**CHANGE**

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

**JO 7210.3Z**
**CHG 2**

**Effective Date:**
11/10/16

**SUBJ:** Facility Operation and Administration

**1. Purpose of This Change**. This change transmits revised pages to Federal Aviation Administration Order JO 7210.3Z, 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 Retain this transmittal until superseded by a new basic order.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: Elizabeth L. Ray*

Elizabeth L. Ray
Vice President, Mission Support Services
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Date: 09/13/2016

# Explanation of Changes
# Change 2

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

**a. 1–2–4. ABBREVIATIONS**
**2–2–9. PERSONNEL BRIEFINGS REGARDING AIR TRAFFIC BULLETIN ITMES**

This change deletes the verbiage of the Paragraph 2–2–9, Personnel Briefings Regarding Air Traffic Bulletin Items and renames Paragraph 2–2–9 as Air Traffic Procedures Bulletin (ATPB). It also establishes responsibility for Paragraph 2–2–9 and the bulletin within the Air Traffic Procedures, AJV–8 directorate and adds ATPB to Paragraph 1–2–4 Abbreviations, TBL 1–2–1.

**b. 2–1–14. APPROACH CONTROL CEILING**

This change reflects the Vice President of Air Traffic Services is the approval authority for exceptions to approach control ceiling.

**c. 2–1–25. SUBMISSION OF AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA) DATA**

This change realigns requirements for Air Traffic Service Area offices for improved readability.

**d. 2–2–7. CIRNOT HANDLING**
**3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION**
**3–9–1. COLOR USE ON ATC DISPLAYS**
**10–1–4. SECTIONAL AERONAUTICAL AND TERMINAL AREA CHARTS**
**10–3–8. LINE UP AND WAIT (LUAW) OPERATIONS**
**10–4–9. PRECISION RUNWAY MONITOR–SIMULTANEOUS OFFSET INSTRUMENT APPROACHES**
**10–4–11. MINIMUM IFR ALTITUDES (MIA)**
**11–2–7. MINIMUM SAFE ALTITUDE WARNING (MSAW), CONFLICT ALERT (CA), AND MODE C INTRUDER (MCI)**
**11–7–6. AUTOMATIC ACQUISITION/ TERMINATION AREAS**
**11–7–7. MINIMUM SAFE ALTITUDE WARNING (MSAW) AND CONFLICT ALERT (CA)**

This change removes references to Air Traffic Operations, Terminal Safety and Operations Support; Director, Terminal Operations (service area); and Director, Terminal Safety and Operations Support. It replaces Terminal Services Director of Operations with service area Director of Air Traffic Operations throughout the order.

**e. 2–6–2. WATCH SUPERVISION ASSIGNMENTS**

Air Traffic Orders did not specify policy direction with regard to out of area assignments. Front Line Managers (FLM) will be limited to conducting watch supervision duties to a maximum of two areas of specialization within the area of operation. The second area of specialization will have to be approved by the Service Area Director of Operation responsible for that facility. This does not apply when the FLM is assigned the Operations Manager in Charge (OMIC) position during midnight operations.

**f. 3–1–1. BASIC EQUIPMENT**
**6–1–6. FLIGHT PROGRESS STRIP USAGE**
**Chapter 6, Section 8. Ocean21**
**6–8–1. GENERAL**
**6–8–2. OPERATIONAL SUPERVISOR–IN–CHARGE RESPONSIBILITIES**
**6–8–3. ERROR REPAIR POSITION RESPONSIBILITIES**
**6–8–4. FACILITY MANAGER RESPONSIBILITIES**
**6–8–6. OCEAN21 CHANNEL CHANGEOVERS**
**6–8–7. OUTAGES**

This change replaces the term OCEAN21 with the term Advanced Technologies and Oceanic Procedures (ATOP).

**g. 3–2–1. RESPONSIBILITY**
**4–7–3. SYSTEM IMPACT REPORTS**
**4–8–2. REQUESTS TO PRESERVE TAPE OR DAT UNDER FOIA**
**8–1–3. COMPUTER RETENTION**
**17–4–4. OPERATION MANAGER (OM) SUPPORT**

This change removes all references to the FAAO JO 8020.11, Aircraft Accident and Incident, Notification, Investigation and Reporting. It is replaced with FAAO JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation and Reporting.

**h. 3–3–2. TELEPHONE COMMUNICATIONS**

This change clarifies the requirement that telephone conversations regarding ATC services, including contingency operations, are to be recorded to the maximum extent possible. This also adds the requirement to provide a list of the recorded telephone lines in the facility SOP.

**i. 3–4–2. ASSIGNMENT OF RECORDER CHANNELS**
**8–1–3. COMPUTER DATA RETENTION**
**9–3–1. FAA FORM 7210–8, ELT INCIDENT**
**10–4–1. AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)**
**11–3–2. DATA RETENTION**
**17–8–3. RESPONSIBILITIES**
**18–4–1. NONEMERGENCY PARACHUTE JUMP OPERATIONS**

This change extends the retention parameters of audio, written, and recorded data from 15 to 45 days.

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

This change removes the requirement for STARS facilities to include in their directives the purpose of optional maps; and adds a note that advises managers that AJV–5 will check airport symbology on video maps for accuracy of airport status; and changes the office responsible for EOVM review. Additionally, ATMs must ensure that charts are revised as changes occur, and not wait for the 2–year EOVM review cycle.

**k. 3–8–5. ESTABLISHING DIVERSE VECTOR AREA/S (DVA)**

This change increases the amount of turn permitted within the confines of a DVA to an aircraft conducting a missed approach or go–around from not to exceed 30 degrees to not to exceed 90 degrees and adds reference, to MIA where appropriate.

**l. 4–4–2. USE OF AIRCRAFT CALL SIGNS**

This change adds a clarification to the designators that may be assigned for local call signs. Also, editorial changes are made to accurately identify the offices that assign call signs.

**m. 4–6–4. FAA FORM 7230–4, DAILY RECORD OF FACILITY OPERATION**
**4–6–5. PREPARATION OF FAA FORM 7230–4**
**17–5–14. TARMAC DELAY OPERATIONS**

This change adds clarity and provides administrative corrections.

**n. 6–5–1. CRITERIA**

This change spells out “EST” to reduce confusion and provide consistency.

**o. 10–3–1. SIGMET AND PIREP HANDLING**

This change expands the range of information considered that must be included in collection and dissemination procedures developed by facility air traffic managers.

**p. 10–3–10. MULTIPLE RUNWAY CROSSINGS**

This change is being made to coincide with a simultaneous change in FAA Order JO 7110.65, Air Traffic Control, Paragraph 3–7–2, Taxi and Ground Movement Operations,allowing multiple runway crossing clearances for runways whose centerlines are 1,300 feet or less. It provides guidance regarding approval requests for multiple runway crossings and specifies those requests be submitted to the Service Area Director of Air Traffic Operations. This change also adds a requirement to ensure compliance with all applicable taxi procedures in the FAA Order JO 7110.65, as well as requiring a review of all runway incursions attributable to multiple runway crossing clearances. The current requirement to send the results of this review to the Terminal Safety and Operations Support Office was removed. Addition-

ally, a note was added stating that two or more Permission Based Exemptions may not be combined that exceed 1,300 feet.

**q. 10–7–4. RESPONSIBILITIES**
**10–7–6. OPERATIONAL AARs**
**17–5–5. STATIC COORDINATION**
**17–5–13. ELECTRONIC SYSTEM IMPACT REPORTS**
**17–13–2. COORDINATION**
**17–24–4. RESPONSIBILITIES**

This change replaces all references to Manager, Tactical Operations (MTO) with Deputy Director of System Operations (DDSO).

**r. 17–5–13. ELECTRONIC SYSTEM IMPACT REPORTS**

This change directs air traffic control facilities to include, in Electronic System Impact Reports, space launch/reentry operations information that could potentially impact NAS operations.

**s. 17–16–1. GENERAL**
**17–16–2. RESPONSIBILITIES**
**17–16–3. DEVELOPMENT PROCEDURES**
**17–16–4. COORDINATION PROCEDURES**
**17–16–5. PROCESSING AND PUBLICATION**
**17–18–4. RESPONSIBILITIES**
**17–18–5. CDR DATA FORMAT**
**17–18–6. PROCEDURES**

This change updates formatting and publishing guidelines for Coded Departure Routes (CDR).

**t. 17–21–3. DEFINITION**
**17–21–4. RESPONSIBILITIES**
**17–21–5. NATIONAL PLAYBOOK DATA FORMAT**
**17–21–6. PROCEDURES**

This DCP is part of an effort to better organize and update information contained in this section. It helps clarify the difference between responsibilities for coordination/publication and operational implementation procedures.

**u. Appendix 3. AIR CARRIER AIRCRAFT FOR AIR TRAFFIC ACTIVITY OPERATIONS COUNT**

This change adds aircraft type designators for AIRBUS, BOEING, EMBRAER, ILYUSHIN, and MITSUBISHI air carrier aircraft; adds model names for A332, AT72, AT73, AT75, and AT76; and removes a model for B744.

**v. 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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# Section 2. Order Use

## 1–2–1. POLICY

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

## 1–2–2. ANNOTATIONS

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

**a.** The change number and the effective date are printed on each revised or additional page.

**b.** A reprinted page not requiring a change is reprinted in its original form.

**c.** Bold vertical lines in the margin of the text mark the location of substantive procedural, operational, or policy changes; e.g., when material affecting the performance of duty is added, revised, or deleted.

**d.** Statements of fact of a prefatory or explanatory nature relating to directive material are set forth as notes.

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

## 1–2–3. WORD MEANINGS

As used in this order:

**a.** "Shall" or "must" means a procedure is mandatory.

**b.** "Should" means a procedure is recommended.

**c.** "May" and "need not" mean a procedure is optional.

**d.** "Will" indicates futurity, not a requirement for application of a procedure.

**e.** "Shall not" or "must not" means a procedure is prohibited.

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

## 1–2–4. ABBREVIATIONS

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

*TBL 1–2–1*
**ABBREVIATIONS**

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

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

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

| 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 |
| SIA | Status information area |
| SID | Standard Instrument Departure |
| SIGMET | Significant meteorological information |
| SMGCS | Surface movement guidance and control 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 |
| 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 |
| 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 |
| 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 |

## 2–1–14. APPROACH CONTROL CEILING

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.

***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.*

## 2–1–15. AUTHORIZATION FOR SEPARATION SERVICES BY TOWERS

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

**1.** A LOA exists with the IFR facility having control jurisdiction which authorizes the separation responsibilities and prescribes the procedures to be used;

**2.** The agreement has been approved by the Area Director of Terminal Operations; and

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

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

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

**1.** The proposed procedures.

**2.** Operational benefits.

**3.** Operational impact.

**4.** Why the IFR facility is unable to provide an equal or superior level of service without the delegation.

**5.** Improved services to users.

**6.** Additional radar training.

**7.** The measures taken to ensure that the local controller's ability to satisfy the FAA's air traffic responsibilities regarding aircraft operating on the runways or within the surface area is not impaired.

**8.** On–site spares, maintenance support/restoration requirements.

**9.** Savings and/or additional costs.

**10.** The number of additional people required.

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

## 2–1–16. BIRD HAZARDS

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

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

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

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

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

## 2–1–17. PROHIBITED/RESTRICTED AREAS AND STATIONARY ALTRVS

FAA Order JO 7110.65, Air Traffic Control, prescribes separation requirements from special use, ATC-assigned airspace, and stationary ALTRVs. In recognition of the fact that prohibited/restricted areas

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

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

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

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

**1.** Explosives detonation.

**2.** Ground firing of various types.

**3.** Aircraft operations associated with the above in a safety, observer, or command and control capacity only; i.e., the aircraft is not directly engaging in activity for which the airspace was designated and is operating visual flight rules (VFR).

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

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

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

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

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

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

**c.** Facility manager must:

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

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

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

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

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

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

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

**e.** Adjacent Airport Operations

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

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

## 2–1–19. AIRPORT TRAFFIC PATTERNS

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

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

## 2–1–20. OBSTACLE IDENTIFICATION SURFACES, OBSTACLE FREE ZONES, RUNWAY SAFETY AREAS, AND CLEARWAYS

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

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

**c.** At locations where potential for conflict exists, take action to rectify the situation by developing proposed solutions and establishing local procedures to define conditions when the approach and departure 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.

**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 Hold*

## 2–1–21. FACILITY IDENTIFICATION

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

Services, para 14–1–14, Facility Identification, subparas a, b, and c. If the waiver request is approved, the Service Area Director must ensure that all aeronautical publications are changed to reflect the new identification, and that a Letter to Airmen is published notifying the users of the change.

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

## 2–1–22. DISPOSITION OF OBSOLETE CHARTS

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

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

## 2–1–23. OUTDOOR LASER DEMONSTRATIONS

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

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

## 2–1–24. COMBINE/RECOMBINE AN ATCT/TRACON

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

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

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.*

## 2–1–26. SUBMISSION OF SUA AND PAJA FREQUENCY INFORMATION

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

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

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

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

## 2–1–27. REPORTING UNAUTHORIZED LASER ILLUMINATION OF AIRCRAFT

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

**a.** UTC date and time of event.

**b.** Call Sign, or aircraft registration number.

**c.** Type of aircraft.

**d.** Nearest major city.

**e.** Altitude.

**f.** Location of event (e.g., latitude/longitude and/or Fixed Radial Distance (FRD)).

**g.** Brief description of the event.

**h.** Any other pertinent information.

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

***REFERENCE–***
*FAAO JO 7110.65, Para 2–9–3, Content*
*FAAO JO 7110.65, Para 10–2–14, Unauthorized Laser Illumination of Aircraft,.*

## 2–1–28. 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 FAAO 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 (e.g., 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 (e.g., airline air operations center) rather than the aircrew itself.

## 2–1–29. REPORTING DEATH, ILLNESS, OR OTHER PUBLIC HEALTH RISK ON BOARD AIRCRAFT

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

**1.** Call sign.

**2.** Number of suspected cases of illness on board.

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

**4.** Number of persons on board.

**5.** Number of deaths, if applicable.

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

**7.** Any request for assistance (for example, needing emergency medical services to meet the aircraft at arrival).

***NOTE–***
**1.** *If the ATC facility is not actively monitoring the DEN or does not have a dedicated line to the DEN, they must call into the DEN directly via (202) 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–***
*FAAO JO 7110.65, Para 10–2–19, REPORTING DEATH, ILLNESS, OR OTHER PUBLIC HEALTH RISK ON BOARD AIRCRAFT*

## 2–1–30. OPPOSITE DIRECTION OPERATIONS

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–***
*FAAO 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–***
*FAAO 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–***
*FAAO 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–***
*FAAO JO 7110.65, Para 3-8-4, Simultaneous Opposite Direction Operation*

## 2–1–31. SPECIAL INTEREST SITES

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

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

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

## 2–1–32. 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 sub-paragraph 2-1-32a may be delegated as necessary.

**(b)** Relayed to the position having the responsibility for accurately displaying that status information.

**2.** The relieving specialist must be responsible for ensuring that any unresolved questions pertaining to the operation of the position are resolved prior to accepting responsibility for the position.

**3.** The relieving specialist and the specialist being relieved must share equal responsibility for the completeness and the accuracy of the position relief briefing.

***NOTE–***
*The sharing of this responsibility means that the specialist being relieved is obligated to provide a complete, accurate briefing, and the relieving specialist is obligated to ensure that a briefing takes place and is to his/her total satisfaction.*

**4.** The specialists engaged in a position relief must conduct the relief process at the position being relieved unless other procedures have been established and authorized by the facility air traffic manager.

## 2–2–5. OPERATING INITIALS

**a.** Specialists must be assigned two–letter operating initials to identify the employee for record purposes. When all combinations of letters are depleted, duplicate initials may be assigned to personnel working in different areas of specialization.

**b.** Unless signatures are specifically requested, use assigned operating initials for all operating forms, interphone contacts, marking of recorder tapes, and other records.

**c.** A current file of assigned initials must be maintained.

## 2–2–6. SIGN IN/OUT AND ON/OFF PROCEDURES

The following is applicable to all FAA air traffic facilities, but does not apply to FAA contract facilities.

Cru-X/ART is the official time and attendance system for both signing in/out for a shift and on and off positions, not paper logs nor Common ARTS/ ERAM/NTML/FSS or other Agency or local programs. Facilities may use Common ARTS/ ERAM/NTML/FSS to sign on positions for position preference settings; however, these systems/programs must not be used for official time and attendance nor position times. Duplicate paper logs for sign in/out of the shift and on and off positions must not be utilized during normal daily operations.

**a.** FAA operations managers–in–charge (OMIC)/ front–line managers (FLM)/supervisory traffic management coordinators (STMC)/national operations managers (NOM)/national traffic management officers (NTMO)/controllers–in–charge (CIC) of the watch are responsible for ensuring the accuracy of the personnel log for time and attendance (T&A) recording. T&A information must be entered into and maintained within the ATO Resource Tool (ART) system approved.

**1.** The facility air traffic manager must ensure that procedures are in place so that operational schedules are entered correctly into ART.

**2.** Employees must use ART to sign in and out of their shifts.

**(a)** Sign in for a shift must be accomplished no later than the shift assigned time unless the OS/STMC/NTMO/CIC and/or OMIC has approved leave at the start of the assigned shift. Sign in, using the assigned shift start time, may occur up to 15 minutes before an employee's assigned shift. Earning of, and signing in for, Time Outside Shift time at the beginning of an assigned shift must receive approval by the OS/STMC/NTMO/CIC or OMIC prior to earning or recording it into Cru–X/ART.

***NOTE–***
*Shift/Core hour changes must be in accordance with local and national policy. Earning Time Outside Shift (overtime, credit hours, etc.) must be approved by the OS/STMC/NTMO/CIC or OMIC prior to entering it into Cru–X/ART or working it.*

**(b)** In situations where it is known in advance that employees will not report to the facility, such as when attending an all day meeting outside the facility, facilities should enter the employee's shift in the schedule as an Other Duty Code.

**(c)** Sign out must be accomplished at the end of an employee's assigned shift. Sign out using the assigned shift end time may be accomplished no earlier than 15 minutes prior to the end of the shift, or no later than 15 minutes after the end of the assigned shift. Any Time Outside Shift at the end of an

assigned shift, or leave, must first receive OS/STMC/NTMO/CIC or OMIC approval prior to earning/using and recording such time in Cru X/ART.

**3.** The supervisor/CIC position relief briefing check list must include:

**(a)** T&A status,

**(b)** Other Duties,

**(c)** Time Outside Shift (TOS) requests/approvals, and

**(d)** Leave requests/approvals.

***NOTE–***
*Upon signing on position the OMIC/FLM/STMC/NOM/NTMO/CIC assumes full responsibility of all check list items including those identified above.*

**4.** It is the employee's responsibility to notify the OMIC/FLM/STMC/NOM/NTMO/CIC of the watch of any changes to "Other Duty" shifts. For example, an employee is outside of the facility on another duty and requests a day of sick leave.

**5.** In the event of electronic system failure, scheduled system outage, or facility evacuation, the paper FAA Form 7230–10, "Position Log," must be used to indicate position responsibility. When the ART system has been restored or the facility reoccupied, the facility must ensure that all data collected with the paper FAA Form 7230–10's is entered into ART. In instances where the data cannot be entered into ART, the paper FAA Form 7230–10's must be retained in accordance with document retention guidance.

**b.** The Cru–X/ART electronic logs must be used to indicate responsibility at all operational positions and for supervisory traffic management coordinator–in–charge (STMCIC), operations supervisor–in–charge (OSIC), traffic management coordinator–in–charge (TMCIC), and CIC functions. It is the responsibility of the relieved controller to enter the correct change of position responsibility time in Cru–X/ART. In situations where there is no relieved controller, such as when opening a position, the person opening the position is responsible for entering the correct position time or notifying the supervisor/STMC/CIC of the position opening time. The supervisor/STMC/NTMO/CIC must then enter that time into Cru–X/ART.

## 2–2–7. CIRNOT HANDLING

A CIRNOT initiated by WMSCR/NNCC must be transmitted to all circuit users.

**a.** WMSCR/NNCC must maintain a record of all CIRNOTs and forward a hard copy to the appropriate service area Director of Air Traffic Operations by the most expeditious means available.

**b.** FSS air traffic managers must provide CIRNOTs to the appropriate service area Director of Air Traffic Operations and/or other field facilities upon request.

**c.** CIRNOTs should be retained at the receiving facility for 120 days.

***NOTE–***
*The most expeditious means is transmitting the CIRNOT via facsimile, telephone, mail, electronic mail, etc.*

## 2–2–8. GENOT HANDLING

A General Notice (GENOT) is issued by headquarters ATO organizations and must be transmitted to all Air Traffic Service Area offices, Flight Service Stations (FSS) and ARTCCs. Air Traffic Service Area offices and/or Flight Services Information Area Group offices must define distribution responsibility by field facilities based upon their ability to distribute GENOTs in a timely fashion, workload and areas of jurisdiction. Upon receipt, Air Traffic Facility Managers must:

**a.** Distribute GENOTs to other facilities as determined by their respective Air Traffic Service Area office or Flight Services Information Area Group office.

***NOTE–***
***1.*** *Distribution may be via facsimile, telephone, electronic mail (e-mail), etc.*
***2.*** *Facilities can improve the process of GENOT distribution by reporting the distribution/reception of multiple copies of the same GENOT to their respective Air Traffic Service Area office or Flight Services Information Area Group office.*

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

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

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

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

## 2–2–9. PERSONNEL BRIEFINGS REGARDING AIR TRAFFIC BULLETIN ITEMS

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

**b.** The ATPB is:

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

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

**3.** Is effective for one year from its publication date. Air Traffic Procedures may extend a bulletin's expiration date to accommodate topics that are still current.

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

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

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

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

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

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

**d.** Facility Air Traffic Managers must:

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

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

**(a)** The Air Traffic Procedures Directorate will annotate the ATPB with the type of facilities that the subjects are applicable to.

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

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

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

**(b)** Service Center offices must evaluate and forward suggestions in *Microsoft Word* to the Air Traffic Procedures Directorate via the electronic mailbox at 9–AJV–8–HQ–Correspondence, those proposals considered significant and national in scope.

## 2–2–10. LAW ENFORCEMENT INFORMATION

Law enforcement information; e.g., aircraft identification, flight schedules, flight operations, procedures, aircraft lookouts, etc., is of great value to drug traffickers and others attempting to circumvent the law. Although law enforcement information is normally unclassified, it is considered to be inherently sensitive, of a confidential nature, and is to be handled on a "For Official Use Only" (FOUO) basis. Facility air traffic managers must ensure that such information is safeguarded from disclosure in accordance with FAAO 1600.2, Safeguarding Controls and Procedures for Classified National Security Information and Sensitive Information, whether the information is physically marked with the FOUO term or not. "Safeguarded from disclosure" includes precaution against oral disclosure, prevention of visual access, and precaution against unauthorized release, gratuitously or in response to a specific request.

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

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

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

***REFERENCE–***
*FAAO JO 7210.3, Para 2-1-6, Checking Accuracy of Published Data*

## 2–2–12. SYSTEMS MANAGEMENT OF VSCS EQUIPMENT

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

## 2–2–13. REPORTING EQUIPMENT TROUBLE

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

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

***EXAMPLE–***
*"Atlanta Sector 66R side 123.4 no transmit."*

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

***EXAMPLE–***
*"Seattle Sector 46D side hot line to Salt Lake City is not working."*

## 2–2–14. FACILITY DIRECTIVES REPOSITORY (FDR)

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

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

**a.** The Vice President's responsibility includes:

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

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

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

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

**5.** The Vice President for Safety Services oversees compliance.

**b.** Facility Managers must:

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

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

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

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

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

**c.** District Managers must:

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

**2.** Establish an administrative process to ensure facility compliance.

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

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

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

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

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

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

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

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

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

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

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

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

# Section 3. Air Traffic Familiarization/Currency Requirements for En Route/Terminal/System Operations Facilities

## 2–3–1. GENERAL

**a.** It is the responsibility of the employees identified in Paragraph 2–3–2, Application, to work in conjunction with their supervisors to ensure they adhere to the requirements of this section.

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

## 2–3–2. APPLICATION

**a.** Air traffic managers, assistant managers, executive officers, staff managers, operations managers, support managers, traffic management officers and support specialists, who as a condition of employment are not required to maintain currency, must maintain familiarity with control room operations to perform their required duties in an efficient manner.

**b.** Air traffic control specialists (ATCS), traffic management coordinators (TMC), national traffic management specialists (NTMS), developmental specialists (ATCS/TMC/NTMS), first–level supervisors (including facility managers who also serve as first–level supervisors), operations supervisors (OS), front line managers (FLM), supervisory traffic management coordinators (STMC), national traffic manager officers (NTMO), and air traffic assistants (ATA) are required to meet currency requirements in order to perform their duties.

## 2–3–3. REQUIREMENTS

**a.** *Familiarization*. The methods used for personnel identified in Paragraph 2–3–2a, Application, to maintain familiarization must be specified in a local facility directive.

**b.** *Currency.* Personnel must rotate through all positions on which they maintain currency each calendar month. Additionally, they must meet the following requirements:

**1.** Number of positions required to maintain currency.

**(a)** ATCSs, TMCs, NTMSs, developmental specialists (ATCS/TMC/NTMS) and ATAs must maintain currency on all operational/control positions on which certified.

**(b)** First-level supervisors (OS, FLM, STMC, NTMO) and support specialists (who maintain currency) must maintain currency on a minimum of two operational/control positions.

**(c)** TMCs/STMCs required to maintain currency on operational positions within the traffic management unit (TMU), and control positions outside the TMU (dual currency), must maintain currency on a minimum of two operational/control positions outside the TMU.

***NOTE–***
*Operational/control positions are: Local and/or Ground (Tower), Satellite Radar, Departure Radar, Arrival Radar and/or Final Radar (TRACON), Radar Position, Radar Associate Position and/or Non Radar (En Route).*

**2.** The following minimum time must be met each calendar month: a minimum of one hour per position is required; time working combined positions satisfies the requirement for each of the combined positions. Time working the assistant controller, flight data, and clearance delivery position is counted for flight service stations (FSS) and air traffic assistants only.

***NOTE–***
*Hand-off, Tracker, CAB/TRACON coordinator, Final Monitor, FLM/FLMIC, and managerial (in-charge) positions do not have a currency requirement and time spent working those positions is not counted.*

**(a)** ATCSs, Developmental (Dev) ATCSs, and ATAs.

**(1)** TERMINAL. Radar/tower operational/control positions: A minimum of eight hours tower and eight hours radar. If certified in only one area of operation (tower or radar), a minimum of 16 hours is required.

**(2)** EN ROUTE, FSS, and ATAs. A minimum of 16 hours on operational/control positions is required.

**(b)** TMCs, NTMSs, and developmental TMCs/NTMS are required to maintain operational/control position currency as follows: a minimum of 16 hours on operational/control positions.

**(c)** Support specialists who maintain currency.

**(1)** TERMINAL. Radar/tower operational/control positions: a minimum of four hours tower and four hours radar. If certified in only one area of operation (tower or radar), a minimum of eight hours is required.

**(2)** EN ROUTE/ATCSCC. A minimum of eight hours on operational/control positions is required.

**(d)** FLMs/OSs (including facility managers who also serve as first-level supervisors).

**(1)** TERMINAL. Radar/tower operational/control positions (excluding the FLM/FLMIC position): a minimum of four hours tower and four hours radar. If certified in only one area of operation (tower or radar), a minimum of eight hours is required.

**(2)** EN ROUTE, FSS. A minimum of eight hours on operational/control positions (excluding managerial (in-charge) positions) is required.

**(e)** STMCs/NTMOs are required to maintain operational/control position currency as follows: a minimum of eight hours on operational/control positions excluding managerial (in-charge) positions.

**(f)** Dual Currency. TMCs/STMCs at all Air Route Traffic Control Centers (ARTCC) and at New York TRACON (N90), Potomac TRACON (PCT), Northern California TRACON (NCT), and Southern California TRACON (SCT) are required to maintain currency only within the TMU. All other TMCs/STMCs are required to maintain dual currency.

**(1)** TERMINAL. Radar/tower operational/control positions: a minimum of four hours tower and four hours radar. If certified in only one area of operation (tower or radar), a minimum of 8 hours is required.

**(2)** EN ROUTE. A minimum of eight hours on operational/control positions is required.

**(3)** TMC/STMC optional. Staffing and workload permitting, TMCs/STMCs not required to maintain dual currency may elect to maintain dual currency. Dual currency is not subject to the provisions of Paragraph 2-3-4; Differential.

**(g)** Airport Surveillance Radar (ASR) approaches (where published): three each calendar quarter, one of which must be a no-gyro. Radar simulation may be used to satisfy these requirements.

**3.** Time spent performing on-the-job-training (OJT) instruction as an OJT instructor is not counted toward operational/control position currency.

**4.** Time spent receiving OJT on combined positions, where the employee is certified on some of the combined positions, is not counted toward operational/control position currency.

**5.** Time spent performing certification skills checks, operational skills assessments, skills checks, over-the-shoulders, etc., is not counted toward operational/control position currency.

