CHANGE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Air Traffic Organization Policy

JO 7210.3AA
CHG 2

Effective Date:
September 13, 2018

SUBJ: Facility Operation and Administration

1. Purpose of This Change. This change transmits revised pages to Federal Aviation Administration Order JO 7210.3AA, Facility Operation and Administration, and the Briefing Guide.

2. Audience. This change applies to all Air Traffic Organization (ATO) personnel and anyone using ATO directives.

3. Where Can I Find This Change? This change is available on the FAA Web site at http://faa.gov/air_traffic/publications and https://employees.faa.gov/tools_resources/orders_notices/.

4. Explanation of Policy Change. See the Explanation of Changes attachment which has editorial corrections and changes submitted through normal procedures. The Briefing Guide lists only new or modified material, along with background.

5. Distribution. This change is distributed to selected offices in Washington headquarters, service area offices, regional offices, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, all air traffic field facilities, international aviation field offices, and interested aviation public.

6. Disposition of Transmittal. Retain this transmittal until superseded by a new basic order.

7. Page Control Chart. See the page control chart attachment.

Original Signed By: *Jodi S. McCarthy*

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

Date: August 7, 2018

Explanation of Changes
Change 2

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

a. 1–1–6. SUBMISSION CUTOFF AND EFFECTIVE DATES
1–1–8. RECOMMENDATIONS FOR PROCEDURAL CHANGES

This change adds language to clarify the submission guidelines for changes to FAA Order JO 7210.3. It changes "Cutoff date for Submission" to "Cutoff date for Completion" to clarify that even after changes are submitted to the correspondence mailbox, several months of coordination are often still required before they are completed and submitted internally for publication. It also adds a Note referencing FAA Order JO 7000.5, Procedures for Submitting Changes to Air Traffic Control Publications.

b. 1–2–4. ABBREVIATIONS
2–10–3. ALTIMETER REQUIREMENTS
2–10–4. COMPARISION CHECKS
3–1–1. BASIC EQUIPMENT

This change revises the requirements for facility altimeter equipment and altimeter comparison checks.

c. 2–1–14. APPROACH CONTROL CEILING

This change renames paragraph 2–1–14 from "Approach Control Ceiling" to "Approach Control Airspace" and takes the focus off the ceiling and places it on dimensions of the airspace. It removes the recommended 10,000 feet AGL approach control ceiling limit, removes the requirement for a staff study, and removes the requirement for approval by the Vice President, Air Traffic Services.

d. 2–1–30. REPORTING DIVERTED AIRCRAFT ARRIVING FROM INTERNATIONAL LOCATIONS

This change adds a new requirement for ATC reporting to the Domestic Events Network (DEN).

e. 3–4–5. VSCS DATA RETENTION
4–6–5. PREPARATION OF FAA FORM 7230–4
8–1–3. COMPUTER DATA RETENTION
11–3–2. DATA RETENTION

This change deletes references to typewriter, console typewriter, radioteletypewriter, and radiotelegraph because radioteletypewriter and radiotelegraph circuits are obsolete and are no longer being used in ATC facilities.

f. 3–6–6. TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS

The current recommended radar configuration is for Linear Polarization (LP) to be used during light or no weather/precipitation in the area and for Circular Polarization (CP) to be used when moderate or greater weather/precipitation is in the area. LP is the preferred configuration. However, due to the limitations of the weather product, it will not display moderate or greater weather/precipitation and can result in the dissemination of inaccurate weather information. This change adds a requirement for facilities using the ASR–8/TDX–2000 combination to periodically switch between the two systems in order to monitor all precipitation levels.

g. 3–7–3. DISPLAY MAP DATA
3–8–4. EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)

These paragraphs were updated to clarify the process of airport verification on Radar Video Maps and from where AJV–5 is obtaining the data. The data comes from the Office of Airport Safety and Standards, AAS–1, and is not being created by AJV–5. This has caused confusion regarding the source of this data among radar video map stakeholders. Adding this note to this Order will eliminate this confusion.

h. 4–3–1. LETTERS OF AGREEMENT
4–3–2. APPROPRIATE SUBJECTS

This change updates Runway Safety Areas (RSA) LOA requirements between Air Traffic, the Airport

operator, and any airport tenants that may be permitted into the RSA.

i. 8–2–1. THREE MILE OPERATIONS

This change increases the mileage from within 40 NM from the preferred antenna to within 60 NM from the preferred sensor when using ASR–9 with Mode S or ASR–11 MSSR Beacon.

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

This change deletes the reference to 14 CFR Part 107 in the paragraph.

k. 10–4–6. SIMULTANEOUS INDEPENDENT APPROACHES
10–4–7. SIMULTANEOUS WIDELY–SPACED PARALLEL OPERATIONS

This change incorporates Established on RNP (EoR) into simultaneous independent approaches, both Dual and Triple. There is a requirement for facility managers to ensure local procedures integrate EoR with straight–in approaches to the same or parallel runway(s), and to obtain approval for the instrument approaches to be used during EoR. This change also incorporates RNAV approaches with Track–to–Fix (TF) legs into widely–spaced criteria.

l. 17–2–3. ATCSCC

Due to forecasted growth of the commercial space industry, System Operations Services (AJR), NAS Operations, the ATCSCC has been delegated as the OPR for tactical space operations integration into the NAS.

m. 18–4–1. NONEMERGENCY PARACHUTE OPERATIONS

This change revises the requirement to maintain a record of jump operations to read a record of parachute jump coordination, and deletes the requirement to furnish information regarding parachute jumps to the U.S. Coast Guard. It also changes subparagraph c providing instruction to ATMs as to how to handle unpublished parachute jump sites.

n. Editorial Changes

Fixes references to paragraph 4–6–5, correcting the use “interfacility” and “intrafacility,” and correcting references in paragraphs 4–3–1, 3–8–2, 3–5–1, and 10–3–7.

o. Entire Publication

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

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Change 2

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Part 1. BASIC

Chapter 1. General

Section 1. Introduction

1–1–1. PURPOSE OF THIS ORDER

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

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

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

1. Air Route Traffic Control Centers (ARTCC).

2. Terminal Air Traffic Control Facilities.

3. Flight Service Stations.

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

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

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

1–1–2. AUDIENCE

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

1–1–3. WHERE TO FIND THIS ORDER

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

1–1–4. WHAT THIS ORDER CANCELS

FAA Order JO 7210.3Z, Facility Operation and Administration, dated December 10, 2015, and all changes to it are canceled.

1–1–5. EXPLANATION OF CHANGES

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

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

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

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

Publication Schedule		
Basic or Change	**Cutoff Date for Completion**	**Effective Date of Publication**
JO 7210.3AA	4/27/17	10/12/17
Change 1	10/12/17	3/29/18
Change 2	3/29/18	9/13/18
Change 3	9/13/18	2/28/19
JO 7210.3BB	2/28/19	8/15/19

1–1–7. DELIVERY DATES

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

1–1–8. RECOMMENDATIONS FOR PROCEDURAL CHANGES

The responsibility associated with processing and coordinating revisions to this order is delegated to the Director, Air Traffic Procedures, AJV-8.

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

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

c. Proposed changes must be submitted electronically to the Air Traffic Procedures Correspondence Mailbox at 9-AJV-8-HQ-Correspondence@faa.gov. The submission should include a description of the recommended change, and the proposed language to be used in the order.

NOTE–
For details on the submission process as well as additional AJV–8 processing responsibilities, please see FAA Order JO 7000.5, Procedures for Submitting Changes to Air Traffic Control Publications.

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

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

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

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

TBL 1–1–1
Military Headquarters

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

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

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

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

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

1–1–12. DISTRIBUTION

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

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.

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

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

Abbreviation	Meaning
PAR	Precision approach radar
PB	Pilot briefing
PCS	Power Conditioning System
PDC	Pre–Departure Clearance
PIC	Pilot–in–command
PIREPS	Pilot reports
POC	Point of Contact
PVD	Planned view display
RA	Radar Associate
RAA	Remote Airport Advisory
RADLO	Regional air defense liaison officer
RAIL	Runway alignment indicator lights
RAIS	Remote Airport Information Service
RAPCON	Radar approach control facility (USAF)
RATCF	Radar Air Traffic Control Facility associated with the United States Navy
RCAG	Remote communications air ground facility
RCC	Rescue coordination center
RMT	Route Management Tool
ROC	Regional operations center
ROG	Route Options Generation
ROT	Runway occupancy time
RSU	Runway supervisory unit
RVR	Runway visual range
RVV	Runway visibility value
SAA	Special activity airspace
SAMS	Special Use Airspace Management System
SATCOM	Satellite Communication(s)
SAWS	Stand Alone Weather System
SDP	Surveillance Data Processing
SE	Systems engineer
SECM	Safety and Environmental Compliance Manager
SIA	Status information area
SID	Standard Instrument Departure
SIGMET	Significant meteorological information
SMGCS	Surface movement guidance and control system
SMIS	Safety Management Information System
SMO	System Management Office
SMR	Surface Movement Radar
SOP	Standard operating procedure
SP	Support Specialist(s)
SPECI	Nonroutine (Special) Aviation Weather Report
STARS	Standard terminal automation replacement system
STMC	Supervisor Traffic Management Coordinator
STMCIC	Supervisory Traffic Management Coordinator–in–Charge
STMP	Special traffic management program
SUA	Special use airspace
SVFR	Special visual flight rules
SWAP	Severe weather avoidance plan
SWS	Surface Weather System
T&A	Time and attendance
TAC	Terminal area chart
TACAN	Tactical air navigation aid
TCA	Tactical Customer Advocate
TCAS	Traffic alert collision and avoidance system
TCDD	Tower cab digital display
TCF	Traffic Flow Management Convective Forecast Produce
TDLS	Terminal Data Link System
TDW	Terminal display workstation
TDWR	Terminal Doppler weather radar
TEC	Tower en route control
TELCON	Telephone Conference
TEL–TWEB	Telephone–transcribed weather broadcast
TERPS	Terminal instrument procedures
TFMS	Traffic Flow Management System
TFR	Temporary flight restriction
TIBS	Terminal information broadcast system
TM	Traffic management
TMC	Traffic management coordinator
TMI	Traffic management initiatives
TMU	Traffic management unit
TRACAB	Terminal radar approach control in tower cab
TRACON	Terminal radar approach control
TRSA	Terminal Radar Service Area
TSD	Traffic situation display
TWEB	Transcribed weather broadcast
UFO	Unidentified flying object
UHF	Ultrahigh frequency
UPT	User Preferred Trajectory
USAF	United States Air Force
USN	United States Navy
UTC	Coordinated universal time
VAR	Volcanic activity report
VASI	Visual approach slope indicator
VCE	VSCS/Console Equipment
VEARS	VSCS Emergency Access Radio System
VFR	Visual flight rules
VHF	Very high frequency
VMC	Visual meteorological conditions
VOR	Omnidirectional VHF navigational aid

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

are found to be phonetically similar or difficult to pronounce and are causing a flight identification problem.

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

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

(a) Date/time of occurrence.

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

(c) Call signs involved in the occurrence.

(d) Date occurrence is reported by facility.

(e) Office/person that facility contacted.

b. Each aircraft is expected to broadcast a unique ICAO address. Should two or more aircraft broadcast the same ICAO address within the same ADS–B Service Volume (regardless of altitude), the ADS–B network may be unable to resolve the targets. Facility managers must ensure that operations supervisors report those occurrences to a designated facility official and that the following actions be taken:

1. Scheduled air carrier aircraft:

(a) In the case of carriers listed in Appendix 2. Air Carrier Points of Contact for Aircraft Identification Problems, contact the appropriate airline office or officer and request that action be taken to have the ICAO address reviewed for correctness.

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

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

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

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

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

(a) Date/time of occurrence.

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

(c) Call signs involved in the occurrence.

(d) Date occurrence is reported by facility.

(e) Office/person that facility contacted.

2–1–14. APPROACH CONTROL AIRSPACE

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

2–1–15. 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. SPECIAL AIR TRAFFIC RULES (SATR) AND SPECIAL FLIGHT RULES AREA (SFRA)

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

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

REFERENCE–
14 CFR Part 93, Special Air Traffic Rules
P/CG, SPECIAL AIR TRAFFIC RULES (SATR)
P/CG, SPECIAL FLIGHT RULES AREA (SFRA)

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

2–1–19. ATC SECURITY SERVICES FOR THE WASHINGTON, DC, SPECIAL FLIGHT RULES AREA (DC SFRA)

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

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

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

c. Facility manager must:

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

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

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

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

NOTE–
Airspace sectorization and the workload associated with the normal use of that airspace may degrade the ability of an ATC operation position to provide security services. When this occurs, pilots must be held outside of the security services area in accordance with FAA Order JO 7110.65 Paragraph 9–2–1, Aircraft Carrying Dangerous Materials, subpara b2.

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

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

e. Adjacent Airport Operations

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

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

2–1–20. AIRPORT TRAFFIC PATTERNS

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

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

2–1–21. OBSTACLE IDENTIFICATION SURFACES, OBSTACLE FREE ZONES, RUNWAY SAFETY AREAS, APPROACH/ DEPARTURE HOLD AREAS, AND CLEARWAYS

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

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

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

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

REFERENCE–
P/CG Term – Approach/Departure Hold.

2–1–22. FACILITY IDENTIFICATION

a. Service Area Directors are the focal point to review/approve requests for waivers for facility

identification changes in FAA Order JO 7110.65, Air Traffic Control, Paragraph 2–4–19, Facility Identification, subparas a, b, and c, and FAA Order JO 7110.10, Flight Services, Paragraph 14–1–14, Facility Identification, subparagraphs a, b, and c. If the waiver request is approved, the Service Area Director must ensure that all aeronautical publications are changed to reflect the new identification, and that a Letter to Airmen is published notifying the users of the change.

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

2–1–23. 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.

2–1–24. OUTDOOR LASER DEMONSTRATIONS

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

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

2–1–25. 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.

2–1–26. SUBMISSION OF AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA) DATA

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

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

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

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

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

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

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

2–1–27. 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.

2–1–28. 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–
FAA Order JO 7110.65, Para 2–9–3, Content
FAA Order JO 7110.65, Para 10–2–14, Unauthorized Laser Illumination of Aircraft,.

2–1–29. REPORTING SUSPICIOUS AIRCRAFT/PILOT ACTIVITIES

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

NOTE–
Additional information for ATC on identifying suspicious situations is located in FAA Order JO 7610.4, Special Operations, Paragraph 7-3-1, Suspicious Aircraft/Pilot Activity.

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

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

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

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

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

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

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

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

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

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

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

REFERENCE–
Advisory Circular 91-57, Model Aircraft Operating Standards.

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

2–1–30. REPORTING DIVERTED AIRCRAFT ARRIVING FROM INTERNATIONAL LOCATIONS

Any aircraft departing from an international location that diverts to a U.S. Airport, or is diverted and lands at a U.S. airport different from the original U.S. destination airport, must be reported to the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC). In addition, any diverted aircraft that ATC identifies as suspicious (in accordance with paragraph 2–1–29) must be promptly reported to the DEN ATSC.

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

2–1–31. 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) 267–4700 or 844–432–2962 (toll free). Either phone may be used to contact the DEN. Additionally, if these phone numbers are out of service, alternate back–up bridge phone numbers should be used to contact the DEN: 405–225–2444 or 844–663–9723 (toll free).*

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

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

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

1. Call sign.

2. Number of suspected cases of illness on board.

3. Nature of the illness or other public health risk, if known.

4. Number of persons on board.

5. Number of deaths, if applicable.

6. Departure airport.

7. Arrival airport.

8. Estimated time of arrival.

9. Pilot's intent (for example, continue to destination or divert).

10. Any request for assistance (for example, a need for emergency medical services to meet aircraft at arrival).

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

2–1–32. OPPOSITE DIRECTION OPERATIONS

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

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

a. Each facility must:

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

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

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

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

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

(a) An arrival and a departure.

(b) An arrival and an arrival.

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

3. Require traffic advisories to both aircraft.

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

4. Require the use of a memory aid.

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

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

7. Contain the following minimum coordination requirements:

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

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

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

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

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

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

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

1. Aircraft performance.

2. Type of approach.

3. Operational position configuration.

4. Runway configuration.

5. Weather conditions.

6. Existing facility waivers.

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

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

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

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

3. Require traffic advisories to both aircraft.

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

aircraft). OPPOSITE DIRECTION TRAFFIC, (position), (type aircraft).

4. Require the use of a memory aid.

5. Contain the following minimum coordination requirements:

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

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

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

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

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

2. Traffic advisories to both aircraft.

3. State the phrase "opposite direction" if coordination is required.

4. Memory Aids.

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

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

2–1–33. SPECIAL INTEREST SITES

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

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

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

2–1–34. TRANSPORTATION SECURITY ADMINISTRATION AND FAA JOINT OPERATING PROCEDURES

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

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

b. The above guidance does not preclude the ATM from taking immediate action in the event the ATM learns of an imminent and potentially life threatening security situation. In such situations, as soon as possible, the ATM must notify the DEN ATSC and the FSD of the situation, along with any action taken.

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

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

e. The responsibilities outlined in subparagraph 2–1–33a may be delegated as necessary.

Section 10. Wind/Altimeter Information

2–10–1. WIND INSTRUMENT SENSORS

Air traffic managers must designate in a facility directive which wind sources must be used for operational purposes.

a. Towers equipped with LLWAS may use direct dial or LLWAS wind information for weather observations, except where automated wind information is available.

b. Approach control facilities may use direct dial, LLWAS, or automated display wind information for operational purposes.

c. FSSs must use direct dial or automated display wind information for operational purposes.

d. Other exceptions must be referred to the Manager of System Safety and Procedures for approval.

2–10–2. WIND INDICATOR CROSS CHECK

All FAA facilities having an associated NWS office or military weather station using the same sensing equipment must compare wind direction and speed indicator readings at the beginning of each work day with those of the NWS or military weather station, keeping in mind that the NWS wind direction equipment are oriented to true north. Apply the magnetic variation to ensure a correct reading. Coordinate the time of the cross–check and the associated procedures with the meteorologist–in–charge or other appropriate officer. Wind instrument errors must be handled as follows:

a. If an FAA wind direction indicator is out of tolerance with other indicators on the same sensor by 5 degrees, or if the wind speed indicator reveals a disparity of plus or minus 5 knots, notify the appropriate maintenance personnel immediately for corrective action.

b. If the indicators show an error of over 10 degrees or 10 knots, the equipment must be considered inoperative. In this case, obtain further wind information from other properly functioning wind instruments in the tower, local FSS, the NWS, or military weather office. Notify the appropriate maintenance personnel of all outages.

2–10–3. ALTIMETER REQUIREMENTS

a. At least two sources of altimeter setting information or an approved pressure standard are required in a TRACON, radar approach control (RAPCON), terminal radar approach control in tower cab (TRACAB), combined center/RAPCON (CERAP), radar ATC facility (USN) (RATCF), tower cab, and a FSS that takes weather observations and/or provides Local Airport Advisories (LAA). When two or more facilities are located on the same airport, the requirement may be reduced to one source of altimeter setting information per facility. Aircraft altimeters must not be used in reporting altimeter settings.

NOTE–
Stand alone RADAR approach control facilities (TRACON, RAPCON, RATCF, CERAP) not associated with a control tower are only required to maintain altimeter settings for those airports under their jurisdiction.

b. Each of the following systems is considered to be one (1) source of altimeter setting information for the purposes of this paragraph:

1. Automated Surface Observing System (ASOS)

2. Automated Weather Observing System (AWOS)

3. Stand Alone Weather Sensor (SAWS)

4. Surface Weather System (SWS)

5. Digital Altimeter Setting Indicator (DASI)

6. Altimeter Setting Indicator (ASI)

c. ASOS, AWOS, SAWS, and SWS systems are considered approved pressure standards for the purposes of this paragraph.

2–10–4. COMPARISON CHECKS

a. Comparison checks against another source of altimeter setting information are not required for ASOS, AWOS, SAWS or SWS.

