicable for efficient weather briefing service. A joint display should provide all needed aviation weather information. The briefing function will be conducted in accordance with local agreements prepared by the NWS and the FAA regions and based on interagency policy. Normally, briefings will be provided by FSS personnel. The NWS will provide support by providing and updating briefing material, consultation with the FSS briefers, and direct briefing service to the aviation user when requested by the user or the FSS specialists.

15-2-5. FSS-WSO/WFO NOT ADJOINING

At locations where joint briefing displays are not practicable, cooperative briefing service may be furnished by means of a one-call phone arrangement. This system provides for all aviation weather briefing telephone requests to be received in the FSS on lines listed under the FSS. By a switching arrangement, the pilot can be referred to the WSO/WFO when requested by the pilot.

15-2-6. FLIGHT PLANNING DISPLAY

Maintain flight planning displays in FSSs and other locations, as appropriate, convenient for pilot use. Such displays include:

a. Aeronautical charts covering the flight plan area that depict military training routes.

b. A planning chart with a means for measuring distances and plotting courses.

c. Chart Supplement U.S., NOTAM publication, and Aeronautical Information Manual.

d. Army Aviation Flight Information Bulletin.

e. DOD IFR En Route Supplement and DOD VFR Supplement.

REFERENCE-

Para 15–2–8, Military Training Activity.

f. Drawing of the local airport.

- g. Sunrise and sunset tables.
- h. Aero computer.
- i. Pilot chart working area.

15-2-7. FLIGHT PLANNING FORMS

FSS facility managers must assure FAA Form 7233-1, Flight Plans, are available in the pilot briefing area for use by pilots. Maintain a sufficient supply to provide additional copies, as needed, to pilots, aviation companies, and organizations on request.

15-2-8. MILITARY TRAINING ACTIVITY

Ensure that the current DOD General Planning (GP), DOD Flight Information Publication (FLIP), Special Use Airspace (AP/1A), Military Training Route (AP/1B), and associated charts are readily available for preflight briefings to pilots:

a. Post the DOD FLIP chart, or that portion covering at least the flight plan area plus a 100 NM extension of the FSSs existing flight plan area.

b. Publicize new or revised MTRs and MOAs through letters to airmen, pilot meetings, and where practicable, "handouts" charting the routes/areas within the FSS flight plan area and the 100 NM extension of the existing flight plan area.

15-2-9. TRANSFER OF BRIEFERS

a. A pilot weather briefer transferring from one briefing assignment to another or returning to a pilot weather briefing position after a break of 3 months to 1 year in the performance of briefing duties is required to obtain a reorientation check before performing pilot weather briefing duties.

b. A pilot weather briefer returning to briefing duties after an absence of more than 1 year from briefing duties is required to be re-qualified by means of an oral examination by the FAA.
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) 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.

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.

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:

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 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.

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.

d. The record must be retained locally for three years then destroyed.

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.

Chapter 16. Equipment

Section 1. General

16–1–1. RESPONSIBILITY

FSS air traffic managers must identify requirements for new and replacement equipment and facilities by budget submission.

NOTE-

Not applicable to contract facilities.

16–1–2. AIRCRAFT ORIENTATION PLOTTING BOARD

FIG 16–1–1 Example of a Standard Aircraft Orientation Plotting Board



Maintain an aircraft orientation plotting board (see FIG 16–1–1), parallel rulers, plotters, and fine–line china marking pencils for use in aircraft orientation. Record pertinent information directly on the board using the marking pencils. After the orientation is completed, transfer the information from the plotting board to official forms for record purposes.

16-1-3. ADDITIONAL TELEPHONE SERVICE

Submit operational justification for additional local telephone service to the service area office when a facility receives or makes telephone calls amounting to an aggregate of more than 20 minutes per line during a normal daily peak hour. The rotary system must be used for this service.

16-1-4. ORDERING OVERLAYS

a. Compass Rose Clear Plastic Overlays. When ordering the overlays, use the following National Stock Numbers (NSN):

1. VOR 3–inch compass rose: NSN 5220–01–062–8231.

b. Requests for aircraft orientation plotting board and compass rose overlays should be forwarded to:

FAA Mike Monroney Aeronautical Center

P.O. Box 25082

Oklahoma City, Oklahoma 73125

c. Items must be ordered by using one of the following three methods:

1. LIS System: NSELITE System through Service Area office; must have NSN, user ID and password, supply support code (SSC), facility type (equipment application), and facility location identifier.

2. IMPART: www.impart.faa.gov; must have NSN, user ID and password, facility location identifier.

3. FAA Logistics Center, Customer Care Center- (405) 954-3793 or 1-888-322-9824: must have NSN or part number, supply support code (SSC), equipment application, facility location identifier.

16-1-5. LEASED EQUIPMENT SUPPLIES

a. FSSs equipped with Leased Service A Systems (LSAS) must provide all expendable items. These

should normally be obtained through the FAA supply system.

b. Paper used in the LSAS monitor printer must be retained for 15 days.

c. OASIS. The vendor provides a basic quantity of consumable supplies on a yearly basis. The FAA must provide anything beyond this basic allotment.

Section 2. Frequencies

16–2–1. VOR AND VORTAC VOICE CHANNELS

Provide control lines for air-ground communications and Category I monitoring on all VORs and VORTACs as follows:

a. Provide independent transmitting and receiving lines to the controlling FSS when a remote communications outlet is associated with the VOR or the VORTAC.

b. Provide one line when a remote communications outlet has only a 122.1 MHz receiver.

c. Control lines are not required if line costs considerably exceed normal costs and cannot be justified in a particular case.

16-2-2. UHF EN ROUTE CHANNEL

Frequency 255.4 MHz must be the UHF channel for en route communications with military aircraft and must be provided as necessary to meet military en route requirements.

Chapter 17. Facility Statistical Data, Reports, and Forms

Section 1. General Information

17-1-1. FORM USAGE

a. FSSs, as used herein, include and apply to combined facilities insofar as station functions are concerned. All domestic and IFSS must use FAA Form 7230-13 daily for recording in-flight, flight plan, and pilot briefing activity.

REFERENCE-

Para 16-5-3, Distribution and Amendment.

TBL 17–1–1

National Activity Summarization

	Required Breakdown				
Type of Activity	Type of Service Involved	Category of Use			
Aircraft contacted	IFR/DVFR/SVFR (grouped) VFR	AC, AT, GA, MI			
Flight plan count	IFR & DVFR (grouped) VFR	No breakdown required			
Pilot briefs		No breakdown required			

b. A minimum amount of information regarding FSS activity, suitably broken down, is required to determine manpower requirements and for budgetary and personnel matters. There is a need for national summarization monthly of the above activity: (See TBL 17-1-1.)

17–1–2. TOTAL FLIGHT SERVICES FORMULA

Total Flight Services have historically been and continue to be used as a measurement of the overall activity of individual FSSs. Total Flight Services are based on the following formula:

a. FSS: Total Flight Services equal two times pilot briefs plus two times flight plans originated plus aircraft contacted.

b. IFSS: Total Flight Services equal two times pilot briefs plus two times flight plans originated plus two times aircraft contacted.

c. FSS/IFSS: Total Flight Services equal two times pilot briefs plus two times flight plans originated plus two times international aircraft contacted plus one times domestic aircraft contacted.

NOTE-

Total Flight Services are not to be confused with the Flight Service Activity Factor, which is used for facility grade level determination and reclassification purposes. The present classification criteria and related formula for the Flight Service Activity Factor are contained in the GS-2152 position-classification standard issued by Civil Service Commission (CSC) (now Office of Personnel Management (OPM)) in June 1978.

Section 2. Aircraft Contacted

17-2-1. AIRCRAFT CONTACTED

a. Maintain data on the following categories of aircraft operations:

1. Air Carrier: Operations by aircraft identified in Appendix 3 which use three–letter company designators.

2. Air Taxi: Operations by aircraft other than those identified in Appendix 3 which use three–letter company designators or the prefix "TANGO."

NOTE-

Air Taxi operators who do not have a FAA issued designator have been authorized to use the prefix "TANGO."

3. Military: All classes of military operations.

4. General Aviation: Civil operations which are not classified under "air carrier" or "air taxi."

b. One count must be taken for each flight contacted regardless of the number of contacts made with the aircraft during the same flight.

c. IFSSs must count aircraft contacted times two. IFSSs combined with other options must take the aircraft contacted times two only on the international portion of their operations.

NOTE-

For aircraft contacted purposes, a flight is considered to be in progress from the time taxiing is begun until it has landed and parked.

d. One aircraft contacted count must be taken when relaying IFR departure clearances or ATC instructions via telephone, "data communication circuits," or interphone. Subsequent radio communications must not be the basis for an additional aircraft contacted count.

17–2–2. LOCAL AIRPORT ADVISORY (LAA)/REMOTE AIRPORT ADVISORY (RAA)/REMOTE AIRPORT INFORMATION SERVICE (RAIS)

In addition to the aircraft contacted count, airport advisory/remote advisory/remote information activity must be determined as follows:

a. One airport advisory/remote advisory/remote information service count must be taken for each separate inbound or outbound aircraft operation if the pilot acknowledges receiving the information.

b. Touch-and-go operations are considered to consist of a separate inbound and outbound phase. One count must be taken during the inbound phase, and an additional count must be taken for the outbound phase if LAA/RAA/RAIS is performed during each phase.

c. Although aircraft making practice instrument approaches do not normally land, they should be counted under the same criteria as touch-and-go operations.

17-2-3. RADIO CONTACTS

Count radio contacts in addition to numbers of aircraft contacted. A radio contact includes the initial radio call-up, a complete interchange of information, and a termination of the contact. A radio contact count must not be taken for a contact which is included in the LAA/RAA/RAIS count.

Section 3. Flight Plan Count

17-3-1. FLIGHT PLAN COUNT

The first FAA station which receives a flight plan, a Special VFR clearance request, or a flight plan change en route (regardless of source: e.g., pilot or his/her representative, foreign location, military operations office, state aeronautical communications station, air carrier, etc.) must take one count for each one received except:

a. Do not count flight plans received from or relayed by means of an automatic or semi-automatic installation even though the station is the first FAA station to receive same.

b. Do not count minor changes, such as cancellations, closures, or amendments, that do not change the destination. The change must result in the transmission of a flight notification message to be countable.

c. Do not count prefiled flight plans unless the operator has requested activation.

17-3-2. ADDITIONAL ITEMS

Flight plans are to be counted without regard to the elapsed time or the distance of the flight or the fact that the flight terminates at the same place from which it departed.

17–3–3. FLIGHT PLAN CHANGE EN ROUTE

A flight plan change en route to be countable must be a plan which is substantially modified or extended, such as a route or destination change, and the aircraft continues on a flight plan. The change must result in the transmission of a flight notification message to be countable.

17-3-4. FLIGHT PLAN FORMS

a. Use FAA Forms 7233-1 or 7233-4, as appropriate, to record flight plans copied by specialists.

b. Provide FAA Forms 7233-1 or 7233-4 and carbon for pilot use. Duplicating machine may be used in lieu of carbon.

17-4-1. PILOT BRIEFING COUNT

A pilot brief is the dissemination of meteorological and aeronautical data pertinent to the pilot's requirement for an intended flight. The intent is to give one count for each pilot briefed regardless of the length of time spent or of multiple routes or destinations. Take a briefing count for:

a. Delivery of an in-flight weather advisory (SIGMET, AIRMET) when the pilot states he/she has not previously received the information.

b. Significant information furnished which results in the pilot altering, diverting, or canceling his/her flight.

c. Each briefing as defined above and not counted under subparas a or b.

NOTE-

Do not take a count for a response to a request for a single item of information; e.g., surface weather report, airport conditions at a single location, or the status of a single NAVAID. Also, information not pertinent to the route of flight must not be volunteered to meet the criteria for a briefing count nor must information routinely given during radio contact with an aircraft be used for this purpose: e.g., altimeter setting, LAA information, etc.

17–4–2. RETENTION OF FORMS CONTAINING PILOT BRIEFING ("PB") DATA

In non-automated FSSs retain FAA Forms 7233-1, 7233-3, and 7233-5 containing "PB" data in a station's files for 15 days except when an incident or an accident occurs where a briefing may have a bearing. In this case, include the form as a part of the accident/incident report.

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. 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.

14. 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.

15. 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).

16. 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 6. FSS Lists, Logs, and Tallies (OASIS)

17–6–1. RECORDING OF FLIGHT INFORMATION

OASIS provides a means in which flight information is recorded and retained electronically for 15 days. A compact flash card reader connected to each NT server records:

a. Additions, deletions and amendments to the Proposed and Inbound Lists.

b. Additions and deletions to the Suspense and SAR (Search and Rescue) Lists.

In the event of a flight information recorder software failure, an Interface Status List alarm will be generated at designated positions (normally supervisor/CIC). If it is determined that flight information is not being recorded, facilities must ensure that the Inbound, Proposed, Suspense and SAR Lists can be printed in the event of a system failure. Any printed lists must be retained for 15 days.

NOTE-

Lists must be open before they can be printed. Open Lists can be minimized to increase work space in the Main Window.

17–6–2. MANAGEMENT OF LISTS AND LOGS

Transactions involving list updates, flight plan logs, preflight briefing logs, and inflight contact logs must be retained for 15 days by electronic means. Printing is not required.

17-6-3. TALLIES PRINTING

OASIS provides a daily Facility Local Activity Report. This report must be retrieved and printed daily and retained for 15 days. Use this report to complete FAA Form 7230–13. The following types of data are contained in the Local Activity Report:

- **a.** Non–Briefing Contacts.
 - 1. Domestic.
 - **2.** ICAO.

b. Pilot Weather Briefing (PWB) Tally: Preflight Domestic, Preflight ICAO, Inflight Domestic, Inflight ICAO.

- 1. Single Item.
- 2. Multi-Leg.
- **3.** PWB.

c. Inflight Position Aircraft Contact Tally: IFR, DVFR, VFR, ICAO IFR, ICAO VFR.

- 1. Air Carrier.
- 2. Air Taxi.
- 3. General Aviation.
- **4.** Military.

d. Inflight Position Radio Contact Tally: IFR, DVFR, VFR, ICAO IFR, ICAO VFR.

- 1. Air Carrier.
- **2.** Air Taxi.
- 3. General Aviation.
- 4. Military.

e. Flight Plan Tally: IFR Domestic, IFR ICAO, VFR Domestic, VFR ICAO, DVFR Domestic.

- 1. Filed.
- 2. Amended.
- 3. Canceled.
- 4. Closed.
- **f.** NOTAM Tally.
- g. PIREP Tally.

Part 5. TRAFFIC MANAGEMENT SYSTEM

Chapter 18. Traffic Management National, Center, and Terminal

Section 1. Organizational Missions

18-1-1. TRAFFIC MANAGEMENT SYSTEM MISSION

The Traffic Management System mission is to balance air traffic demand with system capacity to ensure the maximum efficient utilization of the National Airspace System (NAS). A safe, orderly, and expeditious flow of traffic while minimizing delays, is fostered through continued analysis, coordination, and dynamic utilization of TM initiatives and programs.

18–1–2. DAVID J. HURLEY AIR TRAFFIC CONTROL SYSTEM COMMAND CENTER (ATCSCC)

The ATCSCC monitors and manages the flow of air

traffic throughout the NAS, producing a safe, orderly, and expeditious flow of traffic while minimizing delays.

18–1–3. TRAFFIC MANAGEMENT UNIT (TMU) MISSION

TMUs monitor and balance traffic flows within their areas of responsibility in accordance with TM directives.

Section 2. Organizational Responsibilities

18–2–1. AIR TRAFFIC TACTICAL OPERATIONS PROGRAM

System Operations must:

a. Develop national TM programs.

b. Staff/manage the ATCSCC.

c. Provide guidance and direction to the TM system concerning national TM programs and policies.

d. Coordinate Service Area office requests for special procedures with appropriate headquarters divisions/services.

e. Coordinate directly with designated Service Area office/facility TM representatives on plans, procedures, and operations that affect interfacility traffic flows.

f. Ensure that all appropriate coordination has been accomplished prior to implementation of any new national TM program.

g. Provide briefings to appropriate levels within the FAA and industry on current system status, present/future TM programs, etc.

h. Maintain a close liaison with appropriate Service Area office and other FAA service offices on all TM programs.

18–2–2. SERVICE CENTER OPERATIONS SUPPORT GROUP

The Operations Support Group (OSG) must:

a. Designate a support group TM representative(s) who must act as the focal point for other FAA offices and users on matters that pertain to TM.

b. Provide guidance and direction to field facilities in the development and implementation of support group office TM programs.

c. Periodically review and evaluate TM programs to assess their effectiveness and to ensure their compliance with support group office/national directives.

d. Mediate support group office interfacility TM conflicts.

e. Determine which terminal facilities should be considered for establishing TMUs and forward the justification and the staffing requirements to Director, System Operations for final determination.

18-2-3. ATCSCC

The ATCSCC has been delegated the authority to direct the operation of the TM system. All TMUs must assist the ATCSCC, as directed, to ensure system efficiency and effectiveness without compromising safety. The ATCSCC must, in conjunction with local TMUs, users, weather information providers, and Technical Operations (Tech Ops), as appropriate:

a. Implement national TM programs (i.e., NRP, MAR, etc.).

b. Monitor and analyze system components and weather patterns for potential system impact.

c. Be the focal point for regulating the daily TM functions.

d. Determine when NAS capacity is or will likely be reduced to the extent that the implementation of a TM initiative is required.

e. Ensure space launch and reentry operations are safely and efficiently integrated into the NAS by approving, modifying, or denying airspace decisions directly related to launch and reentry activities, consistent with FAA policies and regulations.

f. Implement national TM initiatives, when necessary, to ensure the orderly flow of traffic throughout the NAS.

g. Recommend and approve TM alternatives when national initiatives are not appropriate.

h. Monitor TM initiatives issued throughout the system for effectiveness; take action to cancel or modify where appropriate.

i. Be the final approving authority regarding all interfacility TM initiatives.

NOTE-

Traffic Management Units continue to retain the latitude to tactically adjust the flow of traffic within their own facilities. These local actions include sector to sector mile-in-trail restrictions, local airport fix balancing, and other such adjustments required to balance flows within their area of responsibility.

j. Evaluate proposed TM initiatives to ensure appropriateness.

18-2-4. FIELD FACILITIES

All actions initiated by the TMU must be in accordance with standard operating procedures, applicable directives, and approved TM position descriptions. The TMU is delegated the authority to direct traffic flows and implement approved TM initiatives in conjunction with, or as directed by the ATCSCC.

a. Air traffic facilities must ensure that:

1. A TMU is established at ARTCCs and designated terminal facilities.

2. Delays are reported as specified in FAAO JO 7210.55, Operational Data Reporting Requirements.

3. The ATCSCC is provided with all formal agreements and directives that relate to interfacility TM programs, initiatives, and procedures.

4. National and local TM programs are maintained within the guidelines set forth by this order.

5. Requests for special procedures are coordinated with Service Area offices, assuring 90 days of lead time for evaluation and processing.

6. The ATCSCC is advised by telephone or hotline coordination of all known component changes that could have a significant system impact (for example, route/airway closures, NAVAID/radar shutdowns, runway closures, TELCO outages, computer malfunctions or outages, and procedural changes affecting key terminals and/or centers).

NOTE-

This information must be provided to the ATCSCC as soon as the facility becomes aware of any event that may have a possible impact on NAS capacity. Example: LRR outage, runway closure, ILS outage, etc.

7. Actively coordinate and communicate traffic management actions with adjacent TMUs through the ATCSCC to optimize traffic flows throughout the NAS.

8. In conjunction with ATCSs, OSs, weather service providers, and the ATCSCC, develop,

implement, monitor, and analyze TM programs, procedures, and initiatives that are specific to the facility's area of responsibility.

9. Standard traffic management unit procedures contained in this order must be_applied when weather is scheduled to impact an active or scheduled SAA with the following additions/changes:

(a) Facilities must conduct a telecon if weather is forecasted to impact a facility's traffic flow, which may potentially cause an aircraft to enter the protected airspace of an active SAA within their facility.

NOTE-

If the facility has instantaneous recall of the SAA airspace, then a telecon is not required.

(b) Participants must include, at a minimum, the using agency or scheduling agency and the controlling agency. If available, the Center Weather Service Unit (CWSU), Operations, and any other entities necessary to ensure a comprehensive look at the day ahead should be included.

(c) The intent of the telecon is to address any issues that may arise due to weather, the usage of SAA, civil traffic flow, and alternate plans. These calls will also serve as a venue in which the facility can determine the type of activity that will be occurring in the SAA.

(d) Unless it is clearly understood and agreed upon by the using or scheduling agency that the SAA will be available for civil traffic, facilities must not base their plan on using active military airspace.

(e) If the SAA will not be available for civil traffic, then Traffic Management Initiative(s) (TMI) must be put in place to ensure aircraft remain clear of the protected airspace of an active special use airspace that is impacted by weather.

NOTE-

If the facility has instantaneous recall of the SAA airspace, then TMI(s)may not be required.

(f) If a deviation due to forecasted weather occurs that causes an aircraft to enter into an active SAA:

(1) The Supervisor Traffic Management Coordinator (STMC) must immediately conduct an evaluation of TMI(s) in place with emphasis on adjusting the flow of traffic away from the SAA.

(2) The air traffic manager (ATM) must ensure the appropriate service review (i.e.; system

service review or traffic management review) is completed in accordance with FAA Order JO 7210.634, Air Traffic Organization (ATO), Quality Control, Chapter 3.

10. A full description of all TM actions/initiatives (e.g., ground delay programs, miles-in-trail (MIT)) is entered in the TMU log, including, but not limited to, start and stop times, facilities/operations affected, and justification.

11. As a minimum, the unit is operated during the hours necessary to encompass peak traffic periods and the associated time to complete the logging and the reporting requirements.

b. In ARTCC facilities TMUs must:

1. In conjunction with terminal TMUs, develop arrival strategies and deliver arrival aircraft to achieve the Airport Arrival Rate (AAR).

2. Actively utilize the Traffic Situation Display (TSD) and the monitor and alert function of the TFMS to adjust traffic flows on a proactive basis.

3. Periodically analyze and review procedures to ensure effectiveness and adherence to programs/ initiatives, and, when necessary, make adjustments. Cancel TM initiatives promptly when no longer needed.

4. The facility manager must make provisions to ensure a Weather Coordinator (WC) is assigned on each shift by designating a TM representative to serve as the WC. During midnight operations or when no TM personnel are available, the WC position may be combined at the OMIC position. The manager must additionally ensure that personnel assigned WC duties receive prior training in the associated duties and responsibilities of the position and establish procedures.

REFERENCE-

FAAO JO 7210.3, Section 26. Weather Management.

5. Establish an analysis function referred to in Chapter 18, Section 4, as amended.

6. Address approved local TM messages on TFMS to:

(a) The ATCSCC and the adjacent facilities concerned.

(b) Other ARTCCs whose terminals are expected to generate a significant amount of traffic for the affected area during the effective time of the message.

(c) Appropriate flight service stations/ international flight service stations/(FSS)/(IFSS).

c. In terminal facilities, TMUs must:

1. Balance the arrival flow and the tower en route flow by coordinating with the appropriate ARTCC TMUs and/or adjoining terminal facility(s) to ensure that demand does not exceed current capabilities.

2. Through coordination with the tower and TRACON, establish AAR and assist the ARTCC and adjacent terminal facility(s) in the development of strategies to achieve the AAR.

3. Oversee departure fix balancing to ensure sector efficiency into the next facility's airspace.

4. Implement gate hold procedures as required to reduce airport surface congestion.

5. Coordinate with airport officials to ensure closures of runways, taxiways, and other airport facilities minimize operational impact.

6. Ensure optimum airspace/runway configurations.

7. Periodically analyze and review TM procedures to ensure effectiveness and adherence to programs/initiatives and, when necessary, make adjustments. Cancel TM initiatives promptly when no longer needed.

8. Notify the appropriate facilities concerning local TM initiatives.

NOTE-

The appropriate ARTCC TMU must be the focal point for any interface concerning TM related issues, as well as the mediator between terminal facilities. The ARTCC TMU will then coordinate with the ATCSCC on behalf of the TRACON or the tower. Because of the unique situation of the New York TRACON having three centers, the New York TRACON must coordinate directly with the ATCSCC and have the ATCSCC conference the appropriate ARTCCs. In those instances where the ARTCC TMU is unable to resolve disputes between multiple terminal facilities, the ATCSCC must have the final decision making authority.

Section 3. Line of Authority

18-3-1. ATCSCC

a. Each national operations manager (NOM) is under the general supervision of the Manager of the ATCSCC. Each national traffic management officer (NTMO) is under the general supervision of the NOM. Each national traffic management specialist (NTMS) is under the general supervision of the NTMO.

b. In the absence of the NTMO, there will be designated a national traffic management specialist–in–charge (NTMSIC) that performs these duties in accordance with management direction.

18-3-2. ARTCC

The TM Coordinator at ARTCC facilities (TMC) is under the general supervision of the supervisory TM coordinator (STMC). The STMC is under the general supervision of the Traffic Management Officer (TMO). In the absence of the STMC the STMCIC is under the general supervision of the TMO. In the absence of the TMO the STMC/STMCIC is under the general supervision of the air traffic manager.

18-3-3. TERMINAL

a. The TM coordinator (TMC) at terminal facilities works under the general supervision of the STMC or TMCIC. Each STMC is under the general supervision of the Traffic Management Officer (TMO). In the absence of a STMC, and when more than one TMC is assigned to a shift, there will be a designated TMCIC. The TMCIC will perform these duties in accordance with management direction.

b. In the TMCs absence or at those TRACONs and/or towers where TMCs are not authorized, the individual(s) designated to perform TM functions is the operations supervisor–in–charge (OSIC).

Section 4. Supplemental Duties

18-4-1. TELEPHONE CONFERENCES

a. The ATCSCC is involved in several daily telephone conferences (TELCONs). TELCONs are initiated and hosted by the ATCSCC for field facilities, the appropriate Vice Presidents, and the Chief Operating Officer. Supplemental conference capability is available through the FAA's Remote Transmitter Site and the Washington Operations Center.

b. TMUs/TMCs utilize TELCONs when the need arises to discuss, evaluate, or problem solve any issues. These conference calls should include the appropriate ARTCC TMU, adjacent terminal facilities/towers, the ATCSCC, and the service area TM branch or Service Area office office responsible for TM.

c. TMUs/TMCs should actively participate in facility briefings and user meetings in order to promote, educate, and inform all concerned about the function, role, and responsibilities of TM.

d. TELCONs are also used to maintain operational "Hotlines." The objective of Hotlines is to provide rapid communications between FAA facilities, customers and other aviation interests when complex air traffic and airspace issues are being managed. Hotlines allow many participants the capability to problem–solve complicated issues and reduces the amount of coordination needed to implement collaborated strategies. Hotlines may be initiated at the request of both the FAA and other aviation entities that substantiate its use. The operational Hotlines are authorized for customer attendance; however, they may be limited to listen–only capability.

1. The ATCSCC administers, facilitates, and manages operational Hotlines.

2. Hotlines are used to communicate:

(a) Airport and airspace capacity issues.

(b) Constraint/capacity mitigation strategies.

(c) Route availability information and route alternatives.

(d) Weather information.

(e) Equipment Outages.

(f) Customer preferences for initiatives and alternatives.

(g) Special circumstances, contingency requirements and emergency events.

(h) All required coordination and information sharing necessary in regard to the event.

(i) Coordination that can be accomplished quickly and precisely with all parties. If an item requires extensive coordination, other communication sources will be used.

(j) Items that are not considered sensitive or classified in nature.

NOTE-

Examples of sensitive or classified items include VIP movement and military requirements or exercises.

18-4-2. SPECIAL INTEREST FLIGHTS

ATCSCC, ARTCC, and CERAP: Follow procedures in FAAO JO 7610.4, Special Operations, Chapter 12, Special Military Flights and Operations, Section 12, Special Interest Flights, regarding special interest flights from State Department designated special interest countries. Forward all issues concerning special interest flights to the DEN ATSC for relay to the appropriate authorities.

18-4-3. ANALYSIS

a. The TMU analysis function or individuals assigned analysis functions must be responsible for the collection and analysis of all available data as it pertains to traffic capacity, traffic flows, points of congestion, peak hours, etc. Specific areas of consideration include, but are not limited to:

- 1. Sector demand (by hours).
- 2. Sector flows (route/altitudes).
- 3. Sector loading points.
- 4. Sector traffic breakdown by category of user.

5. Normal initiatives necessary to prevent sector saturation.

6. Alternatives to prevent saturation and relieve congestion/conflicts.

NOTE-

Alternatives must take into consideration other facility/ sector capabilities.

7. Total facility traffic count and potential user demand.

8. Sector staffing required to support potential user demand.

9. Location of delays (by sector and airport).

b. Coordination with user organizations must be effected, when appropriate.

18-4-4. OPERATIONS MANAGER (OM) SUPPORT

Facility TMUs must maintain a working knowledge of the major related fields of air traffic operations/responsibilities to effectively support the STMCIC in dealing with special situations that may arise on a daily basis. Reference sources that identify these related areas are listed below.

a. Emergency plan: Numerous interfacility letters of agreement are normally located at the STMCIC complex concerning plans which have been established to provide continuity in the event of a disaster or emergency conditions that would limit air traffic service. Additionally, in these binders are instructions concerning security control of air traffic and air navigation aids, defense readiness, and physical security plans.

b. Accident procedures/bomb threats/search and rescue procedures:

1. FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting.

2. Bomb threats.

3. National Search and Rescue Manual.

4. FAAO 1270.1, Freedom of Information Act Program.

c. EA activity: FAAO JO 7610.4, Special Operations.

d. Hijack situations:

1. FAAO JO 7610.4, Special Operations.

2. FAAO JO 7110.65, Air Traffic Control.

e. Suspect aircraft:

1. FAAO 1600.29, Law Enforcement Alert Message System.

2. FAAO JO 7110.67, Special Aircraft Operations by Law Enforcement/Military Organizations.

f. Special flight operations: FAAO JO 7110.65, Chapter 9, Special Flights.

NOTE-

In order to provide the maximum TM services, TM personnel should be utilized to perform non-TM functions only as a last resort.

18-4-5. DIVERSION RECOVERY

a. A diversion is a flight that is required to land at other than its original destination for reasons beyond the control of the pilot/company, e.g., periods of significant weather. Diversion recovery is an initiative orchestrated by the ATCSCC and system users to minimize the impact of system disruption. Diversion recovery will be utilized during and after periods of significant weather or other phenomena that has adversely impacted the system resulting in flight diversions. The goal of the diversion recovery initiative is to ensure that flights which have already been penalized by having to divert to another airport, do not receive additional penalties or delays. Flights identified for diversion recovery must receive priority handling over other flights from their point of departure.

b. Diversion flights are identified by having "DVRSN" in the Remarks section of the flight plan, or the user inputs the information into the Diversion Recovery Tool (DRT). The following protocols will be utilized in diversion recovery procedures:

1. A flight on the DRT, as listed in TBL 18–4–1, is requesting priority. FAA facilities must ensure the auto-detect feature is not activated on their DRT. FAA facilities must view the "general aviation" and "comments" columns when utilizing the DRT.

2. "High" priority indicates the user's preference within one company.

3. "Yes" priority indicates that special handling is requested for the flight.

4. The user submitted preferred priorities may be modified where necessary to maintain the efficiency of the system.

c. The ATCSCC must:

1. Implement diversion recovery.

2. Transmit an advisory to inform both field facilities and users that a diversion recovery initiative

has been implemented and the DRT has been activated.

3. Adjust the initiative as necessary to meet changing conditions.

4. Transmit an advisory when the DRT has been deactivated.

d. The ARTCCs must:

1. Implement diversion recovery as directed by the ATCSCC.

2. Notify the ATCSCC if they do not intend to use the DRT. In such cases, the ATCSCC must send the Center a general message with the information as stated in TBL 18–4–1, every 60 minutes until diversion recovery is no longer in effect.

3. Provide expeditious handling in returning to the system those flights identified by the ATCSCC/ DRT as diversion flights.

4. Forward user diversion recovery requests to towers and TRACONs. (See TBL 18–4–1).

NOTE-

DVRSN will be placed in the remarks section of the flight plan by the user.

e. Towers and TRACONs must:

1. Provide expeditious handling in returning to the system those flights identified by the ARTCC/ DRT as diversion flights.

2. Notify the overlying ARTCC TMU if they will utilize the DRT.

	TBL 18-4-1				
User Recovery	Priority Req	uest Format			

The following flights are requesting priority handling to their original destination. Please advise the appropriate FAA facilities of this request.

ACID	Diverted To	ETD	CTD	DEST	DCNTR	ACNTR	PRIORITY	COMMENTS
ZZZ111	MDW	2210Z	-	ORD	ZAU	ZAU	-	-
ZZZ222	PIT	2200Z	-	ORD	ZOB	ZAU	HIGH	-
ZZZ555	ATL	2300Z	2320Z	IAD	ZTL	ZDC	-	-
Note: *ETD=Proposed Wheels-up Time.								

18-4-6. VOLCANIC ASH

a. Upon receipt of a validated report of volcanic activity and/or ash cloud movement, the ARTCC TMU whose geographic area of responsibility is impacted by such activity must:

1. Assess areas of potential or actual ash cloud location.

2. Notify the ATCSCC and the other facilities in their area of jurisdiction that may be affected. Provide as much information as possible, including PIREPS and other pertinent information that has been received.

b. Upon receipt of a Volcanic Ash Advisory (VAA), Volcanic Ash SIGMET, or ARTCC notification, the ATCSCC must:

1. Retransmit the VAA received from the Washington or Anchorage VAACs to air traffic control facilities and stakeholders via a numbered ATCSCC advisory. The VAA will also be displayed on the ATCSCC website in the advisories database.

2. Conduct, as needed, conference calls to assess constraints and TMIs associated with the volcanic ash.

NOTE-

The FAA does not have the capability to predict or depict volcano eruptions or ash cloud density and movements. It is not the responsibility of the FAA to provide separation between aircraft and volcanic activity or ash clouds.

Section 5. Coordination

18-5-1. COORDINATION

Coordinate through verbal and automated methods. At times, it may be required to utilize both methods to ensure complete communication and situational awareness.

18-5-2. COMMUNICATION

When time permits, utilize communication techniques that emphasize collaboration and consensus decision-making. Use tools that provide for common situational awareness to the extent possible.

18-5-3. DOCUMENTATION

The National Traffic Management Log (NTML) is utilized to record TM activities in the facility. It does not replace the facility log; however it may be utilized as the facility log when documented in a facility directive. Facilities with the NTML are required to make data entries. At non–NTML facilities, the first facility overlying the non–NTML facility is responsible for entering the NTML entries. This enables all facilities to be knowledgeable of conditions throughout the NAS.