***NOTE–***
*Initial operational/control position certification completed in a month meets the requirements for that position for that month. Individuals recertified in a month must meet currency requirements for that month regardless of the day of recertification.*

# Section 6. Watch Supervision–Terminal/En Route

## 2–6–1. WATCH SUPERVISION

**a.** Watch supervision requires maintaining situational awareness (defined below) of traffic activity and operational conditions in order to provide timely assistance to specialists and that ensure available resources are deployed for optimal efficiency. Watch supervision may be performed by a manager, supervisor, or controller–in–charge (CIC). The objectives and tasks of watch supervision must be specified in a facility directive, which is focused on operational requirements. The directive must specify, as a minimum, the required tasks for maintaining a safe and efficient operation. These tasks must include, but are not limited to:

**1.** The requirement to provide guidance and goals for the shift.

**2.** Monitoring/managing traffic volume/flow.

**3.** Position assignments.

**4.** Position relief.

**5.** Training assignments.

**6.** Processing leave requests (e.g., leave approval).

**7.** Configuring/monitoring/reporting equipment status.

**8.** Data collection and reporting.

**9.** Monitoring presidential aircraft and reporting security requirements.

**10.** Situational awareness is defined as a continuous extraction of environmental information, integration of this information with previous knowledge to form a coherent mental picture, and the use of that picture in directing further perception and anticipating future events. Simply put, situational awareness means knowing what is going on around you.

**11.** Management of the operational environment with a goal toward eliminating distractions of:

**(a)** Non-operationally-related activities or tasks that are distracting, such as controller schedule or leave bidding.

**(b)** Non-operationally needed items and equipment.

**(c)** When activities or tasks that are not time critical or operationally necessary become distracting to the operation, watch supervision must take steps to defer or relocate these activities or tasks.

**12.** Administrative duties must not be accomplished to the detriment of any operational duty.

***NOTE–***
*Individuals medically disqualified or taking medically disqualifying substances must not be assigned watch supervision duties, in accordance with para 2–8–6, Restricted Drugs.*

**b.** In the role of watch supervision, a CIC must perform these duties in accordance with management direction, with the following exceptions:

**1.** Evaluating and counseling employees on their performance.

**2.** Recommending selections, promotions, awards, disciplinary actions, and separations.

**3.** Site Coordinator for drug or alcohol testing.

***NOTE–***
*On–the–spot corrections are not considered an evaluation of performance and are required as part of CIC duties.*

## 2–6–2. WATCH SUPERVISION ASSIGNMENTS

**a.** Efficient air traffic services require watch supervision regardless of the number of people assigned. Facilities must establish local procedures for watch supervision assignments.

**b.** Where authorized, when two or more operations managers are assigned to the shift, one must be designated as the Operations Manager in Charge (OMIC). The OMIC is responsible for the day–to–day, shift by shift, management of the control room operation.

**c.** When two or more supervisory traffic management coordinators (STMC) are on duty, one must be assigned as supervisory traffic management coordinator–in–charge (STMCIC).

**d.** When two or more operations supervisory personnel are on duty in an operational area (for

example, radar room, tower, ARTCC area, etc.), one must be assigned as in charge.

***NOTE–***
*These "in charge" personnel may be called OSIC, front line manager–in–charge (FLMIC), or other names designated by the facility manager.*

**e.** When two or more specialists are on duty and no supervisory personnel are available, one specialist who is fully qualified and rated in the assigned operational area must be designated as CIC to perform the watch supervision duties.

***NOTE–***
*In combined radar/tower facilities, when there's a tower CIC and TRACON CIC, one must be designated as the overall controller–in–charge (OCIC).*

**f.** At facilities where a specialist stands a watch alone, the responsibility for watch supervision becomes part of his/her duties.

**g.** Personnel performing watch supervision duties may be required to perform operational duties in addition to watch supervision duties. The performance of operational duties should be done on a limited basis such as during periods of low activity.

**h.** An individual is considered available for watch supervision when he/she is physically present in the operational area and is able to perform the primary duties of the function. If the supervisor/CIC leaves the operational area or is engaged in an activity which will interfere with or preclude the performance of watch supervision duties, then another qualified individual must be designated to supervise the watch.

**i.** EN ROUTE. Front Line Managers (FLMs) may only be assigned watch supervision for one area of specialization. The Service Area Director of Operations may approve an air traffic facility manager (ATM) to assign a FLM watch supervision to one additional area outside their home area of specialization. The approval must be renewed annually.

**1.** The ATM must document training requirements in their local orders.

**2.** The FLM must comply with the required tasks in Paragraph 2–6–1a, Watch Supervision.

**3.** The FLM may provide watch supervision in their two approved areas simultaneously provided the following conditions are met:

**(a)** The supervisor must have direct line of sight to both areas.

**(b)** May only be assigned during mid–shift configurations and/or during facility defined times included in the approval.

***NOTE–***
*This does not apply when the FLM is assigned the Operations Manager in Charge (OMIC) position during midnight operations.*

## 2–6–3. CONTROLLER–IN–CHARGE (CIC) DESIGNATION

**a.** Prior to being designated as a CIC, specialists must meet the following prerequisites:

**1.** Have been certified for 6 months in the area/facility CIC duties to be performed. (The Director of En Route and Oceanic Operations Area Office or Terminal Operations Service Area Office may issue a facility waiver for the 6 month requirement where a more immediate assignment is needed. Waivers to facilities will be for 1 year, with renewals based on the result of a yearly evaluation by the area office director.)

**2.** Be operationally current.

**3.** Be selected by the air traffic manager or his/her designee.

**4.** Successfully complete CIC training.

**b.** Specialists who have been designated as a CIC and subsequently transfer to another facility are not required to fulfill the requirement of subpara 2–6–3a1 at the new facility; however, they must meet all other prerequisites.

**c.** In facilities that use CICs to provide midwatch coverage, specialists that provide such coverage must be designated as a CIC only for the purpose of providing midwatch coverage upon facility/area certification and completion of the local CIC training course. Air traffic managers must ensure the local CIC training course is completed within 30 days of facility/area certification/rating.

***NOTE–***
*In combined radar/tower facilities, specialists who are certified in the tower cab may be designated as CIC in the tower, provided all of the above prerequisites are met.*

## 2–6–4. CONTROLLER–IN–CHARGE (CIC) SELECTION PROCESS

**a.** All eligible employees who meet the prerequisites of subparas 2–6–3a1 and 2 must be considered for selection as CIC. Air traffic managers, when determining facility requirements for CICs, must consider the following:

**1.** Facility operational needs.

**2.** Scheduling concerns.

**3.** Staffing concerns.

**4.** Special events.

**5.** Other issues.

**b.** When facility requirements are established, air traffic managers may designate a panel to forward recommendations for CIC candidates to the designated selecting official. A facility may have one recommendation panel for each area of specialization.

**c.** The recommendation panel must consider the following knowledge, skills, and abilities (KSA) in reviewing each candidate. These KSAs must include but are not limited to:

**1.** Problem solving and analytical ability.

**2.** Planning and organizing.

**3.** Decisiveness.

**4.** Judgement.

**5.** Communication skill.

**6.** Interpersonal skill.

**d.** The recommendation panel must forward its recommendations to the air traffic manager or his/her designee. Written feedback must be provided to the selecting official for all candidates not recommended including dissenting opinions.

**e.** Candidates who are not selected to be a CIC, upon request, must be advised of the reasons for nonselection. If applicable, specific areas the employee needs to improve must be identified. Employees may request assistance from their immediate supervisor in developing options to improve the identified areas.

***NOTE–***
*These provisions do not apply to midwatch CIC coverage.*

## 2–6–5. CONSOLIDATING POSITIONS

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

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

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

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

## 2–6–6. RELIEF PERIODS

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

***NOTE–***
*Breaks to recuperate are provided to enable employees to engage in activities necessary to rejuvenate themselves in order to effectively manage fatigue.*

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

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

## 2–6–7. BASIC WATCH SCHEDULE

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

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

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

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

**3.** All work beyond 10 hours must be nonoperational.

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

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

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

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

**6.** If an employee is assigned more than two (2) consecutive ten (10) hour midnight shifts, all of the consecutive ten (10) hour midnight shifts require a 2100L (Non flex) start time.

**7.** Ten (10) hour midnight shifts are limited to no more than four (4) in any six (6) day period.

**8.** No day shift may immediately precede a ten (10) hour midnight shift.

**9.** Eight (8) hour midnight shifts may be extended by no more than one (1) hour per single shift.

**10.** A 0530L start time or later is required when working an eight (8) hour day shift prior to an eight (8) hour midnight shift. Employees may not flex to an earlier start time than 0530L.

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

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

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

## 2–6–8. OVERTIME DUTY

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

## 2–6–9. HOLIDAY STAFFING

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

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

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

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

## 2–6–10. ADMINISTRATIVE HOURS OF DUTY

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

## 2–6–11. FACILITY COMPLEMENTS

Facility air traffic managers will be currently informed by the service area office of their authorized

facility personnel complements. The authorized complement will always be the end–of–year employment ceiling authorization. Circumstances may result in the establishment of a complement different from that provided in workload formulas.

## 2–6–12. CONSOLIDATING TOWER/TRACON FUNCTIONS

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

**b.** During midwatch operations (where the majority of hours fall between 10:30 p.m. and 6:30 a.m.) when traffic permits, all functions may be consolidated for meals or breaks.

**c.** Air traffic managers must ensure that no less than two fully-certified and current operational personnel are assigned to midnight shift, unless no such personnel are available for assignment.

## 2–6–13. SINGLE PERSON MIDNIGHT OPERATIONS

**a.** In order to ensure that a receiving controller is prepared to accept an aircraft, coordination between facilities/operational areas must be accomplished either manually via landline, or positively acknowledged via automation, (for example, acceptance of the handoff by keystroke entry), when an operational area is operated with one ATCS between the hours of 0000L to 0500L.

**1.** Coordination procedures during the time period defined in paragraph a can be suspended during periods of increased of traffic. An increase of traffic may include, but is not limited to, the following:

**(a)** Late night SWAP events.

**(b)** Military movement/exercises.

**(c)** Multiple arrivals/departures in a short period of time.

**2.** The coordination procedures do not supersede existing requirements in FAA Order JO 7110.65.

**3.** Facilities must have local procedures to be used during the hours identified above. Such procedures are to be placed into local SOP or LOAs between facilities.

***NOTE–***
*Automated coordination cannot be hand-offs that do not include human interaction.*

**b.** In the event there is no response from the facility/operational area with which coordination is attempted, immediate action must be taken to determine the status of the unresponsive controller and begin appropriate notification.

**c.** When operations permit, it is expected that functions will be consolidated to facilitate breaks in up/down facilities during midnight shifts.

# Section 7. Appearance and Security

## 2–7–1. PERSONNEL APPEARANCE

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

## 2–7–2. QUARTERS APPEARANCE

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

## 2–7–3. BULLETIN BOARDS

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

## 2–7–4. FOOD AND BEVERAGES

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

## 2–7–5. FACILITY SECURITY

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

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

***REFERENCE–***
*FAAO JO 7210.3, Subpara 4–3–2e, Appropriate Subjects.*

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

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

## 2–7–6. SUSPICIOUS ACTIVITIES

FAA personnel must report suspicious activities to the nearest law enforcement agency, FBI, airport manager, aircraft operator, or any combination thereof as appropriate. These activities include, but are not limited to, unauthorized use of aircraft, tampering with aircraft or other property around airports or FAA facilities, placing packages or other objects in unusual locations, and performing in a manner that is suspect of malice. Do not attempt to delay, detain, or question suspects, but do attempt to keep the person or persons under surveillance until law enforcement representatives arrive.

## 2–7–7. COOPERATION WITH LAW ENFORCEMENT AGENCIES

**a.** FAA personnel must cooperate in every reasonable way with law enforcement agencies. Theft of aircraft and use of aircraft for illegal purposes have complicated the task of the Federal law enforcement agencies. The FBI and Department of Homeland Security (DHS) have requested the FAA to assist them by furnishing information of suspicious activities regarding use of aircraft.

**b.** Any inquires from airport managers, aircraft owners, or others to initiate an alert message must be directed to the El Paso Intelligence Center(EPIC). EPIC is interfaced with the National Crime Information Center (NCIC), which gives them access to any stolen aircraft report entered by law enforcement agencies. FAA facilities must not volunteer to relay this information to EPIC. Assistance must be limited to providing the EPIC phone number, (915) 564–2220, or advising the inquiring party to go through normal law enforcement channels.

**c.** Reports of suspected human trafficking must be reported on the Domestic Events Network (DEN). If the ATC facility is not actively monitoring the DEN or does not have a dedicated line to the DEN, they must immediately report the above referenced activity on the DEN via (202) 267–4700 or 844–432–2962 (toll free). Either phone may be used to contact the DEN. Additionally, if these phone numbers are out of service, alternate back–up bridge

phone numbers should be used to contact the DEN: 405−225−2444 or 844−663−9723 (toll free).

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

## 2−7−8. FACILITY VISITORS

**a.** Persons interested in the services and facilities provided by air traffic should be encouraged to visit facilities for familiarization. The facility air traffic manager or a designated representative may authorize these visits if:

**1.** The presence of visitors does not interfere with the operation of the facility.

**2.** There is no breach of security directives.

**3.** Personnel are or will be available to conduct an escorted tour.

**b.** Foreign national visits must be handled in accordance with current directives.

## 2−7−9. SECURITY OF JOINT−USE RADAR DATA

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

# Chapter 3. Facility Equipment

## Section 1. General

### 3–1–1. BASIC EQUIPMENT

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

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

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

*TBL 3–1–1*
**Certified and Uncertified Systems**

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

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

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

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

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

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

### 3–1–2. PERIODIC MAINTENANCE

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

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

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

**c.** When a NAVAID shutdown will affect another facility's operation, the facility having approval

authority must coordinate with other facilities concerned.

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

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

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

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

## 3–1–5. CLEANING INSTRUMENT COVERS

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

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

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

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

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

***NOTE–***
**1.** *Air traffic and Technical Operations personnel are required to monitor weather reports and radar to determine when severe storm activity is approaching a facility. At least 30 minutes prior to the estimated arrival of a severe storm in the area of a facility, maintenance personnel will start engine generators at facilities as indicated in appropriate agency directives. (These include the Facilities Master File; FAAO JO 6030.31, National Airspace System Failure Response; FAAO 6980.5, Engine Generator Transfer Procedures for Anticipated Power Failure; local contingency/emergency plans, or any other directives pertaining to restoration of services.) This 30–minute start–up requirement does not apply at facilities where at least one of the following conditions exists:*

**a.** *The facility has an operational PCS.*

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

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

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

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

***REFERENCE–***
*FAAO JO 6030.31, National Airspace System Failure Response;*
*FAAO 6980.5, Engine Generator Transfer Procedures for Anticipated Power Failure.*

# Section 2. Use of Communications

## 3–2–1. RESPONSIBILITY

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

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

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

**1.** Collect pertinent information regarding the incident.

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

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

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

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

**d.** Willful or malicious interference with other communications.

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

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

Occasions may arise when messages by a third party pertaining to the safety of aircraft operation or the preservation of life and/or property are necessary. Such messages may be authorized on FAA radio communications channels. They may be handled by air traffic specialists or the individuals making the request. The latter may be given access to facilities to personally issue such messages provided (See FAAO 6050.32, Spectrum Management Regulations and Procedures):

**a.** Control instructions must not be issued.

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

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

## 3–2–3. USE OF OTHER THAN FAA COMMUNICATIONS CIRCUITS

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

## 3–2–4. FBI USE OF FAA FREQUENCIES

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

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

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

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

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

**a.** Takeoff, arrival, or flight plan cancellation times.

**b.** ATC clearances, provided there is a LOA between the licensee of the advisory station and the FAA facility.

# Section 3. Communications Procedures

## 3–3–1. SERVICE "F" COMMUNICATIONS

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

## 3–3–2. TELEPHONE COMMUNICATIONS

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

***EXAMPLE–***
*ARTCC: (The facility's name) Center; for example, "Washington Center."*
*FSS: (The facility's name) Flight Service; for example, "Juneau Flight Service" or "(Service Provider Name) Flight Service."*
*ATCT: (The facility's name) Tower; for example, "Atlanta Tower."*
*Approach Control: (The facility's name) Approach Control; for example, "Dulles Approach Control."*

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

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

**d.** When equipment capabilities exist, every effort should be made to conduct conversations regarding ATC services, aircraft accidents, incidents, and contingency operations on a recorded line.

**e.** Recorded telephone lines must be identified in the facility SOP.

## 3–3–3. MONITORING FREQUENCIES

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

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

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

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

## 3–3–4. EMERGENCY FREQUENCIES 121.5 AND 243.0 MHz

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

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

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

**1.** Geographical area coverage must not be derogated.

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

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

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

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

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

**1.** Once a week.

**2.** Following equipment repairs.

**3.** Following Technical Operations maintenance checks.

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

## 3–3–5. BATTERY–POWERED TRANSCEIVERS

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

## 3–3–6. FACILITY STATUS REPORT

Facility air traffic managers must notify System Operations and Safety by message, attention Manager of System Safety and Procedures, with an information copy to the appropriate Service Area office, of changes in the operational status of communication facilities not covered by FAAO 7900.2, Reporting of Electronic Navigation Aids and Communication Facilities Data to the NFDC. The following data must be reported (include the RIS AT 7230–12 in the text):

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

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

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

## 3–3–7. TESTING EMERGENCY LOCATOR TRANSMITTERS

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

**b.** Airborne ELT tests must not be authorized.

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

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

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

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

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

# Section 4. Recorders

## 3–4–1. USE OF RECORDERS

**a.** Air traffic facilities must record operational communications to the maximum extent practicable.

**b.** Record at each operating position to include all data transmitted and/or received via radio, telephone, VSCS, or automated means such as Mode S, Data Link, and satellite. Facility management must advise operating positions when the recording equipment associated with these positions is not operating or otherwise unavailable for recording. Facility management must then ensure that a written record, or equivalent, to the extent possible, is made for all IFR clearances.

**c.** If combined positions are periodically split into individual positions, record them on separate channels when so used.

**d.** Supervisors must ensure that the proper FAA/telephone company (TELCO) "jacks" are used to obtain the required recording at facilities with dual capability.

**e.** Use a separate channel on each recorder to record time at facilities with time–announce systems. Where these systems have not been installed, a spare receiver tuned to a time transmitting station may be used.

**f.** Operational voice recorders must be provided a time source.

**g.** Except as noted in para 3–4–2, Assignment of Recorder Channels, record with regard to the position in lieu of the function. All headset audio on a position must be recorded on a single channel. In facilities so equipped, all FAA–speaker audio must be recorded on the "radio only" jack channel. If a "radio only" jack is not available, another channel may be used.

**h.** Reserve one channel of each recorder for recording time; except two channels must be reserved on the FA5394, 30–channel recorder. If a coded time source and a time code reader are available, record the coded time source in preference to voice time announcements. Recording more than one time source on any recorder is prohibited.

**i.** Each FSS collocated with an ARTCC will use the center's voice recorder system resources to minimize requirements for spare parts, test equipment, and routine maintenance.

**j.** Recorders may be used to monitor any position for evaluation, training, or quality control purposes.

**k.** Air traffic managers should develop procedures to ensure that frequencies are not recorded when facilities are officially closed.

## 3–4–2. ASSIGNMENT OF RECORDER CHANNELS

**a.** Assign position recording channels in the following order of priority:

**1.** ARTCCs:

**(a)** Radar controller.

**(b)** Sector controller.

**(c)** Radar handoff controller.

**(d)** Radio controller.

**(e)** Coordinator.

**(f)** Supervisor.

**(g)** Traffic Manager.

**(h)** Flight data.

**(i)** Data systems coordinator.

**(j)** Mission coordinator.

**(k)** AMIS controller.

**2.** Terminals:

**(a)** Arrival control.

**(b)** Departure control.

**(c)** Local control.

**(d)** Precision approach radar.

**(e)** Clearance delivery.

**(f)** Ground control.

**(g)** Inbound flight data.

**(h)** Outbound flight data.

**(i)** Direction–finding.

**(j)** Supervisory.

**(k)** Automatic terminal information services (ATIS) – air traffic managers must designate a channel to record ATIS when a separate channel is not available. Record the ATIS message once at the time of preparation on the designated channel. Make a written record of each ATIS and retain for 45 days if a recorded channel is not available.

**3.** FSSs:

**(a)** Inflight.

**(b)** Preflight.

**(c)** Flight data.

**(d)** Supervisory.

**4.** ATCSCC:

**(a)** National Operations Manager (NOM).

**(b)** National Traffic Management Officer (NTMO).

**(c)** National Traffic Management Specialist (NTMS) operating position.

**b.** You may use existing remaining spare recording channels to record the primary radio frequencies of positions using the same priority stated above.

## 3–4–3. CHECKING AND CHANGING RECORDING EQUIPMENT

**a.** At En Route facilities and the ATCSCC, Technical Operations personnel must be responsible for checking and changing recorder tapes, digital audio tapes (DAT), and Digital Audio Legal Recorders (DALR).

***REFERENCE–***
*(Analog) FAAO JO 6670.4, Maintenance of Multichannel Recorder Equipment,*

*or*

*(Digital) FAAO JO 6670.13, Maintenance of Digital Voice Recorder (DVR) Equipment and FAAO JO 6670.15, Maintenance of Digital Voice Recorder System Series II (DVR II) Equipment.*

**b.** At terminal and flight service facilities:

**1.** Where recorders are not convenient to operating quarters, the facility air traffic manager and the Technical Operations local manager must develop an agreement assigning the responsibility for checking and changing recorder tapes, DATs, and DALRs.

**2.** Where recorders are convenient to operating quarters, air traffic personnel must perform recorder checks.

**c.** If air traffic personnel check and change tapes, DATs, or DALRs, the facility air traffic manager must ensure that personnel are trained in the proper methods to be used.

**d.** Recorder monitor operation checks on analog voice recorder systems must be performed daily and must not exceed 26 hours between checks. Procedures for monitoring operations in analog recorders are described in FAAO JO 6670.4, Maintenance of Multichannel Recorder Equipment.

**1.** On a daily basis (not to exceed 26 hours), validate the Nicelog supervision window for alarms, and verify normal operation of equipment on digital audio tapes.

**2.** Indicate accomplishments of checks on FAA Form 7230–4, Facility Record of Operation.

**e.** At facilities using DALR:

**1.** On a daily basis (not to exceed 26 hours), validate the Castle Rock SNMPc window for the alarms, and verify normal operation of the DALR system.

**2.** Document the accomplishment of the check on FAA Form 7230–4, Facility Record of Operation.

## 3–4–4. HANDLING RECORDER TAPES, DATs, OR DALR STORAGE

**a.** Place the following information on each reel or DAT storage case before storage:

**1.** The recorder number.

**2.** The date and the time UTC.

**3.** The initials of the person changing the reel.

**b.** Retain the tapes or DATs for 45 days, and ensure the DALR .wav file is set to retain recordings for 45 days, except:

**1.** Accidents: Retain the tapes, DATs, or DALRs in accordance with FAAO JO 8020.16, Aircraft Accident and Incident Notification, Investigation and Reporting.

**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.

# 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, 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.*

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

***REFERENCE–***
*FAAO JO 7110.65, Para 5–9–1, Vectors to Final Approach Course.*

**c.** Hospital emergency landing areas.

**d.** NAVAIDs and fixes.

**e.** Reporting points.

**f.** Airway/route centerlines.

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

**h.** Handoff points.

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

**j.** Obstructions.

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

**l.** Map alignment indicators.

**m.** Range accuracy marks.

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

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

**1.** Within airspace used to receive radar handoffs; and

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

**p.** 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–***
*FAAO JO 7110.65, Para 10–2–15, Emergency Airport Recommendation.*

## 3–7–4. INTENSITY

Set the intensity of the video map and the range marks on the CTRD equipment at the minimum intensity

that will provide the controller with the necessary information. Supervisory personnel must ensure that a usable intensity is maintained.

## 3–7–5. COMMON REFERENCE POINTS

Facility air traffic managers must ensure the adequacy of common reference points on radar maps where such points are used in providing air traffic control services; e.g., handoff points, etc., between adjacent facilities or between sectors within the facilities using different radar systems. Whenever possible, simultaneous flight checks should be conducted of these radar systems. FAAO 8200.1, United States Standard Flight Inspection Manual, must be used in determining the appropriate tolerances.

# Section 8. Other Displays

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

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

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

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

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

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

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

**1.** Three-mile separation minima or more from obstacles, except when applying the provision in paragraph 3-8-1c2. 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–***
*FAAO JO 7110.65, Para 5–5–4, Minima.*

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

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

**a.** MVACs must be developed and maintained using the Sector Design and Analysis Tool (SDAT). Facility Managers may request assistance in the development and maintenance of their MVAC or request SDAT user support by soliciting the Mission Support Services, Geographic Services Group. MVACs developed in SDAT properly apply obstruction clearance criteria required by FAA Order 8260.3. SDAT completes FAA Form 7210-9 and automatically creates and sends the necessary data files to Mission Support Services, ATC Products Group upon certification 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 1720, as a guide when considering ROC reductions in designated mountainous areas. ROC reductions are not authorized where negative effects of precipitous terrain are documented or known having followed the process contained in subparas e2 and 3 below. ROC reductions within designated mountainous areas are only authorized by complying with at least one of the following criteria:

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

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

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

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

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

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

***NOTE–***
*Should a ROC reduction request be denied by Service Center Operations Support personnel, the manager may appeal the decision to the appropriate service area Director of Air Traffic Operations.*

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

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

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

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

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

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

**1.** Any locations outside of the Contiguous United States.

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

**3.** When all of the following conditions are applicable:

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

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

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

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

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

**(3)** Click on "Land-Based Stations" on left column, then click "Climate Data Online."

**(4)** Click on "Search Tool" link.

**(5)** On the Search form, select Annual Summaries, and accept default fields, then enter primary airport identifier.

**(6)** Click on "Airport Name" on left side of page.

**(7)** Scroll to bottom of page and select the year for review.

**(8)** Select each relevant year, and document the Lowest Temperature for the year. This is the EMNT column, on the bottom row. Then calculate the 5−year average.

** Do not select Add to cart. All data is free if the internet proxy is set to AWA or AMC.

***TBL 3−8−1***

**ROC Reduction/Temperature Table**

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

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

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

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

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

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

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

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

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

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

**o.** All facilities must notify the SDAT program office personnel to complete the final submission step of the project within the repository when sending the MVAC request to the OSG.

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

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

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

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

## 3−8−3. ALTITUDE ASSIGNMENTS TO S/VFR AND VFR AIRCRAFT

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

***REFERENCE−***
*FAAO JO 7110.65, Para 7−5−4, Altitude Assignment.*
*FAAO JO 7110.65, Para 7−8−5, Altitude Assignments.*

## 3−8−4. EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)

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

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

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

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

**d.** EOVM Design:

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

**(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, 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.*

**(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*

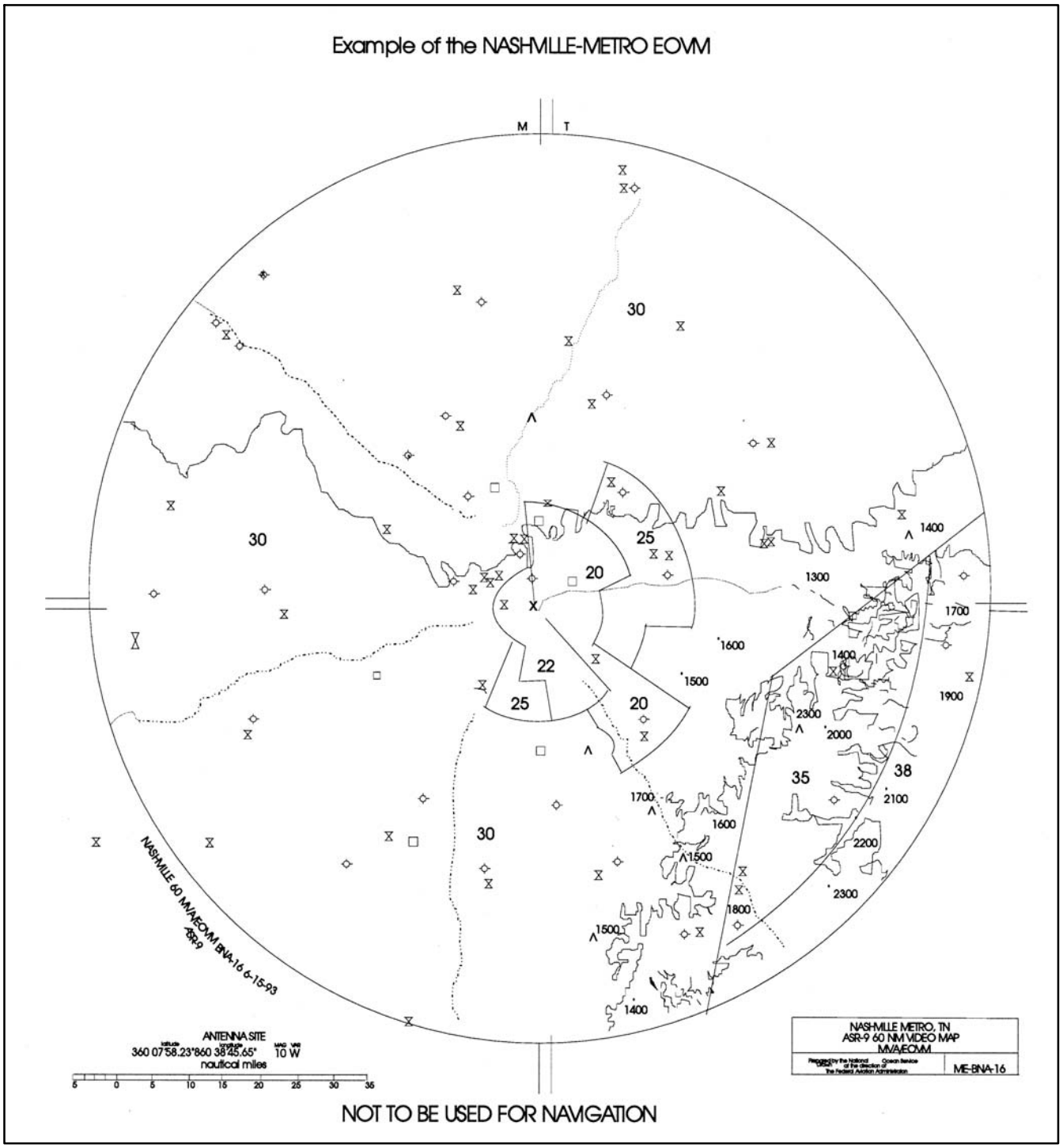
**e.** EOVM Production: The initial preparation and procurement of the EOVM must be accomplished in accordance with FAAO 7910.1, Aeronautical Video Map Program.