NOTE–
ASOS, AWOS, SAWS, and SWS are equipped with a minimum of two (2) and as many as three (3) digital pressure transducers.

b. Facilities equipped with ASI or DASI:

1. Compare the reading of each ASI daily with a collocated ASOS/AWOS/SAWS/SWS or with the altimeter setting issued by an associated facility with a commissioned ASOS/AWOS/SAWS/SWS that is located either on the airport or within the distances set forth in subparagraphs c and d.

2. When the differences between the two altimeter settings exceeds 0.05 in. Hg. at nonprecision approach locations or 0.02 in. Hg. at precision approach locations, remove the instrument from service and notify Technical Operations personnel. When all ASI instruments in the facility are found to exceed the tolerances, report the altimeter setting as *missing.*

3. When the difference is less than the tolerances specified in subpara 2 above, the value (+ or −) is applied as the correction factor to determine the operational altimeter setting.

(a) On dial−type display ASIs, post the correction factor directly on the face of the instrument. Use the same comparison procedures and determine the correction factor for each instrument in the facility.

(b) On DASI systems, local facility procedures must be developed in coordination with the associated Technical Operations office to make routine comparison checks with ASOS/AWOS/SAWS/SWS and adjust the DASI to display the correct altimeter setting.

NOTE−
Facilities that have DASI equipment that is not FAA owned or maintained must accomplish the procedures in paragraph 2−10−4, b1, b2 and b3(a) monthly.

c. At ASI or DASI locations that are not collocated with a commissioned ASOS/AWOS/SAWS/SWS, make a comparison against the altimeter setting issued by an adjacent facility with a commissioned ASOS/AWOS/SAWS/SWS.

1. At locations where precision approaches are conducted, the facility used for comparison must be located within 10 NM, and at both locations the wind speed must be 12 knots or less with no gusts above 15 knots.

2. At all other locations the distance must not exceed 25 NM, and at both locations the wind speed must be 15 knots or less with no gusts above 20 knots.

3. The difference in elevation does not exceed 100 feet at precision approach locations and 200 feet at all other locations.

4. The station's temperature at both locations must be within 30 degrees Fahrenheit of the standard atmosphere temperature for the station's elevation.

NOTE−
The following formula may be used to determine the standard atmosphere temperature for station elevation:

T = Standard Temperature is 59° F
H = Field Elevation.
0.0036 Standard Atmospheric Temperature change per foot.
H x 0.0036 = Standard Temperature for station elevation.

EXAMPLE−
1. *Tower A field elevation 600 feet: 600 x 0.0036 = 2.16 °F of change, is rounded to 2 °F.*
59 °F − 2 °F = 57 °F standard temperature for Tower A adjusted for elevation.

2. *Tower B field elevation 700 feet: 700 x 0.0036 = 2.52 °F of change, is rounded to 3 °F.*
59 °F − 3 °F = 56 °F standard temperature for Tower B adjusted for elevation.

If both sites are between ± 30 °F {87 °F and 27 °F for Tower A and 86 °F and 26 °F for Tower B} a comparison check is appropriate for temperature.

5. Do not use altimeter setting values when the difference exceeds ± 0.02 in. Hg. at precision approach locations or ± 0.05 in. Hg. at all other locations.

d. An approved pressure standard is required for routine altimeter setting comparison checks at all facilities that exceed the requirements of subparagraph c.

2−10−5. DELIVERY OF ALTIMETER SETTING TO ARTCC

ARTCCs having a requirement for interphone delivery of altimeter settings, or changes of report, must make arrangements with FSS/terminals for delivery to associated sector/s.

2−10−6. BROADCAST DENSITY ALTITUDE ADVISORY

Terminal and FSS facilities at airports with field elevations of 2,000 feet MSL or higher must

Chapter 3. Facility Equipment

Section 1. General

3–1–1. BASIC EQUIPMENT

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

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

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

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.

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

c. The basic operating equipment for FSSs consist of radio and landline communications equipment, flight progress boards, pilot briefing equipment, recorders, "data communication" equipment, displays of aeronautical and meteorological information, direction–finding equipment, aircraft orientation plotting boards, "orientation, 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.

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

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

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

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

3–1–5. CLEANING INSTRUMENT COVERS

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

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

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

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

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

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

a. *The facility has an operational PCS.*

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

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

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

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

REFERENCE–
FAAO JO 6030.31, National Airspace System Failure Response

2. Incidents: Retain the tapes, DATs, or DALRs in accordance with FAAO JO 8020.16, Aircraft Accident and Incident Notification, Investigation, and Reporting; and FAAO 1350.14, Records Management.

3. Hijacking: Retain all relevant tapes, DATs, or DALRs of hijackings from the time communication commences with the aircraft until communication has terminated. After 3 years, contact System Safety and Procedures for the release of the tapes, DATs, or DALRs. In every case, a release from System Safety and Procedures is required to return hijack tapes, DATs, or DALRs to service.

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

3–4–5. VSCS DATA RETENTION

a. Retain the VSCS disc, tape recordings, and data communications printouts for 45 days unless they are related to an accident/incident as defined in accordance with the FAA Records Disposition Reference Table supporting FAA Order 1350.14, Records Management.

b. If a request is received to retain the VSCS communications traffic listings and the system configuration and/or mapping data following an accident, the printout of the relative data will suffice, and the VSCS cassette, disc, and/or tape 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 VSCS cassette, disc, and tape recordings 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 VSCS 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 is available and contained on VSCS cassette, disc, and/or tape, the VSCS cassette, disc, and/or tape must be retained in its entirety. If the data requested is contained on several different media (e.g., VSCS cassette, disc, and/or tape media), the facility may transfer all pertinent data to a common media and label the media a Duplicate Original. After successful transfer, the original VSCS cassette, disc, and/or tape may be returned to service through the normal rotational cycle. However, if a specific request is received to retain the original VSCS cassette, disc, and/or tape, the original VSCS cassette, disc, and/or tape must be retained in its entirety.

d. Treat the VSCS cassette, disc, tape, duplicate originals, and data communications printouts related to hijack aircraft the same as voice recorder tapes. (See Paragraph 3–4–4, Handling Recorder Tapes or DATs, or DALR Storage).

Section 5. Navigational Aids

3–5–1. NAVAID MONITORING

When a facility is assigned responsibility for monitoring NAVAIDs, the air traffic manager must issue monitoring instructions in a facility directive. Notification procedures must be coordinated with the appropriate sector manager.

NOTE–
Monitoring assignments are made by air traffic offices in the Service Centers.

a. VOR/VORTAC:

1. Aurally check the identification at the beginning of each watch.

NOTE–
Upon commissioning of 2nd generation (FA–9996) VORs, aural monitoring is not required.

2. Record the check in accordance with subparagraph 4–6–5g, Preparation of FAA Form 7230–4.

3. If a monitor Category 2 exists:

(a) Take appropriate action as indicated in FAA Order JO 7110.65, Air Traffic Control, Paragraph 2–1–10, NAVAID Malfunctions.

(b) Notify the ARTCC.

NOTE–
1. *VORs, VORTACs, and TACANs have an automatic course alignment and signal monitor (ACM). This monitor is usually connected to a remote alarm. An automatic transfer and shutdown unit (ATU) is installed as part of the ACM. When the ACM detects a malfunction, the ATU switches the range to a standby transmitter. If the standby transmitter does not work properly, the ATU will shut down the facility.*

2. *Monitoring of VOR test signals (VOT) is accomplished by a light or a buzzer monitor and is of local concern only.*

3. *VOR and VORTAC monitor categories:*

a. *Category 1: Alarm feature and identification heard at the control point.*

b. *Category 2: Monitor equipment failure and identification not heard at the control point, but aircraft reports indicate that the facility is operating normally.*

c. *Not constantly monitored by other than ACM and ATU.*

b. TACAN (joint–use airports):

1. Aurally check the identification at the beginning of each watch.

2. Immediately notify the responsible military authority when an alarm is received.

3. Consider the aid inoperative when the alarm cannot be silenced and the identification cannot be heard on the aural monitor.

NOTE–
The military authority will issue NOTAMs for TACANs.

c. DME (to be monitored by the same facility that monitors the associated VOR, VORTAC, or ILS):

1. Press the VOR/DME control oscillator level to the "Facility On" position at the beginning of each watch.

2. Record the check in accordance with subparagraph 4–6–5h, Preparation of FAA Form 7230–4.

d. L/MF aids (to be monitored on a continuous basis):

1. Check the identification at the beginning of each watch.

2. Record the check in accordance with subparagraph 4–6–5h, Preparation of FAA Form 7230–4.

e. NDB (class MH, class H, and class HH):

1. Monitor continuously by automatic means the beacons used as IFR aids.

2. Check the operation at least once each hour if an automatic alarm is not available.

f. ILS

1. Check the ILS monitor panel at the beginning of each watch and record the system status in accordance with subparagraph 4–6–5h, Preparation of FAA Form 7230–4.

2. Apply the procedures described in Paragraph 3–5–2, System Component Malfunctions, when there are indications that a component has failed.

3. If you suspect that the indication is caused by a control line or a control station monitor failure rather than a malfunction of the component itself,

take appropriate action as indicated in FAA Order JO 7110.65, Paragraph 2−1−10, NAVAID Malfunctions. If a malfunction is confirmed, discontinue use of the component involved.

NOTE−
Not all ILS components are provided with remote monitor and control lines (on/off capability). If the failure indication is caused by a control line or a control station monitor failure, the Technical Operations technician must advise if that component will be restored to operation and the monitor status.

g. Compass locators:

1. Monitor continuously by automatic means.

2. Check the operation at least once each hour if an automatic alarm is not available.

3. If the provisions of subparas 1 or 2 above cannot be met, the compass locator may be considered monitored if it is equipped with an automatic monitor and shutdown feature at the site. In this case responsibility for monitoring must not be assigned to the air traffic facility.

3−5−2. SYSTEM COMPONENT MALFUNCTIONS

Take the following action when the alarm signal or a report indicates an air traffic system component malfunction:

a. Try to restore the aid to normal operation.

b. If unable to restore it, discontinue its use and:

1. Notify the appropriate IFR control facility/sector.

2. Notify the appropriate FSS as necessary.

3. Notify Technical Operations personnel in accordance with FAAO JO 6030.31, National Airspace System Failure Response, and locally developed procedures.

4. Issue any necessary NOTAMs, and take other NOTAM related actions as appropriate.

REFERENCE−
FAA Order JO 7210.3, Para 3−5−1, NAVAID Monitoring.
FAA Order 7930.2, Para 4−2−1, NOTAM Composition.

NOTE−
When Technical Operations personnel silence the monitoring system of any NAVAID, they will assume responsibility for the monitoring function.

3−5−3. PROCESSING GPS ANOMALY REPORTS

Forward all information gathered as per FAA Order JO 7110.65, Air Traffic Control, 2−1−10, Paragraph b., NAVAID MALFUNCTIONS, through the TMU to the ATCSCC, and the appropriate Operations Control Center (OCC) or Service Operations Center (SOC).

NOTE−
The WAAS Operations-East Desk at the ATCSCC in Warrenton, Virginia is the national focal point for reporting and response coordination for all GPS anomalies.

3−5−4. ORIGINATING NOTAMs CONCERNING NAVAIDs

Air traffic facilities having responsibility for monitoring NAVAIDs must originate NOTAMs regarding their status unless otherwise directed by the Service Area office.

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

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

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

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

3–6–5. RADAR TARGET SIZING

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Weather/Radar Gate normal setting.

2. Position startup weather level settings.

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

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

3–6–7. PREARRANGED COORDINATION

a. Air traffic managers at radar facilities must determine whether or not a clear operational benefit will result by establishing prearranged coordination procedures (P–ACP). Such procedures would allow

aircraft under one controller's jurisdiction to penetrate or transit another controller's airspace in a manner that assures approved separation without individual coordination for each aircraft. When reviewing existing P–ACPs, or contemplating the establishment of these procedures, consideration must be given to airspace realignment to preclude coordination/penetration of another operational position's airspace. Prior to implementing a P–ACP, negotiations should be accomplished locally and all affected personnel must be thoroughly trained in the application of the procedures.

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

1. Requirement that the following are fully operational.

(a) Terminal- ATTS

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

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

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

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

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

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

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

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

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

REFERENCE–
FAA Order JO 7110.65, Para 5–4–10, Prearranged Coordination.

3–6–8. OPERATIONAL GUIDANCE FOR FUSION

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

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

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

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

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

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

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

Section 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 subparagraph o, facility air traffic managers may delete items not required):

a. Airports/heliports.

NOTE–
Mission Support Services, Aeronautical Information Services, AJV–5 will verify the accuracy of video maps they produce to ensure the video maps depict only operational airports as defined by the Office of Airport Safety and Standards, AAS–1. Facilities will be notified by AJV–5 that new radar video maps (RVMs) will be sent when a depicted airport is no longer operational.

b. Runway centerline extension and/or final approach course.

REFERENCE–
FAA Order 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. Virtual intersection markings for non-intersecting converging runways if the flight paths intersect within 1NM beyond the departure end of both runways.

NOTE–
The intent of subparagraph 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–
FAA Order 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 3-8-1c2. The MVAC must depict obstacle clearances, outward to the lateral limits of the associated approach control airspace and an appropriate buffer outside the lateral approach control airspace boundaries. As a minimum, this may be accomplished by using the existing single-sensor MVAC for the predominant radar sensor; and

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

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

NOTE–
Mission Support Services–Aeronautical Products, ATC Products Group should be contacted if assistance is required. (See FAAO 8260.3, United States Standard for Terminal Instrument Procedures (TERPS) Chapter 10.)

REFERENCE–
FAA Order JO 7110.65, Para 5–5–4, Minima.

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

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

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

NOTE–
MVAs are established without considering the 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 15−2−1, as a guide when considering ROC reductions in designated mountainous areas. ROC reductions are not authorized where negative effects of precipitous terrain are documented or known having followed the process contained in subparas e2 and 3 below. ROC reductions within designated mountainous areas are only authorized by complying with at least one of the following criteria:

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

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

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

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

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

3. The facility MVAC package must include a detailed account of the steps taken by the facility to determine if the sector will qualify for taking a ROC reduction in the sector. This data will be reviewed by the Service Center Operations Support Group (OSG) and the ATC Products Group personnel for ROC reduction approval. Service Center Operations Support personnel must be the approving authority for ROC reduction criteria compliance with paragraph e1(a) and (b) above. Previously approved reductions in ROC justifications must be resubmitted for approval during a facility's recurring certification process.

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

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

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

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

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

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

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

1. Any locations outside of the Contiguous United States.

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

3. When all of the following conditions are applicable:

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

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

(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.

NOTE−
Mission Support Services, Aeronautical Information Services, AJV−5 will verify the accuracy of video maps they produce to ensure the video maps depict only operational airports as defined by the Office of Airport Safety and Standards, AAS−1. Facilities will be notified by AJV−5 that a new EOVM will be sent when a depicted airport is no longer operational.

(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

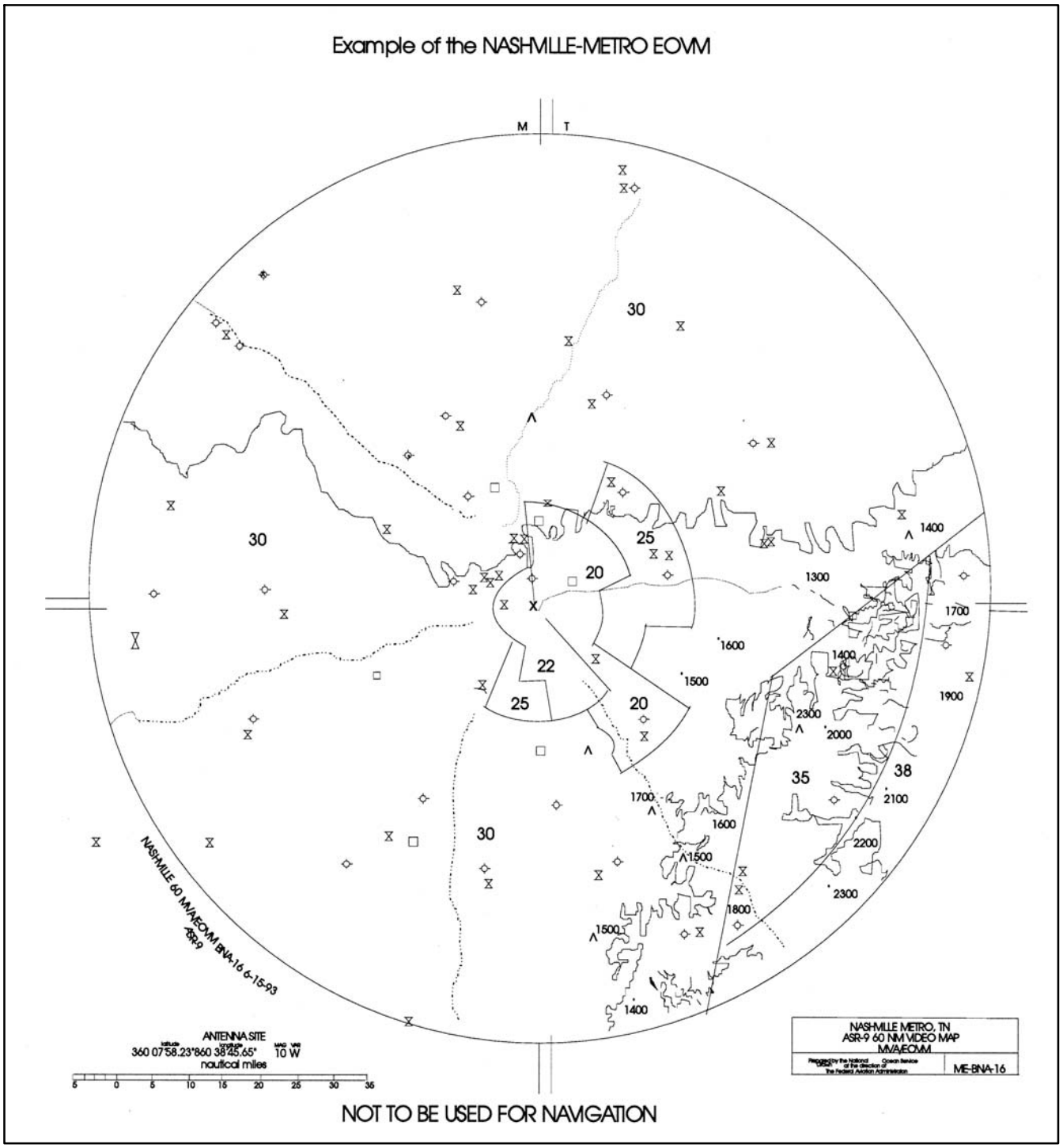
e. EOVM Production: The initial preparation and procurement of the EOVM must be accomplished in accordance with FAAO 7910.1, Aeronautical Video Map Program.

f. EOVM Verification: The initial and subsequent EOVM procurement package must be checked for adequacy and then coordinated with AJV−5 to verify the accuracy of its information. At least once every 2 years, the EOVM must be reviewed for adequacy and coordinated with AJV−5 for accuracy.

g. Facilities will receive a new EOVM from AJV−5, regardless of whether changes were made or requested. ATMs must revise charts immediately when changes affecting the EOVM occur.

NOTE−
AJV−5's review cycle may not be the same as a facility's 2−year review cycle. In an effort to reduce duplication of work, ATMs should align their 2−year review dates with that of AJV−5's review.

FIG 3–8–1
EOVM


Example of the NASHVILLE-METRO EOVM
M
T
30
30
25
20
22
25
20
30
1400
1300
1700
1600
1400
1500
1900
2300
2000
35
38
2100
1700
1600
2200
1500
2300
1800
1500
1400
NASHVILLE 60 MVA/EOVM BNA-16 6-15-93
ASR-9
ANTENNA SITE
360 07 58.23" 860 38 45.65"
MAG VAR 10 W
nautical miles
5 0 5 10 15 20 25 30 35
NASHVILLE METRO, TN
ASR-9 60 NM VIDEO MAP
MVA/EOVM
Prepared by the National Ocean Service of the Department of Commerce for the Federal Aviation Administration
ME-BNA-16
NOT TO BE USED FOR NAVIGATION

Section 2. User Coordination/Conferences/Publicity

4–2–1. LOCAL CONFERENCES

a. Facility air traffic managers must call local conferences, as often as important local problems warrant, for discussing and clarifying facility operational matters. Use discretion before making any policy commitments.