18-5-4. RESPONSIBILITIES

a. All facilities must:

1. Communicate and coordinate events that may have an impact on the NAS.

2. Use the NTML to document events and traffic management initiatives (TMI).

b. The ATCSCC must:

1. Provide an FAA ATCSCC data entry web page for facilities identified in 18–5–1, Aviation System Performance Metrics Airport Traffic Control Towers.

2. Transmit these data to other FAA offices for analysis.

3. Provide the NTML to all ARTCC TMUs and designated terminals.

4. Communicate directly with facility and service area representatives for a critique of operations and future plans for TM.

5. Coordinate directly with service area representatives on plans, procedures, and operations that affect interfacility traffic flows.

6. Consult with weather information providers to ensure the receipt of timely weather forecasts (including the collaborative convective forecast), observed terminal weather sequences, and any weather data that may have a significant impact on the NAS.

7. Coordinate with the TMUs in the day-to-day operations of the NAS and resolve operational TM disagreements between facilities.

8. Conference affected ARTCC TMUs as needed when contacted by a terminal facility.

9. Initiate telecons and Hotlines with customers and facilities, as necessary, to obtain input and to provide operational information, as well as other significant events affecting the NAS.

10. Subscribe to the NTML entries pertinent to its position of operation.

11. Indicate the implementation or termination of extended flight plan drop times, when notified by field facilities, via numbered ATCSCC advisory.

c. ARTCC TMUs and designated terminals must:

1. Advise the ATCSCC of situations and conditions that may require implementation of TMIs or are of national interest.

2. Present unresolved conflicts between adjacent TMUs to the ATCSCC for resolution.

3. Notify the ATCSCC if a significant change in capacity is expected or has occurred.

4. Be the contact for their underlying facilities about coordinating any TM issues, initiatives, programs, or information. Data received from underlying facilities must be forwarded to the ATCSCC in a timely manner.

5. Advise the ATCSCC if an operational Hotline is requested including:

(a) Facility participation required.

(b) Requested customer participation and assist the ATCSCC in determining if the Hotline will be limited to "listen–only" customer capability.

(c) Other aviation/airport resources requested.

6. Advise the ATCSCC when extended flight plan drop times have been implemented or terminated.

d. Terminal facilities must:

1. Coordinate with the appropriate ARTCC TMU and ensure it is kept aware of situations and conditions that may require the implementation of TM initiatives.

2. Report to the ARTCC TMU any significant change in capacity that is expected or has occurred.

3. Present TM conflicts to the ARTCC TMU.

4. Consult with the ATCSCC, the affected ARTCC TMU, terminals, and customer organizations about the development and implementation of procedures, when appropriate.

e. Terminal facilities listed in 18–5–1 must:

1. Enter the runway configurations (specifying runway numbers) and their associated AAR and ADR using the NTML.

NOTE-

Local procedures must be established to determine whether the tower or TRACON is responsible for these entries.

2. Enter the hourly arrival and departure counts starting at 0700 and ending at 2259 local using the ATCSCC–supplied web page.

NOTE-

These counts must include IFR/VFR arrivals and departures that are fixed wing itinerants. Helicopter and local operations must not be included in the traffic count.

3. Investigate and resolve issues about their web page.

4. Submit suggestions for improvement to the Terminal Operations area office, when applicable.

f. The information for subpara e above applies to any airport in a ground delay program.

g. Field facility specialists with the NTML must:

1. Enter sign on/off times and initials.

2. Mark entries for equipment (E) when they cause a TMI or result in a TMI.

3. Enter TMIs initiated by your facility.

4. Enter constraints in your area of responsibility that may impact the NAS and forward them to the ATCSCC.

5. Enter arrival, departure, and en route delay status, as appropriate.

6. Enter deicing status (in/out).

NOTE-

Facilities with the NTML are required to make the above data entries. At non–NTML facilities, the first facility overlying the non–NTML facility is responsible for entering data into the NTML. Facility personnel must enter data in a timely manner on the appropriate template. Timely is construed to mean that it would be useful to someone looking at the data in current time. If workload conditions or the situation prohibits entering the data in a timely manner, the information should be recorded by a subsequent or delayed entry.

AVIATION SYSTEM PERFORMANCE METRICS					
AIRPORT TRAFFIC CONTROL TOWERS					
ABQ	DCA	LAS	ONT	SEA	
ANC	DEN	LAX	ORD	SFO	
ATL	DFW	LGA	OXR	SJC	
AUS	DTW	LGB	PBI	SJU	
BDL	EWR	MCI	PDX	SLC	
BHM	FLL	MCO	PHL	SMF	
BNA	GYY	MDW	PHX	SNA	
BOS	HNL	MEM	PIT	STL	
BUF	HOU	MHT	PSP	SWF	
BUR	HPN	MIA	PVD	TEB	
BWI	IAD	MKE	RDU	TPA	
CLE	IAH	MSP	RFD	TUS	
CLT	IND	MSY	RSW	VNY	
CVG	ISP	OAK	SAN		
DAL	JAX	OGG	SAT		
DAY	JFK	OMA	SDF		

TBL 18-5-1

18-5-5. STATIC COORDINATION

a. The ATCSCC must collect and manage updates for ASPM facilities' static data, currently depicted in the NTML and on the Operational Information System (OIS) under the associated ARTCC tabs in the East and West Directories.

b. The TMO or overlying TMO, in conjunction with their ASPM facilities, must provide the following static data to their appropriate Deputy Director of System Operations (DDSO) and ensure the accuracy of the information:

1. For NTML airport information: All normal runway configurations and their associated AARs/ ADRs by April 30, August 31, and December 31 of each year.

NOTE-

AARs are required for the following four categories: Visual meteorological conditions (VMC), low visual meteorological conditions (LVMC), instrument meteorological conditions (IMC), and low instrument meteorological conditions (LIMC).

2. For OIS airport information: Monthly changes to the following ASPM airport data no later than the last day of the month:

(a) Normal runway configuration and associated AARs/ADRs

- (b) Suggested program rate
- (c) Pertinent notes

(d) Holding capacities

- (e) Arrival flows
- (f) Category minimums

3. Changes to TM Tips by the first of every month:

- (a) Configuration instructions/planning
- (**b**) Airport operational challenges
- (c) Seasonal traffic information
- (d) Gate hold information
- (e) Special arrival instructions

(f) Other pertinent information related to airspace, procedures, weather operations, local traffic management initiatives, taxiway information, and any other items that impact traffic flows or runway acceptance/configuration

c. The DDSO must provide:

1. All normal runway configurations and the associated AARs/ADRs for their underlying ASPM facilities to the ATCSCC Facility Automation Office by May 15 and November 15 each year.

2. Changes to additional supporting AAR data and TM tips for their underlying ASPM facilities to the ATCSCC Facility Automation Office by the 10th of each month.

18-5-6. EN ROUTE INTRAFACILITY COORDINATION

a. The STMC must ensure that an operational briefing is conducted at least once during the day and evening shifts. Participants must include, at a minimum, operational supervisors and other interested personnel designated by the facility management. Discussion at this meeting should include:

- **1.** Planning TELCON checklist.
- 2. Operations Plan.
- **3.** Topics pertinent to the facility.

b. Coordination between the TMU and Operations Supervisor (OS): In some facilities, the TM function may be performed by the OS or as designated by the air traffic manager. Timely coordination between the OS and TMU is paramount in not only implementing TM initiatives, but also in evaluating the effectiveness of any initiatives.

18–5–7. TERMINAL INTERFACILITY COORDINATION

a. Coordination between tower and TRACON TMUs: Towers that are not collocated with a TRACON TMU must coordinate with the appropriate TMU where the TM function has been established. If the TM function has not been established, then the tower must coordinate with the appropriate en route TMU.

b. Coordination between the TMU and ATCSCC NTMSs: Unusual circumstances or significant issues do not preclude the terminal TMU from contacting the ATCSCC directly.

c. Coordination between the TMU and the local NWS or CWSU must be completed as soon as practical at the beginning of each shift, and, as necessary, the TMU must obtain a weather briefing from the NWS.

d. Coordination between the TMU and the adjacent terminal: Timely coordination is imperative in order to manage the efficiency of the tower en route control (TEC) environment. Any TM initiatives imposed between two (2) or more adjacent terminals that could have an impact on the capacity of any airport, sector, or ARTCC must be coordinated with the appropriate ARTCC TMU.

18–5–8. NATIONAL TRAFFIC MANAGEMENT LOG (NTML)

a. Facility personnel must enter data in a timely manner on the appropriate template and verbally coordinated when required. Timely is construed to mean that it would be useful to someone looking at the data in current time. If workload conditions or the situation prohibits entering the data in a timely manner, the information should be recorded by a subsequent or delayed entry or on the appropriate form. Substantive changes in the contents or remarks or additional explanatory information should be accomplished by a subsequent or delayed entry.

b. The data in NTML will be subject to FAA security provisions for Internet technology. Facilities must use the NTML in preference to other methods. The NTML is an automated FAA Form 7230–4, Daily Record of Facility Operation, and will record the operating initials and facility for all log entries. Operating initials are removed at the end of six months in accordance with FAA Order 1350.15, Records Organization, Transfer, and Destruction Standards.

c. The NTML automatically closes and reopens a new log each day; it automatically records the operating initials of the person previously signed on. Carryover items may be entered by the specialist or automatically be entered by the software based on the end/date/time group. Closing and opening logs are concurrent with each local day; however, the entries are made utilizing Coordinated Universal Time.

d. When it is necessary to amend a previous entry, the original entry may be corrected through normal computer entries; however, the database will be automatically marked and the information must be retrievable by the system administrator.

18–5–9. NTML FACILITY CONFIGURATION REQUIREMENTS

At least one TMU position in each facility must:

a. Subscribe to DCC for TMIs affecting your facility.

b. Subscribe to underlying facilities for the following information:

- 1. Runway configurations.
- 2. Delays.
- 3. Deicing.

4. Other.

c. Enable notification of proposed restrictions.

18-5-10. NTML PROCEDURES

a. Facilities must enter, review, and respond to data in the NTML, as appropriate.

b. TMI data must be entered using the appropriate template and coordinated with the appropriate facility. Appropriate template means the one best suited for the type of event, such as a ground stop, delays, etc. The "Miscellaneous" templates must not be used if another template is appropriate. The Justification, Remarks, and Text fields must not contain any information that can be entered in other fields on the template.

NOTE-

Causal information entered in the "Restriction" template is disseminated to many other software programs for monitoring the status of the NAS.

c. Facilities must verbally contact other facilities when necessary to accomplish a task if electronic coordination has not been completed or is inappropriate to the situation, e.g., emergencies, classified information.

18–5–11. PROCESSING REQUESTS FOR REROUTES AND RESTRICTIONS FOR FACILITIES WITH NTML

a. Restrictions/modifications that require ATCSCC review and approval:

1. Requesting facility must enter the restriction/ modification in NTML.

2. Providing facilities should review and respond using NTML within 15 minutes.

NOTE-

The restriction/modification, if not responded to, will be placed in conference status 15 minutes after it has been entered by the requesting facility.

3. If all providing facilities accept the restriction/modification using the NTML software, the ATCSCC must approve or deny the restriction/modification as appropriate. The ATCSCC may deny/ amend a restriction at anytime; however, it must call the requesting facility and explain the reason for the denial/amendment. For automation purposes, the ATCSCC should not approve a restriction until all field providers have accepted it; however, if the ATCSCC elects to override the automation and approves a restriction/modification before all provider(s) accept, it must coordinate this action with the affected provider(s).

4. When a restriction is in conference status, the requestor must initiate a conference through the ATCSCC with providers. If an amendment is necessary, the ATCSCC amends and approves the restriction while on the conference.

NOTE-

Any party may initiate a conference when deemed appropriate.

b. Restrictions/modifications that do not require ATCSCC review and approval:

1. Requesting facility must enter the restriction/ modification in NTML.

2. Providing facilities should review and respond using NTML within 15 minutes.

3. If all providing facilities accept the restriction/modification using the NTML software, it must be considered coordinated/approved.

4. If a providing facility does not respond using the NTML within 15 minutes, the requesting facility must contact the providing facility/facilities to verbally coordinate the restriction/modification.

NOTE-

In the event that no one at the providing facility is available to accept a restriction in NTML, the requesting facility does have the ability to force the restriction into its log so it can be used internally. This must only be done after the verbal coordination mentioned in para 18-5-1 1b4 is complete.

c. Restrictions/modifications associated with reroutes coordinated through the ATCSCC:

1. Restrictions/modifications that have been approved/coordinated will be discussed during the development of the reroute.

2. Any facility requiring a restriction in conjunction with a reroute that has been coordinated through the ATCSCC must enter the initiative into the RSTN template with the SVR WX RERTE button enabled. NTML processes these restrictions as approved and no further coordination is required.

18-5-12. DELAY REPORTING

a. Verbally notify the ATCSCC through the appropriate protocol, of any arrival, departure, or en route delay reaching or expected to reach 15 minutes except for Expect Departure Clearance Time (EDCT) delays created by Ground Delay Programs (GDP), Airspace Flow Programs (AFP), Collaborative Trajectory Option Programs (CTOP), or Ground Stops (GS) issued by the ATCSCC.

b. Facilities must update their delay status through the NTML. Facilities that do not have NTML must verbally report the delay increments in 15-minute increments to the overlying facility. The first facility with NTML must enter the delay information.

c. When notified that a facility is in a 15-minute delay situation, the ATCSCC and all impacted facilities, must subscribe to the delay report through the NTML until the facility verbally notifies the ATCSCC/impacted facilities that they are no longer in delays of 15 minutes or more.

d. Facilities must verbally notify the ATCSCC, through the appropriate protocol, when delays reach or are anticipated to reach 90 minutes, except for EDCT delays as a result of a GDP, AFP or CTOP. Facilities must document in their NTML, or daily log if the facility does not have NTML, that the verbal notification was completed. The ATCSCC must document in their NTML that the 90-minute verbal notification was received. The facility manager must be notified when delays reach 90 minutes, except for delays as a result of a GDP, AFP or CTOP.

18–5–13. ELECTRONIC SYSTEM IMPACT REPORTS

AT facilities must coordinate with their TMU or overlying TMU for developing an electronic system impact report (SIR) for all planned outages/projects/ events that could cause a significant system impact, reduction in service, or reduction in capacity (for example, air shows, major sporting events, space launch/reentry operations, business conventions, runway closures, and procedural changes affecting terminals and/or ARTCCs). Technical Operations is responsible for reporting all unplanned outages that pertain to FAA equipment.

NOTE-

Planned events/outages are construed to mean that the event or outage is scheduled in advance of the occurrence.

a. The TMU must coordinate the operational impact the outage/project/event will cause with the DDSO or designee, through their TMO. This includes, but is not limited to, reduction in AAR/ADR, anticipated TMIs, alternate missed approach procedures, and anticipated delays or any other significant impacts within the NAS.

b. To ensure the ATCSCC receives all planned events and outages that could have a significant impact on the NAS, the DDSO/designee or the OSG must enter the impact data on the Strategic Events Coordination website at http://sec.faa.gov.

c. The electronic SIR must contain the following information:

- **1.** Airport/facility identifier.
- 2. Overlying ARTCC.
- 3. Scheduled dates/times.
- 4. Description of outage/project/event.
- **5.** Operational impact.
- 6. Facility recall.
- 7. Flight check requirements.
- 8. Anticipated delays.
- 9. Anticipated TMIs.
- **10.** Customer coordination.
- **11.** General information.
- 12. Contact information.
- 13. Date/time of scheduled telecons.

NOTE-

SIRs cannot be viewed on the OIS by facilities or our customers until the ATCSCC has approved the content. Instructions for entering items in detail are provided on the Web site at http://sec.faa.gov.
FIG 18-5-1 Electronic SIR Process



d. The ATCSCC will access the SIRs on the SEC page, make modifications as necessary, and submit the SIR for dissemination. Once the ATCSCC has submitted the SIR, the information can be viewed on the intranet at http://www.atcscc.faa.gov/ois/ on the OIS page under "System Impact Reports."

e. Field facilities, TMUs, TMOs, DDSOs, the service center OSG, and the ATCSCC must ensure that SIRs:

1. Are coordinated, developed, and submitted with as much advance notice as possible before the planned event/outage.

NOTE-

Providing the SIR in a timely manner allows our customers to more effectively plan their operation and reduce the impact to the extent practicable.

2. Do not contain sensitive security information.

18-5-14. TARMAC DELAY OPERATIONS

a. Facility Procedures. The ATCSCC, en route facilities, and affected terminal facilities must develop procedures for handling requests related to tarmac delays for arriving or departing aircraft. ATMs must ensure that those procedures are in a facility directive and briefed annually. Issues to consider when developing local procedures should include:

1. What constitutes a "significant disruption" of service at that location in order to accommodate a

tarmac delay aircraft. These issues vary by location and may include but are not limited to:

(a) Accommodating a tarmac delay aircraft would require airborne holding that would result in delays of 15 minutes or more.

(b) Use of an active runway to taxi a tarmac delay aircraft that would preclude the use of that runway for arrivals or departures and result in arrival/departure delays of 15 minutes or more.

(c) Taxi of tarmac delay aircraft would result in placing other aircraft in jeopardy of violating the "Three/Four-Hour Tarmac Rule."

(d) Taxi of tarmac delay aircraft would displace departure aircraft already in a reportable delay status and result in delays in excess of an additional 15 minutes.

(e) The taxi of a tarmac delay aircraft to the ramp, gate, or alternate deplaning area would result in a diversion or the airborne holding of more than three aircraft.

2. Operational complexity, surface operations, other arrival/departure runways, taxi routes, ramp areas, and low visibility operations.

3. Security and/or Customs concerns.

4. Local safety considerations, such as multiple runway crossings.

5. Location of alternate deplanement areas, if applicable.

6. Taxiway/runway closures and/or airport construction.

7. Notification, coordination, and investigation requirements.

b. Requirements.

1. When a tarmac delay taxi request/deplanement request is received, primarily from the pilot in command:

(a) An aircraft requesting taxi clearance for tarmac delay reasons should be issued clearance as soon as operationally practical, unless a significant disruption of airport operations or a compromise of safety or security would result.

(b) Tower-only and tower/TRACON facilities must verbally notify the overlying facility and document the incident with pertinent information on FAA Form 7230-4 in CEDAR when:

(1) The facility is informed of a tarmac delay request or taxi for deplanement related to the "Three/Four-Hour Tarmac Rule."

(2) The facility becomes aware of an aircraft that has or may have exceeded the "Three/Four-Hour Tarmac Rule."

(c) TRACONs must verbally notify the overlying ARTCC TMU and document the incident with pertinent information on FAA Form 7230-4 in CEDAR when:

(1) An airport within their geographic jurisdiction has received a tarmac delay request or taxi for deplanement related to the "Three/Four-Hour Tarmac Rule."

(2) The facility becomes aware of an aircraft that has or may have exceeded the "Three/Four-Hour Tarmac Rule."

(d) ARTCCs must verbally notify the ATCSCC and document the incident with pertinent information on FAA Form 7230–4 in CEDAR when:

(1) An airport within their geographic jurisdiction has received a tarmac delay request or taxi for deplanement related to the "Three/Four-Hour Tarmac Rule."

(2) The facility becomes aware of an aircraft that has or may have exceeded the "Three/Four-Hour Tarmac Rule."

(e) Facilities equipped with NTML should utilize the program to forward the information to the TRACON/ARTCC/ATCSCC.

NOTE-

The FAA Form 7230–4 entry in CEDAR should be comprehensive and include pertinent information such as date, time, location of the occurrence, the identification of the aircraft involved, the time a tarmac delay taxi request was made, and other known information concerning movement of the aircraft. Data used during the review may include ASDE data, flight progress strips, voice replay, etc.

2. When an ARTCC is notified that an aircraft has or may have exceeded the "Three/Four-Hour Tarmac Rule," they must notify the ROC as soon as possible; the ROC must then notify the WOC as soon as possible. Notification should include the date, time, and location of the occurrence, as well as the identification of the aircraft involved.

3. When a facility is notified that an aircraft has or may have exceeded the "Three/Four–Hour Tarmac Rule," all available records pertinent to that event will be retained in accordance with FAA Order JO 8020.16.

4. Consumer complaints are to be handled as follows:

(a) Refer the complainant to the appropriate airline.

(b) Do not engage in discussion with the consumer.

Section 6. Traffic Management Initiatives

18-6-1. GENERAL

a. Traffic Management Initiatives (TMIs) are techniques used to manage demand with capacity in the NAS.

1. Properly coordinated and implemented TMIs are an important tool in the air traffic system. These initiatives contribute to the safe and orderly movement of air traffic.

2. Any TMI creates an impact on customers. It is imperative to consider this impact and implement only those initiatives necessary to maintain system integrity.

b. Dynamic TMIs are those imposed on an as needed basis to manage fluctuations in traffic demands.

18-6-2. BACKGROUND

Some TMIs may also be considered "control instructions" or procedures; the difference is determined by the magnitude of the event, the coordination process, and the length of time it is implemented. TMIs may also be referred to as "restrictions," especially in conjunction with miles–in–trail.

18-6-3. POLICY

To maintain the integrity of the air traffic system, facility TM personnel must employ the least restrictive methods available to minimize delays.

18–6–4. TYPES OF TMIs

a. Altitude.

1. Utilized to segregate different flows of traffic, or to distribute the number of aircraft requesting access to a specified geographic region.

2. Colloquialisms:

(a) Tunneling- Term to indicate traffic will be descended prior to the normal descent point at the arrival airport to remain clear of an airspace situation; e.g., holding.

(b) Capping- Term to indicate aircraft will be cleared to an altitude lower than their requested

altitude until they are clear of a particular airspace. Capping may apply to the initial segment of the flight or for the entire flight.

3. Low Altitude Arrival/Departure Routing (LAADR). A set of routings with altitude expectations for usage in times of severe weather constraints on the system. LAADR may apply to the departure or the arrival phase of flight. LAADR requires a written agreement with the customers prior to implementing.

b. Miles-in-trail (MIT). The number of miles required between aircraft that meet a specific criteria. The criteria may be separation, airport, fix, altitude, sector, or route specific. MIT are used to apportion traffic into manageable flows, as well as, provide space for additional traffic (merging or departing) to enter the flow of traffic.

c. Minutes-in-trail (MINIT). The number of minutes required between successive aircraft. It is normally used in a non-radar environment, or when transitioning to a non-radar environment, or additional spacing is required due to aircraft deviating around weather.

d. Fix balancing. Assigning an aircraft a fix other than in the filed flight plan in the arrival or departure phase of flight to equitably distribute demand.

e. Airborne holding. Planned holding of aircraft may be utilized. This is normally done when the operating environment supports holding and the weather conditions are expected to improve shortly; this ensures aircraft are available to fill the capacity at the airport.

f. Sequencing Programs. These programs are designed to achieve a specified interval between aircraft; they may be software generated or determined by TM personnel. Different types of programs accommodate different phases of flight.

1. Departure Sequencing Program (DSP)– Assigns a departure time to achieve a constant flow of traffic over a common point. Normally, this involves departures from multiple airports.

2. En route Sequencing Program (ESP)– Assigns a departure time that will facilitate integration in the en route stream. **3.** Arrival Sequencing Program (ASP)– Assigns fix crossing times to aircraft destined to the same airport.

4. Time-Based Metering (TBM). The action of personnel providing air traffic services to meet a scheduled time at which airborne aircraft should cross a metering point or arc.

g. Reroutes:

1. Reroutes are ATC routings other than the filed flight plan. They are issued to:

(a) Ensure aircraft operate with the "flow" of traffic.

(b) Remain clear of special use airspace.

(c) Avoid congested airspace.

(d) Avoid areas of known weather or where aircraft are deviating or refusing to fly.

2. Operators should amend flight plans when they are more than 45 minutes from departure.

3. Sources for route information:

(a) Chart Supplement U.S.

(b) Preferential Route Information in facilities.

(c) Route Management Tool.

(d) North American Route Notice.

(e) Federal Air Regulations.

(f) Notices to Airmen.

(g) Advisories issued by ATCSCC. (These are listed on the Operational Information System.)

4. More information on routes is contained in Section 18, Coded Departure Routes, Section 19, Route Advisories, and Section 21, National Playbook.

h. Ground Delay Programs. (See Section 9, Ground Delay Programs.)

i. Airspace Flow Programs. (See Section 10, Airspace Flow Programs (AFP).)

j. Ground Stops. (See Section 12, Ground Stop(s).)

18-6-5. EXCEPTION

The above list is not all-inclusive and does not preclude the innovation and application of other procedures that will result in improved customer service.

18-6-6. TMI DATA

The efficiency of the NAS is enhanced when all participants have access to the same data. Utilization of shared technology, (e.g., Flow Evaluation Area) enhances the coordination process.

18-6-7. TMI APPROVAL AUTHORITY

a. The ATCSCC is the approval authority for all en route and designated terminals interfacility TMIs, except as identified in subparagraph (b) below and MIT restrictions of ten (10) miles or less. TMIs that are expected to result in reportable delays must be coordinated through the ATCSCC. Reportable delays are delays of 15-minutes or more as defined in FAA Order JO 7210.55, Operational Data Reporting Requirements.

NOTE-

New York TRACON is a designated terminal and others may be included at the direction of System Operations.

b. The Center/TRACON is responsible for TMI within their area of jurisdiction (underlying terminals) that do not cause reportable delays.

18-6-8. PROCESSING TMI

a. The initiating facility must identify the need for a TMI, explore alternatives, and prepare a justification.

b. The initiating facility must be prepared to discuss the proposal at the request of the ATCSCC and/or the receiving facility prior to implementation during the joint review process.

c. Facilities must continuously monitor and evaluate the TMI, and make adjustments as necessary, including cancellation.

d. Facilities must conduct post event analysis on the TMI, and document any known negative impacts/feedback.

18–6–9. FIELD FACILITY RESPONSIBILITIES FOR TMIs

a. Evaluate capacity and demand. The assessment must include the evaluation of all data required to

make an informed decision. The data may include Flow Evaluation Areas (FEA)/Flow Constrained Areas (FCA), traffic counts and lists from the Enhanced Traffic Management System, and coordination with impacted facilities.

b. Consider internal options prior to requesting interfacility TMIs.

c. When interfacility TMIs are appropriate, coordinate with the ATCSCC and provide the following information:

1. A detailed and specific identification of the problem.

2. Intrafacility actions taken/considered.

3. A detailed explanation of the assistance required, including options available.

4. Identification of potential system impacts.

d. Document the TMI in the NTML. Severe weather MIT coordinated through the ATCSCC must be entered in the NTML utilizing the "severe weather" feature by the facility requesting the MIT.

REFERENCE-

For ARTCC to ARTCC and ARTCC to N90 MIT responsibilities and coordination, refer to paragraph 18–7–5.

18-6-10. ATCSCC RESPONSIBILITIES FOR TMI

a. Advise facilities of system impacts. The impacts will be determined by conferencing impacted facilities, as necessary, and may require sharing FEAs/FCAs.

1. If a MIT restriction is modified while on the conference, the ATCSCC will modify the restriction in the NTML while on the conference.

2. Once the restriction is coordinated, the restriction or modified restriction will be approved and sent to all relevant facilities.

b. Issue a decision regarding the request. For negative responses, document the rationale in disapproving the request.

c. Issue advisories, as appropriate.

d. Monitor TMI pertinent to the position of operation.

e. Maintain a database of MIT TMI for historical and statistical analysis.

18–6–11. TMIS WITHIN ARTCC AREA OF JURISDICTION

Facilities must:

a. Coordinate TMIs with all impacted facilities within their jurisdiction.

b. Contact the ATCSCC at any time internal restrictions may result in reportable delays; have an adverse affect on other national initiatives; or result in the implementation of additional initiatives.

c. Enter all applicable information in the NTML.

18-6-12. TMIs OF 10 MIT OR LESS

TMIs must be coordinated consistent with the following procedures:

a. The requesting facility notifies the providing facility in a timely manner.

b. The TMI must not exceed four (4) hours.

c. The TMI is documented in the NTML, including justification and any negative impacts associated with the TMI.

d. If the facilities cannot reach agreement, the restriction request is forwarded to the ATCSCC for resolution.

e. The ATCSCC may suspend these procedures at any time by notifying the impacted facilities.

18–6–13. EN ROUTE SEQUENCING PROGRAM (ESP) IMPLEMENTATION

ESP assigns a departure time that will facilitate integration into an en route stream. Runway configuration and departure procedures must be considered for accurate projections. The TMU must:

a. Enter TM messages (FT, FE, etc.) to produce strips and automatically acquire full data blocks on departures, arrivals, and overflight traffic specifying the appropriate destination.

b. Inform appropriate sectors and ATCTs that ESP will be in effect (time) for aircraft destined to specified airports and routes.

c. Regulate VFR services to ensure that delays are distributed equally, especially if a ground delay program is in effect for a primary airport.

d. If an aircraft does not depart within the designated departure window, the appropriate sector

and/or ATCT must contact the TMU to obtain a new release time.

18–6–14. TMIs OF 25 MIT OR GREATER

a. All FAA TMUs requesting initiatives of 25 MIT or greater must:

1. Create an FEA that:

(a) Adequately represents the constrained area.

(b) Captures the flights affected by the requested initiative.

2. Share the FEA with the ATCSCC.

3. Enter the name of the FEA in the remarks section of the NTML Restrictions tab and coordinate justification for the restriction.

NOTE-

1. *TMUs are exempt from creating FEAs for situations that cannot be represented due to filtering limitations in the FEA tool.*

2. Flights to specific runways, flights using specific departure procedures, flights that may be offloaded to alternative routing are examples of items that cannot be represented.

b. If an extension to a 25 MIT or greater restriction is necessary, the TMU must:

1. Amend the shared FEA end time to cover the revised time period.

2. Coordinate the extension request with the ATCSCC.

c. The ATCSCC may suspend the requirements for facilities to develop FEAs associated with MIT restrictions at any time.

18-6-15. CAPPING AND TUNNELING

a. ARTCCs must:

1. Provide a basic capping and tunneling plan in coordination with affected TRACON for all airports listed in the Operational Evolution Partnership, as a minimum.

2. Develop, maintain, coordinate, and modify all capping and tunneling plans with the TMU, the ATCSCC, and affected facilities within or adjacent to their area of jurisdiction.

3. Complete capping and tunneling plans by March 1, 2009, and update their plans biannually, no later than May 1 and November 1 of each calendar year.

4. Include in the plan:

(a) A description of planned capping and tunneling procedures that may be used within the departure ARTCC airspace.

(b) Directions of use (for example, North Plan, South Plan, etc.).

(c) Altitudes, including expected start and/or end points of capping and tunneling actions.

(d) Routes and distances of expected use.

(e) Information concerning how and when the plan affects arrivals, departures, terminal or en route airspace.

(f) All facilities impacted.

b. ARTCC TMUs must:

1. Submit facility capping and tunneling plans to the ATCSCC Automation Office for inclusion in the Operational Information System by May 15 and November 15 of each calendar year. This will allow facilities and customers to evaluate the impact of these plans and any possible strategic and tactical options to them.

2. Coordinate capping and tunneling plans through the ATCSCC before implementation.

3. Coordinate issues, alternate initiatives, and exit strategies with the ATCSCC and affected facilities.

NOTE-

Capping and tunneling can provide a rapid solution to some situations; however, consideration needs to be given to potential weather constraints, such as turbulence and icing, and the effects of fuel and flight time for the aircraft included.

4. Provide local information to aid the ATCSCC with developing alternative, successful reroute options for customers to consider, as needed.

5. Implement tactical initiatives and update as necessary, for example, MIT/MINIT.

6. Coordinate changes or cancellation of capping and tunneling plans with the ATCSCC and affected facilities.

c. The ATCSCC must:

1. Respond to requests for the implementation of the capping and tunneling plan and evaluate possible alternatives.

2. Notify affected facilities and customers of capping and tunneling implementation and the airports, routes, and/or airspace that will be impacted.

3. Transmit planned advisories before implementation of capping and tunneling, when applic-

able. Provide details regarding distance and altitude information, when available.

4. Transmit required advisories to implement capping and tunneling plans. This advisory should specify airports included, alternate routes and options as able, expected duration, transition points (route or altitude), reason for implementation, and modifications to the plan.

5. Evaluate and advise affected facilities and customers of cancellation of capping and tunneling initiatives, as appropriate.

Section 7. Flow Evaluation Area (FEA), Flow Constrained Area (FCA), and Integrated Collaborative Rerouting (ICR)

18-7-1. GENERAL

FEAs and FCAs support common situational awareness and provide customers increased flexibility in responding to conditions in the (NAS) by providing a graphical description of a constraint and an associated list of flights that traverse the area identified. FEAs and FCAs provide reroutes which are published through a reroute advisory with an optional flight list attached. Stakeholders can monitor FEAs and FCAs through the reroute monitor in traffic situation display the TSD, the Web situation display (WSD), or the collaborative constraint situation display (CCSD).

18-7-2. DEFINITIONS

a. Default route: A route published by the ATCSCC in conjunction with user preferred trajectory (UPT) for facilities to assign any aircraft that remain on the dynamic list.

b. Dynamic list: A list of flights captured in an FEA/FCA that is continually updated as changes occur to the aircraft's route of flight.

c. Early Intent (EI): Customer route preference submitted to the Traffic Flow Management System (TFMS). EI routes identify routing preferences or remove the flight from the constrained area. Customers are expected to file their flight plans in accordance with EI unless otherwise coordinated with the ATCSCC.

d. EI Window: Time period when customers can submit EI or file out of the FEA.

e. FCA: The defined region of airspace, flight filters, and time interval used to identify flights subject to a constraint. System stakeholders may be required to take action to mitigate the constraint identified by the FCA.

f. FEA: The defined region of airspace, flight filters, and time interval used to identify flights. An FEA should be used by system stakeholders to evaluate and/or mitigate potential or existing constraints.

g. FEA/FCA flight list: Aircraft that penetrate the FEA/FCA during the specified valid time.

h. ICR: Strategic process for stakeholders to define and structure TMIs to mitigate constraints identified by an FEA or FCA.

i. Route guidance: Suggested reroutes, issued in an advisory that suggest or provide examples of routing possibilities away from a defined constraint associated with an FEA/FCA. This guidance may not provide routes for all flights captured in the FEA/FCA.

18-7-3. FEA/FCA RESPONSIBILITIES

Customers are expected to:

a. Enter the FCA name in the remarks section when filing the flight plan.

b. Review advisories and examine their affected flights.

c. Use EI capability as needed, considering FAA route guidance. Early filing of a flight plan may be used in lieu of this requirement.

d. Examine their affected flights and submit decisions for routing in accordance with the FEA/FCA. If unable, coordinate with the ATCSCC Tactical Customer Advocate.

e. Consider using private FEAs to monitor a situation and evaluate an area of concern.

f. Evaluate and select routes that meet their objectives.

NOTE-

Customers may identify available routes via the Route Options Generation (ROG).

