

CHANGE

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

**JO 7210.3X
CHG 3**

Air Traffic Organization Policy

Effective Date:
August 22, 2013

SUBJ: Facility Operation and Administration

- 1. Purpose of This Change.** This change transmits revised pages to Federal Aviation Administration Order JO 7210.3X, 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 Disposition of Transmittal.** Retain this transmittal until superseded by a new basic order.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.



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Vice President, Mission Support Services
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Date: July 1, 2013

Explanation of Changes Change 3

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

**a. 2-1-7. AIR TRAFFIC SERVICE (ATS)
CONTINUITY**

4-3-5. APPROVAL

This change clarifies the roles and responsibilities of facilities during planned and unplanned outages. This change cancels and incorporates N JO 7210.838, Air Traffic Service Continuity and Approval, effective April 22, 2013.

**b. 2-1-17. PROHIBITED/RESTRICTED
AREAS**

This change adds stationary ALTRVs to this paragraph and will allow facilities to designate different separation around Stationary ALTRVs when non-aircraft operations are being conducted.

**c. 2-1-27. REPORTING UNAUTHORIZED
ILLUMINATION OF AIRCRAFT**

This change updates the NOTE that advises FAA ATC facilities where to forward information regarding unauthorized laser illumination of aircraft incidents when they do not have direct access to the DEN. Those ATC facilities will now forward this information through the WOCC to the DEN.

**d. 2-1-30. OPPOSITE DIRECTION
OPERATIONS**

4-3-2. APPROACH SUBJECTS

A new paragraph is added that requires facilities to develop procedures that will ensure positive control during opposite direction operations that will reduce the likelihood of aircraft being placed in close proximity in a head on situation with high closure rates. This change cancels and incorporates N JO 7210.830, Opposite Direction Operations, effective January 3, 2013.

e. 2-1-31. SPECIAL INTEREST SITES

This change removes the supervisory/CIC facility requirements from FAA Order JO 7110.65 and moves them to FAA Order JO 7210.3. This change cancels and incorporates N JO 7210.837, Special Interest Sites, effective April 12, 2013.

f. 2-3-1. GENERAL

This change provides procedures for all facilities to develop and maintain a process for tracking and reporting currency for those employees identified in Paragraph 2-3-2. This change cancels and incorporates N JO 7210.825, Air Traffic Currency Requirements, effective September 17, 2012.

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

This change clarifies that Open Skies F and D aircraft can be allowed to transit active SUA if the required LOA has been coordinated between the using agency and controlling agency. A reference to FAA Order JO 7110.65 has been added. To further clarify the requirements for Open Skies F and D aircraft that transit SUA, additional wording has been inserted that specifies an ATC facility must provide standard separation services for Open Skies F and D aircraft from activities in SUA at all times. This change does not alter any existing procedures. It just provides clarity and reinforcement.

**h. 6-1-7. DISPLAY OF TRAFFIC
MANAGEMENT ADVISOR (TMA)
INFORMATION**

17-24-1. PURPOSE

17-24-2. DEFINITIONS

17-24-3. RESPONSIBILITIES

TMA is the technology and methods used for adjusting demand/capacity imbalances at select OEP airports, departure fixes, and points across the NAS airspace. This change delineates the responsibilities of the Air Traffic Control System Command Center (ATCSCC), traffic management units (TMU), and supporting TMUs in support of TBFM. This change cancels and incorporates N JO 7210.832, Traffic Management Advisor (TMA), effective January 30, 2013.

i. 6-3-1. HANDLING OF SIGMETs, CWAs, AND PIREPs

This change provides guidance for air traffic controllers to handle and disseminate PIREP information from aircrews. This change cancels and incorporates N JO 7210.839, AvMet Volcanic Ash, effective March 7, 2013.

j. 6-9-1. GENERAL

6-9-5. NON RVSM REQUIREMENTS

8-1-2. ALTRV FLIGHT DATA

PROCESSING

12-1-5. CATEGORIES OF OPERATIONS

17-9-13. VFR FLIGHTS

17-21-4. EXCEPTED FLIGHTS

The term “Lifeguard” is being replaced by the term “MEDEVAC.” Adds a requirement for flight plan entries for ALTRV and MARSAs aircraft in ICAO flight plan filing. change cancels and incorporates N JO 7210.829, ICAO Flight Plan 2012 Changes to FAA Order JO 7210.3, effective November 15, 2012.

k. 10-1-8. PROCEDURES FOR OPENING AND CLOSING RUNWAYS

This change adds procedures that address the complexity of the risk of operations on closed runways. A broad set of solutions needs to be utilized to provide both redundancy and resilience. This change intends to provide a general framework for those solutions, but the specifics are best developed at the local level, using a cross section of operators to develop relevant, innovative and effective tools that have a positive impact on safe operations. This change cancels and incorporates N JO 7210.826, Procedures for Opening and Closing Runways, effective December 12, 2012.

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

This change will only require a facility to include items (e) through (i) if they are applicable to their operations. This change cancels and incorporates N JO 7210.831, Line Up and Wait (LUAW) Operations, effective December 17, 2012.

m. 10-5-4. ASR PERFORMANCE CHECKS

This change removes the requirement that controllers conduct ASR performance checks at locations where digital terminal automation systems exist.

n. 17-2-4. FIELD FACILITIES

This change requires field facilities to notify the ATCSCC via telephone or hotline coordination as soon as route/airway closures occur that could have significant impact to the National Airspace System. This change cancels and incorporates N JO 7210.841, Field Facilities, effective April 29, 2013.

o. 17-17-5. CDR DATA FORMAT

This change provides guidance as to the preference to include RNAV CDRs to destinations served by RNAV STARs. This change cancels and incorporates N JO 7210.840, Coded Departure Route (CDR) Data Format, effective April 29, 2013.

p. 19-9-1. POLICY

19-9-2. PURPOSE

This change clarifies that Open Skies F and D aircraft can be allowed to transit active SUA if the required LOA has been coordinated between the using agency and controlling agency. A reference to FAA Order JO 7110.65 has been added. To further clarify the requirements for Open Skies F and D aircraft that transit SUA, additional wording has been inserted that specifies an ATC facility must provide standard separation services for Open Skies F and D aircraft from activities in SUA at all times. This change does not alter any existing procedures. It just provides clarity and reinforcement.

q. The FAA has decommissioned all the Direction Finders (DF) in the National Airspace System (NAS). Therefore, all references to DF approaches, procedures, supplements, and charts have been removed from this order.

r. Entire publication.

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

PAGE CONTROL CHART

Change 3

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Section 2. Order Use

1-2-1. POLICY

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

1-2-2. ANNOTATIONS

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

- a. The change number and the effective date are printed on each revised or additional page.
- b. A reprinted page not requiring a change is reprinted in its original form.
- c. Bold vertical lines in the margin of the text mark the location of substantive procedural, operational, or policy changes; e.g., when material affecting the performance of duty is added, revised, or deleted.
- d. Statements of fact of a prefatory or explanatory nature relating to directive material are set forth as notes.

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

1-2-3. WORD MEANINGS

As used in this order:

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

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

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

1-2-4. ABBREVIATIONS

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

TBL 1-2-1
ABBREVIATIONS

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

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

Abbreviation	Meaning
CONUS	Continental/Contiguous/Conterminous United States
COO	Chief Operating Officer
COTC	Computer operator terminal console
CPDLC	Controller Pilot Data Link Communications
CTRD	Certified Tower Radar Display
CTA	Controlled times of arrival
CWA	Center weather advisory
CWSU	ARTCC Weather Service Unit
DARC	Direct access radar channel
DAS	Delay assignment
DASI	Digital altimeter setting indicator
DCCWU	ATCSCC Weather Unit
DEDS	Data entry display system
DME	Distance measuring equipment
DOD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
DP	Instrument Departure Procedure
DRT	Diversion Recovery Tool
DSP	Departure sequencing program
DTM	Digital terrain maps
DVA	Diverse vector area
DVRSN	Diversion
E-MSAW	En Route Minimum Safe Altitude Warning
EASL	Existing automation service level
EDCT	Expect departure clearance time
EFAS	En route flight advisory service
EI	Early Intent
ELT	Emergency locator transmitter
EOVM	Emergency obstruction video map
EPIC	El Paso Intelligence Center
ERIDS	En Route Information Display System
ESL	Emergency service level
ESP	En Route sequencing program
FAA	Federal Aviation Administration
FCA	Flow Constrained Area
FDEP	Flight data entry and printout
FDIO	Flight data input/output
FEA	Flow Evaluation Area
FIAO	Flight inspection area office
FLM	Front-Line Manager
FOIA	Freedom of information act
FOUO	For Official Use Only
FP	Flight plan
FPL	Full performance level
FRD	Fixed Radial Distance

Chapter 2. Administration of Facilities

Section 1. General

2-1-1. INTERREGIONAL REQUIREMENTS

a. An air route traffic control center (ARTCC) is responsible to an En Route and Oceanic Operations Area Office. Terminal and Flight Services facilities located within an ARTCC operational area must comply with the En Route and Oceanic Operations Area Office directives governing interfacility operational requirements. Although these facilities are not under its administrative jurisdiction, the En Route and Oceanic Operations Area Office responsible for the administration of the ARTCC must provide these directives to the appropriate facilities in ARTCC operational areas. These facilities must coordinate directly on mutual procedural or operational requirements.

b. When resolution of procedural or operational problems is not possible or when the En Route and Oceanic Operations Area Office directives are incompatible with those published by the administratively responsible area office, the facility must notify its own Terminal Operations Area or Flight Services Operations Area Office for resolution.

2-1-2. FACILITY STANDARD OPERATING PROCEDURES DIRECTIVE

The air traffic manager must issue a Standard Operating Procedures Directive. The directive must specify, as a minimum, the required procedures for maintaining a safe and efficient operation and the jurisdictional boundaries for each operational position/sector.

REFERENCE-

FAAO JO 7210.3, Para 4-1-1, Correspondence Standards.

2-1-3. POSITION/SECTOR BINDERS

Air traffic managers must develop and maintain binders for each position/sector within the facility. In addition to the above, this must include a supervisor position binder. The supervisor position binder should address procedures which will enhance controller performance in areas such as scanning, coordination, use of proper phraseology, and

proficiency/remedial training. The binders must contain as a minimum, but not be limited to, the information listed in the En Route, Terminal, Flight Service Option Specific Guidelines. The binder must contain information that is necessary for the safe and efficient operation of each position/sector, including examples and formats where appropriate. A copy of each binder must be in a location easily accessible by each position/sector. Data may be stored and displayed via electronic means on Information Display Systems (IDS) where available. Air traffic managers in terminal facilities may determine the need for individual binders for associated/coordinator positions.

2-1-4. REFERENCE FILES

Air traffic managers must maintain current sets of orders, facility directives, Letters of Agreement (LOA), aeronautical charts, pertinent International Civil Aviation Organization (ICAO) documents and related publications so that they may be readily available for operational use and study by facility personnel. Also, the air traffic manager must maintain reference materials at appropriate work areas. These materials must consist of pertinent directives, agreements, emergency and overdue aircraft procedures, and a location listing of airports within the area of responsibility including runway alignment, lighting, surface, and length as a minimum. Current telephone numbers of user companies/organizations identifying the source who has the capability of contacting no radio (NORDO) aircraft may also be listed. Air traffic managers must determine the applicability of other materials to be included.

NOTE-

The air traffic manager will ensure that the user list is kept current.

2-1-5. RELEASE OF INFORMATION

a. It is FAA policy to make factual information available to persons, properly and directly concerned, except information held confidential for good cause.

b. Except as provided in this and other FAA orders, or when specifically authorized to do so by the Secretary of Transportation or the Administrator, no agency employee must release information from any National Airspace System (NAS) database regarding the position, altitude, heading, flight plan, origination or destination of a single aircraft (“Flight Track Data”) upon the oral request of an individual outside of the FAA.

1. No request for Flight Track Data must be granted unless it is first determined that the request is being made in the interest of aviation safety or efficiency, or for an official purpose by a United States Government agency or law enforcement organization with respect to an ongoing investigation.

2. No Flight Track Data on aircraft conducting military, law enforcement, presidential, or other sensitive flights must be released except as operationally required to assist such flights.

3. Each request must be handled in the following manner:

(a) The agency employee must positively identify the requestor by name, organization or affiliation, and point-of-contact (including a telephone call-back number).

(b) The agency employee must inquire about the purpose of the request so as to determine whether the request is being made in the interest of aviation safety or efficiency, or for an official purpose.

(c) Except for requests received from any United States Government agency or law enforcement organization, the agency employee must enter into the facility Daily Record of Facility Operation, FAA Form 7230-4, a record of the request, including:

(1) The information obtained under subparas b3(a) and b3(b) above; and

(2) A summary of any information provided to the requestor, including the flight number or registration number of the aircraft in question.

(d) For requests received from any United States Government agency or law enforcement organization, the only information entered into the local facility log must be that called for by subpara b3(a) above, with a brief notation as to whether the request was granted or not.

4. If the request is from an individual and it is determined that the request, if granted, would not further aviation safety or efficiency, the employee must deny the request and may inform the requester that information may be sought under the Freedom of Information Act (FOIA). A FOIA request should be filed in writing with the FOIA Officer, ARC-40, 800 Independence Avenue, S.W., Washington, DC 20591, or by email to 7-AWA-ARC-FOIA@faa.gov.

5. If it cannot be ascertained whether the purpose of the request, if from an individual, is in furtherance of aviation safety or efficiency, or if from a United States Government agency or law enforcement organization, is for an official purpose, the agency employee must contact facility management for guidance. If local management is unable to determine whether or not a request should be granted, the official should contact the Quality Assurance Investigator on-call in Washington headquarters. En Route and Oceanic Operations, Terminal Operations, and Flight Services Operations Area Offices may elect to process after-hour requests through the appropriate Service Area office Quality Assurance on-call specialist.

2-1-6. CHECKING ACCURACY OF PUBLISHED DATA

Air traffic managers and air traffic representatives (ATREPs) must, upon receipt of official publications, review data pertaining to their facilities and areas of concern to ensure accuracy and completeness. They must also initiate corrections as required.

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, FLM 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. HANDLING BOMB THREAT INCIDENTS

Air Traffic facilities must establish procedures to carry out their functions in accordance with FAAO 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. FAAO 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-

FAAO JO 7210.3, Para 2-8-2, Medical Clearance Requirements.

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

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

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

2-1-9. 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 level 2 or 3 MANPADS alerts via ATIS and/or controller-to-pilot transmissions. Report MANPADS threat/attack/post-event activity until notified otherwise by FAA national headquarters.

REFERENCE-

FAAO JO 7110.65, Para 2-9-3, Content.

FAAO JO 7110.65, Para 10-2-13, MANPADS Alert.

2-1-10. 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.

2–1–11. 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.

2–1–12. 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 measure-

ments “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 Airport Facility Directory (A/FD) 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 A/FD 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.

2–1–13. AIRCRAFT IDENTIFICATION PROBLEMS

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

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

NOTE–

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

1. In the case of carriers listed in Appendix 2, Air Carrier Points of Contact for Aircraft

Identification Problems, contact the appropriate airline office or officer.

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

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

c. Civil aircraft other than air carrier: Advise Mission Support Services, Aeronautical Information 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.

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

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

2-1-14. APPROACH CONTROL CEILING

The airspace ceiling of areas within which approach control service is provided should not exceed 10,000 feet AGL. Exceptions require a staff study and specific approval of the Vice President of System Operations Services.

NOTE-

Although en route ATS is a center function, terminal facilities may be expected to provide some en route service. There are some areas in which a center 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, centers may have radar coverage, and better service would be provided if some approach control airspace is recalled to the center. At certain locations, the center may be able to absorb all the

airspace of a nonradar approach control. The Area Directors of En Route and Oceanic Operations and Terminal Operations must weigh all factors and provide optimum resolutions.

2-1-15. 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.

2-1-16. 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.

2-1-17. 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.

2-1-18. WASHINGTON, DC, SPECIAL FLIGHT RULES AREA (DC SFRA)/ATC SECURITY SERVICES

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 FLM/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 FAAO JO 7110.65 para 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 FAAO 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.

2-1-19. 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. FAAO 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.

2-1-20. OBSTACLE IDENTIFICATION SURFACES, OBSTACLE FREE ZONES, RUNWAY SAFETY 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, or 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 guidelines to ensure that this airspace is not penetrated by aircraft utilizing other runways or taxiways. Proposed solutions should be developed in conjunction with local airport authorities and coordinated with appropriate FAA offices to confirm their validity; e.g., Flight Standards and Airports.

2-1-21. FACILITY IDENTIFICATION

a. Service Area Directors are the focal point to review/approve requests for waivers for facility identification changes in FAAO JO 7110.65, Air Traffic Control, para 2-4-19, Facility Identification, subparas a, b, and c, and FAAO JO 7110.10, Flight Services, para 14-1-14, Facility Identification, subparas 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.

2-1-22. 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.

2-1-23. OUTDOOR LASER DEMONSTRATIONS

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

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

2-1-24. 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.

2-1-25. SUBMISSION OF AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA) DATA

Submit data on all ATCAAs used on a continuing/constant basis, and any subsequent changes to the ATCAA database to System Operations Security; and 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. An En Route and Oceanic Operations Area Office transmittal memorandum containing a brief overview of the ATCAA, and/or changes to, FAA headquarters, System Operations Security; 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.

2-1-26. 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.

2-1-27. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT

All FAA Air Traffic Control facilities, Federal Contract Towers and Flight Service Stations must report unauthorized laser illumination incidents through the Domestic Events Network (DEN), providing the following information:

- a.** UTC date and time of event.
- b.** Call Sign, or aircraft registration number.
- c.** Type of aircraft.
- d.** Nearest major city.
- e.** Altitude.
- f.** Location of event (e.g., latitude/longitude and/or Fixed Radial Distance (FRD)).

g. Brief description of the event.

h. Any other pertinent information.

NOTE-

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

REFERENCE-

FAAO JO 7110.65, Para 2-9-3, Content

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

2-1-28. SUSPICIOUS AIRCRAFT/PILOT ACTIVITIES

Facility air traffic managers must ensure that processes are in place to direct prompt notification to the DEN of any suspicious aircraft/pilot activities as prescribed in FAA Order JO 7610.4, paragraph 7-3-1.

2-1-29. 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 (202) 493-4170.*

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

2-1-30. OPPOSITE DIRECTION OPERATIONS

a. The provisions of this paragraph are applicable to areas where radar service is provided. Nonradar procedures are contained in FAA Order JO 7110.65, Air Traffic Control, Chapter 6.

b. At locations that conduct opposite direction operations for aircraft receiving IFR separation services, facility directives must define minimum cutoff points identified by distances or fixes for same runway operations between:

1. An arrival and a departure.
2. An arrival and an arrival.

c. The cutoff points established under subparagraph b. must ensure that required longitudinal or lateral separation exists before any other type of separation is applied:

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.

NOTE-

If terrain and obstructions allow, the initial heading should meet the provisions of FAA Order JO 7110.65, Paragraph 5-5-7, Passing or Diverging.

REFERENCE-

FAAO 7110.65, Para 1-2-2, Course Definition
FAAO 7110.65, Para 3-8-2, Touch and Go or Stop and Go or Low Approach
FAAO 7110.65, Para 3-8-4, Simultaneous Opposite Direction Operations
FAAO 7110.65, Para 4-8-11, Practice Approaches
FAAO 7110.65, Para 5-5-1, Application
FAAO 7110.65, Para 5-5-4, Minima
FAAO 7110.65, Para 5-5-7, Passing or Diverging
FAAO 7110.65, Para 5-6-3, Vectors Below Minimum Altitude
FAAO 7110.65, Para 7-2-1, Visual Separation

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. Facility directives must:

1. Require traffic advisories to both the arriving and departing aircraft.

EXAMPLE-

OPPOSITE DIRECTION TRAFFIC (distance) MILE FINAL, (type aircraft).

OPPOSITE DIRECTION TRAFFIC DEPARTING RUNWAY (number), (type aircraft).

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

3. Ensure that opposite direction operations conducted from parallel runways provide for a turn away from the opposing traffic when inside of the cutoff point to the other runway.

4. Specify that towers not delegated separation responsibility are responsible to apply the cutoff points between arriving and departing aircraft.

f. Facility directives must contain the following minimum coordination requirements:

1. Define the position that is responsible for initiating coordination.

2. All coordination must be on a recorded line, state “opposite direction,” and include call sign, type, and arrival or departure runway.