1. Following these conferences, take appropriate action within your jurisdiction.

2. Send two copies of the minutes, or a summary, of each local conference to the appropriate Service Area office and one to each conference member.

b. If a general conference is needed to discuss problems and subjects of a broader nature than those suitable for a local conference, forward such recommendation to the appropriate Service Area office.

4–2–2. PILOT/CONTROLLER OUTREACH: OPERATION RAIN CHECK

The need to expand pilot and controller operational perspectives is very important; therefore, air traffic facilities should maintain effective pilot/controller outreach efforts, such as Operation Rain Check. Conducting seminars, briefings and familiarization experiences remain a great way to enhance pilot awareness of National Airspace System (NAS) functions, safety, and airspace procedures. Emphasis should be placed on operations within Class B, Class C, Class D and Terminal Radar Service Area (TRSA) airspace and, where applicable, on runway safety.

a. Operation Rain Check must.

1. Be performed as an additional duty and must not adversely impact facility resources.

2. Be conducted in an atmosphere that fosters mutual understanding, cooperation and a free exchange of information.

3. Demonstrate a desire to help pilots make use of FAA services, and reflect a spirit of service to NAS operators, while also benefitting controllers.

b. Important success factors to consider for Operation Rain Check:

1. Facility access and security. Use good judgment and proper security measures while planning, setting up and conducting local programs.

REFERENCE–
http://www.faasafety.gov/
FAA Advisory AC 61–91J WINGS – Pilot Proficiency Program
FAA Order 8900.1. Flight Standards Information Management System, Volume 15, FAAS Team Policies and Procedures (http.V/fsims. faa.gov/)
FAA Order JO 7200.21, Partnership for Safety Program

2. Continuous and extensive publicity may be vital to a successful program. FAA Public Affairs may provide guidance on local media relations activities. Also, consider collaborating program agendas and events with the FAA WINGS program representatives.

3. Distribute program announcements and/or information to airport authorities, flight schools, fixed base operators, military airfield managers, and neighboring facilities, including Flight Standards District Offices (FSDO) and Airport District Offices (ADOs).

4. Consider presenting Letters of Appreciation to key program participants.

5. Facility Managers should:

(a) Determine what program materials, resources and other safety organizations would add value to implementing local Operation Rain Check programs.

NOTE–
At locations where more than one air traffic facility exists, consider cooperative efforts.

(b) Ensure locally adopted indoctrination materials comply with Privacy Act stipulations.

(c) Offer participation to Partnership for Safety Local Safety Councils, Runway Safety Action Teams, FSDOs, and Airport Authorities.

(d) Be emphatic about Runway Safety and should include the following on the agenda:

(1) Runway incursion/excursion prevention.

(2) Airport signage and markings.

(3) Local runway safety related issues.

(4) Pilot/controller communications and read backs.

NOTE–

1. *Runway Safety Action Team meetings are required at all towered airports (FAA Order 7050.1, Chapter 4) and may be included to provide a positive venue for controllers, pilots and airport personnel to address surface safety.*

2. *Additional runway safety information is available through FAA National and Service Area Runway Safety Offices and Runway Safety Program Managers.*

c. Facility sponsored pilot/controller forums.

4–2–3. PUBLISHED ITEMS

Items of publicity, either commendable or critical of FAA facilities, should be forwarded to the Service Area office. This includes newspaper clippings, magazine articles, photographs, or copies of letters.

4–2–4. COORDINATION OF ATC PROCEDURES

a. Coordination must be carried out with the appropriate users prior to implementing or changing procedures which may have a significant effect on them or flight information publications. *Users* means the operators of aircraft; organizations representing aircraft owners, operators, or pilots; individuals; the DOD; aviation authorities; or other government agencies concerned with the safe, efficient operation of aircraft in the NAS.

b. Procedures which will have a significant effect on the users will be coordinated with them by means of correspondence, individual contacts, or a presentation at a meeting for the purpose of soliciting individual comments. When deemed appropriate, the advice and viewpoint of individual users will be obtained prior to the development of a proposed change. When safety is not a factor, a minimum of 45 days should be afforded those responding to a request for comments.

c. No joint user meeting will be conducted for the purpose of seeking user consensus or agreement on an issue. Coordination does not mean or imply that unanimity of opinion must be reached nor does it mean that user concurrence is required.

d. Interfacility coordination must be carried out, as appropriate, prior to coordination with the users. In addition, all other concerned FAA facilities and offices must be informed prior to implementing these changes.

e. The final decision on whether a change is adopted as proposed, changed in light of the individual replies received, or not adopted rests with the initiating office and will be based on an evaluation of all pertinent factors. If significant objections to a change are received, advise the Service Area office which will inform the Manager of Airspace and Rules, if deemed appropriate.

f. When a change is adopted, users will be afforded sufficient time to prepare for the change prior to its implementation. If a proposed change is not adopted, an explanation of the decision will be forwarded to the users.

Section 3. Letters of Agreement (LOA)

4–3–1. LETTERS OF AGREEMENT

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

a. Supplement established operational/procedural instructions.

b. Define responsibilities and coordination requirements.

c. Establish or standardize operating methods.

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

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

f. Establish responsibilities for:

1. Operating airport equipment.

2. Providing emergency services.

3. Provide airport management with braking action reports. At a minimum, procedures must provide for the prompt notification which indicate runway braking conditions have deteriorated to "good to medium," "medium," "medium to poor," "poor," or "nil" or have improved to "good."

4. Reporting operating limitations and hazards.

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

REFERENCE–
FAA Order JO 7110.65, Para 1–1–11, Constraints Governing Supplements and Procedural Deviations.

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

i. Describe airspace areas required to segregate special operations.

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

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

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

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

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

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

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

4–3–2. APPROPRIATE SUBJECTS

Examples of subjects of LOAs are:

a. Between ARTCCs:

1. Radar handoff procedures.

2. Interfacility coordination procedures.

3. Delegation of responsibility for IFR control jurisdiction.

b. Between ATCTs:

1. Tower en route control service.

2. Interfacility coordination procedures.

c. Between Flight Service Stations: Procedures for maintaining master flight plan files.

d. Between an ARTCC and an ATCT:

1. Approach control service.

2. Interfacility coordination procedures.

3. Tower/center en route control service.

e. Between an ARTCC and an FSS: Define areas of security responsibility. (See Paragraph 2–7–5, Facility Security.)

f. Between an ATCT and an FSS: Operation of airport lighting.

g. Between an ARTCC or an approach control facility and a nonapproach control tower, an FSS, an airport manager, or a local operator: Special VFR Operations. (See FIG 4–3–1.)

h. Between an ARTCC or an approach control facility and a nonapproach control tower:

1. Authorization for separation services.

2. Interfacility coordination procedures.

3. Opposite direction operations procedures.

REFERENCE–
FAA Order 7210.3, Para 2–1–32, Opposite Direction Operations.

i. Between an ARTCC and another government agency:

1. Interfacility coordination for control of ADC aircraft.

2. Delegation of responsibility for approach control services.

3. MTR procedures.

j. Between a tower and another government agency:

1. Simulated flameout procedures.

2. Control of helicopter SVFR flights.

3. Operation of aircraft–arresting barriers.

4. MTR procedures.

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

1. Airport emergency service.

2. Operation of airport lighting.

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

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

4. Control of vehicular traffic on airport movement areas.

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. Specific activities allowed in the RSA during aircraft operations.

REFERENCE–
FAA Order JO 7210.3, Para 2–1–21, Obstacle Identification Surfaces, Obstacle Free Zones, Runway Safety Areas. Approach/Departure Hold Areas and Clearways
AC–150/5210–20A, Appendix C

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

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

l. 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. Review pertinent national procedures or local instrument flight procedures and incorporate into the new LOA(s) as necessary.

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

REFERENCE–
FAA Order JO 7210.3, Para 2–1–2, Facility Standard Operating Procedures Directive
FAA Order JO 7210.3, Para 2–1–6, Checking Accuracy of Published Data
FAA Order JO 7210.3, Para 4–3–6, Annual Review/Revisions

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

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

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

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

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

5. Specify communications and coordination procedures.

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

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

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

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

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

4–3–4. REVIEW BY SERVICE AREA OFFICE

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

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

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

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

2. Those between an IFR facility and a tower to authorize the separation services prescribed in Paragraph 2–1–15, Authorization for Separation

Services by Towers, and Paragraph 10–5–3, Functional Use of Certified Tower Radar Displays.

4–3–5. APPROVAL

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

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

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

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

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

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

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

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

4–3–6. ANNUAL REVIEW/REVISIONS

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

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

REFERENCE–
FAA Order JO 7210.3, Para 2–1–2, Facility Standard Operating Procedures Directive
FAA Order JO 7210.3, Para 2–1–6, Checking Accuracy of Published Data
FAA Order JO 7210.3, Para 4–3–3, Developing LOA

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

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

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

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

4–3–7. 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.

FIG 4–3–1

Format for a Control Facility/FSS Letter of Agreement

(Name) Center/Approach Control and (Name) FSS

LETTER OF AGREEMENT

EFFECTIVE: _____

SUBJECT: Special VFR Operations within (Name) Airport Surface Area

1. PURPOSE: To provide operating procedures for Special VFR flight handling in the (name) surface area without individual coordination.

2. SCOPE: The procedures outlined herein are for use in the conduct of Special VFR operations within the (name) Airport surface area at or below _____ feet. These procedures are applicable only to aircraft equipped with functioning 2–way radio in order to effect a recall when required by traffic or weather conditions.

3. RESPONSIBILITIES: Upon request by the (name) FSS, the Center/Approach Control Facility may authorize Special VFR operations in the (name) Airport surface area for specific periods of time. The Center/Approach Control Facility must retain the authority to withdraw the provisions of this agreement at any time.

4. PROCEDURES:

a. Local Special VFR operations. The (name) FSS must not authorize more than one aircraft to operate simultaneously in the surface area unless pilots agree that they will maintain visual separation with other aircraft operating in the surface area.

b. IFR Arrivals and Departures. Special VFR operations must be controlled by the (name) Center/Approach Control during the following periods:

(1) From 10 minutes prior to the estimated time of arrival of an IFR aircraft over the approach fix until it is on the ground (IFR arrivals must not be cleared for an approach until the FSS confirms that there are no Special VFR operations in progress.)

(2) From 10 minutes prior to the estimated time of departure of an IFR aircraft until it departs the surface area.

c. Special VFR Arrivals and Departures:

(1) The (name) FSS may authorize aircraft to enter, depart, or fly through the surface area when no Special VFR operations are in progress. Authorization must be granted as outlined in 4a.

(2) Aircraft desiring to enter the surface area during times Special VFR operations are in progress must be instructed to maintain VFR conditions outside the surface area pending recall and landing of aircraft operating in the surface area.

d. Predesigned clearance phraseologies. To authorize Special VFR operations or to issue instructions or other messages pertinent thereto, the (name) FSS must use the following phraseology:

(1) To authorize operations:
A–T–C CLEARS (identification) TO ENTER/OUT OF/THROUGH (name) SURFACE AREA. MAINTAIN SPECIAL VFR CONDITIONS AT OR BELOW (altitude). REPORT LANDING COMPLETED/LEAVING SURFACE AREA,
or
A–T–C CLEARS (identification) TO OPERATE WITHIN (name) SURFACE AREA. MAINTAIN SPECIAL VFR CONDITIONS AT OR BELOW (altitude).

(2) To deny operations when visibility is less than one mile:
VISIBILITY (value). A–T–C UNABLE TO ISSUE DEPARTURE/ENTRY CLEARANCE.

(3) To suspend operations:
SPECIAL VFR AUTHORIZATION DISCONTINUED. RETURN TO AIRPORT OR DEPART SURFACE AREA. ADVISE INTENTIONS ..... (after response), REPORT LANDING COMPLETED/LEAVING SURFACE AREA.

(4) To advise an aircraft to remain outside the surface area:
A–T–C ADVISES (identification) TO MAINTAIN VFR OUTSIDE THE (name) SURFACE AREA PENDING ARRIVAL/RECALL/DEPARTURE OF SPECIAL VFR AIRCRAFT.

_____
Air Traffic Manager, (Name) FSS

_____
Air Traffic Manager, (Name) ARTCC/Approach Control

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

(Name) Air Route Traffic Control Center and (Name) Air Division

LETTER OF AGREEMENT

EFFECTIVE:_____

SUBJECT: Interfacility Coordination for the Control of Aerospace Defense Command Interceptor Aircraft

1. PURPOSE: (List responsibility and describe necessary coordination.)

2. CANCELLATION: (As required.)

3. SCOPE: (Specify area, names, and types of facilities involved.)

4. RESPONSIBILITIES: (Specify.)

5. PROCEDURES:

a. ATC Assigned Airspace. (List procedures to be followed for requesting and authorizing airspace, handling aircraft to and from the airspace, and notifying when no longer required.)

b. Transfer of Control. (Specify transfer procedures.)

c. Departure. (Specify required advanced time for filing flight plans. Outline additional items required in the flight plan; e.g., type of departure, CONAD control facility, and IND position number.)

d. En Route. (including information that ATC is responsible for effecting separation in assigned airspace whenever nonparticipating aircraft are cleared to operate within such airspace.)

e. Arrivals. (Outline handoff procedures and special instructions.)

f. General. (Self–explanatory.)

6. ATTACHMENTS (List, as required, items such as chart of ATC–assigned airspace areas, common reference/handoff points, etc.)

Air Traffic Manager, (Name) ARTCC

Commander, (Name) Air Division

(Title of other appropriate authority)

4–3–8. AUTOMATED INFORMATION TRANSFER (AIT)

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

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

b. The controller who first transfers radar identification will also transfer aircraft communications. Either the transferring or the receiving controller, whoever is specified in a facility AIT directive, may issue the altitude change, if any. Additionally, facility AIT directives must require that any deviation from the specified procedure invalidates the procedure for that situation and requires that verbal coordination be completed as per FAA Order JO 7110.65, Air Traffic Control, Paragraph 2–1–14, Coordinate Use of Airspace, Paragraph 2–1–15, Control Transfer, Paragraph 5–4–5, Transferring Controller Handoff, Paragraph 5–4–6, Receiving Controller Handoff, or Paragraph 5–4–7, Point Out. The following are general examples of the AIT process.

1. Transfer of radar identification only:

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

Section 6. Records

4–6–1. FACILITY RECORDS MANAGEMENT

Manage facility records in accordance with FAAO 1350.14B, 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, where FAA telecommunications network capability exists (excluding 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. Any Mandatory Occurrence Report (MOR), documented in CEDAR will automatically generate an FAA Form 7230–4 entry; however, some Form 7230–4 entries do not require an MOR as addressed in paragraph 4–6–5h.

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.

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, OSIC, 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. Except as provided in paragraph 4–6–4, use of a 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, for example, "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 Paragraph 4–6–5, Preparation of FAA Form 7230–4.

h. FAA Order 7210.632, Air Traffic Organization Occurrence Reporting, defines situations requiring a MOR. When a MOR is required, include enough detail in the MOR to provide an understanding of the circumstances that initiated the occurrence. Events such as tarmac delays, no–notice ground stops/holding, and accidents are documented on FAA Form 7230–4; no MOR is required for these items. Other reporting and notification requirements related to tarmac delays, no–notice ground stops/holding, and accidents may apply.

1. En route, terminal and oceanic facilities must use the CEDAR tool to record and disseminate MORs and to document the resolutions of MORs.

2. Flight service stations may use an automated version of FAA Form 7230–4 or establish local forms and procedures for recording, disseminating, and documenting the resolution of MORs. 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 subparagraph 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. Employees other than the person responsible for the watch who make an entry must initial or enter initials for each of their own entries.

k. Use additional forms as necessary to complete the reporting of the day's activity.

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

m. 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

Designator	*Position*
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

Designator	*Position*
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

(c) *FSSs:* Use two−letter codes, as follows:

TBL 4−6−3
Field 3 – FSS

Designator	*Position*
BC	Broadcast
FD	Flight Data
IF	Inflight
NO	NOTAM
OT	Other
PF	Preflight
WO	Weather Observer

4. Field 4 must contain the date in digit format. All spaces must be used.

5. Field 5 must contain the UTC time that the employee assumes responsibility for the position or the UTC time that the position is combined with another. For employees receiving OJT instruction or evaluation, field 5 must contain the UTC time that the OJT instruction or evaluation begins.

6. Field 6 must contain the operating initials of the employee working the position.

7. Field 7 must contain the UTC time that the employee is relieved of responsibility for the position or the UTC time that the position is decombined. For employees receiving OJT instruction or evaluation, field 7 must contain the UTC time that the OJT instruction or evaluation ends.

8. Field 8 must contain the appropriate code identified at the bottom of page 1 of the form.

9. Field 9 must contain the identifier of the position being combined with (per field 2). Field 9 may be left blank if the same entry is appropriate and entered in field 10.

10. Field 10 must contain the type of position being combined with (per field 3).

11. If the second page (back−side) of FAA Form 7230−10 is used, then fields 1, 2, 3 and 4 on that page must also be completed.

12. When a mistake is made in filling out fields 5, 6, 7, 8, 9, or 10 − if the portion of the line that is incorrect can be legibly corrected, then line out that portion only and write the correct information. If the incorrect portion cannot be legibly corrected, then line out the entire line and write the correct information on the next line.

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 non-automated 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, OS, 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 Enhanced Backup Surveillance System (EBUS) 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 MARSA and ALTRV

(a) For domestic flight plans (not leaving U.S. domestic airspace), include "MARSA" and/or "ALTRV" in Field 11.

(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/).

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 printouts for 45 days unless they are related to an accident/incident as defined in FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting. Retention of the latter must be in accordance with FAA Order JO 1350.14, Records Management.

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 printouts related to hijack aircraft the same as voice recorder tapes. (See Paragraph 3–4–4, Handling Recorder Tapes or DATs, or DALR Storage.)

8–1–4. FLIGHT PLAN DROP INTERVAL

Set a standard Flight Plan Drop Interval appropriate for daily operations. Coordinate increased drop interval times due to temporary conditions with underlying facilities and the Air Traffic Control System Command Center (ATCSCC). Record temporary adjustments on FAA Form 7230–4, Daily Record of Operations, and the National Traffic Management Log (NTML).

Section 2. Procedures

8–2–1. THREE MILE OPERATIONS

Facilities may adapt airspace to permit the use of 3 NM separation as defined in FAA Order JO 7110.65, Air Traffic Control, subpara 5-5-4c, subpara 5-5-4d or subpara 5-5-4e, provided all of the following are met:

a. A significant operational advantage will be obtained. Consideration must be given to such aspects as terminal interface, radar reliability, etc.

b. Facility directives are issued to:

1. Define the 3 NM separation area.

2. Permit 3 NM separation in the defined area.

3. Accommodate local procedural changes.

c. ERAM:

1. Within 40 NM of the preferred sensor or within 60 NM of the preferred sensor when using ASR–9 with Mode S or ASR–11 MSSR Beacon.

2. The 3 NM separation area is displayable on the video map.

3. The aircraft alert volume is adapted for 3 NM separation.

d. MEARTS: All sort boxes within 40 NM of the sensor or within 60 NM of the sensor when using ASR–9 with Mode S or ASR–11 MSSR Beacon and with the single site indicator set to permit the use of 3 NM radar separation.

8–2–2. ADAPTED ALTIMETER SETTINGS

Ensure a current altimeter setting from the adapted reporting station for each radar sort box/surveillance sort cell or geographic area is input into the center's computer. When an altimeter setting for an adapted reporting station cannot be obtained, enter the altimeter setting from the appropriate alternate reporting station.