18-7-4. FEA/FCA PROCEDURES

a. The FAA TMU must:

1. Remain cognizant of operational areas of interest and use FEAs to evaluate those areas.

2. When naming FEAs that will be shared, ensure the name is descriptive to the constraint or airspace captured. Ensure FEAs do not contain FCA

in the name and do not begin with a number or special character.

3. Share FEAs with the ATCSCC that may require implementation of TMIs (i.e., reroutes, miles–in–trail, ground stops, etc.) If requesting a reroute in conjunction with a shared FEA, notify the ATCSCC via the NTML of the FEA and the proposed reroute.

4. Contact the ATCSCC to coordinate a public FEA or an FCA.

5. Coordinate public FEAs and FCAs with facilities within their area of jurisdiction.

6. Monitor the FCA dynamic list. Based on information provided in the FCA advisory, appropriate action must be taken in regard to flights that remain on the list.

7. Monitor the system impact of the routes and contact the ATCSCC if these routes will cause a local flow issue.

8. Coordinate with the ATCSCC if it becomes necessary to issue an FCA.

9. Monitor the public FEA or FCA and, as required, coordinate modifications to the initiatives with the ATCSCC.

10. When an FCA is used to manage a constraint; review the advisory issued by the ATCSCC and comply with the provisions of the advisory.

11. When TMIs that impact other stakeholders will be required to resolve a situation:

(a) Coordinate with the ATCSCC.

(b) Provide local information which aids the ATCSCC with developing successful reroute options for customers to consider.

(c) Monitor impacts of customer preferences.

(d) Take tactical action as necessary.

12. Assign default routes to flights that are not routed around the constraint as directed in reroute advisories.

b. The ATCSCC must:

1. Issue public FEAs and issue an advisory, as necessary. Public FEAs must have a descriptive name that is pertinent to the event.

2. Issue FCAs and, issue an advisory, as necessary. Include in the advisory any actions required by customers and field facilities.

3. Create FEAs that define the geographical area of concern with appropriate altitude and time limits, plus any other relevant filters to select affected traffic.

4. Monitor the NTML and respond to field facility requests for reroutes associated with shared FEAs. Evaluate reroute requests and, if applicable, conference the appropriate stakeholders to coordinate the reroute.

5. Issue any associated routes via the "Create Reroute" tool.

6. Ensure the FCA or public FEA expires at the end of the published valid time unless coordination is accomplished and an advisory issued that cancels the initiative.

7. Provide FAA facilities with guidance on the use of default routes and when they may be discontinued.

18–7–5. ARTCC TO ARTCC FEA/FCA COORDINATION

These procedures must be utilized in the development and coordination of ARTCC to ARTCC and ARTCC to N90 MIT.

18-7-6. RESPONSIBILITIES

ARTCC TMU must follow guidelines for the FEA naming convention as follows:

a. For Airport MIT: [Requester]_[Provider]_[Airport]

EXAMPLE-

1. ZDC_ZJX_EWR

2. *ZTL_ZID_ATL*

b. For Airway/Route: [Requester]_[Provider]_[Airway]

EXAMPLE-

1. *ZDC_ZJX_J55*

2. *ZNY_N90_PARKE*

18-7-7. PROCEDURES

The ARTCC TMU must:

a. Draw the FEA at the common ARTCC or ARTCC/N90 boundary.

b. Draw the FEA per route.

c. Filter the FEA for single airport destinations, except where MITs are requested for multiple destinations in an 'as one' restriction; in which case, the FEA must be filtered to reflect that information.

d. Review the total number of aircraft as presented in the 15-minute FEA/FCA timeline bar.

e. Select and review the FEA/FCA Dynamic List for restrictions needed based on distance between aircraft, making sure the "ENTRY" column is set to display aircraft in chronological order of times as they enter the FEA.

1. An accepted distance consideration for the en route environment is 7 miles per minute of flight time.

EXAMPLE-

Two aircraft passing through an FEA 3 MINITs should be considered to be 21 MITs of one another.

2. An accepted distance consideration for N90 TMIs is 5 miles per minute of flight time.

f. Complete electronic coordination and share the FEA with the ATCSCC as required.

g. Continually evaluate and assess MIT for effectiveness and cancel the restriction at the earliest opportunity.

18–7–8. INTEGRATED COLLABORATIVE REROUTING (ICR)

a. Customers are expected to:

1. Examine their affected flights and, when practical, enter early intent (EI) and/or file a flight plan that will route the aircraft away from the affected

area. When acceptable options are not available, contact the ATCSCC Tactical Customer Advocate.

2. Enter "NRP" in the remarks section of the flight plan.

b. The FAA traffic management unit (TMU) must:

1. Coordinate with the Air Traffic Control System Command Center (ATCSCC).

2. Provide assistance in developing flow constrained areas (FCA), reroute options, and associated restrictions for the impacted area.

c. The ATCSCC must:

1. Issue an ICR FCA that defines the geographical area of concern with appropriate altitude and time limits, plus any other relevant filters to select affected traffic.

2. Conference the affected stakeholders and communicate the objectives for the flights captured in the FCA.

3. Send a numbered advisory that provides route guidance, if deemed necessary.

4. Issue an advisory in the Create Reroute tool. Preferential routes, recommended routes, and constraint avoidance may be suggested.

NOTE-

Required reroutes may not be necessary if the response taken by customers alleviates the need for this initiative or the reason for initiating the ICR process changes (weather does not materialize, significant volume reductions, etc.).

5. The FCA expires at the end of the published valid time unless it is coordinated and an advisory is issued that extends or cancels the initiative.

Section 8. Monitor Alert Parameter

18-8-1. PURPOSE

The Monitor Alert Parameter (MAP) establishes a numerical trigger value to provide notification to facility personnel, through the MA function of the TFMS, that sector/airport efficiency may be degraded during specific periods of time. The efficiency of a functional position or airport in providing air traffic services is a shared responsibility of the TM team. That team consists of the ATCS(s), OS(s), and the TMU. These entities must monitor, assess and act on sector/airport loading issues to ensure that these NAS elements operate efficiently. The ability of a functional position or airport to provide air traffic services may be affected by a variety of factors (i.e., NAVAIDs, meteorological conditions, communications capabilities, etc.); therefore MAP is a dynamic value which will be adjusted to reflect the capabilities of the functional position or airport.

18-8-2. IMPLEMENTATION PROCEDURES

Baseline MAP values are established utilizing a workload-based model collaboratively developed at the national level and any adjustments made to those values using the ARTCC's collaborative process. These values will be reflected in the TFMS NAS Monitor.

a. Baseline MAP value adjustments require concurrence of representatives of the TMU and area of specialization. Adjustments to the baseline values will be documented, including rationale, and maintained by the TMU.

b. The MAP value may be dynamically adjusted to reflect the ability of the functional position to provide air traffic service. Examples of situations that may require an adjustment include convective weather, turbulence, NAVAID outages, or other scenarios that have a negative or positive impact on the ability to safely and efficiently work air traffic at a level consistent with the MAP. Any adjustments made to the MAP value shall be communicated to the ATCSCC.

18-8-3. RESPONSIBILITIES

Facility TMUs must:

a. Monitor all adapted sectors and airports within their area of jurisdiction for alerts generated by the MA function of the TFMS.

b. Maintain communications with areas of specialization to determine functional position constraints and adjust MAP values to indicate the functional position capabilities.

c. Set the MA look ahead value at least one hour into the future with 1.5 hours to 2.5 hours being the recommended time frame.

NOTE-

The recommendation to set the look ahead value to between 1.5 and 2.5 hours is for pre-planning purposes. Action taken to address an alert should take place approximately 1 hour prior to the alerted time frame. This activity will allow for a further review and evaluation of the TFMS data. A key in the analysis process is the determination of the duration of the alert. TM initiatives should be primarily for those time frames when the MAP value will be equaled or exceeded for a sustained period of time (usually greater than 5 minutes).

d. Respond to alerts by:

1. Analyzing data for the alerted time frame to develop expected impact and recommendations to address the alert.

2. For red alerts – notify the affected area of the alert, indicating the expected impact and recommended action.

3. For yellow alerts – notify the affected area of the alert when analysis indicates that the ability of the sector to provide efficient air traffic services will be degraded due to abnormal operations.

e. Maintain an operational log of red alerts and retain for 45 days the following information:

1. Date and time of alert.

2. Results of analysis including expected impact and recommendation to address.

3. Time area notified.

4. Action, if any, to be taken.

5. Functional position configuration (i.e., sector combine status, staffing).

6. The time period(s), by facility, during which an alert notification(s) has/have been suspended.

18-8-4. ANALYSIS REQUIREMENTS

a. Facilities will produce, utilizing the Off Line Aircraft Management Program or equivalent program, a 15 minute summary sector activity report for each red alert and each yellow alert conforming to subparagraph 18–8–3d3.

b. Alerts generated by the MA function of the TFMS will be further evaluated by post event analysis. The focus of this analysis will be towards assessing the effectiveness and impact, both to the sector and the user, of action taken or not taken as a result of a documented alert. A one minute sector summary report will be utilized to assist in the impact analysis of the alerted time frame.

c. When a pattern of alerts is established (i.e., same sector, same time frame, on a daily basis or requirement for additional resources to manage on a routine basis) which requires recurring TM initiatives for resolution, additional analysis will be conducted. The analysis should result in recommendations to address the identified constraint and may include sector design adjustment, flow dispersion, or user operations adjustment. Should the local facility not be able to implement resolution recommendations due to external factors (i.e., lack of equipment, non-concurrence from other facilities), the local facility will elevate the issue to the responsible Service Area office.

18-8-5. RESOLVING RECURRING SECTOR LOADING ISSUES

The elevation of a recurring sector loading issue to the regional level indicates that the local facility requires additional assistance in resolving the issue. The appropriate Service Area office will allocate necessary resources to address the sector loading issue and will ensure that:

a. The local facility forwards a staff study to the Service Area office outlining activities taken to resolve the recurring sector loading problem, solutions explored, and recommendations for resolution. The report will also contain specific initiatives the facility is employing to currently manage the sector.

b. The originating facility Service Area office will develop an action plan to address the identified problem and will:

1. Notify ATCSCC of any continuing TM initiatives being implemented to resolve the sector loading problem.

2. Dedicate resources within the division to evaluate the facility's findings.

3. Serve as the focal point for coordinating interfacility activity as appropriate.

4. Coordinate with appropriate FAA Headquarters service units for assistance as necessary.

5. Forward to the manager ATCSCC, within 60 days of receiving the facility's report, a copy of the draft action plan and associated milestones.

Section 9. Ground Delay Programs

18-9-1. POLICY

Ground Delay Programs (GDP) must be applied to all aircraft departing airports in the contiguous U.S., as well as, from select Canadian airports. Aircraft that have been assigned an EDCT in a GDP should not be subject to additional delay. Exceptions to this policy are miles-in-trail and departure/en route spacing initiatives that have been approved by the ATCSCC. GDP procedures do not apply to facilities in Alaska.

18-9-2. GENERAL

A GDP is a TM process administered by the ATCSCC; when aircraft are held on the ground in order to manage capacity and demand at a specific location, by assigning arrival slots. The purpose of the program is to support the TM mission and limit airborne holding. It is a flexible program and may be implemented in various forms depending upon the needs of the air traffic system. The EDCT is calculated based on the estimated time en route and the arrival slot. It is important for aircraft to depart as close as possible to the EDCT to ensure accurate delivery of aircraft to the impacted location. GDPs provide for equitable assignment of delays to all system users.

18-9-3. BACKGROUND

In the past, GDPs were issued manually, followed by software called Groverjack. These systems were based on the Official Airline Guide data, and did not take into account dynamic changes the system users made to their schedule. The Flight Schedule Monitor (FSM) was developed through the collaborative decision making process with system users to provide a dynamic method of implementing and managing GDPs. System users submit schedule changes to FSM, which keeps a current up-to-the-minute schedule of flights. The Flight Schedule Analyzer (FSA) is used to monitor and review the effectiveness of GDPs.

18-9-4. DEFINITIONS

a. GDP Parameters. Aircraft departing within a defined geographical area are initially assigned delay in the GDP. This area is developed using the FSM,

and may consist of one or more ARTCCs and one or more Canadian airports. All departure aircraft will receive an EDCT to the GDP airport.

b. Delay Assignment (DAS). A method for assigning delays to aircraft based on the GDP parameters. The delay assignment is calculated in 15-minute increments and appears as a table in TFMS.

c. General Aviation Airport Program (GAAP). A method for assigning delays to aircraft based on arrival slot availability at the airport.

18-9-5. VARIABLES IN GDPs

GDPs may be modified and affected due to changing conditions. Some of those variables include, but are not limited to, GDP Adjustments, Diversion Recovery, and User Options.

a. GDP Adjustments. The ATCSCC may make revisions and compressions to the GDP as conditions at the airport or within the airspace change.

b. Diversion Recovery. During periods where there are a large number of diverted flights, the GDP may be adjusted to provide priority for the recovery of aircraft diversions over non-diverted flights.

c. User Options. Users are permitted to exchange and substitute Controlled Times of Arrival (CTA) congruent with CDM agreements concerning substitutions.

18-9-6. ATCSCC PROCEDURES

Upon receipt of information that traffic flows have been or are expected to be impacted and that significant delays will result, the ATCSCC must:

a. Conference affected facilities and system users, as appropriate, to determine AARs and review system demand and other known or anticipated factors.

b. Determine when implementation of a GDP is appropriate and the flow rate to be used. Consideration will be given to the impact on other air traffic control facilities and user groups.

c. Transmit an ATCSCC advisory providing information to air traffic control facilities and user

groups about the implementation, revision, compression, and cancellation of a GDP. Except for the cancellation of a GDP, the ATCSCC advisory must include the following items:

1. Airport.

- 2. Delay Assignment Mode.
- 3. Aggregate Demand List (ADL) Time.
- 4. Program Type. (Optional)
- **5.** Arrivals Estimated For.
- 6. Program Rate.
- 7. Flights Included.
- 8. Scope.
- 9. Additional Facilities Included.
- 10. Exempt Facilities.

11. Canadian Airports Included. (When applicable.)

12. Delay Assignment Table Applies To. (Optional.)

13. Maximum Delay or Delay Limit. (As appropriate).

14. Average Delay. (Optional).

- 15. Reason.
- 16. Remarks.

d. Transmit the DAS table to ARTCC TMUs via TFMS and the NADIN circuits, if appropriate.

e. Transmit EDCTs to ARTCCs and linked system users.

NOTE-

A CT message is automatically transferred to the ARTCC's computers by the ETMS and appears on flight progress strips as an EDCT. In the event of a communication failure between the ETMS and the NAS computer, the CT message can be manually entered by the ARTCC TMC with ATCSCC approval.

f. Input ATCSCC coordinated modifications to EDCT into FSM.

NOTE-

Modifications may be made through TFMS.

g. Continually monitor, adjust, and cancel GDPs, as appropriate, and transmit an ATCSCC advisory as necessary.

h. Provide an EDCT or DAS when requested by an ARTCC.

i. Coordinate with affected facilities to ensure the GDP is adequately managing the demand.

j. Obtain arrival and departure counts from affected facilities, as appropriate.

k. Utilize the TSD and FSM to monitor traffic flow patterns, obtain estimated arrival counts, or obtain airborne delay estimates.

I. When appropriate and workload permitting, utilize FSA to monitor the GDP.

18-9-7. ARTCC PROCEDURES

The ARTCC TMU must:

a. Issue a General Information message (GI) to all towers and FSSs advising of the GDP. In some instances, verbal notification, in addition to a GI, may enhance the dissemination of information.

b. Issue EDCT information to non-FDEP/FDIO equipped towers and other users in sufficient time for proper planning and control actions. This does not include non-FDEP towers that are satellites of TRACON/RAPCON facilities. The TRACON/RAPCON is responsible for satellite EDCTs.

c. Evaluate the Delay Assignment Mode and assign EDCTs, as appropriate.

1. For DAS, assign an EDCT using the DAS table to aircraft that do not receive an EDCT and are destined to an affected airport within their ARTCC boundaries. Contact the ATCSCC for aircraft destined to an airport outside their ARTCC boundaries.

2. For GAAP, contact the ATCSCC for an EDCT for aircraft that do not receive an EDCT.

d. Keep the ATCSCC apprised of cancellations and diversions to or from the affected airport.

e. Relay information to the ATCSCC when advised by a terminal facility about EDCT issues.

f. Request a revised EDCT from the ATCSCC when notified by the terminal facility that a flight will be unable to depart within EDCT parameters as defined in FAA Order JO 7110.65, Air Traffic Control.

g. Advise the appropriate terminal facility or controller after receiving a revised EDCT from the ATCSCC.

h. Utilize FSM to obtain information about the GDP, and may utilize FSA to monitor the GDP.

18-9-8. TERMINAL PROCEDURES

The Terminal TMU must:

a. Utilize FSM, if available, to obtain EDCT information.

b. Obtain from the ARTCC TMU and apply the appropriate delay to:

1. Airfile aircraft destined to the affected airport.

2. Any other flight not assigned an EDCT.

c. Ensure that internal flight plans are entered into the EAS computer in order to receive an equitable delay.

d. Ensure the EDCT is included in the flight clearance when a GDP is in effect. If an EDCT is not received and a GDP is in effect, contact the ARTCC TMU for an EDCT.

e. Issue EDCT information to non–FDEP/FDIO equipped towers and other users in sufficient time for proper planning and control actions.

f. To the extent possible, plan ground movement of aircraft destined to the affected airport so that flights will meet the parameters in FAAO JO 7110.65, Air Traffic Control. If unable, advise the ATCSCC, through the appropriate protocol.

g. Ensure aircraft with an EDCT that are in a Ground Stop are not released without the approval of the issuing authority for the Ground Stop.

h. When a GDP is in effect for the local airport, forward the total number of hourly arrivals and departures to the ATCSCC, through the appropriate protocol, as soon as possible after each hour in order that timely GDP adjustments may be made.

i. Coordinate closely with the appropriate ARTCC TMU on conditions affecting current or projected arrival rates.

NOTE-

Terminal facilities may utilize FSM to obtain information concerning the GDP, including EDCTs, and may utilize FSA to monitor the GDP.

18-9-9. AMENDING EDCTs

a. All requests to amend EDCTs earlier than the current EDCT must be coordinated with the ATCSCC.

b. Facilities without FSM should contact their overlying facility to request a new EDCT.

c. Modifications to EDCTs for a time later than the current EDCT must be processed in accordance with the following guidelines:

1. The pilot/operator must be in contact with ATC.

2. Facilities with FSM may utilize the EDCT Change Request (ECR) tool to assign a new EDCT utilizing the Slot Credit Substitution (SCS) method, followed by the unlimited delay option, when available.

3. If the time generated by ECR is not acceptable (normally two hours of additional delay or longer), the facility must contact the ATCSCC through the appropriate protocol, for a new EDCT.

d. All EDCTs amendments not obtained using the ECR tool must be coordinated via the appropriate protocol.

18-9-10. CANCELLATION PROCEDURES

a. When conditions no longer warrant ground delays, the ATCSCC must:

1. Conference all affected facilities and system users, as appropriate, to develop an operational plan for release of ground delayed traffic into the system.

2. Transmit an ATCSCC advisory stating the GDP has been cancelled. The advisory must include the following items:

- (a) Airport.
- (b) ADL Time.
- (c) Reason.
- (d) Remarks.

3. Purge flights from the TFMS.

b. The ARTCC TMU and the Terminal TMU must:

1. Issue cancellation information to underlying facilities, using normal communication methods, in sufficient time for proper planning and control actions.

2. Notify facility personnel, as appropriate, of the cancellation.

18-9-11. DOCUMENTATION

a. The ATCSCC must document all pertinent information related to the GDP in their position logs, including, but not limited to, the start and stop times and the reason for the GDP.

b. The ARTCC TMU and the Terminal TMU must document all pertinent information related to the GDP.

18-9-12. USER OPTIONS

When a GDP is in effect, system users may exercise options other than ground delays. Users must coordinate options directly with the ATCSCC.

a. Intermediate landing. The flight should land at the intermediate airport to provide the delay necessary for the flight to arrive at the CTA. An intermediate landing airport within the arrival ARTCC should not be accepted without coordination and approval from the ATCSCC.

b. Substitution of flights.

1. Users are permitted to exchange and substitute CTAs congruent with CDM agreements

concerning substitutions. The ATCSCC may deny substitution requests when:

- (a) AARs are varying rapidly.
- (b) Workload necessitates.
- (c) Deemed appropriate by the NOM/NTMO.
- **2.** The ATCSCC must:

(a) Ensure that when flights are traded, the delay factor is equal to the original delay factor after the trade/substitution has been completed.

(b) Document substitutions.

(c) Transmit an ATCSCC advisory when substitutions are suspended and include an estimated time when substitutions will resume.

18-9-13. VFR FLIGHTS

a. VFR flights requesting an IFR clearance to a GDP airport should be handled as follows:

1. DAS. Assign a delay from the DAS table.

2. GAAP. Call the ATCSCC for a time.

b. Aircraft requesting to remain VFR will be at the discretion of the terminal facility with the GDP, if they can be accommodated without additional delay to IFR aircraft, except in unusual circumstances; for example, emergency, MEDEVAC.

Section 10. Airspace Flow Programs (AFP)

18-10-1. GENERAL

The FSM was developed to provide a dynamic method of implementing and managing ground delay programs. The creation and publication of FEAs and FCAs serve to identify areas of limited capacity to system customers that require a reduction in demand through rerouting flights (voluntary or mandatory). An alternative to managing airspace congestion is to merge these two technologies and create AFPs. An AFP is a traffic management tool that assigns specific arrival slots and corresponding EDCTs to manage capacity and demand for a specific area identified by the FCA. It is important for aircraft to depart as close as possible to the EDCT to ensure accurate delivery of aircraft to the impacted area.

18-10-2. POLICY

AFPs may be applied to all aircraft departing airports in the contiguous United States and from select Canadian airports. Aircraft that have been assigned an EDCT in an AFP should not be subject to additional delay. Exceptions to this policy are miles-in-trail and departure/en route spacing initiatives that have been approved by the ATCSCC. AFP procedures do not apply to facilities in Alaska.

■ 18–10–3. RESPONSIBILITIES

Facilities must:

a. Develop and share FEAs that may require AFP consideration.

b. Comply with AFP–generated EDCTs.

18–10–4. PROCEDURES

Upon receipt of information that traffic flows have been impacted, or are expected to be impacted, and that significant delays may result:

a. The ATCSCC must:

1. Identify the constraint and potential AFP.

2. Implement, monitor, and cancel AFPs as appropriate.

3. Issue an FCA and tag as FSM–eligible.

4. For the potential AFP, model program rates, scope, and duration.

5. Transmit a proposed advisory unless immediate implementation is necessary.

6. Conference affected facilities and customers to review system demand, other known or anticipated factors, program rates, scope, and duration.

7. If it is determined that an AFP is the most appropriate TMI:

(a) Send the AFP using the FSM and transmit an advisory.

(b) Coordinate with affected facilities to ensure the AFP is adequately managing demand.

(c) Use the TSD and FSM to monitor traffic flow patterns.

(d) Manage AFPs with revisions, extensions, and compressions, as appropriate, and transmit advisories.

(e) Provide EDCT information when requested.

b. The ARTCC TMU must:

1. Issue a GI message to all towers, sectors and flight service stations advising of the AFP. In some instances, verbal notification, in addition to a GI, may enhance the dissemination of information.

2. Monitor the effectiveness of the AFP and notify the ATCSCC with requests for adjustments and/or revisions as necessary.

3. Issue EDCT information to non FDEP/ FDIO–equipped towers and other customers in sufficient time for proper planning and control actions. This does not include non–FDEP towers that are satellites of TRACON facilities. The TRACON is responsible for issuing these EDCTs to satellite towers.

4. Evaluate the DAS mode and assign EDCTs, as appropriate.

(a) Acquire an EDCT from the ATCSCC for aircraft that do not receive an EDCT.

(b) For aircraft not assigned an EDCT, the TMU must advise the ARTCC area supervisor of the appropriate DAS delay. If requested, the TMU should provide reroute information to avoid the AFP.

5. Keep the ATCSCC apprised of cancellations and diversions.

6. Relay information to the ATCSCC about EDCT issues (i.e., flights requiring a revision because of mechanical or flight crew duty issues.)

7. Use FSM to obtain information about the AFP (flights captured, EDCTs, route changes, etc.)

8. Provide EDCT information, when requested, for flights departing underlying non-towered airports. If a flight departing a non-towered airport is airborne and not in compliance with an AFP EDCT, coordinate with the ATCSCC for the appropriate course of action.

9. Ensure compliance with EDCTs issued for aircraft departing non-towered airports.

c. The ARTCC must, when advised of a VFR aircraft requesting an IFR clearance through an area under an AFP:

1. The ATCS will advise his/her supervisor/ controller–in–charge when an unscheduled flight occurs needing an EDCT.

2. The supervisor will coordinate the appropriate DAS delay with the TMU and advise the ATCS.

3. The ATCS will advise the pilot of the DAS delay and take the necessary action such as airborne holding, reroute, etc.

d. The TRACON/ATCT must:

1. Use FSM or TFMS, if available, to obtain EDCT information.

2. Ensure the EDCT is included in the flight clearance when an AFP is in effect.

3. Issue EDCT information to non-FDEP/ FDIO-equipped towers and other customers in sufficient time for proper planning and control actions.

4. Provide EDCT information, when requested, for flights departing underlying non-towered airports.

5. To the extent possible, plan ground movement of aircraft to meet the parameters of their EDCTs; if unable, advise the ARTCC.

e. Amending EDCTs:

1. Facilities with FSM may use the EDCT ECR tool to assign an EDCT that is later than the current control time for the flight. Select the SCS option when assigning a new EDCT for a flight. If the SCS option is not available, use the unlimited delay option. For flights captured in an AFP, select the ECR tool applicable to the corresponding FCA element.

2. To assign an earlier control time to a flight or for EDCT amendments not obtained using the ECR tool, coordinate through the Tactical Customer Advocate (TCA) at the ATCSCC.

3. Facilities without FSM must contact their overlying facility to request a new EDCT.

f. Cancellation procedures:

1. When conditions no longer warrant AFP ground delays, the ATCSCC must:

(a) Conference facilities and customers to develop an operational plan for release of ground-delayed traffic into the system.

(b) Consider using the Integrated Modeling Tool when evaluating a cancellation.

(c) Purge the AFP and transmit an advisory stating the AFP has been canceled.

2. The ARTCC TMU and the terminal TMU must:

(a) Issue cancellation information to underlying facilities.

(b) Notify facility personnel, as appropriate, of the cancellation.

g. Documentation:

Facilities must use the NTML where applicable to document all pertinent information related to the AFP, including, but not limited to, the start and stop times and the reason for the AFP. Facilities that do not have NTML will log information as required by local procedure.

h. Customer options:

1. When an AFP is in effect, system customers may exercise options other than ground delays.

(a) Intermediate landing: The flight should land at the intermediate airport to provide the delay necessary for the flight to arrive at the CTA. Customer coordination with the TCA is required to avoid assignment of additional delay after an intermediate landing. (b) Reroutes: Customers may reroute flights out of an AFP. Alternative route options will normally be discussed on either a planning telecon or an ad hoc telecon.

- 2. Substitution of flights.
 - (a) The ATCSCC may deny substitution

requests when deemed appropriate. The ATCSCC must transmit an advisory when substitutions are suspended and include an estimated time when substitutions will resume.

(b) Customers are permitted to exchange and substitute CTAs congruent with CDM agreements concerning substitutions.

Section 11. Collaborative Trajectory Options Program (CTOP)

18-11-1. GENERAL

CTOP is a method of managing demand through constrained airspace leveraging the use of one or more FCAs while considering customer preference with regard to both route and delay as defined in a Trajectory Options Set (TOS). CTOP TMIs are managed through the Traffic Situation Display (TSD). The TOS will allow the customer to better manage flights by expressing route and delay preferences. Whereas a traditional flight plan contained a single request with a defined route, altitude, and speed, a TOS may contain multiple trajectory options with each one containing a different route, altitude, or speed. In addition to multiple options within a single TOS, each option may contain "start" and "end" times which they are willing to accept for that particular option. Each option will be ranked in the order of customer preference indicating their willingness to accept one option over another. This will be expressed in minutes of ground delay. Using algorithms comparing capacity and demand, the CTOP will look at each trajectory option and determine the amount of ground delay that would need to be associated with that option (which may be zero). CTOP will then assign the most preferred trajectory available. Customers must file flight plans in accordance with the TOS option assigned. Customers may manage their flights through the use of the TOS or through the substitution of flights.

18-11-2. POLICY

CTOP may be applied to all aircraft departing airports in the contiguous United States and from select international airports. Aircraft that have been assigned an EDCT in a CTOP should not be subject to additional delay. Exceptions to this policy are miles-in-trail and departure/en route spacing initiatives that have been approved by the ATCSCC.

18-11-3. DEFINITIONS

a. CTOP - Collaborative Trajectory Options Program - A type of traffic management initiative which leverages one or more FCAs to identify demand. Then, based on customer preferred options (as specified in a TOS), it assigns either a route to avoid the FCA, or a route and EDCT to meet an allocated slot time within the FCA.

b. TOS - Trajectory Options Set - A message sent by the NAS user to TFMS defining a group of preferences for how they would like to see a specific flight managed. These preferences are defined through a combination of routes and/or altitudes and/or speeds with each trajectory being weighted through the use of flight operator submitted preferences.

18-11-4. ATCSCC PROCEDURES

The ATCSCC must:

a. In conjunction with the field facilities, identify the constraint through the use of FEA(s)/FCA(s).

b. Conference affected facilities and system users as appropriate.

c. Create the CTOP in the Traffic Situation Display.

d. When time permits, send the Proposed CTOP with the advisory.

e. Send the Actual CTOP with the advisory.

f. Coordinate with affected facilities to ensure the CTOP is adequately managing demand.

g. Revise CTOP parameters as necessary and send the Revised CTOP.

h. Cancel the CTOP as per Chapter 18–11–8.

18-11-5. ARTCC PROCEDURES

The ARTCC TMU must:

a. Issue a GI message advising of the CTOP. In some instances, verbal notification, in addition to a GI, may enhance the dissemination of information.

b. Monitor the effectiveness of the CTOP and notify the ATCSCC with requests for adjustments and/or revisions as necessary.

c. Issue assigned route and EDCT information to non FDEP/FDIO-equipped towers and other

customers in sufficient time for proper planning and control actions. This does not include non-FDEP towers that are satellites of TRACON facilities.

d. Relay information, received from Terminal facilities, to the ATCSCC about EDCT issues (i.e., flights requiring a revision due to mechanical or flight crew duty issues).

e. Ensure route compliance with assigned TOS option and issue route amendments as needed.

f. Provide EDCT information, when requested, for flights departing underlying non-towered airports. If a flight departing a non-towered airport is airborne and not in compliance with a CTOP EDCT, coordinate with the ATCSCC for the appropriate course of action.

18-11-6. TERMINAL PROCEDURES

The TRACON/ATCT must:

a. Use the TSD/TSD-C to verify EDCT when missing or pilots advise they have something different.

b. Ensure the EDCT is included in the flight clearance when a CTOP is in effect.

c. Issue EDCT information to non-FDEP/ FDIO-equipped towers.

d. Provide EDCT information, when requested, for flights departing underlying non-towered airports.

e. Forward EDCT issues to their overlying facility.

f. Facilities with TMUs, assist the ARTCC to ensure route compliance.

18–11–7. AMENDING EDCTs

a. Field facilities with TSD may use the UPDATE EDCT feature to assign an EDCT.

NOTE-

Field facilities will only have the "unlimited" option available for use.

b. Field facilities requesting a time other than the time assigned through the "unlimited" option must coordinate through the ATCSCC.

c. Field facilities without the CTOP "UPDATE EDCT" feature must contact their overlying facility to request a new EDCT.

d. The ATCSCC may amend EDCTs via the CTOP "UPDATE EDCT" feature by first attempting to utilize the "Unlimited" option, followed by the "Limited" option, followed by the "Manual" option.

18-11-8. CANCELLATION PROCEDURES

When conditions no longer warrant a CTOP,

a. The ATCSCC must:

1. Conference facilities and customers as appropriate to develop an operational plan for exiting the CTOP.

2. Cancel the CTOP and transmit an advisory stating the CTOP has been canceled.

b. The ARTCC TMU and the terminal TMU must:

1. Issue cancellation information to underlying facilities.

2. Notify facility personnel, as appropriate, of the cancellation.

18–11–9. DOCUMENTATION

Facilities must use the NTML, where applicable, to document all pertinent information related to the CTOP. Facilities that do not have NTML will log information as required by local procedure.

Section 12. Ground Stop(s)

18-12-1. POLICY

Ground stop(s) (GS) override all other traffic management initiatives. Aircraft must not be released from a GS without the approval of the originator of the GS.

18-12-2. GENERAL

The GS is a process that requires aircraft that meet a specific criteria to remain on the ground. The criteria may be airport specific, airspace specific, or equipment specific; for example, all departures to San Francisco, or all departures entering Yorktown sector, or all Category I and II aircraft going to Charlotte. GSs normally occur with little or no warning. Since GSs are one of the most restrictive methods of traffic management, alternative initiatives must be explored and implemented if appropriate. GSs should be used:

a. In severely reduced capacity situations (below most user arrival minimums, airport/runway closed for snow removal, or aircraft accidents/incidents);

b. To preclude extended periods of airborne holding;

c. To preclude sector/center reaching near saturation levels or airport grid lock;

d. In the event a facility is unable or partially unable to perform ATC services due to unforeseen circumstances;

e. When routings are unavailable due to severe weather; and

f. When routings are unavailable due to catastrophic events.

NOTE-

Helicopters are exempt from ground stops based on weather unless specifically included by the ARTCC facility when requesting the ground stop.

18-12-3. LOCAL GROUND STOP(S)

A facility may initiate a local GS when the facilities impacted are wholly contained within the facility's area of responsibility and conditions are not expected to last more than 30 minutes. Local GSs must not be extended without prior approval of the ATCSCC.

a. The TMU must:

1. Explore and, if warranted, implement alternative initiatives before implementing a local GS.

2. Notify the ATCSCC before implementing a local GS.

NOTE-

If conditions prohibit notifying the ATCSCC before the GS is implemented, the TMU must inform the ATCSCC as soon as practical.

3. Issue GS information to underlying facilities, using normal communication methods, in sufficient time for proper planning.

b. The Terminal facility must notify the appropriate TMU before implementing a local GS.