**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
35
38
1400
1300
1700
1600
1400
1500
1900
2300
2000
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
ME-BNA-16
NOT TO BE USED FOR NAVIGATION

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

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

**1.** If the location is listed in the Terminal Procedure Publication (TPP) index, check the take–off minimums and (Obstacle) Departure Procedures in section C of the TPP for the DVA runway. If nothing is listed, or only obstacle notes appear, then a DVA is not necessary. If a DP appears, development of a DVA becomes an option.

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

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

**3.** If the ATM elects to request a DVA, use the sample memorandum below as a guide (see FIG 3–8–2). Specify if the request is to establish, modify, or cancel a DVA. If modifying or canceling a DVA, attach the memorandum that authorizes the current DVA. The DVA request must include the following:

**(a)** Airport identifier.

**(b)** Desired DVA runway(s).

**(c)** Requested DVA method. Specify a range of operational headings by starting from the extreme left heading proceeding clockwise (CW) to the extreme right heading as viewed from the departure runway in the direction of departure (for example, Runway 36, 290 CW 120), or isolate a penetrating obstacle(s) by identifying that obstacle(s) either by DOF number or range/bearing from airport.

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

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

**(f)** Facility Hours of Operation.

*FIG 3–8–2*
**Sample DVA Memo**

**Federal Aviation Administration**

# Memorandum

Date: March 10, 2011

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

From: Steve Jones, Air Traffic Manager, XYZ TRACON

Prepared by: Joseph B. Specialist, Support Specialist

Subject: Diverse Vector Area (DVA) Request

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

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

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

Hours of Operation: 0600-2300 local

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

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

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

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

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

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

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

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

**e.** Headings must not be assigned beyond those authorized by the DVA prior to reaching the MVA/MIA. Missed approach/go-around aircraft must not be assigned headings until the aircraft passes the threshold and the assigned heading is not in excess of 90° left or right of the centerline heading of the runway for which the DVA was established.

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

# Section 9. Color Displays–Terminal

## 3–9–1. COLOR USE ON ATC DISPLAYS

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

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

**1.** Background must be black.

**2.** Point out identifier blinking or steady must be yellow.

**3.** Compass Rose and range rings must be dim gray. Maps A and B must be dim gray or yellow.

**4.** Coordination rundown list as follows:

**(a)** Unsent must be green.

**(b)** Unacknowledged must be blinking green.

**(c)** Acknowledged must be steady green.

**5.** Geographic restriction border, fill, and text must be yellow.

**6.** Data blocks owned must be white.

**7.** Limited or partial data blocks unowned must be green.

**8.** Search target symbol must be blue.

**9.** Beacon target extent must be green.

**10.** History trails must be blue.

**11.** Predicted track line must be white.

**12.** Minimum separation line must be white.

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

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

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

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

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

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

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

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

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

**k.** Facility air traffic managers must make all requests for any color changes to color baseline through the appropriate service area Director of Air Traffic Operations.

# Section 4. Application

## 4–4–1. OPERATIONS UNDER EXEMPTIONS FROM SECTION 3 OF APPENDIX D TO PART 91 SURFACE AREAS OF CLASS B AND CLASS C AIRSPACE WITHIN WHICH SPECIAL VFR WEATHER MINIMUMS ARE NOT AUTHORIZED FOR FIXED–WING AIRCRAFT

Implement LOAs with operators whose operations are conducted under an exemption to 14 CFR Part 91, Appendix D, Section 3. Letters of Agreement should contain:

**a.** The surface area within which exempted operations may be conducted;

**b.** The weather minimums required for the operations;

**c.** That visual reference to the surface is required;

**d.** Sufficient details as to routes, altitudes, communications, reporting points, etc. to facilitate control of these operations;

**e.** Code names, if practical, for use in signifying to the pilot the details of each arrival and departure procedure; and

**f.** Any additional data which the ATC facility believes necessary to accommodate operations.

***NOTE–***
*14 CFR Part 91, Appendix D, Section 3 lists specific surface area locations in which FW/SVFR flight is prohibited. However, operators may petition for exemptions from these prohibitions. An exemption may only be granted by an FAA Headquarter's office (i.e., Vice Preseident for Terminal Services, or the Administrator).*

## 4–4–2. USE OF AIRCRAFT CALL SIGNS

**a.** Local call sign/telephony designators are used only for local flight operations as specified in a letter of agreement (LOA) between the local air traffic control (ATC) facility and the requesting aircraft operator. LOAs concerning the use of aircraft call signs by local flight operators must conform with the following standards:

**1.** Local call signs must not be assigned a three-letter designator. This ensures local call signs will not conflict with call signs using three-letter ICAO-approved designators. Local call signs may be assigned 2, 4, 5, and 6 letter call sign designators.

**2.** Local call sign/telephony designators must not conflict with call signs and/or telephonies in use by military aircraft and other aircraft that operate in the local area. All law enforcement call sign/telephony designators must be verified through System Operations Security (9-ATOR-HQ-IFOS@faa.gov).

**3.** Local call signs are only used for communications and operations with local ATC facilities that are signatories on the LOA.

**4.** Local call signs are not used in filing flight plans outside the local area designated in the LOA.

***NOTE–***
*Aircraft operators (for example, flight schools, aircraft manufacturers, law enforcement, etc.) may request a special call sign/telephony designator that would enable IFR flight operations outside the designated local area.*

**b.** Special call sign/telephony designators are authorized and assigned by the FAA for governmental or other aircraft operations to enable special handling by ATC within the continental United States. Special designators can be used for filing flight plans and may be issued for a designated area of operation corresponding to the duration of an event or circumstances requiring special handling. Special designators are authorized for use by ATO System Operations Security (9–ATOR–HQ–IFOS@faa.gov) and are published in FAA Order 7110.67 and FAA Order 7340.2.

***REFERENCE–***
*FAAO JO 7110.67, Air Traffic Management Security Services for Special Activities*
*FAAO JO 7340.2, Contractions*

**c.** ICAO three–letter designators (3LD) are published in FAA Order JO 7340.2, Contractions. 3LDs are authorized for use by the following ATO offices:

**1.** Aeronautical Information Service (AIS) (callsigns@faa.gov) for non–governmental aircraft operators; and

**2.** System Operations Security (9–ATOR–HQ–IFOS@faa.gov) for governmental aircraft operators.

***REFERENCE–***
*AC 120-26, Assignment of Aircraft Call Signs and Associated Telephonies.*

## 4–4–3. RUNWAY SUPERVISORY UNITS (RSU)

Facility air traffic managers must ensure that the following items are included in a LOA with the local military authority when the operation of a military RSU has been directed by the military commander.

**a.** Qualification requirements of personnel operating the RSU.

**b.** A continuous monitor of the appropriate tower frequency is maintained.

**c.** Coordination with the tower is accomplished prior to changing to an alternate frequency.

**d.** The primary function of the RSU is to monitor arrivals and departures of designated military aircraft.

**e.** The RSU must not be used for ATC service except:

**1.** In an emergency situation; or

**2.** At undergraduate pilot training/pilot instructor training (UPT/PIT) locations to UPT/PIT aircraft for preventive control purposes.

**f.** Radio silence must be maintained at all times unless actual safety of flight is involved or as outlined in subpara e above.

# Section 6. Records

## 4–6–1. FACILITY RECORDS MANAGEMENT

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

## 4–6–2. COLLECTION OF OPERATIONAL DATA

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

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

## 4–6–3. FORMS PREPARATION

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

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

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

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

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

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

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

**1.** Each air traffic facility, 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 4–6–5 h.

**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, FLMIC, OMIC, TMC, TMCIC, and CIC positions, and positions at the ATCSCC.

## 4–6–5. PREPARATION OF FAA FORM 7230–4

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

**a.** Use of a typewriter, computer printout, or ink is mandatory. Signatures or handwritten initials must be in either blue or black ink. Handwritten entries

must be printed, rather than in script. REMARKS section entries must be single−spaced.

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

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

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

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

**f.** Employees must sign on/off as follows:

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

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

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

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

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

**h.** FAA Order 7210.632, 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 subpara g.

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

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

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

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

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

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

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

**n.** 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.

# Section 7. Reports

## 4–7–1. MONTHLY REPORTS

Facilities must submit monthly reports to the appropriate Service Area office by the 5th day of the following month. Distribution must be made in accordance with appropriate instructions.

## 4–7–2. DELAY REPORTING

Air traffic personnel are responsible for reporting delays of 15 minutes or more that occur in facilities or airspace under their control. The cause of the delay, as well as the type aircraft involved (commercial, air taxi, general aviation, or military), and the duration of the delay must be included in the daily reporting system. The air traffic operations network (OPSNET) is utilized for the purpose of submitting these reports electronically, as well as receiving summary reports and information from System Operations in FAA Headquarters. For more detailed information on OPSNET reporting policies and procedures, consult FAAO JO 7210.55, Operational Data Reporting Requirements.

## 4–7–3. SYSTEM IMPACT REPORTS

The ATCSCC is the focal point for collecting information relating to operational system impacts; for example, NAVAID/radar shutdowns, runway closures, landline/frequency outages, or any system event that has the potential to create an operational impact in the NAS.

**a.** Therefore, all air traffic facilities must follow procedures and responsibilities in Paragraph 17–5–13, Electronic System Impact Reports. This process streamlines reporting and disseminating information that has an impact within the NAS.

**b.** This does not eliminate, or in any way alter, current operational error/deviation or accident/incident reporting procedures with Safety Investigations, regional operations centers, and FAA Operations Center as set forth in this order, FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting, and other appropriate directives.

## 4–7–4. UNIDENTIFIED FLYING OBJECT (UFO) REPORTS

**a.** Persons wanting to report UFO/unexplained phenomena activity should contact a UFO/unexplained phenomena reporting data collection center, such as the National UFO Reporting Center, etc.

**b.** If concern is expressed that life or property might be endangered, report the activity to the local law enforcement department.

# Section 8. Freedom of Information Act (FOIA)

## 4–8–1. ACCIDENT/INCIDENT RECORDINGS

The original ATC voice tape or DAT will not ordinarily be used in response to requests for copies. The copies will be made from the original rerecording. When filling a request, do not use a cassette that has a previous recording on it.

**a.** With the prior approval of the Service Area office and Director of Safety Investigations, a requesting party must be permitted to obtain a direct rerecording of the original tape or DAT. The facility air traffic manager must ensure that a qualified FAA employee retains custody of the original recording and is present during reproduction. Recordings will be continuous, thus eliminating starting and stopping of the original tape or DAT to the maximum extent possible.

**b.** A certified rerecording must be made of all portions of tape(s) or DAT(s) copied by the requesting party. This recording must be retained in the facility in accordance with the appropriate records retention criteria; i.e., accidents or incidents, etc. The original tape(s) or DAT(s), will be returned to service.

## 4–8–2. REQUESTS TO PRESERVE TAPE OR DAT UNDER FOIA

When requests are received to preserve more of the original tape or DAT(s) than required by FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting, or FAA Order JO 7210.3, Facility Operation and Administration, the following will apply:

**a.** Immediately remove the tape(s) or DAT(s) or the pertinent portion thereof from service. During the time a tape(s) or DAT(s) is to be preserved, the reel, or DAT on which it is to be stored must be labeled as follows: "WARNING this tape or DAT is to be preserved and is not to be returned to service until released by the Service Area office."

**b.** The requestor must be notified in writing that the requested tape(s) or DAT(s) will be held for a period of 20 days from the date of FAA's response. Within this time, the requesting party must make arrangements to obtain a rerecording. If, at the end of the 20–day retention period, there has been no contact by the requesting party, or no follow through in obtaining a rerecording, the requestor will be advised in writing of that fact and be advised that we will hold the tape(s) or DAT(s) for an additional 10 days from the date of this notification. If, at the end of the additional 10 days, there has been no contact or follow through by the requesting party, the portion of tape(s) or DAT(s) that is more than we normally retain must be returned to service.

## 4–8–3. COMPUTER DATA

The data on a computer tape/disc is normally useless to a requesting party unless reduced to printed form. Therefore, when filling a request for computer data, the tape/disc will be reduced to printed form. The following disclaimer will be attached to any computer reduction: "This document is derived from computer magnetic recordings of internal computer processing. It is not an exact representation of the control position display."

## 4–8–4. FEES

**a.** A request may be received for a certified rerecording on cassette tape or digital audio tape format. Unless otherwise specified in the request, prepare certified rerecordings on cassette tape.

**1.** Cassette Tape Format: A fee of $30.00 will be charged for each hour or portion thereof of actual recordings. No additional fee will be charged for preparation time or personnel costs.

***EXAMPLE–***

**1.** *A request is received for a rerecording of 1 hour of Ground Control (GC) and 30 minutes of Local Control (LC). Total time = 1:30. The charges would be computed thus:*

*$30.00 First hour (GC)*
*$30.00 Portion of time for the next hour (LC)*
*$60.00 Total Charge*

**2.** *A request is received for a total of 25 minutes of actual recordings. The charge would be $30.00.*

**3.** *A request is received for certified rerecordings of Clearance Delivery, GC, and LC with each position placed on a separate cassette. The total recorded time*

*on all 3 positions is 45 minutes. The charge for the 3 cassettes would be computed thus:*

*$30.00 45 minutes*
*No additional charges would be assessed for the individual cassettes.*

**2.** DAT: A fee of $25.00 will be charged for each DAT provided under the request. In addition, a flat rate of $30.00 will be charged for each different block of time requested, limited to the daily 24 hour period recorded on the facility's master DAT. In other words, although a request for one block of time (i.e., 0900–0900) is a total of 24 hours, it is spread over a two day period. Therefore, such a request would be considered as two separate blocks of time.

***EXAMPLE–***
**1.** *A request is received for a voice recording on DAT format for 2 different blocks of time; from 0900–1200 and 1500–1830 on May 5. Since no specific position(s) were specified, the request could include all recorded positions during the time periods. Regardless, the charges for the service would be computed thus:*

*$25.00 1 DAT*
*$30.00 1 Block of time (0900–1200)*
*$30.00 1 Block of time (1500–1830)*
*$85.00 Total Charge*

**2.** *A request is received for a voice recording beginning on June 12, at 0900, through June 13, at 1800. The facility will have stored this information on two separate DATs. However, all of the requested data can be transferred to a single DAT for the customer. The charges would be computed thus:*

*$25.00 1 DAT*
*$30.00 1 Block of time (June 12, 0900–2359)*
*$30.00 1 Block of time (June 13, 0000–1800)*
*$85.00 Total Charge*

**3.** *The same information in example 2 is requested except the customer wants the data to be placed on separate DATs and labeled for each day. The charge would be computed thus:*

*$50.00 2 DATs @ $25.00 each*
*$30.00 1 Block of time (June 12, 0900–2359)*
*$30.00 1 Block of time (June 13, 0000–1800)*
*$110.00 Total Charge*

**4.** *A request is received for a voice recording from 0630–2345. The charge would be computed thus:*

*$25.00 1 DAT*
*$30.00 1 Block of time (0630–2345)*
*$55.00 Total Charge*

**5.** *A request is received for voice recordings of: LC, August 2, 1015–2255; GC, August 3, 0700–1635; and LC, August 3, 0700–1635. The charges would be computed thus:*

*$25.00 1 DAT*
*$30.00 1 Block of time (LC, August 2, 1015–2255)*
*$30.00 1 Block of time (GC and LC, August 3, 0700–1635)*
*$85.00 Total Charge*

**6.** *A request is received for a voice recording of: LC, August 2, 1015–2255; LC, August 3, 0700–1635; and GC, August 3, 0700–1530. The charges would be computed thus:*

*$25.00 1 DAT*
*$30.00 1 Block of time (LC, August 2, 1015–2255)*
*$30.00 1 Block of time (LC, August 3, 0700–1635)*
*$30.00 1 Block of time (GC, August 3, 0700–1530)*
*$115.00 Total Charge*

**b.** CPU cost:

**1.** FSS: $13.00

**2.** ARTS II/III: $99.00

**3.** HOST**:** $275.00

**c.** Fees for a computer search will be computed using the following formula:

$$Fee = \frac{\text{(minutes of CPU time)}}{60} \text{ X (CPU cost)} + \frac{\text{(minutes operator/programmer time)}}{60} \text{ X (salary)} \text{ X (1.16)}$$

***EXAMPLE–***
*For ARTCC given 15 minutes CPU time; 45 minutes programmer time; $30 salary.*

***NOTE–***
$(15/60 \times \$275) + 45/60 \times \$30 \times 1.16 = \$94.85$

# Part 2. AIR ROUTE TRAFFIC CONTROL CENTERS

# Chapter 6. En Route Operations and Services

## Section 1. General

### 6–1–1. AREAS OF OPERATION

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

### 6–1–2. SECTORS

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

### 6–1–3. SECTOR CONFIGURATION

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

**1.** Traffic volume.

**2.** Traffic flow.

**3.** Types of aircraft.

**4.** Location and activity of terminals.

**5.** Special operations/procedures.

**6.** Coordination requirements.

**7.** Consolidation capability.

**8.** Radar/radio coverage.

**9.** Equipment limitations.

**10.** Airway alignments.

**b.** Accordingly:

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

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

**3.** Distribute the workload equitably among the sectors.

**4.** Provide for a sector consolidation capability.

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

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

### 6–1–4. AREAS OF SPECIALIZATION

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

### 6–1–5. OPERATING POSITION DESIGNATORS

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

*TBL 6–1–1*
**Operating Position Designators**

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

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

## 6–1–6. FLIGHT PROGRESS STRIP USAGE

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

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

**b.** Computer generated flight progress strips are being posted;

**c.** Radio and interphone transmissions are being recorded;

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

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

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

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

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

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

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

## 6–1–7. DISPLAY OF TIME BASED FLOW MANAGEMENT (TBFM) INFORMATION

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

(4) Seven characters reflecting operating frequency with the letter "X" appearing in the days of operation and the letter "O" appearing in the days of nonoperation; e.g., XXXXXXO means the flight operates daily except Saturday. The frequency of operation should always be based on UTC; e.g., a flight proposed to depart at 2000 Eastern Standard Time on Friday would be filed as a 0100Z Saturday operation.

(5) The identification of the flight using the ICAO–authorized 3-letter designator followed by the trip number of this flight; i.e., UAL743 would be United Airlines flight number 743. The minimum number of characters is three (3), and the maximum number is seven (7) characters of information.

(6) The type of aircraft to be used on this flight. When equipment varies by the day of the week, this may be entered into the listing as a different flight plan. Although the aircraft identification may be the same, the operating frequency would be different and would preclude ambiguity. The type of aircraft may consist of three items of data. First, if appropriate, the super or heavy aircraft indicator "H," followed by a required second item containing a maximum of four (4) characters (the authorized contraction for the aircraft designator as described in FAAO JO 7340.2, Contractions). The third item may be a virgule "/" and one alphabetic character to indicate transponder and distance measuring equipment (DME) as described in FAAO JO 7110.65 and the AIM.

(7) The filed true airspeed (TAS) in knots or Mach speed. The required format for Mach speed is three (3) digits preceded by the letter "M;" e.g., M095.

(8) The airport of departure must be a maximum of five (5) characters using the authorized identifier as listed in FAAO JO 7350.8, Location Identifiers, or the ICAO Location Indicators Document 7910.

(9) The proposed departure time must always consist of the "P" followed by four numerics expressing the proposed departure time in 24 hour Coordinated Universal Time (UTC).

(10) The requested altitude must be a maximum of three (3) characters expressing the requested altitude in hundreds of feet; e.g., 140, fourteen thousand feet; 80, eight thousand feet.

(11) The intended route of flight to the first destination airport. (When a flight has multistops, each portion of the scheduled route must form the basis for a new flightplan and will be distinguished from other portions by changing the point of departure.) The absence of an airway or route number between two fixes indicates direct; therefore no symbol or abbreviation is required.

(a) All junctions between airways must be included when they can be identified as fixes listed in FAAO JO 7350.8, Location Identifiers, or the ICAO Location Indicators Document 7910. If any problem exists in using the name or the fix identifier, coordination between the carrier and the ARTCC must be accomplished to resolve the problem.

(b) The point of departure must always be the first item of the route data. If a standard instrument departure (SID) routing is requested, it must be filed using the official designator, followed by the departure point and the transition/exit fix.

(12) The last item in the route of flight will be the destination of the flight as identified in FAAO JO 7350.8, Location Identifiers, or the ICAO Location Indicators Document 7910.

(13) Estimated Time En Route (ETE).

# Section 8. Advanced Technologies and Oceanic Procedures (ATOP)

## 6–8–1. GENERAL

**a.** ATOP is an Air Traffic Control (ATC) System deployed in designated en route and oceanic airspace. ATOP includes both surveillance and flight data processing, which provides the controllers with automated decision support tools to establish, monitor, and maintain separation between aircraft, and aircraft to airspace and terrain.

**b.** ATOP capabilities include:

**1.** MEARTS based radar surveillance processing.

**2.** Conflict Prediction and Reporting for conflict probe.

**3.** Automatic Dependence Surveillance–Addressable (ADS–A).

**4.** Automatic Dependence Surveillance–Broadcast (ADS–B).

**5.** Controller Pilot Data Link Communications (CPDLC).

**6.** ATC Interfacility Data Communications (AIDC).

**7.** Decision Support Tools used primarily for situation awareness.

**8.** Electronic Flight Data including Electronic Flight Strips.

## 6–8–2. OPERATIONAL SUPERVISOR–IN–CHARGE RESPONSIBILITIES

In addition to the watch supervision described in Chapter 2, Administration of Facilities, Section 6, Watch Supervision–Terminal/En Route, facilities must provide in facility directives the operational duties and procedures for the Supervisor–In–Charge associated with the ATOP System. Responsibilities and procedures must include but are not limited to the following:

**a.** Disseminate flight information received at the Supervisor workstation in a timely manner.

**b.** Supervisor workstation message management.

**c.** ATOP data management when a channel changeover is being performed.

**d.** Assignment of Error Repair responsibilities.

## 6–8–3. ERROR REPAIR POSITION RESPONSIBILITIES

Facilities must define responsibilities and develop procedures associated with the ATOP System for the Error Repair position. Responsibilities and procedures must include but are not limited to:

**a.** Disseminate messages received at the workstation in a timely manner.

**b.** Edit and repair messages.

## 6–8–4. FACILITY MANAGER RESPONSIBILITIES

**a.** Ensure LOAs, SOPs, MOUs and Sector Position Binders are current to support ATOP.

**1.** Facility managers must consider ATOP functions and limitations when reviewing current LOAs and/or negotiating future LOAs.

**2.** Consider the following items when reviewing LOAs:

**(a)** Interfacility coordination procedures.

**(b)** Outage notification.

**(c)** Degraded functions notification.

**(d)** Automated Information Transfer Procedures.

**b.** Ensure all facility directives, where applicable, support ATOP. Directives should include but are not limited to:

**1.** System problem reporting.

**2.** Airspace and sector configuration.

**3.** Use of surveillance sources.

**4.** Use of paper strips and strip marking.

**5.** Electronic flight data management.

**6.** Conflict Probe/Decision Support Tools use, limitations, and exceptions.

**7.** Internal coordination.

**8.** Contingency plans.

**9.** Controller preference management.

## 6–8–5. TRANSFER OF POSITION

In addition to the procedures outlined in Paragraph 6, Step–by–Step Process, of Appendix D, Standard Operating Practice (SOP) for the Transfer of Position Responsibility, in FAA Order JO 7110.65, Air Traffic Control, ensure facility directives include, at a minimum, the following procedures:

**a.** Position relief briefing checklist.

**b.** Sign–over procedures.

## 6–8–6. ATOP CHANNEL CHANGEOVERS

Facilities must identify the procedures for a channel changeover that include a checklist detailing actions to be taken, and roles and responsibilities.

## 6–8–7. OUTAGES

In accordance with Chapter 8, NAS En Route Automation, and requirements in this chapter, facilities must develop and maintain procedures for the transition to and from, and during ATOP degraded operations. A facility directive must include a checklist detailing actions, roles, and responsibilities during planned and unplanned outage or degraded operation.

## 6–8–8. CONTROLLER PILOT DATA LINK COMMUNICATIONS

Facility managers must ensure that local procedures are developed for the use of CPDLC. These procedures must include but not be limited to:

**a.** The use of free–text messages in air–to–ground communication.

**b.** Data link limitations and exceptions.

**c.** Lost communications procedures.

**d.** Frequency assignment for automated transfer.

# Chapter 8. NAS En Route Automation

## Section 1. General

### 8–1–1. TRANSITION PROCEDURES

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

**b.** The transition plans must include as a minimum:

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

**2.** Specific transition procedures.

**3.** Detailed checklists specifying the duties and the responsibilities for the OMIC, STMCIC, FLM, Radar Position (R), and other appropriate positions. The checklist must include, as a minimum, the following information/procedures:

**(a)** Transition decision authority.

**(b)** Coordination/notification procedures (intra– and interfacility).

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

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

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

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

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

# Section 3. Other Reports and Forms

## 9–3–1. FAA FORM 7210–8, ELT INCIDENT

In order to expedite the data flow necessary for the accomplishment of the ELT investigations, use FAA Form 7210–8, ELT Incident for coordination with the Rescue Coordination Center (RCC) when an ELT signal is heard or reported. (See FIG 9–3–1.)

**a.** Form Disposition. Air traffic managers must ensure that forms prepared for ELT incidents which have not been closed must be readily accessible at the operating position responsible for coordinating with the RCC. Forms prepared for an ELT incident which has been closed must be retained for 45days except when filed as part of an incident, an accident, or another case file.

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

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

**2.** Initial Notification:

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

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

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

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

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

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

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

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

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

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

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

**4.** *Incident Termination.*

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

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

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

notifications of incident closure by identifying the facility or organization and record the initials and the time.

**5.** *Additional Remarks:* This section, on the back of the form, may be used for overflow information or any information which is too lengthy to be included on the front of the form.

# Part 3. TERMINAL AIR TRAFFIC CONTROL FACILITIES

# Chapter 10. Terminal Operations, Services, and Equipment

## Section 1. General

### 10–1–1. OPERATING POSITION DESIGNATORS

**a.** The following designators may be used to identify operating positions in a terminal. (See TBL 10–1–1.)

*TBL 10–1–1*
**Operating Position Designators**

| | *Designator* | *Position* |
|---|---|---|
| 1. | AD | Arrival Data (Radar) |
| 2. | AP | Approach Control |
| 3. | AR | Arrival Control (Radar) |
| 4. | CC | Coordinator (Tower) |
| 5. | CD | Clearance Delivery |
| 6. | CI | Coordinator (Radar) |
| 7. | DC | Departure Control |
| 8. | DD | Departure Data (Radar) |
| 9. | DR | Departure Control (Radar) |
| 10. | EN | Flight Service |
| 11. | FD | Flight Data |
| 12. | GC | Ground Control |
| 13. | LC | Local Control |
| 14. | OM | Operations Manager |
| 15. | OS | Operations Supervisor |
| 16. | PAR | Precision Approach Radar |
| 17. | STMCIC | Supervisory Traffic Management Coordinator–in–Charge |

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

### 10–1–2. TOWER/RADAR TEAM CONCEPTS

There are no absolute divisions of responsibilities regarding position operations. The tasks to be completed remain the same whether one, two, or three people are working positions within a tower cab/facility/sector. The team, as a whole, has responsibility for the safe and efficient operation of the tower cab/facility/sector.

### 10–1–3. MILITARY ATC BOARDS

**a.** Commanders at USAF bases with flight operations have been directed by USAF to establish airfield operations boards. Among other things, the boards develop recommendations for improving ATC and airfield services and attempt to resolve local air traffic problems.

**b.** The ATCT manager, his/her representative, or the ATREP at these bases may be designated as a member of the board. The FAA member must inform the board that his/her participation does not commit the FAA to abide by the board's recommendations even though they may be approved or even suggested by him/her.

**c.** The FAA member should become familiar with Air Force Regulation 55–48, Air Force Instructions 13–203, Air Traffic Control, and 13–213, Airfield Management.

### 10–1–4. SECTIONAL AERONAUTICAL AND TERMINAL AREA CHARTS

**a.** Terminal Area Charts (TACs) provide detailed information needed for flight within or in the vicinity of Class B airspace. Visual checkpoints are depicted on TACs, and at some locations, on Sectional Charts.

**b.** VFR Flyway Planning Charts are published on the back of existing TACs. Facilities with a TAC desiring publication of a VFR Flyway Planning Chart should submit requests through the appropriate service area Director of Air Traffic Operations. Additional charts may be considered after all Class B airspace locations have been completed. VFR Flyway Planning Charts, which are intended to

facilitate VFR transition through high density areas, depict generalized VFR routing clear of major controlled traffic flows which may be used as alternatives to flight within Class B airspace. Pictorial ground references and VFR checkpoints are provided to aid visual navigation. These charts are designed for information and planning purposes and are not intended to discourage VFR operations within Class B airspace. Pilot compliance with recommended flyways and associated altitudes is strictly voluntary. Controllers must not assign a charted VFR flyway to a pilot as part of a clearance nor predicate separation of aircraft on any expected pilot compliance with the depicted altitudes. .