8–2–3. ADAPTATION OF EXTERNAL ALTIMETER SETTINGS

Adaptation of altimeter settings for reporting stations outside a facility's area is optional up to the maximum number listed in the NAS adaptation specifications.

8–2–4. CONFLICT ALERT FUNCTION PARAMETERS

a. Use the approved CA preset values as defined in the ERAM Site Adaptation Manual (SAM) unless otherwise approved by the En Route and Oceanic Safety and Operation Support Office.

b. Facility air traffic managers are authorized to inhibit the display of CA at specified sectors and within ERAM Aircraft Alert Volumes (AAVs).

8–2–5. MODE C INTRUDER (MCI) ALERT PARAMETERS

a. Use the approved MCI CA preset values as defined in the ERAM Site Adaptation Manual (SAM) unless otherwise approved by the En Route and Oceanic Safety and Operations Support Office.

b. MCI Alert base altitude must be set at any value between ground level and 5,000 feet MSL at the discretion of the facility air traffic manager. When a facility's or sector's ground level is above 5,000 feet MSL, base altitudes may be set to 1,500 AGL. Any instance of base altitudes above 5,000 feet MSL must be documented and forwarded to the En Route and Oceanic Safety and Operations Support Office through the respective Service Area Operations Directorate.

c. Facility air traffic managers are authorized to temporarily adjust the Mode C Intruder Alert base altitude at a sector(s) when excessive MCI alerts derogate the separation of IFR traffic. For the purpose of this section, temporary is considered to be of less than 4 hours duration, not necessarily continuous, during any calendar day. The following is required when MCI base altitude is adjusted:

1. Log each occurrence when this procedure is used on FAA Form 7230–4, including the sector and temporary altitude.

2. Documentation must be forwarded according to subpara b above, if it is determined that a temporary adjustment of the MCI base altitude does not meet the needs of the sector.

3. Facility air traffic managers are authorized to inhibit the situation display of MCI Alert at specified sectors.

8–2–6. E–MSAW ADAPTATION

Ensure that all internal airspace is adapted for E-MSAW processing. Ensure that the internal altitude information adapted in the polygons agrees with the MIA sector charts and is in accordance with the ERAM Site Adaptation Manual.

8–2–7. WAIVER TO INTERIM ALTITUDE REQUIREMENTS

Where sector conditions; e.g., heavy traffic or sector complexity, preclude meeting the requirements of FAA Order JO 7110.65, Air Traffic Control, subpara 5–14–3a3(a)(b), Computer Entry of Flight Plan Information, ARTCC air traffic managers may authorize the deletion of the requirements if an operational advantage is gained. A facility directive must be issued with instructions governing permissible procedures. It must contain:

a. Procedures/sectors where the waiver applies.

b. Coordination procedures if required.

c. Specific instructions to input a reported altitude for non–Mode C–equipped aircraft when it will operate at an altitude before proceeding to the assigned altitude.

8–2–8. REQUIREMENTS FOR ERAM DATA BLOCK CHANGES WITHOUT COORDINATION

Where sector conditions offer a significant operational advantage, air traffic managers may authorize exceptions to data block change coordination required by FAA Order JO 7110.65, Air Traffic Control, para 5-4-5, Transferring Controller Handoff, and FAA Order JO 7110.65, Air Traffic Control, para 5-4-6, Receiving Controller Handoff. The facility directive or LOA must contain, at a minimum:

a. Sectors where the directive or LOA applies.

b. Specific situations where omission of coordination is permitted.

EXAMPLE–
LOA specifies the aircraft will be descending to FL290 and changes in interim altitude are authorized after handoff to get to FL 290.

NOTE–
Consideration needs to be given to the ability of all sector team members to readily discriminate the indicator in the B4 field under varied conditions, such as font size and brightness, situation display orientation, and lighting. There is a significant operational difference between accepting a handoff with:

a*. An "up arrow" in which aircraft will not climb beyond displayed assigned altitude, and*

b. *A "T" (interim) altitude where the aircraft may climb beyond the currently displayed interim altitude.*

8–2–9. ERAM HOLD INFORMATION FACILITY DIRECTIVE REQUIREMENTS

Where sector conditions offer a significant operational advantage, air traffic managers may authorize exceptions to FAA Order JO 7110.65, Air Traffic Control, para 5-14-9, ERAM Computer Entry Hold Information. The facility directive must contain, at a minimum:

a. Sectors where the directive applies.

b. Required coordination procedures.

c. Specific instructions for reporting delays.

8–2–10. ERAM SPECIAL ACTIVITY AIRSPACE (SAA) ADAPTATION

Facilities must ensure that every SAA within their Aircraft Problem Detection (APD) Area is adapted for SAA scheduling and alert processing.

8–2–11. ERAM HOLDING PATTERN ADAPTATION

Ensure published holding patterns on Standard Terminal Arrival Routes (STARs) are adapted to automatically populate the Hold Data Menu.

NOTE–
Adapting holding patterns will reduce controller workload by automatically populating the Hold Data Menu. Therefore, facilities should consider adapting all frequently used holding patterns.

8–2–12. ERAM MASTER TOOLBAR MAP BUTTON LABEL

Ensure the adapted label of the GEOMAP button matches the name of the GEOMAP selected at the

sector. The map button label may be displayed on two lines and may include spaces to improve label readability.

NOTE–
Since the GEOMAP is saved with the preference set, displaying the map name on the GEOMAP button label provides a visual indication to the controller when a GEOMAP changes as a result of invoking a preference set.

8–2–13. LOCAL INTERIM ALTITUDE

Ensure that the ERAM Local Interim Altitude function is turned on.

1. Runway status (CLOSED/INACTIVE)

2. Runway crossing

3. Vehicle, personnel or equipment on active runway/s

4. Land and Hold Short Operations (LAHSO)

5. Line Up and Wait (LUAW)

6. Landing clearance

c. Approved memory aids will be maintained in the Runway Safety Memory Aid Toolbox. The use of memory aids that are not maintained in the toolbox must be approved by Operations – Headquarters AJT-2 through the appropriate Service Area Director of Air Traffic Operations.

NOTE–
Director approved memory aids must be coordinated with Runway Safety for inclusion in the memory aid toolbox.

d. 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–
FAA Order JO 7110.65, Para 3–1–4, Coordination Between Local and Ground Controllers.
FAA Order JO 7110.65, Para 3–1–7, Position Determination.

e. FAA Order 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 FAA Order 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.

f. 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.

g. 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) Intrafacility.

(c) Interfacility.

(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 mandatory use of an approved memory aid that indicates the status of the runway (CLOSED/INACTIVE).

e. Must implement approved memory aids and develop procedures outlining their use.

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

REFERENCE–
FAA Order JO 7110.65, Para 3-3-1, Landing Area Condition
FAA Order JO 7110.65, Para 3-3-2, Closed/Unsafe Runway Information
FAA Order JO 7110.65, Para 4-7-12, Airport Conditions
FAA Order JO 7210.3, Para 4-7-3, System Impact Reports
FAA Order JO 7210.3, Para 10-1-7, Use of Active Runways
FAA Order 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 49 CFR Part 1540/1542 and 14 CFR 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 FAA Order 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 un-prioritized 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.

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

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

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

REFERENCE–
FAAO JO 7110.65, Para 3–10–4, Intersecting Runway Separations.

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

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

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

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

REFERENCE–
FAAO 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOTE–
This is only applicable to those facilities not currently conducting SOIR operations.

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

a. The ATM must:

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

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

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

(a) Local procedures for conducting these operations.

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

REFERENCE–
FAAO JO 7210.3, Para 10–1–7, Use of Active Runways.

(c) The consolidation and staffing of positions.

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

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

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

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

REFERENCE–
FAAO JO 7110.65, Para 3–9–4, Line Up and Wait (LUAW), subpara c1
FAAO JO 7110.65, Para 3–10–5, Landing Clearance, subpara b

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

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

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

(g) Fleet mix.

REFERENCE–
FAAO JO 7110.65, Para 3–9–6, Same Runway Separation.
FAAO JO 7110.65, Para 3–9–7, Wake Turbulence Separation for Intersection Departures.
FAAO JO 7110.65, Para 3–9–8, Intersecting Runway Separation.

(h) Traffic volume; complexity restrictions.

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

4. Local control position must not be consolidated/combined with any other non–local control position. For example, local control must not be consolidated/combined with the operations supervisor (OS)/controller–in–charge (CIC)

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

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

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

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

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

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

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

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

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

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

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

10–3–9. 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 1,300 feet or less must submit a request to the appropriate Service Area Director of Air Traffic Operations for approval before authorizing multiple runway crossings.

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

Section 4. Services

10–4–1. AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)

a. ATIS provides advance non-control airport/terminal area and meteorological information for use by aircraft arriving and departing and operating within the terminal area. This can be accomplished by data link text, available upon request, and/or a voice message recording, which is a repetitive broadcast on a voice outlet.

b. Assign ATIS responsibilities to a specific position of operation. These must include updating ATIS messages and disseminating current messages to pertinent positions of operation.

c. Before transmitting, the voice and/or text message must be reviewed to ensure content is complete and accurate. When appropriate, the voice/text must be cross–checked to ensure the message content is the same. In a conventional, controller-prepared voice recording, the specialist must ensure:

1. The speech rate is not excessive,

2. The enunciation is of the highest quality, and

3. Each part of the message is easily understood.

d. Those facilities with runway construction must ensure ATIS message content is complete, accurate, and contains the proper information related to runway closures and available length (feet). When runway construction is underway, the review of the message should be made by a person other than the specialist who prepared the original, preferably either a supervisor or CIC.

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 10-3-12, Change in Runway Length Due to Construction

e. Specific sequential portions of the alphabet may be assigned between facilities or for an arrival and departure ATIS when confusion could result from using the entire alphabet for each ATIS.

1. A LOA must be established between facilities designating the ATIS codes which will be used by each facility.

2. A facility directive must be developed designating the ATIS alphabet codes which will be used by each facility or for an arrival and departure ATIS.

REFERENCE–
FAAO JO 7110.65, Para 2–9–1, Application.

EXAMPLE–
Departure ATIS codes could be assigned codes of "Alfa" through "Mike" and arrival ATIS codes assigned "November" through "Zulu." The ATIS codes may also be divided between facilities.

f. Make ATIS messages a matter of record on facility recorders. If not possible, retain a written record of each message in the facility's files for 45 days.

g. Keep messages as brief and as concise as possible. Optimum duration of up to 30 seconds should not be exceeded unless required for message content completeness.

h. During the hours of operation, part–time towers that have ATIS capabilities and ASOS/AWOS ground to air broadcast capability, must ensure that the latest METAR/SPECI weather sequence is broadcast only on ATIS. ASOS/AWOS must not be allowed to broadcast weather concurrent with ATIS.

i. During the hours of non-operation, part-time towers that have ATIS capabilities should record for continuous broadcast the following information:

NOTE–
Those facilities that have ASOS/AWOS broadcast capability must allow the automated weather report to be broadcast on the ASOS/AWOS frequency in the one minute update mode and include the applicable information in subparas 10–4–1h, 1 thru 5 at the time of closing.

1. The local tower hours of operation.

2. ASOS/AWOS frequency.

3. The appropriate common traffic advisory frequency (CTAF).

4. The frequency for operating radio controlled approach lights.

5. The FAA facility and frequency for additional information.

EXAMPLE–
(Name of tower) tower hours of operation are (time) local time to (time) local time. The frequency for automated weather is (frequency). The common traffic advisory frequency is (frequency). Pilot operated approach lighting is available on (frequency). For additional information contact (name of approach control or center) on (frequency).

10–4–2. PRETAXI CLEARANCE PROCEDURES

a. If a need exists, facilities should develop pretaxi clearance procedures for departing IFR aircraft. Use of CD frequency is desirable for implementing such procedures. However, facilities without CD frequency may use GC frequency for pretaxi clearance if the service can be provided without derogating the primary function of GC. When developing pretaxi clearance procedures, do the following:

1. Coordinate the proposed procedures with the airport users.

2. Inform System Safety and Procedures, when procedures are implemented.

b. Include the following in pretaxi procedures:

1. The procedures are not mandatory.

2. The pilot calls CD or GC not more than 10 minutes before proposed taxi time.

3. The IFR clearance or the delay information should be issued at the time of initial callup.

4. When the IFR clearance is issued on CD frequency, the aircraft is changed to GC for taxi clearance.

5. Normally, the pilot need not inform GC of having received IFR clearance on CD frequency. Some high activity towers with unique operating position arrangements or operating conditions may require the pilot to inform GC of a portion of his/her routing or that he/she has received his/her IFR clearance.

10–4–3. GATE HOLD PROCEDURES

a. The objective of gate hold procedures is to restrict departure delays to 15 minutes or less after engine start and taxi time. Facility air traffic managers must ensure gate hold procedures and departure delay information are made available to all pilots prior to engine startup. Implement gate hold procedures when departure delays exceed or are expected to exceed 15 minutes.

b. Facility air traffic managers must meet with airport management and users to develop local gate hold procedures at airports that have identified the need and where air traffic operations dictate. Gate hold procedures, when required, will be developed in accordance with limitations imposed by local conditions. Include the following general provisions in the procedures when gatehold procedures are established.

1. Pilots must contact GC/CD prior to starting engines to receive start time or taxi time, as appropriate. The sequence for departure must be maintained in accordance with the initial callup unless modified by flow control restrictions.

2. Develop notification procedures for aircraft unable to transmit without engine(s) running.

NOTE–
Inability to contact GC/CD prior to engine start must not be justification to alter the departure sequence.

3. The operator has the final authority to decide whether to absorb the delay at the gate, have the aircraft towed to another area, or taxi to a delay absorbing area.

4. GC/CD frequency is to be monitored by the pilot. A new proposed engine start time or taxi time must be issued if the delay changes.

10–4–4. ADVISORY SERVICE TO ARRIVING VFR FLIGHTS

When it is desirable to reduce the workload at the LC position, procedures should be established whereby arriving aircraft make their first contact with the control tower on the approach control frequency, regardless of weather, provided the following conditions exist:

a. Approach control and LC positions use separate frequencies.

b. ATC service to IFR flights is not affected.

c. Use of the procedure will not hinder the operation of VFR aircraft by requiring excessive routing or spacing.

d. Consideration is given to establishing radio contact points based on time or distance rather than on landmarks with which some pilots may not be familiar.

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

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

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

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

10–4–6. SIMULTANEOUS INDEPENDENT APPROACHES

a. Simultaneous independent approaches may be conducted when:

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

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

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

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

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

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

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

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

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

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

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

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

REFERENCE–
FAAO JO 7210.3, Para 3–5–2, System Component Malfunctions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Instrument approach procedures are annotated with “Simultaneous Approach Authorized.”

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

3. Weather activity is closely monitored 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.

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.

6. Separate radar and local control positions are established for each final approach course.

b. Record the time the operation begins and ends on the facility log.

c. Where possible, establish standard breakout procedures for each simultaneous operation. If traffic patterns and airspace permit, the standard breakout altitude should be the same as the missed approach altitude.

d. Provide individual handling to an aircraft when the crew informs you that the aircraft does not have the appropriate airborne equipment or they choose not to conduct a simultaneous approach.

e. Facility ATMs must ensure approach pairings, when conducted under the EoR concept, are identified in a Facility Directive and a Letter of Agreement (LOA), if applicable.

REFERENCE–
FAA Order JO 7110.65, Para 5-9-10, Simultaneous Independent Approaches to Widely-Spaced Parallel Runways Without Final Monitors
P/CG–Term Established on RNP Concept

10–4–8. SIMULTANEOUS CONVERGING INSTRUMENT APPROACHES

a. The procedures to conduct Simultaneous Converging Instrument Approaches (SCIA) must be developed in accordance with the following paragraphs.

1. The ATM must:

(a) Determine that the volume and complexity of aircraft operations requires the use of simultaneous converging instrument approaches. Additionally, no adverse impact on the users or air traffic control facilities can result from the implementation of the procedure.

(b) Coordinate with airport operations to ensure that runway intersection identification markings are in accordance with appropriate standards if the runways intersect.

(c) Coordinate with the responsible Service Area Flight Procedures Team (FPT) through the service area Operations Support Group (OSG) for the feasibility of SCIA procedural design and the ability to achieve minimums sufficient to justify procedural development. The FPT must consider all aspects of the approach, including NAVAIDS, approach lighting, and airport lighting.

(d) Prepare a staff study which includes:

(1) Type of aircraft and user groups that will be involved in SCIA operations.

(2) Anticipated effect on airport/ airspace capacity, including projected reductions in departure delays, airport acceptance rate and projected savings in aircraft fuel consumption.

(3) Daily time periods during which the procedure would be applied.

(4) A preliminary environmental assessment in accordance with FAA Order 1050.1, Environmental Impacts: Policies and Procedures (See Paragraph 4–1–6, Preliminary Environmental Review).

2. After completing steps 1 through 4 above, the ATM must:

(a) Submit the request for SCIA operations, to include the completed staff study and a draft graphic of the ILS-Standard Instrument Approach Procedure, to their OSG for review.

(1) The OSG must coordinate the procedure with the regional Flight Standards Division.

(2) When approved, the OSG will process the package through the FPT for development.

(b) Develop a Letter to Airmen defining local procedures to be used at least 30 days before the effective date. Additional means of publicizing local procedures must be employed in accordance with Paragraph 4–2–4, Coordination of ATC Procedures.

b. The requirements for conducting SCIA operations to converging runways are:

1. Operational air traffic control radar.

2. Precision instrument approach procedures must be established on each runway.

3. Non intersecting final approach courses.

4. SIAP specifically titled "Converging" and is published in parenthesis after the title of the procedure, for example, ILS V Rwy 17 (Converging).

(a) Missed approach points (MAP) must be at least 3 nautical miles (NM) apart, and

(b) Published missed approach procedures diverge by at least 45 degrees.

(c) The ATM must designate a primary and secondary runway for SCIA runway configurations including separation responsibility and procedures to be applied in the event a missed approach is initiated inside the MAP.

(d) Flight Procedures will determine the appropriate approach minimums for both primary and secondary runways for each SCIA configuration.

5. Converging approaches must not be conducted simultaneously to runways that intersect, when the ceiling is less than 1,000 feet or the visibility is less than 3 miles.

6. Converging approaches to runways that do not intersect may be conducted when the ceiling is less than 1,000 feet or visibility less than 3 miles provided all other conditions of this directive are met.

7. Application of this procedure to intersecting runways does not relieve the controller of the responsibility to provide intersecting runways separation as required in FAA Order JO 7110.65, paragraph 3-10-4.

8. A facility directive or letter of agreement must be developed specifying as a minimum:

(a) The runway configurations to be used during SCIA operations,

(b) Separation responsibility and procedures, to be applied, in the event a missed approach is initiated inside the MAP,

(c) Coordination requirements,

(d) Weather minima applicable to each configuration, if different from published minima.

NOTE–
The ATM may establish higher minima than published on the SIAP to preclude, to the extent feasible, the possibility of a weather related missed approach.

c. Authorize simultaneous instrument approaches to converging runways under the following conditions:

1. Only straight-in approaches must be made.

2. All appropriate communication, navigation, and surveillance systems are operating normally.

3. Aircraft must be informed on initial contact, or as soon as possible, that simultaneous converging approaches are in use. Broadcasting this information on the ATIS satisfies this requirement.

4. Weather activity that could impact the final approach courses must be closely monitored. Discontinue SCIA operations if weather trends indicate deteriorating conditions which would make a missed approach likely.

d. Record any occurrence of simultaneous missed approaches while conducting SCIA on FAA Form 7230-4, Daily Record of Facility Operation and submit a mandatory occurrence report (MOR).