NOTE-

If conditions prohibit notifying the TMU before the GS is implemented, the facility must inform the TMU as soon as practical.

c. The ATCSCC must:

1. When available, use the FSM to implement the GS.

2. Issue an advisory.

18-12-4. NATIONAL GROUND STOP(S)

Prior to implementing a national GS, less restrictive traffic management initiatives must be evaluated. Upon receipt of information that an immediate constraint is needed to manage a condition:

a. The ATCSCC must:

1. Time permitting, conference affected facilities and system users, as appropriate, to implement a national GS.

2. When appropriate, utilize Flight Schedule Monitor (FSM) to implement a national GS, except when deemed impractical.

NOTE-

FSM does not allow for the implementation of category specific GSs, for example, GS for single airline flights or GS for all Cat I and II flights. In these cases the use of the FSM GS is not practical.

3. Transmit an ATCSCC advisory providing information to air traffic facilities and user groups about the implementation or modification of a national GS. The ATCSCC advisory must include the following items:

(a) Airport.

- (b) Facilities Included.
- (c) Expect Update Time.
- (d) Reason.
- (e) Probability of Extension.
- (f) Remarks. (Optional)

4. Continually monitor, adjust, and cancel national GSs, as appropriate, and transmit an ATCSCC advisory as necessary.

5. Coordinate with the affected facilities to ensure the GS is managing the condition.

b. The ARTCC TMU must:

1. Explore and implement alternative initiatives prior to requesting a national GS, if feasible.

2. Issue GS information to underlying facilities, using normal communication methods, in sufficient time for proper planning.

3. Coordinate closely with the ATCSCC on conditions affecting capacity.

c. The Terminal facilities must:

1. Issue GS information to underlying facilities, using normal communication methods, in sufficient time for proper planning.

2. Coordinate closely with the appropriate TMU on conditions affecting the national GS.

3. Request release of aircraft through the appropriate protocol.

18-12-5. CANCELLATION PROCEDURES

a. The ATCSCC must:

1. Time permitting, conference affected facilities and system users, as appropriate, to develop an operational plan to release nationally ground stopped traffic.

2. Transmit an ATCSCC advisory when a national GS has been cancelled.

3. Transmit an ATCSCC advisory to cancel an ATCSCC issued local GS advisory.

4. The advisory must include the following items:

(a) Airport.

(b) Facilities Released.

b. The ARTCC TMU and the Terminal facilities must:

1. Issue cancellation information to underlying facilities, using normal communication methods, in sufficient time for proper planning and control actions.

2. Notify facility personnel, as appropriate, of the cancellation.

3. Notify the ATCSCC if a local GS was coordinated with the ATCSCC.

18-12-6. DOCUMENTATION

a. The ATCSCC must document all pertinent information related to the GS in their position logs, including, but not limited to, the start and stop times, the affected facilities, and the reason for the GS.

b. The ARTCC TMU and the Terminal facilities must document all pertinent information related to the GS in their position logs.

Section 13. Special Traffic Management Programs

18-13-1. SPECIAL EVENT PROGRAMS

Special procedures may be established for a location to accommodate abnormally large traffic demands (Indianapolis 500 Race, Kentucky Derby, fly-ins) or a significant reduction in airport capacity for an extended period (airport runway/taxiway closures for airport construction). These special procedures may remain in effect until the event is over or local TM procedures can handle the situation.

18–13–2. COORDINATION

Documentation to justify special procedures must be submitted by the facilities to the En Route and Oceanic Operations Service Area Office and Terminal Operations Area Office 90 days in advance, with a copy to the appropriate Deputy Director of System Operations (DDSO). The service area office must review and forward the request to the ATCSCC for coordination and approval 60 days in advance.

a. Documentation must include the following as a minimum:

1. The reason for implementing special procedures and a statement of system impact. Include the total number of additional flights expected.

2. Airport(s)/sector(s) to be controlled.

3. Capacity restraints by user category (five air carrier, three air taxi, seven general aviation, three military) per hour per airport.

4. Hours capacity must be controlled specified in both local time and in UTC (e.g., 0900–1859 EST, 1400–2359Z or, 0900–1859 EDT, 1300–2259Z).

5. Type of flight to be controlled (e.g., unscheduled, arrivals, departures, IFR, VFR).

6. Days of the week and dates (e.g., Thursday, May 7 through Monday, May 11 or Friday, May 22 and Sunday, May 24).

7. A draft copy of the associated NOTAM and temporary flight restrictions. (Electronic mailing preferred).

8. IFR/VFR capacity at each airport/sector.

9. Resource cost estimate including staffing and telephone requirements.

10. The number of slots to be allocated per airport, or group of airports, per time increment (e.g., ten arrivals every fifteen minutes or forty aircraft every sixty minutes).

11. Coordination accomplished with impacted facilities and any unresolved issues.

b. The service area office must forward the NOTAM to System Operations Airspace Aeronautical Information Management/Publications, for publication no later than 28 days prior to the publication date. Cutoff submittal dates and publication dates are printed inside the front cover of the monthly NOTAM Flight Information Publication.

NOTE-

The toll-free number/web address to obtain a STMP slot are:

- 1. Touch-tone interface: 1-800-875-9755.
- 2. Web interface: www.fly.faa.gov.

3. Trouble number: (540) 422-4246.

18-13-3. IMPLEMENTATION

a. Special TM programs must be managed by the ATCSCC or the affected ARTCC. The ATCSCC must transmit an advisory containing the reason for the program, airport(s)/sector(s) involved, dates and times the program will be in effect, telephone numbers to be used, and any special instructions, as appropriate. The affected ARTCC must monitor special TM programs to ensure that the demand to the center/terminal facilities is equal to the capacity.

b. The ATCSCC will disseminate a password and instructions for facility STMP reports. Detailed instructions can be found on the web site for the web interface, or in the Aeronautical Information Manual for the touch-tone interface.

18-13-4. AIRPORT RESERVATION OFFICE

a. The Airport Reservations Office (ARO) has been established to monitor the operation and allocation of reservations for unscheduled operations at airports designated by the Administrator under FAA adopted rules. These airports are generally known as slot controlled airports. The ARO allocates reservations on a first come, first served basis determined by the time the request is received at the ARO. Standby lists are not maintained. Reservations are allocated through the ARO by the Enhanced Computer Voice Reservation System (e-CVRS) and not by the local air traffic control facility.

b. Requests for reservations for unscheduled flights at the slot controlled airports will be accepted beginning 72 hours before the proposed time of operation.

c. Flights with declared emergencies do not require reservations.

d. Refer to the Web site or touch-tone phone interface below for the current listing of the slot controlled airports, limitations, and reservation procedures.

NOTE-

The Web interface/telephone numbers to obtain a reservation for unscheduled operations at a slot controlled airport are:

- 1. http://www.fly.faa.gov/ecvrs.
- 2. Touch-tone: 1-800-875-9694 (e-CVRS interface).
- **3.** Trouble number: (540) 422-4246.

Section 14. Severe Weather Management

18-14-1. GENERAL

a. On a national basis, the AT system is most susceptible to thunderstorm activity between April and October. Thunderstorms create a major disruption to the normal and organized movement of air traffic and significantly increase the workload in an impacted facility. To meet this challenge, System Operations has charged the ATCSCC to deal directly and independently with severe weather problem areas.

b. When the potential exists for severe weather which will cause a disruption to normal traffic movements, the ATCSCC will implement procedures designed to optimize the use of the available airspace. Strategic planning is an integral part of severe weather management and the responsibility of all involved.

c. Facilities will be called upon to favor and accept traffic that is not normally routed through their area. In the interest of a balanced flow and to minimize delays, we expect air traffic facilities to accept this alternate flow. All facilities are expected to participate and cooperate when called upon. A properly developed, coordinated, and implemented plan will result in the better use of available airspace.

18–14–2. DUTIES AND RESPONSIBILITIES

The ATCSCC must be the final approving authority

for alternate routes and initiatives that transcend center or terminal boundaries.

a. The ATCSCC must:

1. Be responsible for severe weather management operations.

2. Ensure coordination is completed to implement TM initiatives in support of severe weather management.

3. Conduct a daily operations critique with affected facilities and system customers, as appropriate.

4. Receive and evaluate facility requests for alternate routes and initiatives to avoid severe weather.

5. Coordinate with appropriate facilities and customers to determine the need for developing alternate routes and initiatives to avoid severe weather.

6. Coordinate alternate routes with all affected facilities.

7. Transmit advisories defining severe weather areas and alternate routes.

8. Conference all affected facilities and system users to apprise them of weather conditions that will impact the NAS.

b. Facility TMUs must coordinate with the ATCSCC for matters pertaining to severe weather.

Section 15. Severe Weather Avoidance Plan (SWAP)

18-15-1. GENERAL

SWAPs are formalized programs that are of considerable value in areas that are particularly susceptible to severe weather. SWAP statements are prepared by ARTCC TMUs and provide specific details surrounding a particular weather event. The ARTCC TMUs consider applicable alternatives that may be used to mitigate expected airspace impacts. These include CDRs, playbook routes, FEA/FCAs, capping/tunneling, AFPs, and any other TMIs that are being considered. The SWAP statement is then delivered to the ATCSCC for discussion and coordination and may be sent as a SWAP advisory. SWAP advisories are sent by the ATCSCC and developed from SWAP statements and provide direction to customers and facilities on what TMIs are expected to be used to manage airspace constraints.

Plans that are properly developed, coordinated, and implemented can reduce coordination and TM restrictions associated with rerouting aircraft around areas of severe weather, resulting in better utilization of available airspace.

18-15-2. RESPONSIBILITIES

a. Air traffic facilities must:

1. Favor and accept traffic flows that are not normally routed through their area.

2. Monitor, evaluate, and adjust programs to ensure maximum effectiveness.

3. Use the following procedures when considering a route unusable:

(a) Notify the ATCSCC anytime airspace, established flows of traffic, routes or any other factor affecting airborne capacity becomes or is expected to become unusable. The ATCSCC must be notified when normal traffic can be accepted.

(b) Enter into the NTML, using the "SWAP" tab, any information regarding unusable routes and/or routes that become available.

(c) Solicit flights to file and/or fly routes that are impacted by weather, when appropriate.

(d) Issue minute-in-trail/mile-in-trail restrictions that allow airspace to remain available when defined as "severely constrained." A severely constrained area is identified as an airway, fix, or sector impacted by any circumstance that significantly reduces, but does not eliminate the ability to handle aircraft.

NOTE-

This minimum flow of traffic will ensure that demand does not exceed current capacity, yet will assist in determining the suitability for increased traffic for the impacted route or area.

(e) Increase and reduce TMIs as necessary to accommodate airspace impacts.

(f) Record in NTML two or more aircraft identifications:

(1) When flights deviate significantly, and/or elect not to file or fly on a route impacted by weather.

(2) When flights elect not to depart and/or land due to the current weather conditions.

(3) Forward flight information to the ATCSCC.

4. Facilities may consider issuing a SWAP statement indicating all expected impacts to available routes and airspace in their area of concern. The SWAP statement should contain mitigation strategies for expected impacts. This includes alternate routes, use of CDRs, use of TMIs, altitude capping/tunneling, possible FEAs/FCAs, AFPs, etc.

b. The ATCSCC must:

1. Obtain a severe weather analysis from weather information providers and discuss the findings with the appropriate TMU.

2. Conference affected facilities and customers to apprise them of forecast severe weather conditions and the routes or areas that will be impacted.

3. Formulate a dynamic severe weather operational plan. Coordinate TMIs and alternate routes with all affected facilities.

4. Use, to the extent possible, the following options in the order listed when developing an operational plan:

(a) Expanded miles-in-trail initiatives.

(b) SWAP advisories.

NOTE-

When developing the SWAP advisory, the ATCSCC should consider all possible mandatory and recommended route options; applicable CDRs and playbooks; and the use of User Preferred Trajectory (UPT) and Integrated Collaborative Routing (ICR) strategies.

- (c) Reroutes.
- (d) Ground delay programs.
- (e) AFPs.
- (f) Ground Stops.

5. Transmit advisories describing the existing or forecast weather conditions, the operational plan, alternate routes, or cancellation thereof.

6. Be the final approving authority for traffic flows and reroutes.

c. The ARTCC TMU must:

1. Coordinate with the ATCSCC when implementing SWAP procedures that affect other ARTCCs. If possible, this coordination should be completed at least 2 hours prior to expected implementation.

2. When suitable, facilities should consider developing a SWAP statement that specifies expected airspace impacts; developed shared FEAs representing airspace impacts; possible route closures; effective times of constraints; and expected routing alternatives including applicable CDRs and playbook routes.

3. Notify affected facilities within their area of responsibility when SWAP is expected to be implemented, including initiatives, reroutes, and affected times.

4. Furnish the sector or facility issuing the revised clearance a route of flight to a point where the new route connects with the filed route.

5. Notify the ATCSCC and affected facilities within their area of responsibility when normal routings can be resumed.

Section 16. Preferred IFR Routes Program

18–16–1. GENERAL

a. This section identifies responsibilities and establishes procedures for the development, revision, and cancellation of Preferred IFR Routes. These routes, as published in the Chart Supplement U.S., include Low Altitude, High Altitude, Tower En route Control (TEC), North American Routes (NAR), and both High and Low Single Direction Routes (HSD/LSD). The objective of Preferred IFR Routes is the expeditious movement of traffic during heavy demand periods and the reduction of TMIs and coordination.

b. Preferred IFR Routes must only be established when traffic density and/or safety make such routes necessary for the expeditious movement of air traffic.

c. Preferred IFR Routes must be developed in accordance with Paragraph 18–16–3, DEVELOP-MENT PROCEDURES.

18-16-2. RESPONSIBILITIES

a. ARTCCs are responsible for:

1. Developing, revising, and deleting Preferred IFR Routes. The originating ARTCC is responsible for coordinating with all affected facilities, ensuring the accuracy of the submitted route(s), examining routes for operational impact, and ensuring compatibility with NAS processing.

2. At a minimum, reviewing all Preferred IFR Routes annually and revising or canceling routes as necessary.

3. Identifying a single Office of Primary Responsibility (OPR) for their Preferred IFR Routes program. This office must be the focal point for coordination with affected FAA facilities and the ATCSCC.

b. The ATCSCC is responsible for:

1. Operating as the OPR at the National level

2. Reviewing and evaluating Preferred IFR Route submissions

3. Submitting approved Preferred IFR Routes to NFDC for publication

4. Providing feedback on unapproved routes to the submitting OPR

c. The NFDC must be responsible for:

1. Entering the route in the national database.

2. Forwarding errors noted during the validation to the ATCSCC for resolution.

3. Publishing the route as an add–on page to the National Flight Data Digest (NFDD).

18–16–3. DEVELOPMENT PROCEDURES

a. Routes and route segments must be defined by any combination of the following:

1. DPs/SIDs/STARs if applicable

2. NAVAID identifier, intersection name, fix name, RNAV Waypoint or Navigation Reference System Waypoints (NRS) (e.g., FUZ, ZEMMA, KK45G).

3. Type and number of the airway (e.g., J87 M201 Q40 T295 V16)

b. When establishing or amending Preferred IFR Routes the following rules must be applied:

1. When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.

2. When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).

3. When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).

4. The first route element following the origin must not be an airway (e.g., KDFW J4).

5. The last route element prior to the destination must not be an airway (e.g., J35 KMSY).

6. Inclusive altitudes must be used when describing a Low Altitude Preferred IFR Route.

7. Low frequency non-directional beacons must not be used.

c. Other considerations should include:

1. Terminal/en route traffic flows

2. Radar coverage

3. SAA/SUA

4. Adapted Arrival (AARs), Adapted Departure (ADRs) and Adapted Departure and Arrival Routes (ADARs).

5. MEA, MOCA, and Minimum Reception Altitude (MRA) must be considered when establishing inclusive altitudes for Low Altitude routes.

6. When describing High Altitude preferred routes, victor airways may only be used to define climbing/descending segments, provided that such usage does not exceed the service limitations of the NAVAID.

7. Single direction routes may be established in the high altitude stratum to enhance safety and expedite air traffic. The routes may begin or end at any fix within the en route structure and need not serve a specific terminal area. Single direction routes serving terminal/en route needs must be depicted on en route charts.

18–16–4. COORDINATION PROCEDURES

a. Interfacility Coordination

1. The originating ARTCC is defined as follows:

(a) New Routes: The ARTCC identifying the need to establish a new Preferred IFR Route.

(b) Existing Routes: The ARTCC identifying the need to amend or delete a Preferred IFR Route.

(c) When establishing, amending, or deleting a Preferred IFR Route is proposed by a facility other than an ARTCC, the requesting facility must coordinate with the parent ARTCC. The overlying ARTCC must assume responsibility as the originator.

2. The originating ARTCC must:

(a) Coordinate with all affected ATC facilities.

(**b**) Upon completion of the coordination process, submit data to the ATCSCC Point of Contact (POC).

3. The ATCSCC must:

(a) Resolve differences between ATC facilities.

(b) Review for accuracy and forward the completed data to the NFDC for publication.

18–16–5. PROCESSING AND PUBLICATION

a. The airspace information cutoff date listed in the Chart Supplement U.S. is the latest date route information may be received by NFDC to ensure publication on the planned effective date. The following procedures must apply:

1. Plan effective dates to coincide with the Chart Supplement U.S. publication dates.

2. ARTCCs must submit completed data to the ATCSCC at least 21 days prior to the desired publication cutoff date. The data must be submitted via the NFDC Preferred IFR Routes submission form. The ATCSCC will provide the OPR with this form.

3. The ATCSCC must forward the completed data to the NFDC on or before the desired publication cutoff date.

Section 17. North American Route Program

18-17-1. PURPOSE

The NRP provides the users of the NAS greater flexibility in flight plan filing at or above 29,000 feet (FL290).

18-17-2. RESPONSIBILITIES

a. The ATCSCC must:

1. Have the authority to suspend and/or modify NRP operations for specific geographical areas or airports. Suspensions may be implemented for severe weather reroutes, special events, or as traffic/equipment conditions warrant.

2. Conduct special user teleconferences and transmit ATCSCC advisories whenever a provision of the NRP will not be available to the user community for more than one hour.

b. ARTCC TMUs must:

1. Avoid issuing route and/or altitude changes for aircraft which display the remarks "NRP" except when due to strategic, meteorological or other dynamic conditions.

2. Coordinate with ATCSCC before implementing any reroute to NRP flights beyond 200 NM from point of departure or destination.

3. Monitor activity to identify potential sector/ airport constraint that may impact DP/STAR operations and coordinate with the ATCSCC for problem resolution.

c. DP/STAR procedures for the ARTCCs are authorized the following exemptions:

1. NRP flights will be allowed to file and fly any published transitions of the DPs and/or STARs. Not all of the published transitions may be available, due to facility procedural constraints.

2. In the case of radar vector DPs the ARTCC will clear the NRP flight to the first en-route NAVAID/fix/waypoint of the flight plan as soon as practical.

3. When problems are identified involving the use of the DP/STAR transitions, immediately notify the ATCSCC for resolution.

d. Customer flight plan filing requirements are authorized the following exemptions:

1. Customers may file and fly any published transition of the DPs and/or STARs, regardless of the mileage from the airport to transition end point.

2. Customers should not file DP/STAR transitions in offshore transition areas (12 NM or more off the United States shoreline)

18-17-3. PROCEDURES

a. "NRP" must be retained in the remarks section of the flight plan if the aircraft is moved due to weather, traffic, or other tactical reasons. In these situations, every effort will be made to ensure the aircraft is returned to the original filed flight plan/altitude as soon as conditions warrant.

b. Traffic management specialists must not enter "NRP" in the remarks section of a flight plan unless prior coordination concerning this particular flight is accomplished with the ATCSCC or as prescribed by international NRP flight operations procedures.

c. The en route facility within which an international flight entering the conterminous United States requests to participate in the NRP must enter "NRP" in the remarks section of the flight plan.

18-17-4. REPORTING REQUIREMENTS

Reports of unusual or unsatisfactory events attributable to NRP traffic should be forwarded to the System Operations ATCSCC TCA via facsimile at (540) 422–4196 or telephone at (540) 359–3146. Reports must include, at a minimum: aircraft call sign, type, altitude, route of flight, affected sectors, brief description of event, description of impact, and any actions taken.

18-17-5. USER REQUIREMENTS

a. International operators filing through the Canadian airspace to destinations within the conterminous United States must file an inland navigational fix within 30 NM north of the common Canada/United States airspace geographical boundary to be eligible to participate in the NRP.

b. Flights must be filed and flown via any published DP or STAR for the departure/arrival airport respectively, or published preferred IFR routes, for at least that portion of flight which is within 200 NM from the point of departure or destination. If the procedures above do not extend to 200 NM, published airways may be used for the remainder of the 200 NM. If the procedures above do not exist, published airways may be used for the entire 200 NM.

c. Operators that file a flight plan which conforms to a published preferred IFR route must not enter "NRP" in the remarks section of that flight plan.

d. Operators must ensure that the route of flight contains no less than one waypoint, in the FRD

e. Operators must ensure that the route of flight avoids active restricted areas and prohibited areas by at least 3 NM unless permission has been obtained from the using agency to operate in that airspace and the appropriate air traffic control facility is advised.

f. Operators must ensure that "NRP" is entered in the remarks section of the flight plan for each flight participating in the NRP program.
Section 18. Coded Departure Routes

18-18-1. PURPOSE

This section prescribes policies and guidelines for Coded Departure Route(s) (CDR).

18-18-2. DEFINITION

The CDR program is a combination of coded air traffic routings and refined coordination procedures designed to mitigate the potential adverse impact to the FAA and users during periods of severe weather or other events that impact the NAS.

18-18-3. POLICY

Abbreviated clearances must only be used with CDRs at locations covered by a Memorandum of Agreement (MOA) between the customers and the FAA that specifies detailed procedures, or with general aviation customers who include in the remarks section of their flight plan, "CDR Capable".

NOTE-

Air Traffic Control Facilities will determine which city pairs will be included in the database.

18-18-4. RESPONSIBILITIES

a. The ATCSCC must:

1. Manage the national CDR program.

2. Operate as Office of Primary Interest (OPI) at the national level.

3. Conduct a review of the submitted CDRs and facilitate necessary corrections.

4. Issue an advisory when facilities implement or terminate use of CDRs.

b. NFDC must:

1. Forward to the ATCSCC POC any changes to the published navigational data base (i.e., SIDs/ STARs, NAVAIDs, Fixes, RNAV Waypoints, etc.) contained in the NFDD(s) that are effective for the subsequent chart date. This data must be provided at least 45 days prior to the chart date. **2.** Error check all submitted route elements and forward errors noted during the validation to the ATCSCC for resolution.

c. ARTCCs must:

1. Identify, develop, coordinate, and establish CDRs, as needed, in accordance with this section.

2. Supply a POC for the ATCSCC to contact regarding CDRs.

3. Ensure that all affected facilities have approved newly created CDRs, or CDR route amendments, prior to inclusion in the operational database.

4. Notify the originating Center when a CDR must be modified to accommodate changes within their airspace, such as traffic flow changes, airway realignments, and/or navigational aid designator changes. Exceptions: Revisions to STAR/SID/DP numbers will be entered into the CDR database by the ATCSCC via Global Modification.

5. Ensure ERAM CDR data is identical to data published in the CDR operational database.

6. Report unusable, inaccurate, or unsatisfactory CDRs to the ATCSCC POC. Reports must include the CDR Route Code, specific description of the impact and if appropriate, suggestion for modification.

7. When requested, facilitate the coordination necessary for the use of abbreviated clearances.

8. Notify the ATCSCC when implementing and terminating use of CDRs.

d. Terminal facilities must coordinate with their overlying ARTCC for all matters pertaining to CDRs.

18-18-5. CDR DATA FORMAT

All ARTCCs must develop and update CDRs in accordance with the following:

a. Utilize the eight character naming convention as follows:

1. Characters one through three are the three–letter ID of the origination airport.

2. Characters four through six are the three–letter ID for the destination airport.

3. Characters seven and eight are reserved for local adaptation and may be any two alphanumeric characters other than O or I.

NOTE-

O and I must not be used to preclude confusion with the numbers zero and one.

b. Although the use of RNAV procedures is preferred when developing or amending CDRs, ARTCCs may also include conventional CDRs in their CDR database.

c. All CDR route strings must tie into normal arrival routings into the destination airport.

d. CDRs must be developed and/or amended in accordance with the following:

1. Routes and route segments must be defined by any combination of the following:

(a) DPs/SIDs/STARs if applicable.

(b) NAVAID identifier, intersection name, fix name, RNAV Waypoint or NRS Waypoint (e.g., FUZ, ZEMMA, KK45G).

(c) Type and number of the airway (e.g., J87 M201 Q40 T295 V16).

2. When establishing or amending CDRs the following rules must be applied:

(a) When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.

(b) When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).

(c) When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148). (d) The first route element following the origin must not be an airway (e.g., KDFW J4).

(e) The last route element prior to the destination must not be an airway (e.g., J35 KMSY).

e. CDRs for each location must be published via the Route Management Tool (RMT) CDR database. Updates to the database will coincide with the normal 56-day chart updates. There are two components of the CDR database. The operational database is a read-only record of all the current CDRs. The staging database is amendable by ARTCC POCs. The staging database replaces the operational database on each chart date.

f. CDR changes must be entered into the staging database at least 36 days prior to the chart date. The staging database is closed to changes 35 days prior to the chart date.

NOTE-

The timeline for the CDR staging database is available_in RMT under the Help tab, Show Chart Dates. The status of the staging database is provided at each login to the CDR database.

g. 30-35 days prior to the Chart Date. During this period, the staging database is checked for errors. Any errors are forwarded to the POC designated at each facility for correction. If the error cannot be corrected immediately, the route involved will be deleted from the database for that cycle. Once the error is corrected, the route may be reentered for a future date.

NOTE-

30 days prior to the Chart Date the staging database is available to FAA and users for downloading or updating of their files.

h. On each chart date, the staging database replaces the operational database and a mirror copy becomes the new staging database. The staging database is available for changes until it is locked 35 days prior to the next chart date, and the cycle starts over.

Section 19. Route Advisories

18–19–1. PURPOSE

This section prescribes policies and guidelines for issuing Route Advisories.

18–19–2. POLICY

In accordance with Federal Air Regulations, all operators have the right of refusal of a specific route and may elect an alternative. Alternatives include, but are not limited to, ground delay, diversion to another airport, or request to stay on the filed route.

18-19-3. EXPLANATION OF TERMS

a. Required (RQD): System stakeholders must take action to comply with the advisory.

b. Recommended (RMD): System stakeholders should consider Traffic Management Initiatives (TMI) specified in the advisory.

c. Planned (PLN): Traffic management initiatives that may be implemented.

d. For Your Information (FYI): Advisories requiring no action.

e. User Preferred Trajectory (UPT): The route that the user requests based on existing conditions.

f. System stakeholders: A group of interdependent NAS users and FAA air traffic facilities.

g. 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.

h. Protected Segment Indicator: The protected area will be coded on the display and strips using the examples in TBL 18–19–1.

i. TMI Indicator: This denotes protected coding exists for a flight's route even though the coding within the route may be scrolled off the view surface.

j. TMI Identifier: Identifies the name of the initiative and is inserted into the beginning of Interfacility Remarks after the clear weather symbol.

TBL 18–19–1
Example of Protected Segment Indicators

Presentation	Character Used	Example
Display	Bracketing chevrons ><	ILMFAKJ109.>LEONI.J110.IHD.J518.DJB <dtw< td=""></dtw<>
Enroute Flight Strip	Reverse bracketing parentheses)(ILM FAK J109)LEONI J110 IHD J518 DJB(DTW

18–19–4. ROUTE ADVISORY MESSAGES

a. All route advisories must specify whether an action is RQD, RMD, PLN, FYI.

b. The following information will be included in a route advisory:

1. Header: Includes the DCC advisory number, category of route, and action. A "/FL" indicates that a flight list is attached to the advisory.

2. Name: Descriptive of the situation to the extent possible.

3. Constrained Area: Impacted area referenced by the advisory.

4. Reason: Causal factors for the advisory.

5. Include Traffic: Factors identifying specific flows of traffic in the route.

6. Facilities Included: May indicate the specific facilities or use the phrase "multiple facilities;" a minus sign (–) indicates to omit that facility's traffic from the route.

7. Flight Status: Will indicate all, airborne, or non-airborne.

8. Valid: Time frame for the route will be specified.

9. Probability of Extension: High, medium, low, or none will be stated.

10. Remarks: Further clarifying information.

11. Associated Restrictions: Traffic management restrictions to be implemented in conjunction

with the route, e.g., miles in trail. ALT RSTN indicates that there is an altitude restriction associated with the advisory.

12. Modifications: Amendments to the standard Playbook routing.

13. Route: A specific route, route options, or user preferred trajectory around the area may be

indicated. When UPT is indicated, an additional route(s) must be listed. This route becomes the "default" route.

14. Footer: Date/time group for Flight Service Station information.

c. Categories of route advisories and possible actions are listed in TBL 18–19–2.

ROUTE CATEGORY	REQUIRED RQD	RECOMMENDED RMD	PLANNED PLN	INFORMATION FYI
1. Route		1	~	V
2. Playbook		V~	~	
3. CDR	/	~	~	
4. Special Operations	/			
5. NRP Suspensions				
6. VACAPES (VS)		/	~	
7. NAT	/			
8. Space Operations	/	/	~	
9. FCA	/			
10. FEA		/	~	~
11. Informational		V-	~	~
12. Miscellaneous		1	1	1

TBL 18–19–2 Categories of Route Advisories and Possible Actions

18-19-5. RESPONSIBILITIES

a. The ATCSCC must:

1. Be the final approval authority for all routes that traverse multiple center or terminal boundaries.

2. Coordinate routes with impacted facilities prior to implementing the route.

3. Verbally notify all impacted en route facilities of the implementation, modification, or cancellation of routes as the situation dictates.

4. Document and disseminate coordinated routes through an advisory with a flight list, if appropriate.

5. Implement, modify, and/or cancel routes.

b. Field facilities must:

1. Remain cognizant of operational areas of interest in the National Airspace System (NAS)

including local adaptations that affect route changes; e.g., Preferential Arrival Routes and Preferential Arrival Departure Routes, and forward any issues that may require modification to normal traffic flows within their area of jurisdiction when national support may be required.

2. Coordinate routes with facilities within their area of jurisdiction.

NOTE-

Normally the ATCSCC coordinates with en route facilities, en route facilities coordinate with terminals.

3. Participate in the PT Conference as appropriate.

4. Implement the required routes for flights less than 45 minutes from departure or airborne. The departure Center is responsible for ensuring that proposed flights are on the proper route, and airborne traffic is the responsibility of the Center with track control and communications when the advisory is received.

5. Forward user requests to deviate from required routes to the ATCSCC, if they traverse more than one Center.

6. Not amend flight plans for flights outside their area of jurisdiction without prior approval.

c. NAS users should:

1. Amend flight plans to the published route when aircraft are 45 minutes or more from departure;

2. Forward requests to the ATCSCC Tactical Customer Advocate (TCA) when an aircraft is on the ground and is requesting to deviate from a published route.

18-19-6. PROCEDURES

a. System stakeholders must forward information to be considered in route planning and route implementation when capable.

b. Time permitting, the ATCSCC consolidates the information for inclusion into the PT Conference, or initiates tactical action, as required.

c. The ATCSCC coordinates routes with impacted facilities and issues advisories.

d. The ATCSCC verbally advises all impacted Centers that a route advisory has been issued, modified, or cancelled.

e. Field facilities and users review advisories and dynamic lists, and take appropriate action.

f. Field facilities issue routes to users if flight plans do not reflect the required routes as stated in the advisory.

g. If a route is cancelled, field facilities leave the aircraft on the existing route at the time of the cancellation of the route, unless a new route pertinent to the aircraft is issued.

h. NAS users forward requests to the ATCSCC TCA for flights that request to be exempted from required routes. The TCA completes the coordination and provides a determination on the request to the appropriate party(ies).

i. Routes are implemented, modified, and cancelled as needed.

Section 20. Operations Plan

18-20-1. PURPOSE

Establishes the process, structure and responsibilities for developing, managing and implementing a daily strategic plan for air traffic operations in the National Airspace System (NAS).

18-20-2. DEFINITION

a. The Operations Plan (OP): The OP is a plan for management of the NAS. The OP is a collaboratively developed plan. The OP is derived by the Planning Team (PT) after collaboration with the FAA and customer's weather forecasters, FAA Air Route Traffic Control Center (ARTCC) Traffic Management Officer (TMO) or designee, other FAA field facility management personnel, airline planners, Air Traffic Control System Command Center (ATCSCC) personnel, international facilities, military, and general aviation system customers.

b. Trigger: A specific event that causes a specific traffic management initiative (TMI) to be implemented.

1. A trigger is for planning purposes and is intended to reduce coordination when implementing the specified TMI.

2. All en route facilities impacted by the TMI must be contacted prior to implementing the TMI in response to the trigger.

3. En route facilities must relay TMIs to affected terminal facilities within their area of jurisdiction.

4. All triggers will be identified by "IF, THEN" clauses in the OP.

EXAMPLE-

IF thunderstorms develop as forecast on J96, THEN ZKC will initiate the ORD BDF1 Playbook route.

c. The OP will specify:

1. Terminal constraints: facilities where delays are expected to be 15 minutes or greater.

2. En route constraints: facilities where expanded miles-in-trail, deviations, and tactical reroutes may be required.

18-20-3. RESPONSIBILITIES

a. The ARTCC TMO or their designee must:

1. Participate via the PT Conference in the formulation and development of the OP when stated on the previous OP, or requested later by the ATCSCC, or issues within the facility arise that may require inclusion in the OP.

2. Provide input on:

(a) Equipment outages having an operational impact;

(b) Internal initiatives;

(c) Terminal constraints;

(d) Route closure/recovery information;

(e) Anticipated Traffic Management Initiatives (TMI) necessary to manage the system; or

(f) Other issues which may impact operations (i.e., staffing, special events, etc.). See FIG 18–20–1, Operational Planning Conference Checklist.

3. Brief and direct facility Operational Supervisors, Traffic Management Supervisors, Traffic Management Units, and operational personnel on the implementation of the OP and gather additional information for the next Conference.

4. Coordinate with and provide direction to underlying facilities on the implementation of the OP.

5. Monitor and assess the OP, notifying the ATCSCC of problems that may impact the OP.

6. Provide operational feedback for use in post–operational evaluation of the OP.

b. The ATCSCC must:

1. Maintain the Planning Team (PT) Conference.

2. Maintain a web page for publicizing the OP to aviation systems users.

c. The ATCSCC National Operations Manager (NOM) must:

1. Direct the facility National Traffic Management Officer (NTMO), ATCSCC operational units, and personnel on implementation of the OP.