3. The tower must verbally request opposite direction departures with the TRACON/ARTCC.

4. The TRACON/ARTCC must verbally request opposite direction arrivals with the tower.

NOTE-

Facilities that use opposite direction operations as a standard operation due to terrain constraints or noise abatement may be exempted from the provisions of subparagraph f. by the approval process in subparagraph g.

g. Terminal standard operating procedures orders and all letters of agreement addressing opposite direction operations must be approved by the Service Area Director of Terminal Operations.

2-1-31. 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.

Section 3. Air Traffic Familiarization/Currency Requirements for En Route/Terminal/Flight Service Facilities

2-3-1. GENERAL

a. It must be the responsibility of the employees identified in Paragraph 2-3-2, Application, to adhere to the requirements of this section.

b. Facility managers must develop procedures for tracking and reporting currency for those employees identified in subparagraph 2-3-2b.

2-3-2. APPLICATION

a. Air traffic managers, assistant managers, operations support managers, and support specialists, who as a condition of employment are not required to maintain currency, must maintain familiarity with operating positions to perform their required duties in an efficient manner.

b. First-level supervisors (including facility managers who also serve as first-level supervisors), ATCSs, developmental specialists, and air traffic assistants are required to maintain currency in order to perform their duties.

2-3-3. REQUIREMENTS

a. Familiarization. As a minimum, non-operational personnel (see application a) must observe control room operations within their facility for 2 hours each week.

b. Currency. To maintain currency, personnel must rotate through all positions on which they are certified each calendar month. Additionally, they must meet the following minimum time requirements on control positions or operational positions, as appropriate, each calendar month:

1. First-level supervisors (including facility managers who also serve as first-level supervisors), and support specialists who are required to maintain currency by their air traffic managers:

(a) Radar/tower control/operational positions (excluding the operational supervisor in charge

(OSIC) position): Four hours tower and four hours radar. If certified in only one area of operation (tower or radar), then a total of eight hours in that area.

(b) All other facilities: Eight hours in control/operational positions (excluding the OSIC position).

NOTE-

1. *Although the OSIC position is an operational position, time working as an OSIC is not counted toward currency time.*

2. *Time working Flight Data communications, Flight Data, or Clearance Delivery positions does not count towards currency requirements.*

2. Supervisory traffic management coordinators not covered in subpara b3 and traffic management coordinators are required to maintain currency and must rotate through all positions on which they are certified each calendar month. Additionally, they must work a minimum of eight hours per calendar month on control positions.

3. Supervisory traffic management coordinators at all ARTCCs and at A80, N90, PCT, NCT, and SCT are required to maintain currency and must rotate through all positions within the Traffic Management Unit (TMU) only. Additionally, they must work a minimum of eight hours per calendar month on these positions.

4. All other employees who are required to maintain currency:

(a) Radar/tower control/operational positions: Eight hours tower and eight hours radar. If certified in only one area of operation (tower or radar), a total of sixteen hours in that area.

(b) All other facilities: sixteen hours in control/operational positions.

5. ASR approach (where published): Three each calendar quarter; one of which must be a no-gyro. Radar simulation may be used to satisfy these requirements.

2-3-4. DIFFERENTIAL

To qualify for currency differential as outlined in the Air Traffic Control Revitalization Act, personnel must be certified and maintain currency on at least two positions excluding clearance delivery and flight data positions.

employee needs to improve must be identified. Employees may request assistance from their immediate supervisor in developing options to improve the identified areas.

NOTE-

These provisions do not apply to midwatch CIC coverage.

2-6-5. CONSOLIDATING POSITIONS

a. Assign personnel to positions as required by activity, equipment, and facility function. Positions may be consolidated in consideration of activity and the qualifications of the personnel involved.

b. To the extent staffing resources permit, and where the position is established, the tower associate (local assist) position must be staffed. This position is considered essential to the operational integrity and safety levels required to minimize the potential for surface errors and land-over incidents. Nonlocal control functions must not be consolidated/combined at the local control position except during periods of significantly reduced traffic levels.

c. When conducting line up and wait (LUAW) operations, local control position must not be consolidated/combined with any other non-local control position.

REFERENCE-

FAAO JO 7210.3, Para 10-3-8, Line Up and Wait (LUAW) Operations

2-6-6. RELIEF PERIODS

a. Personnel performing watch supervision duties are responsible for ensuring that breaks are administered in an equitable manner and applied so as to promote the efficiency of the agency. They are also responsible for ensuring that breaks are of a reasonable duration.

b. Personnel performing watch supervision duties are responsible for knowing the whereabouts of employees to ensure their availability for position assignments.

c. Personnel performing watch supervision duties must not condone or permit individuals to sleep during any period duties are assigned. Any such instance must be handled in accordance with applicable Agency policy and the applicable collective bargaining agreement.

2-6-7. BASIC WATCH SCHEDULE

a. Facility watch schedules must take into account normal traffic flow, thereby permitting the posting of a continuing schedule for an indefinite period of time. Facility management is responsible for ensuring watch schedules are in accordance with collective bargaining agreements.

b. Air traffic control specialists whose primary duties are those directly related to the control and separation of aircraft must meet the following criteria:

1. Do not work more than 10 operational hours in a shift.

2. Hours worked before a shift, whether operational or not, will count as operational hours.

3. All work beyond 10 hours must be nonoperational.

4. Have at least an 8-hour break from the time work ends to the start of any shift, except as follows:

(a) Employees are required to have a minimum of 9 consecutive hours off duty preceding the start of a day shift. For purposes of this paragraph only, a day shift is generally defined as a shift where the majority of hours fall between 7:00 a.m. and 4:00 p.m.

(b) This requirement applies to all shift changes, swaps, and overtime to include scheduled, call-in, and holdover assignments.

5. Have an off-duty period of at least 12 hours following a midnight shift. (A midnight shift is defined as a shift in which the majority of hours are worked between 10:30 p.m. and 6:30 a.m.)

6. Do not work more than six shifts without taking a regular day off.

7. Authorized leave, compensatory time used, and credit hours used are considered hours of work.

8. These criteria apply to shift adjustments, including the exchange of shifts and/or days off and the change of shifts and/or days off.

2-6-8. OVERTIME DUTY

Facility air traffic managers must ensure that overtime duty is equitably distributed among all eligible employees who desire it. Retain overtime duty records for 12 months.

2-6-9. HOLIDAY STAFFING

a. Facility Air Traffic Managers must ensure that the scheduled staffing is adjusted on holidays to a level consistent with the anticipated workload. Application of this policy is not intended to result in a standardized holiday staffing schedule for all holidays. Holiday staffing schedules may vary for individual holidays since the traffic in a particular area cannot always be expected to be the same for each holiday.

b. Prior to establishing work schedules for a Federal holiday, facility air traffic managers must:

1. Consider the previous year's traffic statistics for each holiday.

2. Check, as appropriate, with local sources (Air National Guard, USN, USAF Reserves, local flying schools, fixed base operators, etc.), for information concerning anticipated activity.

2-6-10. ADMINISTRATIVE HOURS OF DUTY

Hours of duty of facility air traffic managers and administrative staffs should conform with the duty hours of their respective service area office.

2-6-11. FACILITY COMPLEMENTS

Facility air traffic managers will be currently informed by the service area office of their authorized facility personnel complements. The authorized complement will always be the end-of-year employment ceiling authorization. Circumstances may result in the establishment of a complement different from that provided in workload formulas.

2-6-12. CONSOLIDATING TOWER/TRACON FUNCTIONS

a. At facilities where both tower and radar/non-radar approach control services are provided, the air traffic manager must ensure, to the maximum extent possible, that these functions are not consolidated during non-midwatch operations unless unforeseen circumstances or emergency situations arise which would preclude compliance with this paragraph.

b. During midwatch operations (where the majority of hours fall between 10:30 p.m. and

6:30 a.m.) when traffic permits, all functions may be consolidated for meals or breaks.

c. Air traffic managers must ensure that no less than two fully-certified and current operational personnel are assigned to midnight shift, unless no such personnel are available for assignment. In the event circumstances result in an operation with staffing of only one fully-certified and current operational person, coordination must be accomplished with an adjacent facility before the operational person can leave the operational quarters for physiological breaks. This should be accomplished during periods of light to zero traffic.

2-6-13. SINGLE PERSON TRACON/TOWER MIDNIGHT OPERATIONS

In the event circumstances result in shift staffing of only one fully-certified and operationally-current person, coordination must be accomplished as follows:

a. Single-person TRACON operations.

1. This type of operation must include some form of challenge or response to aircraft hand-offs between two facilities/functions.

2. Automated coordination cannot be silent hand-offs that do not include human interaction. It must be either manually coordinated (verbally via landline) or positively acknowledged via automation (acceptance of the handoff by keystroke entry).

3. In the event verbal coordination on inbound flights is required, it should be completed before communications transfer. If there is no response from the single-staffed facility controller, immediate action must be taken to determine the status of the unresponsive controller and begin appropriate notifications.

4. In all cases where a facility midnight shift is staffed with a single person, the following additional communication checks must take place:

(a) The approach control facility must initiate a communications check on the hour and at 30 minutes past the hour with the en route facility providing service to the TRACON, unless procedures are established locally with another FAA facility to accomplish this task.

(b) The servicing en route facility or FAA facility must initiate a communications check with

the TRACON at 15 and 45 minutes past the hour to ensure communications can be verified with the single-staffed operation, unless procedures are established locally with another FAA facility to accomplish this task.

b. Single-person tower operations.

1. This type of operation must include some form of challenge or response to aircraft hand-offs between two facilities/functions.

2. This type of operation must include verbal coordination on all ATIS changes. For example, when there is a change to the ATIS, a call to the TRACON or en route facility providing approach control services advising them of the change must be on a recorded line.

3. Verbal coordination over established communication lines to the departure controller confirming that they are prepared to accept the flight should be completed before issuing takeoff clearance when the receiving facility is a single-staffed TRACON. If there is no response from the single-staffed facility controller, immediate action must be taken to determine the status of the unresponsive controller and begin appropriate notifications.

4. In all cases where a facility midnight shift is staffed with a single person, the following additional communication checks must take place:

(a) The tower must initiate a communications check with the facility providing approach control services on the hour and at 30 minutes past the hour, unless procedures are established locally with another FAA facility to accomplish this task.

(b) The servicing approach control facility or FAA facility must initiate a communications check with the tower at 15 and 45 minutes past the hour to ensure communications can be verified with the single-staffed operation, unless procedures are established locally with another FAA facility to accomplish this task.

NOTE-

The requirement for challenge/communications checks can be accomplished through the exchange of traffic or information, either verbally or through automation.

c. Up/Down facilities during midnight shifts.

1. When operations permit, it is expected that functions will be consolidated to facilitate breaks.

2. If the facility is not working with both functions in the cab and has a single-staffed operation in either operating quarters, the single-staffed operation practices apply.

3. Single-staffed challenge checks can be applied between tower/TRACON in up/down facilities rather than through the overlying en route facility.

Chapter 3. Facility Equipment

Section 1. General

3-1-1. BASIC EQUIPMENT

a. The basic operating equipment for ARTCCs consist of flight progress boards, radar displays, communications, automation, and, where applicable, URET equipment. At facilities utilizing Ocean21, 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, etc.

TBL 3-1-1

Certified and Uncertified Systems

Uncertified	Certified
Systems Atlanta Information Display System 4 (IDS-4)	ACE-IDS
	NAS IDS (NIDS)

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.

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, direction-finding 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.

d. Upon facility acceptance of any URET system, that system becomes a component of the air traffic system for the purposes of requests from Technical Operations personnel for approval to shut down that system for periodic maintenance.

e. Notification of any planned or unplanned outage of URET must be coordinated following the guidelines in Chapter 8, NAS En Route Automation, and guidelines developed and maintained by URET facilities.

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; FAAO 6980.5, Engine Generator Transfer Procedures for Anticipated Power Failure; 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; FAAO 6980.5, Engine Generator Transfer Procedures for Anticipated Power Failure.

Section 3. Communications Procedures

3-3-1. SERVICE “F” COMMUNICATIONS

Facility air traffic managers must establish procedures to provide interim communications in the event that local or long-line standard Service “F” fail. These must include the use of telephone conference circuits and the use of airline or other facilities.

3-3-2. TELEPHONE COMMUNICATIONS

a. Answer public access telephones by stating the facility’s name and type. The employee may state his/her name at his/her discretion. If, for any reason, a caller specifically requests identification, the employee should provide his/her assigned operating initials in lieu of the actual name. Contract facilities must answer public access lines by stating the name of the service provider and type.

EXAMPLE-

ARTCC: (The facility’s name) Center; for example, “Washington Center.”

FSS: (The facility’s name) Flight Service; for example, “Juneau Flight Service” or “(Service Provider Name) Flight Service.”

ATCT: (The facility’s name) Tower; for example, “Atlanta Tower.”

Approach Control: (The facility’s name) Approach Control; for example, “Dulles Approach Control.”

b. Answer local airport, private exchange (PX), or interdepartmental system type telephones as outlined above, except omit the location name; e.g., Center, Tower, Flight Service, etc.

c. Where the public access telephone is recorded, a beeper tone is not required. In place of the “beep” tone, the FCC has substituted a mandatory requirement that persons to be recorded must be given notice that they are to be recorded and give consent. This notice is given to the public through an entry in the Aeronautical Information Manual (AIM). Consent to the record is assumed by the individual when placing the call to an operational facility.

d. When equipment capabilities exist, every effort should be made to conduct conversations with flight-crews or other appropriate persons regarding any aircraft accident, incident, and/or ATC services on a recorded line.

3-3-3. MONITORING FREQUENCIES

a. Frequencies allocated to a facility must be continuously monitored except:

1. ARTCCs need not monitor 121.5 and 243.0 MHz if other ATC facilities monitor those frequencies in a given area.

2. FSSs equipped with ICSS equipment may reconfigure the ICSS to allow the temporary selection, muting, or rerouting of 121.5 and 243.0 MHz during the period of an interfering signal; e.g., continuous emergency locator transmitter (ELT), stuck mike, etc.

b. Facilities must establish procedures to ensure that frequencies used on a shared basis; e.g., single frequency approach operations, are continuously monitored by one of the positions of operation.

3-3-4. EMERGENCY FREQUENCIES 121.5 AND 243.0 MHz

a. Air traffic facilities must have transmit and receive capability on emergency frequencies 121.5 and 243.0 MHz as necessary to meet emergency frequency network requirements.

b. Normally, ARTCC emergency frequency capability must be limited to the transmitter/receiver site nearest the ARTCC.

c. At locations having more than one type of facility, such as a FSS and a tower, or a FSS, a tower, and an ARTCC, a common transmitter and receiver may be shared where practicable. Where this is done, the transmitter must be equipped with a lockout device to avoid inadvertent interference between facilities.

d. When facilities are in proximity and no derogation of services will result, transmit/receive capability should not be provided for each facility. The following requirements must be maintained:

1. Geographical area coverage must not be derogated.

2. Facilities without emergency frequency capability must have appropriate landlines for rapid relay of emergency information.

e. The two emergency channels must not be terminated on the same key in the transmitter–receiver selector panels. Neither emergency frequency must be terminated with any other frequency.

f. To preclude inadvertent use of these frequencies, a mechanical or other appropriate device must be provided which will require deliberate removal or bypass before any emergency frequency transmit key can be moved to the locked–operate position.

g. UHF emergency frequency 243.0 MHz is installed in military aircraft using an override arrangement. As a result, transmissions on this frequency are received by all military aircraft within the transmitter’s area of coverage. Unnecessary emissions on this frequency derogate communications on ATC frequencies and may interfere with valid emergency communications. Reduce transmissions on 243.0 MHz to the absolute minimum consistent with safety.

h. As a minimum, conduct two–way, ground–to–air checks during low activity periods:

1. Once a week.
2. Following equipment repairs.
3. Following Technical Operations maintenance checks.

i. Control facilities should limit broadcasts on 243.0 MHz to the facility in the area of desired coverage and must ensure that broadcasts are not continued unnecessarily.

3–3–5. BATTERY–POWERED TRANSCEIVERS

Facilities equipped with battery–powered transceivers must ensure that they are maintained in a state of readiness. Transceivers must be checked at least once a week.

3–3–6. FACILITY STATUS REPORT

Facility air traffic managers must notify System Operations and Safety by message, attention Manager of System Safety and Procedures, with an information copy to the appropriate Service Area office, of changes in the operational status of communication facilities not covered by

FAAO 7900.2, Reporting of Electronic Navigation Aids and Communication Facilities Data to the NFDC. The following data must be reported (include the RIS AT 7230–12 in the text):

a. The date and time FAA assumes operation of or decommissions an operations center, message center, data switching center, domestic or international aeronautical fixed telecommunication network (AFTN) “data communication circuit”, or international voice circuit.

b. Change in the hours of operation of any of the above and the effective date.

c. Changes required in weather schedule publications and communications systems drawings.

3–3–7. TESTING EMERGENCY LOCATOR TRANSMITTERS

a. The frequencies 121.6, 121.65, 121.7, 121.75, 121.8, 121.85, and 121.9 MHz are authorized to ELT test stations and for use in ELT exercises by the Air Force, Coast Guard, and other search and rescue organizations. Coordination with regional frequency management offices must be effected prior to activating the transmitter. Non–Federal assignments must be obtained through the FCC.

b. Airborne ELT tests must not be authorized.

c. Aircraft operational testing of an ELT is authorized on 121.5 MHz and 243.0 MHz as follows:

1. Tests should be no longer than three audio sweeps.

2. If the antenna is removable, a dummy load should be substituted during test procedures.

3. Tests must only be conducted the first 5 minutes of any hour.

d. Normally, there will be no interference on 121.5 MHz or 243.0 MHz as testing will be conducted in a screened or shielded room or test enclosure that will hold the self–contained ELT unit with the antenna fully extended. If interference is noted, it must be brought to the attention of the repair station operator for corrective action. If the repair station operator does not correct the fault and the interference continues, make a verbal report to the appropriate FSDO.

Section 6. Radar Use

3-6-1. COMMISSIONING RADAR FACILITIES

a. Electronic Commissioning:

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

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

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

b. Operational Implementation:

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

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

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

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

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

NOTE-

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

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

(c) Positioning and spacing transitioning aircraft.

c. Notification Procedures:

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

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

(b) Proposed or effective date.

(c) Specific airspace affected.

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

EXAMPLE-

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

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

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

4. A copy of each of the memoranda/aeronautical information message sent to System Operations Airspace and Aeronautical Information Management Office for inclusion in the Notices to Airmen publication and/or the Airport/Facility Directory must be addressed to Manager of Publications, Manager of System Safety and Procedures, Manager of Flight Services Administration, and the appropriate Service Area offices.

3-6-2. RADAR USE

- a. Approved radar systems may be used for:
 - 1. Surveillance of aircraft to assure the effective use of airspace.
 - 2. Vectoring aircraft to provide separation and radar navigation.
 - 3. Vectoring aircraft to final approach.
 - 4. Vectoring IFR aircraft to the airport of intended landing.
 - 5. Monitoring instrument approaches.
 - 6. Providing radar traffic, weather, chaff, and bird activity information.
 - 7. Providing assistance to pilots of aircraft in distress.

b. Approved terminal radar systems may also be used for:

- 1. Conducting precision or surveillance approaches.
- 2. Formulation of clearances and control intructions based on runways and movement areas observable on the ASDE.

NOTE-

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

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

Not Applicable to STARS.

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

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

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

c. At sites equipped with automatic beacon decoders, such as ARTS and the TPX-42, the radar beacon control decoder box need not be checked daily. The requirements of subpara a above must be met as soon as possible after reverting to broadband beacon information.

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

a. Facility air traffic managers may assign Mode 3/A codes to be monitored in addition to those required by FAAO JO 7110.65, Air Traffic Control, Chapter 5, Section 2, Beacon Systems.

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

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

3-6-5. RADAR TARGET SIZING

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

NOTE-

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

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

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

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

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

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

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

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

6. Permanent beacon target (Parrot) used for map alignment location.

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

1. Weather/Radar Gate normal setting.

2. Position startup weather level settings.

c. The air traffic manager and Technical Operations SMO manager must prepare a local order defining the procedures needed to protect the antenna, shutdown the antenna, transfer power between high and low voltage, and transfer from one channel to another channel.

3-6-7. PREARRANGED COORDINATION

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

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

1. Requirement that the NAS Stage A (en route) or ATTS (terminal) systems are fully operational.

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

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

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

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

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

7. Controllers who penetrate another controller's airspace using P-ACP must determine whether the lead aircraft is a heavy or B757 when separating

aircraft operating directly behind, or directly behind and less than 1,000 feet.