10–4–9. PRECISION RUNWAY MONITOR–SIMULTANEOUS OFFSET INSTRUMENT APPROACHES

a. Precision Runway Monitor–Simultaneous Offset Instrument Approaches (PRM–SOIA) may be conducted at airports with dual parallel runways with centerlines separated by at least 750 feet and less than 3,000 feet, with one straight–in Instrument Landing System (ILS) and one Localizer Directional Aid (LDA), offset by2.5 to 3.0 degrees using a PRM system with a 1.0 second radar update system in accordance with the provisions of an authorization issued by the Director of Operations–Headquarters in coordination with AFS. A high–resolution color

monitor with alert algorithms, such as a final monitor aid (FMA) must be required.

b. Notification procedures for pilots unable to accept an ILS PRM or LDA PRM approach clearance can be found on the Attention All Users Page (AAUP) of the Standard Instrument Approach Procedures (SIAP) for the specific airport PRM approach.

c. 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 Paragraph 10–1–6, Selecting Active Runways, subpara b Note.)

d. 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 and to prevent aircraft from penetrating the NTZ. Information and instructions are issued, as necessary, to contain the aircraft's flight path within the Normal Operating Zone (NOZ). Aircraft which are observed approaching the No Transgression Zone (NTZ) 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.

e. 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 the PRM–SOIA operation.

f. Where possible, establish standard breakout procedures for each simultaneous operation. If traffic patterns and airspace permit, the standard breakout altitude should be the same as the missed approach altitude.

g. The following requirements must be met for conducting PRM–SOIA:

1. All PRM, FMA, ILS, LDA with glideslope, distance measuring equipment, and communications frequencies must be fully operational.

2. The common NOZ and NTZ lines between the final approach course centerlines must be depicted on the radar video map. The NTZ must be 2,000 feet wide and centered an equal distance from the final approach centerlines. The remaining spaces between the final approach courses are the NOZs associated with each course.

3. Establish monitor positions for each final approach course that have override transmit and receive capability on the appropriate control tower frequencies. A check of the override capability at each monitor position must be completed before monitoring begins. Monitor displays must be located in such proximity to permit direct verbal coordination between monitor controllers. A single display may be used for two monitor positions.

4. Facility directives must define the position responsible for providing the minimum applicable longitudinal separation between aircraft on the same final approach course.

h. Dual local control positions, while not mandatory, are desirable.

i. Where possible, establish standard breakout procedures for each simultaneous operation. If traffic patterns and airspace permit, the standard breakout altitude should be the same as the missed approach altitude.

j. Wake turbulence requirements between aircraft on adjacent final approach courses inside the LDA MAP are as follows (standard in–trail wake separation must be applied between aircraft on the same approach course):

1. When runways are at least 2,500 feet apart, there are no wake turbulence requirements between aircraft on adjacent final approach courses.

2. For runways less than 2,500 feet apart, whenever the ceiling is greater than or equal to 500 feet above the MVA, wake vortex spacing between aircraft on adjacent final approach courses need not be applied.

3. For runways less than 2,500 feet apart, whenever the ceiling is less than 500 feet above the MVA, wake vortex spacing between aircraft on adjacent final approach courses as described in FAA Order JO 7110.65, Air Traffic Control, Paragraph 5–5–4, Minima, must be applied unless acceptable mitigating techniques and operational procedures are approved by the Director of Operations–Headquar-

ters pursuant to an AFS safety assessment. A request for a safety assessment must be submitted to the Director of Operations–Headquarters through the service area office manager. The wake turbulence mitigation techniques employed will be based on each airport's specific runway geometry and meteorological conditions and implemented through local facility directives.

4. All applicable wake turbulence advisories must be issued.

k. A local implementation team must be established at each facility conducting PRM–SOIA. The team should be comprised of representatives from the local airport sponsor and other aviation organizations. The team will monitor local operational integrity issues and report/refer issues for national consideration as appropriate.

l. For any new proposal to conduct PRM–SOIA, an operational need must be identified by the ATC facility manager, validated by the appropriate Service Area Director of Air Traffic Operations, and forwarded to the Director of Operations–Headquarters for appropriate action. The statement of operational need should identify any required site specific procedures.

10–4–10. REDUCED SEPARATION ON FINAL

Separation between aircraft may be reduced to 2.5 NM in–trail separation on the final approach course within 10 NM of the runway provided an average Runway Occupancy Time (ROT) of 50 seconds or less is documented for each runway. ROT is the length of time required for an arriving aircraft to proceed from over the runway threshold to a point clear of the runway. The average ROT is calculated by using the average of the ROT of no less than 250 arrivals. The 250 arrivals need not be consecutive but must contain a representative sample of the types of aircraft that use the runway. Average ROT documentation must be revalidated within 30 days if there is a significant change in runway/taxiway configuration, fleet mix, or other factors that may increase ROT. Revalidation need not be done for situations that are temporary in nature. Only the ROT for the affected runway(s) will need to be revalidated. All validation and revalidation documentation must be retained and contain the following information for each arrival:

a. Aircraft call sign.

b. Aircraft type.

c. Time across the threshold.

d. Time clear of the runway.

e. Items c and d above may be omitted if using a stopwatch. Record the total number of seconds required for an aircraft to proceed from over the landing threshold to a point clear of the runway when using a stopwatch.

REFERENCE–
FAAO JO 7110.65, Subpara 5–5–4f, Minima.

10–4–11. MINIMUM IFR ALTITUDES (MIA)

At terminal facilities that require minimum IFR altitude (MIA) charts, determine MIA 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 appropriate Service Center Operations Support Group for certification and annual review.

NOTE–
1. *For guidance in the preparation and review of Minimum IFR Altitude charts see FAAO 7210.37, En Route Minimum IFR Altitude (MIA) Sector Charts.*

2. *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. (Reference – para 3–8–2.)*

Section 5. Terminal Radar

10–5–1. SHUTDOWN OF PAR ANTENNAS

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

10–5–2. RADAR DISPLAY INDICATORS

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

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

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

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

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

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

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

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

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

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

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

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

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

h. The 12–inch or larger display monitor may be used in lieu of a CTRD when authorized by the region and the display is certified by Technical Operations (Tech Ops). Any display monitor less than 12 inches must not be used for ATC separation purposes. It is primarily to provide alphanumeric readout capability to the CD/FD position at locations where that position has keyboard access to 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 FAA Order JO 7110.65, Air Traffic Control, para 7–2–1, Visual Separation, apply.

2. To provide aircraft with radar traffic advisories.

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

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

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

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

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

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

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

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

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

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

d. Operational applications of tower radar displays other than those outlined in subparas a and b, and/or the delegation of airspace to a tower require a staff study as prescribed in para 2−1−15, 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−
FAA Order JO 7110.65, Para 5-1-2, Alignment Check.

10−5−5. DEFICIENCIES IN SYSTEM

Note deficiencies in the radar system on FAA Form7230−4. 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:

a. *Coverage:* A usable target return (one which is not missed on more than two consecutive scans) will be maintained along the entire airway/route or arrival/departure control routes for which radar service is provided. Tracking accuracy along these routes will be within the fix/map accuracy in subpara b. Radar services for arrival or departure routes are considered to exist between the normal handoff point and a point $^1/_2$ mile from the end of a runway or for secondary airports, the point where the aircraft leaves or enters the bottom fringe of the radar coverage pattern.

b. *Horizontal:* No tolerance assigned.

c. *Vertical – Acceptance Check:* A complete radar coverage pattern must be flown to determine whether the radar meets engineering and operational specifications.

d. *Commissioning:* The vertical coverage pattern will meet the operational requirements of the facility in both the horizontal (distance from the antenna to the outer fringe) and the vertical planes.

e. *Accuracy:*

f. *Fix/map accuracy:* Radar accuracy must be such that reporting aircraft are within a circular area about the fix, the radius of which is 3 percent of the fix–to–station distance or 500 feet (1,000 feet for air traffic control radar beacon system (ATCRBS)), whichever is the greater.

g. *Fixed Target Identification:* No tolerance assigned.

h. *MTI:* No tolerance assigned.

i. *Surveillance Approaches:* Radar used for surveillance approaches must present a usable target return (one which is not missed on more than two consecutive scans) through the final course as follows:

j. *Approach to Runway (Straight–in):* The surveillance approach course line will coincide with the runway centerline extended. Maximum error left or right of the runway edges must not exceed 500 feet at the missed approach point.

k. *Approach to an Airport (Circling):* The approach course may be aligned to the center of the airport or, where advantageous, to any portion of the usable landing area. For helicopters only, the final approach may be established to a missed approach point not farther than 2,600 feet from the center of the landing area, or for a point–in–space approach, to a point from which flight to the landing area must be accomplished by visual reference to a prescribed route along the surface. In each instance, approach guidance will be provided to the prescribed missed approach point. Guidance accuracy must be within 3 percent of the distance between the selected delivery point and the radar antenna.

l. Surveillance approaches must meet the tolerances in paragraphs j and k or will be canceled.

10–5–7. RECOMMENDED ALTITUDES FOR SURVEILLANCE APPROACHES

At locations which provide surveillance approaches, facility managers must request the office responsible for the preparation of the approach to provide the recommended altitudes for the final approach. This information will be placed in the radar facility where it will be readily available for the controllers to use as required.

10–5–8. ASDE PERFORMANCE CHECKS

One hour prior to the anticipated need to use the ASDE, turn the equipment on and evaluate its performance.

Section 3. Data Recording and Retention

11–3–1. DATA RECORDING

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

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

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

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

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

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

2. Automatic functions and keyboard input data.

3. Interfacility messages.

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

d. Air traffic facilities using a teletype emulator (TTYE) in lieu of a console printout (TTY) must store and retain data in accordance with Paragraphs 11–3–1, Data Recording, and 11–3–2, Data Retention. However, the data may be retained on a disc or hard drive as specified in a facility directive.

11–3–2. DATA RETENTION

a. Write on each data extraction tape/disc:

1. The tape/disc drive number.

2. The date.

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

4. The items listed in subpara 11–3–1c not extracted.

5. The data extracted in addition to that required by subpara 11–3–1c.

6. The initials of the person changing the recording.

b. Retain data extraction recordings for 45 days except:

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

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

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

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

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

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

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

11–3–3. FAULT LOG

a. Whenever the computer fails during normal operations, all pertinent data must be recorded on the Fault Log. However, if the computer failure is the first of a particular nature and an operational requirement exists to resume normal computer operation as soon as possible, a Fault Log need not be recorded.

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

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

Section 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 Technical Operations (Tech Ops), as appropriate:

a. Implement national TM programs (i.e., NRP, MAR, etc.).

b. Monitor and analyze system components and weather patterns for potential system impact.

c. Be the focal point for regulating the daily TM functions.

d. Determine when NAS capacity is or will likely be reduced to the extent that the implementation of a TM initiative is required.

e. Ensure space launch and reentry operations are safely and efficiently integrated into the NAS by approving, modifying, or denying airspace decisions directly related to launch and reentry activities, consistent with FAA policies and regulations.

f. Implement national TM initiatives, when necessary, to ensure the orderly flow of traffic throughout the NAS.

g. Recommend and approve TM alternatives when national initiatives are not appropriate.

h. Monitor TM initiatives issued throughout the system for effectiveness; take action to cancel or modify where appropriate.

i. Be the final approving authority regarding all interfacility TM initiatives.

NOTE–
Traffic Management Units continue to retain the latitude to tactically adjust the flow of traffic within their own facilities. These local actions include sector to sector mile–in–trail restrictions, local airport fix balancing, and

other such adjustments required to balance flows within their area of responsibility.

j. Evaluate proposed TM initiatives to ensure appropriateness.

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. Standard traffic management unit procedures contained in this order must be applied when weather is scheduled to impact an active or scheduled SAA with the following additions/changes:

(a) Facilities must conduct a telecon if weather is forecasted to impact a facility's traffic flow, which may potentially cause an aircraft to enter the protected airspace of an active SAA within their facility.

NOTE–
If the facility has instantaneous recall of the SAA airspace, then a telecon is not required.

(b) Participants must include, at a minimum, the using agency or scheduling agency and the controlling agency. If available, the Center Weather Service Unit (CWSU), Operations, and any other entities necessary to ensure a comprehensive look at the day ahead should be included.

(c) The intent of the telecon is to address any issues that may arise due to weather, the usage of SAA, civil traffic flow, and alternate plans. These calls will also serve as a venue in which the facility can determine the type of activity that will be occurring in the SAA.

(d) Unless it is clearly understood and agreed upon by the using or scheduling agency that the SAA will be available for civil traffic, facilities must not base their plan on using active military airspace.

(e) If the SAA will not be available for civil traffic, then Traffic Management Initiative(s) (TMI) must be put in place to ensure aircraft remain clear of the protected airspace of an active special use airspace that is impacted by weather.

NOTE–
If the facility has instantaneous recall of the SAA airspace, then TMI(s)may not be required.

(f) If a deviation due to forecasted weather occurs that causes an aircraft to enter into an active SAA:

(1) The Supervisor Traffic Management Coordinator (STMC) must immediately conduct an evaluation of TMI(s) in place with emphasis on adjusting the flow of traffic away from the SAA.

(2) The air traffic manager (ATM) must ensure the appropriate service review (i.e.; system

service review or traffic management review) is completed in accordance with FAA Order JO 7210.634, Air Traffic Organization (ATO), Quality Control, Chapter 3.

10. A full description of all TM actions/initiatives (e.g., ground delay programs, miles–in–trail (MIT)) is entered in the TMU log, including, but not limited to, start and stop times, facilities/operations affected, and justification.

11. As a minimum, the unit is operated during the hours necessary to encompass peak traffic periods and the associated time to complete the logging and the reporting requirements.

b. In ARTCC facilities TMUs must:

1. In conjunction with terminal TMUs, develop arrival strategies and deliver arrival aircraft to achieve the Airport Arrival Rate (AAR).

2. Actively utilize the Traffic Situation Display (TSD) and the monitor and alert function of the TFMS to adjust traffic flows on a proactive basis.

3. Periodically analyze and review procedures to ensure effectiveness and adherence to programs/initiatives, and, when necessary, make adjustments. Cancel TM initiatives promptly when no longer needed.

4. The facility manager must make provisions to ensure a Weather Coordinator (WC) is assigned on each shift by designating a TM representative to serve as the WC. During midnight operations or when no TM personnel are available, the WC position may be combined at the OMIC position. The manager must additionally ensure that personnel assigned WC duties receive prior training in the associated duties and responsibilities of the position and establish procedures.

REFERENCE–
FAAO JO 7210.3, Section 26. Weather Management.

5. Establish an analysis function referred to in Chapter 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 conference the appropriate ARTCCs. In those instances where the ARTCC TMU is unable to resolve disputes between multiple terminal facilities, the ATCSCC must have the final decision making authority.

TBL 17–5–1

AVIATION SYSTEM PERFORMANCE METRICS AIRPORT TRAFFIC CONTROL TOWERS				
ABQ	DCA	LAS	ONT	SEA
ANC	DEN	LAX	ORD	SFO
ATL	DFW	LGA	OXR	SJC
AUS	DTW	LGB	PBI	SJU
BDL	EWR	MCI	PDX	SLC
BHM	FLL	MCO	PHL	SMF
BNA	GYY	MDW	PHX	SNA
BOS	HNL	MEM	PIT	STL
BUF	HOU	MHT	PSP	SWF
BUR	HPN	MIA	PVD	TEB
BWI	IAD	MKE	RDU	TPA
CLE	IAH	MSP	RFD	TUS
CLT	IND	MSY	RSW	VNY
CVG	ISP	OAK	SAN	
DAL	JAX	OGG	SAT	
DAY	JFK	OMA	SDF	

17–5–5. STATIC COORDINATION

a. The ATCSCC must collect and manage updates for ASPM facilities' static data, currently depicted in the NTML and on the Operational Information System (OIS) under the associated ARTCC tabs in the East and West Directories.

b. The TMO or overlying TMO, in conjunction with their ASPM facilities, must provide the following static data to their appropriate Deputy Director of System Operations (DDSO) and ensure the accuracy of the information:

1. For NTML airport information: All normal runway configurations and their associated AARs/ADRs by April 30, August 31, and December 31 of each year.

NOTE–
AARs are required for the following four categories: Visual meteorological conditions (VMC), low visual meteorological conditions (LVMC), instrument meteorological conditions (IMC), and low instrument meteorological conditions (LIMC).

2. For OIS airport information: Monthly changes to the following ASPM airport data no later than the last day of the month:

(a) Normal runway configuration and associated AARs/ADRs

(b) Suggested program rate

(c) Pertinent notes

(d) Holding capacities

(e) Arrival flows

(f) Category minimums

3. Changes to TM Tips by the first of every month:

(a) Configuration instructions/planning

(b) Airport operational challenges

(c) Seasonal traffic information

(d) Gate hold information

(e) Special arrival instructions

(f) Other pertinent information related to airspace, procedures, weather operations, local traffic management initiatives, taxiway information, and any other items that impact traffic flows or runway acceptance/configuration

c. The DDSO must provide:

1. All normal runway configurations and the associated AARs/ADRs for their underlying ASPM facilities to the ATCSCC Facility Automation Office by May 15 and November 15 each year.

2. Changes to additional supporting AAR data and TM tips for their underlying ASPM facilities to the ATCSCC Facility Automation Office by the 10th of each month.

17–5–6. EN ROUTE INTRAFACILITY COORDINATION

a. The STMC must ensure that an operational briefing is conducted at least once during the day and evening shifts. Participants must include, at a minimum, operational supervisors and other interested personnel designated by the facility management. Discussion at this meeting should include:

1. Planning TELCON checklist.

2. Operations Plan.

3. Topics pertinent to the facility.

b. Coordination between the TMU and Operations Supervisor (OS): In some facilities, the TM function may be performed by the OS or as designated by the air traffic manager. Timely coordination between the OS and TMU is paramount in not only implementing TM initiatives, but also in evaluating the effectiveness of any initiatives.

17–5–7. TERMINAL INTERFACILITY COORDINATION

a. Coordination between tower and TRACON TMUs: Towers that are not collocated with a TRACON TMU must coordinate with the appropriate TMU where the TM function has been established. If the TM function has not been established, then the tower must coordinate with the appropriate en route TMU.

b. Coordination between the TMU and ATCSCC NTMSs: Unusual circumstances or significant issues do not preclude the terminal TMU from contacting the ATCSCC directly.

c. Coordination between the TMU and the local NWS or CWSU must be completed as soon as practical at the beginning of each shift, and, as necessary, the TMU must obtain a weather briefing from the NWS.

d. Coordination between the TMU and the adjacent terminal: Timely coordination is imperative in order to manage the efficiency of the tower en route control (TEC) environment. Any TM initiatives imposed between two (2) or more adjacent terminals that could have an impact on the capacity of any airport, sector, or ARTCC must be coordinated with the appropriate ARTCC TMU.

17–5–8. NATIONAL TRAFFIC MANAGEMENT LOG (NTML)

a. Facility personnel must enter data in a timely manner on the appropriate template and verbally coordinated when required. Timely is construed to mean that it would be useful to someone looking at the data in current time. If workload conditions or the situation prohibits entering the data in a timely manner, the information should be recorded by a subsequent or delayed entry or on the appropriate form. Substantive changes in the contents or remarks or additional explanatory information should be accomplished by a subsequent or delayed entry.

b. The data in NTML will be subject to FAA security provisions for Internet technology. Facilities must use the NTML in preference to other methods. The NTML is an automated FAA Form 7230–4, Daily Record of Facility Operation, and will record the operating initials and facility for all log entries. Operating initials are removed at the end of six months in accordance with FAA Order 1350.15, Records Organization, Transfer, and Destruction Standards.

c. The NTML automatically closes and reopens a new log each day; it automatically records the operating initials of the person previously signed on. Carryover items may be entered by the specialist or automatically be entered by the software based on the end/date/time group. Closing and opening logs are concurrent with each local day; however, the entries are made utilizing Coordinated Universal Time.

d. When it is necessary to amend a previous entry, the original entry may be corrected through normal computer entries; however, the database will be automatically marked and the information must be retrievable by the system administrator.