**c.** Facility air traffic managers must review VFR checkpoints published on Sectionals, TACs, and VFR Flyway Planning Charts for accuracy, completeness, and reasonableness. Nearby ATCT that make use of the same area depicted on the charts must agree upon the checkpoints to be depicted.

**d.** Submit changes or revisions to VFR checkpoints to System Operations Airspace and Aeronautical Information Management at least 10 weeks prior to the scheduled publication date.

**e.** If required, a list of checkpoints may be developed in association with local flight schools and fixed base operators for local use. They may only be used with local users who participated in developing the list. They may not be charted or published.

## 10–1–5. AREAS OF NONVISIBILITY

Air traffic managers of towers located where portions of the airport surface are normally designated movement areas and/or where portions of the airport traffic pattern are not visible from the tower must, after coordination with the airport management, issue a letter to airmen describing the condition. The recommended wording is:

**a.** "Due to obstructed vision, (facility identification) tower is unable to provide airport traffic control service in following areas: (describe the areas)."

**b.** "Due to the movement of uncontrolled ground traffic, (facility identification) tower is unable to provide airport traffic control service in the following areas: (describe the areas)."

**c.** "Use caution, the following areas are not visible from the (facility name) tower: (describe the areas, traffic pattern, active runway)."

## 10–1–6. SELECTING ACTIVE RUNWAYS

**a.** ATCT supervisor/CIC has primary responsibility for determining which runways are to be designated as "active" runways. Where optional configurations of multiple active runways are used for operational flexibility, responsibility for designating which of the optional runways are active at any time may be further delegated. A facility directive must be issued to define specific coordination requirements. (See FAAO JO 7110.65, Air Traffic Control, para 3–1–3 thru para 3–1–5, para 3–5–1, para 3–5–2, etc.)

**b.** Determination of the active runway/s requires consideration of all known factors that may in any way affect the safety of takeoff/landing operations including the initial departure and the instrument approach phases of flight within terminal area airspace. (See FAAO JO 7110.65, para 2–1–16, para 2–1–18, para 2–6–1 thru para 2–6–5, para 3–1–8, para 3–3–1 thru para 3–5–3, etc.)

***NOTE–***
*Example of items to be considered are: surface wind direction and velocity, wind shear/microburst alerts/reports, adjacent airport traffic flows, severe weather activity, IFR departure restrictions, environmental factors, etc.*

## 10–1–7. USE OF ACTIVE RUNWAYS

**a.** Facility air traffic managers must issue a facility directive containing procedures to ensure the efficient use of runways, positive control and coordination of aircraft/vehicles on or near active runways. Authorization for aircraft/vehicles to taxi/proceed on or along an active runway, for purposes other than crossing, must be provided via direct communications on the appropriate local control frequency. This authorization may be provided on the ground control frequency after coordination with local control is completed for those operations specifically described in a facility directive.

**b.** Facility air traffic managers must develop procedures to be included in a facility directive for the mandatory use of an approved memory aid at the appropriate operational position/s for:

# Section 3. Operations

## 10–3–1. DISSEMINATION OF WEATHER INFORMATION

Facility air traffic managers must establish procedures for the prompt collection and dissemination of weather information. The procedures must address SIGMET, AIRMET, CWA, PIREP and other known or observed weather that may affect aircraft safety. These procedures must contain direction for a central source to be responsible for:

**a.** Soliciting and handling PIREPs in accordance with the provisions of FAAO JO 7110.65, Air Traffic Control, para 2–6–3, PIREP Information.

**b.** Reviewing SIGMET, AIRMET, and CWA to determine the required distribution, and disseminating SIGMET, AIRMET and/or CWA information in accordance with the following:

***NOTE–***
*Simply attempting to accelerate the movement of all weather data will not accomplish our objectives. Greater emphasis is being placed on screening and selective dissemination of weather data. Selective dissemination takes into account the need to alert pilots to significant weather reports in sufficient detail to assist them in making decisions pertinent to flight safety and to provide the information an ATC facility requires to promote the safe and efficient use of its airspace.*

**1.** Disseminate pertinent information from SIGMET, AIRMET, or CWA to other terminal ATC facilities within your terminal area.

**2.** Disseminate selective SIGMET, AIRMET, and CWA information on a need–to–know basis in accordance with the provisions of FAAO JO 7110.65, Paragraph 2–6–2, Hazardous Inflight Weather Advisory Service (HIWAS).

## 10–3–2. WIND INSTRUMENTS AT APPROACH CONTROL FACILITIES

**a.** The same wind sensor may be used to provide wind information in ATCT and approach control facilities when they are located on the same airport.

**b.** Approach control facilities not located at the airport to which radar service is being provided may issue wind data received from the tower at that airport. The wind data may be transmitted to the approach control facility by TelAutograph, data communication circuit, voice lines, etc.

**c.** The facility air traffic manager of an approach control that provides radar service to an Air Force Base must identify facility requirements for wind indicators, in writing, to the local USAF Air Weather Service Commander.

## 10–3–3. LOW LEVEL WIND SHEAR/ MICROBURST DETECTION SYSTEMS

**a.** Procedures for the dissemination of wind information derived from the Low Level Wind Shear Alert System (LLWAS) or other automated wind shear detection systems, are contained in FAAO JO 7110.65, para 3–1–8, Low Level Wind Shear/Microburst Advisories. Guidance to facility air traffic managers concerning the operational use of the LLWAS is as follows:

**1.** Prior to operational use of LLWAS facilities, a letter to airmen must be published explaining, as a minimum, the location and designation of the remote sensors, the capabilities and limitations of the system, and the availability of current LLWAS remote sensor wind information if requested by the pilot. A new letter to airmen must be issued whenever changes to the above minimum criteria or system upgrade/modifications are made.

***NOTE–***
*The LLWAS may be retained as a backup system no longer than 6 months after the WSP has been commissioned.*

**2.** At positions of operation where installed, LLWAS airport wind information appearing on the tower LLWAS display may be used in place of the direct dial or commissioned AWOS/ASOS automated display wind information.

***NOTE–***
*Towers having the responsibility for weather observations must comply with the requirements as specified in sub–para 2–10–1a, Wind Instrument Sensors.*

**3.** TRACONs may use direct dial, LLWAS, or commissioned AWOS/ASOS automated display wind information for operational purposes.

**4.** Facility managers may designate the use of displayed wind information oriented to the threshold end of the runway in lieu of airport winds where

LLWAS expanded network systems or LLWAS that are integrated with TDWR are installed, if deemed operationally advantageous.

**5.** The LLWAS airport, direct dial, or commissioned AWOS/ASOS automated winds may be used during outages of the sensors that provide threshold winds:

**(a)** Include in the letter to airmen an explanation that wind information given to arriving aircraft on that runway/s may be derived from the automated AWOS/ASOS wind equipment or wind sensor equipment near the runway threshold rather than from the LLWAS airport wind source. It is not intended that controllers specify the remote source when issuing these winds to arriving aircraft, except when an alert occurs. This must be explained in the letter to airmen.

**(b)** Use wind information derived from commissioned AWOS/ASOS for ATIS broadcasts and issuing weather reports. Wind information from commissioned AWOS/ASOS or LLWAS centerfield may be used when issuing surface wind to departing aircraft.

***REFERENCE–***
*Para 2–10–1, Wind Instrument Sensors.*

**b.** When it is determined that a component or the whole LLWAS has failed, take the following action: If a component such as a remote sensor fails, notify airway facilities. During periods when wind shear is likely to occur or has been reported; e.g., frontal activity, thunderstorms, or pilot reports, inform users by broadcasting on the ATIS that the component is out of service.

***EXAMPLE–***
*"Low level wind shear west boundary sensor out of service."*

**c.** Technical Operations is responsible for the verification of the accuracy of the LLWAS. The SMO will notify air traffic of any equipment that is out of tolerance.

## 10–3–4. RELAY OF RVV/RVR VALUES

**a.** Relay of RVV/RVR values from the weather observing facility to the control tower may be discontinued at the request of the tower when there is no traffic activity at that specific location.

**b.** Establish relative priorities on the visibility information at locations with two or more RVR or RVV runways where data is required for two or more runways.

## 10–3–5. ADVANCE APPROACH INFORMATION

Where more than one position could issue the data, assign responsibility for issuing advance approach information to a specific position in a facility directive. Display the information so that it is readily accessible to the controller having a need for it.

## 10–3–6. ILS HEIGHT/DISTANCE LIMITATIONS

**a.** An ILS is normally flight checked to 4,500 feet and 18 miles for the localizer and to 4,500 feet and 10 miles for the glide slope.

**b.** If an operational need to exceed these limitations exists, ATC submits an Expanded Service Volume (ESV) request IAW 8260.19, with a description of the flight procedure requiring it. Flight inspection must validate the ESV.

## 10–3–7. LAND AND HOLD SHORT OPERATIONS (LAHSO)

**a.** The air traffic manager must determine a valid operational need exists before conducting simultaneous takeoff and landing or simultaneous landing operations. This need may be considered evident if:

**1.** Present airport capacity/acceptance rate will be increased; and

**2.** Arrival/departure delays will be reduced; and

**3.** A reasonable savings in fuel consumption will result.

**b.** Before authorizing simultaneous takeoff and landing or simultaneous landing operations as specified in the current LAHSO directive.

**1.** Coordinate with each of the appropriate Flight Standards field offices having jurisdiction at the airport according to the type of aircraft operations involved and with user groups as required by para 4–2–4, Coordination of ATC Procedures, including the appropriate military authority where units are based at the airport.

***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 FAAO JO 7110.65, Appendix A, Aircraft Information.

**4.** Provide a list of runways authorized for LAHSO, along with the appropriate ALD to System Operations Airspace and Aeronautical Information Management, for publication in the 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 front–line manager/controller–in–charge (CIC) position,

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

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

**6.** The front–line manager/CIC position should not be combined with any other position.

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

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

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

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

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

**(d)** At least 90 days before planned implementation, ATMs must submit the local directive outlining this operation 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.

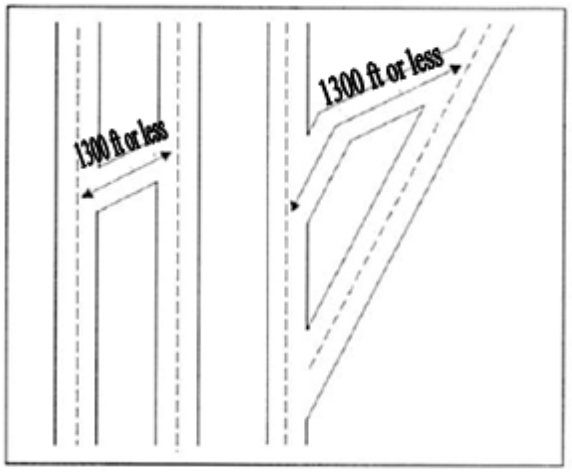
***REFERENCE–***
*FAAO JO 7110.65, Para 3–9–9, Takeoff Clearance.*
*Pilot/Controller Glossary Term – Clear of the Runway.*

## 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*

*FIG 10–3–1*
**Multiple Runway Crossings**




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

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

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

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

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

## 10–3–11. AIRPORT CONSTRUCTION

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

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

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

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

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

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

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

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

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

## 10–3–12. CHANGE IN RUNWAY LENGTH DUE TO CONSTRUCTION

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

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

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

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

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

**1.** Use of the term “full length.”

**2.** Use of the term “shortened.”

**3.** Review of current and future national “Runway Construction Changes” training materials.

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

***REFERENCE–***
*FAAO JO 7110.65, Para 2-9-3, Content*
*FAAO JO 7110.65, Para 3-7-1, Ground Traffic Movement*
*FAAO JO 7110.65, Para 3-9-1, Departure Information*
*FAAO JO 7110.65, Para 3-9-4, Line Up and Wait (LUAW)*
*FAAO JO 7110.65, Para 3-9-9, Take-off Clearance*
*FAAO JO 7110.65, Para 3-10-1, Landing Information*
*FAAO JO 7110.65, Para 3-10-5, Landing Clearance*
*FAAO JO 7210.3, Para 10-3-11, Airport Construction*
*FAAO JO 7210.3, Para 10-4-1, Automatic Terminal Information Service (ATIS)*

## 10–3–13. APPROACHES TO PARALLEL RUNWAYS

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

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

**1.** Airspace constraints.

**2.** Field elevation.

**3.** Fleet mix.

**4.** Airport layout.

**5.** Traffic flow(s).

**6.** Local weather.

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

## 10–3–14. GO–AROUND/MISSED APPROACH

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

**1.** Operational position configuration.

**2.** Communication and/or control transfer.

**3.** Runway configuration.

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

**5.** Wake turbulence.

**6.** Weather conditions.

**7.** Type of approach (instrument or visual).

***REFERENCE–***
*P/CG Term – Go–around*
*P/CG Term – Low Approach*
*P/CG Term – Missed Approach*
*FAAO JO 7110.65, Para 3–8–1, Sequence/Spacing Application*
*FAAO JO 7110.65, Para 3–8–2, Touch–and–Go or Stop–and–Go or Low Approach*
*FAAO JO 7110.65, Para 4–8–11, Practice Approaches*
*FAAO JO 7110.65, Para 4–8–12, Low Approach and Touch–and–Go*
*FAAO JO 7110.65, Para 5–5–4, Minima*
*FAAO JO 7110.65, Para 5–6–3, Vectors Below Minimum Altitude*
*FAAO JO 7110.65, Para 5–8–4, Departure and Arrival*
*FAAO JO 7110.65, Para 5–8–5, Departures and Arrivals on Parallel or Nonintersecting Diverging Runways*
*FAAO JO 7110.65, Para 7–2–1, Visual Separation*
*FAAO 7110.98A, Para 8d2*
*FAAO JO 7110.308, Para 6b1(d), Para 6c2(i)*

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

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

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

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

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

a. *Arrival Departure Window (ADW)*

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

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

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

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

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

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

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

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

## 10–3–15. EQUIVALENT LATERAL SPACING OPERATIONS (ELSO)

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

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

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

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

# Section 4. Services

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

**a.** ATIS provides advance noncontrol 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 nonoperation, 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.

**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 authorized approach pairings, when one or both of the aircraft are conducting an RNAV (RNP) approach with RF legs, 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*

## 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 para 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 Headquarters 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 7. Airport Arrival Rate (AAR)

## 10–7–1. PURPOSE

To establish standards for determining the airport arrival rate (AAR).

## 10–7–2. POLICY

Airport runways are assets of the National Airspace System (NAS). System–wide standards for AARs enable the Air Traffic Organization (ATO) to manage these assets in the most efficient manner.

## 10–7–3. DEFINITIONS

**a.** AAR: A dynamic parameter specifying the number of arrival aircraft that an airport, in conjunction with terminal airspace, can accept under specific conditions throughout any consecutive sixty (60) minute period.

**b.** Airport Primary Runway Configuration: An airport runway configuration which handles three (3) percent or more of the annual operations.

## 10–7–4. RESPONSIBILITIES

**a.** System Operations Services is responsible for the development, establishment, and implementation of AARs at select airports in the NAS.

**b.** The Deputy Director of System Operations (DDSO) in collaboration with Terminal Facility Managers must:

**1.** Identify the airport primary runway configurations for airport(s) identified by System Operations Services.

**2.** Establish optimal AARs for airport(s) using the method detailed in para 10–7–5, Calculating AARs.

**3.** Review and validate the airport primary runway configurations and associated AARs in February of each year, or at more frequent intervals if required.

***NOTE–***
*In the event consensus cannot be reached between facilities, the DDSO will make the final determination.*

**c.** DDSOs must ensure that the data is entered in the National Traffic Management Log (NTML) under the runway template.

**d.** Consistent with para 10–1–6, Selecting Active Runways, Terminal Facility Managers must ensure efficiency at airport(s) within their jurisdiction consistent with the goals outlined in the Administrator's Flight Plan.

## 10–7–5. CALCULATING AARs

**a.** Calculate optimal AAR values for each airport runway configuration for the following weather conditions:

**1.** Visual Meteorological Conditions (VMC)– Weather allows vectoring for a visual approach.

**2.** Marginal VMC– Weather does not allow vectoring for a visual approach, but visual separation on final is possible.

**3.** Instrument Meteorological Conditions (IMC)– Visual approaches and visual separation on final are not possible.

**4.** Low IMC– Weather dictates Category II or III operations, or 2.5 miles–in–trail (MIT) on final is not available.

**b.** Calculate the maximum runway arrival capacity for each runway using the following methodology:

**1.** Determine the average ground speed crossing the runway threshold and the spacing interval required between successive arrivals.

**2.** Divide the ground speed by the spacing interval or use TBL 10–7–1, Maximum Runway Capacity, to determine the maximum runway arrival capacity.

**FORMULA:**
Ground Speed in knots at threshold / Spacing Interval at runway threshold in miles

***NOTE–***
*When the maximum runway arrival capacity is a fraction, round down to the next whole number.*

***EXAMPLE–***
**1.** *130 / 3.25 = 40 Runway capacity = 40*

**2.** *125 / 3.0 = 41.66 Runway capacity = 41*

*TBL 10–7–1*
**Maximum Runway Capacity**

| Threshold Ground Speed | Miles Between Aircraft | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 |
| 130 Knots | 52 | 43 | 37 | 32 | 28 | 26 | 21 | 18 | 16 | 14 | 13 |
| 140 Knots | 56 | 46 | 40 | 35 | 31 | 28 | 23 | 20 | 17 | 15 | 14 |

**c.** Identify any conditions that may reduce the maximum runway arrival capacity. These factors include, but are not limited to:

**1.** Intersecting arrival/departure runways.

**2.** Distance between arrival runways.

**3.** Dual purpose runways (shared arrivals and departures).

**4.** Land and Hold Short utilization.

**5.** Availability of high speed taxiways.

**6.** Airspace limitations/constraints.

**7.** Procedural limitations (missed approach protection, noise abatement, etc.).

**8.** Taxiway layouts.

**9.** Meteorological conditions.

**d.** Determine the adjusted runway arrival capacity by adjusting the maximum runway capacities using the factors in subpara c for each runway used in an airport configuration. Total the adjusted runway arrival capacities for all runways used in an airport configuration to determine the optimal AAR for that airport runway configuration.

## 10–7–6. OPERATIONAL AARs

**a.** When using an airport primary runway configuration, the associated optimal AAR must be utilized. The DDSOs must ensure that the responsible person at the Aviation System Performance Metrics (ASPM) airports document the runway information in the NTML.

**b.** Real–time factors may dictate dynamic adjustments to the optimal AAR. These factors include, but are not limited to:

**1.** Aircraft type/fleet mix.

**2.** Runway conditions.

**3.** Runway/taxiway construction.

**4.** Equipment outages.

**5.** TRACON constraints.

These factors will be included in the facility log. The DDSOs must ensure that the responsible person at the ASPM airports document the information in the NTML.

**c.** A dynamic adjustment to the AAR is subject to the review and approval of the Director of System Operations, ATCSCC.

**d.** Non–primary configurations at ASPM airports must be entered in the NTML as “Other,” and free–text used to describe the configuration and associated AAR.

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

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

**d.** Facility air traffic managers must ensure that:

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

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

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

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

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

**6.** Tower aural alarm areas are identified.

## 11–2–8. MAGNETIC VARIATION OF VIDEO MAPS/GEO MAPS AT ARTS FACILITIES

Air traffic managers must ensure that:

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

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

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

**2.** *The DTM is constructed to align with the radar antenna offset for magnetic north. Consequently, any change in antenna offset will result in a corresponding change in the relative positions of the terrain points and obstacles used to determine DTM bin altitude assignments. This will require generating and verifying a new DTM.*

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

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

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

***REFERENCE–***
*Para 11–2–9, MSAW DTM Cartographic Certification, Updates, and Recompilation.*
*FAAO 8260.19, Flight Procedures and Airspace.*

## 11–2–9. MSAW DTM CARTOGRAPHIC CERTIFICATION, UPDATES, AND RECOMPILATION

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

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

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

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

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

## 11–2–10. DIGITAL MAP VERIFICATION

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

# Section 3. Data Recording and Retention

## 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 paras 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.

***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.*

**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 and console typewriter printouts pertaining to hijack aircraft the same as voice recorder tapes.

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

## 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 7. Standard Terminal Automation Replacement System (STARS)

## 11–7–1. OPERATIONAL USE

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

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

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

## 11–7–2. DATA ENTRIES

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

## 11–7–3. DISPLAY DATA

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

**b.** Display Mode C on untracked (unassociated) targets within each controller's area of responsibility by setting the altitude filters to encompass all altitudes within the controller's jurisdiction. Set the upper limits no lower than 1,000 feet above the highest altitude for which the controller is responsible. In those stratified positions, set the upper and lower limit to encompass at least 1,000 feet above and below the altitudes for which the controller is responsible. When the position's area of responsibility includes down to an airport field elevation, the facility will normally set the lower altitude filter limit to encompass the field elevation, so that provisions of FAAO JO 7110.65, Air Traffic Control, para 2–1–6, Safety Alert, and subpara 5–2–17a2, Validation of Mode C Readout, may be applied. Air traffic managers may authorize the temporary suspension of this requirement when target clutter is excessive.

***REFERENCE–***
*FAAO JO 7110.65, Para 5–2–23, Altitude Filters.*

## 11–7–4. USE OF STARS QUICK LOOK FUNCTIONS

**a.** Where STARS data from a system common to the TRACON and the tower is presented on the TDW or supplemental display in the tower cab, and if operational benefits will accrue by using the QUICK LOOK function, a facility directive or a LOA must be prepared specifying:

**1.** Procedures for data transfer between the TRACON and the tower cab.

**2.** Communications changeover points.

**3.** Transfer of control points.

**4.** Hours or conditions under which facility policy prohibits use of these functions.

**5.** The responsibility of the local control position to determine whether use of QUICK LOOK function is satisfactory or some other mode of data transfer is to be used; e.g., voice call or computer handoff.

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

## 11–7–5. AUTOMATION PROGRAM CHANGES

The air traffic manager of STARS facilities must:

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

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

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

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

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

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

***EXAMPLE−***
*"National operating system suitability testing completed, acceptable."*

## 11−7−6. AUTOMATIC ACQUISITION/TERMINATION AREAS

**a.** Facility air traffic managers must:

**1.** Establish automatic acquisition areas for arrivals and overflights at ranges permitting auto−acquisition of targets prior to the ARTCC/STARS−to−STARS automatic handoff area when the center is in the surveillance data processing (SDP) mode.

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

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

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

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

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

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

## 11−7−7. MINIMUM SAFE ALTITUDE WARNING (MSAW) AND CONFLICT ALERT (CA)

**a.** When their continued use would adversely impact operational priorities, facility air traffic managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA functions. Except when equipment or site adaptation problems preclude these functions being used, a brief written report must be sent to the appropriate service area Director of Air Traffic Operations, whenever they are inhibited. A copy of the report must be sent to the Director of Operations Headquarters.

**b.** Facility air traffic managers are authorized to inhibit CA at specific operating positions if an operational advantage will accrue.

**c.** MSAW Digital Terrain Maps (DTMs) must be kept current.

**d.** The appropriate service area Director of Air Traffic Operations must:

**1.** Furnish STARS facilities a copy of:

**(a)** Newly received FAA Forms 7460−2, Notice of Actual Construction or Alteration.

**(b)** Emergency Notices of Construction of structures of 200 feet or more above ground level lying within 60 NM of their radar site.

**2.** Ensure that the daily *National Flight Data Digest* (NFDD) is provided to STARS facilities and other offices when it affects their area of jurisdiction.

**e.** Facility air traffic managers must ensure that:

**1.** The material described in subpara d1 above, is reviewed and that appropriate corrections to the DTM are made.

**2.** The magnetic variation of the facility's DTM coincides with the magnetic variation of the facility's radar video maps/geo maps.

***NOTE–***
*The DTM is constructed to align with the radar antenna offset for magnetic north. Consequently, any change in antenna offset will result in a corresponding change in relative positions of the terrain points and obstacles used to determine DTM bin altitude assignments. This will require not only generating and verifying a new DTM, but also readapting the MSAW and CA data bases; e.g., airport areas, inhibit volume areas, capture boxes, etc., to coincide with the changed declination.*

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

**3.** MSAW parameters are modified, as appropriate, to minimize the extent of inhibit areas as specified in the Standards and Guidelines for STARS.

**4.** An aural test of the MSAW speakers located in the operational quarters is included as part of the equipment checklist required during each watch. The purpose of this test is to ensure the aural alarm is functioning and audible to the appropriate operational personnel.

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

**6.** Tower aural alarm areas are identified.

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

## 11–7–8. MAGNETIC VARIATION OF VIDEO MAPS/GEO MAPS AT STARS FACILITIES

Air traffic managers must ensure that the magnetic variation of radar video maps/geo maps, MSAW, DTMs, and radar site settings coincide. The magnetic variation must be verified annually and a change of 2 degrees or more requires a recompiling of the effected map or maps.

***NOTE–***
*The video map is the primary reference for maintaining radar antenna alignment.*

***REFERENCE–***
*Para 11–8–7, Minimum Safe Altitude Warning (MSAW) and Conflict Alert (CA).*
*Para 11–8–9, MSAW DTM Cartographic Certification, Updates, and Recompilation.*

## 11–7–9. MSAW DTM CARTOGRAPHIC CERTIFICATION, UPDATES, AND RECOMPILATION

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

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

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

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

***NOTE–***
*Requests for new or recompiled DTMs are routed to System Operations Airspace and Aeronautical Information Management.* The NACO *requires approximately ten weeks to build and deliver a DTM.*

## 11–7–10. DIGITAL MAP VERIFICATION

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

## 11–7–11. MODE C INTRUDER (MCI) ALERT PARAMETERS

**a.** Use the nominal value of parameters specified in the appropriate NAS Configuration Management Document and Site Program Bulletins for the MCI Alert functions, except for the base altitude parameter, as specified in subparas b or c below, unless a waiver to adjust the base altitude parameter value is received from System Operations Security.

**b.** MCI Alert base altitude must be set at any value between ground level and 500 feet AGL at the discretion of the facility air traffic manager. Any instance of base altitudes above 500 feet AGL must be documented and forwarded to System Operations Security, through the respective Terminal Operations Area Office.

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

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

**2.** Documentation must be forwarded to System Operations Security if it is determined that a temporary adjustment of the MCI base altitude does not meet the needs of the sector/position.

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

## 11–7–12. OPERATIONAL MODE TRANSITION PROCEDURES

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

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

**b.** The transition plans must include as a minimum:

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

**2.** Specific transition procedures.

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

**(a)** Transition decision authority.

**(b)** Coordination/notification procedures (intra– and interfacility).

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

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

## 11–7–13. RADAR SELECTION PROCEDURES

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

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

**b.** The selection plans must include as a minimum:

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

**2.** Specific radar selection procedures.

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

**(a)** Radar selection decision authority.

**(b)** Coordination/notification procedures (intra– and interfacility).

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

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

## 11–7–14. MULTI–SENSOR RADAR OPERATIONS

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

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

**b.** The plans must include as a minimum:

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

**2.** Specific multi–sensor radar procedures.

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

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

**(b)** Coordination/notification procedures (intra– and interfacility).

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

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

## 11–7–15. SINGLE SITE COVERAGE ATTS OPERATIONS

Facilities may adapt all sort boxes within 40 miles of the antenna to that site as preferred and with the single site indicator set to permit the use of 3 miles radar separation as defined in FAAO JO 7110.65, Air Traffic Control, subpara 5–5–4b3, Minima. This adaptation may be used provided:

**a.** A significant operational advantage will be obtained using single site coverage. Consideration must be given to such aspects as terminal interface, radar reliability, etc.; and

**b.** Facility directives are issued to:

**1.** Define areas within 40 NM of any radar site in which the adaptation has been modified.

**2.** Permit 3 NM separation in the modified area.

**3.** Accommodate local procedural changes.

# Section 2. Pilot Weather Briefing

## 14–2–1. BRIEFING RESPONSIBILITY

FSSs are responsible for providing weather briefings to users of aviation weather information calling in person, by radio, or telephone. These briefings are fulfilled by direct application or interpretation of NWS guidance forecasts supplemented by the latest observations and pilot reports.

## 14–2–2. WEATHER CHART DISPLAY

Some of the more useful weather charts for pilot weather briefings are: surface and upper air analysis, freezing level analysis, stability index analysis, radar depiction, weather depiction, surface and upper air prognosis, significant weather (high and low level) prognosis, and maximum wind and wind shear analysis and prognosis. Weather chart displays should include but not necessarily be limited to these charts.

## 14–2–3. TELEVISION EQUIPMENT

Closed circuit television equipment (CCTV) is available in a number of high–activity FSSs. Facilities should use the equipment to display weather graphic information. Facilities that have additional television cameras available, after graphics requirements are met, may display alphanumeric data.

## 14–2–4. FSS–WSO/WFO ADJOINING

When the offices are adjoining, the aviation briefing facilities should be combined to the extent practicable for efficient weather briefing service. A joint display should provide all needed aviation weather information. The briefing function will be conducted in accordance with local agreements prepared by the NWS and the FAA regions and based on interagency policy. Normally, briefings will be provided by FSS personnel. The NWS will provide support by providing and updating briefing material, consultation with the FSS briefers, and direct briefing service to the aviation user when requested by the user or the FSS specialists.

## 14–2–5. FSS–WSO/WFO NOT ADJOINING

At locations where joint briefing displays are not practicable, cooperative briefing service may be furnished by means of a one–call phone arrangement. This system provides for all aviation weather briefing telephone requests to be received in the FSS on lines listed under the FSS. By a switching arrangement, the pilot can be referred to the WSO/WFO when requested by the pilot.