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

REFERENCE-

FAAO JO 7110.65, Para 5-4-10, Prearranged Coordination.

Section 7. Video Maps

3-7-1. TOLERANCE FOR RADAR FIX ACCURACY

Careful attention must be given during commissioning flight checks of a radar to the accuracy of digital maps, video map plates, or overlays to ensure that the plate or overlay markings meet specified requirements relative to permanent targets. In actual practice an aircraft's displayed position can be slightly in error with respect to its geographic position and still meet the requirements of FAAO 8200.1, United States Standard Flight Inspection Manual.

3-7-2. RADAR MAPPING STANDARDS

The minimum radar mapping capability required for commissioning radar services is one of the following:

- a. Dual video mapper.
- b. Adequate map overlay.
- c. Single video mapper plus a map overlay.
- d. AN/GPA-70 at USAF installations.
- e. AN/GPA-91 at Navy installations.
- f. Computer-generated displays.

NOTE-

Grease pencil markings, plastic tape, compass rose grid lines, range marks, or other innovations must not be used in lieu of an adequate digital map, map overlay, or video map.

3-7-3. DISPLAY MAP DATA

To reduce scope clutter and increase operational efficiency, limit data on display maps to the following (except for subpara o, facility air traffic managers may delete items not required):

- a. Airports/heliports.
- b. Runway centerline extension and/or final approach course.

REFERENCE-

FAAO JO 7110.65, Para 5-9-1, Vectors to Final Approach Course.

- c. Hospital emergency landing areas.
- d. NAVAIDs and fixes.
- e. Reporting points.

f. Airway/route centerlines.

g. Boundaries (control, special use areas, terminal buffer areas, outer fix holding pattern airspace areas, no transgression zones, etc.).

h. Handoff points.

i. Special use tracks (scramble, recovery, Instrument Departures, etc.).

j. Obstructions.

k. Prominent geographic features (islands, mountains, etc.).

l. Map alignment indicators.

m. Range accuracy marks.

n. Minimum vectoring altitudes in hundreds of feet; e.g., 23-2,300 ft., 100-10,000 ft.

o. Airports immediately outside your area of jurisdiction that are:

1. Within airspace used to receive radar handoffs; and

2. Depicted by the facility having jurisdiction over that airspace.

p. For sites equipped with STARS, facility air traffic managers must specify in a facility directive procedures for using optional maps.

NOTE-

The intent of subpara o is to assist controllers in making emergency airport recommendations when inflight emergencies occur near facility boundaries. There is no intent to establish criteria for airport depiction. However, insofar as facilities having jurisdiction depict airports, then those same airports must be depicted on the adjacent facility's video map.

REFERENCE-

FAAO JO 7110.65, Para 10-2-15, Emergency Airport Recommendation.

3-7-4. INTENSITY

Set the intensity of the video map and the range marks on the CTRD equipment at the minimum intensity that will provide the controller with the necessary information. Supervisory personnel must ensure that a usable intensity is maintained.

3-7-5. COMMON REFERENCE POINTS

Facility air traffic managers must ensure the adequacy of common reference points on radar maps where such points are used in providing air traffic control services; e.g., handoff points, etc., between adjacent facilities or between sectors within the

facilities using different radar systems. Whenever possible, simultaneous flight checks should be conducted of these radar systems. FAAO 8200.1, United States Standard Flight Inspection Manual, must be used in determining the appropriate tolerances.

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 3-9-1c2. 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-

FAAO 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 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.

NOTE-

MVAs are established without considering the flight-checked 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 1720, 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 Terminal Safety and Operations Support for review.

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 subpara 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, and in no event will requested reductions result in an MVA that does not comply with 14 CFR 91.177.

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. Where an operational need is demonstrated and documented, managers are permitted to round a resulting MVA with an AAO additive to the nearest 100-foot increment, provided the minimum ROC is maintained for other non-AAO obstacles. For example, 3,049 feet rounds to 3,000 feet to support glide slope intercept requirements.

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 Terminal Safety and Operations Support.

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 only may be established. The 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 ATO Terminal Safety and Operations Support 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.

l. 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 SDAT and stored in the SDAT repository.

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 both ROC reduction and AAO additive rounding requests. The MVA request with Form 7210–9 may be electronically forwarded to the OSG but must be followed with a hard copy with original signatures. However, when the capability of electronic signatures is developed within SDAT, Form 7210–9 will 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. For those facilities that use the SDAT program office for the development and maintenance of their MVACs, the SDAT program office personnel must be notified to complete the final submission step of the project within the repository when sending the MVAC request to the OSG.

p. 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.

q. 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.

r. 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.

s. 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-

FAAO JO 7110.65, Para 7-5-4, *Altitude Assignment.*
FAAO 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 3-9-1.)

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:

(a) Base contour lines of the mountains with the highest peak elevation of each depicted mountain plus 200 feet for natural low obstacle growth.

(b) Highest elevations of adjacent topography; e.g., valleys, canyons, plateaus, flatland, etc., plus 200 feet, or water.

(c) Prominent man-made obstacles; e.g., antennas, power plant chimneys, tall towers, etc., and their elevations.

(d) Satellite airports and other airports which could serve in an emergency.

(e) MVA if the EOVM must be merged with the MVA map for the former to be accommodated.

(f) Other information deemed essential by the facility.

NOTE-

To avoid clutter and facilitate maintenance, information depicted on the EOVM should be restricted to only that which is absolutely essential.

2. All elevations identified on the EOVM must be rounded up to the next 100-foot increment and expressed as MSL altitudes.

NOTE-

To avoid unnecessary map clutter, the last two digits are not required.

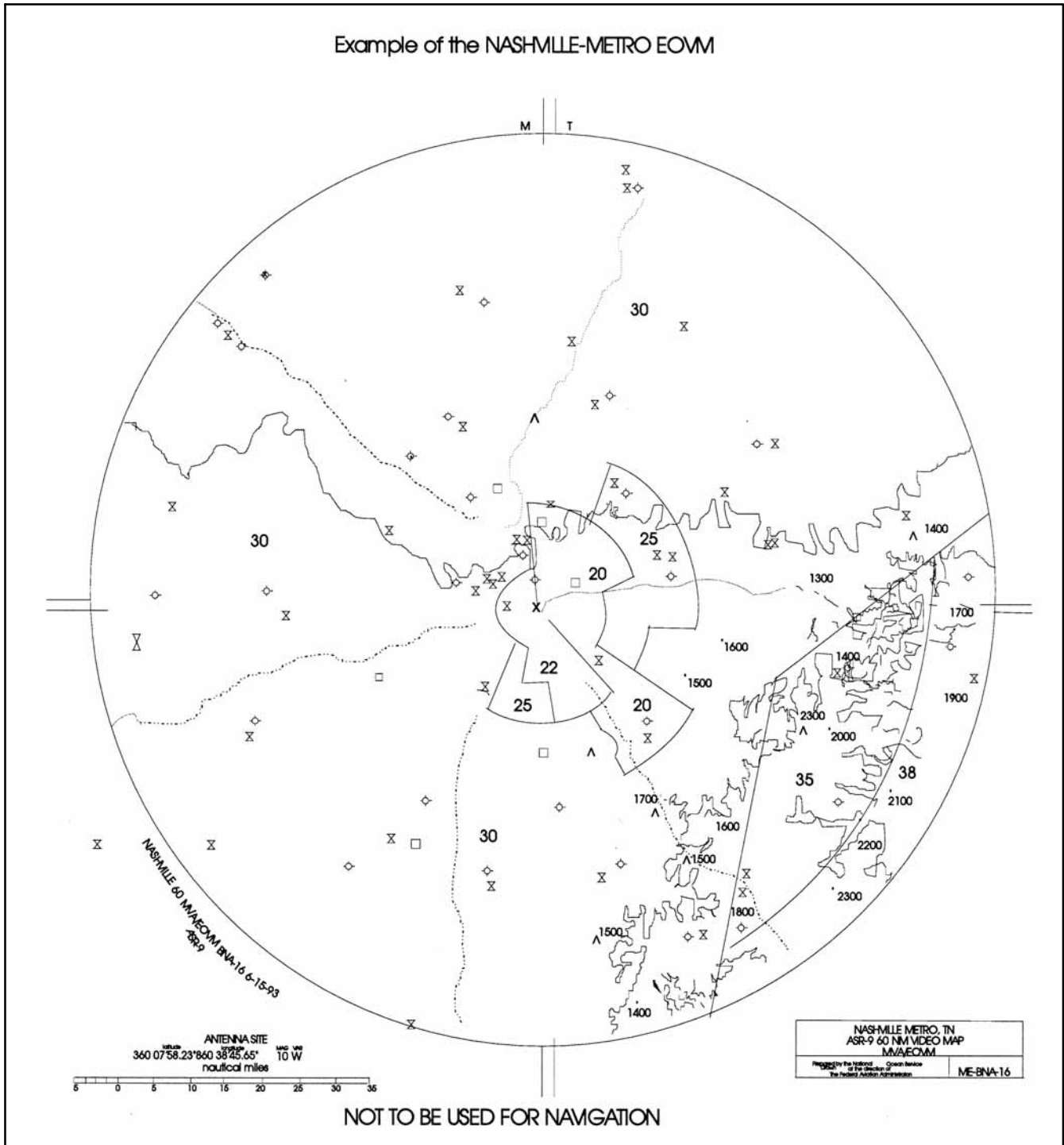
EXAMPLE-

2=200, 57=5700, 90=9000, 132=13200

e. EOVM Production: The preparation and procurement of the EOVM must be accomplished in accordance with FAAO 7910.1, Aeronautical Video Map Program.

f. EOVM Verification: The original EOVM procurement package must be checked for adequacy and then coordinated with the Mission Support Services, Terminal Procedures and Charting Group through the Service Area Operations Support Group, Flight Procedures Team (FPT) to verify the accuracy of its information. At least once every 2 years, the EOVM must be reviewed for adequacy and coordinated with the Terminal Procedures and Charting Group through the FPT for accuracy.

FIG 3-8-1
EOVM



3-8-5. ESTABLISHING DIVERSE VECTOR AREA/S (DVA)

a. DVAs may be established at the request of the ATM and coordinated jointly with the appropriate Service Area OSG and Mission Support Services, Terminal Procedures and Charting Group for candidate airports within the facility's area of jurisdiction. DVAs should be considered when an obstacle(s) penetrates the airport's diverse departure obstacle clearance surface (OCS). The OCS is a 40:1 surface and is intended to protect the minimum climb gradient. If there are no obstacle penetrations of this surface, then standard takeoff minimums apply, obstacle clearance requirements are satisfied and free vectoring is permitted below the MVA. When the OCS is penetrated, the Terminal Procedures and Charting Group procedural designer will develop an obstacle departure procedure (ODP). An ODP may consist of obstacle notes, non-standard takeoff minimums, a specified departure route, a steeper than normal climb gradient, or any combination thereof. If an ODP is developed for a runway, it is a candidate for a DVA. The ATM should consider whether a DVA is desired and then consider if development would provide operational benefits exceeding existing practices. This is done after determining that sufficient radar coverage exists for any given airport with a published instrument approach. When established, reduced separation from obstacles, as provided for in TERPS diverse departure criteria, will be used to radar vector departing IFR aircraft below the MVA. To assist in determining if obstacles penetrate the 40:1 surface, ATMs may request the Terminal Procedures and Charting Group provide them with a graphic depiction of any departure penetrations in addition to completing the following steps:

1. If the location is listed in the Terminal Procedure Publication (TPP) index, check the take-off minimums and (Obstacle) Departure

Procedures in section C of the TPP for the DVA runway. If nothing is listed, or only obstacle notes appear, then a DVA is not necessary. If a DP appears, development of a DVA becomes an option.

2. If the location is not listed, query the NFDC Web site at <http://nfdc.faa.gov>, and select the Special Procedures link to determine if a "special" instrument approach procedure exists at that airport/heliport. If there is a special procedure, the Regional Flight Standards All Weather Office (AWO) can supply FAA Form 8260-15A for ODP information when requested by the facility.

NOTE-

If the TPP or AWO indicates IFR departures N/A for any given runway, then a DVA is not authorized.

3. If the ATM elects to request a DVA, use the sample memorandum below as a guide (see FIG 3-9-2). Specify if the request is to establish, modify, or cancel a DVA. If modifying or canceling a DVA, attach the memorandum that authorizes the current DVA. The DVA request must include the following:

(a) Airport identifier.

(b) Desired DVA runway(s).

(c) Requested DVA method. Specify a range of operational headings by starting from the extreme left heading proceeding clockwise (CW) to the extreme right heading as viewed from the departure runway in the direction of departure (for example, Runway 36, 330 CW 030), or isolate a penetrating obstacle(s) by identifying that obstacle(s) either by DOF number or range/bearing from airport.

(d) Maximum Extent (Distance) from Departure Runway.

(e) Radar Type/Beacon Type. Provide whether the facility has an ASR-9 with Mode S beacon system.

(f) Facility Hours of Operation.

FIG 3-8-2
Sample DVA Memo



Federal Aviation Administration

Memorandum

Date: March 10, 2011

To: John Bickerstaff, Manager, Terminal Procedures and Charting Group, AJV-35
 THRU: Mark Ward, Manager, Eastern Operations Support Group, AJV-E2

From: Steve Jones, Air Traffic Manager, XYZ TRACON

Prepared by: Joseph B. Specialist, Support Specialist

Subject: Diverse Vector Area (DVA) Request

XYZ TRACON requests the following DVA action as specified for the following airport(s) based on the information provided below:

<u>ACTION</u>	<u>AIRPORT</u>	<u>RWY</u>	<u>REQUESTED DVA METHOD</u>	<u>DIST FROM RWY</u>
ESTABLISH	KABC	35R	Range of Headings 320 CW 020	Within 18NM
ESTABLISH	KABC	17L	Range of Headings 140 CW 200	Within 20NM
MODIFY	KXYZ	15	Isolate Penetrating Obstacle DOF 05-00234	
CANCEL	KDEF	22		

Radar Type/Beacon Type: ASR-8 with ATCBI-5

Hours of Operation: 0600-2300 local

POC is Joe Specialist, XYZ TRACON, 416-555-9988.

Attachments:

1. KXYZ DVA authorization memorandum dated October 28, 2008.
2. KDEF DVA authorization memorandum dated February, 16, 2009.

b. Forward DVA requests to the Terminal Procedures and Charting Group through the appropriate Service Area OSG Manager.

c. When a DVA is established, it will be documented and provided to the facility by the Terminal Procedures and Charting Group on FAA Form 8260-15D, Diverse Vector Area (DVA). The ATM must then prepare a facility directive describing procedures for radar vectoring IFR departures below the MVA including:

1. Textual or graphical description of the limits of each airport's DVA for each runway end.

2. Where required, specific radar routes, depicted on the radar display, where radar vectors are provided to aircraft below the MVA.

3. Free vectoring areas, in which random vectoring may be accomplished below the MVA.

d. IFR aircraft climbing within a DVA must not be assigned an altitude restriction below the MVA. When leaving the confines of the DVA, ensure the aircraft reaches the MVA or has reported leaving the altitude of the obstacle(s) for which the MVA was created, climbing to an altitude at least 1,000 feet above the obstacle.

e. Headings must not be assigned beyond those authorized by the DVA prior to reaching the MVA.

f. Ensure all controllers are familiar with the provisions of the facility directive before vectoring aircraft in accordance with DVA procedures.

Section 9. Color Displays–Terminal

3–9–1. COLOR USE ON ATC DISPLAYS

Color use on terminal systems was developed jointly with the Terminal Safety and Operations Support Office and the Terminal Automation Human Factors Team. This section provides guidelines on the use of color on ATC displays through a national standard for terminal air traffic displays. These guidelines are intended to standardize the use of colors across the terminal systems. Any use outside these guidelines must be developed jointly with the Terminal Safety and Operations Support Office, the appropriate Service Area Director, and the Terminal Automation Human Factors Team. All use of color on ATC displays must fall within these guidelines, except for MEARTS:

a. Whenever color capabilities exist, the following National Color Standard for Terminal Systems must be installed:

1. Background must be black.
2. Point out identifier blinking or steady must be yellow.
3. Compass Rose, range rings, maps A and B must be dim gray.
4. Coordination rundown list as follows:
 - (a) Unsent must be green.
 - (b) Unacknowledged must be blinking green.
 - (c) Acknowledged must be steady green.
5. Geographic restriction border, fill, and text must be yellow.
6. Data blocks owned must be white.
7. Limited or partial data blocks unowned must be green.
8. Search target symbol must be blue.
9. Beacon target extent must be green.
10. History trails must be blue.

11. Predicted track line must be white.

12. Minimum separation line must be white.

b. Whenever color is used to identify critical information it must be used with another method of notification such as blinking.

c. Cultural color conventions which cannot be violated include red for danger and yellow for warning.

d. The color pure blue should not be used for text, small symbols, other fine details, or as a background color.

e. Ensure all colors that are used including text and symbols are presented in sufficient contrast.

f. Ensure no more than two colors are assigned to a single data block.

g. Use of color in general should be kept to a minimum. When color is used to denote a specific meaning, e.g., yellow means caution, the number of colors used on a single display must be no more than six and should be constrained to the primary colors of red, yellow, green, blue, orange, and cyan. The optimum number of colors used for coding should be limited to four.

h. The specific colors that are selected for a display must take into account the ambient environment and the capabilities of the specific monitor.

i. Any implementation of color is to be tested in the context and environment to which it was designed.

j. Color use needs to be consistent across all of the displays that a single controller will use.

k. Facility air traffic managers must make all requests for any color changes to color baseline through the Director, Terminal Safety and Operations Support.

Section 3. Letters of Agreement (LOA)

4-3-1. LETTERS OF AGREEMENT

a. Air traffic managers must negotiate a LOA when operational/procedural needs require the cooperation and concurrence of other persons/facilities/organizations. A LOA must be prepared when it is necessary to:

b. Supplement established operational/procedural instructions.

c. Define responsibilities and coordination requirements.

d. Establish or standardize operating methods.

e. Specify special operating conditions or specific air traffic control procedures.

f. Delegate responsibility for ATC service; e.g., approach control service, control boundary jurisdiction, and procedures for coordinating and controlling aircraft where two or more airports have conflicting traffic patterns or overlapping conflicting traffic patterns.

g. Establish responsibilities for:

1. Operating airport equipment.

2. Providing emergency services.

3. Exchange braking action reports with the airport management. As a minimum, procedures must provide for the prompt exchange of reports which indicate runway braking conditions have deteriorated to “fair,” “poor,” or “nil” or have improved to “good.”

4. Reporting operating limitations and hazards.

h. Describe procedures that supplement those contained in FAAO JO 7110.65, Air Traffic Control, or FAAO JO 7110.10, Flight Services, to satisfy a requirement of a military service.

REFERENCE—
FAAO JO 7110.65, Para 1-1-10, Constraints Governing Supplements and Procedural Deviations.

i. Define stereotyped flight plans used for special operations, such as training flights or flight test activities.

j. Describe airspace areas required to segregate special operations.

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

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

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

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

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

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

4-3-2. APPROPRIATE SUBJECTS

Examples of subjects of LOAs are:

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

REFERENCE-
FAAO 7210.3, Para 2-1-30, *Opposite Direction Operations*.

- i. Between an ARTCC and another government agency:
 1. Interfacility coordination for control of ADC aircraft.
 2. Delegation of responsibility for approach control services.
 3. MTR procedures.

- j. Between a tower and another government agency:
 1. Simulated flameout procedures.
 2. Control of helicopter SVFR flights.
 3. Operation of aircraft-arresting barriers.
 4. MTR procedures.
- k. Between a tower and/or FSS and an airport manager/aircraft operator at airports upon which the tower and/or FSS is located:
 1. Airport emergency service.
 2. Operation of airport lighting.
 3. Reporting airport conditions, to include how all PIREP braking action reports of “nil” and “poor” are to be immediately transmitted to the airport operator, and an agreement on actions by air traffic personnel for the immediate cessation of operations on runways subject to “nil” braking action reports.

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

- 4. Control of vehicular traffic on airport movement areas.

NOTE-
The intent of these LOAs is to use them where airports have standard routes that traverse movement areas on a long term basis. These LOAs are not intended to allow short term operations, single situations, or “open-field” clearances.

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

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

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

4-3-3. DEVELOPING LOA

Air traffic managers must take the following action when developing a LOA: (See FIG 4-3-1 and FIG 4-3-2.)

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

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

c. Describe the responsibilities and procedures applicable to each facility and organization involved.