17–5–9. NTML FACILITY CONFIGURATION REQUIREMENTS

At least one TMU position in each facility must:

a. Subscribe to DCC for TMIs affecting your facility**.**

b. Subscribe to underlying facilities for the following information:

1. Runway configurations.

2. Delays.

3. Deicing.

Section 6. Traffic Management Initiatives

17–6–1. GENERAL

a. Traffic Management Initiatives (TMIs) are techniques used to manage demand with capacity in the NAS.

1. Properly coordinated and implemented TMIs are an important tool in the air traffic system. These initiatives contribute to the safe and orderly movement of air traffic.

2. Any TMI creates an impact on customers. It is imperative to consider this impact and implement only those initiatives necessary to maintain system integrity.

b. Dynamic TMIs are those imposed on an as needed basis to manage fluctuations in traffic demands.

17–6–2. BACKGROUND

Some TMIs may also be considered "control instructions" or procedures; the difference is determined by the magnitude of the event, the coordination process, and the length of time it is implemented. TMIs may also be referred to as "restrictions," especially in conjunction with miles–in–trail.

17–6–3. POLICY

To maintain the integrity of the air traffic system, facility TM personnel must employ the least restrictive methods available to minimize delays.

17–6–4. TYPES OF TMIs

a. Altitude.

1. Utilized to segregate different flows of traffic, or to distribute the number of aircraft requesting access to a specified geographic region.

2. Colloquialisms:

(a) Tunneling– Term to indicate traffic will be descended prior to the normal descent point at the arrival airport to remain clear of an airspace situation; e.g., holding.

(b) Capping– Term to indicate aircraft will be cleared to an altitude lower than their requested altitude until they are clear of a particular airspace. Capping may apply to the initial segment of the flight or for the entire flight.

3. Low Altitude Arrival/Departure Routing (LAADR). A set of routings with altitude expectations for usage in times of severe weather constraints on the system. LAADR may apply to the departure or the arrival phase of flight. LAADR requires a written agreement with the customers prior to implementing.

b. Miles–in–trail (MIT). The number of miles required between aircraft that meet a specific criteria. The criteria may be separation, airport, fix, altitude, sector, or route specific. MIT are used to apportion traffic into manageable flows, as well as, provide space for additional traffic (merging or departing) to enter the flow of traffic.

c. Minutes–in–trail (MINIT). The number of minutes required between successive aircraft. It is normally used in a non–radar environment, or when transitioning to a non–radar environment, or additional spacing is required due to aircraft deviating around weather.

d. Fix balancing. Assigning an aircraft a fix other than in the filed flight plan in the arrival or departure phase of flight to equitably distribute demand.

e. Airborne holding. Planned holding of aircraft may be utilized. This is normally done when the operating environment supports holding and the weather conditions are expected to improve shortly; this ensures aircraft are available to fill the capacity at the airport.

f. Sequencing Programs. These programs are designed to achieve a specified interval between aircraft; they may be software generated or determined by TM personnel. Different types of programs accommodate different phases of flight.

1. Departure Sequencing Program (DSP)– Assigns a departure time to achieve a constant flow of traffic over a common point. Normally, this involves departures from multiple airports.

2. En route Sequencing Program (ESP)– Assigns a departure time that will facilitate integration in the en route stream.

3. Arrival Sequencing Program (ASP)– Assigns fix crossing times to aircraft destined to the same airport.

4. Time-Based Metering (TBM). The action of personnel providing air traffic services to meet a scheduled time at which airborne aircraft should cross a metering point or arc.

g. Reroutes:

1. Reroutes are ATC routings other than the filed flight plan. They are issued to:

(a) Ensure aircraft operate with the "flow" of traffic.

(b) Remain clear of special use airspace.

(c) Avoid congested airspace.

(d) Avoid areas of known weather or where aircraft are deviating or refusing to fly.

2. Operators should amend flight plans when they are more than 45 minutes from departure.

3. Sources for route information:

(a) Chart Supplement U.S.

(b) Preferential Route Information in facilities.

(c) Route Management Tool.

(d) North American Route Notice.

(e) Federal Air Regulations.

(f) Notices to Airmen.

(g) Advisories issued by ATCSCC. (These are listed on the Operational Information System.)

4. More information on routes is contained in Section 18, Coded Departure Routes, Section 19, Route Advisories, and Section 21, National Playbook.

h. Ground Delay Programs. (See Section 9, Ground Delay Programs.)

i. Airspace Flow Programs. (See Section 10, Airspace Flow Programs (AFP).)

j. Ground Stops. (See Section 12, Ground Stop(s).)

17–6–5. EXCEPTION

The above list is not all–inclusive and does not preclude the innovation and application of other procedures that will result in improved customer service.

17–6–6. TMI DATA

The efficiency of the NAS is enhanced when all participants have access to the same data. Utilization of shared technology, (e.g., Flow Evaluation Area) enhances the coordination process.

17–6–7. TMI APPROVAL AUTHORITY

a. The ATCSCC is the approval authority for all en route and designated terminals interfacility TMIs, except as identified in subparagraph (b) below and MIT restrictions of ten (10) miles or less. TMIs that are expected to result in reportable delays must be coordinated through the ATCSCC. Reportable delays are delays of 15–minutes or more as defined in FAA Order JO 7210.55, Operational Data Reporting Requirements.

NOTE–
New York TRACON is a designated terminal and others may be included at the direction of System Operations.

b. The Center/TRACON is responsible for TMI within their area of jurisdiction (underlying terminals) that do not cause reportable delays.

17–6–8. PROCESSING TMI

a. The initiating facility must identify the need for a TMI, explore alternatives, and prepare a justification.

b. The initiating facility must be prepared to discuss the proposal at the request of the ATCSCC and/or the receiving facility prior to implementation during the joint review process.

c. Facilities must continuously monitor and evaluate the TMI, and make adjustments as necessary, including cancellation.

d. Facilities must conduct post event analysis on the TMI, and document any known negative impacts/feedback.

17–6–9. FIELD FACILITY RESPONSIBILITIES FOR TMIs

a. Evaluate capacity and demand. The assessment must include the evaluation of all data required to

make an informed decision. The data may include Flow Evaluation Areas (FEA)/Flow Constrained Areas (FCA), traffic counts and lists from the Enhanced Traffic Management System, and coordination with impacted facilities.

b. Consider internal options prior to requesting interfacility TMIs.

c. When interfacility TMIs are appropriate, coordinate with the ATCSCC and provide the following information:

1. A detailed and specific identification of the problem.

2. Intrafacility actions taken/considered.

3. A detailed explanation of the assistance required, including options available.

4. Identification of potential system impacts.

d. Document the TMI in the NTML. Severe weather MIT coordinated through the ATCSCC must be entered in the NTML utilizing the "severe weather" feature by the facility requesting the MIT.

REFERENCE–
For ARTCC to ARTCC and ARTCC to N90 MIT responsibilities and coordination, refer to paragraph 17–7–5.

17–6–10. ATCSCC RESPONSIBILITIES FOR TMI

a. Advise facilities of system impacts. The impacts will be determined by conferencing impacted facilities, as necessary, and may require sharing FEAs/FCAs.

1. If a MIT restriction is modified while on the conference, the ATCSCC will modify the restriction in the NTML while on the conference.

2. Once the restriction is coordinated, the restriction or modified restriction will be approved and sent to all relevant facilities.

b. Issue a decision regarding the request. For negative responses, document the rationale in disapproving the request.

c. Issue advisories, as appropriate.

d. Monitor TMI pertinent to the position of operation.

e. Maintain a database of MIT TMI for historical and statistical analysis.

17–6–11. TMIs WITHIN ARTCC AREA OF JURISDICTION

Facilities must:

a. Coordinate TMIs with all impacted facilities within their jurisdiction.

b. Contact the ATCSCC at any time internal restrictions may result in reportable delays; have an adverse affect on other national initiatives; or result in the implementation of additional initiatives.

c. Enter all applicable information in the NTML.

17–6–12. TMIs OF 10 MIT OR LESS

TMIs must be coordinated consistent with the following procedures:

a. The requesting facility notifies the providing facility in a timely manner.

b. The TMI must not exceed four (4) hours.

c. The TMI is documented in the NTML, including justification and any negative impacts associated with the TMI.

d. If the facilities cannot reach agreement, the restriction request is forwarded to the ATCSCC for resolution.

e. The ATCSCC may suspend these procedures at any time by notifying the impacted facilities.

17–6–13. EN ROUTE SEQUENCING PROGRAM (ESP) IMPLEMENTATION

ESP assigns a departure time that will facilitate integration into an en route stream. Runway configuration and departure procedures must be considered for accurate projections. The TMU must:

a. Enter TM messages (FT, FE, etc.) to produce strips and automatically acquire full data blocks on departures, arrivals, and overflight traffic specifying the appropriate destination.

b. Inform appropriate sectors and ATCTs that ESP will be in effect (time) for aircraft destined to specified airports and routes.

c. Regulate VFR services to ensure that delays are distributed equally, especially if a ground delay program is in effect for a primary airport.

d. If an aircraft does not depart within the designated departure window, the appropriate sector

and/or ATCT must contact the TMU to obtain a new release time.

17–6–14. TMIs OF 25 MIT OR GREATER

a. All FAA TMUs requesting initiatives of 25 MIT or greater must:

1. Create an FEA that:

(a) Adequately represents the constrained area.

(b) Captures the flights affected by the requested initiative.

2. Share the FEA with the ATCSCC.

3. Enter the name of the FEA in the remarks section of the NTML Restrictions tab and coordinate justification for the restriction.

NOTE–
1. *TMUs are exempt from creating FEAs for situations that cannot be represented due to filtering limitations in the FEA tool.*

2. *Flights to specific runways, flights using specific departure procedures, flights that may be offloaded to alternative routing are examples of items that cannot be represented.*

b. If an extension to a 25 MIT or greater restriction is necessary, the TMU must:

1. Amend the shared FEA end time to cover the revised time period.

2. Coordinate the extension request with the ATCSCC.

c. The ATCSCC may suspend the requirements for facilities to develop FEAs associated with MIT restrictions at any time.

17–6–15. CAPPING AND TUNNELING

a. ARTCCs must:

1. Provide a basic capping and tunneling plan in coordination with affected TRACON for all airports listed in the Operational Evolution Partnership, as a minimum.

2. Develop, maintain, coordinate, and modify all capping and tunneling plans with the TMU, the ATCSCC, and affected facilities within or adjacent to their area of jurisdiction.

3. Complete capping and tunneling plans by March 1, 2009, and update their plans biannually, no later than May 1 and November 1 of each calendar year.

4. Include in the plan:

(a) A description of planned capping and tunneling procedures that may be used within the departure ARTCC airspace.

(b) Directions of use (for example, North Plan, South Plan, etc.).

(c) Altitudes, including expected start and/or end points of capping and tunneling actions.

(d) Routes and distances of expected use.

(e) Information concerning how and when the plan affects arrivals, departures, terminal or en route airspace.

(f) All facilities impacted.

b. ARTCC TMUs must:

1. Submit facility capping and tunneling plans to the ATCSCC Automation Office for inclusion in the Operational Information System by May 15 and November 15 of each calendar year. This will allow facilities and customers to evaluate the impact of these plans and any possible strategic and tactical options to them.

2. Coordinate capping and tunneling plans through the ATCSCC before implementation.

3. Coordinate issues, alternate initiatives, and exit strategies with the ATCSCC and affected facilities.

NOTE–
Capping and tunneling can provide a rapid solution to some situations; however, consideration needs to be given to potential weather constraints, such as turbulence and icing, and the effects of fuel and flight time for the aircraft included.

4. Provide local information to aid the ATCSCC with developing alternative, successful reroute options for customers to consider, as needed.

5. Implement tactical initiatives and update as necessary, for example, MIT/MINIT.

6. Coordinate changes or cancellation of capping and tunneling plans with the ATCSCC and affected facilities.

Section 8. Monitor Alert Parameter

17–8–1. PURPOSE

The Monitor Alert Parameter (MAP) establishes a numerical trigger value to provide notification to facility personnel, through the MA function of the TFMS, that sector/airport efficiency may be degraded during specific periods of time. The efficiency of a functional position or airport in providing air traffic services is a shared responsibility of the TM team. That team consists of the ATCS(s), OS(s), and the TMU. These entities must monitor, assess and act on sector/airport loading issues to ensure that these NAS elements operate efficiently. The ability of a functional position or airport to provide air traffic services may be affected by a variety of factors (i.e., NAVAIDs, meteorological conditions, communications capabilities, etc.); therefore MAP is a dynamic value which will be adjusted to reflect the capabilities of the functional position or airport.

17–8–2. IMPLEMENTATION PROCEDURES

MAP values are established and will be assigned for air traffic functional positions, within the MA function of TFMS as follows:

Average Sector Flight Time	MAP VALUE
3 min.	5
4 min.	7
5 min.	8
6 min.	10
7 min.	12
8 min.	13
9 min.	15
10 min.	17
11 min.	18
12 min. or greater	18

a. Average sector flight time will be calculated using data indicating functional position operations for a consecutive Monday through Friday, 7:00 AM – 7:00 PM local time frame.

NOTE–
This does not apply to combined sectors MA values.

b. MAP values for combined sectors may exceed the baseline value by more than three. Normal sector combinations and associated MAP values must be forwarded to the manager ATCSCC.

c. Baseline MAP values may be adjusted $^{+}/_{-}3$. Adjustments of more than $^{+}/_{-}3$ requires concurrence of the TMU and representatives of the area of specialization. Adjustments to the baseline values will be documented, including rationale, and maintained by the TMU.

d. The MAP value will be dynamically adjusted to reflect the ability of the functional position to provide air traffic service. During periods of reduced efficiency the MAP will be dynamically adjusted downward and conversely, when efficiency is improved, the MAP will be adjusted upward, but not to exceed the baseline or documented, adjusted value.

17–8–3. RESPONSIBILITIES

Facility TMUs must:

a. Monitor all adapted sectors and airports within their area of jurisdiction for alerts generated by the MA function of the TFMS.

b. Maintain communications with areas of specialization to determine functional position constraints and adjust MAP values to indicate the functional position capabilities.

c. Set the MA look ahead value at least one hour into the future with 1.5 hours to 2.5 hours being the recommended time frame.

NOTE–
The recommendation to set the look ahead value to between 1.5 and 2.5 hours is for pre-planning purposes. Action taken to address an alert should take place approximately 1 hour prior to the alerted time frame. This activity will allow for a further review and evaluation of the TFMS data. A key in the analysis process is the determination of the duration of the alert. TM initiatives should be primarily for those time frames when the MAP value will be equaled or exceeded for a sustained period of time (usually greater than 5 minutes).

d. Respond to alerts by:

1. Analyzing data for the alerted time frame to develop expected impact and recommendations to address the alert.

2. For red alerts – notify the affected area of the alert, indicating the expected impact and recommended action.

3. For yellow alerts – notify the affected area of the alert when analysis indicates that the ability of the sector to provide efficient air traffic services will be degraded due to abnormal operations.

e. Maintain an operational log of red alerts and retain for 45 days the following information:

1. Date and time of alert.

2. Results of analysis including expected impact and recommendation to address.

3. Time area notified.

4. Action, if any, to be taken.

5. Functional position configuration (i.e., sector combine status, staffing).

6. The time period(s), by facility, during which an alert notification(s) has/have been suspended.

17–8–4. ANALYSIS REQUIREMENTS

a. Facilities will produce, utilizing the Off Line Aircraft Management Program or equivalent program, a 15 minute summary sector activity report for each red alert and each yellow alert conforming to subparagraph 17–8–3d3.

b. Alerts generated by the MA function of the TFMS will be further evaluated by post event analysis. The focus of this analysis will be towards assessing the effectiveness and impact, both to the sector and the user, of action taken or not taken as a result of a documented alert. A one minute sector summary report will be utilized to assist in the impact analysis of the alerted time frame.

c. When a pattern of alerts is established (i.e., same sector, same time frame, on a daily basis or requirement for additional resources to manage on a routine basis) which requires recurring TM initiatives for resolution, additional analysis will be conducted. The analysis should result in recommendations to address the identified constraint and may include sector design adjustment, flow dispersion, or user operations adjustment. Should the local facility not be able to implement resolution recommendations due to external factors (i.e., lack of equipment, non-concurrence from other facilities), the local facility will elevate the issue to the responsible Service Area office.

17–8–5. RESOLVING RECURRING SECTOR LOADING ISSUES

The elevation of a recurring sector loading issue to the regional level indicates that the local facility requires additional assistance in resolving the issue. The appropriate Service Area office will allocate necessary resources to address the sector loading issue and will ensure that:

a. The local facility forwards a staff study to the Service Area office outlining activities taken to resolve the recurring sector loading problem, solutions explored, and recommendations for resolution. The report will also contain specific initiatives the facility is employing to currently manage the sector.

b. The originating facility Service Area office will develop an action plan to address the identified problem and will:

1. Notify ATCSCC of any continuing TM initiatives being implemented to resolve the sector loading problem.

2. Dedicate resources within the division to evaluate the facility's findings.

3. Serve as the focal point for coordinating interfacility activity as appropriate.

4. Coordinate with appropriate FAA Headquarters service units for assistance as necessary.

5. Forward to the manager ATCSCC, within 60 days of receiving the facility's report, a copy of the draft action plan and associated milestones.

Section 25. Time–Based Flow Management (TBFM)

17–25–1. GENERAL

a. TBFM is the hardware, software, methods, processes, and initiatives to manage air traffic flows based on time to balance air traffic demand with system capacity, and support the management of Performance Based Navigation (PBN).

b. TBFM provides a dynamic timed based environment, which increases efficiency and minimizes delays, compared to the use of static miles-in-trail. TBFM is a comprehensive, automated method of departure scheduling, en route adjustments, and arrival management. TBFM increases situational awareness through its graphical displays, timelines, and load graphs. TBFM trajectories are optimized for each aircraft to permit an accurate estimated time of arrival at an airport and provide scheduled times of arrival (meter times) that optimize the flow of traffic into a terminal area by adding more predictability to the ATC system. TBFM enables the routine use of Performance Based Operations (PBO).

17–25–2. PURPOSE

a. This section establishes the purpose of TBFM.

b. TBFM is the expanded use of time based metering to enable gate-to-gate improvements in both fuel and throughput efficiencies by:

1. Applying spacing only where needed.

2. Allowing for the routine use of PBO.

3. Capitalizing on advanced aircraft Flight Management System (FMS) capabilities.

4. Adding more predictability to the ATC system.

17–25–3. POLICY

When departure and or arrival flows are subject to TMIs, or when supporting PBN procedures, TBFM must be used to the maximum extent feasible in preference to miles-in-trail initiatives. Procedures for use of the capabilities within TBFM, in support of PBN operations and TMIs, must be documented in facility directives.

NOTE–
The benefits of TBFM are best realized through the coordinated effort of all facilities supporting PBN procedures or TMIs.

17–25–4. DEFINITIONS

a. Adjacent Center Metering (ACM). An extension of Single Center Metering (SCM) that provides time-based metering capability to neighboring facilities. There are three categories of ACM processing and control at a facility:

1. Managing Facility (Full Control Graphic User Interface (GUI)) – That facility which exercises control over SCM and/or ACM settings and the relevant metering operation.

2. Limited Control (Partial Control GUI) - The ability to manage specific ACM settings and activities for relevant metering operations.