## 14–2–6. FLIGHT PLANNING DISPLAY

Maintain flight planning displays in FSSs and other locations, as appropriate, convenient for pilot use. Such displays include:

**a.** Aeronautical charts covering the flight plan area that depict military training routes.

**b.** A planning chart with a means for measuring distances and plotting courses.

**c.** Chart Supplement U.S., NOTAM publication, and Aeronautical Information Manual.

**d.** Army Aviation Flight Information Bulletin.

**e.** DOD IFR En Route Supplement and DOD VFR Supplement.

***REFERENCE–***
*Para 14–2–8, Military Training Activity.*

**f.** Drawing of the local airport.

**g.** Sunrise and sunset tables.

**h.** Aero computer.

**i.** Pilot chart working area.

## 14–2–7. FLIGHT PLANNING FORMS

FSS facility managers must assure FAA Form 7233–1, Flight Plans, are available in the pilot briefing area for use by pilots. Maintain a sufficient supply to provide additional copies, as needed, to pilots, aviation companies, and organizations on request.

## 14–2–8. MILITARY TRAINING ACTIVITY

Ensure that the current DOD General Planning (GP), DOD Flight Information Publication (FLIP), Special

Use Airspace (AP/1A), Military Training Route (AP/1B), and associated charts are readily available for preflight briefings to pilots:

**a.** Post the DOD FLIP chart, or that portion covering at least the flight plan area plus a 100 NM extension of the FSSs existing flight plan area.

**b.** Publicize new or revised MTRs and MOAs through letters to airmen, pilot meetings, and where practicable, "handouts" charting the routes/areas within the FSS flight plan area and the 100 NM extension of the existing flight plan area.

## 14–2–9. TRANSFER OF BRIEFERS

**a.** A pilot weather briefer transferring from one briefing assignment to another or returning to a pilot weather briefing position after a break of 3 months to 1 year in the performance of briefing duties is required to obtain a reorientation check before performing pilot weather briefing duties.

**b.** A pilot weather briefer returning to briefing duties after an absence of more than 1 year from briefing duties is required to be requalified by means of an oral examination by the FAA. ■

# Section 4. Supplemental Duties

## 17–4–1. TELEPHONE CONFERENCES

**a.** The ATCSCC is involved in several daily telephone conferences (TELCONs). TELCONs are initiated and hosted by the ATCSCC for field facilities, the appropriate Vice Presidents, and the Chief Operating Officer. Supplemental conference capability is available through the FAA's Remote Transmitter Site and the Washington Operations Center.

**b.** TMUs/TMCs utilize TELCONs when the need arises to discuss, evaluate, or problem solve any issues. These conference calls should include the appropriate ARTCC TMU, adjacent terminal facilities/towers, the ATCSCC, and the service area TM branch or Service Area office office responsible for TM.

**c.** TMUs/TMCs should actively participate in facility briefings and user meetings in order to promote, educate, and inform all concerned about the function, role, and responsibilities of TM.

**d.** TELCONs are also used to maintain operational "Hotlines." The objective of Hotlines is to provide rapid communications between FAA facilities, customers and other aviation interests when complex air traffic and airspace issues are being managed. Hotlines allow many participants the capability to problem–solve complicated issues and reduces the amount of coordination needed to implement collaborated strategies. Hotlines may be initiated at the request of both the FAA and other aviation entities that substantiate its use. The operational Hotlines are authorized for customer attendance; however, they may be limited to listen–only capability.

**1.** The ATCSCC administers, facilitates, and manages operational Hotlines.

**2.** Hotlines are used to communicate:

**(a)** Airport and airspace capacity issues.

**(b)** Constraint/capacity mitigation strategies.

**(c)** Route availability information and route alternatives.

**(d)** Weather information.

**(e)** Equipment Outages.

**(f)** Customer preferences for initiatives and alternatives.

**(g)** Special circumstances, contingency requirements and emergency events.

**(h)** All required coordination and information sharing necessary in regard to the event.

**(i)** Coordination that can be accomplished quickly and precisely with all parties. If an item requires extensive coordination, other communication sources will be used.

**(j)** Items that are not considered sensitive or classified in nature.

***NOTE–***
*Examples of sensitive or classified items include VIP movement and military requirements or exercises.*

## 17–4–2. SPECIAL INTEREST FLIGHTS

ATCSCC, ARTCC, and CERAP: Follow procedures in FAAO JO 7610.4, Special Operations, Chapter 12, Special Military Flights and Operations, Section 12, Special Interest Flights, regarding special interest flights from State Department designated special interest countries. Forward all issues concerning special interest flights to the DEN ATSC for relay to the appropriate authorities.

## 17–4–3. ANALYSIS

**a.** The TMU analysis function or individuals assigned analysis functions must be responsible for the collection and analysis of all available data as it pertains to traffic capacity, traffic flows, points of congestion, peak hours, etc. Specific areas of consideration include, but are not limited to:

**1.** Sector demand (by hours).

**2.** Sector flows (route/altitudes).

**3.** Sector loading points.

**4.** Sector traffic breakdown by category of user.

**5.** Normal initiatives necessary to prevent sector saturation.

**6.** Alternatives to prevent saturation and relieve congestion/conflicts.

***NOTE–***
*Alternatives must take into consideration other facility/sector capabilities.*

**7.** Total facility traffic count and potential user demand.

**8.** Sector staffing required to support potential user demand.

**9.** Location of delays (by sector and airport).

**b.** Coordination with user organizations must be effected, when appropriate.

## 17–4–4. OPERATIONS MANAGER (OM) SUPPORT

Facility TMUs must maintain a working knowledge of the major related fields of air traffic operations/responsibilities to effectively support the STMCIC in dealing with special situations that may arise on a daily basis. Reference sources that identify these related areas are listed below.

**a.** Emergency plan: Numerous interfacility letters of agreement are normally located at the STMCIC complex concerning plans which have been established to provide continuity in the event of a disaster or emergency conditions that would limit air traffic service. Additionally, in these binders are instructions concerning security control of air traffic and air navigation aids, defense readiness, and physical security plans.

**b.** Accident procedures/bomb threats/search and rescue procedures:

**1.** FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting.

**2.** Bomb threats.

**3.** National Search and Rescue Manual.

**4.** FAAO 1270.1, Freedom of Information Act Program.

**c.** EA activity: FAAO JO 7610.4, Special Operations.

**d.** Hijack situations:

**1.** FAAO JO 7610.4, Special Operations.

**2.** FAAO JO 7110.65, Air Traffic Control.

**e.** Suspect aircraft:

**1.** FAAO 1600.29, Law Enforcement Alert Message System.

**2.** FAAO JO 7110.67, Special Aircraft Operations by Law Enforcement/Military Organizations.

**f.** Special flight operations: FAAO JO 7110.65, Chapter 9, Special Flights.

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

## 17–4–5. DIVERSION RECOVERY

**a.** A diversion is a flight that is required to land at other than its original destination for reasons beyond the control of the pilot/company, e.g., periods of significant weather. Diversion recovery is an initiative orchestrated by the ATCSCC and system users to minimize the impact of system disruption. Diversion recovery will be utilized during and after periods of significant weather or other phenomena that has adversely impacted the system resulting in flight diversions. The goal of the diversion recovery initiative is to ensure that flights which have already been penalized by having to divert to another airport, do not receive additional penalties or delays. Flights identified for diversion recovery must receive priority handling over other flights from their point of departure.

**b.** Diversion flights are identified by having "DVRSN" in the Remarks section of the flight plan, or the user inputs the information into the Diversion Recovery Tool (DRT). The following protocols will be utilized in diversion recovery procedures:

**1.** A flight on the DRT, as listed in TBL 17–4–1, is requesting priority. FAA facilities must ensure the auto–detect feature is not activated on their DRT. FAA facilities must view the "general aviation" and "comments" columns when utilizing the DRT.

**2.** "High" priority indicates the user's preference within one company.

**3.** "Yes" priority indicates that special handling is requested for the flight.

**4.** The user submitted preferred priorities may be modified where necessary to maintain the efficiency of the system.

**c.** The ATCSCC must:

**1.** Implement diversion recovery.

**2.** Transmit an advisory to inform both field facilities and users that a diversion recovery initiative

has been implemented and the DRT has been activated.

**3.** Adjust the initiative as necessary to meet changing conditions.

**4.** Transmit an advisory when the DRT has been deactivated.

**d.** The ARTCCs must:

**1.** Implement diversion recovery as directed by the ATCSCC.

**2.** Notify the ATCSCC if they do not intend to use the DRT. In such cases, the ATCSCC must send the Center a general message with the information as stated in TBL 17–4–1, every 60 minutes until diversion recovery is no longer in effect.

**3.** Provide expeditious handling in returning to the system those flights identified by the ATCSCC/DRT as diversion flights.

**4.** Forward user diversion recovery requests to towers and TRACONs. (See TBL 17–4–1).

***NOTE–***
*DVRSN will be placed in the remarks section of the flight plan by the user.*

**e.** Towers and TRACONs must:

**1.** Provide expeditious handling in returning to the system those flights identified by the ARTCC/DRT as diversion flights.

**2.** Notify the overlying ARTCC TMU if they will utilize the DRT.

***TBL 17–4–1***
**User Recovery Priority Request Format**

| The following flights are requesting priority handling to their original destination. Please advise the appropriate FAA facilities of this request. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ACID | Diverted To | ETD | CTD | DEST | DCNTR | ACNTR | PRIORITY | COMMENTS |
| ZZZ111 | MDW | 2210Z | – | ORD | ZAU | ZAU | – | – |
| ZZZ222 | PIT | 2200Z | – | ORD | ZOB | ZAU | HIGH | – |
| ZZZ555 | ATL | 2300Z | 2320Z | IAD | ZTL | ZDC | – | – |
| Note: ***ETD=Proposed Wheels–up Time.** | | | | | | | | |

## 17–4–6. VOLCANIC ASH

**a.** Upon receipt of a validated report of volcanic activity and/or ash cloud movement, the ARTCC TMU whose geographic area of responsibility is impacted by such activity must:

**1.** Assess areas of potential or actual ash cloud location.

**2.** Notify the ATCSCC and the other facilities in their area of jurisdiction that may be affected. Provide as much information as possible, including PIREPS and other pertinent information that has been received.

**b.** Upon receipt of a Volcanic Ash Advisory (VAA), Volcanic Ash SIGMET, or ARTCC notification, the ATCSCC must:

**1.** Retransmit the VAA received from the Washington or Anchorage VAACs to air traffic control facilities and stakeholders via a numbered ATCSCC advisory. The VAA will also be displayed on the ATCSCC website in the advisories database.

**2.** Conduct, as needed, conference calls to assess constraints and TMIs associated with the volcanic ash.

***NOTE–***
*The FAA does not have the capability to predict or depict volcano eruptions or ash cloud density and movements. It is not the responsibility of the FAA to provide separation between aircraft and volcanic activity or ash clouds.*

*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 INTRA–FACILITY 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 INTER–FACILITY 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.

**4.** Other.

**c.** Enable notification of proposed restrictions.

## 17–5–10. NTML PROCEDURES

**a.** Facilities must enter, review, and respond to data in the NTML, as appropriate.

**b.** TMI data must be entered using the appropriate template and coordinated with the appropriate facility. Appropriate template means the one best suited for the type of event, such as a ground stop, delays, etc. The "Miscellaneous" templates must not be used if another template is appropriate. The Justification, Remarks, and Text fields must not contain any information that can be entered in other fields on the template.

***NOTE–***
*Causal information entered in the "Restriction" template is disseminated to many other software programs for monitoring the status of the NAS.*

**c.** Facilities must verbally contact other facilities when necessary to accomplish a task if electronic coordination has not been completed or is inappropriate to the situation, e.g., emergencies, classified information.

## 17–5–11. PROCESSING REQUESTS FOR REROUTES AND RESTRICTIONS FOR FACILITIES WITH NTML

**a.** Restrictions/modifications that require ATCSCC review and approval:

**1.** Requesting facility must enter the restriction/modification in NTML.

**2.** Providing facilities should review and respond using NTML within 15 minutes.

***NOTE–***
*The restriction/modification, if not responded to, will be placed in conference status 15 minutes after it has been entered by the requesting facility.*

**3.** If all providing facilities accept the restriction/modification using the NTML software, the ATCSCC must approve or deny the restriction/modification as appropriate. The ATCSCC may deny/amend a restriction at anytime; however, it must call the requesting facility and explain the reason for the denial/amendment. For automation purposes, the ATCSCC should not approve a restriction until all field providers have accepted it; however, if the ATCSCC elects to override the automation and approves a restriction/modification before all provider(s) accept, it must coordinate this action with the affected provider(s).

**4.** When a restriction is in conference status, the requestor must initiate a conference through the ATCSCC with providers. If an amendment is necessary, the ATCSCC amends and approves the restriction while on the conference.

***NOTE–***
*Any party may initiate a conference when deemed appropriate.*

**b.** Restrictions/modifications that do not require ATCSCC review and approval:

**1.** Requesting facility must enter the restriction/modification in NTML.

**2.** Providing facilities should review and respond using NTML within 15 minutes.

**3.** If all providing facilities accept the restriction/modification using the NTML software, it must be considered coordinated/approved.

**4.** If a providing facility does not respond using the NTML within 15 minutes, the requesting facility must contact the providing facility/facilities to verbally coordinate the restriction/modification.

***NOTE–***
*In the event that no one at the providing facility is available to accept a restriction in NTML, the requesting facility does have the ability to force the restriction into its log so it can be used internally. This must only be done after the verbal coordination mentioned in para 17–5–1 1b4 is complete.*

**c.** Restrictions/modifications associated with reroutes coordinated through the ATCSCC:

**1.** Restrictions/modifications that have been approved/coordinated will be discussed during the development of the reroute.

**2.** Any facility requiring a restriction in conjunction with a reroute that has been coordinated through the ATCSCC must enter the initiative into the RSTN template with the SVR WX RERTE button enabled. NTML processes these restrictions as approved and no further coordination is required.

## 17–5–12. DELAY REPORTING

**a.** Verbally notify the ATCSCC through the appropriate protocol, of any arrival, departure, or en route delay reaching or expected to reach 15 minutes except for Expect Departure Clearance Time (EDCT) delays created by ground delay programs or ground stops issued by the ATCSCC. The verbal notification must include the number of aircraft actually in delay, the projected maximum delay, and the number of aircraft expected to encounter delays. The facility must verbally notify the ATCSCC and impacted facilities when delays fall below 15 minutes.

**b.** Facilities must update their delay status through the NTML. Facilities that do not have NTML must verbally report the delay increments in 15–minute increments to the overlying facility. The first facility with NTML must enter the delay information.

**c.** When notified that a facility is in a 15–minute delay situation, the ATCSCC and all impacted facilities, must subscribe to the delay report through the NTML until the facility verbally notifies the ATCSCC/impacted facilities that they are no longer in delays of 15 minutes or more.

**d.** Facilities must verbally notify the ATCSCC, through the appropriate protocol, when delays reach or are anticipated to reach 90 minutes, except for EDCT delays as a result of a GDP. Facilities must document in their NTML, or daily log if the facility does not have NTML, that the verbal notification was completed. The ATCSCC must document in their NTML that the 90–minute verbal notification was received. The facility manager must be notified when delays reach 90 minutes, except for delays as a result of a GDP.

## 17–5–13. ELECTRONIC SYSTEM IMPACT REPORTS

AT facilities must coordinate with their TMU or overlying TMU for developing an electronic system impact report (SIR) for all planned outages/projects/events that could cause a significant system impact, reduction in service, or reduction in capacity (for example, air shows, major sporting events, space launch/reentry operations, business conventions, runway closures, and procedural changes affecting terminals and/or ARTCCs). Technical Operations is responsible for reporting all unplanned outages that pertain to FAA equipment.

***NOTE–***
*Planned events/outages are construed to mean that the event or outage is scheduled in advance of the occurrence.*

**a.** The TMU must coordinate the operational impact the outage/project/event will cause with the DDSO or designee, through their TMO. This includes, but is not limited to, reduction in AAR/ADR, anticipated TMIs, alternate missed approach procedures, and anticipated delays or any other significant impacts within the NAS.

**b.** To ensure the ATCSCC receives all planned events and outages that could have a significant impact on the NAS, the DDSO/designee or the OSG must enter the impact data on the Strategic Events Coordination website at http://sec.faa.gov.

**c.** The electronic SIR must contain the following information:

**1.** Airport/facility identifier.

**2.** Overlying ARTCC.

**3.** Scheduled dates/times.

**4.** Description of outage/project/event.

**5.** Operational impact.

**6.** Facility recall.

**7.** Flight check requirements.

**8.** Anticipated delays.

**9.** Anticipated TMIs.

**10.** Customer coordination.

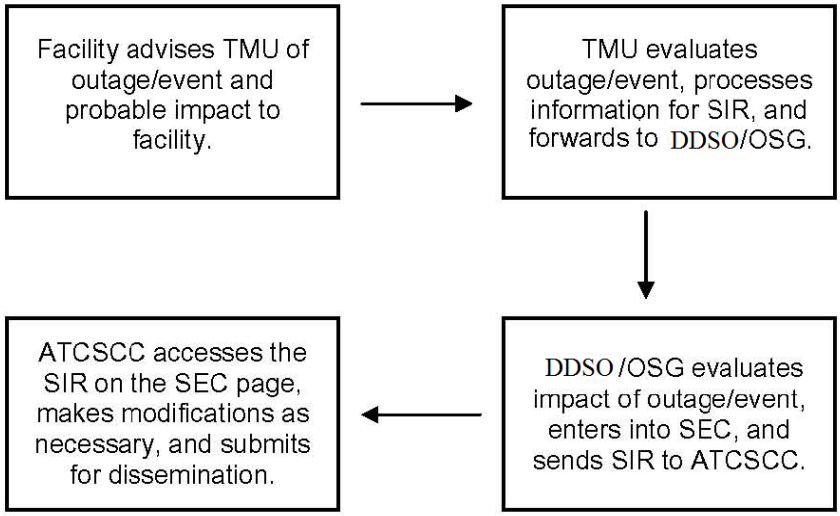
**11.** General information.

**12.** Contact information.

**13.** Date/time of scheduled telecons.

***NOTE–***
*SIRs cannot be viewed on the OIS by facilities or our customers until the ATCSCC has approved the content. Instructions for entering items in detail are provided on the Web site at http://sec.faa.gov.*

*FIG 17–5–1*
**Electronic SIR Process**




**d.** The ATCSCC will access the SIRs on the SEC page, make modifications as necessary, and submit the SIR for dissemination. Once the ATCSCC has submitted the SIR, the information can be viewed on the intranet at http://www.atcscc.faa.gov/ois/ on the OIS page under "System Impact Reports."

**e.** Field facilities, TMUs, TMOs, DDSOs, the service center OSG, and the ATCSCC must ensure that SIRs:

**1.** Are coordinated, developed, and submitted with as much advance notice as possible before the planned event/outage.

***NOTE–***
*Providing the SIR in a timely manner allows our customers to more effectively plan their operation and reduce the impact to the extent practicable.*

**2.** Do not contain sensitive security information.

## 17–5–14. TARMAC DELAY OPERATIONS

**a.** Facility Procedures. The ATCSCC, en route facilities, and affected terminal facilities must develop procedures for handling requests related to tarmac delays for arriving or departing aircraft. ATMs must ensure that those procedures are in a facility directive and briefed annually. Issues to consider when developing local procedures should include:

**1.** What constitutes a "significant disruption" of service at that location in order to accommodate a tarmac delay aircraft. These issues vary by location and may include but are not limited to:

**(a)** Accommodating a tarmac delay aircraft would require airborne holding that would result in delays of 15 minutes or more.

**(b)** Use of an active runway to taxi a tarmac delay aircraft that would preclude the use of that runway for arrivals or departures and result in arrival/departure delays of 15 minutes or more.

**(c)** Taxi of tarmac delay aircraft would result in placing other aircraft in jeopardy of violating the "Three/Four-Hour Tarmac Rule."

**(d)** Taxi of tarmac delay aircraft would displace departure aircraft already in a reportable delay status and result in delays in excess of an additional 15 minutes.

**(e)** The taxi of a tarmac delay aircraft to the ramp, gate, or alternate deplaning area would result in a diversion or the airborne holding of more than three aircraft.

**2.** Operational complexity, surface operations, other arrival/departure runways, taxi routes, ramp areas, and low visibility operations.

**3.** Security and/or Customs concerns.

**4.** Local safety considerations, such as multiple runway crossings.

**5.** Location of alternate deplanement areas, if applicable.

**6.** Taxiway/runway closures and/or airport construction.

**7.** Notification, coordination, and investigation requirements.

**b.** Requirements.

**1.** When a tarmac delay taxi request/deplanement request is received, primarily from the pilot in command:

**(a)** An aircraft requesting taxi clearance for tarmac delay reasons should be issued clearance as soon as operationally practical, unless a significant disruption of airport operations or a compromise of safety or security would result.

**(b)** Tower–only and tower/TRACON facilities must verbally notify the overlying facility and document the incident with pertinent information on FAA Form 7230–4 in CEDAR when:

**(1)** The facility is informed of a tarmac delay request or taxi for deplanement related to the "Three/Four–Hour Tarmac Rule."

**(2)** The facility becomes aware of an aircraft that has or may have exceeded the "Three/Four–Hour Tarmac Rule."

**(c)** TRACONs must verbally notify the overlying ARTCC TMU and document the incident with pertinent information on FAA Form 7230–4 in CEDAR when:

**(1)** An airport within their geographic jurisdiction has received a tarmac delay request or taxi for deplanement related to the "Three/Four–Hour Tarmac Rule."

**(2)** The facility becomes aware of an aircraft that has or may have exceeded the "Three/Four–Hour Tarmac Rule."

**(d)** ARTCCs must verbally notify the ATCSCC and document the incident with pertinent information on FAA Form 7230–4 in CEDAR when:

**(1)** An airport within their geographic jurisdiction has received a tarmac delay request or taxi for deplanement related to the "Three/Four–Hour Tarmac Rule."

**(2)** The facility becomes aware of an aircraft that has or may have exceeded the "Three/Four–Hour Tarmac Rule."

**(e)** Facilities equipped with NTML should utilize the program to forward the information to the TRACON/ARTCC/ATCSCC.

***NOTE–***
*The FAA Form 7230–4 entry in CEDAR should be comprehensive and include pertinent information such as date, time, location of the occurrence, the identification of the aircraft involved, the time a tarmac delay taxi request was made, and other known information concerning movement of the aircraft. Data used during the review may include ASDE data, flight progress strips, voice replay, etc.*

**2.** When an ARTCC is notified that an aircraft has or may have exceeded the "Three/Four-Hour Tarmac Rule," they must notify the ROC as soon as possible; the ROC must then notify the WOC as soon as possible. Notification should include the date, time, and location of the occurrence, as well as the identification of the aircraft involved.

**3.** When a facility is notified that an aircraft has or may have exceeded the "Three/Four–Hour Tarmac Rule," all available records pertinent to that event will be retained in accordance with FAA Order JO 8020.16.

**4.** Consumer complaints are to be handled as follows:

**(a)** Refer the complainant to the appropriate airline.

**(b)** Do not engage in discussion with the consumer.

# Section 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 preplanning 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 subpara 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, nonconcurrence 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 inter–facility 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 13. Special Traffic Management Programs

## 17–13–1. SPECIAL EVENT PROGRAMS

Special procedures may be established for a location to accommodate abnormally large traffic demands (Indianapolis 500 Race, Kentucky Derby, fly-ins) or a significant reduction in airport capacity for an extended period (airport runway/taxiway closures for airport construction). These special procedures may remain in effect until the event is over or local TM procedures can handle the situation.

## 17–13–2. COORDINATION

Documentation to justify special procedures must be submitted by the facilities to the En Route and Oceanic Operations Service Area Office and Terminal Operations Area Office 90 days in advance, with a copy to the appropriate Deputy Director of System Operations (DDSO). The service area office must review and forward the request to the ATCSCC for coordination and approval 60 days in advance.

**a.** Documentation must include the following as a minimum:

**1.** The reason for implementing special procedures and a statement of system impact. Include the total number of additional flights expected.

**2.** Airport(s)/sector(s) to be controlled.

**3.** Capacity restraints by user category (five air carrier, three air taxi, seven general aviation, three military) per hour per airport.

**4.** Hours capacity must be controlled specified in both local time and in UTC (e.g., 0900–1859 EST, 1400–2359Z or, 0900–1859 EDT, 1300–2259Z).

**5.** Type of flight to be controlled (e.g., unscheduled, arrivals, departures, IFR, VFR).

**6.** Days of the week and dates (e.g., Thursday, May 7 through Monday, May 11 or Friday, May 22 and Sunday, May 24).

**7.** A draft copy of the associated NOTAM and temporary flight restrictions. (Electronic mailing preferred).

**8.** IFR/VFR capacity at each airport/sector.

**9.** Resource cost estimate including staffing and telephone requirements.

**10.** The number of slots to be allocated per airport, or group of airports, per time increment (e.g., ten arrivals every fifteen minutes or forty aircraft every sixty minutes).

**11.** Coordination accomplished with impacted facilities and any unresolved issues.

**b.** The service area office must forward the NOTAM to System Operations Airspace Aeronautical Information Management/Publications, for publication no later than 28 days prior to the publication date. Cutoff submittal dates and publication dates are printed inside the front cover of the monthly NOTAM Flight Information Publication.

***NOTE–***
*The toll–free number/web address to obtain a STMP slot are:*
***1.*** *Touch–tone interface: 1–800–875–9755.*
***2.*** *Web interface: www.fly.faa.gov.*
***3.*** *Trouble number: (540) 422–4246.*

## 17–13–3. IMPLEMENTATION

**a.** Special TM programs must be managed by the ATCSCC or the affected ARTCC. The ATCSCC must transmit an advisory containing the reason for the program, airport(s)/sector(s) involved, dates and times the program will be in effect, telephone numbers to be used, and any special instructions, as appropriate. The affected ARTCC must monitor special TM programs to ensure that the demand to the center/terminal facilities is equal to the capacity.

**b.** The ATCSCC will disseminate a password and instructions for facility STMP reports. Detailed instructions can be found on the web site for the web interface, or in the Aeronautical Information Manual for the touch–tone interface.

## 17–13–4. AIRPORT RESERVATION OFFICE

**a.** The Airport Reservations Office (ARO) has been established to monitor the operation and allocation of reservations for unscheduled operations at airports designated by the Administrator under FAA adopted rules. These airports are generally known as slot controlled airports. The ARO allocates reservations on a first come, first served basis determined by the time the request is received at the ARO. Standby lists are not maintained. Reservations

are allocated through the ARO by the Enhanced Computer Voice Reservation System (e–CVRS) and not by the local air traffic control facility.

**b.** Requests for reservations for unscheduled flights at the slot controlled airports will be accepted beginning 72 hours before the proposed time of operation.

**c.** Flights with declared emergencies do not require reservations.

**d.** Refer to the Web site or touch–tone phone interface below for the current listing of the slot controlled airports, limitations, and reservation procedures.

***NOTE–***
*The Web interface/telephone numbers to obtain a reservation for unscheduled operations at a slot controlled airport are:*
**1.** *http://www.fly.faa.gov/ecvrs.*
**2.** *Touch–tone: 1–800–875–9694 (e–CVRS interface).*
**3.** *Trouble number: (540) 422–4246.*

# Section 16. Preferred IFR Routes Program

## 17–16–1. GENERAL

**a.** This section identifies responsibilities and establishes procedures for the development, revision, and cancellation of Preferred IFR Routes. These routes, as published in the Chart Supplement U.S., include Low Altitude, High Altitude, Tower En route Control (TEC), North American Routes (NAR), and both High and Low Single Direction Routes (HSD/LSD). The objective of Preferred IFR Routes is the expeditious movement of traffic during heavy demand periods and the reduction of TMIs and coordination.

**b.** Preferred IFR Routes must only be established when traffic density and/or safety make such routes necessary for the expeditious movement of air traffic.

**c.** Preferred IFR Routes must be developed in accordance with Paragraph 17–16–3, DEVELOPMENT PROCEDURES.

## 17–16–2. RESPONSIBILITIES

**a.** ARTCCs are responsible for:

**1.** Developing, revising, and deleting Preferred IFR Routes. The originating ARTCC is responsible for coordinating with all affected facilities, ensuring the accuracy of the submitted route(s), examining routes for operational impact, and ensuring compatibility with NAS processing.

**2.** At a minimum, reviewing all Preferred IFR Routes annually and revising or canceling routes as necessary.

**3.** Identifying a single Office of Primary Responsibility (OPR) for their Preferred IFR Routes program. This office must be the focal point for coordination with affected FAA facilities and the ATCSCC.

**b.** The ATCSCC is responsible for:

**1.** Operating as the OPR at the National level

**2.** Reviewing and evaluating Preferred IFR Route submissions

**3.** Submitting approved Preferred IFR Routes to NFDC for publication

**4.** Providing feedback on unapproved routes to the submitting OPR

**c.** The NFDC must be responsible for:

**1.** Entering the route in the national database.

**2.** Forwarding errors noted during the validation to the ATCSCC for resolution.

**3.** Publishing the route as an add–on page to the National Flight Data Digest (NFDD).

## 17–16–3. DEVELOPMENT PROCEDURES

**a.** Routes and route segments must be defined by any combination of the following:

**1.** DPs/SIDs/STARs if applicable

**2.** NAVAID identifier, intersection name, fix name, RNAV Waypoint or Navigation Reference System Waypoints (NRS) (e.g., FUZ, ZEMMA, KK45G).