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

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

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

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

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

5. Specify communications and coordination procedures.

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

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

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

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

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

4-3-4. REVIEW BY SERVICE AREA OFFICE

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

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

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

*REFERENCE-
FAAO JO 7110.65, Para 1-1-9, Procedural Letters of Agreement.*

2. Those between an IFR facility and a tower to authorize the separation services prescribed in para 2-1-15, Authorization for Separation Services by Towers, and para 10-5-3, Functional Use of Certified Tower Radar Displays.

4-3-5. APPROVAL

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

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

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

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

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

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

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

REFERENCE—
FAAO JO 7210.3, Para 2–2–14, Facility Directives Repository (FDR).

4–3–6. ANNUAL REVIEW/REVISIONS

a. Review LOAs annually and update as necessary. Examine current LOAs for practices and/or procedures that are no longer required. Reviewing includes both content and relevance that achieve full operational efficiency and customer flexibility.

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

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

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

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

4–3–7. CANCELLATION

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

Section 6. Records

4-6-1. FACILITY RECORDS MANAGEMENT

Manage facility records in accordance with FAAO 1350.15, Records Organization, Transfer, and Destruction Standards.

4-6-2. COLLECTION OF OPERATIONAL DATA

a. Air traffic managers are responsible only for the routine collection and reporting of basic operational information as authorized in this order or by the appropriate service unit. Collection of any data must be considered a secondary function and must not interfere with the accomplishment of operational duties.

b. Air traffic managers must not permit their facilities to participate in special studies and surveys nor agree to the use of facility personnel to tabulate, prepare, or forward to outside organizations or parties any special summaries, abstracts, reports, or aeronautical data unless approved in advance by the Service Area office.

4-6-3. FORMS PREPARATION

a. Exercise care when preparing forms to ensure neatness and accuracy. The forms are a part of the facility's permanent records and subject to review by authorized personnel or agencies.

b. Except as in subpara c, do not erase, strikeover, or make superfluous marks or notations. When it is necessary to correct an entry, type or draw a single horizontal line through the incorrect data, initial that part of the entry, and then enter the correct data.

c. When using an automated Form 7230-4, grammatical and spelling errors may be corrected by use of delete or type-over functions. Substantive changes in contents of remarks should be accomplished by a subsequent or delayed entry. If the computer software used contains a strikeout feature, this feature may be used.

d. Authorized FAA abbreviations and phrase contractions should be used.

e. New daily forms must be put into use at the start of each day's business.

4-6-4. FAA FORM 7230-4, DAILY RECORD OF FACILITY OPERATION

a. Completion of FAA Form 7230-4, Daily Record of Operation. Using agency-approved automation methods to complete FAA Form 7230-4 is preferred to using manual methods.

1. Each air traffic facility, excluding Federal contract towers (FCT) and FAA flight service stations, must use the Comprehensive Electronic Data Analysis and Reporting (CEDAR) program to complete an automated version of FAA Form 7230-4.

2. Where currently in use, facilities and/or TMUs may continue to use the NTML to complete an automated version of the FAA Form 7230-4.

NOTE-

A National Workgroup has been established to develop methods to exchange pertinent data between CEDAR and NTML that is needed to complete FAA Form 7230-4. This method will enable a single method of completing an automated version of the FAA Form 7230-4 while maintaining the unique program functionality capability of both CEDAR/NTML programs.

3. If an automated method is not available to complete FAA form 7230-4, the facility and or traffic management unit must manually complete the form. An example of the Daily Record of Facility Operation follows this section. (See FIG 4-6-1.)

b. The use of FAA Form 7230-4 for individual position assignments is authorized only for the STMCIC, FLMIC, OMIC, TMC, TMCIC, and CIC positions, and positions at the ATCSCC.

4-6-5. PREPARATION OF FAA FORM 7230-4

Personnel responsible for preparation of the Daily Record of Facility Operation, FAA Form 7230-4, must ensure that entries are concise, yet adequately describe the operation of the facility, including any abnormal occurrences. Prepare FAA Form 7230-4 as follows:

a. Use of a typewriter, computer printout, or ink is mandatory. Signatures or handwritten initials must

be in either blue or black ink. Handwritten entries must be printed, rather than in script. REMARKS section entries must be single-spaced.

b. Make all time entries in UTC, except that in the section titled “Personnel Log,” local time must be used for time and attendance purposes.

c. Complete the information required at the top of each form.

d. Make an appropriate notation under “Operating Position” to indicate the extent of the operation described on each form; e.g., “AM,” “All,” “Sector D3,” etc.

e. The first entry in the REMARKS section of each day’s form must indicate the employee responsible for the watch and must be used to show carry-over items. Items to be carried over from the preceding “Daily Record of Facility Operation” are those which will affect the current day’s Daily Record (e.g., equipment outages, runway or airspace status, or coordinated routes/procedures). The last entry on each day’s form must indicate the close of business (COB), consider midnight local time or facility closing time, if earlier, as the close of the day’s business.

f. Employees must sign on/off as follows:

1. When a typed or handwritten FAA Form 7230-4 is used, the employee assuming responsibility for the watch must sign on using their operating initials and must sign the certification statement at the bottom of the form.

2. When an automated FAA Form 7230-4 is used, in lieu of actually signing the form, the employee assuming responsibility for the watch must sign on using their name, e.g., “1430 J. SMITH ON.” Entering the name of the employee assuming responsibility for the watch, in lieu of entering operating initials, serves the same purpose as signing the certification statement at the bottom of the actual form. Additionally, the employee responsible for the watch at the time that the form is printed out must sign the certification statement at the bottom of the form, as when the actual FAA Form 7230-4 is used.

3. When FAA Form 7230-4 is used to indicate position responsibility, record employees initials and exact minute on/off the position.

g. Establish and post a list of equipment checks required during each watch; e.g., recorder checks, siren check, etc. Make an entry (“WCLC”) on FAA Form 7230-4 when the watch checklist has been completed. Notify the organization responsible for corrective action on equipment malfunctions. Record equipment malfunctions, equipment released for service, notification information and/or course of action taken to correct problem, and return of equipment to service. Facilities may establish local forms and procedures for recording and disseminating equipment malfunction and restoration information. Local forms used for recording this information are considered to be supplements to FAA Form 7230-4 and must be filed with it.

NOTE-

At facilities which are closed prior to the beginning of the new business day, changes in status can occur during nonoperational hours. If the status of equipment or other facility operations has changed from status reported on previous days’ FAA Form 7230-4, changes must be noted in Watch Checklist entry, as well as time of status change, if known (e.g., WCLC – ABC VOR RTS 0700). If necessary, place an “E” in the left margin as prescribed in para 4-6-5, Preparation of FAA Form 7230-4.

h. FAA Order 7210.56, Air Traffic Quality Assurance, defines situations requiring a Quality Assurance Review (QAR) and the procedures to be followed to accomplish the review. Promptly notify personnel responsible for conducting the review upon identifying the need for a QAR. Record QARs with the minimum detail necessary in order to identify the initiating incident (for example, unusual go-around, 3-hour tarmac delay) and how it was identified (for example, in-flight evaluation).

1. En Route and Oceanic facilities must use the CEDAR tool to record and disseminate QARs. En Route and Oceanic facilities must also use CEDAR to document the resolutions of QARs.

2. Terminal facilities and flight service stations may utilize an automated version of FAA Form 7230-4 or establish local forms and procedures for recording, disseminating, and documenting the resolution of QARs. Local forms used for recording this information are considered supplements to FAA Form 7230-4 and must be filed with it.

i. Place a large letter “E” in the left hand margin beside entries on equipment malfunctions. The “E” must also be used when equipment is restored to

service. The “E” is not required for facilities using local forms if procedures are established in accordance with subpara g.

NOTE—

The “E” is to be used on entries related to equipment problems which require Technical Operations involvement. The “E” is not required for routine maintenance items or for carryover entries on previously entered equipment malfunctions.

j. Place a large letter “Q” in the left hand margin beside QAR entries. Resolution of QARs, made in accordance with FAAO 7210.56, Air Traffic Quality Assurance, must be indicated by either the responsible person initialing and dating the original “Q” entry, or by a second “Q” entry identifying the incident and person responsible for accomplishing its review. It is not necessary to document the details of the review or corrective actions taken in these log entries provided the persons resolving the QAR maintain adequate notes and records so as to reasonably explain the QAR at a later date. The “Q” is not required for facilities using local forms if procedures are established in accordance with subpara h.

k. When this form is used to describe the operation of radioteletypewriter and radiotelegraph circuits, record the following information:

1. Frequencies being used and type of watch (continuous or scheduled) being maintained on each frequency.

2. A record of each communication, test transmission, or attempted communication except when such information is recorded elsewhere in the facility, the time the communication is completed, the station communicated with, and the frequency used.

l. Employees other than the person responsible for the watch who make an entry must initial or enter initials for each of their own entries.

m. Use additional forms as necessary to complete the reporting of the day’s activity.

n. Make an entry closing out FAA Form 7230–4 at the close of business.

o. The air traffic manager, or his/her designee, must initial the form after reviewing the entries to ensure that the facility operation is adequately and accurately described.

4–6–6. FAA FORM 7230–10, POSITION LOG

a. Air traffic managers must ensure that FAA Form 7230–10, Position Log, or an automated sign on/off procedure is used for position sign on/off. FAA Form 7230–10 must be prepared daily. All logs, including automated ones, must reflect 24 hours or the facility’s official operating hours, if less than 24 hours daily.

b. Position logs must be used as the sole–source record for on the job training instructor (OJTI) and evaluator time and premium pay. As a supporting document for time and attendance (T&A) purposes, position logs which document on the job training (OJT) time must be retained for one year prior to destruction.

c. Prepare FAA Form 7230–10 as follows:

1. Field 1 must contain the facility three–letter identification code.

2. Field 2 must contain a position identifier that is a maximum of five letters and/or numbers, starting in the first space on the left side of the field. Unused spaces must be left blank.

(a) ARTCCs: ARTCCs must use sector identifiers which have been approved by the En Route and Oceanic Area Office.

(b) TERMINALS and FSSs: When there is more than one position of a particular type, establish and use individual identifiers for each position. When only one position of a particular type exists, this field may be left blank.

3. Field 3 must contain a maximum of two letters to show the position type, as follows:

(a) ARTCCs: Starting on the left side of the field, use position codes as follows:

TBL 4-6-1
Field 3 – ARTCC

<i>Designator</i>	<i>Position</i>
A	Assistant Controller
D	Non-Radar Control
F	Flight Data
H or RA	Handoff, Tracker or Radar Associate
R	Radar Control
TM	Traffic Management
O	Other Positions

(b) Terminals: Use two-letter position codes as follows:

TBL 4-6-2
Field 3 – Terminal

<i>Designator</i>	<i>Position</i>
Tower	
AC	Approach Control Cab
CC	Coordinator Cab
CD	Clearance Delivery
FD	Flight Data
GA	Ground Control Assistant
GC	Ground Control
GH	Gate Hold
LA	Local Control Assistant
LC	Local Control
SC	Supervision Cab
TRACON	
AP	Approach Control TRACON
AR	Arrival Radar
CI	Coordinator TRACON
DI	Data TRACON
DR	Departure Radar
FM	Final Monitor Radar
FR	Final Radar
HO	Handoff TRACON
NR	Non-Radar Approach Control
PR	Precision Approach Radar
SI	Supervision TRACON
SR	Satellite Radar
Tower/TRACON	
TM	Traffic Management

- (e) Any special requests.

NOTE-

The passing of this data does not pre-empt the mission commander's responsibility to file a flight plan, nor does it constitute an ATC clearance.

2. The ATCSCC must:

(a) Upon receipt of hurricane reconnaissance mission data, conference the affected ARTCC TMUs and distribute the mission information.

(b) Assist field facilities with traffic flow priorities if the hurricane reconnaissance flight will impact terminal traffic.

3. ARTCC TMUs must:

(a) Upon receipt of hurricane reconnaissance mission data, ensure that they are distributed to appropriate facilities in their jurisdiction.

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

4. Should it become necessary to contact a TEAL or NOAA flight and all other methods of communication are not possible (e.g., direct radio, ARINC, aircraft relay), the Chief, Aerial Reconnaissance Coordinator, All Hurricanes (CARCAH) may be requested to relay messages to/from the aircraft. You may receive a phone call from CARCAH to authenticate the request.

5. Requests to change any portion of the NHOP must be coordinated with System Operations and Safety.

5-3-7. OPEN SKIES TREATY AIRCRAFT PRIORITY FLIGHTS (F and D)

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

NOTE-

OPEN SKIES flights that require priority handling are located in FAA Order JO 7110.65, Para 9-2-22.

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

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

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

NOTE-

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

REFERENCE-

FAAO JO 7110.65, Para 9-2-22.c.1(a)(1), Open Skies Treaty Aircraft.

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

REFERENCE-

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

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

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

f. Air traffic facilities must notify the CARF (540-422-4212/4213) and DTRA Operations (703-767-2003) immediately in the event of any incidents or problems generated by OPEN SKIES aircraft.

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

Part 2. AIR ROUTE TRAFFIC CONTROL CENTERS

Chapter 6. En Route Operations and Services

Section 1. General

6-1-1. AREAS OF OPERATION

The control room is divided into easily managed segments or areas of operation. An area of operation consists of a group of sectors requiring the service of ATCSs. The number of areas authorized is based on the ARTCC's requirements and staffing needs. Vice President of En Route and Oceanic Services approval must be obtained prior to changing the number of areas of operation.

6-1-2. SECTORS

The basic unit in each area of operation is the sector. Sectors are classified as Radar, Non-Radar, or Oceanic and subclassified by altitude strata.

6-1-3. SECTOR CONFIGURATION

a. The size and configuration of sectors are determined by:

1. Traffic volume.
2. Traffic flow.
3. Types of aircraft.
4. Location and activity of terminals.
5. Special operations/procedures.
6. Coordination requirements.
7. Consolidation capability.
8. Radar/radio coverage.
9. Equipment limitations.
10. Airway alignments.

b. Accordingly:

1. Align sector boundaries so as to contain the longest possible segments of airways.

2. Align sector consoles to conform with the primary traffic flow.

3. Distribute the workload equitably among the sectors.

4. Provide for a sector consolidation capability.

c. The lateral boundaries of sectors in different altitude strata need not coincide.

d. A LOA must be prepared when adjacent sectors of two facilities are stratified at different levels.

6-1-4. AREAS OF SPECIALIZATION

ARTCC air traffic managers must divide their control rooms into areas of specialization as sector complexity dictates. ATCSs must be assigned to one or more areas of specialization commensurate with individual qualifications. An area of specialization is a group of interrelated sectors on which an ATCS is required to maintain currency. ARTCC air traffic managers should strive to make areas of specialization coincident with areas of operation. There may be more than one area of specialization in an area of operation. Avoid, if possible, establishing an area of specialization encompassing portions of two areas of operation. The En Route and Oceanic Service Area Office should be notified of changes affecting the number and type of areas of specialization.

6-1-5. OPERATING POSITION DESIGNATORS

a. The following designators may be used to identify operating positions in an ARTCC: (See TBL 6-1-1).

TBL 6-1-1
Operating Position Designators

	<i>Designator</i>	<i>Position</i>
1.	A	Developmental Controller
2.	C	Coordinator
3.	D	Sector Controller
4.	DR	Radio Controller
5.	DSC	Data Systems Coordinator
6.	ERM	ERM Route Metering
7.	FDCS	Flight Data Communications Specialist
8.	M	AMIS Controller
9.	MC	Mission Coordinator
10.	OM	Operations Manager
11.	OS	Operations Supervisor
12.	R	Radar Controller
13.	RH	Radar Handoff
14.	SDCS	Supervisory Data Communications Specialist
15.	STMCIC	Supervisory Traffic Management Coordinator-in-Charge
16.	TMC	Traffic Management Coordinator
17.	WC	Weather Coordinator

b. Facility air traffic managers may use designators other than those listed to accommodate local situations.

6-1-6. FLIGHT PROGRESS STRIP USAGE

Air traffic managers may authorize optional strip marking at specific sectors provided all of the following are met:

a. The sector/position is using an automated system with System Analysis Recording (SAR) capabilities;

b. Computer generated flight progress strips are being posted;

c. Radio and interphone transmissions are being recorded;

d. Control instructions or coordination not recorded on a voice recorder must be documented on the flight progress strip;

e. Standard strip marking procedures are used until the aircraft is in radar contact, the hand-off has been accepted and direct radio communications has been established, except where automated, electronic strips or equivalent are in use (e.g., Ocean21);

f. The members of the radar team concur and ensure no misunderstanding or duplication of workload will exist;

NOTE-

Posting control information onto the flight progress strip serves as an important nonverbal communications tool between members of the control team.

g. Authorized sectors and local optional strip marking procedures are documented in a facility directive;

h. Standard strip marking procedures must be used for aircraft requiring special handling, such as, emergency, holding, etc.; and

i. When training is being conducted at the sector, standard strip marking procedures must be used.

6-1-7. DISPLAY OF TRAFFIC MANAGEMENT ADVISOR (TMA) INFORMATION

Configure TMA delay information for single-center metering (SCM) or adjacent-center metering (ACM) to display TMA schedule information on the main display monitor (MDM).

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 SIGMETs and CWAs and must ensure that sufficient information is disseminated to facilitate the required alert broadcasts.

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 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. Both solicited and unsolicited PIREPs that meet the Urgent PIREP criteria will be distributed immediately via the Leased Service A System (LSAS).

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 H₂S), 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. SO₂ is identifiable as the sharp, acrid odor of a freshly struck match. H₂S 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 as ROUTINE all PIREPs received except those listed above.

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.

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. DATA COMMUNICATION

ARTCC air traffic managers must furnish personnel assigned Flight Data duties a copy of FAAO JO 7110.10, Flight Service, and ensure they are familiar with it.

6-3-5. MTR (IR) AND CHANGES TO PUBLISHED MOA ACTIVITY SCHEDULES

a. ARTCCs must use the procedures as outlined in FAAO JO 7110.10, Flight Services, para 6-5-1 for forwarding these schedules or changes via Service B.

NOTE-

Facilities may develop procedures for forwarding these scheduled MTR/MOA via the GI message provided the "all" option is not utilized and there is no adverse impact on computer processing.

b. The message(s) containing these schedules must be forwarded not more than 24 hours in advance of confirmation of the planned activity.

c. The message must only contain the following and be formatted as per FAAO JO 7110.10, Flight Services, para 6-5-1:

1. The name of the MTR or MOA.
2. The scheduled use times.
(MOA—only if different from published periods).
3. The planned altitudes.
(MOA—only if different from published altitudes).

Section 4. Services

6-4-1. ADVANCE APPROACH INFORMATION

Assign responsibility for issuing advance approach information to a specific position when more than one position could issue the data. Responsibility must be delegated in a directive in accordance with FAAO 1320.1, FAA Directives System. Display the information so that it is accessible to the controllers having need for it.

6-4-2. MINIMUM IFR ALTITUDES (MIA)

Determine minimum IFR altitude information for each control sector and display them at the sector. This must include off-airway minimum IFR altitude information to assist controllers in applying 14 CFR Section 91.177 for off-airway vectors and direct route operations. Facility air traffic managers must determine the appropriate chart/map method for displaying this information at the sector. Forward charts and chart data records to the FIFO for certification and annual review.

NOTE-

1. *This may be accomplished by appending the data on sector charts or MVA charts. Special translucent sectional charts are also available. Special ordering information is contained in FAAO 1720.23, Distribution of Aeronautical Charts and Related Flight Information Publications.*

2. *For guidance in the preparation and review of Mini-mum IFR Altitude charts see FAAO 7210.37, En Route Minimum IFR Altitude (MIA) Sector Charts.*

REFERENCE-

FAAO JO 7210.3, Para 3-8-2, Radar Mapping Standards.

6-4-3. SPECIAL USE FREQUENCIES

Special use frequencies (296.7, 321.3, 364.8 and 369.9MHz) are controller-to-pilot communication channels established to minimize frequency changes for certain military aircraft operating in the high altitude sectors. The specific frequencies must not be publicized. However, information concerning their authorized use may be published in official military documents or in agency directives.

6-4-4. PRACTICE INSTRUMENT APPROACHES

To the extent practicable, each ARTCC should provide IFR separation to aircraft not on IFR flight plans conducting practice instrument approaches to airports where that ARTCC provides approach control service.

a. At locations where IFR separation is applied to VFR aircraft conducting practice instrument approaches and that airport has a nonapproach control tower or a FSS, provisions for handling such aircraft must be included in a letter of agreement. ■

b. ARTCCs must issue a letter to airmen advising users of airports where IFR separation is provided for VFR aircraft conducting practice instrument approaches. The letter should include appropriate frequencies for the airport concerned.