2. Coordinate with and provide direction to FAA facilities on implementation of the OP.

d. The ATCSCC PT must:

1. Lead the PT in development of the OP.

2. Formulate the OP through coordination with PT members using the OP Timeline.

3. Brief the NOM, NTMO, and other ATCSCC operational elements on the OP.

4. Post the OP on the ATCSCC web site and issue as a numbered advisory.

5. Document agreed upon triggers in the OP.

e. The Terminal Facility Management must:

1. When notified by the ARTCC TMO or designee or ATCSCC PT, participate in the PT Conference.

2. Brief and direct facility operational personnel on actions required by the OP.

3. Monitor and assess the OP, notifying the ATCSCC of problems that may impact the OP.

18-20-4. PROCEDURES

a. The PT is composed of FAA and customer weather forecasters, FAA ARTCC's TMO, or designee, other FAA field facility management personnel, airline strategic planners, ATCSCC personnel, international facilities, and military and general aviation system customers.

b. The ATCSCC has been delegated the authority to direct the operation of the PT Conference for the FAA.

1. The ATCSCC will notify those FAA facilities required to participate as part of the PT Conference.

2. Military, international, and general aviation entities will be included as necessary.

c. The PT collaborates on the formation of the OP. The OP is normally developed for the hour beginning

after the Conference commences and through the subsequent eighteen (18) hours. The OP is updated, amended, and evaluated on a recurring basis.

d. Weather information provided by National Weather Service meteorologists will be used in the conference. If there is a collaborative product of weather information, developed by both government and industry meteorologists, it will be used as the primary source for the OP Conference.

e. OP Timeline (all times local/eastern): The OP Timeline provides a method for group decision–making and collaboration in dealing with system constraints. Modification of the timeline, participation, and scheduling is done at the discretion of the PT and as directed by the ATCSCC.

1. 5:00 a.m. – National Weather TELCON: ATCSCC PT monitors the weather TELCON, receives midnight operational briefing, and collaborates with select FAA facilities and users for the next amendment.

2. 6:00 a.m. – Amendment to the OP is published on the ATCSCC web page and through an ATCSCC numbered advisory.

3. 6:00–7:00 a.m. – Individual team entities conduct an assessment of operation in preparation for the OP Conference. The ATCSCC identifies and notifies FAA facilities required to participate in the PT Conference.

4. 7:15 a.m. – Planning Conference conducted: The OP is developed by the PT.

5. 8:00 a.m. – The OP is published on the ATCSCC web site and via numbered advisory.

6. 8:00–9:00 a.m. – Individual team entities conduct an assessment of operation in preparation for the OP Conference.

7. 9:15 a.m. – Planning Conference conducted: The OP is developed by the PT.

NOTE-

Conference/planning cycle repeats every 2 hours or as conditions warrant. The time intervals may be varied; however, each OP and associated advisory will state the time for the next Conference.

FIG 18-20-1 Operational Planning Conference Checklist

Review the Current OP

Review the applicable weather information

Input from the Areas

- ♦ Staffing
- ♦ Combined Sectors
- ♦ Anticipated Initiatives
- ♦ Equipment
- ◆ Anticipated Traffic Volume
- Constraints/Other

Input from Approaches and Towers

- Current Configuration and AAR
- Anticipated Configuration and AAR
- ♦ Other

Miscellaneous

- ♦ VIP Movement
- ♦ Special Events
- Military Activities
- ♦ Diversions

Flow Constrained Areas

- ♦ Current
- ♦ Anticipated
- Pathfinders
- ♦ Recovery

Anticipated Traffic Management Initiatives

- ♦ Alternatives
- ♦ Triggers Needed
- ♦ Exit Strategy Needed

Section 21. National Playbook

18-21-1. PURPOSE

The National Playbook is a collection of Severe Weather Avoidance Plan (SWAP) routes that have been pre-validated and coordinated with impacted ARTCCs. The National Playbook is designed to mitigate the potential adverse impact to the FAA and customers during periods of severe weather or other events that affect coordination of routes. These events include, but are not limited to, convective weather, military operations, communications, and other situations.

18-21-2. POLICY

National Playbook routes must only be used after collaboration and coordination between the ATCSCC and the TMU(s) of affected air traffic facilities.

18-21-3. DEFINITION

The National Playbook is a traffic management tool developed to give the ATCSCC, FAA facilities, and industry a common product for various route scenarios. The purpose of the National Playbook is to aid in expediting route coordination during periods of constraint in the NAS. The National Playbook contains common scenarios that occur during each severe weather season, and each includes the airspace or flow impacted, facilities included, and specific routes for each facility involved. The National Playbook is available on the ATCSCC website at: http://www.atcscc.faa.gov/Operations/operations.ht ml.

18-21-4. RESPONSIBILITIES

- a. The ATCSCC must:
 - **1.** Manage the National Playbook program.
 - 2. Operate as the OPI at the National Level.

3. Identify and coordinate the development/ modification/deletion of National Playbook routes as needed.

4. Evaluate and coordinate, as appropriate, National Playbook development/modification/ deletion requests received from the ARTCCs.

5. Conduct a yearly review of the National Playbook routes and procedures.

6. The ATCSCC will hold telcons/meetings to facilitate the coordination of playbooks on an as needed basis.

b. The NFDC must forward to the ATCSCC any changes to the published navigational database, (i.e., DPs/SIDs/STARs, NAVAIDs, Fixes, Waypoints, etc.) contained in the NFDD(s) that are effective for the subsequent chart date. The data must be provided at least 45 days prior to the chart date.

c. The ARTCCs must:

1. Forward to the ATCSCC any request to develop/modify/delete National Playbook routes in accordance with this section. Requests must include the National Playbook designation and a description of the desired additions/deletions/ modifications.

2. Supply a POC for the ATCSCC to contact regarding National Playbook routes.

3. Participate in the coordination process of National Playbook routes impacting their facility.

d. Terminal facilities must coordinate with their overlying ARTCC for all matters pertaining to the National Playbook.

18–21–5. NATIONAL PLAYBOOK DATA FORMAT

a. Playbooks must be developed and/or amended in accordance with the following:

1. Routes and route segments must be defined by any combination of the following:

(a) STAR and associated STAR number.

(b) NAVAID identifier, intersection name, fix name, RNAV Waypoint, or NRS Waypoints (e.g., FUZ, ZEMMA, KK45G).

(c) Type and number of the airway (e.g., J87 M201 Q40 T295 V16.

2. When establishing or amending Playbook Routes the following rules must be applied:

(a) When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.

(b) When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).

(c) When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).

(d) The first route element following the origin must not be an airway (e.g., KDFW J4).

(e) The last route element prior to the destination must not be an airway (e.g., J35 KMSY).

(f) Low frequency non-directional beacons must not be used.

b. The National Playbook will be published on the ATCSCC site. Updates to the National Playbook will coincide with the normal 56-day chart updates.

c. All changes to the National Playbook require coordination with affected facilities. Therefore, changes must be submitted to the ATCSCC at least 60 days prior to the desired publication date to be eligible for inclusion in the update.

18–21–6. IMPLEMENTATION PROCEDURES

a. Implementation of National Playbook routes

may be initiated by the ATCSCC or requested by the TMU at an ARTCC.

b. The ATCSCC will coordinate the activation/deactivation of National Playbook routes. National Playbook routes are considered active when the ATCSCC has completed coordination with all impacted facilities. A numbered advisory will be sent by the ATCSCC describing the route(s) being used.

c. The ATCSCC will display current National Playbook advisories on the ATCSCC web page.

d. National Playbook routes may be modified tactically to achieve an operational advantage. The ATCSCC will coordinate these changes verbally with all impacted facilities and ensure that the published advisory contains the modifications.

e. Facilities must monitor and provide real-time reports of the impact and continued need for the use of the National Playbook routes through the ATCSCC.

f. A National Playbook route is no longer active when the expiration time stated on the advisory has been reached without an extension coordinated or a decision to cancel the route has been reached. If the route is cancelled prior to the expiration time, the ATCSCC will coordinate with all impacted facilities and publish an advisory stating that the route has been cancelled.

g. If there are circumstances that prevent the use of a National Playbook route, then the air traffic facility involved must inform the ATCSCC. It is the responsibility of the impacted facility and the ATCSCC to ensure the route is not utilized until the circumstances preventing its use are corrected or the route is deleted.

Section 22. Traffic Management (TM) Support of Non–Reduced Vertical Separation Minima (RVSM) Aircraft

18-22-1. PURPOSE

This section prescribes policies and guidelines for Traffic Management (TM) support of Non–Reduced Vertical Separation Minima (RVSM) Aircraft.

18-22-2. POLICY

In accordance with 14 CFR Section 91.180, domestic RVSM airspace (FL 290–410) is exclusionary airspace. With only limited exceptions, all operators and individual aircraft must have received RVSM authorization from the Federal Aviation Administration (FAA) to operate at RVSM altitudes. If an aircraft or its operator has not been authorized for RVSM operation, the aircraft is referred to as a "non–RVSM" aircraft. Excepted non–RVSM aircraft are granted access to RVSM altitudes on a workload permitting basis. Priority in RVSM airspace is afforded to RVSM compliant flights, then file–and–fly flights.

18-22-3. DEFINITIONS

a. File–and–Fly. Operators of excepted non– RVSM flights requesting access to or through RVSM airspace will file a flight plan. This flight plan serves as the notification to the FAA of the operator's intent to request access to or through RVSM airspace.

b. STORM Flight. A non-RVSM exception designated by the Department of Defense (DOD) for special consideration via the DOD Priority Mission website.

c. Entry Facility. Facility where an aircraft penetrates RVSM airspace designated for U.S. air traffic control.

d. RVSM Facility. Air Traffic facility that provides air traffic services in RVSM airspace.

18-22-4. EXCEPTED FLIGHTS

Under the authority granted in 14 CFR Section 91.180, the Administrator has determined that the following groups of non–RVSM aircraft may enter RVSM airspace subject to FAA approval and clearance:

a. Department of Defense aircraft;

b. Foreign State (government) aircraft;

c. Active air ambulance utilizing MEDEVAC call sign;

d. Flights conducted for aircraft certification and development flights for RVSM.

18-22-5. OPERATOR ACCESS OPTIONS

Operators of excepted non-RVSM aircraft requesting access to DRVSM airspace have the following options available to them:

a. Letter of Agreement/Memorandum of Understanding (LOA/MOU). Comply with a LOA/MOU for operations within a single or adjacent RVSM facility.

b. File–and–Fly. File a flight plan and make the initial request to access RVSM airspace by requesting an ATC clearance.

NOTE-

Non-RVSM aircraft not listed under excepted flights may climb/descend through RVSM airspace without leveling off, subject to FAA approval and clearance.

c. DOD. Enter STORM flights on the DOD Priority Mission website. For STORM flights that are within 60 minutes of departure notify the departure RVSM facility via telephone, in addition to entering the flight into the DOD Priority Mission website.

NOTE-

Special consideration will be afforded a STORM flight; however, accommodation of any non-RVSM exception flight is workload permitting.

18–22–6. DUTIES AND RESPONSIBILITIES

Traffic Management Units (TMU) in facilities with RVSM airspace must:

a. Monitor, assess, and act on the information in the Traffic Situation Display (TSD) to evaluate the facility's ability to manage non-RVSM aircraft;

b. Coordinate calls from DOD operators of STORM flights that will depart within 60 minutes, with the appropriate area supervisor/controller-in-charge. Obtain and coordinate the following information:

- **1.** Call sign.
- 2. Origination point.
- 3. Proposed departure time.

4. Number of aircraft in formation, when applicable.

c. For a non-RVSM exception flight inbound to the U.S., the TMU at the entry facility receives the request for access to RVSM airspace directly from an international point of contact (POC). The TMU must coordinate the information received from the international POC with the appropriate operational supervisor/controller-in-charge in a timely manner.

Section 23. Contingency Plan Support System (CPSS)

18-23-1. PURPOSE

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.

18-23-2. DEFINITION

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.atcscc.faa.gov/ois.

18-23-3. RESPONSIBILITIES

a. The ATCSCC must designate a POC for the management of the CPSS.

b. ARTCCs must:

1. Develop and maintain the accuracy of OCP data within CPSS following FAA Order JO 1900.47, Air Traffic Organization Operational Contingency Plan.

2. Designate a POC to coordinate with the ATCSCC on the management of the ARTCC's CPSS database information.

3. Coordinate with all affected facilities when changing CPSS data before including them in the CPSS database.

4. Ensure that CPSS data are available to operational positions.

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.

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.)

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.

7. Coordinate with underlying terminal facilities for all matters pertaining to CPSS data information.

c. Service Center Operations Support Group must:

1. Review CPSS data for currency and consistency.

2. Serve as liaison between ARTCCs and ATCSCC on CPSS matters.

3. Serve as information and training resource for ARTCCs to help them maintain current and accurate information in CPSS.

18-23-4. PROCEDURES

a. Contingency non-radar route data must be published in CPSS. Updates will coincide with the 56-day chart update cycle.

b. Non-radar data is processed via the RMT in accordance with the following timelines:

1. All revisions to CPSS data must be provided to the ATCSCC CPSS POC at least 30 days before each chart date.

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.

Section 24. Route Test

18–24–1. PURPOSE

This section describes policies and guidelines for conducting and evaluating route tests.

18-24-2. 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).

18-24-3. 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.

18-24-4. 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 25. Time-Based Flow Management (TBFM)

18-25-1. 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).

18–25–2. 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.

18-25-3. 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.

18-25-4. 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.

I. 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.

18-25-5. 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– FAAO 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 26. Weather Management

18-26-1. GENERAL

This section prescribes policy and responsibilities to ensure required weather products and services are provided in a timely manner.

18–26–2. 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 section 18-26-4 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.

18-26-3. 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.

18-26-4. 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 SIGMET's.

(b) Dissemination of CWA's within the ARTCC.

(c) Dissemination of urgent PIREP's within the ARTCC.

(d) Dissemination of CWA's 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/CWA's 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, FSS and AFSS, 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.

Part 6. REGULATORY INFORMATION

Chapter 19. Waivers, Authorizations, and Exemptions

Section 1. Waivers and Authorizations

19–1–1. PURPOSE

This section prescribes policy and guidelines for the grant or denial or a Certificate of Waiver or Authorization from Title 14, Code of Federal Regulations (14 CFR).

19-1-2. POLICY

a. FAAO 1100.5, FAA Organization – Field, delegates to the Service Operations Service Area Directors and Flight Standards Division Managers the Administrator's authority to grant or deny a Certificate of Waiver or Authorization (FAA Form 7711–1), and permits the re-delegation of this authority. Further, re-delegation of the authority to grant or deny waivers or authorizations must be consistent with the functional areas of responsibility as described in FAA's Rulemaking Manual, and may be limited if deemed appropriate.

b. Applications for a Certificate of Waiver or Authorization acted upon by a En Route and Oceanic Operations Service Area or Terminal Operations Service Area office will normally be processed in accordance with guidelines and standards contained herein, unless found to be in the best interest of the agency to deviate from them.

c. Applications for waiver or authorization that require both Air Traffic Organization and Flight Standards technical considerations must be handled jointly.

d. The grant of a Certificate of Waiver or Authorization constitutes relief from the specific regulations stated, to the degree and for the period of time specified in the certificate, and does not waive any state law or local ordinance. Should the proposed operations conflict with any state law or local ordinance, or require permission of local authorities or property owners, it is the applicant's responsibility to resolve the matter.

19–1–3. RESPONSIBILITIES

a. Air traffic, as designated by the Service Area Director, is responsible for the grant or denial of Certificate of Waiver or Authorization, except for those sections assigned to Flight Standards (detailed in subpara b).

b. Flight Standards, as designated by the Administrator, and described in FAA's Rulemaking Manual, is responsible for providing advice with respect to the qualification of civil pilots, airworthiness of civil aircraft, and the safety of persons and property on the ground. Additionally, Flight Standards has the responsibility for the grant or denial of Certificate of Waiver or Authorization from the following sections of 14 CFR:

1. Section 91.119, Minimum safe altitudes: General;

2. Section 91.175, Takeoff and landing under IFR;

3. Section 91.209, Aircraft lights;

4. Section 91.303, Aerobatic flight;

5. Any section listed in 91.905 as appropriate for aerobatic demonstrations and other aviation events.

6. Section 105.21, Parachute operations over or into congested areas or open air assembly of persons, as appropriate for aerobatic demonstrations and other aviation events.

c. Certificate Holder, compliance with the provisions of a waiver is the responsibility of the holder who must be thoroughly informed regarding the waiver and those actions required of them by any special provisions. The holder must be advised that it is their responsibility to ensure that all persons participating in the operation are briefed on the waiver.

19–1–4. PROCESSING CERTIFICATE OF WAIVER OR AUTHORIZATION (FAA FORM 7711–2) REQUESTS

a. Requests for a Certificate of Waiver or Authorization (FAA Form 7711–2) may be accepted by any FAA facility and forwarded, if necessary, to the appropriate office having waiver authority. Those offices making the determination of whether an application should be processed by higher authority may forward the request to the appropriate Service Area Director for action. Those requests that are forwarded to FAA Washington Headquarters for processing must include all pertinent facts, background information, recommendation(s), as well as the basis and reasons for requesting Headquarters action.

b. Requests must be coordinated with all concerned FAA elements, prior to approval, by the office that is most convenient to the applicant and having waiver authority, even though the proposed operation will be conducted within or extended into other jurisdictional areas. This procedure is intended to establish one office as the agency contact for an applicant and will preclude the need for the petitioner to deal with the FAA at various locations.

19–1–5. PROCESSING CERTIFICATE OF WAIVER OR AUTHORIZATION RENEWAL OR AMENDMENT REQUESTS

a. A renewal request should be made by means of a new application. However, a request by another method is acceptable if its substance is essentially the same as the previous application or when, in the judgment of the waiver or authorization office, the request is sufficiently similar that new considerations are not required.

b. An existing waiver or authorization may be amended either by re-issuance or by letter.

19–1–6. ISSUANCE OF CERTIFICATE OF WAIVER OR AUTHORIZATION (FAA FORM 7711–1)

Waivers and authorizations must be completed in accordance with the following instructions and must be signed only by the appropriate authority (see FIG 19–1–1 and Example). The FAA Form 7711–1 should be:

a. Issued to an organization, whenever possible, in preference to an individual but indicate name and title of the individual acting for the organization.

b. Specify the operations that are permitted by the waiver or authorization.

c. Define the area and specify altitudes at which they may be conducted.

d. Specify the regulation, or portion thereof waived by numerical and letter reference as well as title. This section is left blank for authorizations (e.g., unmanned air vehicle operations, etc.).

e. Specify the effective and expiration dates, including hours of operation. The specific dates and hours of operation must allow sufficient time for the accomplishment of the operation and, if appropriate, an alternate date to cover cancellations that might be necessary due to adverse weather conditions.

1. ATO issued waivers or authorizations may be made effective for a period of up to 24 calendar months in accordance with Flight Standards and ATO policies.

2. Flight Standards may issue waivers for aerobatic practice areas (APAs) for a period of up to 36 calendar months.

f. Restrict the waiver or authorization to the extent required by the operation. Further, any special provisions that are required to provide for an adequate level of flight safety and the protection of persons and property on the surface; for example: limitations, location, time periods, and type aircraft, must be specified and included as part of the waiver or authorization.

NOTE-

If a longer duration is requested, or the operation is of national importance, advise the proponent to petition for an exemption utilizing 14 CFR Section 11.63, How and to whom do I submit my petition for rulemaking or petition for exemption.

19–1–7. RETENTION OF CERTIFICATES OF WAIVER OR AUTHORIZATION

The issuing office must retain one copy of each waiver, authorization or denial, along with supporting data, for at least one year after the date of denial or expiration, as appropriate. Significant or unusual waivers or authorizations may be retained for longer periods.

19–1–8. WAIVER, AUTHORIZATION OR DENIAL PROCEDURE

The applicant must be advised in writing of the waiver or authorization approval or denial, and, if appropriate, what is required to obtain reconsideration.

a. Applicant: The original waiver, authorization or denial, and a copy of the application must be forwarded to the applicant.

b. Issuing Office: The original of the application and a copy of the waiver, authorization or denial must be retained by the issuing office.

c. Washington Headquarters: Except for waivers or authorizations issued by Flight Standards Service, forward copies of waivers, authorizations or written denials to the Washington Headquarters, Airspace Policy and Regulations Group.

d. Other Distribution: Other than as specified above and as necessary to satisfy Service Area office needs, distribution must be limited to those offices that have a need for the information. For parasail operations covered under Paragraph 18-5-1, Service Area offices must distribute approved waivers or

authorizations to the appropriate Flight Standards District Office.

19–1–9. CANCELLATION OF WAIVERS AND AUTHORIZATIONS

A waiver or authorization may be canceled at any time by the Administrator, the person authorized to grant the waiver or authorization, or the representative designated to monitor a specific operation. As a general rule, a waiver or authorization should be canceled when it is no longer required or there is an abuse of its provisions or unforeseen safety factors develop. Failure to comply with the waiver or authorization is cause for cancellation. Cancellation procedures, as applicable, must be used as follows:

a. Notify the holder immediately.

b. Verify and document the basis for the cancellation.

c. Notify the appropriate Service Area office, as well as the issuing office.

d. Provide the holder with written notice of cancellation, or written confirmation of a verbal cancellation, with copies to appropriate offices.

e. Take any other action deemed necessary.

FIG 19–1–1 FAA Form 7711–1

	DEPAR	RTMENT OF TRANSPORTATION DERAL AVIATION ADMINISTRATION
C	ERTIFICATE OF	WAIVER OR AUTHORIZATION
SSUED TO	(self-explanatory)	
ADDRESS	(self-explanatory)	
This any opera contained by this cer	certificate is issued for the operation ion pursuant to the authority of this c in this certificate, and such other requ tificate.	ns specifically described hereinafter. No person shall conduct certificate except in accordance with the standard and special provisions uirements of the Federal Aviation Regulations not specifically waived
PERATION	AUTHORIZED	
	(Indicate in detail all operations at	thorized. Use a separate sheet of paper if necessary.)
LST OF WAL	VED REGULATIONS BY SECTION AND TITLE	
	(This section not used for Unmanne	ed Air Vehicle authorizations.)
		STANDARD PROVISIONS
1. A cop	y of the application made for this cer	tificate shall be attached to and become a part hereof.
2. This c	ertificate shall be presented for inspe	ection upon the request of any authorized representative of the
Admi the du	histrator of the Federal Aviation Adm	ninistration, or of any State or municipal official charged with
3. The h	ly of enforcing local laws of regulati	one
herei	older of this certificate shall be respo	ons. nsible for the strict observance of the terms and provisions contained
4 This c	older of this certificate shall be respo	ons. nsible for the strict observance of the terms and provisions contained
	older of this certificate shall be respo n. ertificate is nontransferable.	ons. nsible for the strict observance of the terms and provisions contained
	older of this certificate shall be respondent. ertificate is nontransferable.	ons. nsible for the strict observance of the terms and provisions contained
Note: -	older of this certificate shall be respont. ertificate is nontransferable. This certificate constitutes a waiver of does not constitute a waiver of any S	ons. nsible for the strict observance of the terms and provisions contained of those Federal rules or regulations specifically referred to above. It state law or local ordinance.
Note: -	older of this certificate shall be respont. ertificate is nontransferable. This certificate constitutes a waiver of does not constitute a waiver of any S	ons. nsible for the strict observance of the terms and provisions contained of those Federal rules or regulations specifically referred to above. It state law or local ordinance. SPECIAL PROVISIONS
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Note: - Specia This ca and is sul	blder of this certificate shall be respondent. ertificate is nontransferable. This certificate constitutes a waiver of any S does not constitute a waiver of any S 1 Provisions Nos. <u>1</u> to <u>r</u> tificate is effective from <u>(Beginnin</u>) rtificate is effective from <u>(Beginnin</u>)	ons. nsible for the strict observance of the terms and provisions contained of those Federal rules or regulations specifically referred to above. It state law or local ordinance. SPECIAL PROVISIONS 4
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EXAMPLE OF SPECIAL PROVISIONS

These special provisions are for suggested use only. You will need to modify them or develop new ones depending on the proponent and the operating conditions.

1. Contact the [name of FAA facility] at [telephone number], not less than 24 hours or more than 48 hours prior to conducting any [name of event], for the purpose of issuing a Notice to Airmen.

2. Contact the [name] Air Route Traffic Control Center at [telephone number], prior to and immediately after [name of event], for the purpose of providing real time notice of operations.

3. All persons connected with this [name of event] must be familiar with this waiver and its special provisions, as well as part 101, [specific section of 14 CFR].

4. [Any other special provision(s) as required].

Section 2. Elimination of Fixed–Wing Special Visual Flight Rules Operations

19-2-1. PURPOSE

This section prescribes policy and guidance for the elimination of fixed-wing special visual flight rules (SVFR) operations within Class B and Class C airspace areas.

19-2-2. POLICY

Fixed-wing SVFR operations may interfere with the safe, orderly and expeditious flow of aircraft operating under instrument flight rules (IFR) within certain high activity airspace areas (Class B, or C airspace areas only). To preclude such adverse effect, it may be necessary to eliminate SVFR operations within those affected airspace areas.

NOTE-

Section 3, Appendix D to Part 91 of 14 CFR lists the locations wherein fixed-wing SVFR operations are prohibited.

19-2-3. RESPONSIBILITIES

a. Each Service Area office must conduct periodic reviews of terminal areas to determine when fixed-wing SVFR operations should be eliminated or restored in the specific airspace areas.

b. Each Service Area office must forward the names of the airspace surface areas recommended for elimination/restoration of fixed-wing SVFR operations, with detailed justification, to the System Operations Airspace and Aeronautical Information Management for review.

Section 3. Current Authorizations and Exemptions from Title 14, Code of Federal Regulations

19–3–1. AUTHORIZATIONS AND EXEMPTIONS FROM TITLE 14, CODE OF FEDERAL REGULATIONS (14 CFR)

Authorizations and exemptions from specified sections of 14 CFR have been granted to specified Departments, Agencies, and certain aircraft operators to permit accomplishment of their assigned missions (i.e., to conduct inflight identification, surveillance, and pursuit operations) subject to specified conditions and limitations.

19–3–2. AUTHORIZATION AND EXEMPTION REQUESTS

Requests for updated summaries of all current air traffic control authorizations and exemptions from 14 CFR processed by System Operations Airspace and Aeronautical Information Management should be made through the Service Area office.

Section 4. Parachute Jump Operations

19–4–1. NONEMERGENCY PARACHUTE JUMP OPERATIONS

a. All concerned personnel must familiarize themselves with 14 CFR Part 105, and obtain the required information required by Section 105.25 when processing requests for authorization or notification of non-emergency parachute jumps.

b. When operational/procedural needs require or when warranted by high density air traffic or constrained airspace, negotiate letters of agreement that designate areas of ongoing jump activity as permanent jump sites. Letters of agreement should contain:

1. The description and the location of the jump zone(s) and the conditions of use.

2. The activity schedules.

3. The maximum jump altitudes, common jump altitudes and common parachute opening altitudes (all altitudes should be expressed in feet above mean seal level).

4. The communication frequencies to be used by the jump aircraft.

5. Jump aircraft call signs.

6. Jump aircraft climb and descent areas.

7. Notification procedures.

8. Assigned transponder code when appropriate.

9. Any other items pertinent to the needs of the ATC system and the users.

c. Where ongoing jump sites are established, but not yet published, ATMs may work with the parachute operator to ensure pertinent information is submitted for publication in the Chart Supplement U.S. and contact the Operations Support Group for assistance as needed.

d. To the extent possible, advise parachute jumping organizations or responsible individuals of known high traffic density areas or other airspace where sport parachuting may adversely impact system efficiency, such as IFR departure/arrival routes, Federal airways, VFR flyways, military training routes, etc.

e. A record of parachute jump coordination must be maintained by the facility for 45 days. The records must contain at least a copy of the NOTAM, reason(s) for cancellation (if applicable), name of the person(s) effecting coordination, and instructions or conditions imposed on the jump operation.
Section 5. Moored Balloons, Kites, Parasail, Unmanned Rockets, and Unmanned Free Balloons/Objects

19–5–1. MOORED BALLOONS, KITES, PARASAIL, UNMANNED ROCKETS, AND UNMANNED FREE BALLOONS/OBJECTS

Apply the following guidelines to moored balloon, kite, parasail, unmanned rocket, or unmanned free balloon flights conducted in accordance with Part 101 of 14 CFR:

a. Facilities receiving moored balloon, kite, unmanned rocket, or unmanned free balloon information must ensure that appropriate notices include the information required by 14 CFR Sections 101.15, 101.37, and 101.39.

b. Facilities receiving parasail information must ensure that appropriate notices include the information required by 14 CFR Section 101.15.

c. Notice information must be forwarded to affected air traffic facility/s. Also, air traffic facilities must forward notices received to the appropriate FSS for dissemination as a NOTAM.

d. Handle unmanned free balloon operations below 2,000 feet above the surface in Class B, Class C, Class D or Class E airspace areas requiring ATC authorization as follows:

1. Authorize the request if the operation is not expected to impact the normally expected movement of traffic.

2. Coordinate with other affected facilities before authorizing the flight.

e. Request the operator of unmanned free balloon flights to forward position reports at any time they are needed to assist in flight following.

NOTE-

Operators are required only to notify the nearest FAA ATC facility if a balloon position report is not recorded for 2 hours. Other position reports are forwarded only as requested by ATC.

19-5-2. DERELICT BALLOONS/OBJECTS

Take the following actions when a moored balloon/object is reported to have escaped from its

moorings and may pose a hazard to air navigation, the operator of an unmanned free balloon advises that a position report has not been recorded for a 2-hour period, or the balloon's/object's flight cannot be terminated as planned:

a. Determine from the operator the last known and the present estimated position of the balloon/object as well as the time duration that the balloon/object is estimated to stay aloft. Also obtain other information from the operator such as the operator's access to a chase plane, hazardous material onboard, balloon/object coloring, special lighting, etc.

b. Attempt to locate and flight follow the derelict balloon/object.

c. Determine if the balloon's/object's flight can be terminated by the operator. If the balloon's/object's flight can be terminated, inform the operator of any known air traffic that might be a factor.

d. If the balloon's/object's flight cannot be terminated:

1. Advise the operator that the balloon/object is declared to be a derelict and as such is a potential hazard to air navigation.

2. Notify the ATCSCC, the regional Operations Center, and all affected facilities of the derelict. The ATCSCC will serve as the focal point for the collection and dissemination of further information.

3. Provide the ATCSCC with revised position or altitude information.

4. If required, assistance in locating and tracking the balloon may be requested from the National Military Command Center (NMCC), NORAD, or other agencies with surveillance capabilities through the ATCSCC. If appropriate, the ATCSCC will advise the NMCC that the derelict balloon is a current or potential hazard to air traffic. If the balloon cannot be located or flight followed, it poses at least a potential hazard.

NOTE-

The final decision to destroy the derelict balloon is the responsibility of the appropriate NORAD Commander.

e. Record and handle the derelict balloon as a Miscellaneous Incident.

REFERENCE-FAAO JO 7110.65, Para 9–6–2, Derelict Balloons.

Chapter 20. Temporary Flight Restrictions

Section 1. General Information

20-1-1. PURPOSE

This section prescribes guidelines and procedures regarding the use and issuance of regulatory temporary flight restrictions (TFRs).

20–1–2. AUTHORITY

a. The FAA Administrator has sole and exclusive authority over the navigable airspace of the United States. The Administrator has broad authority under Section 40103 of Title 49 of the United States Code (U.S.C.) to regulate, control, and develop plans for the use of the navigable airspace and to formulate policy for navigable airspace. See also 49 U.S.C. Section 40101(d).

b. Title 14 of the Code of Federal Regulations (14 CFR) parts 91 and 99 contain regulations addressing temporary flight restrictions and Special Security Instructions.

20–1–3. REASONS FOR ISSUING A TFR

While not all inclusive, a TFR may be issued for the following reasons: toxic gas leaks or spills; fumes from flammable agents which, if fanned by rotor or propeller wash, could endanger persons or property on the surface or in other aircraft; volcanic eruptions that could endanger airborne aircraft and occupants; hijacking incidents that may endanger persons or property on the surface, or airborne aircraft and occupants; aircraft accident/incident sites; aviation or ground resources engaged in wildfire suppression; aircraft relief activities following a disaster; aerial demonstrations or major sporting events. A Special Security Instruction may be issued for reasons of national security.

20-1-4. TYPES OF TFRs

TFRs may be issued under the following regulations:

a. Section 91.137, Temporary Flight Restrictions in the Vicinity of Disaster/Hazard Areas.

b. Section 91.138, Temporary Flight Restrictions in National Disaster Areas in the State of Hawaii.

c. Section 91.139, Emergency Air Traffic Rules.

d. Section 91.141, Flight Restrictions in the Proximity of the Presidential and Other Parties.

e. Section 91.143, Flight Limitation in the Proximity of Space Flight Operations.

f. Section 91.145, Management of Aircraft Operations in the Vicinity of Aerial Demonstrations and Major Sporting Events.

g. Section 99.7, Special Security Instructions.

20-1-5. TFR NOTAM CONTENT

TFR NOTAMs must comply with procedures detailed in FAA Order JO 7930.2, Notices to Airmen (NOTAM).

20-1-6. TFR INFORMATION

a. Educational information regarding TFRs can be found in 14 CFR parts 91 and 99, and the Aeronautical Information Manual.

b. National Airspace System (NAS) users or other interested parties should contact the nearest flight service station for TFR information. Additionally, you can find TFR information on automated briefings, Notice to Airmen (NOTAM) publications, and on the Internet at *http://www.faa.gov*. The FAA also distributes TFR information to aviation user groups and requests these groups to further disseminate the information to their members.

20-1-7. TFRs OUTSIDE OF THE UNITED STATES AND ITS TERRITORIES

TFRs are only implemented for sovereign U.S. airspace and its territories. If restrictions are located in an area that extends beyond the 12-mile coastal limit or a U.S border, the NOTAM will contain language limiting the restriction to the airspace of the U.S., and its territories and possessions. The FAA may issue an advisory via the NOTAM System to inform affected users of any hazard or dangerous information outside of the sovereign U.S. airspace and its territories.

■ 20-1-8. TFR QUESTIONS

Direct any questions or concerns regarding TFRs to the ATO service area director having jurisdiction over the TFR area. You may also contact Mission Support, Airspace, Regulations, and ATC Procedures Group, FAA Headquarters, Washington, D.C., at (202) 267–8783.

Section 2. Temporary Flight Restrictions in the Vicinity of Disaster/Hazard Areas (14 CFR Section 91.137)

20-2-1. PURPOSE

This section prescribes guidelines and procedures regarding the management of aircraft operations in the vicinity of disaster/hazard areas in accordance with 14 CFR Section 91.137. TFRs issued under this section are for disaster/hazard situations that warrant regulatory measures to restrict flight operations for a specified amount of airspace, on a temporary basis, in order to provide protection of persons or property in the air or on the ground.

20-2-2. RATIONALE

TFRs in accordance with 14 CFR Section 91.137 are issued when necessary to:

a. 14 CFR 91.137(a)(1) – Protect persons and property on the surface or in the air from an existing or imminent hazard associated with an incident on the surface when the presence of low flying aircraft would magnify, alter, spread, or compound that hazard.

b. 14 CFR 91.137(a)(2) – Provide a safe environment for the operation of disaster relief aircraft.

c. 14 CFR 91.137(a)(3) – Prevent an unsafe congestion of sightseeing and other aircraft above an incident or event that may generate a high degree of public interest.