**3.** Type and number of the airway (e.g., J87 M201 Q40 T295 V16)

**b.** When establishing or amending Preferred IFR Routes the following rules must be applied:

**1.** When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.

**2.** When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).

**3.** When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).

**4.** The first route element following the origin must not be an airway (e.g., KDFW J4).

**5.** The last route element prior to the destination must not be an airway (e.g., J35 KMSY).

**6.** Inclusive altitudes must be used when describing a Low Altitude Preferred IFR Route.

**7.** Low frequency non–directional beacons must not be used.

**c.** Other considerations should include:

**1.** Terminal/en route traffic flows

**2.** Radar coverage

**3.** SAA/SUA

**4.** Adapted Arrival (AARs), Adapted Departure (ADRs) and Adapted Departure and Arrival Routes (ADARs).

**5.** MEA, MOCA, and Minimum Reception Altitude (MRA) must be considered when establishing inclusive altitudes for Low Altitude routes.

**6.** When describing High Altitude preferred routes, victor airways may only be used to define climbing/descending segments, provided that such usage does not exceed the service limitations of the NAVAID.

**7.** Single direction routes may be established in the high altitude stratum to enhance safety and expedite air traffic. The routes may begin or end at any fix within the en route structure and need not serve a specific terminal area. Single direction routes serving terminal/en route needs must be depicted on en route charts.

## 17–16–4. COORDINATION PROCEDURES

**a.** Interfacility Coordination

**1.** The originating ARTCC is defined as follows:

**(a)** New Routes: The ARTCC identifying the need to establish a new Preferred IFR Route.

**(b)** Existing Routes: The ARTCC identifying the need to amend or delete a Preferred IFR Route.

**(c)** When establishing, amending, or deleting a Preferred IFR Route is proposed by a facility other than an ARTCC, the requesting facility must coordinate with the parent ARTCC. The overlying ARTCC must assume responsibility as the originator.

**2.** The originating ARTCC must:

**(a)** Coordinate with all affected ATC facilities.

**(b)** Upon completion of the coordination process, submit data to the ATCSCC Point of Contact (POC).

**3.** The ATCSCC must:

**(a)** Resolve differences between ATC facilities.

**(b)** Review for accuracy and forward the completed data to the NFDC for publication.

## 17–16–5. PROCESSING AND PUBLICATION

**a.** The airspace information cutoff date listed in the Chart Supplement U.S. is the latest date route information may be received by NFDC to ensure publication on the planned effective date. The following procedures must apply:

**1.** Plan effective dates to coincide with the Chart Supplement U.S. publication dates.

**2.** ARTCCs must submit completed data to the ATCSCC at least 21 days prior to the desired publication cutoff date. The data must be submitted via the NFDC Preferred IFR Routes submission form. The ATCSCC will provide the OPR with this form.

**3.** The ATCSCC must forward the completed data to the NFDC on or before the desired publication cutoff date.

***EXAMPLE–***

**1.** *Adding new routes, use this format:*

| SPECIAL USE AIRSPACE<br>LOW ALTITUDE PREFERRED ROUTES<br>(or other applicable section) | |
|---|---|
| NORTHEAST U.S. | EFFECTIVE HOURS |
| (applicable Chart Supplement U.S.) | UTC |
| Effective April 28, 1994, the following routes are added: | |
| BALTIMORE TO NORFOLK | |
| NEW: (70–170 INCL., NON–JET) | 1100–0300 |
| V93 PXT V16 V33 V286 STEIN | |
| OR | |
| (70–170), JETS) DAILY | 1100–0300 |
| V33 V286 STEIN | |
| BALTIMORE TO ROCHESTER | |
| NEW: V31 ROC154 CHESY | 1100–0300 |

**2.** *Deleting existing routes, use this format:*

| SPECIAL USE AIRSPACE<br>LOW ALTITUDE PREFERRED ROUTES<br>(or other applicable section) | |
|---|---|
| NORTHEAST U.S. | EFFECTIVE HOURS |
| (applicable Chart Supplement U.S.) | UTC |
| Effective April 28, 1994, the following routes are deleted: | |
| BALTIMORE TO NORFOLK | |
| BALTIMORE TO ROCHESTER | |

***NOTE–***

*Multiple routes are considered a set and the entire set must be deleted to be shown as in this example. If only one route of the set is deleted, use the modified format in example 3.*

**3.** *Modifying existing routes, use this format:*

| SPECIAL USE AIRSPACE<br>LOW ALTITUDE PREFERRED ROUTES<br>(or other applicable section) | |
|---|---|
| NORTHEAST U.S. | EFFECTIVE HOURS |
| (applicable Chart Supplement U.S.) | UTC |
| Effective April 28, 1994, the following routes are modified: | |
| BALTIMORE TO NORFOLK | |
| OLD: (70–170 INCL., NON–JET) | 1100–0300 |
| V87 PXT V6 V73 V286 STEIN | |
| OR | |
| (70–170), JETS) DAILY | 1100–0300 |
| V33 V286 STEIN | |
| BALTIMORE TO ROCHESTER | |
| V81 ROC154 CHESY | 1100–0300 |
| Note – Notice that in the routes from Baltimore to Norfolk, there are two available routes and that only the first route changed. The two routes are considered a set and the entire set must be submitted, even if only one route is being changed. | |

# Section 18. Coded Departure Routes

## 17–18–1. PURPOSE

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

## 17–18–2. DEFINITION

The CDR program is a combination of coded air traffic routings and refined coordination procedures designed to mitigate the potential adverse impact to the FAA and users during periods of severe weather or other events that impact the NAS.

## 17–18–3. POLICY

Abbreviated clearances must only be used with CDRs at locations covered by a Memorandum of Agreement (MOA) between the customers and the FAA that specifies detailed procedures, or with general aviation customers who include in the remarks section of their flight plan, "CDR Capable".

***NOTE–***
*Air Traffic Control Facilities will determine which city pairs will be included in the database.*

## 17–18–4. RESPONSIBILITIES

**a.** The ATCSCC must:

**1.** Manage the national CDR program.

**2.** Operate as Office of Primary Interest (OPI) at the national level.

**3.** Conduct a review of the submitted CDRs and facilitate necessary corrections.

**4.** Issue an advisory when facilities implement or terminate use of CDRs.

**b.** NFDC must:

**1.** Forward to the ATCSCC POC any changes to the published navigational data base (i.e., SIDs/STARs, NAVAIDs, Fixes, RNAV Waypoints, etc.) contained in the NFDD(s) that are effective for the subsequent chart date. This data must be provided at least 45 days prior to the chart date.

**2.** Error check all submitted route elements and forward errors noted during the validation to the ATCSCC for resolution.

**c.** ARTCCs must:

**1.** Identify, develop, coordinate, and establish CDRs, as needed, in accordance with this section.

**2.** Supply a POC for the ATCSCC to contact regarding CDRs.

**3.** Ensure that all affected facilities have approved newly created CDRs, or CDR route amendments, prior to inclusion in the operational database.

**4.** Notify the originating Center when a CDR must be modified to accommodate changes within their airspace, such as traffic flow changes, airway realignments, and/or navigational aid designator changes. Exceptions: Revisions to STAR/SID/DP numbers will be entered into the CDR database by the ATCSCC via Global Modification.

**5.** Ensure ERAM CDR data is identical to data published in the CDR operational database.

**6.** Report unusable, inaccurate, or unsatisfactory CDRs to the ATCSCC POC. Reports must include the CDR Route Code, specific description of the impact and if appropriate, suggestion for modification.

**7.** When requested, facilitate the coordination necessary for the use of abbreviated clearances.

**8.** Notify the ATCSCC when implementing and terminating use of CDRs.

**d.** Terminal facilities must coordinate with their overlying ARTCC for all matters pertaining to CDRs.

## 17–18–5. CDR DATA FORMAT

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

**a.** Utilize the eight character naming convention as follows:

**1.** Characters one through three are the three–letter ID of the origination airport.

**2.** Characters four through six are the three–letter ID for the destination airport.

**3.** Characters seven and eight are reserved for local adaptation and may be any two alphanumeric characters other than O or I.

***NOTE–***
*O and I must not be used to preclude confusion with the numbers zero and one.*

**b.** Although the use of RNAV procedures is preferred when developing or amending CDRs, ARTCCs may also include conventional CDRs in their CDR database.

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

**d.** CDRs must be developed and/or amended in accordance with the following:

**1.** Routes and route segments must be defined by any combination of the following:

**(a)** DPs/SIDs/STARs if applicable.

**(b)** NAVAID identifier, intersection name, fix name, RNAV Waypoint or NRS Waypoint (e.g., FUZ, ZEMMA, KK45G).

**(c)** Type and number of the airway (e.g., J87 M201 Q40 T295 V16).

**2.** When establishing or amending CDRs the following rules must be applied:

**(a)** When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.

**(b)** When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).

**(c)** When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).

**(d)** The first route element following the origin must not be an airway (e.g., KDFW J4).

**(e)** The last route element prior to the destination must not be an airway (e.g., J35 KMSY).

**e.** CDRs for each location must be published via the Route Management Tool (RMT) CDR database. Updates to the database will coincide with the normal 56–day chart updates. There are two components of the CDR database. The operational database is a read–only record of all the current CDRs. The staging database is amendable by ARTCC POCs. The staging database replaces the operational database on each chart date.

**f.** CDR changes must be entered into the staging database at least 36 days prior to the chart date. The staging database is closed to changes 35 days prior to the chart date.

***NOTE–***
*The timeline for the CDR staging database is available in RMT under the Help tab, Show Chart Dates. The status of the staging database is provided at each login to the CDR database.*

**g.** 30–35 days prior to the Chart Date. During this period, the staging database is checked for errors. Any errors are forwarded to the POC designated at each facility for correction. If the error cannot be corrected immediately, the route involved will be deleted from the database for that cycle. Once the error is corrected, the route may be reentered for a future date.

***NOTE–***
*30 days prior to the Chart Date the staging database is available to FAA and users for downloading or updating of their files.*

**h.** On each chart date, the staging database replaces the operational database and a mirror copy becomes the new staging database. The staging database is available for changes until it is locked 35 days prior to the next chart date, and the cycle starts over.

# Section 21. National Playbook

## 17–21–1. PURPOSE

The National Playbook is a collection of Severe Weather Avoidance Plan (SWAP) routes that have been pre–validated and coordinated with impacted ARTCCs. The National Playbook is designed to mitigate the potential adverse impact to the FAA and customers during periods of severe weather or other events that affect coordination of routes. These events include, but are not limited to, convective weather, military operations, communications, and other situations.

## 17–21–2. POLICY

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

## 17–21–3. DEFINITION

The National Playbook is a traffic management tool developed to give the ATCSCC, FAA facilities, and industry a common product for various route scenarios. The purpose of the National Playbook is to aid in expediting route coordination during periods of constraint in the NAS. The National Playbook contains common scenarios that occur during each severe weather season, and each includes the airspace or flow impacted, facilities included, and specific routes for each facility involved. The National Playbook is available on the ATCSCC website at: http://www.atcscc.faa.gov/Operations/operations.html.

## 17–21–4. RESPONSIBILITIES

**a.** The ATCSCC must:

**1.** Manage the National Playbook program.

**2.** Operate as the OPI at the National Level.

**3.** Identify and coordinate the development/ modification/deletion of National Playbook routes as needed.

**4.** Evaluate and coordinate, as appropriate, National Playbook development/modification/ deletion requests received from the ARTCCs.

**5.** Conduct a yearly review of the National Playbook routes and procedures.

**6.** The ATCSCC will hold telcons/meetings to facilitate the coordination of playbooks on an as needed basis.

**b.** The NFDC must forward to the ATCSCC any changes to the published navigational database, (i.e., DPs/SIDs/STARs, NAVAIDs, Fixes, Waypoints, etc.) contained in the NFDD(s) that are effective for the subsequent chart date. The data must be provided at least 45 days prior to the chart date.

**c.** The ARTCCs must:

**1.** Forward to the ATCSCC any request to develop/modify/delete National Playbook routes in accordance with this section. Requests must include the National Playbook designation and a description of the desired additions/deletions/ modifications.

**2.** Supply a POC for the ATCSCC to contact regarding National Playbook routes.

**3.** Participate in the coordination process of National Playbook routes impacting their facility.

**d.** Terminal facilities must coordinate with their overlying ARTCC for all matters pertaining to the National Playbook.

## 17–21–5. NATIONAL PLAYBOOK DATA FORMAT

**a.** Playbooks must be developed and/or amended in accordance with the following:

**1.** Routes and route segments must be defined by any combination of the following:

**(a)** STAR and associated STAR number.

**(b)** NAVAID identifier, intersection name, fix name, RNAV Waypoint, or NRS Waypoints (e.g., FUZ, ZEMMA, KK45G).

**(c)** Type and number of the airway (e.g., J87 M201 Q40 T295 V16.

**2.** When establishing or amending Playbook Routes the following rules must be applied:

**(a)** When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.

**(b)** When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).

**(c)** When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).

**(d)** The first route element following the origin must not be an airway (e.g., KDFW J4).

**(e)** The last route element prior to the destination must not be an airway (e.g., J35 KMSY).

**(f)** Low frequency non−directional beacons must not be used.

**b.** The National Playbook will be published on the ATCSCC site. Updates to the National Playbook will coincide with the normal 56−day chart updates.

**c.** All changes to the National Playbook require coordination with affected facilities. Therefore, changes must be submitted to the ATCSCC at least 60 days prior to the desired publication date to be eligible for inclusion in the update.

## 17−21−6. IMPLEMENTATION PROCEDURES

**a.** Implementation of National Playbook routes may be initiated by the ATCSCC or requested by the TMU at an ARTCC.

**b.** The ATCSCC will coordinate the activation/deactivation of National Playbook routes. National Playbook routes are considered active when the ATCSCC has completed coordination with all impacted facilities. A numbered advisory will be sent by the ATCSCC describing the route(s) being used.

**c.** The ATCSCC will display current National Playbook advisories on the ATCSCC web page.

**d.** National Playbook routes may be modified tactically to achieve an operational advantage. The ATCSCC will coordinate these changes verbally with all impacted facilities and ensure that the published advisory contains the modifications.

**e.** Facilities must monitor and provide real−time reports of the impact and continued need for the use of the National Playbook routes through the ATCSCC.

**f.** A National Playbook route is no longer active when the expiration time stated on the advisory has been reached without an extension coordinated or a decision to cancel the route has been reached. If the route is cancelled prior to the expiration time, the ATCSCC will coordinate with all impacted facilities and publish an advisory stating that the route has been cancelled.

**g.** If there are circumstances that prevent the use of a National Playbook route, then the air traffic facility involved must inform the ATCSCC. It is the responsibility of the impacted facility and the ATCSCC to ensure the route is not utilized until the circumstances preventing its use are corrected or the route is deleted.

# Section 24. Route Test

## 17–24–1. PURPOSE

This section describes policies and guidelines for conducting and evaluating route tests.

## 17–24–2. DEFINITION

**a.** Route test – a process established for the purpose of:

**1.** Assessing new routing concepts.

**2.** Exploring alternative routing possibilities.

**3.** Developing new routes to enhance system efficiency and safety.

**b.** Route test will:

**1.** Last for a pre–determined length of time, usually 90 days.

**2.** Include, but not be limited to, the following NAS elements:

**(a)** NRS waypoints.

**(b)** RNAV waypoints.

**(c)** NAVAIDs.

**(d)** Departure Procedures (DP).

**(e)** Standard Terminal Arrival Routes (STAR).

## 17–24–3. POLICY

Route tests must be conducted only after collaboration and coordination between the ATCSCC, affected en route and terminal facilities, and stakeholders. Route tests will include existing certified NAS elements. The ATCSCC is the final approval authority for all route tests.

## 17–24–4. RESPONSIBILITIES

**a.** The requesting facility must:

**1.** Ensure coordination is accomplished with all affected FAA facilities and stakeholders.

**2.** Submit a formal letter, in memorandum format, to the ATCSCC Procedures Office, through the DDSO. The memorandum must include:

**(a)** Detailed summary of the route test being requested and the anticipated results.

**(b)** List of affected FAA facilities and stakeholders with which coordination has been completed.

**(c)** Length of time for which the route test will be in effect, not to exceed 180 days.

**(d)** Detailed summary of the possible impact to the NAS, surrounding facilities, and stakeholders.

**3.** Perform an air traffic safety analysis in accordance with FAA Order 1100.161, Air Traffic Safety Oversight.

**4.** After the above items have been completed and the test approved, conduct the test as requested.

**5.** Determine if the route test timeframe is adequate. A facility may be granted an extension of up to 90 days with the approval of the ATCSCC. Submit requests for extension through the DDSO to the ATCSCC Procedures Office, with supporting documentation. Facilities requesting extensions exceeding 180 days must review and comply with FAA Order 1050.1, Policies and Procedures Considering Environmental Impacts, to ensure environmental studies are completed. Include the studies with your request.

**6.** Within 30 days of completion of the test:

**(a)** Conduct a review and analysis with the stakeholders and accept comments.

**(b)** Determine if the proposed route is viable or if other alternatives should be explored.

**(c)** Document test results and prepare a post–test report in accordance with Air Traffic Safety Analysis and with FAA Order 1100.161, Air Traffic Safety Oversight.

**7.** If the route is determined to be beneficial, initiate implementation and have the route published in appropriate charts, databases, letters of agreement, and any other appropriate FAA publications.

**b.** The ATCSCC must:

**1.** Review the route test memorandum and approve the test or provide justification for disapproval.

**2.** Review and approve requests for test extensions or provide justification for disapproval.

**3.** Issue any necessary traffic management advisories.

**4.** Be the approving authority for any TMIs requested in association with the route test.

# Section 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 nonemergency 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, NOTAM information must be submitted for publication in the Chart Supplement U.S.

**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 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.

**f.** Upon request, air traffic facilities must furnish whatever information might be available concerning parachute jumps to the U.S. Coast Guard.

# Section 4. Supplemental Duties

## 20–4–1. DOMESTIC EVENTS NETWORK (DEN)

**a.** Domestic Event Network (DEN). A 24/7 FAA sponsored telephonic conference call network (recorded) that includes all of the air route traffic control centers (ARTCC) in the United States. It also includes various other Governmental agencies that monitor the DEN. The purpose of the DEN is to provide timely notification to the appropriate authority that there is an emerging air–related problem or incident.

**b.** Required ATC facility DEN participation.

**1.** All ARTCCs.

**2.** All facilities in the National Capital Region (NCR).

**3.** Approach control facilities must participate on the DEN during President of the United States (POTUS) TFRs, National Special Security Events (NSSE) affecting their area, or when directed by System Operations Security or the DEN Air Traffic Security Coordinator (ATSC).

**4.** ATCT must participate on the DEN during arrival and departure phase of POTUS, Vice President of the United States (VPOTUS), First Lady of the United States (FLOTUS) movements, or when directed by System Operations Security or the DEN ATSC.

**5.** If the ATC facility is not actively monitoring the DEN or have a dedicated line to the DEN, they should call into the DEN directly via (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).

**6.** All communication regarding real–time security concerns and operational impacts should be initiated and coordinated on the DEN. The premise of the DEN is a need to share versus a need to know.

**7.** The DEN is an open mode of communication and is not intended for classified information.

## 20–4–2. PRESIDENTIAL/UNITED STATES SECRET SERVICE (USSS) SUPPORTED VIP MOVEMENT

**a.** Tactical Operations Security, System Operations Support Center (SOSC), (202) 267– 8276, is responsible for the coordination, planning, and timely communication of POTUS, VPOTUS, FLOTUS, or USSS supported VIP movements and associated security measures.

**b.** Tactical Operations Security is responsible for the real–time coordination of POTUS, VPOTUS, FLOTUS, or USSS supported VIP movement and tactical adjustments to security initiatives as coordinated with the USSS.

**c.** Tactical Operations Security personnel, working in conjunction with the USSS, are the final authority on adjustments to or implementation of no–notice security measures regarding POTUS, VPOTUS, FLOTUS, or USSS supported VIP movement.

**d.** All security initiative coordination regarding POTUS, VPOTUS, FLOTUS, or USSS supported VIP movements will be coordinated on the DEN. At no time should the exact location of the above be transmitted over the DEN.

**e.** Presidential Prohibited Areas (P–56A & B, P–40, etc.) are coordinated and managed by Strategic Operations Security working in concert with the USSS. The System Operations Support Center (SOSC), 202–267–8276, is responsible for waivers to prohibited areas. Tactical Operations Security is responsible for the real time coordination of Prohibited Area violations. Field facilities are responsible for the tracking and processing of violators.

**f.** All security related requests to ATC facilities from external agencies (for example, Air and Marine Operations Center [AMOC], Federal Bureau of Investigation [FBI], USSS, etc.), unless critical or a life or death situation, must be referred to the DEN at (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).

## 20–4–3. SPECIAL INTEREST FLIGHTS (SIFs)

**a.** Special Interest Flights identified by FAA, the Department of Defense or other national security agencies are the responsibility of Tactical Operations Security and must be coordinated on the DEN real time.

**b.** Tactical Operations Security, System Operations Support Center, 202–267–8276, is responsible for advanced coordination regarding special interest flights from State Department designated special interest countries known to the Agency.

## 20–4–4. CONTINUITY OF OPERATIONS AND CONTINUATION OF GOVERNMENT (COOP/COG)

**a.** Strategic Operations Security is responsible to establish Agency policies and procedures regarding COOP/COG activities.

**b.** Tactical Operations Security is responsible for the coordination and accomplishment of Agency COOP/COG initiatives upon activation.

**c.** Tactical Operations Security, in conjunction with appropriate agencies, is the final authority regarding NAS operations involving COOP/COG activities.

## 20–4–5. CLASSIFIED OPERATIONS

**a.** Strategic Operations Security is responsible for the coordination and implementation of all classified operations that impact the NAS.

**b.** Tactical Operations Security is responsible for the tactical coordination of classified operations in the NAS. Tactical Operations Security, in coordination with appropriate agencies, is the final authority regarding classified operations within the NAS.

## 20–4–6. INTELLIGENCE ANALYSIS AND COMMUNICATION

**a.** Tactical Operations Security must provide staffing at operational locations where intelligence and threat assessments potentially impacting the NAS are processed and reviewed.

**b.** Tactical Operations Security is responsible to communicate any intelligence/threat concerns with potential NAS impact to the Director, System Operations Security.

**c.** Tactical Operations Security personnel are responsible to correlate the feasibility of threats and the potential impact to the NAS.

**d.** Tactical Operations Security will work in conjunction with Strategic Operations Security to amend and/or implement national security procedures to mitigate any potential threats to the NAS.

# Appendix 3. Air Carrier Aircraft for Air Traffic Activity Operations Count

For traffic count purposes, an air carrier aircraft is considered to be an aircraft capable of carrying more than 60 passengers. All of the following model types, when accompanied by a Federal Aviation Administration authorized three–letter company designator, must be counted as air carrier operations in all Air Traffic Activity Reports. This applies even though the aircraft is conducting air freight operations.

| Designator | Model |
|---|---|
| A124 | An–124 Ruslan |
| A148 | An–148 |
| A158 | An–158 |
| A306 | A–300B4–600, A–300C4–600, A–300F4–600 |
| A30B | A–300B2, A–300B2–1, A–300B2–100, A–300B2–200, A–300B2K–3, A–300B4–100, A–300B4–2, A–300B4–200, A–300C4–200, A–300F4–200 |
| A310 | A–310, CC–150 Polaris |
| A318 | A–318Elite |
| A319 | A–319 ACJ, VC–1 ACJ |
| A320 | A–320 Prestige |
| A321 | A–321 |
| A332 | A–330–200 Prestige/Voyager, KC–30 |
| A333 | A–330–300 |
| A342 | A–340–200 Prestige |
| A343 | A–340–300 Prestige |
| A345 | A–340–500 Prestige |
| A346 | A–340–600 Prestige |
| A358 | A–350–800 XWB Prestige |
| A359 | A–350–900 XWB Prestige |
| A35K | A–350–1000 XWB Prestige |
| A388 | A380–800 Prestige |
| AJ27 | ARJ–21–700 Xiangfeng |
| AT72 | ATR–72–201, ATR–72–202 |
| AT73 | ATR–72–211, ATR–72–212 |
| AT75 | ATR–72–212A (500), ATR–72–500 |
| AT76 | ATR–72–212A (600), ATR–72–600 |
| ATP | ATP, 61 |
| B461 | BAe–146–100, Statesman |
| B462 | BAe–146–200, Quiet Trader, Statesman |
| B463 | BAe–146–300 |
| B701 | 707–100 |
| B703 | 707–300, C–18, C–137, E–8 J–Stars, EC–18, EC–137, KC–137, 707 Phalcon |
| B712 | 717–200 Business Express |
| B720 | 720 |
| B721 | 727–100, C – 22 |
| B722 | 727–200 |
| B732 | 737–200 Surveiller, CT – 43, VC – 96 |
| B733 | 737 – 300 |
| B734 | 737 – 400 |
| B735 | 737–500 |
| B736 | 737–600 |
| B737 | 737–700 BBJ, C–40 Clipper, MAX 7 |
| B738 | 737–800 BBJ2, MAX 8 |
| B739 | 737–900 BBJ3, MAX 9 |
| B741 | 747–100 |
| B742 | 747–200, E–4, VC–25 |
| B743 | 747–300 |
| B744 | 747–400 (international, winglets) |
| B748 | 747–8 |
| B74D | 747–400 (domestic, no winglets) |
| B74R | 747SR |
| B74S | 747SP |
| B752 | 757–200, C – 32 |
| B753 | 757–300 |
| B762 | 767–200, KC–767 |
| B763 | 767–300 |
| B764 | 767–400 |
| B772 | 777–200, 777–200ER |
| B773 | 777–300 |
| B77L | 777–200LR, 777–F |

| Designator | Model |
|---|---|
| B77W | 777–300ER |
| B778 | 777–8 |
| B779 | 777–9 |
| B788 | 787–8 Dreamliner (Srs. 8) |
| B789 | 787–9 Dreamliner (Srs. 9) |
| B78X | 787–10 Dreamliner (Srs. 10) |
| BA11 | BAC–111 One–Eleven |
| BCS1 | BD–500 CSeries CS100 |
| BCS3 | BD–500 CSeries CS300 |
| CONI | L–049/749Constellation, L–1049 Super Constellation, C–121, RC–121, EC–121, VC–121, R7V, WV Warning Star |
| CRJ7 | CL–600 Challenger 870, CL–600 Regional Jet CRJ–700, CRJ–701 |
| CRJ9 | CL–600 Regional Jet CRJ–705, CL–600 Challenger 890, CRJ– 900 |
| CRJX | CL–600 Regional Jet CRJ–1000 |
| DC4 | DC–4, C–54, EC–54, HC–54, TC–54, VC–54, R5D Skymaster, |
| DC6 | DC–6, C–118, VC–118, R6D Liftmaster |
| DC7 | DC–7 Seven Seas |
| DC10 | DC–10, KC–10 Extender, KDC–10, MD10 |
| DC85 | DC–8–50 Jet Trader |
| DC86 | DC–8–60 |
| DC87 | DC–8–70 |
| DC91 | DC–9–10 |
| DC92 | DC–9–20 |
| DC93 | DC–9–30, C–9 Nightingale, Skytrain 2 |
| DC94 | DC–9–40 |
| DC95 | DC–9–50 |
| DH8D | DHC–8–400 Dash 8 |
| E170 | 170, ERJ–170–100 |

| Designator | Model |
|---|---|
| E75L | 175, ERJ–170–200 (long wing) |
| E75S | 175, ERJ–170–200 (short wing) |
| E190 | 190, 195, ERJ–190 Lineage 1000 |
| F100 | 100 |
| F28 | F–28 Fellowship |
| F70 | 70 |
| I114 | I1–114 |
| IL18 | Il – 18 Bizon, 20, 22 Zebra, 24 |
| IL62 | Il–62 |
| IL86 | Il–86, Il–87 |
| IL96 | Il–96 |
| J728 | 728JET |
| L101 | L–1011 TriStar |
| L188 | L–188 Electra |
| MD11 | MD–11 |
| MD81 | MD–81 |
| MD82 | MD–82 |
| MD83 | MD–83 |
| MD87 | MD–87 |
| MD88 | MD–88 |
| MD90 | MD–90 |
| MRJ9 | MRJ–70 |
| MRJ9 | MRJ–90 |
| R721 | 727–100RE Super 27 |
| R722 | 727–200RE Super 27 |
| RJ1H | Avro RJ–100, RJ–100 Avroliner |
| RJ70 | Avro RJ–70, RJ–70 Avroliner |
| RJ85 | Avro RJ–85, RJ–85 Avroliner |
| T134 | Tu–134 |
| T144 | Tu–144 |
| T154 | Tu–154 |
| T204 | Tu–204, Tu–214, Tu–224, Tu–234 |
| T334 | Tu–334 |
| YK42 | Yak–42, Yak–142 |
| YS11 | YS – 11 |

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# BRIEFING GUIDE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Initiated By: AJV−0
Vice President, Mission Support Services

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**1. PARAGRAPH NUMBER AND TITLE:**
1-2-4. ABBREVIATIONS
2-2-9. PERSONNEL BRIEFINGS REGARDING AIR TRAFFIC BULLETIN ITEMS