Section 9. Reduced Vertical Separation Minimum (RVSM)

6-9-1. GENERAL

a. RVSM reduces the standard separation between FL290 and FL410 from 2,000 feet to 1,000 feet for those aircraft approved for operation within these altitude strata. The six additional altitudes provide the users fuel savings and operational efficiencies while providing ATC flexibility, mitigation of conflict points, enhanced sector throughput and reduced controller workload for air traffic control operations.

b. RVSM is applied in that airspace from FL290 through FL410 over the domestic United States, Alaska, the Gulf of Mexico where the FAA provides air traffic services, the San Juan FIR, across international borders with Canada and Mexico, and the Pacific and Atlantic Oceanic airspace controlled by the FAA. There are two forms of RVSM airspace:

1. RVSM Airspace. Use of the term RVSM airspace refers to the RVSM exclusive environment. Aircraft operating in this airspace must be RVSM approved.

NOTE-

1. The following non-RVSM aircraft are exceptions to the exclusive RVSM airspace. However, access will be on a workload-permitting basis:

- a. DOD aircraft.
- b. DOD-certified aircraft operated by NASA (T38, F15, F18, WB57, S3, and U2 aircraft only).
- c. MEDEVAC aircraft.
- d. Aircraft being flown by manufacturers for development and certification.
- e. Foreign State aircraft.

2. Aircraft not approved for RVSM operations may transition through RVSM airspace to operate above or below.

2. Transition Airspace. Airspace where both RVSM aircraft and non-RVSM aircraft may be accommodated at all altitudes and RVSM approval is not required. Transition airspace connects airspace wherein conventional separation is applied to RVSM airspace. One thousand feet vertical separation can only be applied between RVSM aircraft. Two thousand feet separation must be applied between non-RVSM aircraft or whenever one of the aircraft is non-RVSM.

c. Non-RVSM exception aircraft may access RVSM airspace in one of the following ways:

1. LOA: Complies with a Letter of Agreement (LOA) for operations within a single or adjacent ARTCCs.

2. File-and-Fly: Files a flight plan and makes the initial request to access RVSM airspace by requesting an ATC clearance.

d. Facilities with RVSM airspace must:

1. Provide guidance in the facility Standard Operating Procedures (SOP) for managing non-RVSM flights.

2. Where available, display the Center Monitor on the Traffic Situation Display (TSD) in each area and the Traffic Management Unit (TMU). This will aid in the coordination and decision making process for approving non-RVSM flights.

6-9-2. FACILITY MANAGER RESPONSIBILITIES

a. Ensure all facility directives are current to support RVSM.

b. Ensure all LOAs, SOPs, and Sector Position Binders are current to support RVSM.

c. Ensure airspace is continually reviewed for impact of RVSM.

d. Ensure all height deviations of 300 feet or more are recorded and forwarded to the FAA Technical Center in Atlantic City, New Jersey at NAARMO@faa.gov.

REFERENCE-

FAAO 7210.56, para 4-1-9, Invalid Mode C Reporting.

6-9-3. OPERATIONS MANAGER-IN-CHARGE RESPONSIBILITIES

Responsibilities must include but not be limited to the following:

a. Maintain an operational awareness of RVSM impact specifically any non-RVSM aircraft being worked within RVSM airspace.

b. Ensure proper coordination is accomplished between the STMC/TMU and the operations

supervisors/controllers-in-charge regarding the accommodation and handling of any non-RVSM aircraft.

c. Ensure, in conjunction with the Traffic Management Officer, that monitor alert values are addressed with RVSM impacts considered.

d. Ensure the proper RVSM software is turned on.

6-9-4. FRONT-LINE MANAGER-IN-CHARGE/CONTROLLER-IN-CHARGE RESPONSIBILITIES

Responsibilities must include but not be limited to the following:

a. Maintain an awareness of all operational impacts associated with RVSM, specifically any non-RVSM aircraft currently within area sectors or projected to be in sectors under his/her area of responsibility.

b. Ensure sector personnel have been properly briefed regarding any known non-RVSM aircraft in or projected to be in sectors under his/her area of responsibility.

c. Ensure sector workload remains manageable when non-RVSM aircraft are in or projected to be in sectors under his/her area of responsibility.

d. Coordinate all non-RVSM aircraft with operational supervisors/CIC as appropriate, both internally and externally, to ensure the aircraft is coordinated and accepted along its route of flight.

e. Non-RVSM Exception Flights Outbound from the U.S. The operational supervisor/CIC from the last area to have communications and operational control of the aircraft in the facility where an aircraft departs RVSM airspace designated for U.S. air traffic control, or exit facility, must coordinate with the international point-of-contact in a timely manner.

f. Ensure controllers at applicable sectors have their DSR MDM properly aligned to display the RVSM indicator depicting those aircraft that are non-RVSM.

6-9-5. NON-RVSM REQUIREMENTS

a. RVSM approval is required for aircraft to operate within RVSM airspace. The operator must

determine that the appropriate State authority has approved the aircraft.

b. DOD, DOD-certified aircraft operated by NASA (T38, F15, F18, WB57, S3, and U2 aircraft only), MEDEVAC, aircraft operated by manufacturers for certification and development, and Foreign State exception aircraft will be accommodated in RVSM airspace on a workload permitting basis.

c. Non-RVSM Exception Flights Inbound to U.S. The TMU at the facility where an aircraft penetrates RVSM airspace designated for U.S. air traffic control, or entry facility, receives the coordination from an international point-of-contact advising of an inbound non-RVSM exception. The TMU must coordinate with the operational supervisor/CIC in a timely manner.

6-9-6. EQUIPMENT SUFFIX AND DISPLAY MANAGEMENT

RVSM aircraft will file the equipment suffix "W" or "Q". NAS automation has been modified to reflect non-RVSM aircraft with a coral box around the fourth character in the altitude segment of the data block. Conflict alert parameters will distinguish between RVSM and non-RVSM aircraft based upon the "W" or "Q" suffix for the appropriate separation standard to be applied.

6-9-7. MOUNTAIN WAVE ACTIVITY (MWA)

In areas of known MWA, aircraft operators have been encouraged to report encountering this weather event and the severity of its impact. Operators may request assistance in the form of reroutes, change of altitude, vectors, or merging target procedures.

6-9-8. WAKE TURBULENCE AND WEATHER RELATED TURBULENCE

a. *Domestic:* Aircraft experiencing turbulence can be anticipated to advise ATC and request a clearance for mitigation in the form of vectors, altitude change, or to fly an offset.

b. *Oceanic:* Aircraft experiencing turbulence can be anticipated to advise ATC and request a revised clearance. In instances where a revised clearance is not possible or practicable, the aircraft may fly a lateral offset not to exceed 2NM from the assigned route or track. Advise ATC as soon as practical and

return to the assigned route when the offset is no longer required.

6-9-9. SUSPENSION OF RVSM

a. Domestic: RVSM will not be suspended in domestic airspace. Should turbulence or other weather phenomena require, separation can be

increased in a defined area and thoroughly coordinated operationally.

b. Oceanic: Air Traffic Service providers will consider suspending RVSM procedures within affected areas when pilot reports of greater than moderate turbulence are received. Within airspace where RVSM procedures are suspended, the vertical separation minimum between all aircraft will be 2,000 feet above FL290.

Chapter 8. NAS En Route Automation

Section 1. General

8-1-1. TRANSITION PROCEDURES

a. Facilities must develop and maintain current detailed procedures for transition to and from the various automated and nonautomated modes of operation.

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 OMIC, STMCIC, FLM, Radar Position (R), 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 order in which they are to be accomplished.

c. The air traffic manager must not cause or permit the operational use of the Direct Access Radar Channel (DARC) solely for purposes of training when the primary operational system is available.

8-1-2. ALTRV FLIGHT DATA PROCESSING

a. Facilities must process ALTRV flight plans as follows:

1. Classified ALTRV data, stationary and/or flight plan information, must not be entered into the computer, processed, stored, or transmitted by the computer unless specific declassification data is provided; for example, “declassified for NOTAM/computer flight plan processing 24 hours in

advance.” In the absence of declassified data, process this information manually and pass to only those personnel with a need to know. All data must be marked with the appropriate level of security classification, collected when notification to all applicable parties is completed, and destroyed according to security guidelines.

NOTE-

The use of a mission plan message is not authorized for processing classified ALTRV flight plans.

2. The military operations specialist at the departure ARTCC or where the ALTRV begins must ensure that unclassified ALTRV missions are entered into the NAS computer to destination or to ALTRV end point.

NOTE-

Base operations within Anchorage ARTCC’s jurisdiction may enter ALTRV flight plans into the NAS computer.

3. All flight plans for military aircraft (including ALTRVs) to or through the Anchorage FIRs must be given normal addressing plus PAZAZQZX and PAZNZQZX.

4. Unclassified ALTRV flight plans that have a block altitude change must be entered to the destination airport or ALTRV end point. An “XXX” must be entered into the route of flight immediately after each fix where a block altitude change is to occur to prevent the production of flight progress strips containing erroneous altitude information. The air traffic specialist working the area where the “XXX” has been entered must change the mission block altitude to what was previously coordinated and remove the “XXX” so that the correct block altitude will be processed to subsequent facilities.

5. Flight Plan Entries for MARSAs and ALTRVs

(a) For domestic flight plans (not leaving U.S. domestic airspace), include “MARSAs” and/or “ALTRVs” in Field 11.

(b) For international flight plans, include the word(s) “MARSAs” and/or “ALTRVs” in Reasons for Special Handling (STS/). Do not include additional/supplemental information in STS/. Include any

additional/supplemental information in Remarks (RMK/).

EXAMPLE–

STS/ALTRV

STS/MARSA RMK/AR20HFAKER1233

IR101E1802X1845 MARSA BAKER23

b. The facility officer who has been designated military liaison and security duties is responsible for the development and implementation of methods for assuring the accuracy and the completeness of ALTRV flight plan and control information.

c. Estimates and revisions of ALTRV flight plans not processed online must be forwarded via the Aeronautical Information System from facility to facility.

8–1–3. COMPUTER DATA RETENTION

a. Retain SAR/CDR computer and DLOG (if recorded) recordings and data communications/console typewriter printouts for 15 days unless they are related to an accident/incident as defined in FAAO 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting. Retention of the latter must be in accordance with FAAO 1350.15, Records, Organization, Transfer, and Destruction Standards, Chapter 14, subparas 8020(1), (a), (b), (c), (d), and (exception).

b. If a request is received to retain computer data following an accident, the printout of the relative data will suffice, and the recording tape/disc may then be returned to service through the normal rotational cycle. The printout data are considered a permanent record and must be retained in accordance with aircraft accident/incident retention requirements. Reduction of the SAR/CDR and DLOG (if recorded) tapes/discs to hard-copy format must be made at the earliest time convenient to the facility involved without derogating the ATC function and without prematurely taking the computer out of ATC service. Do not make these data and printouts a part of the accident/incident package.

c. 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.

d. Treat SAR/CDR and DLOG (if recorded) tapes/discs/*duplicate and/or originals* and data communications/console typewriter printouts related to hijack aircraft the same as voice recorder tapes. (See para 3–4–4, Handling Recorder Tapes or DATs.)

Section 3. Other Reports and Forms

9-3-1. FAA FORM 7210-8, ELT INCIDENT

In order to expedite the data flow necessary for the accomplishment of the ELT investigations, use FAA Form 7210-8, ELT Incident (unit of issue: sheet; NSN: 0052-00-889-5000), for coordination with the Rescue Coordination Center (RCC) when an ELT signal is heard or reported. (See FIG 9-3-1.)

a. Form Disposition. Air traffic managers must ensure that forms prepared for ELT incidents which have not been closed must be readily accessible at the operating position responsible for coordinating with the RCC. Forms prepared for an ELT incident which has been closed must be retained for 15 days except when filed as part of an incident, an accident, or another case file.

b. Instructions for completing FAA Form 7210-8. (See FIG 9-3-1.)

1. Enter the ELT Incident number (#) in the upper right corner of the form.

2. Initial Notification:

(a) Enter the three-letter facility identifier followed by the initials of the person completing the form and the time, and the initials of the persons and the time coordinated with in the RCC and the ROC. If the region does not maintain a ROC, the box may be adapted for local application. Enter the date (UTC) the ELT incident number assigned.

(b) If the ELT signal was first heard by an aircraft, or a ground station reported that an aircraft had first heard an ELT signal, circle Acft and enter the ACID. If the signal was first heard by a ground station, circle GRD Station and enter the station ID. If the first report received was from the RCC stating that an ELT signal was being received via Search and Rescue Satellite, circle SARSAT.

(c) If the signal is heard on only one frequency, circle that frequency. If the signal is reported on both VHF and UHF, circle both frequencies.

(d) If no aircraft has been reported overdue, circle UNK. If a known aircraft is overdue, enter the aircraft ID and record the last known position.

(e) Individual Signal Reports: Enter each ELT signal report received from an aircraft or a ground station emanating from the same geographic area until sufficient reports have been received to pinpoint the signal location. If the investigation reveals that more than one ELT is transmitting in the same general area at the same time, it may be necessary to prepare another FAA Form 7210-8 and handle as separate incidents. (See FIG 9-3-1.)

(f) Time Heard: Enter the time (UTC) an aircraft, a ground station, or SARSAT first received the signal.

(g) Location: Enter the location of the aircraft when the signal was first heard.

(h) Altitude: Enter the altitude(s) of the aircraft reporting the signal.

(i) Remarks: Enter any additional information, such as signal strength, which may be pertinent to the incident investigation.

(j) Enter the presumed location of the ELT. This information is the product of the ARTCC investigation.

3. Additional Notifications/Time (UTC): List any airport managers, base operators, or local police notified and the time of notification. List any other notifications/time, including any ground stations not previously listed on the form.

4. Incident Termination.

(a) List the date and the location where the ELT was discovered. Check the appropriate category for Military/Civilian and Distress/Nondistress.

(b) If the source of the ELT signal was not discovered, enter an applicable statement describing the reason for investigation termination, such as: "all investigative resources exhausted" or "no additional reports received." If a more lengthy explanation is required, enter "See Reverse," and use the Additional Remarks section on the back of the form.

(c) Enter the date (UTC) of the ELT incident closure, followed by the initials of the person recording the closure and the time, and the initials of the persons and the time the closure is coordinated within the RCC and ROC. Enter any other notifications of incident closure by identifying the

facility or organization and record the initials and the time.

5. *Additional Remarks:* This section, on the

back of the form, may be used for overflow information or any information which is too lengthy to be included on the front of the form.

procedures for the use of a memory aid for appropriate operational positions. This memory aid must visually and/or aurally indicate that an aircraft/vehicle/pedestrian is on or near an active runway. Where memory aids for runway use have been established, their use must be mandatory. Where memory aids are not in place, utilize collaborative effort, and develop and implement site-specific memory aids and procedures outlining their use.

b. Facility air traffic managers must include local procedures in the facility directive to assist the local and ground controllers in maintaining awareness of aircraft positions on the airport.

REFERENCE–

FAAO JO 7110.65, Para 3–1–4, Coordination Between Local and Ground Controllers.

FAAO JO 7110.65, Para 3–1–7, Position Determination.

c. FAAO JO 7110.65, Air Traffic Control, contains procedures for the control of aircraft/vehicle movements on active runways. Exceptions may be authorized, upon approval by the Terminal Operations Service Area Director, to allow prearranged coordination where equivalent procedural safeguards exist to preclude a loss of separation. Exceptions must be limited to complex locations with clearly demonstrated extraordinary requirements that cannot be met through the application of the standard procedures in FAAO JO 7110.65, Air Traffic Control. The following are required:

1. A facility directive that clearly defines ground/local/cab coordinator responsibilities and contains safeguards to prevent inadvertent use of runways by local/ground/cab coordinator at the same time and do not rely solely on visual observation (look-and-go).

2. The use of the cab coordinator in runway crossing procedures must have restraints to guard against unanticipated actions by the local controller to prevent traffic conflicts. Coordinators must not approve runway crossings in front of aircraft on the runway awaiting takeoff without first coordinating with the local controller. Similar restraints should be included with regard to landing aircraft; e.g., cutoff points that ensure the runway is clear before landing aircraft arrive over the threshold. Based on a direct knowledge of the local controller's instant traffic situation, the cab coordinator may authorize ground

control to conduct an operation across an active runway. The cab coordinator must ensure the timeliness of all such operations and initiate any necessary action to prevent runway crossing incidents. When not absolutely certain of local control's traffic, the cab coordinator may still effectively function as a communications link between the local controller and the ground controller.

3. A separate facility directive must explicitly outline the responsibilities of the cab coordinator in authorizing active runway crossings. This directive must address and clearly answer the questions of the cab coordinator's function, authority, and accountability in these operations. The Terminal Operations Service Area Director must review and approve this facility directive prior to its implementation.

4. The Terminal Operations Service Area Director must forward a copy of the approved facility directive to the Director of System Operations Airspace and Aeronautical Information Management.

d. Facility air traffic managers at instrumented airports with operating control towers must, in addition to the above, annually review local airport surface diagrams to ensure that the runway centerline heading information is current. This may be accomplished by comparing the posted magnetic headings of the runways shown on the airport obstruction chart, corrected to the current magnetic variation for the facility, with the heading shown on the airport surface diagram. The air traffic manager must review local departure procedures to ensure continued compatibility with the runway headings posted on the airport surface diagram.

e. Air traffic managers must develop a facility directive which specifically defines the responsibilities of local and ground control to ensure that coordination is accomplished to accommodate an aircraft exiting the runway which must enter another taxiway/runway/ramp area, other than the one used to exit the landing runway, in order to taxi clear of the runway.

NOTE–

This directive is only required at facilities where an aircraft exiting the runway must enter another

taxiway/runway/ramp area, other than the one used to exit the landing runway, in order to taxi clear of the runway.

10-1-8. PROCEDURES FOR OPENING AND CLOSING RUNWAYS

Each ATM:

a. Must ensure that the authority, responsibility, and procedures to be used when opening or closing a runway are defined in an LOA with airport management/military operations office. Items which should be addressed, if relevant, are: the use of barriers/visual aids (lighted or unlighted “X”, barricades, etc.), portions of the closed runway available for ground operations such as crossings, and information for issuing NOTAMs. Other items may be included, as appropriate.

NOTE-

Only the airport management/military operations office can close or open a runway.

b. Must develop and provide a tailored checklist to be used when opening and closing a runway. A facility directive must designate the position responsible for completing the checklist. Items which should be included, if relevant, are:

1. Coordination.
 - (a) Airport management.
 - (b) Intra-facility.
 - (c) Inter-facility.
 - (d) Technical operations.
 - (e) Traffic management.
2. Memory aids.
3. Safety Logic System.
4. Status information area.
5. Airfield lighting.
6. NAVAIDs.
7. ATIS.
8. Entry on the daily log.

c. May increase the number of items and/or the level of detail of the opening and closing checklist as they deem necessary.

d. Must ensure that a facility directive includes procedures for the use of a memory aid that visually

and/or aurally indicates that the runway is closed. Where a memory aid for a closed runway has been established, its use must be mandatory. Where a memory aid for a closed runway is not in place, utilize collaborative efforts to develop and implement site-specific memory aid(s) and procedures outlining its use.

NOTE-

When implementing these procedures, one should consider short-term versus long-term closures as well as planned versus unplanned processes.

REFERENCE-

*FAAO JO 7110.65, Para 3-3-1, Landing Area Condition
FAAO JO 7110.65, Para 3-3-2, Closed/Unsafe Runway Information
FAAO JO 7110.65, Para 4-7-12, Airport Conditions
FAAO JO 7210.3, Para 4-7-3, System Impact Reports
FAAO JO 7210.3, Para 17-5-13, Electronic System Impact Reports*

10-1-9. FLIGHT PROGRESS STRIP USAGE

Air traffic managers at automated terminal radar facilities may waive the requirement to use flight progress strips provided:

a. Back-up systems such as multiple radar sites/systems or single site radars with CENRAP are utilized.

b. Local procedures are documented in a facility directive. These procedures should include but not be limited to:

1. Departure areas and/or procedures.
2. Arrival procedures.
3. Overflight handling procedures.
4. Transition from radar to nonradar.
5. Transition from ATTS to non-ATTS.

c. No misunderstanding will occur as a result of no strip usage.

d. Unused flight progress strips, facility developed forms and/or blank notepads must be provided for controller use.

e. Facilities must revert to flight progress strip usage if back-up systems referred to in subpara a above are not available.