3. Non-Controlling (Non-Control GUI) - A facility that only has monitoring capability.

b. Constraint Satisfaction Point (CSP) – A meter arc, meter fix, meter point or other meter reference elements.

c. *Coupled Scheduling*. Adds additional CSPs for an aircraft to meet the scheduled time of arrival along their route. This results in more optimal balancing and distribution of delays over a greater distance from the airport or CSP.

d. *En Route Departure Capability (EDC)*. Scheduling capability that assists personnel providing traffic management services in formulating release times to a CSP to manage a mile-in-trail restrictions.

e. Extended Metering. Adds additional CSPs for an aircraft to meet the scheduled time of arrival along their route. This results in more optimal balancing and distribution of delays over a greater distance from the airport or CSP.

f. Ground-Interval Management-Spacing (GIM-S). Capability that provides automated speed advisories prior to descent to enable en route controllers to meet the Scheduled Time of Arrival (STA).

g. Integrated Departure/Arrival Capability (IDAC). Capability that automates the Call for Release process for departure scheduling and EDC.

h. Reschedule/Global Reschedule – The recalculation of generated frozen scheduled times of arrival (STA) resulting from an action taken at the TBFM GUI. Reschedule/Global Reschedule also commonly referred to as "rescheduling" or "rippling," can be executed as an independent function but is also accomplished when changes to TBFM configurations or settings occur.

i. Single Center Metering (SCM). Capability that provides personnel providing traffic management services with the ability to view and manage arrival flows to an ARTCC's internal airports.

j. Supporting Facility. A facility, which maintains an ancillary relationship to the managing facility in supporting TBFM-related functions.

k. Time Based Flow Management (TBFM) is the hardware, software, methods, processes, and initiatives to manage air traffic flows based on time to balance air traffic demand with system capacity, and support the management of PBN. This includes, but not limited to, TBM, ACM, SCM, EDC, TBS, IDAC, GIM-S, and Extended/Coupled Metering.

l. Time-Based Metering (TBM). The action of personnel providing air traffic services to meet a scheduled time at which airborne aircraft should cross a CSP.

m. Time-Based Scheduling (TBS)/Departure Scheduling. The action of personnel providing traffic management services to formulate time parameters for release of aircraft into an arrival flow.

17–25–5. RESPONSIBILITIES

a. The ATCSCC must:

1. Be the final decision authority for TBFM-related operations and initiatives.

2. Manage the equity of overall system delays throughout the NAS.

3. Maintain awareness of all TBFM-related operational activities within the NAS.

4. Include the status of pertinent TBFM related information on the planning telecons and on the National Airspace System Status display.

5. Prioritize day-to-day TBFM activity based on NAS and/or facility constraints.

6. Establish and maintain multifacility communications when necessary for TBFM operations.

7. Log TBFM related activities.

b. The Managing Facility must:

1. Determine appropriate TBFM settings and parameters.

2. Ensure TBFM settings are entered via TBFM TGUI, kept current, and coordination is accomplished.

3. Determine TBFM activity timeframes and coordinate start/stop times with the ATCSCC and affected facilities.

4. Communicate TBFM activity start/stop information to operational areas, operating positions, and supporting facilities, and log.

5. Enable/Disable sector meter list as coordinated, where applicable.

6. Monitor internal internal and upstream compliance and take appropriate action.

7. Monitor TBFM airborne delays and initiate actions, as appropriate, when values exceed or are projected to exceed delays that can be absorbed by control sectors. Notify the OS or affected areas/sectors of actions taken and expected outcomes.

8. Notify ATCSCC when unable to use TBFM capabilities, provide supporting justification, and log.

9. Coordinate internally with affected areas and with supporting facilities before taking action when changes to the metering strategy or updates to the TBFM schedule are necessary.

NOTE–
To the extent possible, avoid making any changes in TBFM that cause a reschedule/global reschedule during metering operations. Coordinate with affected facilities and sectors before a reschedule/global reschedule.

10. Ensure TBFM coordination procedures are placed into local SOP or LOAs between facilities.

REFERENCE–
FAAO 7210.3, 4-3-1, LETTERS OF AGREEMENT

11. Use TBFM to determine release times for facility controlled departures to a metered airport.

Section 4. Parachute Jump Operations

18–4–1. NONEMERGENCY PARACHUTE JUMP OPERATIONS

a. All concerned personnel must familiarize themselves with 14 CFR Part 105, and obtain the required information required by Section 105.25 when processing requests for authorization or notification of non-emergency parachute jumps.

b. When operational/procedural needs require or when warranted by high density air traffic or constrained airspace, negotiate letters of agreement that designate areas of ongoing jump activity as permanent jump sites. Letters of agreement should contain:

1. The description and the location of the jump zone(s) and the conditions of use.

2. The activity schedules.

3. The maximum jump altitudes, common jump altitudes and common parachute opening altitudes (all altitudes should be expressed in feet above mean seal level).

4. The communication frequencies to be used by the jump aircraft.

5. Jump aircraft call signs.

6. Jump aircraft climb and descent areas.

7. Notification procedures.

8. Assigned transponder code when appropriate.

9. Any other items pertinent to the needs of the ATC system and the users.

c. Where ongoing jump sites are established, but not yet published, ATMs may work with the parachute operator to ensure pertinent information is submitted for publication in the Chart Supplement U.S. and contact the Operations Support Group for assistance as needed.

d. To the extent possible, advise parachute jumping organizations or responsible individuals of known high traffic density areas or other airspace where sport parachuting may adversely impact system efficiency, such as IFR departure/arrival routes, Federal airways, VFR flyways, military training routes, etc.

e. A record of parachute jump coordination must be maintained by the facility for 45 days. The records must contain at least a copy of the NOTAM, reason(s) for cancellation (if applicable), name of the person(s) effecting coordination, and instructions or conditions imposed on the jump operation.

Appendix 4. Glideslope Outage Authorization Request

Request for Authorization to Conduct Simultaneous Independent Approaches with Glideslope Out After 29 Days	
AJV–8	Submit via Email to: 9–AJV–8–HQ–Correspondence@faa.gov
Section 1	
Facility Identification: (KXYZ)	
Runway (###) Glideslope OTS:	
Dates of Expected Outage: (xx/xx/xx to xx/xx/xx)	
Reason Glideslope is OTS:	
Section 2	
(Simultaneous) Approaches Impacted:	
Runway Usage Percentage:	
IFR Limits/Weather Minimum:	
RNAV Capability/Equipage:	
Peak IFR Airport Arrival Rate:	
Section 3	
Impact if Authorization is Not Granted:	
Facility Manager must include a narrative of the operational impact if continuation of this procedure is not approved.	
Section 4	
Attach a copy of the facility Contingency Authorization for Glideslope Out Procedures.	

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BRIEFING GUIDE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Initiated By: AJV-0
Vice President, Mission Support Services

Table of Contents

1. PARAGRAPH NUMBER AND TITLE:
1−1−6. SUBMISSION CUTOFF AND EFFECTIVE DATES
1−1−8. RECOMMENDATIONS FOR PROCEDURAL CHANGES

2. BACKGROUND: This change clarifies meaning of "Cutoff Date for Submission" regarding updates/changes to cyclical orders and other publications. In the past, changes have been submitted on, or close to, the cutoff date for incorporation into the next update. However, a large majority of the submitted changes require additional time for comments, coordination, etc., prior to final approved for publication. It is strongly advised to submit proposed changes well in advance of the cutoff date.

3. CHANGE:

OLD

1−1−6. SUBMISSON CUTOFF AND EFFECTIVE DATES

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

Add

NEW

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

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

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

OLD

Publication Schedule		
Basic or Change	**Cutoff Date for Submission**	**Effective Date of Publication**
JO 7210.3AA	4/27/17	10/12/17
Change 1	10/12/17	3/29/18
Change 2	3/29/18	9/13/18
Change 3	9/13/18	2/28/19
JO 7210.3BB	2/28/19	8/15/19

NEW

Publication Schedule		
Basic or Change	**Cutoff Date for Completion**	**Effective Date of Publication**
JO 7210.3AA	4/27/17	10/12/17
Change 1	10/12/17	3/29/18
Change 2	3/29/18	9/13/18
Change 3	9/13/18	2/28/19
JO 7210.3BB	2/28/19	8/15/19

OLD	NEW
1–1–8. RECOMMENDATIONS FOR PROCEDURAL CHANGES	**1–1–8. RECOMMENDATIONS FOR PROCEDURAL CHANGES**
Title through **subparagraph b**	No Change
c. Proposed changes must be submitted, electronically, to the Air Traffic Procedures Correspondence Mailbox at 9–AJV–8–HQ–Correspondence@faa.gov. The submission should include a description of the recommended change, and the proposed language to be used in the order.	**c.** Proposed changes must be submitted electronically to the Air Traffic Procedures Correspondence Mailbox at 9–AJV–8–HQ–Correspondence@faa.gov. The submission should include a description of the recommended change, and the proposed language to be used in the order.
Add	***NOTE–*** ***For details on the submission process as well as additional AJV–8 processing responsibilities, please see FAA Order JO 7000.5, Procedures for Submitting Changes to Air Traffic Control Publications.***

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1. PARAGRAPH NUMBER AND TITLE:
1–2–4. ABBREVIATIONS
2–10–3. ALTIMETER REQUIREMENTS
2–10–4. COMPARISON CHECKS
3–1–1. BASIC EQUIPMENT

2. BACKGROUND: Over the past 10 years, the FAA has deployed Standalone Surface Weather Sensors (SAWS) and is currently deploying Surface Weather Systems (SWS). SAWS and SWS both have multiple pressure sensors and are approved as an airport pressure standard without a comparison to other altimeter equipment, just as an automated weather observation system (ASOS/AWOS). Since some altimeter equipment (for example, DASI, SWS) can also interface directly with terminal automation systems, these changes will help ATCT and TRACON facilities use the same altimeter setting for airports within their jurisdiction.

3. CHANGE:

OLD	NEW
1–2–4. ABBREVIATIONS	**1–2–4. ABBREVIATIONS**
Add	**SWS** . . . . . **Surface Weather System**

OLD	NEW
2–10–3. ALTIMETER REQUIREMENTS	**2–10–3. ALTIMETER REQUIREMENTS**

a. At least two aneroid altimeter setting indicators (ASI) or one ASI and a traceable pressure standard are required in a TRACON, radar approach control (RAPCON), terminal radar approach control in tower cab (TRACAB), combined center/RAPCON (CERAP), radar ATC facility (USN) (RATCF), tower cab, and a FSS that takes weather observations and/or provides LAA. When two or more facilities (or a NWS commissioned/certified automated weather observing system) are located on the same airport, the requirement may be reduced to one aneroid ASI per facility. Aircraft altimeters must not be used in reporting altimeter settings.	**a.** At least two **sources of** altimeter setting information or **an approved** pressure standard are required in a TRACON, radar approach control (RAPCON), terminal radar approach control in tower cab (TRACAB), combined center/RAPCON (CERAP), radar ATC facility (USN) (RATCF), tower cab, and a FSS that takes weather observations and/or provides **Local Airport Advisories (**LAA**)**. When two or more facilities are located on the same airport, the requirement may be reduced to one **source of altimeter setting information** per facility. Aircraft altimeters must not be used in reporting altimeter settings.
NOTE–	***NOTE–***
1. *Stand alone RADAR approach control facilities (TRACON, RAPCON, RATCF, CERAP) not associated with a control tower are only required to maintain altimeter settings for those airports under their jurisdiction.*	*Stand–alone RADAR approach control facilities (TRACON, RAPCON, RATCF, CERAP) not associated with a control tower are only required to maintain altimeter settings for those airports under their jurisdiction.*
2. *A digital ASI (DASI) system is considered as one aneroid ASI instrument for the purpose of this paragraph.*	Delete
b. At locations with commissioned ASOS or commissioned dual transducer AWOS units, the ASOS/AWOS becomes the pressure standard. If the ASOS/AWOS is inoperative, a Stand Alone Weather System (SAWS) or DASI may be considered as the pressure standard.	**b. Each of the following systems is considered to be one (1) source of altimeter setting information for the purposes of this paragraph:**
Add	**1. Automated Surface Observing System (ASOS)**
Add	**2. Automated Weather Observing System (AWOS)**
Add	**3. Stand Alone Weather Sensor (SAWS)**
Add	**4. Surface Weather System (SWS)**
Add	**5. Digital Altimeter Setting Indicator (DASI)**
Add	**6. Altimeter Setting Indicator (ASI)**
Add	**c. ASOS, AWOS, SAWS, and SWS systems are considered approved pressure standards for the purposes of this paragraph.**

OLD	NEW
2–10–4. COMPARISON CHECKS	**2–10–4. COMPARISON CHECKS**
a. Facilities equipped only with aneroid instruments:	**a. Comparison checks against another source of altimeter setting information are not required for ASOS, AWOS, SAWS or SWS.**
Add	***NOTE–*** ***ASOS, AWOS, SAWS, and SWS are equipped with a minimum of two (2) and as many as three (3) digital pressure transducers.***
Add	**b. Facilities equipped with ASI or DASI:**
1. Compare the reading of each aneroid instrument (ASI) daily and each nonpressure standard digital instrument (DASI) monthly with the altimeter setting issued by an associated facility having a traceable pressure standard located either on the airport or within the distances set forth in subparas d and e.	**1.** Compare the reading of each ASI daily **with a collocated ASOS/AWOS/SAWS/SWS or with the altimeter setting issued by an associated facility with a commissioned ASOS/AWOS/SAWS/SWS that is located either on the airport or within the distances set forth in subparagraphs c and d.**
2. When the differences between the two altimeter settings exceeds 0.05 in. Hg. at nonprecision approach locations or 0.02 in. Hg. at precision approach locations, remove the instrument from service and notify Technical Operations personnel. When all ASI instruments in the facility are found to exceed the tolerances, report the altimeter setting as *missing*.	**2.** When the differences between the two altimeter settings exceed 0.05 in. Hg. at nonprecision approach locations or 0.02 in. Hg. at precision approach locations, remove the instrument from service and notify Technical Operations personnel. When all ASI instruments in the facility are found to exceed the tolerances, report the altimeter setting as *missing*.
3. When the difference is less than the tolerances specified in subpara 2 above, the value (+ or –) is applied as the correction factor to determine the operational altimeter setting.	No Change
(a) On dial–type display ASIs, post the correction factor directly on the face of the instrument. Use the same comparison procedures and determine the correction factor for each instrument in the facility.	No Change
(b) On digital ASI (DASI) systems, post the correction factor on or near the display/s. Local facility procedures may be developed in coordination with the associated Technical Operations (Tech OPS) office to adjust the DASI to display the corrected altimeter setting.	Delete
b. Facilities equipped with aneroid instruments and a traceable pressure standard:	Delete
1. Make two comparisons at least 6 hours apart, but not more than 8 hours, on the same day of the week. Enter all comparison data on the appropriate form. Every week, determine the mean of the 10 last comparisons, and use this figure as the posted correction to apply to the reading of the ASI.	Delete

2. Additional comparison procedures are described in handbooks applicable to the facility	Delete
c. At locations with commissioned ASOS or commissioned dual transducer AWOS units, the ASOS/AWOS becomes the pressure standard. Compare the reading of each aneroid ASI to the pressure standard daily and each digital ASI (SAWS/DASI) monthly. In the event of a failure of the pressure standard instruments, a comparison must be made within 36 hours. Tolerances and posting procedures are contained in subparas a2 and a3.	Delete
d. At locations not served by a weather reporting station, make a comparison against an adjacent weather service office, commissioned dual transducer AWOS or ASOS systems, a FSS or a LAWRS facility having a traceable pressure standard.	Delete
1. At locations where precision approaches are conducted, the weather reporting station is not more than 10 NM away, and at both locations the wind speed is 12 knots or less with no gusts above 15 knots.	Delete
2. At all other locations the distance must not exceed 25 NM, and at both locations the wind speed must be 15 knots or less with no gusts above 20 knots.	Delete
3. The difference in elevation does not exceed 100 feet at precision approach locations and 200 feet at all other locations.	Delete
4. The station's temperature at both locations must be within 30 degrees Fahrenheit of the standard atmosphere temperature for the station's elevation.	Delete
NOTE– *The following formula may be used to determine the standard atmosphere temperature for station elevation:*	Delete
T = Standard Temperature is 59°F	Delete
H = Field Elevation.	
0.0036 Standard Atmospheric Temperature change per foot.	
H x 0.0036 = Standard Temperature for station elevation.	

EXAMPLE–	Delete
1. *Tower A field elevation 600 feet: 600 x 0.0036 = 2.16°F of change, is rounded to 2°F.* *59°F - 2°F = 57°F standard temperature for Tower A adjusted for elevation.*	
2. *Tower B field elevation 700 feet: 700 x 0.0036 = 2.52°F of change, is rounded to 3°F.* *59°F - 3°F = 56°F standard temperature for Tower B adjusted for elevation.*	
If both sites are between ± 30°F {87°F and 27°F for Tower A and 86°F and 26°F for Tower B} a comparison check is appropriate for temperature.	
5. Do not use altimeter setting values from aneroid instruments when the difference exceeds ±0.02 in. Hg. at precision approach locations or ±0.05 in. Hg. at all other locations.	Delete
e. A traceable pressure standard is required for routine altimeter setting comparison checks at all facilities that exceed the requirements of subpara d.	Delete
	Add **(b) On DASI systems, local facility procedures must be developed in coordination with the associated Technical Operations office to make routine comparison checks with ASOS/AWOS/SAWS/SWS and adjust the DASI to display the correct altimeter setting.**
	Add ***NOTE–*** ***Facilities that have DASI equipment that is not FAA owned or maintained must accomplish the procedures in paragraph 2–10–4, b1, b2 and b3(a) monthly.***
	Add **c. At ASI or DASI locations that are not collocated with a commissioned ASOS/AWOS/SAWS/SWS, make a comparison against the altimeter setting issued by an adjacent facility with a commissioned ASOS/AWOS/SAWS/SWS.**
	Add **1. At locations where precision approaches are conducted, the facility used for comparison must be located within 10 NM, and at both locations the wind speed must be 12 knots or less with no gusts above 15 knots.**
	Add **2. At all other locations the distance must not exceed 25 NM, and at both locations the wind speed must be 15 knots or less with no gusts above 20 knots.**
	Add **3. The difference in elevation does not exceed 100 feet at precision approach locations and 200 feet at all other locations.**

Add **4. The station's temperature at both locations must be within 30 degrees Fahrenheit of the standard atmosphere temperature for the station's elevation.**

Add ***NOTE–***
The following formula may be used to determine the standard atmosphere temperature for station elevation:

Add **T = Standard Temperature is 59°F**

H = Field Elevation.

0.0036 Standard Atmospheric Temperature change per foot.

H x 0.0036 = Standard Temperature for station elevation.

Add ***EXAMPLE–***
1. ***Tower A field elevation 600 feet: 600 x 0.0036 = 2.16°F of change, is rounded to 2°F.***

59°F – 2°F = 57°F standard temperature for Tower A adjusted for elevation.

Add **2.** ***Tower B field elevation 700 feet: 700 x 0.0036 = 2.52°F of change, is rounded to 3°F.***

59°F – 3°F = 56°F standard temperature for Tower B adjusted for elevation.

Add ***If both sites are between ± 30°F {87°F and 27°F for Tower A and 86°F and 26°F for Tower B} a comparison check is appropriate for temperature.***

Add **5. Do not use altimeter setting values when the difference exceeds ± 0.02 in. Hg. at precision approach locations or ± 0.05 in. Hg. at all other locations.**

Add **d. An approved pressure standard is required for routine altimeter setting comparison checks at all facilities that exceed the requirements of subparagraph c.**

OLD	NEW
3–1–1. BASIC EQUIPMENT	**3–1–1. BASIC EQUIPMENT**
Title through **a**	No Change
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.	No Change
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.	**1.** At terminal facilities where certified information display system (IDS) equipment is installed, the IDS must be the display source for the time, DASI, RVR, wind (including wind shear ribbon display terminals), and weather data from ASOS, AWOS, SAWS, **SWS,** etc.