NOTE-

This provision applies only to disaster/hazard incidents of limited duration that would attract an unsafe congestion of sightseeing aircraft.

20-2-3. SITUATIONS FOR RESTRICTIONS

TFRs in accordance with 14 CFR Section 91.137 may be issued for, but are not limited to, the following situations:

a. 14 CFR 91.137(a)(1): toxic gas leaks or spills; flammable agents or fumes that, if fanned by rotor or propeller wash, could endanger persons or property on the surface or, if entered by an aircraft, could endanger persons or property in the air; volcanic eruptions that could endanger airborne aircraft and

occupants; nuclear accident or incident; and hijackings.

b. 14 CFR 91.137(a)(2): aviation or ground resources engaged in wildfire suppression; and aircraft relief activities following a disaster (for example, earthquake, tidal wave, flood, etc.).

c. 14 CFR 91.137(a)(3): disaster/hazard incidents of limited duration that would attract an unsafe congestion of sightseeing aircraft, such as aircraft accident sites.

20-2-4. REQUESTING AUTHORITIES

A TFR under 14 CFR Section 91.137 may be requested by various entities, including military commands; regional directors of the Office of Emergency Planning; Civil Defense State Directors; civil authorities directing or coordinating air operations associated with disaster relief; civil authorities directing or coordinating organized relief air operations (including representatives of the Office of Emergency Planning, U.S. Forest Service, and state aeronautical agencies); and law enforcement agencies.

20-2-5. ISSUING TFRs

a. FAA Headquarters or the ATO service area director (or their designee) having jurisdiction over the area concerned may issue a TFR.

b. TFRs issued for hijacking events may be issued by FAA Headquarters or the ATO service area director (or designee) with coordination through the Domestic Events Network (DEN) air traffic security coordinator (ATSC).

c. ARTCC managers (or designee) may issue TFRs in accordance with 14 CFR Sections 91.137(a)(1) and (a)(2).

d. TFRs issued in accordance with 14 CFR Section 91.137(a)(3) require FAA Headquarters approval.

e. TFRs issued for law enforcement activities require approval from the ATO Director of System Operations Security (or designee).

NOTE-

Law enforcement activities that may warrant TFRs include, but are not limited to, situations where there is a direct hazard to aircraft (for example, shots fired at aircraft) or where the presence of aircraft could exacerbate the danger to personnel on the ground (for example, SWAT or other personnel moving into position, etc.).

20-2-6. DEGREE OF RESTRICTIONS

a. Section 91.137(a)(1). Restrictions issued in accordance with this section prohibit all aircraft from operating in the designated area unless that aircraft is participating in the disaster/hazard relief activities and is being operated under the direction of the official in charge of on-scene emergency response activities.

b. Section 91.137(a)(2). Restrictions issued in accordance with this section prohibit all aircraft from operating in the designated area unless at least one of the following conditions is met:

1. The aircraft is participating in hazard relief activities and is being operated under the direction of the official in charge of on-scene emergency response activities.

2. The aircraft is carrying law enforcement officials.

3. The aircraft is operating under an ATC approved IFR flight plan.

4. The operation is conducted directly to or from an airport within the area, or is necessitated by the impracticability of VFR flight above or around the area due to weather or terrain. Notification must be given to the ATC facility or office that was specified in the NOTAM for coordination with the official in charge of on-scene emergency response activities. Also, the operation does not hamper or endanger relief activities and is not conducted for observing the disaster.

5. The aircraft is carrying properly accredited news representatives, and prior to entering the area, a flight plan is filed.

NOTE-

Coordination with the official in charge of on-scene emergency response activities is required prior to ATC allowing any IFR or VFR aircraft to enter into the TFR area. **c.** Section 91.137(a)(3). Restrictions issued in accordance with this section prohibit all aircraft from operating in the designated area unless at least one of the following conditions is met:

1. The operation is conducted directly to or from an airport within the area, or is necessitated by the impracticability of VFR flight above or around the area due to weather or terrain, and the operation is not conducted for the purpose of observing the incident or event. Notification must be given to the ATC facility that was specified in the NOTAM for coordination with the official in charge of the activity.

2. The aircraft is operating under an ATC approved IFR flight plan.

3. The aircraft is carrying incident or event personnel, or law enforcement officials.

4. The aircraft is carrying properly accredited news representatives and, prior to entering that area, a flight plan is filed with FSS or the ATC facility specified in the NOTAM. Flight plans must include aircraft identification, type, and color; radio frequencies to be used; proposed times of entry to and exit from the TFR area; the name of news media or organization and purpose of flight.

20-2-7. RESPONSIBILITIES

a. All FAA personnel approving or issuing TFRs must ensure that restrictions meet regulatory criteria and are issued in accordance with FAA directives.

b. The ATO Director of System Operations Security (or designee) must:

1. Review and, if warranted, approve TFRs issued for law enforcement activities in accordance with the provisions of 14 CFR Section 91.137.

2. Act as the operational representative for media concerns regarding active 14 CFR 91.137 TFRs.

c. ATO service area director (or designee) must:

1. Review all flight restrictions in their jurisdiction issued in accordance with 14 CFR 91.137 at least every 30 days.

2. Coordinate with affected air traffic facilities, event personnel, and local authorities when applicable.

3. Coordinate with the Domestic Events Network (DEN) air traffic security coordinator (ATSC) when hijacking situations are involved. **d.** ARTCC air traffic managers (or designee) having jurisdiction over the area concerned must:

1. Accept requests for and, if warranted, establish TFRs in accordance with the provisions of 14 CFR Sections 91.137(a)(1) and 91.137(a)(2).

2. Contact the System Operations Support Center (SOSC) at (202) 267–8276 to obtain approval for TFRs requested for law enforcement activities.

3. Inform all affected facilities of the TFR; including location, altitude, and effective times.

4. Coordinate with SUA using agencies when a TFR may impact SUA activities.

5. Notify the Regional Operations Center when a 91.137(a)(1) TFR has been issued. Ensure information is passed to Service Center Operations Support Group (OSG) and SOSC personnel.

6. Reroute IFR traffic around the TFR, unless prior approval is obtained from the on-scene coordinator.

7. Maintain a chronological log of all TFR related actions on FAA Form 7230–4, Daily Record of Facility Operation Log, to include:

(a) The name and the organization of the person requesting the TFR.

(b) A brief description of the situation.

(c) The estimated duration of the restrictions.

(d) The name of the agency responsible for on-scene emergency activities and the telephone or other communications contact.

(e) A description of the location of the affected area.

8. Act as, or designate, an ATC coordination facility. If assistance is required, the coordination

facility must serve as a primary "communication facility" for communications between the emergency control authorities and affected aircraft.

9. Issue flight restrictions, NOTAM, and appropriate cancellation in a timely manner.

e. All air traffic facilities must:

1. To the maximum extent possible, render assistance to the agency requesting the TFR.

2. Disseminate TFR information to all affected pilots in the area by all possible means.

3. Refer all media requests for information concerning TFRs to the SOSC at (202) 267–8276.

20-2-8. REVISIONS AND CANCELLATIONS

a. When restrictions are necessary beyond the published termination date/time, the ARTCC must ensure that a revised NOTAM and an appropriate cancellation are issued.

b. When the ARTCC within whose area the restrictions are established receives information from the ATO service area or the agency that requested the restrictions that the restrictions are no longer required, the ARTCC must take action to cancel them. If the information is received by another facility, that facility must notify the ARTCC, which will take appropriate action.

c. When it is obvious that the restrictions are no longer required but a cancellation request has not been received, the ARTCC must take action to ascertain the status of the restrictions from the ATO service area or the agency that requested the restrictions, and if appropriate, cancel them.

Section 3. Temporary Flight Restrictions in National Disaster Areas in the State of Hawaii (Section 91.138)

20-3-1. PURPOSE

TFRs issued in accordance with 14 CFR Section 91.138 address a determination that an inhabited area within a declared national disaster area in the State of Hawaii needs protection for humanitarian reasons.

20-3-2. REQUESTING AUTHORITIES

The Governor of the State of Hawaii or the Governor's designee may request a TFR under 14 CFR 91.138.

20–3–3. DEGREE OF RESTRICTIONS

The TFR will specify the extent and duration necessary to protect persons and property on the surface. Restrictions issued under this section prohibit all aircraft from operating in the designated area unless at least one of the following conditions is met:

a. Authorization is obtained from the official in charge of associated emergency or disaster relief response activities, and the aircraft is operated under the conditions of that authorization.

b. The aircraft is carrying law enforcement officials.

c. The aircraft is carrying persons involved in an emergency or a legitimate scientific purpose.

d. The aircraft is carrying properly accredited newspersons, and before entering the area, a flight plan is filed with the appropriate FAA or ATC facility specified in the NOTAM, and the operation is conducted in compliance with the conditions and restrictions established by the official in charge of on-scene emergency response activities.

e. The aircraft is operating in accordance with an ATC clearance or instruction.

20-3-4. DURATION OF RESTRICTIONS

A NOTAM issued under this section is effective for 90 days or until the national disaster area designation is terminated, whichever comes first, or otherwise terminated by notice or extended at the request of the Governor of the State of Hawaii or the Governor's designee.

Section 4. Emergency Air Traffic Rules (14 CFR Section 91.139)

20-4-1. PURPOSE

TFRs issued in accordance with 14 CFR Section 91.139 utilize NOTAMs to advise of the issuance and operations under emergency air traffic rules and regulations.

20-4-2. REQUESTING AUTHORITIES

Whenever the Administrator determines that an emergency condition exists, or will exist, relating to the FAA's ability to operate the air traffic control system and during which normal flight operations under this chapter cannot be conducted consistent with the required levels of safety and efficiency:

a. The Administrator issues an immediately effective air traffic rule or regulation in response to that emergency condition.

b. The Administrator (or designee) may utilize the NOTAM system to provide notification of the issuance of the rule or regulation.

20-4-3. ISSUING TFRs

TFRs issued in accordance with 14 CFR Section 91.139 may be issued by the FAA Administrator (or designee), the Chief Operating Officer of the ATO, FAA ATO Headquarters, or the ATO Director of System Operations Security.

20-4-4. DEGREE OF RESTRICTIONS

a. NOTAMs issued communicate information concerning the rules and regulations that govern flight operation, the use of navigation facilities, and designation of that airspace in which the rules and regulations apply.

b. When a NOTAM has been issued under this section, no person may operate an aircraft, or other device governed by the regulation concerned, within the designated airspace except in accordance with the authorizations, terms and conditions prescribed in the regulation covered by the NOTAM.

Section 5. Flight Restrictions in the Proximity of the Presidential and Other Parties (14 CFR Section 91.141)

20-5-1. PURPOSE

TFRs issued in accordance with 14 CFR Section 91.141 address air security with respect to airspace over presidential and other parties.

20-5-2. REQUESTING AUTHORITIES

A TFR under 14 CFR Section 91.141 may be requested by the Washington headquarters office of the U.S. Government agency responsible for the protection of the person concerned. This agency will contact FAA Headquarters in accordance with established procedures and request the necessary regulatory action.

20-5-3. ISSUING TFRs

TFRs issued in accordance with 14 CFR Section 91.141 may be issued by the ATO Director of System Operations Security (or designee).

20-5-4. DEGREE OF RESTRICTIONS

No person may operate an aircraft over or in the vicinity of any area to be visited or traveled by the President, the Vice President, or other public figures contrary to the restrictions established by the FAA and published in a NOTAM.

20-5-5. PROCEDURES

Flight restrictions in the proximity of the President, Vice President, and other parties must be in accordance with FAA Order JO 7610.4, Special Operations.

Section 6. Flight Limitation in the Proximity of Space Flight Operations (14 CFR Section 91.143)

20-6-1. PURPOSE

TFRs issued in accordance with 14 CFR Section 91.143 address space flight operations.

20-6-2. REQUESTING AUTHORITIES

FAA Headquarters or the Manager of Terminal or En Route and Oceanic Service Area Operations (or their designee) having control jurisdiction over the affected airspace can issue a TFR under 14 CFR Section 91.143.

20-6-3. DEGREE OF RESTRICTIONS

No person may operate an aircraft of U.S. registry, or pilot an aircraft under the authority of an airman certificate issued by the FAA within areas designated in a NOTAM for space flight operations except when authorized by ATC, or the proponent for the flight operation.

Section 7. Management of Aircraft Operations in the Vicinity of Aerial Demonstrations and Major Sporting Events (14 CFR Section 91.145)

20-7-1. PURPOSE

This section prescribes guidelines and procedures in accordance with 14 CFR Section 91.145, Management of Aircraft Operations in the Vicinity of Aerial Demonstrations and Major Sporting Events. Additionally, this section provides guidance on the processing of sponsor requests for these types of operations.

20-7-2. POLICY

a. Situations that may warrant a TFR under this section include, but are not limited to: military and civilian aerial demonstrations or major sporting events of limited duration to protect persons or property on the surface or in the air, to maintain air safety and efficiency, or to prevent the unsafe congestion of aircraft in the vicinity of an aerial demonstration or major sporting event.

b. All ATC regulatory actions to be considered for events of this type that will require an interpretation of, or exemption from, 14 CFR, must be forwarded to System Operations Airspace and Aeronautical Information Management, at least 90-days in advance of the event.

c. All non-regulatory avenues (e.g., drafting and dissemination of procedural information, temporary control tower, etc.) must be exhausted before considering regulatory restrictions.

d. Restrictions issued under this section prohibit the operation of any aircraft or device, or any activity within the designated airspace area except in accordance with the authorizations, terms, and conditions of the TFR published in the NOTAM, unless otherwise authorized by: (1) Air Traffic Control; or (2) A Certificate of Waiver or Authorization FAA Form 7711-1 issued for the aerial demonstration by Flight Standards.

e. Any procedural matters developed for the management of aircraft operations in the vicinity of aerial demonstrations and major sporting events that will require a procedural interpretation or waiver, must be forwarded to the Director of Terminal Operations at least 90-days in advance.

NOTE-

ATC must coordinate with the official responsible for the aerial demonstration prior to authorizing VFR or IFR aircraft to operate within the restricted airspace.

f. The ATCSCC is responsible for ensuring the balance of NAS demand with system capacity. As such, all efforts that address the management of aircraft operations in the NAS must be coordinated, prior to being finalized, with the ATCSCC to ensure that the planned operation would not overtly impact the system.

20-7-3. RESPONSIBILITIES

a. The Airspace and Rules Manager, System Operations Airspace and Aeronautical Information Management, oversees all regulatory actions issued under 14 CFR Section 91.145. Send TFR request information at least 45 days in advance of an aerial demonstration or major sporting event.

b. The Manager of Airspace Procedures oversees all procedures used in managing aircraft operations in the vicinity of aerial demonstrations and sporting events (refer to Chapter 18 of this order for additional guidelines regarding waiver and authorization responsibilities).

c. The regional ATO Service Area Director (or their designee) is responsible for the grant or denial of Certificate of Waiver or Authorization (FAA Form 7711–1) for the following Sections/parts of 14 CFR:

1. Section 91.117, Aircraft Speed.

2. Section 91.126, operating on or in the vicinity of an airport in Class G airspace.

3. Sections 91.131, 130, 129, 127 Operations in Class B, C, D, and E airspace areas respectively.

4. Section 91.135, Operations in Class A Airspace.

5. Part 101, Moored Balloons, Kites, Unmanned Rockets, and Unmanned Free Balloons.

6. Part 103, Ultralight Vehicles.

7. Part 105, Parachute Operations (except those Sections delegated to Flight Standards, refer to 20-7-3d).

d. Flight Standards (AFS) is responsible for ensuring the qualification of civil pilots, airworthiness of civil aircraft participating in these events; as well as the safety of persons and property on the ground affected by these events. In addition, AFS has the responsibility for the grant or denial of Certificate of Waiver or Authorization from the following Sections of 14 CFR:

1. Section 91.119, Minimum Safe Altitudes.

2. Section 91.175, Takeoff and Landing Under IFR.

3. Section 91.209, Aircraft Lights.

4. Section 91.303, Aerobatic Flight, Authorizing Industrial and Agricultural Support Operations.

5. Any Section listed in Section 91.905 as appropriate for aerobatic demonstrations and other aviation events.

6. Section 105.15, Jumps Over or into Congested Areas or Open Air Assembly of Persons, as Appropriate for Aerobatic Demonstrations and Other Aviation Events.

NOTE-

Applications for waiver or authorization that require both Air Traffic and Flight Standards technical considerations must be handled jointly. Additionally, a copy of all such waivers must be sent to the affected ATC facility(s) having control jurisdiction over the affected airspace and the regional (530) manager. Requests for a TFR, waiver, or authorization for an aviation event requires coordination with the appropriate ATC facility and the regional ATO Service Area Director.

20–7–4. RELATED DOCUMENTS

a. 14 CFR Section 91.145, Management of Aircraft Operations in the Vicinity of Aerial Demonstrations and Major Sporting Events.

b. Advisory Circular 91–63, Temporary Flight Restrictions.

c. Advisory Circular 91–45, Waivers: Aviation Events contains information to assist prospective sponsors and other interested parties in planning and conducting an aviation event.

d. FAAO 8700.1, General Aviation Operations Inspector's Handbook contains information pertaining to the issuance of a Certificate of Waiver or Authorization.

20-7-5. COORDINATION

Air traffic facilities receiving requests for flight restrictions in accordance with 14 CFR Section 91.145 must maintain a chronological log of all related actions.

a. Facilities receiving these types of requests must obtain the following information from the notifying agency/office:

1. Name and organization of the person requesting the waiver.

2. A brief description of the event/activity.

3. The estimated duration of the restrictions (e.g., start date/time and termination date/time).

4. The name/telephone number, or other communications arrangements, of the on-scene official that would respond to any required coordination during the event. In addition, the name of the agent responsible for any on-scene emergency activities, if different from the above.

5. A description of the affected area, and any requested airspace area, by reference to prominent geographical features depicted on aeronautical charts, or by geographical coordinates and fixes when the latter is available.

6. A signed, written request from the individual requesting the waiver, which states the reason for the restriction.

b. Sporting Events.

1. Requests for sporting event restrictions must be forwarded to the appropriate regional ATO Service Area Director for action.

2. The regional ATO Service Area Director will review the request, and if it meets the criteria in accordance with 14 CFR Section 91.145, forward the their recommendation and all applicable information (including the signed, written request from the originator) to the Airspace and Rules Manager at least 30-days prior to the event.

3. If the TFR is not approved as requested, the Airspace and Rules Manager must inform the regional ATO Service Area Director, indicating the

basis for the disapproval. The regional ATO Service Area Director must inform the requestor of the disapproval and any available alternatives.

c. Aerial Demonstrations. Any request for a TFR, waiver, or authorization for an aviation event requires coordination with the appropriate ATC facility and the regional ATO Service Area Director at least 90 days prior to the event.

1. The NOTAM request and sample NOTAM must be submitted by the FSDO to the responsible ATC facility at least 90 days in advance of the aviation event. The NOTAM must reflect the dates, times, lateral and vertical limits of the airspace specified on the Certificate of Waiver or Authorization Application (FAA Form 7711-1).

2. The ATC facility coordinates the request with the regional ATO Service Area Director.

3. The regional ATO Service Area Director will review the request, and if it meets the criteria in accordance with 14 CFR Section 91.145, forward their recommendation and all applicable information (including the signed, written request from the originator) to the Airspace and Rules Manager at least 30–days prior to the event.

4. If approved by the Airspace and Rules Manager, the NOTAM will be forwarded to the U.S. NOTAM Office for publication. If at all possible, other means will be utilized to disseminate the information. (Class II publication, Chart Supplement U.S, AOPA website, etc.)

5. If the TFR is not approved as requested, the Airspace and Rules Manager must inform the regional ATO Service Area Director, indicating the basis for the disapproval. The Regional ATO Service Area Director must inform the requestor of the disapproval and any available alternatives.

20-7-6. SPECIAL TRAFFIC MANAGEMENT PROGRAM GUIDELINES

Each regional ATO Service Area Director is responsible for the drafting of special traffic management plans for the management of aircraft operations in the vicinity of aerial demonstrations and major sporting events. Accordingly, the ATO Service Area Director, in concert with the affected facility personnel, must: **a.** Consider the following when developing procedures for managing aircraft operations in the vicinity of aerial demonstrations and open-air assembly major sporting events:

1. Refer to Chapter 18, Traffic Management National, Center, and Terminal, of this order for additional guidelines regarding special traffic management programs.

2. Consideration should be given to the number and types of aircraft involved in the operation (e.g., non-radio equipped aircraft).

3. Procedures should specify the minimum airspace/altitude requirements to manage aircraft operations in the vicinity of the event.

4. Determine whether the event warrants the use of a temporary control tower.

b. Coordinate the proposed procedures with the ATO Airspace and Rules Manager, as appropriate, and forward the information to the ATO Publications.

c. Airspace and Rules Manager will disseminate the procedures to affected airspace users via:

1. The Notices to Airmen publication. If this publication is used, the required information must be sent to ATO Publications for processing, at least 60–days in advance of the event.

2. The NOTAM will be forwarded to the U.S. NOTAM Office for publication no later than 5 days prior to the event.

20-7-7. PROCESS FOR TFRs

a. When recommending the use of Section 91.145 to manage aircraft operations in the vicinity of aerial demonstrations, the following guidelines should be used:

1. Aerial demonstrations and sporting events occurring within Class B airspace areas should be handled through existing procedures, without additional restrictions. However, each situation is unique and should be addressed as such.

2. At times it may be necessary to issue restrictions to protect airspace not contained within regulated airspace. For an aerial demonstration, if any segment of the requested airspace is outside of regulated airspace, a restriction may be issued if the following criteria are met:

(a) Military aircraft are conducting aerobatic demonstrations.

(b) Civilian aircraft that operate in excess of 200 knots are conducting aerobatic demonstrations.

(c) Parachute demonstration teams are performing.

NOTE-

A Class D NOTAM (advisory NOTAM) will be issued for any aerial demonstration that does not require a TFR.

b. Restrictions issued by the Airspace and Rules Manager are regulatory actions, and all restrictions issued must consider the impact on nonparticipating aircraft operations. Accordingly, restrictions for aerial demonstrations will normally be limited to a 5 nautical mile radius from the center of the demonstration, at an altitude equal to aircraft performance, but will be no greater than the minimum airspace necessary for the management of aircraft operations in the vicinity of the specified area. Flight management restrictions for major sporting events should be implemented 1 hour before until 1 hour after each event, limited to a 1 nautical mile radius from the center of the event and 2,500 feet above the surface. Traffic management plans are to include marshalling aircraft (e.g., blimps, banner towing aircraft, media) on the periphery of these events.

20-7-8. REVISIONS AND CANCELLATIONS

a. When restrictions are necessary beyond the

published termination date/time, the regional ATO Service Area Director must advise the Airspace and Rules Manager to ensure that a revised NOTAM and an appropriate cancellation are issued.

b. When it is obvious that the restrictions are no longer required, but no information to that effect has been received, the regional ATO Service Area Director must take action to ascertain the status of the restrictions from the agency/person that requested the restrictions.

c. For an Aerial Demonstration–The event organizer should submit two separate requests:

1. One to the ATO Service Area Director, at least 45 days prior to the event.

2. An application for a certificate of waiver or authorization (FAA Form 7711-2) for the restriction to the appropriate Flight Standards District Office, 90 days before the event for a civilian aerial demonstration and 120 days before the event for a military aerial demonstration.

d. For a Major Sporting Event– Submit the TFR request to the ATO Service Area Director at least 45 days in advance of the major sporting event. The ATO Service Area Director will assess the need for a TFR and forward their recommendation to the Airspace and Rules Manager. The Airspace and Rules Manager will determine whether a TFR is necessary and issue the TFR accordingly.

Section 8. Special Security Instructions (14 CFR Section 99.7)

20-8-1. PURPOSE

In accordance with 14 CFR Section 99.7, the FAA, in consult with the Department of Defense or other Federal security/intelligence agencies, may issue special security instructions to address situations determined to be detrimental to the interests of national defense.

20–8–2. REQUESTING AUTHORITIES

a. The Department of Defense, or other Federal security/intelligence agency may request a TFR under 14 CFR Section 99.7.

b. The Director, System Operations Security, oversees TFR information issued under this section.

20–8–3. DEGREE OF RESTRICTIONS

Each person operating an aircraft in an Air Defense Identification Zone (ADIZ) or Defense Area must (in addition to applicable parts of 14 CFR part 99) comply with special security instructions issued by the Administrator in the interest of national security, under agreement between the FAA and the Department of Defense, or other Federal security/intelligence agencies.

20-8-4. DEFINITIONS

a. Air Defense Identification Zone (ADIZ) – An area of airspace over land or water in which the ready identification, location, and control of all aircraft (except for Department of Defense and law enforcement aircraft) is required in the interest of national security.

b. *Defense Area* – Any airspace of the contiguous United States that is not an ADIZ in which the control of aircraft is required for reasons of national security.

Section 9. Security Notice (SECNOT)

20-9-1. POLICY

This section contains policy, responsibilities, and procedures for issuing a SECNOT. A SECNOT is only issued when the aircraft identification is known and either a security violation has occurred or an aircraft is considered a security risk.

20-9-2. PURPOSE

a. A SECNOT enables the FAA to locate aircraft that violate national security measures or are considered a security risk. National security measures include the DC SFRA and TFRs. Security risks include stolen aircraft and other law enforcement activities involving aircraft.

b. A SECNOT is a request originated by the Air Traffic Security Coordinator (ATSC) for an extensive communications search for aircraft involved or suspected of being involved in a security violation or are considered a security risk.

20-9-3. RESPONSIBILITIES

a. A SECNOT will include the aircraft identification, search area, and expiration time. The search area, as defined by the ATSC, could be a single airport, multiple airports, a radius of an airport or fix, or a route of flight. Once the expiration time has been reached, a SECNOT is considered to be cancelled.

b. SECNOT aircraft lookouts must be initiated by the ATSC via telephone to FSS and broadcast on the DEN.

c. SECNOT aircraft alerts must be given wide distribution, including all FAA air traffic facilities 50

miles on either side of the route of flight from the last reported position or departure point of the aircraft. SECNOT alerts must be distributed outside the FAA to fixed base operators and law enforcement agencies. When contacting airports or offices outside of official government agencies, provide no further information other than that which is contained in the SECNOT. A SECNOT expiration time will be provided by the ATSC at the time of issue. The DEN may expand the search area to cover the maximum range of the aircraft.

d. Upon receiving notification of a SECNOT, the controller must forward all information of the subject aircraft to the OS/CIC. If information is not known, broadcast call sign on all frequencies and advise the OS/CIC of the response. The OS/CIC must check the position records to determine if the aircraft has contacted your facility. Immediately notify the parent ARTCC OM or DEN of subsequent contact and keep the alert in an active status until cancellation is received or the SECNOT expiration time is reached.

e. When information becomes known about an aircraft for which a SECNOT message has been issued, do the following:

1. Forward any information on the aircraft to the parent ARTCC OM or DEN.

2. Do not take any action related to the SECNOT aircraft other than normal ATC procedures.

f. The SECNOT alert remains in effect until canceled by the DEN or the expiration time is reached.

Part 7. SYSTEM OPERATIONS SECURITY

Chapter 21. Operations Security: Tactical, Special, and Strategic

Section 1. Organizational Missions

21–1–1. SYSTEM OPERATIONS SECURITY MISSION

a. System Operations Security leads the Air Traffic Organization's (ATO) use of the agency's Air Navigation Services (ANS) authorities, expertise, and operational capability to help protect the United States and its interests from Air Domain related threats and hazards in the national defense, homeland security, law enforcement, and disaster response arenas. System Operations Security is also responsible for leading the ATO's Air Traffic Management (ATM) security efforts to mitigate the impacts of those threats and hazards on the safety and efficiency of the National Airspace System (NAS).

NOTE-

1. To align with ICAO Document 9985, Air Traffic Management Security Manual, the FAA defines ATM security as the safeguarding of the ATM system from security threats and vulnerabilities; and the contribution of the ATM system to civil aviation security, national security and defense, and law enforcement.

2. To align with ICAO Document 9985, Air Traffic Management Security Manual, the FAA defines "air domain" as the global airspace; all manned and unmanned aircraft operating in the global airspace; all people and cargo present in the global airspace; and all aviation-related infrastructure.

b. System Operation Security's collaboration with air traffic field facilities and interaction with Federal, State, and local interagency partners falls into three general mission areas, which broadly reflect the organization structure of the office's groups: Tactical Operations Security, Special Operations Security, and Strategic Operations Security.

21–1–2. TACTICAL OPERATIONS SECURITY MISSION

Tactical Operations Security is responsible for the

management of ATO's real-time ATM security-related operations. These tactical operations principally focus on: monitoring air traffic and using intelligence information to detect potential threats, validating those threats, and facilitating tactical responses in order to reinforce efforts to defeat those threats while mitigating safety and efficiency impacts on the NAS.

21–1–3. SPECIAL OPERATIONS SECURITY MISSION

Special Operations Security is principally responsible for the development and coordination of near-term plans to provide ATM security related support to classified or sensitive operations undertaken by national defense, homeland security, and law enforcement interagency partners. Special Operations also serves as the primary interface with NORAD and other interagency partners for the development of protocols and plans to support the integration of live and exercise missions into the NAS, mitigating any safety and efficiency impacts.

21–1–4. STRATEGIC OPERATIONS SECURITY MISSION

Strategic Operations Security is principally responsible for supporting ATM security measures through development and coordination of procedures, plans, programs, exercises, and policies needed to effectively carry out ATO's efforts in the national defense, homeland security, law enforcement, and disaster response arenas while mitigating safety and efficiency impacts on the NAS. In addition, this group leads ATO's efforts on Continuity of Operations, disaster response, and other emergency operations.

Section 2. Responsibilities

21-2-1. DESCRIPTION

This section identifies the primary Air Traffic Management (ATM) security responsibilities of System Operations Security, as well as air traffic facilities, pertinent to the implementation of ATM security measures. System Operations Security is responsible for collaboration and coordination with air traffic facilities on the planning and operational execution of ATM security measures and related efforts to protect the nation while mitigating safety and efficiency impacts on the National Airspace System (NAS).

21–2–2. TACTICAL OPERATIONS SECURITY GROUP RESPONSIBILITIES

Tactical Operations Security Group responsibilities are undertaken primarily through four Air Traffic Security Coordinator (ATSC) teams and the System Operations Support Center (SOSC) team. Tactical Operations Security Group, as appropriate and in collaboration with air traffic facilities, must:

a. Cooperate with the North American Aerospace Defense Command (NORAD), the Transportation Security Administration (TSA), Customs and Border Protection (CBP), and other interagency security partners to monitor the NAS and other relevant airspace to detect and tactically respond to potential threats, including suspicious flights.

b. Cooperate with the United States Secret Service (USSS), Federal Bureau of Investigation (FBI), and other interagency partners to operationally implement ATM security measures used to protect security–sensitive locations (e.g., the DC Special Flight Rules Area and Flight Restricted Zone [DC SFRA and FRZ]); events (e.g., National Special Security Events [NSSE]); and activities, including Very Important Persons (VIP) travel.

c. Conduct operational efforts to mitigate the impact of threats and security measures on the safety and efficiency of the NAS.

d. Develop and coordinate the publication of flight advisories, Security Notices (SECNOT), and Notices to Airmen (NOTAM) enabling ATM security and/or other emergency operations efforts. This function includes the publication of Temporary

Flight Restrictions (TFR) pursuant to Title 14 Code of Federal Regulations (CFR) Parts 99.7, Special security instructions; 91.141, Flight restrictions in the proximity of Presidential and other parties; and 91.137, Temporary flight restrictions in the vicinity of disaster/hazard areas.

e. Serve as the final approving authority for all real-time ATM security determinations regarding aviation operations within the NAS.

f. Coordinate and authorize routings for U.S. Department of State (DOS) designated Special Interest Flights (SIF).

g. Lead execution of ATM aspects of classified and other sensitive security-related air missions.

h. Manage the Special Governmental Interest (SGI) Program for Unmanned Aircraft System (UAS) waivers and authorizations, including emergency addendums to UAS Certificates of Authorization or Waiver (ECOA).

i. Staff ATSC and SOSC positions.

21–2–3. SPECIAL OPERATIONS SECURITY GROUP RESPONSIBILITIES

Special Operations Security Group responsibilities are undertaken primarily through senior FAA representatives, who represent the agency in coordinating ATM security issues with national defense, homeland security, and law enforcement interagency partners. Special Operations Security Group, as appropriate and in collaboration with air traffic facilities must:

a. Cooperate with the USSS, FBI, and other interagency partners to develop and coordinate ATM security measures used to protect security–sensitive locations (e.g., the DC SFRA and FRZ); events (e.g., NSSEs); and activities, including VIP travel (e.g., Presidential travel).

b. Develop and coordinate plans and procedures to mitigate the impact of threats and security measures on the safety and efficiency of the NAS, including coordination with NORAD and other interagency partners to facilitate fighter intercept operations.

c. Develop plans for and coordinate the execution of ATM elements of select national defense,

homeland security, and law enforcement exercises. This work includes support of classified and other sensitive security-related exercises.

d. Plan and coordinate ATM related support to classified and other sensitive aviation operations, including UAS flights, and mitigate impact of that activity on the NAS.

e. Coordinate and authorize call signs for special aircraft missions operated by law enforcement agencies (federal, state, and local), national defense entities, and for other special activities.

f. Staff senior FAA representative and liaison officer positions at FAA Headquarters and embedded at key national defense, homeland security, and law enforcement locations.

21–2–4. STRATEGIC OPERATIONS SECURITY GROUP RESPONSIBILITIES

Strategic Operations Security Group responsibilities are undertaken primarily through a staff at FAA Headquarters. Strategic Operations Security Group, as appropriate and in collaboration with air traffic facilities, must:

a. Cooperate with the Defense Threat Reduction Agency (DTRA) and other interagency partners to plan and coordinate the conduct of Open Skies Treaty missions in the NAS.

b. Cooperate with the Federal Emergency Management Agency (FEMA), State Emergency Management Agencies (SEMA), U.S. Northern Command (USNORTHCOM), State National Guard (NG) commands, and other federal, state, and local partners to develop and implement air traffic management aspects of disaster response and other emergency operations plans.

c. Manage the development and sustainment of ATM security related FAA ATO procedures, including: FAA Order JO 7610.4, Special Operations; FAA Order JO 7110.67, Air Traffic Management Security Services for Special Activities; FAA Order JO 7110.65, Air Traffic Control; and FAA Order JO 7210.3, Facility Operation and Administration.

d. Coordinate with U.S. Strategic Command (STRATCOM), FAA Spectrum Engineering, and other key stakeholders to support Global Positioning System (GPS) interference and Electronic Attack (EA) testing, and Identification Friend or Foe (IFF) exercises within the NAS. Plan and, as needed, coordinate actions to mitigate impact of this specialized activity on the safety and efficiency of the NAS.

e. Lead the planning and coordination of ATM security related procedures for foreign aircraft overflight, including DOS SIF activity and Part 99.7 NOTAMs that describe instructions for entry/exit, transit, and flight operations within U.S. controlled airspace.

f. Lead ATO engagement on ATM security matters with foreign counterparts, including the International Civil Aviation Organization (ICAO) and foreign Air Navigation Service Providers (ANSP).

g. Track, collect, and analyze aviation security data related to ATM security events in the NAS, such as unauthorized laser illuminations, unauthorized UAS, TFR violators, Tracks of Interest (TOI), No Radio (NORDO).

h. Provide the means for identification and protection of all real-time flight data information associated with sensitive flights in the NAS.

i. Develop and implement call sign procedures for the NAS.

j. Coordinate requests from governmental agencies, including law enforcement, for use of ICAO 3-letter designators/telephonies; and coordinate all requests for use of U.S. special call sign designators/telephonies.

k. Serve as ATO lead for the National Hurricane Operations Plan (NHOP).