10-1-10. LOW VISIBILITY OPERATIONS

a. Facility air traffic managers must participate in developing a local SMGCS plan when the airport is under the guidelines of the National SMGCS plan.

REFERENCE-

AC 120-57, *Surface Movement Guidance and Control System (SMGCS)*.

b. Facility air traffic managers must ensure all operational personnel are properly briefed prior to the effective date of local SMGCS plan. All air traffic procedures included in the SMGCS plan must be contained in a facility directive.

10-1-11. MOBILE CONTROL TOWERS

a. Mobile control towers must be used at FAA locations:

1. To provide services during a move from an old tower structure into a new tower.

2. When repairs, rehabilitation, or installation of new equipment make the tower structure temporarily uninhabitable.

3. During periods of natural emergency; e.g., the tower structure has been damaged by fire, accident, or wind.

4. During national emergencies as required by the DOD at FAA and non-FAA locations.

b. Mobile control towers may be used at non-FAA locations when requested by flying organizations, cities, or other political entities to assist in the operation of fly-ins, air races, etc., provided:

1. The Terminal Operations Area Office, after careful consideration of a request to use FAA personnel and/or equipment, determines that the service is required and can be made available without:

(a) Jeopardizing FAA activities.

(b) Interfering with the gainful employment of competent non-Federal personnel.

2. Non-Federal personnel selected to support the event are properly certificated and rated in accordance with 14 CFR Part 65 for the airport.

3. The requesting organization is apprised that the mobile unit is subject to immediate recall should an emergency arise.

10-1-12. PARTICIPATION IN LOCAL AIRPORT DEICING PLAN (LADP)

a. Officials, at airports operating under 14 CFR Part 107 and Part 139 subject to icing weather conditions with control towers, should develop

LADPs in order to involve all interested parties in the deicing/anti-icing process. Aircraft departing from airports without a LADP are not exempt from any traffic management initiative.

b. The operators of these airports have been requested to host meetings involving airport users and air traffic in a partnership effort to achieve common solutions to local aircraft ground deicing/anti-icing problems. The emphasis is on developing local strategies that minimize the amount of time an aircraft spends on the ground after being deiced/anti-iced.

NOTE-

Deicing is the process of removing existing frozen precipitation, frost, or ice from aircraft surfaces. Anti-icing is the process of preventing accumulation of frozen contaminants on aircraft surfaces. Both processes may involve the application of various fluids to the aircraft.

c. Air traffic managers who receive requests from airport operators to participate in these meetings will use the following guidance:

1. When requested by the airport operator, the air traffic manager must participate in the development of a LADP. Since a LADP can affect an airport acceptance rate and/or departure rate, the air traffic manager must include the participation of the air traffic manager from the appropriate ARTCC, who must participate and/or utilize their traffic management unit (TMU). The plan will be reviewed and updated annually. The plan must include:

(a) A clear definition of triggering mechanism(s) used to implement the LADP, e.g., holdover tables, visible precipitation.

(b) Assignment of responsibility to notify air traffic of implementation and cessation of the LADP.

NOTE-

Air traffic facilities should not become the triggering mechanism except in rare circumstances. If air traffic is designated as the triggering mechanism, submit the proposed LADP to the Terminal Operations Service Area office for approval.

2. Develop or enhance local strategies to manage the number of aircraft at the departure runway queues and minimize the amount of time an aircraft spends on the ground after being deiced.

3. Gate hold procedures, when used as part of a LADP, should be initiated at the time the plan is implemented. The application of gate hold

procedures during deicing/anti-icing operations are not predicated on other requirements of FAAO JO 7210.3.

NOTE-

The pilot-in-command remains the final authority as to aircraft operation. Air traffic is not responsible for tracking or adherence to aircraft holdover times.

4. Coordinate the expected start time, actual start time and stop time of the LADP with the appropriate ARTCC TMU. The ARTCC TMU will forward these times to the ATCSCC.

5. Balance the airport flow to accommodate demand. Adjust the arrival rate with the departure rate. These rates should reflect the number of operations expected to occur during deicing/anti-icing conditions and facilitate minimizing the amount of time an aircraft spends on the ground after being deiced/anti-iced.

6. Aircraft operators at LADP airports are responsible for complying with issued Expect Departure Clearance Time (EDCT) times and will not be exempted from compliance with these times. However, once an aircraft has been deiced/anti-iced, it must be released unless a ground stop applicable to that aircraft is in effect. If a facility believes aircraft operators are not performing deicing/anti-icing in a manner consistent to meet the EDCT time, the facility must notify the ATCSCC through the appropriate TMU.

7. Allocate the available departure slot capacity, when departure rates are reduced because of deicing, consistent with available resources. Facilities should consider the following unprioritized list of options when developing departure allocation procedures.

(a) **OPTION A:** First come, first served. When departure demand exceeds capacity, the air traffic facility will minimize departure delays at the runway queue by using gatehold or an equivalent procedure.

(b) **OPTION B:** Air traffic will determine the departure allocation based upon the departure rate and the stated demand, obtained directly from the users, during a specified time period. For example, air traffic will coordinate with each user and receive their demand for a 15-minute time period. Then, based upon the total airport departure demand for the 15-minute time period, determine the number of flights which the user will be allocated, advise each

user, and determine which flights they will use to fill their allocation.

(c) **OPTION C:** Airport users determine the departure allocation. Air traffic will notify the users of the departure rate in effect and the users will then advise air traffic which flights they will use to fill their allocation. Air traffic will provide input on the coordination process but will not accept an active role in developing the departure allocation.

(d) **OPTION D:** Air traffic determines the departure rate and informs the users of the number of operations expected during a specific time period. Air traffic determines the total percentage of each users' daily operations based upon a "typical busy day" by dividing each of the users total daily operations by the airports total daily operations. Then, air traffic determines each users hourly share by multiplying the users daily percentage times the departure rate. The users will then distribute their hourly share evenly throughout the specific time intervals.

NOTE-

1. *Air traffic may or may not take an active role in determining the percentage of each user's operations on a "typical busy day" and each user's hourly share.*

2. *If a user has only one aircraft scheduled per hour, attempts should be made to accommodate it.*

8. Provide coordination, communication, and feedback with the parties included in the plan. Coordination should take place when airports are forecast to have icing conditions, during deicing/anti-icing and after deicing/anti-icing, to effect necessary adjustments. Prior to and after each winter season, the airport participants should assess the efficiency of the airport plan and address any specific concerns.

9. Develop an air traffic facility training program. Prior to each winter deicing/anti-icing season, conduct annual controller refresher training including, but not limited to, awareness of and sensitivity to the peculiar nature of deicing/anti-icing operations, icing conditions, and minimizing delays at the runway departure queue.

10-1-13. PRECISION OBSTACLE FREE ZONE (POFZ)

Coordinate with the Airport Division and Flight Standards to determine if precision approach operations are impacted by the POFZ. ILS hold lines will need to be relocated if aircraft (vertical surfaces) or vehicles fall within the POFZ.

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 FAAO JO 7110.65, Appendix A, Aircraft Information.

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 Airport/Facility Directory 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 front-line manager/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 front-line manager/CIC position should not be combined with any other position.

7. Ensure front-line managers/CICs review para 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 for Terminal Operations and Terminal Safety and Operations Support approval. Terminal Operations and Terminal Safety and Operations Support directors 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 Director, Terminal Operations (service area office) for approval. ATMs must maintain a copy of the approval correspondence from Terminal Operations.

c. The Director, Terminal 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 Terminal Safety and Operations Support office by September.

10-3-9. 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.

10-3-10. MULTIPLE RUNWAY CROSSINGS

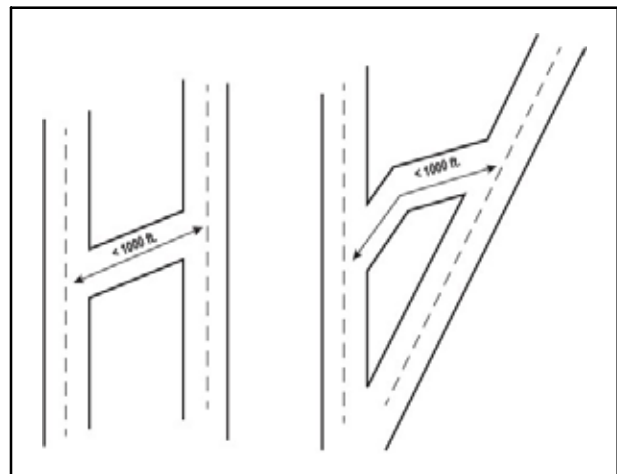
a. Air traffic managers at airports where the taxi route between runway centerlines is less than 1,000 feet must submit a request to the appropriate Terminal Services Director of Operations for approval before authorizing multiple runway crossings.

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 less than 1,000 feet between runway centerlines.

c. Facilities must keep a copy of the approval correspondence issued by the Terminal Services Director of Operations.

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

e. The Terminal Services Director of Operations must ensure that an annual review of multiple runway crossing operations is conducted for those facilities employing this operation. The results of this review must be sent to the Terminal Safety and Operations Support Office by September of each year.

10-3-11. 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 10-3-12, Change in Runway Length Due to Construction
 FAAO JO 7210.3, Para 10-4-1, Automatic Terminal Information Service (ATIS)

10-3-12. 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 10-3-11, Airport Construction
 FAAO JO 7210.3, Para 10-4-1, Automatic Terminal Information Service (ATIS)

10-3-13. 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.

10-3-14. 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 JO 7110.65, Para 7-2-1, Visual Separation

FAAO 7110.98A, Para 8d2

FAAO JO 7110.308, Para 6b1(d), Para 6c2(i)

NOTE-

Facilities with approved arrival/departure window procedures are considered to be in compliance with the provisions of this paragraph.

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

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 report.

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 standard 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 standard 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. Independent approaches may be conducted when:

1. Dual parallel runway centerlines are at least 4,300 feet apart.

2. Triple parallel centerlines are at least 5,000 feet apart and the airport field elevation is less than 1,000 feet MSL.

b. Specially-designed instrument approach procedures annotated with "simultaneous approaches authorized with Rwy XX" are authorized for simultaneous independent approaches.

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. 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, Terminal 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 a waiver has been submitted to and approved by FAA HQ. (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.

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

The concept for conducting simultaneous independent approaches to widely-spaced parallel runways without final monitors is:

a. Specially-designed instrument approach procedures annotated with “Simultaneous Approaches Authorized with Rwy XX” are authorized for simultaneous independent approaches to widely-spaced parallel runways.

1. A separate approach system is required for each parallel runway. A minimum distance of more than 9,000 feet between centerlines is required when dual approaches are used at 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.

2. 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.

3. Closely monitor weather activity that could impact the final approach course. Weather conditions in the vicinity of either final approach course may dictate a change of the approach in use. (See subpara 10-1-6b Note, Selecting Active Runways).

4. All turn-ons and final approaches are monitored by radar. Since the primary responsibility for navigation rests with the pilot, instructions from the controller are limited to those necessary to ensure separation between aircraft. Information and instructions are issued as necessary to contain the aircraft on the final approach course. Aircraft which are observed deviating from the assigned final approach course are instructed to alter course left or right, as appropriate, to return to the desired course. Unless altitude separation is assured between aircraft, immediate action must be taken by the controller monitoring the adjacent parallel approach course to require the aircraft in potential conflict to alter its flight path to avoid the deviating aircraft.

5. Missed approach procedures are established with climbs on diverging courses. To reduce the possibility of error, the missed approach procedure for a single runway operation should be revised, as necessary, to be identical with that of a simultaneous approach operation.

b. The following minimum radar and communications equipment must be provided for monitoring simultaneous approaches:

1. One separate airport surveillance radar display of a model currently certified for ATC functions.

2. Establish separate radar and local control positions for each final approach course.

3. Facility directives must define the position responsible for providing the minimum applicable

Section 5. Terminal Radar

10-5-1. SHUTDOWN OF PAR ANTENNAS

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

10-5-2. RADAR DISPLAY INDICATORS

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

b. Not more than two radar operating positions are required and CTRDs are used on a permanent basis.

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

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

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

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

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

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

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

j. A CTRD installed in the tower cab for LC use must be positioned where it can be conveniently viewed from the local controller's normal sitting or standing position.

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

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

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

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

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

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

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

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

NOTE-

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

2. To provide aircraft with radar traffic advisories.

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

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

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

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

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

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

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

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

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

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

d. Operational applications of tower radar displays other than those outlined in subparas a and b, and/or the delegation of airspace to a tower require a staff study as prescribed in para 2-1-15, Authorization for Separation Services by Towers.

10-5-4. ASR PERFORMANCE CHECKS

Each radar controller is responsible for determining on a day-to-day basis if the quality of their radar

display and video display accuracy is satisfactory for ATC purposes.

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

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

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

REFERENCE-

FAAO JO 7110.65, Para 5-1-2, Alignment Check.

10-5-5. DEFICIENCIES IN SYSTEM

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

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

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

NOTE-

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

10-5-6. RADAR TOLERANCES

ASR systems must conform to the following tolerances for radar performance checks:

Chapter 12. Facility Statistical Data, Reports, and Forms

Section 1. General Information

12-1-1. 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 or OPSNET touch-tone interface (OTTER).

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.

12-1-2. 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.

12-1-3. 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.

12-1-4. 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 12-1-1.)

TBL 12-1-1
Reporting Requirements

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

12-1-5. 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.

Section 2. Position/Service Information Binders

13-2-1. 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.

13-2-2. 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.

13-2-3. 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/coordination 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.

f. En Route Flight Advisory Service (EFAS): Provide graphic depiction of flight watch area and include communications outlets.

Chapter 15. Equipment

Section 1. General

15-1-1. RESPONSIBILITY

FSS air traffic managers must identify requirements for new and replacement equipment and facilities by budget submission.

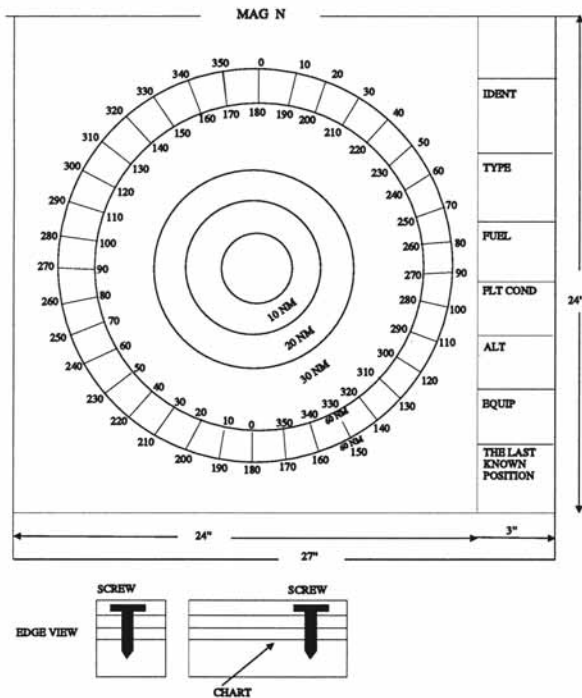
NOTE-

Not applicable to contract facilities.

15-1-2. AIRCRAFT ORIENTATION PLOTTING BOARD

FIG 15-1-1

Example of a Standard Aircraft Orientation Plotting Board



Maintain an aircraft orientation plotting board (see FIG 15-1-1), 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.

15-1-3. 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.

15-1-4. 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.

15-1-5. 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. Organizational Responsibilities

17-2-1. 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.

17-2-2. 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.

17-2-3. 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 airway facilities, 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. Implement national TM initiatives, when necessary, to ensure the orderly flow of traffic throughout the NAS.
- f. Recommend and approve TM alternatives when national initiatives are not appropriate.
- g. Monitor TM initiatives issued throughout the system for effectiveness; take action to cancel or modify where appropriate.
- h. 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.

i. Evaluate proposed TM initiatives to ensure appropriateness.

17-2-4. 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. 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.

10. 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. Designate a TM representative as the primary interface between the Center Weather Service Unit (CWSU) and ATC operational personnel as described in FAAO 7210.38, Center Weather Service Unit (CWSU), as amended.

5. Establish an analysis function referred to in Chapter 17, 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 confer 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 4. Supplemental Duties

17-4-1. 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 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.

17-4-2. 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.

17-4-3. 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.

17-4-4. 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. FAAO 8020.11, 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.

g. FAAO 7210.38, Center Weather Service Unit (CWSU).

NOTE-

In order to provide the maximum TM services, TM personnel should be utilized to perform non-TM functions only as a last resort.

17-4-5. 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 17-4-1, 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

h. Utilize FSM to obtain information about the GDP, and may utilize FSA to monitor the GDP.

17-9-8. 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.

17-9-9. 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.

17-9-10. 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.

17-9-11. 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.

17-9-12. 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.

17-9-13. 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 14. Severe Weather Avoidance Plan (SWAP)

17-14-1. 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.

17-14-2. 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 play-book 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 17. Coded Departure Routes

17-17-1. PURPOSE

This section prescribes policies and guidelines for Coded Departure Route(s) (CDR).

17-17-2. 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.

17-17-3. 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.

17-17-4. 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. Notify activation/deactivation of CDR usage through the ATCSCC Advisory System.

b. The National Flight Data Center must:

1. Forward to the ATCSCC Point of Contact (POC) any changes to published navigational database, (i.e., SIDs/STARs, NAVAIDs, preferred routes, etc.) contained in the National Flight Data Digest(s) (NFDD) that are effective for the subsequent chart date. This data must be provided at least 45 days before 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. Ensure CDRs in the national database are limited to 20 per city pair.
5. Notify the originating Center when a CDR must be modified to accommodate changes within your airspace, e.g., traffic flow changes, airway realignments, and navigational aid designator changes. Exceptions – revisions to Standard Terminal Arrival (STAR) Procedure and Standard Instrument Departure (SID) Procedure numbers will be entered at the ATCSCC.
6. Ensure EAS Stereo Flight Plans utilized for CDRs and CDRs published in the operational database are identical.

7. Report unusable, inaccurate, or unsatisfactory CDRs to the ATCSCC POC or via Planning Team (PT) feedback form available on the ATCSCC web page. Reports must include the CDR designator, affected sectors, and specific description of the impact, and, if appropriate, suggestion for modification.

8. Facilitate the coordination necessary for the usage of abbreviated clearances, when requested.

- d. The terminal facilities must coordinate with their host ARTCC for all matters pertaining to CDRs.**

17-17-5. CDR DATA FORMAT

All Centers must develop and update CDRs in accordance with the following:

- a. Eight-Character Designator.** All facilities must use the eight character naming convention. The eight character name must comply 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 numbers zero and one. (Examples of the naming convention are: ATLLAX9N, BOSLAX01, and EWRSFOGR).

b. CDRs may be developed for aircraft with basic navigational capabilities or with advanced RNAV capabilities. When developing or amending CDRs, the RNAV STAR is preferred. Facilities may include both conventional and RNAV CDRs in their CDR database.

c. All CDRs must have current procedure numbers (SID/STAR) included as a part of the route string.

NOTE-

Examples of acceptable procedure numbers are: LGC8, OTT5, and SWEED5. Examples of unacceptable procedure numbers are: MINKS#, MINKS STAR, MINKS%.

d. All CDR route strings must tie into normal arrival routings into the destination airport.

e. Approved database format:

1. Route string data must include only uppercase characters (A-Z) or numbers with spaces separating each element (J48 ODF MACEY2 ATL).

2. No dots, dashes, asterisks, plus signs, or placeholders are to be included, because most flight planning systems will not accept them.

3. No leading zeroes are permitted in victor or jet airways (J12 is permitted, J012 is not).

f. CDRs for each location must be published via the national CDR database. Updates to the CDR database will coincide with the normal 56-day chart updates. There are two segments of the CDR database. The operational database is a read-only

record of all the current CDRs. The staging database is read-only to users but amendable by FAA facilities. The staging database replaces the operational database on each chart date.

g. CDRs must be processed in accordance with the following timelines:

1. All changes must be entered into the staging database at least 36 days prior to each chart date. The staging database is closed to changes 35 days prior to each chart date.

NOTE-

The timeline for the staging database is available under the Options drop-down menu. In addition to the drop-down menu, the status of the staging database is given at each login to the CDR database.

2. 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.

3. 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.

17-17-6. PROCEDURES

a. Facilities must notify ATCSCC when implementing and terminating CDRs.

b. The ATCSCC must issue an advisory when facilities are implementing or terminating CDRs.

c. Facilities must make real-time reports of unusable or inaccurate CDRs through the ATCSCC for follow-up by the ATCSCC POC.