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1. PARAGRAPH NUMBER AND TITLE: 2–1–14. APPROACH CONTROL CEILING

2. BACKGROUND: FAA Order JO 7210.3, Paragraph 2–1–14, Approach Control Ceiling, states that approach control airspace should not exceed 10,000 feet AGL. This requirement first appeared in the FAA Order JO 7210.3G Basic version which was published on March 15, 1984. When this requirement was incorporated into the order, there was a note stating "Considering the number of facilities that provide Stage III service and the effect of TCA's, it is important that pilots have a general understanding of the altitudes controlled by centers." This paragraph remained the same until September 16, 1993, with the 7210.3K Basic change. Included in the 1993 change, the United States adapted the International Civil Aviation Organization (ICAO) airspace classes that were adopted with the Airspace Reclassification Final Rule. With that change Airport Radar Service Area (ARSA) became Class C Airspace and Terminal Control Area (TCA) became Class B Airspace. Stage III Services referred to services provided in the TCA and the Terminal Radar Service Area (TRSA). The term Stage III Services is outdated and is no longer used. The services provided in different classes of airspace are outlined in the FAA Order JO 7110.65. The note, referenced above, was removed from the order but the requirement for the staff study and higher level management approval to extend an approach control ceiling above 10,000 feel AGL was left intact. This requirement has remained in the order, unchanged, to date. Approach control classes of airspace are depicted on aeronautical charts and renders an arbitrary and archaic ceiling limit of 10,000 feet AGL. Furthermore, airspace changes are required to be assessed in accordance with the ATO's Safety Management System (SMS) Manual.

3. CHANGE:

OLD	NEW
2–1–14. APPROACH CONTROL <u>CEILING</u>	**2–1–14. APPROACH CONTROL <u>AIRSPACE</u>**
<u>The airspace area within which approach control service is provided should not exceed 10,000 feet AGL. Exceptions require a staff study and approval of the Vice President of Air Traffic Services.</u>	Delete

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

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1. PARAGRAPH NUMBER AND TITLE: 2–1–30. REPORTING DIVERTED AIRCRAFT ARRIVING FROM INTERNATIONAL LOCATIONS

2. BACKGROUND: Aircraft from international departure points landing at U.S. airports sometimes divert, due to weather or other unforeseen reasons, and land at an alternate U.S. airport. For customs and security purposes, it is necessary that U.S. Customs and Border Patrol (CBP) be notified, in real time, of the particular aircraft that were diverted. The most efficient way to accomplish this notification is via the Domestic Events Network (DEN). This Document Change Proposal (DCP) adds a new requirement that ATC inform the DEN Air Traffic Security Coordinator (ATSC) of each diverting international aircraft.

3. CHANGE:

OLD	NEW
Add	**2–1–30. REPORTING DIVERTED AIRCRAFT ARRIVING FROM INTERNATIONAL LOCATIONS**
Add	**Any aircraft departing from an international location that diverts to a U.S. Airport, or is diverted and lands at a U.S. airport different from the original U.S. destination airport, must be reported to the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC). In addition, any diverted aircraft that ATC identifies as suspicious (in accordance with paragraph 2–1–29) must be promptly reported to the DEN ATSC.**
Add	***NOTE–*** ***Weather, airport/runway conditions, or other unforeseen reasons may necessitate an aircraft to divert or be diverted on short notice. Reporting via the DEN assists U.S. Customs and Border Protection (CBP) with real–time notification of the airport change.***
2–1–30 through **2–1–33**	Renumber **2–1–31** through **2–1–34**.

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1. PARAGRAPH NUMBER AND TITLE:
3–4–5. VSCS DATA RETENTION
4–6–5. PREPARATION OF FAA FORM 7230–4
8–1–3. COMPUTER DATA RETENTION
11–3–2. DATA RETENTION

2. BACKGROUND: Technological advancements have eliminated the mandatory requirement to use obsolete equipment when submitting Form 7230–4, Daily Record of Facility Operation. Prior to making changes to paragraph 4–6–5, Headquarters' Air Traffic Control Specialists received confirmation from the Director of Technical Operations Services of Spectrum Engineering and Policy, and the Program Manager of NAS Quality Assurance and Performance Group.

3. CHANGE:

OLD	NEW
3–4–5. VSCS DATA RETENTION	**3–4–5. VSCS DATA RETENTION**
a. Retain the VSCS cassette, disc, and tape recordings and data communications/console typewriter printouts for 45 days unless they are related to an accident/incident as defined in accordance with the FAA Records Disposition Reference Table supporting FAA Order 1350.14, Records Management.	**a.** Retain the VSCS disc, tape recordings, and data communications printouts for 45 days unless they are related to an accident/incident as defined in accordance with the FAA Records Disposition Reference Table supporting FAA Order 1350.14, Records Management.

b through **c**	No Change
d. Treat the VSCS cassette, disc, tape, duplicate 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.)	**d.** Treat the VSCS disc, tape, duplicate originals, and data communications printouts related to hijack aircraft the same as voice recorder tapes. (See Para**graph** 3–4–4, Handling Recorder Tapes or DATs**, or DALR Storage.**)
OLD	**NEW**
4–6–5. PREPARATION OF FAA FORM 7230–4	**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:	No Change
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.	**a. Except as provided in paragraph 4–6–4, use of a 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. R**emarks** section entries must be single–spaced.
b through **h2**	No Change
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.	**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 **subparagraph** 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.*	No Change
j. When this form is used to describe the operation of radioteletypewriter and radiotelegraph circuits, record the following information:	Delete
1. Frequencies being used and type of watch (continuous or scheduled) being maintained on each frequency.	Delete
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.	Delete
k through **n**	Re–letter as **j** through **m.**

OLD

8–1–3. COMPUTER DATA RETENTION

a. Retain SAR/CDR computer and DLOG (if recorded) recordings and data communications/ console typewriter printouts for 45 days unless they are related to an accident/incident as defined in FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting. Retention of the latter must be in accordance with FAA Order JO 1350.14, Records Management.

b and **c**

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.)

NEW

8–1–3. COMPUTER DATA RETENTION

a. Retain SAR/CDR computer and DLOG (if recorded) recordings and data communications printouts for 45 days unless they are related to an accident/incident as defined in FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting. Retention of the latter must be in accordance with FAA Order JO 1350.14, Records Management.

No Change

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

OLD

11–3–2. DATA RETENTION

Title through **b1**

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

NOTE–
A facility using a console typewriter printout take–up device may retain the printout on the spool for 45 days after the last date on the spool. Retention of the daily printouts relating to accidents/incidents must be in accordance with subpara b.

b3 through **d**

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

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

NEW

11–3–2. DATA RETENTION

No Change

No Change

Delete

No Change

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

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

---

1. PARAGRAPH NUMBER AND TITLE: 3–6–6. TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS

2. BACKGROUND: The ASR–8 was designed primarily as aircraft detection equipment for the National Airspace System (NAS). Weather detection is an auxiliary function but it is not certifiable. The ASR–8/Target Data Extractor (TDX)–2000 weather product is primarily created using the normal video output of the radar by searching for large areas of radar returns that are too large to be an aircraft. That data is compared to the clear day weather map to determine if it is from a clutter return or not. If not, it undergoes further processing to confirm weather. The different levels of weather are determined by the video magnitude in the areas of weather in the coverage area when compared to the Clear Day (no weather) map in the TDX–2000. It is not as thorough or accurate as Next Generation Radar/Terminal Doppler Weather Radar/Weather System Processor

(NEXRAD/TDWR/WSP) weather products. There are two types of radar selections available: Linear Polarization (LP) and Circular Polarization (CP). In LP, the TDX−2000 will display up to level 3 precipitation. Higher levels may appear but they are considered unreliable in LP. In CP, the TDX−2000 will display levels 3−6 plus some level 2. Level 1 may appear but is considered unrealiable.

3. CHANGE:

OLD	NEW
3−6−6. TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS	**3−6−6. TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS**
Title through **b2**	No Change
Add	**c. Facilities that utilize a digital system that does not concurrently display all levels of precipitation (ASR−8/TDX2000) must establish a procedure via facility directive that ensures periodic monitoring of all precipitation level ranges during precipitation events.**
c	Re−letter as **d**

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1. PARAGRAPH NUMBER AND TITLE:
3−7−3 DISPLAY MAP DATA
3−8−4 EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)

2. BACKGROUND: This change updates the notes regarding the AJV−5 role in airport verification on Radar Video Maps for terminal air traffic control facilities that were added to the 7210.3Z. The notes originally added to the order did not clarify how the accuracy of airport status data is verified.

3. CHANGE:

OLD	NEW
3−7−3 DISPLAY MAP DATA	**3−7−3 DISPLAY MAP DATA**
Title through **a**	No Change
NOTE− *Mission Support Services, Air Traffic Support, AJV−5 will verify the accuracy of airport status on video maps they produce. Facilities will be notified by AJV−5 that new radar video maps (RVMs) will be sent when a depicted airport is no longer operational.*	***NOTE−*** *Mission Support Services, **Aeronautical Information Services**, AJV−5 will verify the accuracy of video maps they produce **to ensure the video maps depict only operational airports as defined by the Office of Airport Safety and Standards, AAS−1.** Facilities will be notified by AJV−5 that new radar video maps (RVMs) will be sent when a depicted airport is no longer operational.*

OLD	NEW
3−8−4 EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)	**3−8−4 EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)**
Title through **d1(d)**	No Change
NOTE− *Mission Support Services, Air Traffic Support, AJV−5 will verify the accuracy of airport status on video maps they produce. Facilities will be notified by AJV−5 that a new EOVM will be sent when a depicted airport is no longer operational.*	***NOTE−*** *Mission Support Services, **Aeronautical Information Services**, AJV−5 will verify the accuracy of video maps they produce **to ensure the video maps depict only operational airports as defined by the Office of Airport Safety and Standards, AAS−1.** Facilities will be notified by AJV−5 that a new EOVM will be sent when a depicted airport is no longer operational.*

1. PARAGRAPH NUMBER AND TITLE:
4−3−1. LETTERS OF AGREEMENT
4−3−2. APPROPRIATE SUBJECTS

2. BACKGROUND: Federal Aviation Administration (FAA) Headquarters Airport, Air Traffic, and Technical Operations lines of business collaboratively developed requirements for the presence of personnel and equipment in Runway Safety Areas (RSA) during air carrier/aircraft operations. Advisory Circular 150/5210−20A contained language that addresses vehicle operations in Runway Safety Areas. A Letter of Agreement (LOA) is required at each towered airport to clarify the specific activities allowed in the RSA during air carrier/aircraft operations. This LOA will include the airport operator, the local air traffic control tower (ATCT), FAA Technical Operations, and any other airport tenant that may be permitted into the RSA during air carrier/aircraft operations. The LOA must describe the specific procedures for personnel and equipment in the RSA during air carrier/aircraft operations.

3. CHANGE:

OLD	**NEW**
4−3−1. LETTERS OF AGREEMENT	**4−3−1. LETTERS OF AGREEMENT**
Title through **k3**	No Change
Add	**l. The airport operator must define the specific activities allowed in the Runway Safety Areas (RSA) during aircraft operations. Air Traffic, FAA Technical Operations and airport tenants that may be permitted into the RSA must be included in an LOA.**

OLD	**NEW**
4−3−2. APPROPRIATE SUBJECTS	**4−3−2. APPROPRIATE SUBJECTS**
Title through **k4**	No Change
Add	**5. Specific activities allowed in the RSA during aircraft operations.**
Add	***REFERENCE−*** ***FAA Order JO 7210.3, Para 2−1−20, Obstacle Identification Surfaces, Obstacle Free Zones, Runway Safety Areas. Approach/Departure Hold Areas and Clearways*** ***AC−150/5210−20A, Appendix C***
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.	**6.** Operations under an exemption from Part 91, Appendix D, Section 3, the surface area of Class B, Class C, Class D, or Class E airspace within which Special VFR weather minimums are not authorized.
REFERENCE− *Advisory Circular AC 150/5210 −7C, Airport Rescue and Fire Fighting Communications.*	***REFERENCE−*** *Advisory Circular AC 150/5210 −7C, Airport Rescue and Fire Fighting Communications.*

1. PARAGRAPH NUMBER AND TITLE: 8−2−1. THREE MILE OPERATIONS

2. BACKGROUND: After an analytical study was completed by the FAA Flight Systems Laboratory, FAA Order JO 7110.65, Paragraph 5−5−4, Minima, subparagraph d3(b) was changed to allow for a separation standard minima of 3 nautical miles (NM) in En Route Automation Modernization (ERAM) facilities within 60 NM of the preferred sensor when using ASR−9 with Mode S or ASR−11 MSSR Beacon. However, that change did not address Microprocessor En Route Automated Radar Tracking System (MEARTS) facilities. FAA Order JO 7110.65 is being changed to address MEARTS facilities concurrently with this document change proposal. FAA Order JO 7210.3, Paragraph 8−2−1, Three Mile Operations, does not currently address MEARTS facilities separately. They are included in Paragraph 8−2−1d, Non−ERAM, which limits the range to within 40 NM of the antenna.

3. CHANGE:

OLD	NEW
8−2−1. THREE MILE OPERATIONS	**8−2−1. THREE MILE OPERATIONS**
Title through **c3**	No Change
d. Non−ERAM: All sort boxes within 40 miles of the antenna are adapted to that site as preferred and with the single site indicator set to permit the use of 3 NM radar separation.	**d. MEARTS:** All sort boxes within 40 **NM** of the **sensor or within 60 NM of the sensor when using ASR−9 with Mode S or ASR−11 MSSR Beacon** and with the single site indicator set to permit the use of 3 NM radar separation.

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1. PARAGRAPH NUMBER AND TITLE: 10−1−12. PARTICIPATION IN LOCAL AIRPORT DEICING PLAN (LADP)

2. BACKGROUND: The events of September 11, 2001, required 14 CFR Part 107 Airport Security to be placed under the auspices of the Department of Homeland Security (DHS) and the Transportation Security Administration (TSA). Subsequently, in August 2016, 14 CFR Part 107 became the Small Unmanned Aircraft Systems rule.

3. CHANGE:

OLD	NEW
10−1−12. PARTICIPATION IN LOCAL AIRPORT DEICING PLAN (LADP)	**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.	**a.** Officials, at airports operating under **49 CFR Part 1540/1542 and 14 CFR 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.

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1. PARAGRAPH NUMBER AND TITLE:
10−4−6. SIMULTANEOUS INDEPENDENT APPROACHES
10−4−7. SIMULTANEOUS WIDELY−SPACED PARALLEL OPERATIONS

2. BACKGROUND: The use of Required Navigation Performance (RNP) approach transitions to have aircraft join the final approach course is becoming increasingly common throughout the National Airspace System. Established on RNP (EoR) operations with Radius−to Fix (RF) legs are approved to widely−spaced parallel runways (more than 9,000 feet centerline spacing) without monitors. A Safety Risk Management Panel completed the required safety risk analyses for conducting RF/Track−to−Fix (TF) EoR operations to dual parallel runways with centerline spacing of 3,600 feet or greater, triple parallel runways with centerline 3,900 feet or greater, and adding TF legs to the widely−spaced runway criteria. Based on the safety risk analyses, EoR can be incorporated into simultaneous instrument approaches to parallel runways during dual and triple operations.

3. CHANGE:

OLD	NEW
10−4−6. SIMULTANEOUS INDEPENDENT APPROACHES	**10−4−6. SIMULTANEOUS INDEPENDENT APPROACHES**
Title through **f**	No Change
Add	**g. Prior to implementing Established on RNP (EoR) operations to parallel runways with centerline spacing 9,000 feet or less (9,200 feet or less at field locations above 5,000 MSL), air traffic managers must:**
Add	**1. Document all approach and/or transition pairings to be used during EoR operations. Document any existing approach and/or transition that requires application of incorrect flight procedure track separation (see FAA Order 8260.3, Chapter 16).**
Add	**2. Ensure approved EoR approach pairings comply with the EoR procedure criteria identified in FAA Order 8260.3, Chapter 16.**
Add	**3. Obtain authorization from the Service Area Director of Air Traffic Operations for the approved instrument approach pairings.**
Add	**4. Ensure facility directives/letters of agreement list the authorized approach pairs and address the integration of EoR operations with straight−in operations to the same or parallel runway/s. Facility directives/letters of agreement must address, at a minimum, breakout procedures, monitoring, and training requirements.**
Add	***REFERENCE−*** ***FAA Order JO 7110.65, Para 5−9−7, Simultaneous Independent Approaches−Dual & Triple*** ***P/CG Term − Established on RNP Concept***

OLD	NEW
10–4–7. SIMULTANEOUS WIDELY–SPACED PARALLEL OPERATIONS	**10–4–7. SIMULTANEOUS WIDELY–SPACED PARALLEL OPERATIONS**
Title through **d**	No Change
e. Facility ATMs must ensure authorized approach pairings, when one or both of the aircraft are conducting an RNAV (RNP) approach with RF/TF legs, are identified in a Facility Directive and a Letter of Agreement (LOA), if applicable.	**e**. Facility ATMs must ensure approach pairings, when **conducted under the EoR concept**, are identified in a Facility Directive and a Letter of Agreement (LOA), if applicable.
REFERENCE– *FAAO JO 7110.65, Paragraph 5–9–10, Simultaneous Independent Approaches to Widely–Spaced Parallel Runways Without Final Monitors*	***REFERENCE–*** *FAA **Order** JO 7110.65, **Para** 5–9–10, Simultaneous Independent Approaches to Widely–Spaced Parallel Runways Without Final Monitors* ***P/CG–Term Established on RNP Concept***

1. PARAGRAPH NUMBER AND TITLE: 17–2–3. ATCSCC

2. BACKGROUND: The United States Code Title 51, National and Commercial Space Programs, directs the Department of Transportation (DOT) to facilitate the expansion of space transportation and support its full range of space–related activities. In the coming years, the pace of commercial space launch and reentry operations is expected to increase dramatically. Therefore, as this industry grows, the FAA must maintain the highest safety standards for the NAS. The ATCSCC Office of Space Operations works with the FAA Office of Commercial Space Transportation (AST) to centralize data flow and communications during space launch and reentry preparation and operations.

3. CHANGE:

OLD	NEW
17–2–3. ATCSCC	**17–2–3. ATCSCC**
Title through **d**	No Change
Add	**e. Ensure space launch and reentry operations are safely and efficiently integrated into the NAS by approving, modifying, or denying airspace decisions directly related to launch and reentry activities, consistent with FAA policies and regulations.**
e through **i**	Re–letter **f** through **j**.

1. PARAGRAPH NUMBER AND TITLE: 18–4–1. NONEMERGENCY PARACHUTE JUMP OPERATIONS

2. BACKGROUND: Recent field inquiries concerning maintaining a record of jump operations for 45 days have resulted in confusion on the intent of the provision. This paragraph was recently changed to increase the number of days a record must be maintained from 15 days to 45 days. Field personnel have questioned the need for the paragraph and some are interpreting the requirement to note all actions in the conduct of performing parachute operations as creating an undue burden when not necessary. The requirement to furnish information

upon request to the U.S. Coast Guard is obsolete. Additionally, both subparagraphs c and e were the subject of non−compliance issues reported during a 2016 AOV audit. Many facilities did not know how to apply these requirements to their operations or how to be compliant, while others did not know these requirements existed at all.

3. CHANGE:

OLD	NEW
18−4−1. NONEMERGENCY PARACHUTE JUMP OPERATIONS	**18−4−1. NONEMERGENCY PARACHUTE JUMP OPERATIONS**
Title through **b9**	No Change
c. Where ongoing jump sites are established, NOTAM information must be submitted for publication in the Chart Supplement U.S.	**c.** Where ongoing jump sites are established, **but not yet published, ATMs may work with the parachute operator to ensure pertinent information is submitted for publication in the Chart Supplement U.S. and contact the Operations Support Group for assistance as needed.**
d. To the extent possible, advise parachute jumping organizations or responsible individuals of known high traffic density areas or other airspace where sport parachuting may adversely impact system efficiency, such as IFR departure/arrival routes, Federal airways, VFR flyways, military training routes, etc.	No Change
e. A record of the jump operations must be maintained in the facility files for 45 days. The records must contain at least a copy of the NOTAM, reason(s) for cancellation (if applicable), name of the person(s) effecting coordination, and instructions or conditions imposed on the jump operation.	**e.** A record of **parachute** jump **coordination** must be maintained **by the facility** for 45 days. The records must contain at least a copy of the NOTAM, reason(s) for cancellation (if applicable), name of the person(s) effecting coordination, and instructions or conditions imposed on the jump operation.
f. Upon request, air traffic facilities must furnish whatever information might be available concerning parachute jumps to the U.S. Coast Guard.	Delete