I. Develop and coordinate ATM security related procedures for specialized NAS threats, including lasers, Man Portable Air Defense Systems (MAN-PADS), UAS, and diseases of global public health concern.

m. Develop ATM security procedures related to NEXTGEN systems, the use of emerging technologies, and new entrants in the NAS, such as UAS and commercial space activities.

21–2–5. AIR TRAFFIC FACILITY RESPONSIBILITIES

In collaboration with System Operations Security as described in Paragraph 21–2–1, Description, the ATM must ensure:

a. ATM security measures are coordinated with System Operations Security, and implemented by the facility.

b. ATM security measures are briefed to all operational personnel.

c. The air traffic facility follows DEN reporting requirements published in FAA orders. This is to

include maintaining a listening watch of the DEN when it is known that a facility is needed on the network.

d. All violators of ATM security measures are tracked, identified when possible, and reported via the DEN.

e. Support of and compliance with DEN Air Traffic Security Coordinator (ATSC) tactical decisions.

f. The safety of air traffic while implementing ATSC tactical decisions.

Section 3. Line of Authority

21–3–1. SYSTEM OPERATIONS SECURITY

Deputy Director of System Operations (DDSO) and Manager, Tactical Operations Security are under the general supervision of the Director, System Operations Security. And as such, have been delegated all the rights and responsibilities of the Director.

21–3–2. AIR TRAFFIC SECURITY COORDINATOR (ATSC)

a. Air Traffic Security Coordinators (ATSCs) are

air traffic control specialists that have been provided with additional training and responsibilities in the area of air security and air defense.

b. The ATSC works under the general supervision of the Tactical Manager. In the absence of the Tactical Manager, the ATSC responsible for the Domestic Events Network (DEN) assumes the operational responsibility of System Operations Security.

c. ATSCs assigned to liaison positions will normally be directly assigned at the Commanding General Officer staff level, such as Continental NORAD Region (CONR) or NORAD.

Section 4. Supplemental Duties

21–4–1. DOMESTIC EVENTS NETWORK (DEN)

a. Domestic Event Network (DEN). A 24/7 FAA sponsored telephonic conference call network (recorded) that includes all of the air route traffic control centers (ARTCC) in the United States. It also includes various other Governmental agencies that monitor the DEN. The purpose of the DEN is to provide timely notification to the appropriate authority that there is an emerging air-related problem or incident.

b. Required ATC facility DEN participation.

1. All ARTCCs.

2. All facilities in the National Capital Region (NCR).

3. Approach control facilities must participate on the DEN during President of the United States (POTUS) TFRs, National Special Security Events (NSSE) affecting their area, or when directed by System Operations Security or the DEN Air Traffic Security Coordinator (ATSC).

4. ATCT must participate on the DEN during arrival and departure phase of POTUS, Vice President of the United States (VPOTUS), First Lady of the United States (FLOTUS) movements, or when directed by System Operations Security or the DEN ATSC.

5. If the ATC facility is not actively monitoring the DEN or have a dedicated line to the DEN, they should 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).

6. All communication regarding real-time security concerns and operational impacts should be initiated and coordinated on the DEN. The premise of the DEN is a need to share versus a need to know.

7. The DEN is an open mode of communication and is not intended for classified information.

21–4–2. PRESIDENTIAL/UNITED STATES SECRET SERVICE (USSS) SUPPORTED VIP MOVEMENT

a. Tactical Operations Security, System Operations Support Center (SOSC), (202) 267-8276, is responsible for the coordination, planning, and timely communication of POTUS, VPOTUS, FLOTUS, or USSS supported VIP movements and associated security measures.

b. Tactical Operations Security is responsible for the real-time coordination of POTUS, VPOTUS, FLOTUS, or USSS supported VIP movement and tactical adjustments to security initiatives as coordinated with the USSS.

c. Tactical Operations Security personnel, working in conjunction with the USSS, are the final authority on adjustments to or implementation of no-notice security measures regarding POTUS, VPOTUS, FLOTUS, or USSS supported VIP movement.

d. All security initiative coordination regarding POTUS, VPOTUS, FLOTUS, or USSS supported VIP movements will be coordinated on the DEN. At no time should the exact location of the above be transmitted over the DEN.

e. Presidential Prohibited Areas (P-56A & B, P-40, etc.) are coordinated and managed by Strategic Operations Security working in concert with the USSS. The System Operations Support Center (SOSC), (202) 267-8276, is responsible for waivers to prohibited areas. Tactical Operations Security is responsible for the real time coordination of Prohibited Area violations. Field facilities are responsible for the tracking and processing of violators.

f. All security related requests to ATC facilities from external agencies (for example, Air and Marine Operations Center [AMOC], Federal Bureau of Investigation [FBI], USSS, etc.), unless critical or a life or death situation, must be referred to the DEN at (844) 432-2962 (toll free). Either phone may be used to contact the DEN. 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).

21-4-3. SPECIAL INTEREST FLIGHTS (SIFs)

a. Special Interest Flights identified by FAA, the Department of Defense or other national security agencies are the responsibility of Tactical Operations Security and must be coordinated on the DEN real time.

b. Tactical Operations Security, System Operations Support Center, (202) 267-8276, is responsible for advanced coordination regarding special interest flights from State Department designated special interest countries known to the Agency.

21–4–4. CONTINUITY OF OPERATIONS AND CONTINUATION OF GOVERNMENT (COOP/COG)

a. Strategic Operations Security is responsible to establish Agency policies and procedures regarding COOP/COG activities.

b. Tactical Operations Security is responsible for the coordination and accomplishment of Agency COOP/COG initiatives upon activation.

c. Tactical Operations Security, in conjunction with appropriate agencies, is the final authority regarding NAS operations involving COOP/COG activities.

21-4-5. CLASSIFIED OPERATIONS

a. Strategic Operations Security is responsible for the coordination and implementation of all classified operations that impact the NAS.

b. Tactical Operations Security is responsible for the tactical coordination of classified operations in the NAS. Tactical Operations Security, in coordination with appropriate agencies, is the final authority regarding classified operations within the NAS.

21–4–6. INTELLIGENCE ANALYSIS AND COMMUNICATION

a. Tactical Operations Security must provide staffing at operational locations where intelligence and threat assessments potentially impacting the NAS are processed and reviewed.

b. Tactical Operations Security is responsible to communicate any intelligence/threat concerns with potential NAS impact to the Director, System Operations Security.

c. Tactical Operations Security personnel are responsible to correlate the feasibility of threats and the potential impact to the NAS.

d. Tactical Operations Security will work in conjunction with Strategic Operations Security to amend and/or implement national security procedures to mitigate any potential threats to the NAS.

Section 5. Coordination

21-5-1. COORDINATION

Coordinate through verbal and automated methods. When available, use tools that permit common situational awareness.

21–5–2. COMMUNICATION AND DOCUMENTATION

a. When time and mission requirements permit, utilize communication techniques that emphasize consensus decision making.

b. In a tactical situation, verbal communication will be sufficient for the exercising of the authority within this section.

c. The NAS Daily Security Report will be maintained by an ATSC and will be utilized to record any verbal decisions and operational security matters within the NAS.

21–5–3. RESPONSIBILITIES

a. System Operations Security must:

1. Coordinate with all facilities affected by a pending or recurring security measure.

2. Ensure interagency coordination regarding any security measure within the NAS.

3. Facilitate coordination between defense/security forces and air traffic facilities.

4. Initiate inquiries regarding ATC involvement in security infractions.

b. Field facilities must:

1. Communicate and coordinate with System Operations Security and external agencies regarding security measures and associated operations in the NAS.

2. Report aviation security incidents in a timely manner.

3. Utilize the DEN for the communication of potential security related issues.

4. Ensure compliance with Agency security policies and tactical decisions.

5. Remain responsible for the safety of air traffic while achieving compliance with security initiatives.
Appendix 3. Air Carrier Aircraft for Air Traffic Activity Operations Count

For traffic count purposes, an air carrier aircraft is considered to be an aircraft capable of carrying more than 60 passengers. All of the following model types, when accompanied by a Federal Aviation Administration authorized three–letter company designator, must be counted as air carrier operations in all Air Traffic Activity Reports. This applies even though the aircraft is conducting air freight operations.

Designator	Model	
A19N	A-319neo	
A20N	A-32neo	
A21N	A-321neo	
A148	An-148	
A158	An-158	
A306	A-300B4-600, A-300C4-600, A-300F4-600	
A30B	A-300B2, A-300B2-1, A-300B2-100, A-300B2-200, A-300B2K-3, A-300B4-100, A-300B4-2, A-300B4-200, A-300C4-200, A-300F4-200	
A310	A-310, CC-150 Polaris	
A318	A-318Elite	
A319	A-319 ACJ, VC-1 ACJ	
A320	A–320 Prestige	
A321	A-321	
A332	A–330–200 Prestige/Voyager, KC–30	
A333	A-330-300	
A338	A-330-800	
A339	A-330-900	
A342	A-340-200 Prestige	
A343	A-340-300 Prestige	
A345	A-340-500 Prestige	
A346	A-340-600 Prestige	
A359	A-350-900 XWB Prestige	
A35K	A-350-1000 XWB Prestige	
A388	A380–800 Prestige	
AJ27	ARJ-21-700 Xiangfeng	
AT72	ATR-72-201, ATR-72-202	
AT73	ATR-72-211, ATR-72-212	
AT75	ATR-72-212A (500), ATR-72-500	
AT76	ATR-72-212A (600), ATR-72-600	
ATP	ATP, 61	

Designator	Model	
B37M	737 MAX 7, BBJ (737 MAX 7)	
B38M	737 MAX 8, BBJ (737 MAX 8)	
B39M	737 MAX 9, BBJ (737 MAX 9)	
B461	BAe-146-100, Statesman	
B462	BAe–146–200, Quiet Trader, Statesman	
B463	BAe-146-300	
B701	707–100	
B703	707–300, C–18, C–137, E–8 J–Stars, EC–18, EC–137, KC–137, 707 Phalcon	
B712	717–200 Business Express	
B720	720	
B721	727–100, C – 22	
B722	727–200	
B732	737–200 Surveiller, CT – 43, VC – 96	
B733	737 - 300	
B734	737 - 400	
B735	737–500	
B736	737-600	
B737	737–700 BBJ, BBJ (737–700), C–40 Clipper	
B738	737-800 BBJ2	
B739	737–900 BBJ3	
B741	747–100	
B742	747–200, E–4, VC–25	
B743	747–300	
B744	747–400 (international, winglets)	
B748	747–8, BBJ (747–8)	
B74D	747-400 (domestic, no winglets)	
B74R	747SR	
B74S	747SP	
B752	757–200, C – 32	

Designator	Model
B753	757–300
B762	767–200, KC–767
B763	767–300
B764	767–400
B772	777–200, 777–200ER
B773	777–300
B77L	777–200LR, 777–F, BBJ (777–200LR)
B77W	777-300ER, BBJ (777-300ER)
B778	777–8
B779	777–9
B788	787-8 Dreamliner, BBJ (787-8)
B789	787-9 Dreamliner, BBJ (787-9)
B78X	787–10 Dreamliner
BA11	BAC-111 One-Eleven
BCS1	BD-500 CSeries CS100
BCS3	BD-500 CSeries CS300
C919	C-919
CL44	CL-44 Forty Four
CONI	L-049/749Constellation, L-1049 Super Constellation, C-121, RC-121, EC-121, VC-121, R7V, WV Warning Star
CRJ7	CL-600 Challenger 870, CL-600 Regional Jet CRJ-700, CRJ-701
CRJ9	CL-600 Regional Jet CRJ-705, CL-600 Challenger 890, CRJ- 900
CRJX	CL-600 Regional Jet CRJ-1000
DC4	DC-4, C-54, EC-54, HC-54, TC-54, VC-54, R5D Skymaster,
DC6	DC-6, C-118, VC-118, R6D Liftmaster
DC7	DC-7 Seven Seas
DC10	DC-10, KC-10 Extender, KDC-10, MD10
DC85	DC-8-50 Jet Trader
DC86	DC-8-60
DC87	DC-8-70
DC91	DC-9-10
DC92	DC-9-20
DC93	DC–9–30, C–9 Nightingale, Skytrain 2
DC94	DC-9-40
DC95	DC-9-50

Designator	Model	
DH8D	DHC-8-400 Dash 8	
E170	170, ERJ-170-100	
E190	190, ERJ-190 Lineage 1000, ERJ-190-100	
E195	195, ERJ-190-200	
E275	E175-E2, ERJ-190-500	
E290	E190-E2, ERJ-190-300	
E295	E195-E2, ERJ-190-400	
E75L	175 (long wing), ERJ-170-200 (long wing)	
E75S	175)long wing), ERJ-170-200 (short wing)	
F100	100	
F28	F–28 Fellowship	
F70	70	
I114	I1–114	
IL18	Il – 18 Bizon, 20, 22 Zebra, 24	
IL62	II-62	
IL86	11–86, 11–87	
IL96	11–96	
J728	728JET	
L101	L–1011 TriStar	
L188	L–188 Electra	
MC23	MC-21-300	
MD11	MD-11	
MD81	MD-81	
MD82	MD-82	
MD83	MD-83	
MD87	MD-87	
MD88	MD-88	
MD90	MD-90	
MRJ9	MRJ-70	
MRJ9	MRJ-90	
R721	727–100RE Super 27	
R722	727–200RE Super 27	
RJ1H	Avro RJ-100, RJ-100 Avroliner	
RJ70	Avro RJ-70, RJ-70 Avroliner	
RJ85	Avro RJ-85, RJ-85 Avroliner	
S210	SE-210 Caravelle	
SU95	Superjet 100–95	
T134	Tu-134	
T144	Tu-144	
T204	Tu-204, Tu-214, Tu-224, Tu-234	
T154	Tu-154	

Designator	Model	
T334	Tu-334	
YK42	Yak-42, Yak-142	
YS 11	YS-11	

Appendix 5. Checklist for Reported Headset Tone Incidents

This form will be completed by the operations supervisor (OS)/controller-in-charge (CIC) and will be retained by the employee's OS for a period of 1 year.

Checklist Requirement for Headset Tone Incidents	OS/CIC Initials
Ensure that Technical Operations is notified to evaluate the affected operational po- sition and associated NAS equipment for normal operations as soon as possible.	
Secure the affected headset for testing by the facility Air Traffic Management.	
<i>Note:</i> The affected employee and their union representative will be given the oppor- tunity to observe the headset testing.	
Secure the recording of the tone incident.	
<i>Note:</i> FAA Tech Ops may use the recording to conduct a root-cause analysis.	
Record the incident on FAA Form 7230–4, Facility Log, using the "E" entry.	
Note: Carry the item on the facility log until headset testing is completed.	
When headset testing is complete, annotate the facility log using an "E" entry with the statement, "Tests complete. (Record test results)." Report any abnormal test results (headset or other communications equipment), as appropriate, on the facility log.	
Note: The ATM will ensure headsets which fail the headset testing are secured and, within 30 days, contact the 2^{nd} level Engineering Office, AJW–173, at (405)954–0066 for instructions to return the headset to the manufacturer.	
Update the Safety Management Information System (SMIS) to reflect the headset tone incident.	
Determine if the employee intends to file a DOL Form CA-1, <i>Federal Employee's</i> <i>Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation</i> . The facility supervisor will assist the employee in filing DOL Form CA-1, if requested	
<i>Note:</i> DOL Form CA-1 (with instruction sheets) can be obtained from the DOL web site https://www.dol.gov.owcp/dfec/regs/compliance/forms/htm.	
If any employee wishes to be medically evaluated due to a headset incident, complete DOL Form CA–16, <i>Authorization for Medical Treatment</i> , in accordance with the Federal Employee Compensation Act (FECA).	

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BRIEFING GUIDE



U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

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1. PARAGRAPH NUMBER AND TITLE:

1–2–4. ABBREVIATIONS 11–10–1. PROGRAM DESCRIPTION 11–10–2. UAS FACILITY MAPS (UASFM) 11–10–3. PART 101E NOTIFICATIONS 11–10–4. PART 107 ATC AUTHORIZATIONS 11–10–5. FURTHER COORDINATION 11–10–6. UAS SERVICE SUPPLIER (USS) 11–10–7. VOLUNTARY NOTIFICATION 11–10–8. REQUIRED NOTIFICATION 11–10–9. REQUIRED AUTHORIZATION 11–10–10. FACILITY RESPONSIBILITIES

2. BACKGROUND: Unmanned Aircraft System(s) (UAS) operators and the Federal Aviation Administration (FAA) need a streamlined, efficient solution to enable authorization and notification of UAS operations occurring in the National Airspace System (NAS). The FAA has been seeking to close the gap of manual versus automated data transfer, authorizations, and notifications by defining and establishing a technological solution that will allow for data exchange between operators, air traffic control (ATC), and airports. The FAA's Low Altitude Authorization and Notification Capability (LAANC) is the first establishment of such automation. LAANC is the broad term for an enterprise capability to automate the FAA's ability to grant authorizations to Title 14 Code of Federal Regulations (CFR) Part 107 operators, and to allow model aircraft (14 CFR Part 101E) operators to notify ATC of planned operations within 5 statute miles of an airport.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
1-2-4. ABBREVIATIONS	1–2–4. ABBREVIATIONS
TBL 1–2–1 ABBREVIATIONS	TBL 1–2–1 ABBREVIATIONS
Add	LAANC - Low Altitude Authorization Notification Capability
Add	<u>sUAS – Small Unmanned Aircraft System(s)</u>
Add	<u>UAS – Unmanned Aircraft System(s)</u>
Add	UASFM – Unmanned Aircraft System(s) Facility Map
Add	<u> USS – Unmanned Aircraft System(s) Service Supplier</u>
<u>OLD</u>	NEW
Chapter 1 <u>1</u> . National Programs	Chapter 1 <u>2</u> . National Programs
Add	<u>Section 10. Low Altitude Authorization</u> <u>Notification Capability</u>

b b A	12 10 1 DDOCDAM DESCRIPTION
Adu	<u>12-10-1. PROGRAM DESCRIPTION</u>
Add	a. LAANC is the term for the software used to
	<u>automate small Unmanned Aircraft System(s)</u>
	(SUAS) operator requests for access to airspace
	and receive FAA issued authorizations for Part
	<u>107 operations. Additionally, LAANC allows</u> model aircreft (Dort 101F) operators to notify
	ATC of planned operations within 5 miles of an
	AIC of planned operations within 5 miles of an
	FAA air traffic facility's Unmanned Aircraft
	System(s) Facility Man (IJASFM) data for use in
	determining authorizations, the use of sUAS
	Service Suppliers (USS) to process notification
	and authorization information to operators, and
	the ability for multiple USSs to provide services.
Add	b. LAANC functions at the operational
	planning stage, identifying intended operations
	and managing the associated authorizations and
	notifications. Operators may submit a request
	To provide adequate time for ATC situational
	awareness sUAS operators are encouraged to
	submit their Part 107 requests at least one or two
	days before the operation commences. Most
	LAANC information exchanges occur in near
	real time (notifications and automatic
	<u>authorizations) and provide immediate</u>
	<u>feedback to operators.</u>
Add	<u>12–10–2. UAS FACILITY MAPS (UASFM)</u>
Add	UASFMs have been developed by FAA facilities
	to establish the altitude thresholds at and below
	which sUAS may be granted automatic autho-
	rization under Part 107. USSs will use current
	<u>FAA-approved UASFMs and will operate</u>
	within agreed LAANC USS operating rules. An
	authorization request made within a UASFM
	altitude will be issued by the FAA to the USS.
	<u>The USS will relay the authorization to the</u>
	receiving facility. The facility retains the ability
	to cancel any such specific authorization(s) as
	needed. UASFMs also serve as a warning
	threshold for Part 101E operations, as the
	airspace above automatic authorization limits
	identified as notesticily active with easternal
	<u>nuentined as potentially active with controlled</u>
664	<u>manneu an traint.</u> NOTE_
Auu	For UAS facility man design, see FAA Order IO
	<u>7200.23.</u>

BG-4

Add Add	<u>12–10–3. PART 101E NOTIFICATIONS</u> <u>Part 101E notifications sent through LAANC by</u> <u>sUAS operators to ATC facilities provide</u> <u>situational awareness about planned sUAS</u> <u>operators in a particular airspace. Notifications</u> <u>are sent from sUAS operators, also known as</u> <u>hobbyists, to ATC facilities with a USS acting as</u> <u>an intermediary.</u>
Add Add	12–10–4. PART 107 ATC AUTHORIZATIONS Part 107 authorizations or denials are sent to an operator in response to a request to operate in controlled airspace. A request for authorization will contain data from a sUAS operator to a USS providing flight information about the area of operation. If the area of operation falls within a UASFM altitude, LAANC will provide an automatic authorization. If the area of operation falls above a UASFM altitude, LAANC facili- tates a further coordination process. The facility may approve or deny such requests through LAANC.
Add Add	12–10–5. UAS SERVICE SUPPLIER (USS) LAANC uses industry partner UAS Service Suppliers (USS) to provide services specific to sUAS operations. Such services are provided through an exchange of information between the FAA and the USS, whereby the USS is the primary interface to the operator. The USS accesses UASFMs and USS operating rules provided by the FAA to grant the automatic authorization of sUAS operations that meet the requirement of 14 CFR Part 107 operations and fall within a UASFM altitude.
Add Add	<u>12–10–6. VOLUNTARY NOTIFICATION</u> <u>LAANC will inform the sUAS operator when an</u> <u>operation entered into LAANC takes place in</u> <u>areas where ATC authorization/notification is</u> <u>not required (outside controlled airspace/be-</u> <u>yond 5 statute miles from an airport). LAANC</u> <u>will provide confirmation to the operator that</u> <u>the flight information has been received and a</u> <u>record will be submitted to the FAA.</u>

Add	12-10-7. REQUIRED NOTIFICATION
Add	If ATC notification is required (Part 101E), the operator may submit their proposed flight information to a USS. The USS will check if a notification is required based on whether or not the operation falls within 5 statute miles of an airport. If notification is required, the USS will facilitate the notification via LAANC.
Add	12-10-8. REQUIRED AUTHORIZATION
Add	a. If ATC authorization is required (Part 107), the sUAS operator may submit their proposed flight information to a USS. The USS will use the appropriate UASFM to determine if an operation can be automatically authorized. If the flight falls within the UASFM altitude, FAA authorization is provided to the operator. Flight details are provided via the LAANC website to the facility.
Add	b. If the proposed flight operation is above a UASFM altitude, further coordination is required at the facility level. The USS makes LAANC further coordination processes an option available to the operator, with the understanding that further coordination requires the consideration of ATC personnel and a response will not be immediate. Resources permitting, facility personnel may provide authorization or denial electronically back through LAANC, which will be delivered to the operator via the USS.
Add	c. If an operation which requires further coordination has been authorized, the sUAS operator may proceed to operate within the authorized parameters.
Add	12-10-9. FURTHER COORDINATION
Add	a. Further coordination is the term used when an authorization processed via LAANC cannot be automatically approved. For example, if a Part 107 authorization request is sent by an operator to a USS, and the planned operation is above a UASFM altitude, the request cannot be automatically approved. Facility personnel must be involved in approving or denying the request. The USS can submit the request for further coordination, in which case LAANC will direct it to the appropriate facility, and when a response is provided, LAANC will send it back to the operator.

Add	b. Further coordination requests require longer periods of processing time (e.g., hours, days) than other LAANC processes, based upon
	the availability of ATC facilities/ATM personnel to consider an authorization request. If a
	requests will expire within 30 days after submission or the proposed operator's start time, whichever comes first.
Add	<u>NOTE-</u> LAANC further coordination is not the same as a waiv-
	er defined by Part 107 Subpart D. Waivers are not with- in the scope of LAANC. Furthermore, Part 107 requires a waiver for operations above 400 feet. Therefore, LAANC can only provide Part 107 authorizations,
	whether automatically or by further coordination, for operations at or below 400 feet.
Add	<u>12–10–10. FACILITY RESPONSIBILITIES</u>
Add	a. The ATM will request access to LAANC by providing their email address and that of any designee to 9-ajt-laancpoc@faa.gov.
Add	<u>b. Using Chrome web browser, LAANC can be</u> <u>accessed at https://laanc-atc.faa.gov. My Access</u> <u>is used to sign in to LAANC.</u>
Add	<u>c. Review the "Facility Preferences" page to</u> <u>ensure the "Approval Facilities" information is</u> <u>correct.</u>
Add	<u>d. The ATM or designee will periodically</u> <u>review LAANC to maintain situational</u> <u>awareness of sUAS activity in their airspace.</u>
Add	e. The ATM or designee, workload permitting, will review further coordination requests for approval consideration. The only actions available for requests awaiting further coordination are to "APPROVE" or "DENY"
Add	the operation. f. When receiving a Part 107 authorization or
	approving a Part 107 authorization above a
	their best judgement to determine if the
	information needs to be disseminated to the controller. If it is determined that the controller
	should know, then it will be distributed to the
	<u>appropriate position(s).</u>

Add	<u>NOTE–</u> <u>LAANC will allow an operator to request an altitude</u> <u>above a UASFM altitude as long as the requested alti-</u> tude is not above 400 ft agl as per 14 CFR Part 107.
Add	g. Any previously issued authorization(s) may be rescinded via LAANC. The operator must acknowledge the action before the previously issued authorization is cancelled. If no acknowledgement is received and/or timeliness is a factor, the operator may be contacted via telephone.

1. PARAGRAPH NUMBER AND TITLE: 2-1-6. CHECKING ACCURACY OF PUBLISHED DATA

2. BACKGROUND: The published website is no longer active.

3. CHANGE:

<u>OLD</u>

2-1-6. CHECKING ACCURACY OF PUBLISHED DATA

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://aerochart.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.

5. A list of all weather stations in the US, Mexico, and Canada may be viewed at:

<u>http://www.aviationweather.gov/adds/dataserver_current/httpparam?dataSource=stations&requestType=re-</u> t r i e v e & f o r m a t = c s v & s t a t i o n-

<u>String=~mx%20~ca%20~us</u>

(When prompted, save the file created by the link and open up as a word document).

<u>NEW</u>

2-1-6. CHECKING ACCURACY OF PUBLISHED DATA

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://aerochart.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.

Delete

1. PARAGRAPH NUMBER AND TITLE: 2–1–8. OPERATIONS DURING A STAFFING CON-STRAINT

2. BACKGROUND: Traffic Management Initiatives (TMI) are tools utilized to help facilities deal with different types of constraints, as a result of weather, unusual volume, or special activities. There has been an increase in the use of TMIs to assist facilities that are operating under a reduction in services due to staffing limitations. In 2016, informal guidance was provided which required Supervisory Traffic Management Coordinators (STMC) or Traffic Management Coordinator's in Charge (TMCIC) to obtain approval from the Operations Manager in Charge (OMIC) prior to requesting TMIs associated with staffing shortages. A memo dated May 12, 2017, from Tony Mello, Acting Director, Operations–Headquarters, AJT–2, contained expectations for Traffic Management Units (TMU) prior to requesting TMIs for staffing as well as recommendations for National Operations Managers (NOM) at the Air Traffic Control System Command Center (ATCSCC). A further memo dated October 20, 2017, from Juan Fuentes, Acting Director, Operations–Headquarters, AJT–2, clarified expectations and created steps that must be completed prior to submitting a Staffing Impact Report to the NOM. A subsequent Document Change Proposal (DCP) request was submitted to the Air Traffic Procedures Directorate so that the steps could be incorporated into FAA Order JO 7210.3.

3. CHANGE:

<u>OLD</u>	NEW
Add	2–1–8. OPERATIONS DURING A STAFFING CONSTRAINT
Add	<u>The following steps must be followed when</u> <u>traffic management initiatives (TMI) are being</u> <u>considered for the purpose of minimizing the</u> impact of a staffing constraint:
Add	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
Add	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.
Add	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	<u>REFERENCE–</u> FAA Order JO 7110.65, Para 11–1–2, Duties and Responsibilities FAA Order JO 7210.3, Chapter 18, Section 6, Traffic Management Initiatives 5710, 15, 51, 55, 55, 55, 55, 55, 55, 55, 55
	<u>FAA Form 7219–15, Staffing Constraint Report</u>
2-1- <u>8</u> to 2-1-3 <u>3</u>	Renumber as 2–1– <u>9</u> to 2–1–3 <u>5</u>

1. PARAGRAPH NUMBER AND TITLE: 2–1–28. REPORTING UNAUTHORIZED LASER ILLUMI-NATION OF AIRCRAFT

2. BACKGROUND: The FAA Modernization and Reform Act of 2012, prohibits the unauthorized laser illumination of aircraft. Increased reports of laser illumination events have gained a higher significance within the FAA and the law enforcement community. The laser events pose a hazard and safety risk to the National Airspace System (NAS). The FAA is in the unique position of supporting law enforcement by providing timely reporting of such incidents. These reports to law enforcement provide time sensitive assistance to quickly locate the source of unauthorized laser transmissions. To ensure the FAA continues support of this effort, this DCP adds a requirement for ATC to report laser illumination incidents to local law enforcement and report law enforcement contact information via the Domestic Events Network (DEN) to the Air Traffic Security Coordinator (ATSC). ATC facilities are also required to document the incident as a Mandatory Occurrence Report (MOR) via the CEDAR program according to FAA Order JO 7210.632 Air Traffic Organization Occurrence Reporting.

3. CHANGE:

OLD

2–1–2<u>8</u>. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT

All FAA Air Traffic Control facilities, <u>Federal</u> Contract Towers and Flight Service Stations must report unauthorized laser illumination incidents <u>through the Domestic Events Network (DEN)</u>, providing the following information:

Add

Add

Add

Add

<u>a.</u> UTC date and time of event.

b. Call Sign, or aircraft registration number.

<u>c.</u> Type of aircraft.

NEW

2–1–2<u>9</u>. 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;

<u>b. Report the incident to the Domestic Events</u> <u>Network (DEN) Air Traffic Security Coordina-</u> <u>tor (ATSC);</u>

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;

<u>d.</u> <u>Provide the following information when</u> <u>reporting the incident via the DEN and CEDAR:</u>

<u>1.</u> UTC date and time of event.

2. Call sign or aircraft registration number.

<u>3.</u> Type of aircraft.

d. Nearest major city.4. Nearest major <u>airport or</u> city.e. Altitude.5. Altitude.f. Location of event (e.g., latitude/longitude
and/or Fixed Radial Distance (FRD).6. Location of event (e.g., latitude/longitude
and/or Fixed Radial Distance (FRD).g. Brief description of the event.7. Brief description of the event.h. Any other pertinent information.
Add9. Law enforcement contact information.

1. PARAGRAPH NUMBER AND TITLE: 3-1-1. BASIC EQUIPMENT

2. BACKGROUND: When Automated Surface Observing System Controller Equipment–Information Display System (ACE–IDS) and Systems Atlanta Information Display System (IDS–4) were installed, legacy equipment remained in facilities occupying valuable workspace. This resulted in duplicate displays and redundant information. In 2011, a Document Change Proposal (DCP) with guidance on the transition from one technology to another was produced and published. This guidance produced the inclusion of a "Certified and Uncertified" Table, in FAA Order JO 7210.3, Facility Operations and Administration. This change listed the IDS–4 as an uncertified system in Table 3–1–1. IDS–4 later became a certified system. In 2018, a request was submitted to update Table 3–1–1 in FAA Order JO 7210.3, listing the IDS–4 as a certified system in the NAS. After review, it was determined that maintaining a table of certified versus uncertified equipment was inappropriate and would create frequent, unnecessary changes to the order.

3. CHANGE:

<u>OLD</u>

3–1–1. BASIC EQUIPMENT Title through b1

> <u>TBL 3-1-1</u> Certified and Uncertified Systems

Uncertified	<u>Certified</u>
Systems Atlanta Infor-	ACE-NIDS
mation Display System	
<u>(IDS-4)</u>	
	NAS IDS (NIDS)

NEW 3–1–1. BASIC EQUIPMENT No Change

Delete Table

1. PARAGRAPH NUMBER AND TITLE: 3–3–12. USE OF CORDLESS HEADSETS IN OPERA-TIONAL AREAS

2. BACKGROUND: In 2011, the FAA issued a guidance memorandum authorizing the use of cordless headsets in operational areas for positions that require monitoring of other positions and/or to affect landline communications. The positions listed were: OMIC, OSIC, CIC, TMC, or other duties that require monitoring of operations. This list of authorized positions did not include the Coordinator, Flight Data, or Assist Positions. An updated guidance memorandum was issued in April 2018, which included the Coordinator Position and the technical specifications/details for the use of cordless headsets.