Section 20. National Playbook

17-20-1. 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.

17-20-2. POLICY

National Playbook routes must only be used after collaboration and coordination between the ATCSCC and the TMU(s) of affected air traffic facilities.

17-20-3. DEFINITION

The National Playbook is a traffic management tool developed to give the ATCSCC, other FAA facilities, and customers a common product for various route scenarios. The purpose of the National Playbook is to aid in expediting route coordination during those periods of constraint on the NAS. The National Playbook contains common scenarios that occur during each severe weather season, and each includes the resource or flow impacted, facilities included, and specific routes for each facility involved. These routes may include any combination of the following NAS elements: Navigation Reference System (NRS) waypoints, RNAV waypoints, RNAV fixes, NAVAIDS, DPs, and STARs. The playbooks are validated by the individual facilities involved in that scenario. The National Playbook is available on the ATCSCC Web site at <http://www.atcsc.faa.gov/Operations/operations.html>.

17-20-4. RESPONSIBILITIES

a. The ATCSCC must:

1. Manage the National Playbook program.
2. Operate as OPI at the national level.

3. As a minimum, conduct a yearly review of the National Playbook routes and procedures.

4. Facilitate the validation process for additions, modifications, updates, and corrections.

5. Coordinate the activation/deactivation of National Playbooks.

6. Maintain a listing of all National Playbook routes on the ATCSCC web page.

b. The NFDC must forward to the ATCSCC point of contact (POC) any changes to published navigational database, (i.e., SIDs/STARs, NAVAIDS, preferred routes, etc.) contained in the National Flight Data Digests (NFDD) that are effective for the subsequent chart date. This data must be provided at least 45 days before the chart date.

c. The En Route and Oceanic Operations Service Area and Terminal Operations Service Area offices must:

1. Ensure facilities submit data as required.
 2. Resolve discrepancies and issues identified.
 3. Submit suggestions for improving the process, when applicable.
- d. The ARTCCs must:
1. Identify, develop, and coordinate National Playbook routes as needed, in accordance with this section.
 2. Supply a POC for the ATCSCC to contact regarding National Playbook routes.
 3. Participate in the validation process of National Playbook routes impacting their facility. The validation of a National Playbook route is considered complete when all facilities affected by that route have confirmed the route as acceptable. Validation may also be accomplished by responding through the Route Management Tool (RMT), where it is available.

4. Report unusable, inaccurate, or unsatisfactory route data contained in the National Playbook to the ATCSCC Strategic Operations office. Reports must include the National Playbook designation and specific description of the data error and, if appropriate, suggestion for modification.

5. Recommend improvements in the process, if applicable.

e. Terminal Facilities must coordinate with their parent ARTCC for all matters pertaining to the National Playbook.

17-20-5. NATIONAL PLAYBOOK DATA FORMAT

a. All ARTCCs must develop and update the National Playbook in accordance with the following:

1. All National Playbook routes that specify the use of an arrival and departure procedure must have that procedure number (SID/STAR) included as part of the route string.

NOTE-

Examples of acceptable procedure numbers are: LGC8, OTT5, and SWEED5. Examples of unacceptable procedure numbers are: MINKS#, MINKS STAR, and MINKS %.

2. Approved database format:

(a) Route string data must include only uppercase characters (A-Z) or numbers with spaces separating each element (i.e., J48 ODF MACEY2 ATL.)

(b) No dots, dashes, asterisks, plus signs, or placeholders are to be included.

(c) No leading zeroes are permitted in victor or jet airways (J12 is permitted, J012 is not).

b. National Playbook routes will be published on the ATCSCC Web site. Updates to the National Playbook will coincide with the normal 56-day chart updates.

c. Changes to the National Playbook must be processed in accordance with the following timelines:

1. All changes require validation with affected facilities and therefore must be submitted to the ATCSCC POC at least 35 days prior to each chart date.

2. All National Playbook additions, deletions, and significant route modifications require coordina-

tion with FAA facilities and customers, and must be coordinated with the ATCSCC and validated at least 35 days prior to each chart date to be eligible for inclusion in that update.

NOTE-

1. The ATCSCC will conduct an annual meeting or telecon to coordinate the National Playbook additions, deletions, and significant route modifications. This coordination will include FAA facilities and customers.

2. Seven days prior to the chart date, a preview version of the National Playbook will be made available to FAA facilities via the ATCSCC Web site.

17-20-6. PROCEDURES

a. National Playbook routes are considered active when the ATCSCC has completed coordination with all impacted facilities. An ATCSCC numbered advisory will be sent by the ATCSCC describing the route being used.

b. 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.

c. 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.

d. 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.

e. 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 21. Traffic Management (TM) Support of Non-Reduced Vertical Separation Minima (RVSM) Aircraft

17-21-1. PURPOSE

This section prescribes policies and guidelines for Traffic Management (TM) support of Non-Reduced Vertical Separation Minima (RVSM) Aircraft.

17-21-2. 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.

17-21-3. 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.

17-21-4. 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.

17-21-5. 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.

17-21-6. 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 24. Traffic Management Advisor (TMA)

17-24-1. PURPOSE

This section establishes procedures and responsibilities for the use of Traffic Management Advisor (TMA).

17-24-2. DEFINITIONS

a. Adjacent Center Metering (ACM). An extension of SCM that provides time-based metering capability to neighboring facilities. There are three categories of ACM processing and control at a facility:

1. Controlling facility – The TMA unit that exercises control over SCM and/or ACM settings and the relevant metering operation.

2. Limited Control - The ability to manage specific ACM settings and activities for relevant metering operations.

3. Non-Controlling - A facility that only has monitoring capability.

b. Coupled Scheduling. An automation process that adds additional meter-points and allows the linking of time-based flow management (TBFM) systems. This results in more optimal balancing and distribution of delays over a greater distance from the airport or meter point.

c. En Route Departure Capability (EDC). A functionality within TMA that assists TMCs in formulating release times to adapted meter points in space.

d. Metering. A method of controlling aircraft demand by scheduling the time at which each aircraft should cross a predetermined fix.

e. Rippling. The recalculation of TMA-generated, frozen scheduled times of arrival (STA) resulting from a manual action at the controlling graphical user interface (GUI). Rippling, also commonly referred to as “rescheduling” or “reshuffling,” can be executed independently but is normally associated with changes to TMA configurations or settings.

f. Single Center Metering (SCM). An application of the TMA tool that provides TMCs with the ability

to view and manage arrival flows to an ARTCC’s internal airports.

g. Time-Based Flow Management (TBFM). The technology and methods of balancing demand and capacity utilizing time.

h. Traffic Flow Management (TFM). The processes and initiatives a TMC uses to balance air traffic demand with system capacity.

i. Traffic Management Advisor (TMA). A comprehensive, automated method of planning efficient arrival trajectories from cruise altitude to the runway threshold.

17-24-3. RESPONSIBILITIES

a. The ATCSCC must:

1. Be the final decision authority for TMA-related operations and initiatives.

2. Manage the equity of overall system delays throughout the NAS.

3. Host/participate in ACM discussions and support all ACM and other time-based metering initiatives. Collaborate on an exit strategy when ACM is no longer required.

4. Include the status of any pertinent TMA-related information on the planning telecons and on the Operational Information System (OIS).

5. Prioritize TBFM activity based on NAS and/or facility constraints.

6. Inform impacted facilities of relevant information that would influence arrival metering decisions or en route EDC operations.

7. Establish and maintain multi-facility communications when necessary for ACM operations.

8. Log ACM events and other TMA activities as appropriate in the NTML.

9. Serve as a repository for TBFM information and TMA reference materials.

b. All TMUs with controlling TMA systems must:

1. Determine appropriate TMA settings.

2. Ensure TMA settings are entered, current, and coordinated.

3. Monitor TMA to determine metering timeframes and coordinate start/stop times and reportable delays with the ATCSCC and affected facilities.

4. Communicate meter start/stop information to operational areas, operating positions, and participating facilities, and enter into NTML as necessary.

5. Enable sector meter list as coordinated.

6. Monitor internal facility metering delays and initiate actions, as appropriate, when values exceed or are projected to exceed delays that can be absorbed by control sectors. Notify the FLM or affected areas/sectors of actions taken and expected outcomes.

7. Monitor multi-metering scenarios. Advise ATCSCC if time based metering (TBM) to multiple airports or fixes is impacting or projected to impact sector or facility level operations.

8. Coordinate changes to the metering plan or updates to the TMA schedule with the affected facilities.

9. Coordinate internally with affected areas and with any ACM supporting facilities before taking action to update the TMA schedule.

10. To the extent possible, avoid making any changes in TMA that cause a global schedule change (rippling) during metering operations. Advise affected facilities and sectors before rippling.

NOTE-

Coordinate and disable the sector meter list when rippling

is necessary. Enable the metering list when rippling is complete.

11. Use TMA to determine release times for internal departures to a metered airport.

12. Monitor arrival and departure flows for potential metering actions/changes.

13. Monitor internal and adjacent facility metering compliance and take appropriate action.

14. Coordinate and disable sector meter list when metering times are no longer in effect.

c. Supporting TMUs performing ACM or coupled scheduling must:

1. Determine appropriate local TMA settings.

2. Ensure TMA settings are entered, current, and coordinated.

3. Coordinate with controlling facility and ATCSCC, as appropriate.

4. Communicate meter start/stop information to operational areas, operating positions, and participating facilities.

5. Enable sector meter list as coordinated.

6. Use TMA to determine release times for internal departures to a metered airport.

7. Monitor arrival and departure flows for potential metering actions/changes.

NOTE-

Coordinate and disable the sector meter list when rippling is necessary. Enable the metering list when rippling is complete.

8. Monitor internal and upstream compliance.

9. Disable the sector meter list when metering has been completed.

Section 8. Special Security Instructions (14 CFR Section 99.7)

19-8-1. 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.

19-8-2. 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.

19-8-3. 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.

19-8-4. DEFINITIONS

a. *Air Defense Identification Zone (ADIZ)*– An area of airspace over land or water in which the ready identification, location, and control of civil aircraft is required in the interest of national security.

b. *Defense Area*– Unless designated as an ADIZ, a Defense Area is any airspace of the U.S., or its territories, in which the control of aircraft is required for reasons of national security.

Section 9. Security Notice (SECNOT)

19-9-1. 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.

19-9-2. 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.

19-9-3. 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 FLM/CIC. If information is not known, broadcast call sign on all frequencies and advise the FLM/CIC of the response. The FLM/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.

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BRIEFING GUIDE



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

**Initiated By: AJV-0
Vice President, Mission Support Services**

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1. PARAGRAPH NUMBER AND TITLE:

2-1-7. AIR TRAFFIC SERVICE (ATS) CONTINUITY

4-3-5. APPROVAL

2. BACKGROUND: This change is in response to recommendations made during the AOV Operational Contingency Plan Audit, dated April 8, 2011. The purpose is to synchronize air traffic policies related to the air traffic contingency plan as contained in FAA Orders JO 7210.3 and 1900.47.

3. CHANGE:

OLD

2-1-7. AIR TRAFFIC SERVICE (ATS) CONTINUITY

When a control tower must be shut down for any reason, if at all possible, make a new ATIS broadcast indicating that the tower is closed.

Add

Add

Add

Add

Add

Add

a. Facilities must develop and maintain current operational plans and procedures to provide continuity of required services during emergency conditions; e.g., power failures, fire, flood, storm damage and similar acts- of- God, civil disturbances, personnel absenteeism due to epidemics, transportation stoppages, etc. The plans must include provisions for the continuity of services during breakdown or maintenance shutdown of critical system components. Emergency plans should consider or provide for:

1. The safest and fastest transition of air traffic service responsibility to an operating facility.

2. Alternate means of providing radar service; e.g., terminal controllers using an ARTCC radar system in the center during a terminal radar outage.

NEW

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, FLM 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.

Delete

Delete

3. LOA between contiguous centers, terminals, and flight service stations providing a specific area to be controlled and duties to be performed should a facility be rendered inoperative or partially handicapped due to a critical system component breakdown or shutdown. Delete

4. LOA between facilities concerning emergency plans and military services. Delete

5. Alternate means for notifying the appropriate facilities when the plan is to be implemented. Delete

6. A priority list for the restoration of the telephone circuits at all ARTCCs and certain large terminal facilities designated by the service area offices. Provide the telephone office serving these facilities with a duplicate of this priority restoration list. Advise the telephone company that the list is applicable only when widespread outages of FAA circuits occur and when restoration would not be in competition with other users. The OMIC or designee must advise the telephone company that priority of restoral is subject to change due to changing or unusual circumstances. Delete

b. Contingency plans must be: Delete

1. Posted in the facility operations quarters. Delete

2. Reviewed annually and updated as required. Delete

3. Included in facility training programs. Delete

c. A copy of current ARTCCs operational plans and revisions must be forwarded to System Operations Security, Military Operations Security and the ATCSCC. Delete

OLD

4-3-5. APPROVAL

title thru d

Add

NEW

4-3-5. APPROVAL

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

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

1. PARAGRAPH NUMBER AND TITLE: 2-1-17. PROHIBITED/RESTRICTED AREAS

2. BACKGROUND: Guidance for the use of Stationary Altitude Reservations (ALTRV) is being updated and clarified in the 7610.4. Associated with this change, separation criteria identical to SUAs criteria is being added to the 7110.65. This change will provide guidance to facilities on how the separation criteria for Stationary ALTRVs may be changed based on the activity in the area.

3. CHANGE:

OLD

2-1-17. PROHIBITED/RESTRICTED AREAS

FAAO JO 7110.65, Air Traffic Control, prescribes separation requirements from special use and ATC assigned airspace. In recognition of the fact that several prohibited/restricted areas are 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 and ATC assigned airspace is to establish a buffer between nonparticipating aircraft and aircraft operations inside special use or ATC assigned airspace. 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 FAAO JO 7110.65 is not considered necessary whenever the prohibited/restricted airspace 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 utilization through direct liaison with the using agency.

NEW

2-1-17. 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.

1. PARAGRAPH NUMBER AND TITLE: 2-1-27. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT

2. BACKGROUND: The reporting of laser illumination incidents enables the FAA, in coordination with local law enforcement, the FBI, and other governmental agencies, such as Department of Homeland Security (DHS) and Transportation Security Administration (TSA) to take action to safeguard flights against unauthorized illuminations and expeditiously locate the source of unauthorized laser transmissions.

3. CHANGE:

OLD
2-1-27. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT
title thru h

NOTE-
Facilities without direct access to the DEN must forward the information through the overlying TRACON or ARTCC facility.

NEW
2-1-27. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT
No Change

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

1. PARAGRAPH NUMBER AND TITLE:
2-1-30. OPPOSITE DIRECTION OPERATIONS
4-3-2. APPROPRIATE SUBJECTS

2. BACKGROUND: Numerous ATSAP reports have been received that identify opposite direction operations as a causal or contributory factor to an event. Additionally, several losses of separation due to opposite direction operations have occurred throughout the NAS. In response to these events, a national workgroup was convened to assess the risks and mitigate the hazards associated with opposite direction operations.

3. CHANGE:

OLD
Add

Add

Add

Add
Add
Add

NEW
2-1-30. OPPOSITE DIRECTION OPERATIONS
a. The provisions of this paragraph are applicable to areas where radar service is provided. Nonradar procedures are contained in FAA Order JO 7110.65, Air Traffic Control, Chapter 6.
b. At locations that conduct opposite direction operations for aircraft receiving IFR separation services, facility directives must define minimum cutoff points identified by distances or fixes for same runway operations between:
1. An arrival and a departure.
2. An arrival and an arrival.
c. The cutoff points established under subparagraph b. must ensure that required longitudinal or lateral separation exists before any other type of separation is applied:

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

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

Add **NOTE–**
If terrain and obstructions allow, the initial heading should meet the provisions of FAA Order JO 7110.65, Paragraph 5-5-7, Passing or Diverging.

Add **REFERENCE–**
FAAO 7110.65, Para 1-2-2, Course Definition
FAAO7110.65, Para 3-8-2, Touch and Go or Stop and Go or Low Approach
FAAO 7110.65, Para 3-8-4, Simultaneous Opposite Direction Operations
FAAO 7110.65, Para 4-8-11, Practice Approaches
FAAO 7110.65, Para 5-5-1, Application
FAAO 7110.65, Para 5-5-4, Minima
FAAO 7110.65, Para 5-5-7, Passing or Diverging
FAAO 7110.65, Para 5-6-3, Vectors Below Minimum Altitude
FAAO 7110.65, Para 7-2-1, Visual Separation

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

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

Add **e. Facility directives must:**
1. Require traffic advisories to both the arriving and departing aircraft.

Add **EXAMPLE–**
OPPOSITE DIRECTION TRAFFIC (distance)
MILE FINAL, (type aircraft).

Add **OPPOSITE DIRECTION TRAFFIC DEPARTING RUNWAY (number), (type aircraft).**

Add **2. Restrict opposite direction same runway operations with opposing traffic inside the applicable cutoff point unless an emergency situation exists.**

Add **3. Ensure that opposite direction operations conducted from parallel runways provide for a turn away from the opposing traffic when inside of the cutoff point to the other runway.**

Add **4. Specify that towers not delegated separation responsibility are responsible to apply the cutoff points between arriving and departing aircraft.**

- Add **f. Facility directives must contain the following minimum coordination requirements:**
- Add **1. Define the position that is responsible for initiating coordination.**
- Add **2. All coordination must be on a recorded line, state “opposite direction,” and include call sign, type, and arrival or departure runway.**
- Add **3. The tower must verbally request opposite direction departures with the TRACON/ARTCC.**
- Add **4. The TRACON/ARTCC must verbally request opposite direction arrivals with the tower.**
- Add **NOTE-**
Facilities that use opposite direction operations as a standard operation due to terrain constraints or noise abatement may be exempted from the provisions of subparagraph f. by the approval process in subparagraph g.
- g. Terminal standard operating procedures orders and all letters of agreement addressing opposite direction operations must be approved by the Service Area Director of Terminal Operations.**

OLD
4-3-2. APPROPRIATE SUBJECTS
 title thru h2
 Add
 Add

NEW
4-3-2. APPROPRIATE SUBJECTS
 No change
3. Opposite direction operations procedures.
REFERENCE-
FAAO 7210.3, Para 2-1-30, Opposite Direction Operations

- 1. PARAGRAPH NUMBER AND TITLE:** 2-1-31. SPECIAL INTEREST SITES
- 2. BACKGROUND:** This change removes the supervisory/CIC facility requirements from FAA Order JO 7110.65, paragraph 9-2-9, and moves them to FAA Order JO 7210.3.
- 3. CHANGE:**

OLD
 Add

NEW
2-1-31. SPECIAL INTEREST SITES

Add

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.

Add

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

Add

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

1. PARAGRAPH NUMBER AND TITLE: 2-3-1. GENERAL

2. BACKGROUND:

3. CHANGE:

OLD

2-3-1. GENERAL

It must be the responsibility of the employees identified in para 2-3-2, Application, to adhere to the requirements of this section.

Add

NEW

2-3-1. GENERAL

a. It must be the responsibility of the employees identified in **Paragraph** 2- 3- 2, Application, to adhere to the requirements of this section.

b. Facility managers must develop procedures for tracking and reporting currency for those employees identified in subparagraph 2-3-2b.

1. PARAGRAPH NUMBER AND TITLE: 5-3-7. OPEN SKIES TREATY AIRCRAFT PRIORITY FLIGHTS (F and D)

2. BACKGROUND: An earlier DCP was initiated to clarify a misunderstanding that SUA must be always be vacated for Open Skies F and D aircraft. However, that DCP raised questions and drew comments regarding its wording. The intent is to clarify that Open Skies F and D aircraft can transit active SUA, but only in accordance with a Letter of Agreement (LOA) coordinated between the using agency and controlling agency that ensures Open Skies F and D aircraft transiting Active SUA are in compliance with FAA JO 7110.65 paragraph 9-3-4, Transiting Active SUA/ATCAA. The LOA does not necessarily need to be specific to Open Skies, but a concern has been that para 9-3-4 could overshadow the rules of FAA JO 7110.65 para 9-2-22.c. and be misinterpreted to allow Open Skies F and D flights to transit active SUA not associated with an ATC facility. When Open Skies F and D aircraft transit SUA, there must be an ATC facility that will provide standard separation services at all

times. Otherwise, the SUA must be vacated. In some instances, coordination between the using agency and controlling agency can designate airspace (i.e., block altitudes, stratification, or partitioning of airspace) that provides additional separation for Open Skies F and D aircraft from activities in SUA.