**2. BACKGROUND:** The Air Traffic Bulletin (ATB) was an information resource for Air Traffic Controllers; however, Headquarters experts agreed that the ATB is no longer effective. It was determined that many of the topics within the ATB were also covered in Annual Refresher Training, making the ATB obsolete. In addition, some ATB items were used to mitigate and close FAA and National Transportation Safety Board (NTSB) safety recommendations. The team decided that future mitigation to NTSB safety recommendations and/or ATB content could be introduced via the Recurrent Training Plan; NTSB concerns are now being addressed via JO 3120.4. Subsequent to the decision to discontinue the ATB the Director, Air Traffic Procedures agreed to resurrect the bulletin with the same paragraph number, but with an Air Traffic Procedures focus.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **1-2-4. ABBREVIATIONS** | **1-2-4. ABBREVIATIONS** |
| ***TBL 1–2–1*** | ***TBL 1–2–1*** |
| Add | **ATPB – Air Traffic Procedures Bulletin** |
| **2-2-9. PERSONNEL BRIEFINGS REGARDING AIR TRAFFIC BULLETIN ITEMS** | **2-2-9. PERSONNEL BRIEFINGS REGARDING AIR TRAFFIC BULLETIN ITEMS** |
| The Air Traffic Bulletin is a means of communication between headquarters and field facilities. It is routinely published and distributed quarterly. In addition, special issues are published and distributed as necessary. It is not a directive, nor is it to implement new procedures. Its intent is to transmit "reminders" concerning proper application of procedures and other instructions. To provide continuity of communication, facility air traffic managers must: | Delete |
| **a.** Ensure that the facility is on the distribution list for the Air Traffic Bulletin. Any corrections/additions/deletions should be directed thru the regional distribution officer. | Delete |
| **b.** Ensure that Air Traffic Bulletin items with operational/procedural impacts are verbally discussed/briefed with facility personnel. These briefings must take place within 30 days after receipt of the bulletin. Once the briefings are given, a notation must be inserted in each individual's FAA Form 3120–1, including the certification signature provided by the staff specialist/supervisor and the employee's initials. | Delete |
| **1.** The option/s for which a briefing is required will be indicated by an asterisk followed by one or more letter designators; i.e.: | Delete |
| **(a)** *T – Tower, combined tower/approach control; | Delete |

| | |
|---|---|
| **(b)** *R – TRACON; | Delete |
| **(c)** *F – FSS; | Delete |
| **(d)** *E – ARTCC (En Route); | Delete |
| **(e)** *EF – ARTCC and FSS; etc. | Delete |
| **2.** The option/s for which briefings are recommended but not required will follow the option/s for which briefings are required, separated by a slash; i.e., /*T/E, indicates that for the en route option the briefing is recommended. | Delete |
| **c.** Solicit suggested Air Traffic Bulletin items, having operational/procedural impact from facility personnel at regular personnel or crew briefings; evaluate and forward those considered appropriate for Service Area office review. Service area offices must evaluate and forward to System Safety Procedures those proposals considered significant and national in scope. | Delete |
| | Add **a. The Air Traffic Procedures Directorate is the ATO authority on all matters pertaining to Air Traffic Procedures; hence, the development of an ATPB.** |
| | Add **b. The ATPB is:** |
| | Add **1. A tool that the Air Traffic Procedures Directorate utilizes to share additional Air Traffic Procedures information with field facilities.** |
| | Add **2. Published on an *as needed basis*, to provide additional clarity or to communicate useful information concerning the proper application of air traffic standards, policies, and procedures.** |
| | Add **3. Is effective for one year from its publication date. Air Traffic Procedures may extend a bulletin's expiration date to accommodate topics that are still current.** |
| | Add **c. While this list is not all inclusive, the ATPB can be used to:** |
| | Add **1. Respond to field facility questions or concerns that are typically generated with the establishment of new separation minima.** |
| | Add **2. Address the misapplication of existing procedures as identified through a Safety Assurance Program (e.g., internal/external audit).** |
| | Add **3. Address safety recommendations received from any safety related program or organization (e.g., Runway Safety, ATSAP, AJI, AOV, and NTSB).** |

| | |
|---|---|
| Add | **4. Communicate the need for changing air traffic procedures based on a pressing safety need (risk mitigation).** |
| Add | **5. Communicate the development of new air traffic procedures associated with the deployment of new technologies.** |
| Add | **d. Facility Air Traffic Managers must:** |
| Add | **1. Ensure that their facility is on the distribution list for the Air Traffic Procedures Bulletin. Any corrections, additions or deletions should be directed through the appropriate Service Center.** |
| Add | **2. Ensure that ATPB items that are appropriate to a particular facility are verbally briefed with facility personnel.** |
| Add | **(a) The Air Traffic Procedures Directorate will annotate the ATPB with the type of facilities that the subjects are applicable to.** |
| Add | **(b) These briefings must take place within 45 days after receipt of the bulletin. Record briefings in accordance with FAA Order 3120.4, Appendix A.** |
| Add | **3. Encourage submissions of suggested ATPB items that have an operational or procedural impact from facility personnel at regular crew and personnel briefings.** |
| Add | **(a) Evaluate and forward those suggestions considered appropriate for Service Area office review.** |
| Add | **(b) Service Center offices must evaluate and forward suggestions in *Microsoft Word* to the Air Traffic Procedures Directorate via the electronic mailbox at 9–AJV–8–HQ–Correspondence, those proposals considered significant and national in scope.** |

---

**1. PARAGRAPH NUMBER AND TITLE:** 2–1–14. APPROACH CONTROL CEILING

**2. BACKGROUND:** Paragraph 2–1–14 APPROACH CONTROL CEILING is a hold–over paragraph from the past organizational structure and is no longer valid. The statement that “Exceptions from this paragraph require specific approval of the Vice President of System Operations Services” remains from the initial stand–up of System Operations Services.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **2–1–14. APPROACH CONTROL CEILING** | **2–1–14. APPROACH CONTROL CEILING** |
| The airspace ceiling of areas within which approach control service is provided should not exceed 10,000 feet AGL. Exceptions require a staff study and specific approval of the Vice President of System Operations Services. | 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. |
| ***NOTE–*** *Although en route ATS is a center function, terminal facilities may be expected to provide some en route service. There are some areas in which a center may not have adequate radar coverage or resources, and in these areas it may be necessary to expand the Terminal airspace to provide service. Conversely, at locations with nonradar approach control facilities, centers may have radar coverage, and better service would be provided if some approach control airspace is recalled to the center. At certain locations, the center may be able to absorb all the airspace of a nonradar approach control. The Area Directors of En Route and Oceanic Operations and Terminal Operations must weigh all factors and provide optimum resolutions.* | ***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.* |

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**1. PARAGRAPH NUMBER AND TITLE:** 2–1–25. SUBMISSION OF AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA) DATA

**2. BACKGROUND:** In a companion DCP in FAA Order JO 7610.4, Special Operations, Paragraph 9–2–2, Submission of Air Traffic Control Assigned Airspace (ATCAA) Data, was removed because of duplicity.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **2–1–25. SUBMISSION OF AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA) DATA** | **2–1–25. SUBMISSION OF AIR TRAFFIC CONTROL ASSIGNED AIRSPACE (ATCAA) DATA** |

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

**a.** An En Route and Oceanic Operations Area Office transmittal memorandum containing a brief overview of the ATCAA, and/or changes to, FAA headquarters, System Operations Security; and System Operations Airspace and Aeronautical Information Management. Summarize the ATCAAs or any amendments made to ATCAAs including additional changes, etc.

**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. T**ransmittal 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.

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**1. PARAGRAPH NUMBER AND TITLE:**
2−2−7. CIRNOT HANDLING
3−8−2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION
3−9−1. COLOR USE ON ATC DISPLAYS
10−1−4. SECTIONAL AERONAUTICAL AND TERMINAL AREA CHARTS
10−3−8. LINE UP AND WAIT (LUAW) OPERATIONS
10−4−9. PRECISION RUNWAY MONITOR−SIMULTANEOUS OFFSET INSTRUMENT APPROACHES
10−4−11. MINIMUM IFR ALTITUDES (MIA)
11−2−7. MINIMUM SAFE ALTITUDE WARNING (MSAW), CONFLICT ALERT (CA), AND MODE C INTRUDER (MCI)
11−7−6. AUTOMATIC ACQUISITION/TERMINATION AREAS.
11−7−7. MINIMUM SAFE ALTITUDE WARNING (MSAW) AND CONFLICT ALERT (CA)

**2. BACKGROUND:** Reorganization within the ATO caused some titles and duties to change. This change updates the order.

**3. CHANGE:**

| **OLD** | **NEW** |
|---|---|
| **2−2−7. CIRNOT HANDLING** | **2−2−7. CIRNOT HANDLING** |
| **a.** WMSCR/NNCC must maintain a record of all CIRNOTs and forward a hard copy to FAA Headquarters, Terminal Safety and Operations Support by the most expeditious means available. | **a.** WMSCR/NNCC must maintain a record of all CIRNOTs and forward a hard copy **to the appropriate service area Director of Air Traffic Operations** by the most expeditious means available. |
| **b.** FSS air traffic managers must provide CIRNOTs to the Terminal Operations Service Area office and/or other field facilities upon request. | **b.** FSS air traffic managers must provide CIRNOTs to the **appropriate service area Director of Air Traffic Operations** and/or other field facilities upon request. |

**OLD**

**3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION**

**Title** through **e3**

***NOTE–***
*Should a ROC reduction request be denied by Service Center Operations Support personnel, the manager may appeal the decision to Terminal Safety and Operations Support for review.*

**NEW**

**3–8–2. MINIMUM VECTORING ALTITUDE CHARTS (MVAC) PREPARATION**

No Change

***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 Operations****.*

**OLD**

**3–9–1. COLOR USE ON ATC DISPLAYS**

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

**a** through **j**

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

**NEW**

**3–9–1. COLOR USE ON ATC DISPLAYS**

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

No Change

**k.** Facility air traffic managers must make all requests for any color changes to color baseline through the **appropriate service area Director of Air Traffic Operations.**

**OLD**

**10–1–4. SECTIONAL AERONAUTICAL AND TERMINAL AREA CHARTS**

**NEW**

**10–1–4. SECTIONAL AERONAUTICAL AND TERMINAL AREA CHARTS**

**Title** through **a**

**b.** VFR Flyway Planning Charts are published on the back of existing TACs. Facilities with a TAC desiring publication of a VFR Flyway Planning Chart should submit requests through the Terminal Operations Service Area office to Terminal Safety and Operations Support. Additional charts may be considered after all Class B airspace locations have been completed. VFR Flyway Planning Charts, which are intended to facilitate VFR transition through high density areas, depict generalized VFR routing clear of major controlled traffic flows which may be used as alternatives to flight within Class B airspace. Pictorial ground references and VFR checkpoints are provided to aid visual navigation. These charts are designed for information and planning purposes and are not intended to discourage VFR operations within Class B airspace. Pilot compliance with recommended flyways and associated altitudes is strictly voluntary. Controllers must not assign a charted VFR flyway to a pilot as part of a clearance nor predicate separation of aircraft on any expected pilot compliance with the depicted altitudes.

No Change

**b.** VFR Flyway Planning Charts are published on the back of existing TACs. Facilities with a TAC desiring publication of a VFR Flyway Planning Chart should submit requests through the **appropriate service area Director of Air Traffic Operations.** Additional charts may be considered after all Class B airspace locations have been completed. VFR Flyway Planning Charts, which are intended to facilitate VFR transition through high density areas, depict generalized VFR routing clear of major controlled traffic flows which may be used as alternatives to flight within Class B airspace. Pictorial ground references and VFR checkpoints are provided to aid visual navigation. These charts are designed for information and planning purposes and are not intended to discourage VFR operations within Class B airspace. Pilot compliance with recommended flyways and associated altitudes is strictly voluntary. Controllers must not assign a charted VFR flyway to a pilot as part of a clearance nor predicate separation of aircraft on any expected pilot compliance with the depicted altitudes.

**OLD**

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

**Title** through **a8(c)**

**(d)** At least 90 days before planned implementation, ATMs must submit the local directive outlining this operation for Terminal Operations and Terminal Safety and Operations Support approval. Terminal Operations and Terminal Safety and Operations Support directors must be notified of any proposed operational changes (for example, a change to the runway or taxiway for conducting LUAW operations).

**b.** ATMs must submit operational need for LUAW and a facility directive to the appropriate Director, Terminal Operations (service area office) for approval. ATMs must maintain a copy of the approval correspondence from Terminal Operations.

**c.** The Director, Terminal Operations, must ensure an annual review of LUAW operations is conducted for those facilities employing LUAW. The results of this review must be sent to the Terminal Safety and Operations Support office by September.

**NEW**

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

No Change

**(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** 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.**

**OLD**

**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 Terminal Safety and Operations Support in coordination with AFS. A high–resolution color monitor with alert algorithms, such as a final monitor aid (FMA) must be required.

**b** through **j2**

**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 FAAO JO 7110.65, Air Traffic Control, para 5–5–4, Minima, must be applied unless acceptable mitigating techniques and operational procedures are approved by the Director of Terminal Safety and Operations Support pursuant to an AFS safety assessment. A request for a safety assessment must be submitted to the Terminal Safety and Operations Support Office 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.

**j4** through **k**

**l.** For any new proposal to conduct PRM–SOIA, an operational need must be identified by the ATC facility manager, validated by the service area office manager, and forwarded to the Terminal Safety and Operations Support Office for appropriate action. The statement of operational need should identify any required site specific procedures.

**NEW**

**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.

No Change

**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 O**rder** JO 7110.65, Air Traffic Control, **P**ara**graph** 5–5–4, Minima, must be applied unless acceptable mitigating techniques and operational procedures are approved by the **Director of Operations Headquarters** 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.

No Change

**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.

**OLD**

**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 Technical Operations Aviation System Standards, National Flight Procedures, for certification and annual review.

**NEW**

**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.

**OLD**

**11–2–7. MINIMUM SAFE ALTITUDE WARNING (MSAW), CONFLICT ALERT (CA), AND MODE C INTRUDER (MCI)**

**Title** through **a**

**b.** When their continued use would adversely impact operational priorities, air traffic managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA and/or MCI functions. Except when equipment or site adaptation problems preclude these functions being used, a brief written report must be sent to the Terminal Operations Service Area Office whenever they are inhibited. A copy of the report must be sent to Terminal Safety and Operations Support.

**NEW**

**11–2–7. MINIMUM SAFE ALTITUDE WARNING (MSAW), CONFLICT ALERT (CA), AND MODE C INTRUDER (MCI)**

No Change

**b.** When their continued use would adversely impact operational priorities, air traffic managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA and/or MCI functions. Except when equipment or site adaptation problems preclude these functions being used, a brief written report must be sent to the **appropriate service area Director of Air Traffic Operations** whenever they are inhibited. A copy of the report must be sent to **Director of Operations Headquarters.**

**OLD**

**11–7–6. AUTOMATIC ACQUISITION/ TERMINATION AREAS**

**Title** through **a5** ***NOTE***

**b.** Terminal Operations Service Area Directors may authorize a distance greater than specified in subparas 3 and 4 above, where the operational conditions dictate.

**NEW**

**11–7–6. AUTOMATIC ACQUISITION/ TERMINATION AREAS**

No Change

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

**OLD**

**11–7–7. MINIMUM SAFE ALTITUDE WARNING (MSAW) AND CONFLICT ALERT (CA)**

**NEW**

**11–7–7. MINIMUM SAFE ALTITUDE WARNING (MSAW) AND CONFLICT ALERT (CA)**

| | |
|---|---|
| **a.** When their continued use would adversely impact operational priorities, facility air traffic managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA functions. Except when equipment or site adaptation problems preclude these functions being used, a brief written report must be sent to the respective Terminal Operations Area Office whenever they are inhibited. A copy of the report must be sent to Terminal Safety and Operations Support. | **a.** When their continued use would adversely impact operational priorities, facility air traffic managers may temporarily inhibit the MSAW, the Approach Path Monitor portion of MSAW, and/or the CA functions. Except when equipment or site adaptation problems preclude these functions being used, a brief written report must be sent to the **appropriate service area Director of Air Traffic Operations,** whenever they are inhibited. A copy of the report must be sent to **the Director of Operations Headquarters.** |
| **b** and **c** | No Change |
| **d.** Terminal Operations Area Offices must: | **d. The appropriate service area Director of Air Traffic Operations** must: |

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**1. PARAGRAPH NUMBER AND TITLE:** 2–6–2. WATCH SUPERVISION ASSIGNMENTS

**2. BACKGROUND:** A review of Front Line Manager (FLM) staffing practices at En Route facilities indicated Air Traffic Managers (ATM) are implementing out of area assignments in various forms. Out of area assignments are assignments of work to a FLM who provides watch supervision to an area other than their area of specialization. The review indicated the practice of out of area assignments for En Route FLMs is inconsistently applied throughout the National Airspace System (NAS). Additionally, a review of Air Traffic Orders indicated a lack of policy direction with regard to out of area assignments. Workgroups utilized surveys, subject matter experts and data to ensure a consistent utilization of out of area assignments.

**3. CHANGE:**

| **OLD** | **NEW** |
|---|---|
| **2–6–2. WATCH SUPERVISION ASSIGNMENTS** | **2–6–2. WATCH SUPERVISION ASSIGNMENTS** |
| **Title** through **h** | No Change |
| Add | **i. EN ROUTE. Front Line Managers (FLMs) may only be assigned watch supervision for one area of specialization. The Service Area Director of Operations may approve an air traffic facility manager (ATM) to assign a FLM watch supervision to one additional area outside their home area of specialization. The approval must be renewed annually.** |
| Add | **1. The ATM must document training requirements in their local orders.** |
| Add | **2. The FLM must comply with the required tasks in Paragraph 2–6–1a, Watch Supervision.** |
| Add | **3. The FLM may provide watch supervision in their two approved areas simultaneously provided the following conditions are met:** |
| Add | **(a) The supervisor must have direct line of sight to both areas.** |

| | |
|---|---|
| Add | **(b) May only be assigned during mid−shift configurations and/or during facility defined times included in the approval.** |
| Add | ***NOTE−***<br>***This does not apply when the FLM is assigned the Operations Manager in Charge (OMIC) position during midnight operations.*** |

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**1. PARAGRAPH NUMBER AND TITLE:**
3−1−1. BASIC EQUIPMENT
6−1−6. FLIGHT PROGRESS STRIP USAGE
Chapter 6, Section 8. Ocean21
6−8−1. GENERAL
6−8−2. OPERATIONAL SUPERVISOR−IN−CHARGE RESPONSIBILITIES
6−8−3. ERROR REPAIR POSITION RESPONSIBILITIES
6−8−4. FACILITY MANAGER RESPONSIBILITIES
6−8−6. OCEAN21 CHANNEL CHANGEOVERS
6−8−7. OUTAGES

**2. BACKGROUND:** Advanced Technologies and Oceanic Procedures (ATOP) is the automation platform that is used at the FAA's Oceanic Air Route Traffic Control Centers: New York Center, Oakland Center and Anchorage Center. The moniker "OCEAN21" has been used to refer to ATOP; this nickname is being removed from air traffic documentation and replaced with the correct term "ATOP."

**3. CHANGE:**

**OLD**

**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 Ocean21, additional equipment consists of Air Traffic Situation Displays and Auxiliary Displays. This equipment is arranged in individual units called sectors and laid out in accordance with master plans maintained in the En Route and Oceanic Service Area offices. Air traffic managers may recommend changes to these plans.

**NEW**

**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.

**OLD**

**6−1−6. FLIGHT PROGRESS STRIP USAGE**

**Title** through **d**

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

**NEW**

**6−1−6. FLIGHT PROGRESS STRIP USAGE**

No Change

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

**OLD**

**Chapter 6. En Route Operations and Services**
**Section 8. Ocean 21**

**6–8–1. GENERAL**

**a.** Ocean21 is an Air Traffic Control (ATC) System deployed in designated en route and oceanic airspace. Ocean21 includes both surveillance and flight data processing, which provides the controllers with automated decision support tools to establish, monitor, and maintain separation between aircraft, and aircraft to airspace and terrain.

**b.** Ocean21 capabilities include:

**NEW**

**Chapter 6. En Route Operations and Services**
**Section 8. ATOP**

**6–8–1. GENERAL**

**a. ATOP** is an Air Traffic Control (ATC) System deployed in designated en route and oceanic airspace. **ATOP** includes both surveillance and flight data processing, which provides the controllers with automated decision support tools to establish, monitor, and maintain separation between aircraft, and aircraft to airspace and terrain.

**b. ATOP** capabilities include:

**OLD**

**6–8–2. OPERATIONAL SUPERVISOR–IN–CHARGE RESPONSIBILITIES**

In addition to the watch supervision described in Chapter 2, Administration of Facilities, Section 6, Watch Supervision–Terminal/En Route, facilities must provide in facility directives the operational duties and procedures for the Supervisor–In–Charge associated with the Ocean21 System. Responsibilities and procedures must include but are not limited to the following:

**a** and **b**

**c.** Ocean21 data management when a channel changeover is being performed.

**NEW**

**6–8–2. OPERATIONAL SUPERVISOR–IN–CHARGE RESPONSIBILITIES**

In addition to the watch supervision described in Chapter 2, Administration of Facilities, Section 6, Watch Supervision–Terminal/En Route, facilities must provide in facility directives the operational duties and procedures for the Supervisor–In–Charge associated with the **ATOP** System. Responsibilities and procedures must include but are not limited to the following:

No Change

**c. ATOP** data management when a channel changeover is being performed.

**OLD**

**6–8–3. ERROR REPAIR POSITION RESPONSIBILITIES**

Facilities must define responsibilities and develop procedures associated with the Ocean21 System for the Error Repair position. Responsibilities and procedures must include but are not limited to:

**NEW**

**6–8–3. ERROR REPAIR POSITION RESPONSIBILITIES**

Facilities must define responsibilities and develop procedures associated with the **ATOP** System for the Error Repair position. Responsibilities and procedures must include but are not limited to:

**OLD**

**6–8–4. FACILITY MANAGER RESPONSIBILITIES**

**a.** Ensure LOAs, SOPs, MOUs and Sector Position Binders are current to support Ocean21.

**1.** Facility managers must consider Ocean21 functions and limitations when reviewing current LOAs and/or negotiating future LOAs.

**NEW**

**6–8–4. FACILITY MANAGER RESPONSIBILITIES**

**a.** Ensure LOAs, SOPs, MOUs and Sector Position Binders are current to support **ATOP**.

**1.** Facility managers must consider **ATOP** functions and limitations when reviewing current LOAs and/or negotiating future LOAs.

| | |
|---|---|
| **2(a)** through **2(d)** | No Change |
| **b.** Ensure all facility directives, where applicable, support Ocean21. Directives should include but are not limited to: | **b.** Ensure all facility directives, where applicable, support **ATOP**. Directives should include but are not limited to: |
| **OLD** | **NEW** |
| **6–8–6. OCEAN21 CHANNEL CHANGEOVERS** | **6–8–6. ATOP CHANNEL CHANGEOVERS** |
| **OLD** | **NEW** |
| **6–8–7. OUTAGES** | **6–8–7. OUTAGES** |
| In accordance with Chapter 8, NAS En Route Automation, and requirements in this chapter, facilities must develop and maintain procedures for the transition to and from, and during Ocean21 degraded operations. A facility directive must include a checklist detailing actions, roles, and responsibilities during planned and unplanned outage or degraded operation. | In accordance with Chapter 8, NAS En Route Automation, and requirements in this chapter, facilities must develop and maintain procedures for the transition to and from, and during **ATOP** degraded operations. A facility directive must include a checklist detailing actions, roles, and responsibilities during planned and unplanned outage or degraded operation. |

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**1. PARAGRAPH NUMBER AND TITLE:**
3–2–1. RESPONSIBILITY
4–7–3. SYSTEM IMPACT REPORTS
4–8–2. REQUESTS TO PRESERVE TAPE OR DAT UNDER FOIA
8–1–3. COMPUTER RETENTION
17–4–4. OPERATION MANAGER (OM) SUPPORT

**2. BACKGROUND:** The guidance for Air Traffic Organization (ATO), facilities for reporting aircraft accidents and incidents has been placed in a new document. The FAA Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident, Notification, Investigation and Reporting, contains the procedures for all ATO field facilities.

**3. CHANGE:**

| | |
|---|---|
| **OLD** | **NEW** |
| **3–2–1. RESPONSIBILITY** | **3–2–1. RESPONSIBILITY** |
| **Title** through **b3** | No Change |
| **4.** Remove the voice tape from service at the normal tape change interval and record the pertinent information on a cassette in accordance with FAAO 8020.11, subpara 76c, Retention of Original Voice Recordings. | **4.** Remove the voice tape from service at the normal tape change interval and record the pertinent information on a cassette in accordance with FAA **Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation and Reporting, Chapter 6, Paragraph 93, Copies of Voice Recordings.** |

**OLD**

**4–7–3. SYSTEM IMPACT REPORTS**

**Title** through **a**

**b.** This does not eliminate, or in any way alter, current operational error/deviation or accident/incident reporting procedures with Safety Investigations, regional operations centers, and FAA Operations Center as set forth in this order, FAAO 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting, and other appropriate directives.

**NEW**

**4–7–3. SYSTEM IMPACT REPORTS**

No Change

**b.** This does not eliminate, or in any way alter, current operational error/deviation or accident/incident reporting procedures with Safety Investigations, regional operations centers, and FAA Operations Center as set forth in this order, FAA **Order JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting, and other appropriate directives.**

**OLD**

**4–8–2. REQUESTS TO PRESERVE TAPE OR DAT UNDER FOIA**

When requests are received to preserve more of the original tape or DAT(s) than required by FAAO 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting, or FAAO JO 7210.3, Facility Operation and Administration, the following will apply:

**NEW**

**4–8–2. REQUESTS TO PRESERVE TAPE OR DAT UNDER FOIA**

When requests are received to preserve more of the original tape or DAT(s) than required by FAA O**rder JO 8020.16, Air Traffic Organization Aircraft Accident and Incident Notification, Investigation, and Reporting**, or FAA **Order** JO 7210.3, Facility Operation and Administration, the following will apply:

**OLD**

**8–1–3. COMPUTER RETENTION**

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

**NEW**

**8–1–3. COMPUTER 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.**

**OLD**

**17–4–4. OPERATIONS MANAGER (OM) SUPPORT**

**Title** through **b**

**1.** FAAO 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting.

**NEW**

**17–4–4. OPERATIONS MANAGER (OM) SUPPORT**

No Change

**1.** FAA **Order JO 8020.16, Air Traffic Organization Aircraft** Accident and Incident Notification, Investigation, and Reporting.

**1. PARAGRAPH NUMBER AND TITLE:** 3−3−2 TELEPHONE COMMUNICATIONS

**2. BACKGROUND:** On May 13, 2014, Chicago TRACON (C90) experienced an ATC Zero event. The resulting workgroup made several recommendations for areas of improvement based on lessons learned from this event. One of the suggestions identified the need to record telephone conversations concerning contingency operations.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **3−3−2 TELEPHONE COMMUNICATIONS** | **3−3−2 TELEPHONE COMMUNICATIONS** |
| **Title** through **c** | No Change |
| **d.** When equipment capabilities exist, every effort should be made to conduct conversations with flight−crews or other appropriate persons regarding any aircraft accident, incident, and/or ATC services on a recorded line. | **d.** When equipment capabilities exist, every effort should be made to conduct conversations **regarding ATC services, aircraft accidents, incidents, and contingency operations** on a recorded line. |
| Add | **e. Recorded telephone lines must be identified in the facility SOP.** |

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**1. PARAGRAPH NUMBER AND TITLE:**
3−4−2. ASSIGNMENT OF RECORDER CHANNELS
9−3−1. FAA FORM 7210−8 ELT INCIDENT
10−4−1. AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)
11−3−2. DATA RETENTION
17−8−3. RESPONSIBILITIES
18−4−1. NONEMERGENCY PARACHUTE JUMP OPERATIONS

**2. BACKGROUND:** Extending the retention parameters of audio, written and recorded data to 45 days, would ensure a uniform standard within air traffic and enable the ATO to provide necessary and timely communication recordings requested by the National Transportation Safety Board (NTSB) and the FAA's Flight Standards/Chief Counsel's offices. The NTSB has long requested this change as necessary for their agency to gather all pertinent information needed to conduct investigations into accidents, incidents and trends in degradation of aviation safety. This change is also necessary to provide information required to properly conduct investigations into potential pilot enforcement actions. The additional days of retention will also assist the FAA in the recovery of evidence that may be requested by pilots under the Pilots Bill of Rights.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **3−4−2. ASSIGNMENT OF RECORDER CHANNELS** | **3−4−2. ASSIGNMENT OF RECORDER CHANNELS** |
| **Title** through **a2(j)** | No Change |
| **(k)** Automatic terminal information services (ATIS) − air traffic managers must designate a channel to record ATIS when a separate channel is not available. Record the ATIS message once at the time of preparation on the designated channel. Make a written record of each ATIS and retain for 15 days if a recorded channel is not available. | **(k)** Automatic terminal information services (ATIS) − air traffic managers must designate a channel to record ATIS when a separate channel is not available. Record the ATIS message once at the time of preparation on the designated channel. Make a written record of each ATIS and retain for **45** days if a recorded channel is not available. |

**OLD**

**9–3–1. FAA FORM 7210–8 ELT INCIDENT**

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

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

**NEW**

**9–3–1. FAA FORM 7210–8 ELT INCIDENT**

In order to expedite the data flow necessary for the accomplishment of the ELT investigations, use FAA Form 7210–8, ELT Incident for coordination with the Rescue Coordination Center (RCC) when an ELT signal is heard or reported. (See FIG 9–3–1.)

**a.** Form Disposition. Air traffic managers must ensure that forms prepared for ELT incidents which have not been closed must be readily accessible at the operating position responsible for coordinating with the RCC. Forms prepared for an ELT incident which has been closed must be retained for **45** days except when filed as part of an incident, an accident, or another case file.