3. CHANGE:

<u>OLD</u>	NEW
Add	<u>3-3-12. USE OF CORDLESS HEADSETS IN</u> OPERATIONAL AREAS
Add	a. <u>Plantronics cordless headsets, model</u> <u>CA12CD, may be used in operational areas by</u> <u>positions that require only monitoring of</u> <u>operations and/or to affect landline</u> <u>communications. These positions include:</u> <u>Operations Manager-in-Charge (OMIC),</u> <u>Operational Supervisor-in-Charge (OSIC),</u> <u>Operations Supervisor (OS),</u> <u>Controller-in-Charge (CIC), Traffic</u> <u>Management Coordinator (TMC), and</u> <u>Coordinators.</u>
Add	<u>b. Cordless headsets are not authorized for use</u> <u>in two-way communications with aircraft or for</u> <u>any other function that includes over-the-air</u> <u>broadcasting.</u>
Add	<u>c. Air Traffic Managers must ensure</u> <u>operational personnel who use cordless headsets</u> <u>are trained on the use, application, and</u> <u>limitations of the CA12CD prior to operational</u> <u>use.</u>
Add	d. <u>ATC facilities must not use more than 30</u> <u>cordless headsets. Co-located facilities (control</u> <u>rooms within 150 feet) must not use more than 30</u> <u>cordless headsets, combined.</u>
Add	1. Under ideal conditions, the maximum useable range between the base station and cordless headset is 100 feet (Multiple users may reduce the effective range of the headsets).
Add	<u>2. Base stations must be separated by at least</u> <u>3 feet from each other.</u>
Add	<u>e. Use of cordless headsets during the conduct</u> <u>of a performance or certification skill check</u> <u>must be done in accordance with the provisions</u> <u>of direct monitoring.</u>
Add	<u>REFERENCE–</u> <u>FAA Order JO 3120.4, Air Traffic Technical Training</u>
Add	<u>f. Cordless headsets that cause or receive</u> <u>interference must be immediately removed from</u> <u>service. Where applicable, FAA Technical</u> <u>Operations must be informed of the actual or</u> <u>suspected interference.</u>

1. PARAGRAPH NUMBER AND TITLE: 3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION (TERMINAL/MEARTS)

2. BACKGROUND: Changes to FAA Order JO 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), required updates to JO 7210.3 to ensure references are accurate. Additionally, responsibilities for the new Web-based Sector Design and Analysis Tool (Web-SDAT) program has shifted from Mission Support Services to the Program Management Office. Finally, the step-by-step process articulated for determining the 5-year average cold temperature was revised to incorporate the redesign of National Climatic Data Center Web page managed by the National Oceanic and Atmospheric Agency (NOAA).

3. CHANGE:

OLD 3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION (TERMINAL/MEARTS)

Prepare a vectoring chart in accordance with the criteria contained in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

a. MVACs must be developed and maintained using the Sector Design and Analysis Tool (SDAT). Facility Managers may request assistance in the development and maintenance of their MVAC or request SDAT user support by soliciting the Mission Support Services, Geographic Services Group. MVACs developed in SDAT properly apply obstruction clearance criteria required by FAA Order 8260.3. SDAT completes FAA Form 7210-9 and automatically creates and sends the necessary data files to Mission Support Services, ATC Products Group upon certification for subsequent radar video map creation. Facility correspondence to ATC Products regarding MVACs and video maps must be accomplished via email to 9-AJV-HQ-ATCPRODUCTS.

NOTE-

MVAs are established without considering the flightchecked radar coverage in the sector concerned. They are based on obstruction clearance criteria and controlled airspace only. It is the responsibility of the controller to determine that a target return is adequate for radar control purposes.

b through $g_3(c)(2)$

(3) Click on "<u>Land–Based Stations" on left</u> column, then click "Climate Data Online."

(4) Click on "Search Tool" link.

(5) <u>On the Search form, select Annual</u> <u>Summaries, and accept default fields, then enter</u> <u>primary airport identifier.</u>

<u>NEW</u> M VECTORING

3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION (TERMINAL/MEARTS)

No Change

a. MVACs must be developed and maintained using the Web-based Sector Design and Analysis Tool (Web-SDAT). Facility Managers may request assistance in the development and maintenance of their MVAC or request SDAT user support by soliciting the **Program Management Office**, Aeronautical Services Group. MVACs developed in SDAT properly apply obstruction clearance criteria required by FAA Order 8260.3. SDAT completes FAA Form 7210–9 and automatically creates and sends the necessary data files to Mission Support Services, ATC Products Group upon certification for subsequent radar video map creation. Facility correspondence to ATC Products regarding MVACs and video maps must be accomplished via email to 9-AJV-HQ-ATCPRODUCTS.

No Change

No Change

(3) Click on "Quick Links".

(4) Click on "<u>Global Historical Climatol-</u> ogy Network" link.

(5) <u>Click on "Global Summary of the</u> <u>Year".</u> (6) <u>Click on "Airport** Do not select Add</u> to cart. All data is free if the internet proxy is set to AWA or AMC.t Name" on left side of page.

(7) <u>Scroll to bottom of page and select the</u> <u>year for review.</u>

(8) Select each relevant year, and document the Lowest Temperature for the year. This is the <u>EMNT column, on the bottom row.</u> Then calculate the 5-year average.

**Do not select Add to cart. All data is free if the internet proxy is set to AWA or AMC.

TBL 3-8-1

h. Managers requesting to waive criteria contained in FAA Order 8260.3, must submit FAA Form 8260-1, Flight Procedures/Standards Waiver in conjunction with the MVA project. This waiver form will contain the criteria requested to be waived, with the operational need fully explained. and examples of how the facility will achieve an equivalent level of safety, if approved. The package will be sent to the ATC Products Group through the Service Center OSG. Upon completion of the ATC Products Group review, the package will be forwarded to the Flight Procedure Implementation and Oversight Branch. For the Flight Standards Waiver process, facility managers do not need to complete a Safety Management System evaluation. An electronic copy of the completed waiver package must be sent to Operations Headquarters Directorate, AJT-2. at 9-AJT-2-HQ-AirTrafficOperations.

i through l

m. Each request must indicate the MVAC was accomplished in SDAT, stored in the SDAT repository and when necessary, include a statement regarding the issued altimeter settings being within 65 NM of a rounded down sector and/or provides the 5-year average cold temperature.

n

o. All facilities must notify the SDAT program office personnel to complete the final submission step of the project within the repository when sending the MVAC request to the OSG.

p through s

(6) <u>Accept the default date, select "Stations" in the search for field, then enter the</u> <u>station representing the primary airport.</u> <u>Then click on search.</u>

(7) <u>Click on the airport name. When the</u> <u>page opens, scroll down to "View Station Da-</u> <u>ta". Select the year interested in. Then view</u> <u>data.</u>

(8) <u>A report will appear, then go to the</u> <u>second page. Document the EMNT value.</u> Select each relevant year and document the <u>EMNT</u> <u>for that year.</u> Then calculate the 5-year average.

Delete

No Change

h. Managers requesting to waive criteria contained in FAA Order 8260.3, must submit FAA Form 8260–1, Flight Procedures/Standards Waiver in conjunction with the MVA project. This waiver form will contain the criteria requested to be waived, with the operational need fully explained. and examples of how the facility will achieve an equivalent level of safety, if approved. The package will be sent to the ATC Products Group through the Service Center OSG. Upon completion of the ATC Products Group review, the package will be forwarded to the Flight Procedure Implementation and Oversight Branch. For the Flight Standards Waiver process, facility managers do not need to complete a Safety Management System evaluation. An electronic copy of the completed waiver package must be sent to Operations Headquarters Directorate, AJT-2, at

9-AJT-HQ-Correspondence.

No Change

m. Each request must indicate the MVAC was accomplished in <u>Web-SDAT</u>, stored in the <u>Web-SDAT</u> database and when necessary, include a statement regarding the issued altimeter settings being within 65 NM of a rounded down sector and/or provides the 5-year average cold temperature.

No Change

Delete

Re-letter $\underline{\mathbf{o}}$ through $\underline{\mathbf{r}}$

1. PARAGRAPH NUMBER AND TITLE: 1–2–4. ABBREVIATIONS 6–3–1. HANDLING OF SIGMETS, CWAS, AND PIREPS 6–3–4. FLIGHT DATA UNIT

17–26–4. RESPONSIBILITIES

2. BACKGROUND: A National Transportation Safety Board Special Investigation Report recommended that the FAA revise FAA Order JO 7210.3 to ensure the chapters relating to pilot weather reports (PIREP) include improved and consistent guidance about PIREP coding, handling, solicitation, and dissemination. Additionally, the FAA included PIREPs in the ATO's Top 5 highest–risk safety issues. A Corrective Action Plan was formulated to mitigate PIREP related concerns, these changes are a part of the result.

3. CHANGE:

<u>OLD</u>

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

Add Add Add

<u>OLD</u>

6–3–1. HANDLING OF SIGMETs, CWAs, AND PIREPs

Title through a 2

3. The weather coordinator (WC) has the primary responsibility for the inter/intrafacility dissemination of AIRMETs, SIGMETs, Urgent PIREPs, and CWAs and must ensure that sufficient information is disseminated to facilitate the required alert broadcasts.

REFERENCE-

FAA Order JO 7210.3, Chapter 17, Section 26. Weather Management.

4 and **4b**

1. The WC is the focal point for handling PIREP requests and for the dissemination of Urgent PIREPs within the ARTCC and to the terminal ATC facilities without LSAS which are or may be affected.

2. The CWSU meteorologist solicits PIREPs through the weather coordinator or directly from the controllers when required. <u>Both solicited and unsolicited PIREPs that meet the Urgent PIREP criteria will be distributed immediately via the Leased Service A System (LSAS).</u>

Add

Add

c through c1(h)

2. ROUTINE: Classify <u>as ROUTINE all PIREPs</u> received except those listed above.

1-2-4. ABBREVIATIONS

No Change

No Change

<u>LSAS</u>	Leased Service A System
<u>UA</u>	routine PIREPs
<u>UUA</u>	urgent PIREPs

<u>NEW</u>

6–3–1. HANDLING OF SIGMETs, CWAs, AND PIREPs

No Change

3. The weather coordinator (WC) has the primary responsibility for the inter/intrafacility dissemination of AIRMETs, SIGMETs, <u>urgent</u> PIREPs (UUA), routine PIREPs (UA), and CWAs and must ensure that sufficient information is disseminated to facilitate the required alert broadcasts.

REFERENCE-

FAA Order JO 7210.3, Chapter 18, Section 26. Weather Management. No Change

1. The WC is the focal point for handling PIREP requests and for the dissemination of <u>urgent and</u> <u>routine</u> PIREPs within the ARTCC and to terminal ATC facilities without <u>Leased Service A System</u> (LSAS) which are or may be affected.

2. The CWSU meteorologist solicits PIREPs through the weather coordinator or directly from the controllers when required.

(a) Both solicited and unsolicited PIREPs that meet the urgent PIREP criteria must be distributed immediately via the LSAS.

(b) Solicited and unsolicited routine PIREPs must be distributed in a timely manner.

No Change

2. ROUTINE: Classify <u>all solicited and</u> <u>unsolicited PIREPs as routine unless otherwise</u> <u>indicated</u>.

<u>OLD</u>

6-3-4. FLIGHT DATA UNIT

Title through d1

2. Weather Products:

(a) Support the TMU weather coordinator with inter/intrafacility dissemination of the weather data products described in the Weather Management section of this order. This should include both Urgent PIREPs (UUA) and PIREPs (UA).

<u>OLD</u>

17-26-4. RESPONSIBILITIES

Title through a5

b. The Weather Coordinator must:

1. Disseminate <u>the</u> inter/intrafacility SIGMETs, <u>AIRMETS</u>, CWAs, <u>and</u> Urgent PIREPs

<u>NEW</u>

6-3-4. FLIGHT DATA UNIT

No Change No Change

(a) Support the TMU weather coordinator with inter/intrafacility dissemination of the weather data products described in the Weather Management section of this order. This should include both **urgent** PIREPs (UUA) and **routine** PIREPs (UA).

<u>NEW</u>

18-26-4. RESPONSIBILITIES

No Change

No Change

1. Disseminate inter/intrafacility SIGMETs, <u>AIRMETS</u>, CWAs, <u>urgent PIREPs (UUA), and</u> <u>routine</u> PIREPs (UA).

1. PARAGRAPH NUMBER AND TITLE: 6-3-4. FLIGHT DATA UNIT

2. BACKGROUND: Flight Service relays telephone clearances to pilots at airports that lack direct radio communications with air traffic control (ATC). Flight Service also relays cancellations of Instrument Flight Rules (IFR) flight plans from pilots to ATC. Except in Alaska, this change will discontinue Flight Service telephone relay of IFR clearances from all ATC facilities and reduce the number of IFR flight plan cancellations handled by Flight Service. Clearance Relay Part 1 formalized a process already in place by publishing phone numbers of approach control facilities in the Chart Supplement US. The initiative included 30 approach controls covering 667 airports, providing pilots direct contact with the controlling facility to obtain clearances and cancel IFR flight plans. Clearance Relay Part 2 enables pilots to obtain an IFR clearance and/or cancel IFR flight plans via telephone by calling either: 1. The overlying Air Route Traffic Control Center (ARTCC) Flight Data Units (FDUs), which will then relay the clearance from the appropriate sector, specialty or control facility to the pilot, Or 2. An approach control facility with clearance delivery phone numbers published in the Chart Supplement US. Pilots may continue to request clearances via radio from ATC or Leidos Flight Service (formerly Lockheed Martin). The plan does not affect pilots requesting clearances from locations in Alaska. Flight Service will continue to relay clearances to pilots via telephone until these phone numbers are published. Once published, Flight Service will provide pilots with either the name of the facility to contact or the correct phone number to obtain a clearance. In addition, Flight Service will continue to provide priority handling for MedEvac/Life Flights.

3. CHANGE:

<u>OLD</u> 6–3–4. FLIGHT DATA UNIT	<u>NEW</u> 6–3–4. FLIGHT DATA UNIT
Title through d5(d)	No Change
Add	<u>6. Clearance Relay:</u>
Add	(a) Responds to telephone requests for ATC clearances received from pilots by contacting the appropriate sector within the ARTCC or approach control facility and relays clearance issued to the pilot verbatim.
Add	(b) Advises appropriate ARTCC sector or approach control facility of IFR Flight Plan cancellations received over the telephone.

1. PARAGRAPH NUMBER AND TITLE: 10-3-9. VISUAL SEPARATION

2. BACKGROUND: Since 2003, several facilities in the National Airspace System have filed for a waiver to FAA Order JO 7110.65, Paragraph 7–2–1, Visual Separation, in order to enable air traffic controllers to apply visual separation between their traffic and traffic at an adjacent airport traffic control tower (ATCT). This change allows the use of tower–applied visual separation between adjacent ATCTs. Seven facilities have received waivers authorizing the use of tower–applied visual separation between adjacent ATCTs. There are three additional waivers pending. Since the issuance of these waivers, there have been no reported events, such as losses of approved separation, associated with the use of tower–applied visual separation.

3. CHANGE:

<u>OLD</u>	NEW
Add	<u>10–3–9. VISUAL SEPARATION</u>
Add	<u>Air traffic managers at adjacent ATCTs who</u> wish to conduct tower-applied visual separation are required to complete the following:
Add	<u>a. Prepare a facility directive at each facility</u> and enter into an LOA between the concerned facilities. At a minimum, the LOA must include:
Add	1. Required equipment to conduct the operation.
Add	2. <u>Clear definition of the specific runway</u> configurations and flows for the operation.
Add	<u>3</u> . <u>Ceiling and visibility requirements.</u>
Add	<u>4.</u> <u>Missed approach instructions, where</u> <u>applicable.</u>
Add	<u>5. A requirement that the aircraft type and intentions be made known to all controllers providing visual separation under these procedures.</u>
Add	<u>6. Procedures for OS/CIC personnel to:</u>

Add	(a) <u>Accomplish coordination between all</u> <u>concerned facilities prior to conducting and</u> <u>upon termination of the specified operation</u> ,
Add	(b) <u>Assess the operation during equipment</u> <u>failures.</u>
Add	<u>(c)</u> <u>Terminate the operation when not</u> <u>permitted due to weather conditions.</u>
Add	<u>b. Ensure that all personnel receive initial, and</u> when appropriate, recurrent/annual refresher training.
Add	<u>c.</u> <u>Document the operation in a Letter to</u> <u>Airmen and publish it in the Special Notices</u> <u>Section of the Chart Supplement.</u>
Add	<u>d.</u> 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 Traffic Services Service Area Director prior to implementation.
Add	<u>e. ATMs must maintain a copy of the approval</u> correspondence.
Add	<u>REFERENCE–</u> <u>FAA Order JO 7110.65, Para 7–2–1, Visual Separation.</u> FAA Order JO 7210.3, Para 4–3–2, Appropriate Subjects.
10–3– <u>9</u> through 10–3– <u>15</u>	10–3–<u>10</u> through 10–3–<u>16</u>

1. PARAGRAPH NUMBER AND TITLE: Chapter 11. FAA CONTRACT TOWER OPERATION AND ADMINISTRATION, Section 1. Terminal VFR Radar Services

2. BACKGROUND: FAA Order JO 7210.54C, FAA Contract Tower Operation and Administration, prescribes guidance necessary to effectively administer operations at FAA Contract Tower (FCT) facilities. If a conflict arises between the contents of FAA Order JO 7210.54 and other FAA directives, or FAA Order JO 7210.3 and the FCT contract, FAA managers must request clarification from the Technical Advisory Group (AJT–22). FAA contractor personnel should request clarification from AJT–22 through contractor management personnel. AJT–22 determined there is a need to incorporate the administrative and operational directives contained in FAA Order JO 7210.3 under FAA Contract Tower Operation and Administration. This is expected to facilitate ease of use and improve referencing for those districts that serve Federal Contract Tower facilities.

3. CHANGE:

<u>OLD</u>	NEW
Add	CHAPTER 11. FAA Contract Tower
	Operation and Administration
Add	Section 1. Organizational Responsibilities

Add	<u>11-1-1. ATO LEVEL OF SUPPORT</u>
Add	a. <u>The FAA Contract Tower (FCT) Program is</u> a federally funded program that provides <u>contract air traffic control services at designated</u> <u>towers.</u>
Add	<u>b.</u> FAA organizations must provide the same level of operational support and guidance to contract towers as provided to similar FAA Airport Traffic Control Towers (ATCT).
Add	<u>11–1–2. FAA HEADQUARTERS</u>
Add	a. The Vice President of Air Traffic Services (AJT) is responsible for the FCT Program, and the AJT Technical Advisory Group (AJT-22) provides guidance and direction for Headquarters, Service Area, and FCT personnel, in the provision of air traffic control services at FCT locations. AJT-22 must provide:
Add	1. The name of the Contracting Officer <u>Representative (COR) for the FCT national</u> <u>contracts to the Contracting Officer (CO).</u>
Add	2. <u>Timely assistance and technical guidance</u> to FAA and contractor personnel on operational issues.
Add	<u>b.</u> <u>The Director, FAA Acquisition and</u> <u>Contracting (AAQ-1) must designate a CO for</u> <u>the FCT national contracts.</u>
Add	1. The CO has sole responsibility for modifications and/or changes to the contract. Other FAA personnel that deal directly with contractor personnel must be familiar with the terms of the contract and must use caution not to require actions of the contractor that fall within the purview of the CO.
Add	2. The CO must coordinate all contract
	modifications with AJT-22 prior to execution.
Add	<u>11–1–3. ATO SERVICE CENTERS</u>
Add	<u>a. Planning & Requirements Group (PRG)</u> <u>must:</u>
Add	1. <u>Appoint the FCT Program</u> <u>Implementation Manager (PIM) as the point of</u> <u>contact (POC) at the Service Center for</u> <u>coordinating issues affecting the FCT Program.</u>
Add	2. <u>Provide FCT applicant contact</u> information to appropriate FAA lines of business (LOB).
Add	<u>b.</u> <u>Operations Support Group (OSG) must</u> provide a POC for coordinating FCT issues.
Add	<u>c. Quality Control Group (QCG) must provide</u> <u>a POC for coordinating FCT issues.</u>
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Add	3. Assign each FCT to a district.
Add	<u>11–1–4. AJT DISTRICT OFFICES</u>
Add	<u>ATC facilities that interface with an FCT must</u> <u>contact the district whenever FCT issues cannot</u> <u>be resolved at the local level.</u>
Add	<u>a.</u> <u>Operational FCT issues that cannot be</u> <u>resolved at the district level must be coordinated</u> <u>with the respective OSG.</u>
Add	<u>b. Non–operational FCT issues that cannot be</u> <u>resolved at the district level must be coordinated</u> with the respective FCT Program Implementation Manager (PIM).
Add	<u>c.</u> <u>The district may delegate day-to-day</u> <u>operational support and/or certification</u> <u>responsibilities to other FAA facilities.</u>
Add	Section 2. Operations and Staffing
Add	<u>11–2–1. REQUESTS FOR ADDITIONAL SER- VICES</u>
Add	<u>a. The FCT contracts specify the terms under</u> which ATC services will be provided, including hours of operation for each FCT.
Add	b. FAA personnel must not require actions of the contractor which 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.
Add	<u>11–2–2. FAA STAFFING FOR SPECIAL</u> <u>EVENTS</u>
Add	AJT district offices must coordinate with AJT-22 whenever FAA staffing for special events (for example, Sun-n-Fun, EAA AirVen- ture-Oshkosh, etc.) will be needed at an FCT, and provide staffing and supervisory schedules for the tower during the event.
Add	<u>NOTE–</u> <u>At no time can an FAA controller act in a supervisory</u> <u>capacity (OM/FLM/CIC/Trainer, etc.) over an FCT</u> <u>controller, nor can an FCT controller act in a supervi-</u> sory capacity over an FAA controller.

Add	<u>11–2–3. LETTERS OF AGREEMENT (LOA)</u>
Add	FCTs are authorized to negotiate with, and enter into LOAs with FAA facilities, National
	<u>Airspace System (NAS) users, and airport</u> <u>operators/tenants in accordance with FAA</u> <u>directives.</u>
Add	a. <u>The AJT district must provide assistance to</u> <u>the FCT air traffic manager for the development</u> <u>of local procedures, facility LOAs, etc.</u>
Add	<u>b.</u> The contractor must comply with the service area's LOA processing procedures.
Add	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.
Add	<u>11–2–4. EMERGENCY AND CONTINGENCY</u> <u>SITUATIONS</u>
Add	FAA facilities must provide assistance to FCTs during emergency and/or contingency situa- tions. Requests outside the scope of an LOA or approved contingency plan must be coordinated through the Service Center.
Add	<u>11–2–5. FACILITY DIRECTIVES REPOSITO- RY (FDR)</u>
Add	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 pro- prietary will have only the dated or revision- numbered cover page uploaded.
Add	<u>NOTE-</u> <u>LOAs containing contingency plan information must</u> <u>not be posted to the FDR. LOAs with such information</u> <u>must be posted to the National Operational Contingen-</u> <u>cy Plan database.</u>
Add	<u>11–2–6. FCT AIR TRAFFIC CONTROLLER</u> <u>ELIGIBILITY</u>
Add	<u>a. To be an air traffic controller in the FAA</u> <u>FCT Program:</u>
Add	<u>1. A person must meet the requirements of Code of Federal Regulations (CFR), Title 14, Aeronautics and Space, Part 65 and Part 67 and,</u>
Add	2. FCT controllers must have held a previous Control Tower Operator Certificate or FAA Air Traffic Safety Oversight Credential.

Add	<u>b.</u> <u>There is no maximum age restriction for</u> <u>FCT air traffic controllers.</u>
Add	Section 3. Training
Add	<u>11–3–1. TESTING AND CERTIFICATION</u>
Add	a. <u>The AJT district must ensure that facility</u>
	certification, or FAA Air Traffic Safety
	Oversight Credentials are performed. The FCT
	<u>ATM must contact the district in a timely</u> manner to schedule CTO certification.
Add	<u>b. At Limited Aviation Weather Reporting</u>
	Stations (LAWRS) designated FCTs, the FCT
	<u>ATM must arrange initial LAWRS observer</u> training and testing via CBI or FLMS and
	<u>coordinate certification or certificate transfer</u>
	with AJT-22 via email requests to
	<u>9-AJT-HQ-ASWO@faa.gov.</u>
Add	11–3–2. BRIEFING/TRAINING ITEMS
Add	<u>a. ATO Headquarters organizations, Service</u>
	Center Offices, and districts must ensure that
	required briefing materials are distributed in a format that can be utilized by FCT facilities.
Add	<u>b. A.IT districts must ensure that all required</u>
	briefing items are forwarded to their assigned
	<u>FC1s.</u>
Add	Section 4. Documents, Forms, and Charts
Add	<u>11-4-1. OPERATIONAL DIRECTIVES</u>
Add	a. The FCT PIM must ensure that "New Start"
	FCT locations are included on the distribution
Add	b. Districts must:
Add	1. Ensure that FCTs are equipped with
	appropriate copies (print or digital) of
	regulations and FAA directives (excluding FARs and CFRs) including changes and/or
	amendments to those directives; and
Add	2. Assist FCTs when additional copies are
	required.
Add	c. <u>Contractors must notify the district</u>
	wnenever additional copies of the regulations and FAA directives are needed
	<u>und li ki dn contos al c nocaca</u>

Add	<u>11–4–2. PROVISION OF INFORMATION</u> AND DATA
Add	a. <u>The Service Center and/or district may</u> request operational information from FCTs and/or ask for access to operational data. Voluminous or unusual requests should be routed to AJT-22, through the Service Area POC, for direct coordination with contractor management personnel.
Add	b. <u>The contractor must provide hourly traffic</u> <u>count data to the FAA in addition to operational</u> <u>data reporting requirements, per FAA Order JO</u> <u>7210.55.</u>
Add	<u>11-4-3. FORMS AND CHARTS</u>
Add	a. <u>The districts must ensure that FCTs are</u> provided with a sufficient supply of operational forms required by the documents, directives, and regulations (excluding FARs and CFRs); and
Add	b. <u>Current operational charts and</u> <u>publications, such as terminal area charts,</u> <u>sectionals, etc.</u>
Add	<u>11–4–4. TRAINING MATERIAL</u>
Add	a. <u>The FAA must ensure all locations are</u> provided with required training material.
Add	b. The contractor must contact the district to request additional material.
Add	Section 5. Operational Documents, Directives, and Regulations
Add	<u>11–5–1. FAA DOCUMENTS, DIRECTIVES, AND REGULATIONS</u>
Add	FAA documents, directives, and regulations identified in the FCT Contract and FAA directives which are applicable and incorporat- ed in whole or relevant part will be available (print or digital) at the FCT facility.

Add	NOIE-
	<u>1. FCTs may utilize the FAA online directives library to the extent</u>
	consistent with FAA directives and the facility's existing telecom-
	munications capabilities.
	2. In addition to directives required by the FCT Contract, other
	FAA orders, directives or policies may contain additional pertinent
	information beneficial to operation of an FCT.
	3. Copies of CFRs required by the FCT Contract are not required
	to be on site at FCTs, but will be maintained and/or accessible at
	<u>contractor corporate offices.</u>
	<u>4. Guidance contained in FAA Order JO 7210.78, FAA Contract</u>
	Tower (FCT) New Start and Replacement Tower Process, may be
	used to assist the FAA, airport sponsors, and others in meeting
	<u>FCT minimum equipment requirements.</u>
C hapters 1<u>1</u> through 2 <u>0</u>	Renumber as Chapters 12 through 21

1. PARAGRAPH NUMBER AND TITLE: 14–3–4. REDUCING RECORDED WEATHER INFORMA-TION SERVICES

2. BACKGROUND: Flight Service has provided Telephone Information Briefings Service (TIBS) since the early 1980s. Telephone recordings were produced by Flight Service specialists working the Broadcast position in order to provide weather and aeronautical information that pilots could access without contacting a specialist. The recordings were 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 for briefings from a specialist and wait times could be extremely long. At the time, when pilots had no other choice but to call Flight Service to obtain weather and NOTAMs for the route of flight, TIBS alleviated the workload of the specialists and helped to reduce wait times for pilots. However, with the advent of the Internet and other technology, the demand for the services of a Flight Service specialist has dropped considerably. From over 3,000 specialists in more than 300 facilities during the early 1980s, staffing has decreased to fewer than 500 specialists in four facilities. 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, in the contiguous United States, Hawaii, and Puerto Rico there are multiple sources providing pilots access to weather and aeronautical information. This information, presented in a graphical format, makes it easier to visualize activity along their proposed route of flight; at little to no cost. This change does not apply in Alaska due to terrain features and weather conditions, and accessibility limitations.

3. CHANGE:

<u>OLD</u>

14–3–4 REDUCING RECORDED WEATHER INFORMATION SERVICES

Recorded weather services are TWEB (Alaska only) 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.

<u>NEW</u>

1<u>5</u>–3–4 REDUCING RECORDED WEATHER INFORMATION SERVICES <u>(ALASKA</u> <u>ONLY)</u>

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.

1. PARAGRAPH NUMBER AND TITLE: 17-8-2 IMPLEMENTATION PROCEDURES

2. BACKGROUND: The current method for calculating Monitor Alert Parameter (MAP) values, originally established in 1995, is based on average sector flight time. In recent years issues have been identified with this calculation method. The sector flight time method does not account for sector-specific workload and traffic complexity characteristics. It also does not inherently account for changes in sector workload and complexity over time, and only applies to single sectors (i.e., frequently used sector combinations may not be included). To address these concerns, System Operations Services (AJR) has developed an update to the MAP value calculation, which is currently outlined in FAA Order JO 7210.3, Paragraph 17–8–2, Implementation Procedures. This paragraph is updated to reflect a workload–based approach to calculating sector MAP values.

3. CHANGE:

<u>OLD</u>

17-8-2. IMPLEMENTATION PROCEDURES

MAP values are established and will be assigned for air traffic functional positions, within the MA function of TFMS as follows:

Average Sector	MAP VALUE
Flight Time	
3 min.	5
4 min.	7
5 min.	8
6 min.	10
<u>7 min.</u>	12
<u>8 min.</u>	13
9 min.	15
<u>10 min.</u>	17
11 min.	18
12 min. or greater	18

a. <u>Average sector flight time will be calculated</u> using data indicating functional position operations for a consecutive Monday through Friday, 7:00 AM – 7:00 PM local time frame.

<u>NOTE-</u>

This does not apply to combined sectors MA values.

b. <u>MAP values for combined sectors may exceed</u> the baseline value by more than three. Normal sector combinations and associated MAP values must be forwarded to the manager ATCSCC.

<u>NEW</u>

18–8–2. IMPLEMENTATION PROCEDURES

Baseline MAP values are established utilizing a workload-based model collaboratively developed at the national level and any adjustments made to those values using the ARTCC's collaborative process. These values will be reflected in the TFMS NAS Monitor.

Delete

a. <u>Baseline MAP value adjustments require</u> <u>concurrence of representatives of the TMU and</u> <u>area of specialization. Adjustments to the</u> <u>baseline values will be documented, including</u> <u>rationale, and maintained by the TMU.</u>

Delete

b. <u>The MAP value may be dynamically</u> <u>adjusted to reflect the ability of the functional</u> <u>position to provide air traffic service. Examples</u> <u>of situations that may require an adjustment</u> <u>include convective weather, turbulence,</u> <u>NAVAID outages, or other scenarios that have a</u> <u>negative or positive impact on the ability to</u> <u>safely and efficiently work air traffic at a level</u> <u>consistent with the MAP. Any adjustments made</u> <u>to the MAP value shall be communicated to the</u> <u>ATCSCC</u>. **c.** <u>Baseline MAP values may be adjusted +/-3.</u> <u>Adjustments of more than +/-3 requires</u> <u>concurrence of the TMU and representatives of the</u> <u>area of specialization. Adjustments to the baseline</u> <u>values will be documented, including rationale, and</u> <u>maintained by the TMU.</u>

d. The MAP value will be dynamically adjusted to reflect the ability of the functional position to provide air traffic service. During periods of reduced efficiency the MAP will be dynamically adjusted downward and conversely, when efficiency is improved, the MAP will be adjusted upward, but not to exceed the baseline or documented, adjusted value.

Delete

Delete

1. PARAGRAPH NUMBER AND TITLE: Appendix 3 – Air Carrier Aircraft for Air Traffic Activity Operations Count

2. BACKGROUND: Appendix 3 identifies those aircraft models defined as air carrier aircraft and provides the aircraft type designators that meet the criteria for counting as air carrier aircraft. The information is periodically updated as new aircraft are added and retired aircraft are deleted.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
Appendix 3 – Air Carrier Aircraft for Air Traffic Activity Operations Count	Appendix 3 – Air Carrier Aircraft for Air Traffic Activity Operations Count
<u>A124 – An–124 Ruslan</u>	Delete
Add	<u>A19N</u> – <u>A-319neo</u>
Add	<u>A20N</u> – <u>A-320neo</u>
Add	<u>A21N</u> – <u>A-321neo</u>
Add	<u>A338</u> - <u>A-330-800</u>
Add	<u>A339</u> - <u>A-330-900</u>
<u>A358 – A–350–800 XWB Prestige</u>	Delete
Add	<u>B37M – 737 MAX 7, BBJ (737 MAX 7)</u>
Add	<u>B38M</u> – <u>737 MAX 8, BBJ (737 MAX 8)</u>
Add	<u>B39M</u> – <u>737 MAX 9, BBJ (737 MAX 9)</u>
B737 - 737-700 <u>BBJ</u> , C-40 Clipper <u>, MAX 7</u>	B737 – 737–700, BBJ (737–700) , C–40 Clipper
B738 – 737–800 BBJ2 <u>, MAX 8</u>	B738 – 737–800, BBJ2
B739 – 737–900 BBJ3 <u>, MAX 9</u>	B739 – 737–900, BBJ3
B748 – 747–8	B748 – 747–8 <u>, BBJ (747–8)</u>
B77L – 777–200LR, 777–F	B77L – 777–200LR, 777–F , BBJ (777–200LR)
B77W – 777–300ER	B77W – 777–300ER <u>, BBJ (777–300ER)</u>
B788 – 787–8 Dreamliner <u>(Srs. 8)</u>	B788 <u>–</u> 787–8 Dreamliner <u>, BBJ (787–8)</u>
B789 – 787–9 Dreamliner <u>(Srs. 9)</u>	B789 <u>–</u> 787–9 Dreamliner <u>, BBJ (787–9)</u>
B78X – 787–10 Dreamliner (Srs. 10)	B78X – 787–10 Dreamliner

Add	<u>C919</u> – <u>C-919</u>
Add	<u>CL44 – CL–44 Forty Four</u>
Add	<u> DC10 – DC–10, KC–10 Extender, KDC–10, MD–10</u>
DC10 - DC-10, KC-10 Extender, KDC-10, MD-10	Delete
DC93 – DC–9–30, C–9 Nightingale, Skytrain 2	DC93 – DC–9–30, C–9 Nightingale/Skytrain 2, <u>VC–9</u>
Add	<u>E190 – 190, ERJ–190 Lineage 1000, ERJ–190–100</u>
Add	<u>E195</u> – <u>195, ERJ-190-200</u>
Add	<u>E275</u> – <u>E175–E2, ERJ–190–500</u>
Add	<u>E290</u> – <u>E190–E2, ERJ–190–300</u>
Add	<u>E295</u> – <u>E195–E2, ERJ–190–400</u>
E75L - 175, ERJ-170-200 (long wing)	E75L – 175 (long wing), ERJ-170-200 (long wing)
E75S - 175, ERJ-170-200 (short wing)	E75S – 175 (short wing), ERJ-170-200 (short wing)
E190 - 190, 195, ERJ-190 Lineage 1000	Delete
Add	<u>MC23 – MC-21-300</u>
MRJ <u>9</u> – MRJ–70	MRJ <u>7</u> – MRJ–70
Add	<u>S210 – SE–210 Caravelle</u>
Add	<u>SU95</u> – <u>Superjet 100–95</u>