3. CHANGE:

OLD

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

title thru c

d. Upon initial notification of a priority OPEN SKIES flight, the affected ARTCCs/CERAPs/HCF must inform all SUA-using/scheduling agencies along the route of flight and any other facility/agency it deems necessary within their area of responsibility of the flight path and possible deviation path of the aircraft.

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

Add

NEW

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

No Change

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

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

REFERENCE-
FAAO JO 7110.65, Para 9-2-22.c.1(a)(1), Open Skies Treaty Aircraft

1. PARAGRAPH NUMBER AND TITLE:

- 6-1-7. DISPLAY OF TRAFFIC MANAGEMENT ADVISOR (TMA) INFORMATION
- 17-24-1. PURPOSE
- 17-24-2. DEFINITIONS
- 17-24-3. RESPONSIBILITIES

2. BACKGROUND: One of the first steps in the Joint Planning and Development Office’s (JPDO) plans for the Next-Generation Air Transportation System (NextGen) and the Operational Evolution Partnership (OEP) Flight Plan objectives is to develop and deploy a versatile, nationwide, time-based metering capability. JPDO and OEP plans document an end-to-end time based flow management system that provides a more efficient alternative to today’s miles-in-trail restrictions and ground stops. Traffic Management Advisor (TMA) is a comprehensive, automated method of planning efficient arrival trajectories from cruise altitude to the runway threshold. TMA increases situational awareness through its graphical displays, timelines, and load graphs. TMA 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. Now that Phase 1 of the TMA development is complete, planning for the next generation of Time-Based Flow Management (TBFM) has begun. Phase 2 will include additional TMA airports, improve the functionality of TMA in support of Adjacent Center Metering (ACM), TRACON Metering, Enhanced Departure Capability (EDC), and point-in-space metering.

3. CHANGE:

OLD

Add

Add

OLD

Add

Add

Add

OLD

Add

Add

Add

Add

Add

Add

Add

Add

NEW

6-1-7. DISPLAY OF TRAFFIC MANAGEMENT ADVISOR (TMA) INFORMATION

Configure TMA delay information for single-center metering (SCM) or adjacent-center metering (ACM) to display TMA schedule information on the main display monitor (MDM).

NEW

Section 24. Traffic Management Advisor (TMA)

17-24-1. PURPOSE

This section establishes procedures and responsibilities for the use of Traffic Management Advisor (TMA).

NEW

17-24-2. DEFINITIONS

a. *Adjacent Center Metering (ACM).* An extension of SCM that provides time-based metering capability to neighboring facilities. There are three categories of ACM processing and control at a facility:

1. *Controlling facility* – The TMA unit that exercises control over SCM and/or ACM settings and the relevant metering operation.

2. *Limited Control* - The ability to manage specific ACM settings and activities for relevant metering operations.

3. *Non-Controlling* - A facility that only has monitoring capability.

b. *Coupled Scheduling.* An automation process that adds additional meter-points and allows the linking of time-based flow management (TBFM) systems. This results in more optimal balancing and distribution of delays over a greater distance from the airport or meter point.

c. *En Route Departure Capability (EDC).* A functionality within TMA that assists TMCs in formulating release times to adapted meter points in space.

d. *Metering.* A method of controlling aircraft demand by scheduling the time at which each aircraft should cross a predetermined fix.

Add **e. Rippling. The recalculation of TMA-generated, frozen scheduled times of arrival (STA) resulting from a manual action at the controlling graphical user interface (GUI). Rippling, also commonly referred to as “rescheduling” or “reshuffling,” can be executed independently but is normally associated with changes to TMA configurations or settings.**

Add **f. Single Center Metering (SCM). An application of the TMA tool that provides TMCs with the ability to view and manage arrival flows to an ARTCC’s internal airports.**

Add **g. Time-Based Flow Management (TBFM). The technology and methods of balancing demand and capacity utilizing time.**

Add **h. Traffic Flow Management (TFM). The processes and initiatives a TMC uses to balance air traffic demand with system capacity.**

Add **i. Traffic Management Advisor (TMA). A comprehensive, automated method of planning efficient arrival trajectories from cruise altitude to the runway threshold.**

OLD

NEW

Add **17-24-3. RESPONSIBILITIES**

Add **a. The ATCSCC must:**

Add **1. Be the final decision authority for TMA-related operations and initiatives.**

Add **2. Manage the equity of overall system delays throughout the NAS.**

Add **3. Host/participate in ACM discussions and support all ACM and other time-based metering initiatives. Collaborate on an exit strategy when ACM is no longer required.**

Add **4. Include the status of any pertinent TMA-related information on the planning telecons and on the Operational Information System (OIS).**

Add **5. Prioritize TBFM activity based on NAS and/or facility constraints.**

Add **6. Inform impacted facilities of relevant information that would influence arrival metering decisions or en route EDC operations.**

Add **7. Establish and maintain multi-facility communications when necessary for ACM operations.**

- Add **8. Log ACM events and other TMA activities as appropriate in the NTML.**
- Add **9. Serve as a repository for TBFM information and TMA reference materials.**
- Add **b. All TMUs with controlling TMA systems must:**
- Add **1. Determine appropriate TMA settings.**
- Add **2. Ensure TMA settings are entered, current, and coordinated.**
- Add **3. Monitor TMA to determine metering timeframes and coordinate start/stop times and reportable delays with the ATCSCC and affected facilities.**
- Add **4. Communicate meter start/stop information to operational areas, operating positions, and participating facilities, and enter into NTML as necessary.**
- Add **5. Enable sector meter list as coordinated.**
- Add **6. Monitor internal facility metering delays and initiate actions, as appropriate, when values exceed or are projected to exceed delays that can be absorbed by control sectors. Notify the FLM or affected areas/sectors of actions taken and expected outcomes.**
- Add **7. Monitor multi-metering scenarios. Advise ATCSCC if time based metering (TBM) to multiple airports or fixes is impacting or projected to impact sector or facility level operations.**
- Add **8. Coordinate changes to the metering plan or updates to the TMA schedule with the affected facilities.**
- Add **9. Coordinate internally with affected areas and with any ACM supporting facilities before taking action to update the TMA schedule.**
- Add **10. To the extent possible, avoid making any changes in TMA that cause a global schedule change (rippling) during metering operations. Advise affected facilities and sectors before rippling.**
- Add **NOTE-**
Coordinate and disable the sector meter list when rippling is necessary. Enable the metering list when rippling is complete.
- Add **11. Use TMA to determine release times for internal departures to a metered airport.**
- Add **12. Monitor arrival and departure flows for potential metering actions/changes.**

- Add **13. Monitor internal and adjacent facility metering compliance and take appropriate action.**
- Add **14. Coordinate and disable sector meter list when metering times are no longer in effect.**
- Add **c. Supporting TMUs performing ACM or coupled scheduling must:**
- Add **1. Determine appropriate local TMA settings.**
- Add **2. Ensure TMA settings are entered, current, and coordinated.**
- Add **3. Coordinate with controlling facility and ATCSCC, as appropriate.**
- Add **4. Communicate meter start/stop information to operational areas, operating positions, and participating facilities.**
- Add **5. Enable sector meter list as coordinated.**
- Add **6. Use TMA to determine release times for internal departures to a metered airport.**
- Add **7. Monitor arrival and departure flows for potential metering actions/changes.**
- Add **NOTE-**
Coordinate and disable the sector meter list when rippling is necessary. Enable the metering list when rippling is complete.
- Add **8. Monitor internal and upstream compliance.**
- Add **9. Disable the sector meter list when metering has been completed.**

1. PARAGRAPH NUMBER AND TITLE: 6-3-1. HANDLING OF SIGMETs, CWAs, AND PIREPs

2. BACKGROUND: The FAA is responsible for providing meteorological data to stakeholders of the NAS. This includes disseminating and distributing observations, forecasts, and warning messages that pertain to volcanic activity including volcanic ash. PIREPs for volcanic activity and volcanic ash are provided to ATC in a specified format which is delineated in the Aeronautical Information Manual (AIM). These reports are then forwarded to the Volcanic Ash Advisory Centers (VAAC) and are used to issue volcanic ash SIGMETs. These changes follow new ICAO guidelines as set forth by the International Airways Volcano Watch Operations Group and are in effect as of November 2010.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
<p>6-3-1. HANDLING OF SIGMETs, CWAs, AND PIREPs</p> <p>a thru c1(f)</p> <p>Add</p>	<p>6-3-1. HANDLING OF SIGMETs, CWAs, AND PIREPs</p> <p>No Change</p> <p><u>(g) Detection of sulfur gases (SO₂ or H₂S), associated with volcanic activity, in the cabin.</u></p>

Add

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. SO₂ is identifiable as the sharp, acrid odor of a freshly struck match. H₂S has the odor of rotten eggs.

c1(g)

Renumber to c1(h)

1. PARAGRAPH NUMBER AND TITLE:

- 6-9-1. GENERAL
- 6-9-5. NON-RVSM REQUIREMENTS
- 8-1-2. ALTRV FLIGHT DATA PROCESSING
- 12-1-5. CATEGORIES OF OPERATIONS
- 17-9-13. VFR FLIGHTS
- 17-21-4. EXCEPTED FLIGHTS

2. BACKGROUND: ICAO 2012 changes the way aircraft are required to file. This will require the use of the term MEDEVAC for civilian air ambulance flights in the Special Handling Section of the ICAO flight plan. To maintain consistency between ICAO and HOST flight plan filing, all civilian air ambulance flights will be required to file as a MEDEVAC instead of the previous term Lifeguard.

3. CHANGE:

OLD

6-9-1. GENERAL

title thru b1

NOTE-

- 1. The following non-RVSM aircraft are exceptions to the exclusive RVSM airspace. However, access will be on a workload-permitting basis:
 - a. DOD aircraft.
 - b. DOD certified aircraft operated by NASA (T38, F15, F18, WB57, S3, and U2 aircraft only).
 - c. Lifeguard aircraft.

OLD

6-9-5. NON-RVSM REQUIREMENTS

title thru a

b. DOD, DOD certified aircraft operated by NASA (T38, F15, F18, WB57, S3, and U2 aircraft only), Lifeguard, aircraft operated by manufacturers for certification and development, and Foreign State exception aircraft will be accommodated in RVSM airspace on a workload permitting basis.

OLD

8-1-2. ALTRV FLIGHT DATA PROCESSING

NEW

6-9-1. GENERAL

No Change

NOTE-

- 1. The following non-RVSM aircraft are exceptions to the exclusive RVSM airspace. However, access will be on a workload-permitting basis:
 - a. DOD aircraft.
 - b. DOD-certified aircraft operated by NASA (T38, F15, F18, WB57, S3, and U2 aircraft only).
 - c. MEDEVAC aircraft.

NEW

6-9-5. NON-RVSM REQUIREMENTS

No Change

b. DOD, DOD-certified aircraft operated by NASA (T38, F15, F18, WB57, S3, and U2 aircraft only), MEDEVAC, aircraft operated by manufacturers for certification and development, and Foreign State exception aircraft will be accommodated in RVSM airspace on a workload permitting basis.

NEW

8-1-2. ALTRV FLIGHT DATA PROCESSING

title thru a4

No Change

Add

5. Flight Plan Entries for MARSA and ALTRV

Add

(a) For domestic flight plans (not leaving U.S. domestic airspace), include “MARSA” and/or “ALTRV” in Field 11.

Add

(b) For international flight plans, include the word(s) “MARSA” and/or “ALTRV” in Reasons for Special Handling (STS/). Do not include additional/supplemental information in STS/. Include any additional/supplemental information in Remarks (RMK/).

Add

**EXAMPLES-
STS/ALTRV**

**STS/MARSA RMK/AR20HFAKER1233
IR101E1802X1845 MARSA BAKER23**

OLD

NEW

12-1-5. CATEGORIES OF OPERATIONS

12-1-5. CATEGORIES OF OPERATIONS

title thru a1

No Change

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” (Lifeguard).

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).

OLD

NEW

17-9-13. VFR FLIGHTS

17-9-13. VFR FLIGHTS

title thru a

No Change

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, e.g., emergency, Lifeguard.

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**.

OLD

NEW

17-21-4. EXCEPTED FLIGHTS

17-21-4. EXCEPTED FLIGHTS

title thru b

No Change

c. Active air ambulance utilizing “Lifeguard” call sign;

c. Active air ambulance utilizing **MEDEVAC** call sign;

1. PARAGRAPH NUMBER AND TITLE: 10-1-8. PROCEDURES FOR OPENING AND CLOSING RUNWAYS

2. BACKGROUND: Operations on closed runways are a growing concern in the NAS. This risk arises from several areas: breakdowns in communication, the variety of conditions which prompt closures, lack of (or consistent use of) effective visual aids or memory joggers, etc. Legally, only airport management at civil airports and military operations office are permitted to open or close a runway. There are many reasons that runways may need to be closed. Short-duration closures may be necessary for clearance of winter contaminants from the runway; regular maintenance of airfield pavements, lighting and signage; grass cutting; and airfield inspections, among other reasons. Longer- duration closures may be necessary for airfield construction projects and longer-duration maintenance activities. Regardless of the duration of the closure, close coordination is needed among the ATM, other air traffic facilities, and airport management to ensure all involved maintain safe operations when closing and reopening runways. .

3. CHANGE:

OLD

NEW

Add

10-1-8. PROCEDURES FOR OPENING AND CLOSING RUNWAYS

Add

Each ATM:

Add

a. Must ensure that the authority, responsibility, and procedures to be used when opening or closing a runway are defined in an LOA with airport management/military operations office. Items which should be addressed, if relevant, are: the use of barriers/visual aids (lighted or unlighted “X”, barricades, etc.), portions of the closed runway available for ground operations such as crossings, and information for issuing NOTAMs. Other items may be included, as appropriate.

Add

NOTE-
Only the airport management/military operations office can close or open a runway.

Add

b. Must develop and provide a tailored checklist to be used when opening and closing a runway. A facility directive must designate the position responsible for completing the checklist. Items which should be included, if relevant, are:

Add

1. Coordination.

Add

(a) Airport management.

Add

(b) Intra-facility.

Add

(c) Inter-facility .

Add

(d) Technical operations.

Add

(e) Traffic management.

Add

2. Memory aids.

Add

3. Safety Logic System.

Add

4. Status information area.

Add	<u>5. Airfield lighting.</u>
Add	<u>6. NAVAIDs.</u>
Add	<u>7. ATIS.</u>
Add	<u>8. Entry on the daily log.</u>
Add	<u>c. May increase the number of items and/or the level of detail of the opening and closing checklist as they deem necessary.</u>
Add	<u>d. Must ensure that a facility directive includes procedures for the use of a memory aid that visually and/or aurally indicates that the runway is closed. Where a memory aid for a closed runway has been established, its use must be mandatory. Where a memory aid for a closed runway is not in place, utilize collaborative efforts to develop and implement site- specific memory aid(s) and procedures outlining its use.</u>
Add	<u>NOTE-</u> <u>When implementing these procedures, one should consider short-term versus long-term closures as well as planned versus unplanned processes.</u>
Add	<u>REFERENCE-</u> <u>FAAO JO 7110.65, Para 3-3-1, Landing Area Condition</u> <u>FAAO JO 7110.65, Para 3-3-2, Closed/Unsafe Runway Information</u> <u>FAAO JO 7110.65, Para 4-7-12, Airport Conditions</u> <u>FAAO JO 7210.3, Para 4-7-3, System Impact Reports</u> <u>FAAO JO 7210.3, Para 17-5-13, Electronic System Impact Reports</u>
Paragraphs <u>10-1-8</u> thru <u>10-1-12</u>	Renumber <u>10-1-9</u> _ thru <u>10-1-13</u>

1. PARAGRAPH NUMBER AND TITLE: 10-3-8. LINE UP AND WAIT (LUAW) OPERATIONS

2. BACKGROUND: The original requirements for the facility LUAW directive required each element contained in paragraph 10-3-8 (a) through (i) to be addressed. The inclusion of elements that are not applicable in the facility directive caused confusion while in the draft stage. This change will require the facility to consider each element in their LUAW directive, but only include the elements that are applicable to the operation in the facility directive.

3. CHANGE:

OLD

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

a1 thru a2

3. Prepare a facility directive prescribing:

NEW

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

No Change

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

1. **PARAGRAPH NUMBER AND TITLE:** 10-5-4. ASR PERFORMANCE CHECKS

2. **BACKGROUND:** There are many automated tracking systems in use in the NAS. Technology has progressed faster than our ability to keep directives up to date. Many locations use digital tracking platforms that conduct continuous self- monitoring for performance and alignment. At those locations, controller responsibility to conduct performance checks are no longer necessary.

3. **CHANGE:**

OLD

10-5-4. ASR PERFORMANCE CHECKS

a. Each radar controller is responsible for determining on a day-to-day basis if the quality of their radar display and video display accuracy is satisfactory for ATC purposes. Radar quality and performance is determined by comparing identified targets against data obtained during the commissioning flight check or through minimum performance criteria determined jointly by air traffic and Technical Operations personnel. Radar controllers must be familiar with commissioning flight check and minimum performance data. Air traffic managers must make this information available to the controllers. Aircraft selected for these daily checks should be small aircraft similar in size to those used in the commissioning flight checks.

Add

REFERENCE-
FAAO JO 7110.65, Para 5-1-2, Alignment Check

Add

NEW

10-5-4. ASR PERFORMANCE CHECKS

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

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

Delete

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

b. The daily radar performance check, except at MEARTS and REHOST facilities, must be a part of the routine checks of equipment. (See para 4-6-5, Preparation of FAA Form 7230- 4). The check must be accomplished once each watch. It is recognized that on some watches this check may not be accomplished because of the lack of traffic. The facility air traffic manager may request a special flight check to ensure that the requirements of para 10-5-4, ASR Performance Checks, are met.

Add

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

REFERENCE-
FAAO JO 7110.65, Para 5-1-2, Alignment Check.

Delete

NOTE-
The MEARTS and REHOST operational programs accomplish ASR performance checks automatically.

1. PARAGRAPH NUMBER AND TITLE: 17-2-4. FIELD FACILITIES

2. BACKGROUND: In order to ensure appropriate coordination of route closures, facilities must be required to contact the ATCSCC via telephone or hotline coordination as soon as this information becomes available.

3. CHANGE:

OLD

17-2-4. FIELD FACILITIES

title thru a5

6. The ATCSCC is advised of all known component changes that could have a significant system impact (e.g., NAVAID/radar shutdowns, runway closures, TELCO outages, computer malfunctions or outages, and procedural changes affecting key terminals and/or centers).

NEW

17-2-4. FIELD FACILITIES

No change

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).

1. PARAGRAPH NUMBER AND TITLE: 17-17-5. CDR DATA FORMAT

2. BACKGROUND: There is an increased emphasis on the use of area navigation (RNAV) procedures in the National Airspace System. Currently, the CDR database contains CDRs that contain both conventional and RNAV-based CDRs. However, many facilities are not taking advantage of RNAV standard terminal arrival routes (STAR) at destinations served by these procedures.

3. CHANGE:

OLD

17-17-5. CDR DATA FORMAT

NEW

17-17-5. CDR DATA FORMAT

title thru a3

No Change

b. CDRs may be developed for aircraft with basic navigational capabilities (/A) or with advanced RNAV capabilities (/E, /F, /G, /K, /L, /Q, /R).

b. CDRs may be developed for aircraft with basic navigational capabilities or with advanced RNAV capabilities. **When developing or amending CDRs, the RNAV STAR is preferred. Facilities may include both conventional and RNAV CDRs in their CDR database.**

1. PARAGRAPH NUMBER AND TITLE:

- 19-9-1. POLICY
- 19-9-2. PURPOSE

2. **BACKGROUND:** SECNOTs are currently limited only to security violations associated with aircraft operations in the DC SFRA and TFRs. There have been very few SECNOTs issued under this criteria. However, there is a need for use of SECNOTs for other law enforcement activities involving aircraft that are considered a security threat.

3. CHANGE:

OLD

19-9-1. POLICY

This section contains policy, responsibilities, and procedures for issuing a SECNOT. A SECNOT is only issued when the following occurs: an aircraft violates a TFR/DC SFRA, the pilot has been in contact with ATC and the aircraft identification is known, and the pilot tries to avoid a pilot deviation.

*NOTE-
SECNOTs involving future designations of land-based ADIZ airspace will be handled in accordance with this section*

NEW

19-9-1. 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.**

Delete

OLD

19-9-2. PURPOSE

a. A SECNOT enables the FAA to locate aircraft that violate national security measures. These security measures include the DC SFRA and TFRs.

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.

NEW

19-9-2. 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.**