**OLD**

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

**Title** through **e2** ***EXAMPLE***

**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 15 days.

**NEW**

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

No Change

**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.

**OLD**

**11–3–2. DATA RETENTION**

**Title** through **a6**

**b.** Retain data extraction recordings for 45 days except:

**1.** En route facility utilizing system analysis recording tapes as their radar retention media must retain radar data for 15 days.

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

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

**NEW**

**11–3–2. DATA RETENTION**

No Change

No Change

Delete

**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.

| | |
|---|---|
| **4.** Accidents: Retain TTYE stored captured files (or TTY if TTYE captured files are unavailable) for 30 days unless they are related to an accident or incident as identified in FAA JO 8020.16. | Delete |
| ***NOTE–***<br>*A facility using a console typewriter printout take–up device may retain the printout on the spool for 15 days after the last date on the spool. Retention of the daily printouts relating to accidents/incidents must be in accordance with subpara b.* | ***NOTE–***<br>*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.* |

| OLD | NEW |
|---|---|
| **17–8–3. RESPONSIBILITIES** | **17–8–3. RESPONSIBILITIES** |
| **Title** through **d3** | No Change |
| **e.** Maintain an operational log of red alerts and retain for 15 days the following information: | **e.** Maintain an operational log of red alerts and retain for **45** days the following information: |

| OLD | NEW |
|---|---|
| **18–4–1. NONEMERGENCY PARACHUTE JUMP OPERATIONS** | **18–4–1. NONEMERGENCY PARACHUTE JUMP OPERATIONS** |
| **Title** through **d** | No Change |
| **e.** A record of the jump operations must be maintained in the facility files for 15 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 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. |

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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:** Air Traffic Support, AJV–5 has taken a proactive role in ensuring depicted airports on any type of video maps are in an active status. Facilities will be informed when a depicted airport is deemed inactive, removed from the video map, and sent a revised version. Additionally, in the interest of simplifying the review process, AJV–5 has agreed to assume the role of reviewing EOVM charts from Terminal Procedures and Charting in Oklahoma City. The requirement in Paragraph 3–7–3p, Display Map Data provides no appreciable value, as optional map is not defined, and Common ARTS locations using optional maps do not have a comparable requirement. As more facilities transition to STARS, questions arise as to intent of the paragraph and the reason for it.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **3–7–3. DISPLAY MAP DATA** | **3–7–3. DISPLAY MAP DATA** |
| **Title** through **a** | No Change |

| | |
|---|---|
| Add | ***NOTE–***<br>***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.*** |
| **b** through **o** | No Change |
| **p.** For sites equipped with STARS, facility air traffic managers must specify in a facility directive procedures for using optional maps. | Delete |
| **q** | **Re–letter** to **p** |

| **OLD** | **NEW** |
|---|---|
| **3–8–4. EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)** | **3–8–4. EMERGENCY OBSTRUCTION VIDEO MAP (EOVM)** |
| **a.** An EOVM must be established at all terminal radar facilities that have designated mountainous areas as defined in 14 CFR Part 95, Subpart B, within their delegated area of control and an available channel in their video mappers. This map is intended to facilitate advisory service to an aircraft in an emergency situation in the event an appropriate terrain/obstacle clearance minimum altitude cannot be maintained. (See FIG 3–9–1.) | **a.** An EOVM must be established at all terminal radar facilities that have designated mountainous areas as defined in 14 CFR Part 95, Subpart B, within their delegated area of control and an available channel in their video mappers. This map is intended to facilitate advisory service to an aircraft in an emergency situation in the event an appropriate terrain/obstacle clearance minimum altitude cannot be maintained. (See FIG 3–**8**–1.) |
| **b** through **d1(d)** | No Change |
| Add | ***NOTE–***<br>***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.*** |
| **d1(e)** through ***EXAMPLE*** | No Change |
| **e.** EOVM Production: The preparation and procurement of the EOVM must be accomplished in accordance with FAAO 7910.1, Aeronautical Video Map Program. | **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 original EOVM procurement package must be checked for adequacy and then coordinated with the Mission Support Services, Terminal Procedures and Charting Group through the Service Area Operations Support Group, Flight Procedures Team (FPT) to verify the accuracy of its information. At least once every 2 years, the EOVM must be reviewed for adequacy and coordinated with the Terminal Procedures and Charting Group through the FPT for accuracy. | **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. |

| | |
|---|---|
| Add | **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.** |
| Add | ***NOTE−***<br>***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.*** |

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**1. PARAGRAPH NUMBER AND TITLE:** 3-8-5. ESTABLISHING DIVERSE VECTOR AREA/S (DVA)

**2. BACKGROUND:** A recent change to this paragraph allowed for the use of the DVA to vector below the minimum IFR altitude for aircraft conducting a missed approach or go−around maneuver. Two conditions stipulated that aircraft not turn until passing the threshold, and that any turn assigned not exceed 30 degrees left or right of the runway centerline for which the DVA was established. The 30 degree requirement was the minimum intended to provide relief in a radar environment from a departure. Field inquiries are questioning if the 30 degree stipulation can be improved to provide more divergence provided the aircraft remain within the confines of the DVA until reaching the overlying MVA/MIA. The Flight Standards specialist responsible for DVA criteria has stated that provided the aircraft passes the threshold before turning, then it is permissible to increase the divergence.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **3−8−5. ESTABLISHING DIVERSE VECTOR AREA/S (DVA)** | **3−8−5. ESTABLISHING DIVERSE VECTOR AREA/S (DVA)** |

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

**a1** through **a2** ***NOTE***

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

**a3(a)** and **a3(b)**

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

No Change

**3.** If the ATM elects to request a DVA, use the sample memorandum below as a guide (see FIG 3–**8**–2). Specify if the request is to establish, modify, or cancel a DVA. If modifying or canceling a DVA, attach the memorandum that authorizes the current DVA. The DVA request must include the following:

No Change

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

**a3(d)** through **b**

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

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

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

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

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

**e.** Headings must not be assigned beyond those authorized by the DVA prior to reaching the MVA. Missed approach/go−around aircraft must not be assigned headings until the aircraft passes the threshold and the assigned heading is not in excess of 30° left or right of the centerline heading of the runway for which the DVA was established.

**(c)** Requested DVA method. Specify a range of operational headings by starting from the extreme left heading proceeding clockwise (CW) to the extreme right heading as viewed from the departure runway in the direction of departure (for example, Runway 36, **290** CW **120**), or isolate a penetrating obstacle(s) by identifying that obstacle(s) either by DOF number or range/bearing from airport.

No Change

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

No Change

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

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

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

**e.** Headings must not be assigned beyond those authorized by the DVA prior to reaching the MVA/**MIA**. Missed approach/go−around aircraft must not be assigned headings until the aircraft passes the threshold and the assigned heading is not in excess of **90** ° left or right of the centerline heading of the runway for which the DVA was established.

**1. PARAGRAPH NUMBER AND TITLE:** 4−4−2. USE OF AIRCRAFT CALL SIGNS

**2. BACKGROUND:** The recent revision to FAA Order JO 7210.3, Paragraph 4 4 2, Use of Aircraft Call Signs, led to questions regarding local call sign assignments. Clarity was requested as to those designators, other than 3−letter designators, that may be assigned. Therefore, an addition is made to sub−paragraph 4−4−2.a.l. stating that 2, 4, 5, and 6−letter designators may be assigned for local call signs. Editorial changes were also necessary to recognize the reorganization of Aeronautical Information Management (AIM) to Aeronautical information Services (AIS). In addition, the assignment of ICAO 3−letter designators is now changed to the AIS office from the ICAO website.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **4−4−2. USE OF AIRCRAFT CALL SIGNS** | **4−4−2. USE OF AIRCRAFT CALL SIGNS** |
| **Title** through **a** | No Change |
| **1.** Local call signs must not be assigned a three−letter designator. This ensures local call signs will not conflict with call signs using three−letter ICAO−approved designators. | **1.** Local call signs must not be assigned a three−letter designator. This ensures local call signs will not conflict with call signs using three−letter ICAO−approved designators. **Local call signs may be assigned 2, 4, 5, and 6 letter call sign designators.** |
| **a2** through **a4** ***NOTE*** | No Change |
| **b.** Special call sign/telephony designators are authorized and assigned by the FAA for governmental or other aircraft operations to enable special handling by ATC within the continental United States. Special designators can be used for filing flight plans and may be issued for a designated area of operation corresponding to the duration of an event or circumstances requiring special handling. Special designators are authorized by the following FAA offices: | **b.** Special call sign/telephony designators are authorized and assigned by the FAA for governmental or other aircraft operations to enable special handling by ATC within the continental United States. Special designators can be used for filing flight plans and may be issued for a designated area of operation corresponding to the duration of an event or circumstances requiring special handling. Special designators are authorized **for use** by **ATO System Operations Security (9−ATOR−HQ−IFOS@faa.gov) and are published in FAA Order 7110.67 and FAA Order 7340.2.** |
| **1.** System Operations Security (9−ATOR−HQ-IFOS@faa.gov) for federal, state, or local governmental aircraft operators, including law enforcement. | Delete |
| **2.** Aeronautical Information Management (AlM) (callsigns@faa.gov) for non−governmental aircraft operators, including flight schools. | Delete |
| ***REFERENCE−***<br>*FAAO JO 7110.67 Special Aircraft Operations by Federal/Stole Law Enforcement/Military/Organizations and Special Activities* | ***REFERENCE−***<br>*FAAO JO 7110.67**, Air Traffic Management Security Services for Special Activities***<br>***FAAO JO 7340.2, Contractions*** |
| **c.** ICAO Three−Letter designators are normally used for world−wide use and assigned by ICAO (http://www.icao.int/3LD). Authorized ICAO Three−Letter designators are published in FAA Order JO 7340.2 and ICAO Document 8585. | **c.** ICAO **t**hree−**l**etter designators **(3LD)** are published in FAA Order JO 7340.2, **Contractions. 3LDs are authorized for use by the following ATO offices:** |

| | |
|---|---|
| Add | **1. Aeronautical Information Service (AIS) (callsigns@faa.gov) for non–governmental aircraft operators; and** |
| Add | **2. System Operations Security (9–ATOR–HQ–IFOS@faa.gov) for governmental aircraft operators.** |
| ***REFERENCE–***<br>*FAAOJO 7340.2 Contractions*<br>*AC 120–26 JCAO Aircraft Company Three–Letter Identifier and/or Telephony Designator Assignments and U.S. Special Telephony/Call Signs ICAO Document 8585 Designators for Aircraft Operating Agencies. Aeronautical Authorities and Services* | ***REFERENCE–***<br>*AC 120–26**, Assignment of Aircraft Call Signs and Associated Telephonies.*** |

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**1. PARAGRAPH NUMBER AND TITLE:**
4–6–4. FAA FORM 7230–4, DAILY RECORD OF FACILITY OPERATION
4–6–5. PREPARATION OF FAA FORM 7230–4
17–5–14. TARMAC DELAY OPERATIONS

**2. BACKGROUND:** Changes to these paragraphs clarify that while a mandatory occurrence report (MOR) entered using the Comprehensive Electronic Data Analysis and Reporting (CEDAR) program will automatically generate a entry on the Daily Record of Facility Operation, Form 7230–4, some Form 7230–4 entries do not require MORs––as addressed in paragraph 4–6–5h. Due to the expanded use of CEDAR in Federal Contract Towers, the wording in paragraph 4–6–4a1 is changed. The outdated Note in paragraph 4–6–4 regarding a national workgroup is also removed. FAA Form 7230–4 no longer requires Quality Assurance Review (QAR) "Q" entries and many non–safety 7230–4 entries do not require MORs or corresponding "M" entries on the Form 7230–4. A non–safety related three– or four–hour tarmac delay or a no–notice ground stop/holding may be entered on the Form 7230–4 without being documented as an MOR. Any aircraft accident may also be included as a Form 7230–4 entry. These changes clarify Form 7230–4 entries that do not require MORs and cancel FAA Notice JO 7210.879, Interim Guidance in the Preparation of FAA Form 7230–4, or any replacement Notice.

**3. CHANGE:**

| **OLD** | **NEW** |
|---|---|
| **4–6–4. FAA FORM 7230–4, DAILY RECORD OF FACILITY OPERATION** | **4–6–4. FAA FORM 7230–4, DAILY RECORD OF FACILITY OPERATION** |
| **Title** through **a** | No Change |
| **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. | **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 4–6–5 h.** |

| | |
|---|---|
| **a2** | No Change |
| ***NOTE–***<br>*A National Workgroup has been established to develop methods to exchange pertinent data between CEDAR and NTML that is needed to complete FAA Form 7230–4. This method will enable a single method of completing an automated version of the FAA Form 7230–4 while maintaining the unique program functionality capability of both CEDAR/NTML programs.* | Delete |

| OLD | NEW |
|---|---|
| **4–6–5. PREPARATION OF FAA FORM 7230–4** | **4–6–5. PREPARATION OF FAA FORM 7230–4** |
| **Title** through **g** ***NOTE*** | No Change |
| **h.** FAA Order 7210.632, Air Traffic Organization Occurrence Reporting, defines situations requiring a Mandatory Occurrence Report (MOR). Record MORs with the minimum detail necessary in order to identify the initiating incident (for example, unusual go–around, 3–hour tarmac delay) and how it was identified (for example, in–flight evaluation). | **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 and Oceanic facilities must use the CEDAR tool to record and disseminate MOR's. En Route and Oceanic facilities must also use CEDAR to document the resolutions of MOR's. | **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.** Terminal facilities and flight service stations may utilize an automated version of FAA Form 7230–4 or establish local forms and procedures for recording, disseminating, and documenting the resolution of MOR's. Local forms used for recording this information are considered supplements to FAA Form 7230'4 and must be filed with it. | **2. F**light 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. |

| OLD | NEW |
|---|---|
| **17–5–14. TARMAC DELAY OPERATIONS** | **17–5–14. TARMAC DELAY OPERATIONS** |
| **Title** through **b1(a)** | No Change |
| **(b)** Tower–only and tower/TRACON facilities must verbally notify the overlying facility and document the incident with pertinent information on FAA Form 7230–4 in CEDAR as a MOR "M"entry when: | **(b)** Tower–only and tower/TRACON facilities must verbally notify the overlying facility and document the incident with pertinent information on FAA Form 7230–4 in CEDAR when: |
| **b(b)(1)** and **b(b)(2)** | No Change |

**(c)** TRACONs must verbally notify the overlying ARTCC TMU and document the incident with pertinent information on FAA Form 7230−4 in CEDAR MOR "M"entry when:

**b(c)(1)** and **b(c)(2)**

**(d)** ARTCCs must verbally notify the ATCSCC and document the incident with pertinent information on FAA Form 7230−4 in CEDAR as a MOR "M"entry when:

**b1(d)(1)** through **b1(e)**

***NOTE−***
*The 7230−4 MOR "M" entry on CEDAR should be comprehensive and include pertinent information such as date, time, location of the occurrence, the identification of the aircraft involved, the time a tarmac delay taxi request was made, and other known information concerning movement of the aircraft. Data used during the review may include ASDE data, flight progress strips, voice replay, etc.*

**(c)** TRACONs must verbally notify the overlying ARTCC TMU and document the incident with pertinent information on FAA Form 7230−4 in CEDAR when:

No Change

**(d)** ARTCCs must verbally notify the ATCSCC and document the incident with pertinent information on FAA Form 7230−4 in CEDAR when:

No Change

***NOTE−***
*The **FAA Form** 7230−4 entry **in** CEDAR should be comprehensive and include pertinent information such as date, time, location of the occurrence, the identification of the aircraft involved, the time a tarmac delay taxi request was made, and other known information concerning movement of the aircraft. Data used during the review may include ASDE data, flight progress strips, voice replay, etc.*

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**1. PARAGRAPH NUMBER AND TITLE:** 6−5−1. CRITERIA

**2. BACKGROUND:** In order to move FAA Notices to Airmen towards ICAO compliance, the new NOTAM definition for EST (estimated) has been included in the AIM. For consistency, the new definition is being added to other orders and manuals where necessary. Therefore, where "EST" means something other than estimated, it must be defined.

**3. CHANGE:**

**6−5−1. CRITERIA**

**Title** through **g**

***FIG 6−5−1***
**Stored Flight Plan Program**

(4) Seven characters reflecting operating frequency with the letter "X" appearing in the days of operation and the letter "O" appearing in the days of nonoperation; e.g., XXXXXXO means the flight operates daily except Saturday. The frequency of operation should always be based on UTC; e.g., a flight proposed to depart at 2000 EST on Friday would be filed as a 0100Z Saturday operation.

**6−5−1. CRITERIA**

No Change

***FIG 6−5−1***
**Stored Flight Plan Program**

(4) Seven characters reflecting operating frequency with the letter "X" appearing in the days of operation and the letter "O" appearing in the days of nonoperation; e.g., XXXXXXO means the flight operates daily except Saturday. The frequency of operation should always be based on UTC; e.g., a flight proposed to depart at 2000 **Eastern Standard Time** on Friday would be filed as a 0100Z Saturday operation.

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**1. PARAGRAPH NUMBER AND TITLE:** 10–3–1. SIGMET AND PIREP HANDLING

**2. BACKGROUND:** Dissemination of PIREPs and other weather information as a means to improve weather forecasts, has been a topic of interest for the General Aviation Joint Steering Committee (GAJSC) since 2004. The Aircraft Owners and Pilots Association (AOPA) recently reported the weather–related accident rate for pilots encountering icing and the number of incidents of Visual Flight Rules (VFR) pilots encountering Instrument Meteorological Conditions (IMC) has remained largely the same over many years. Two previous studies by the GAJSC concur with AOPA's findings. A taskforce of FAA, industry and bargaining unit representatives has recommended changes in handling of weather information to improve dissemination of information that could impact air traffic control and/or aircraft operation.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **10–3–1. SIGMET AND PIREP HANDLING** | **10–3–1. DISSEMINATION OF WEATHER INFORMATION** |
| Facility air traffic managers must establish procedures for the prompt collection and dissemination of SIGMET, CWA, and PIREP information. These procedures must contain direction for a central source to be responsible for: | Facility air traffic managers must establish procedures for the prompt collection and dissemination of **weather information. The procedures must address SIGMET, AIRMET, CWA, PIREP and other known or observed weather that may affect aircraft safety.** These procedures must contain direction for a central source to be responsible for: |
| **a** | No Change |
| **b.** Reviewing SIGMETs and CWAs to determine the required distribution, and disseminating SIGMET, AIRMET and/or CWA information in accordance with the following: | **b.** Reviewing SIGMET**, AIRMET,** and CWA to determine the required distribution, and disseminating SIGMET, AIRMET and/or CWA information in accordance with the following: |
| ***NOTE–***<br>*Simply attempting to accelerate the movement of all weather data will not accomplish our objectives. Greater emphasis is being placed on screening and selective dissemination of weather data. Selective dissemination takes into account the need to alert pilots to significant weather reports in sufficient detail to assist them in making decisions pertinent to flight safety and to provide the information an ATC facility requires to promote the safe and efficient use of its airspace.* | No Change |
| **1.** Disseminate pertinent information from SIGMET or CWA to other terminal ATC facilities within your terminal area. | **1.** Disseminate pertinent information from SIGMET**, AIRMET,** or CWA to other terminal ATC facilities within your terminal area. |
| **2.** Disseminate selective SIGMET and CWA information on a need–to–know basis in accordance with the provisions of FAAO JO 7110.65, Paragraph 2–6–2, Hazardous Inflight Weather Advisory Service (HIWAS). | **2.** Disseminate selective SIGMET**, AIRMET,** and CWA information on a need–to–know basis in accordance with the provisions of FAAO JO 7110.65, Paragraph 2–6–2, Hazardous Inflight Weather Advisory Service (HIWAS). |

**1. PARAGRAPH NUMBER AND TITLE:** 10−3−10. MULTIPLE RUNWAY CROSSINGS

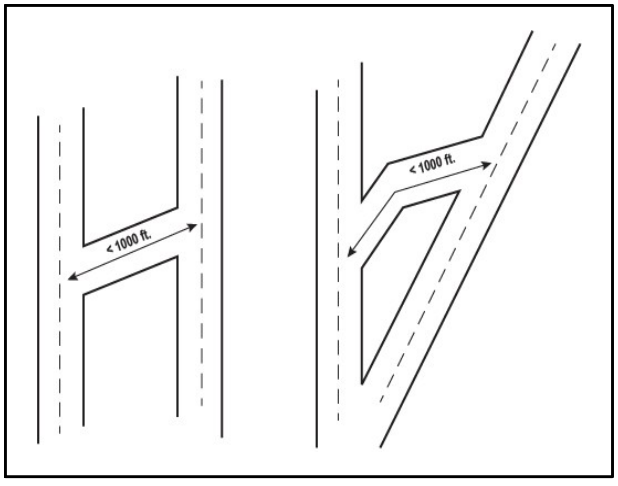
**2. BACKGROUND:** At the direction of the Independent Safety Assessment (ISA) Team Manager, the Risk Mitigation Monitoring Evaluation (RMME) Team conducted an evaluation of the procedural change to runway−to−runway crossing clearances and its associated Safety Risk Management Document (SRMD). The evaluation objective was to ensure the mitigations described in the SRMD were implemented, and the monitoring plan was executed. The RMME Team identified some deficiencies necessitating the issuance of three Corrective Action Requests (CARs). A Safety Risk Management Panel was established resulting in the change outlined here.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **10–3–10. MULTIPLE RUNWAY CROSSINGS** | **10–3–10. MULTIPLE RUNWAY CROSSINGS** |
| **a.** Air traffic managers at airports where the taxi route between runway centerlines is less than 1,000 feet must submit a request to the appropriate Terminal Services Director of Operations for approval before authorizing multiple runway crossings. | **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–***<br>*FAAO JO 7110.65, Para 3–7–2, Taxi and Ground Movement Operations* | No Change |

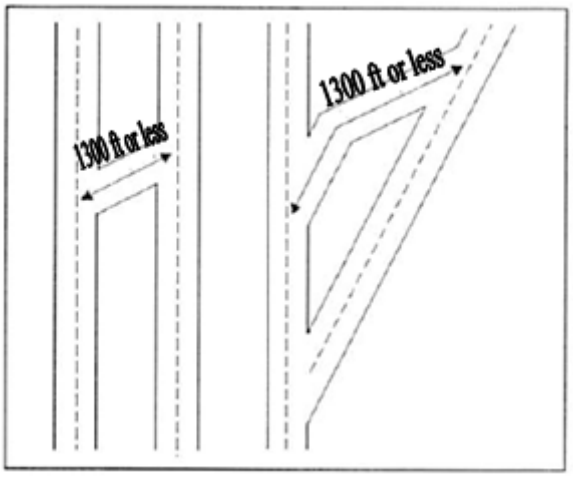
**OLD**

***FIG 10–3–1***
***Multiple Runway Crossings***



**NEW**

***FIG 10–3–1***
***Multiple Runway Crossings***




**b.** The request must address the specific locations where multiple runway crossings will be authorized. This must only include locations where the intervening taxi route is less than 1,000 feet between runway centerlines.

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

**d**

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

Add

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

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

No Change

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

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

**1. PARAGRAPH NUMBER AND TITLE:**
10−7−4. RESPONSIBILITIES
10−7−6. OPERATIONAL AARs
17−5−5. STATIC COORDINATION
17−5−13. ELECTRONIC SYSTEM IMPACT REPORTS
17−13−2. COORDINATION
17−24−4. RESPONSIBILITIES

**2. BACKGROUND:** In order to correctly align the current AJT structure and area responsibilities designated for tactical management, the change will replace all references to Manager, Tactical Operations (MTO) with Deputy Director of System Operations (DDSO). Due to the integration of space launches within the NAS, the ATCSCC requests space launch and reentry verbiage be added to JO 7210.3 Section 17−5−13 System Impact Reports. The ATCSCC disseminates all planned operations via System Impact Reports with as much advance notice as possible to NAS customers. The challenges associated with the growth and expansion of commercial space transportation into the NAS requires advance notification of launches to the wide variety of NAS users.

**3. CHANGE:**

**OLD**

**10−7−4. RESPONSIBILITIES**

**Title** through **a**

**b.** The Managers, Tactical Operations (MTOs) in collaboration with Terminal Facility Managers must:

**b1** through **b3**

***NOTE−***
*In the event consensus cannot be reached between facilities, the MTO will make the final determination.*

**c.** MTOs must ensure that the data is entered in the National Traffic Management Log (NTML) under the runway template.

**NEW**

**10−7−4. RESPONSIBILITIES**

No Change

**b.** The **Deputy Director of System Operations (DDSO)** in collaboration with Terminal Facility Managers must:

No Change

***NOTE−***
*In the event consensus cannot be reached between facilities, the **DDSO** will make the final determination.*

**c. DDSOs** must ensure that the data is entered in the National Traffic Management Log (NTML) under the runway template.

**OLD**

**10−7−6. OPERATIONAL AARs**

**a.** When using an airport primary runway configuration, the associated optimal AAR must be utilized. The MTOs must ensure that the responsible person at the Aviation System Performance Metrics (ASPM) airports document the runway information in the NTML.

**b1** through **b5**

These factors will be included in the facility log. The MTOs must ensure that the responsible person at the ASPM airports document the information in the NTML.

**NEW**

**10−7−6. OPERATIONAL AARs**

**a.** When using an airport primary runway configuration, the associated optimal AAR must be utilized. The **DDSOs** must ensure that the responsible person at the Aviation System Performance Metrics (ASPM) airports document the runway information in the NTML.

No Change

These factors will be included in the facility log. The **DDSOs** must ensure that the responsible person at the ASPM airports document the information in the NTML.

**OLD**

**17–5–5. STATIC COORDINATION**

**Title** through **a**

**b.** The TMO or overlying TMO, in conjunction with their ASPM facilities, must provide the following static data to their appropriate Manager of Tactical Operation (MTO) and ensure the accuracy of the information:

**b1** through **b3(f)**

**c.** The MTO must provide:

**NEW**

**17–5–5. STATIC COORDINATION**

No Change

**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:

No Change

**c.** The **DDSO** must provide:

**OLD**

**17–5–13. ELECTRONIC SYSTEM IMPACT REPORTS**

AT facilities must coordinate with their TMU or overlying TMU for developing an electronic system impact report (SIR) for all planned outages/projects/events that could cause a significant system impact, reduction in service, or reduction in capacity (for example, air shows, major sporting events, business conventions, runway closures, and procedural changes affecting terminals and/or ARTCCs). Technical Operations is responsible for reporting all unplanned outages that pertain to FAA equipment.

***NOTE–***
*Planned events/outages are construed to mean that the event or outage is scheduled in advance of the occurrence.*

**a.** The TMU must coordinate the operational impact the outage/project/event will cause with the MTO or designee, through their TMO. This includes, but is not limited to, reduction in AAR/ADR, anticipated TMIs, alternate missed approach procedures, and anticipated delays or any other significant impacts within the NAS.

**b.** To ensure the ATCSCC receives all planned events and outages that could have a significant impact on the NAS, the MTO/designee or the OSG must enter the impact data on the Strategic Events Coordination Web site at http://sec.faa.gov.

**c** and **d**

**e.** Field facilities, TMUs, TMOs, MTOs, the service center OSG, and the ATCSCC must ensure that SIRs:

**NEW**

**17–5–13. ELECTRONIC SYSTEM IMPACT REPORTS**

AT facilities must coordinate with their TMU or overlying TMU for developing an electronic system impact report (SIR) for all planned outages/projects/events that could cause a significant system impact, reduction in service, or reduction in capacity (for example, air shows, major sporting events, **space launch/reentry operations,** business conventions, runway closures, and procedural changes affecting terminals and/or ARTCCs). Technical Operations is responsible for reporting all unplanned outages that pertain to FAA equipment.

No Change

**a.** The TMU must coordinate the operational impact the outage/project/event will cause with the **DDSO** or designee, through their TMO. This includes, but is not limited to, reduction in AAR/ADR, anticipated TMIs, alternate missed approach procedures, and anticipated delays or any other significant impacts within the NAS.

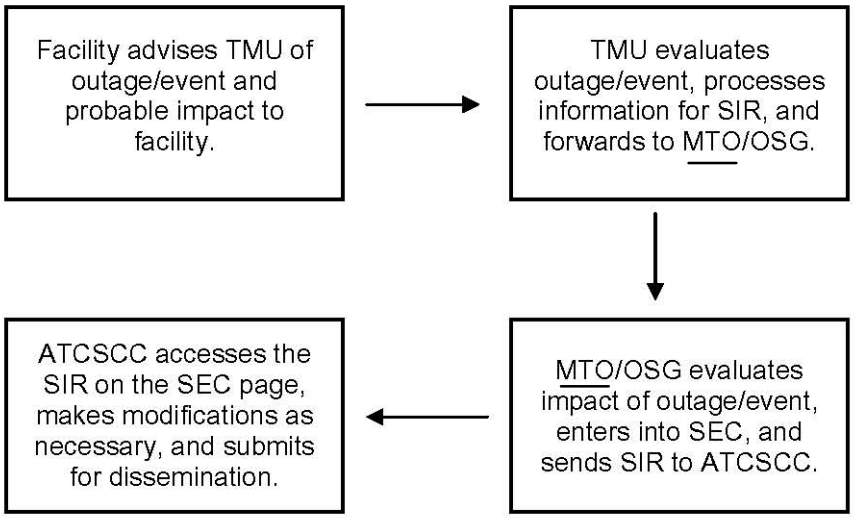
**b.** To ensure the ATCSCC receives all planned events and outages that could have a significant impact on the NAS, the **DDSO**/designee or the OSG must enter the impact data on the Strategic Events Coordination **website** at http://sec.faa.gov.

No Change

**e.** Field facilities, TMUs, TMOs, **DDSOs**, the service center OSG, and the ATCSCC must ensure that SIRs:

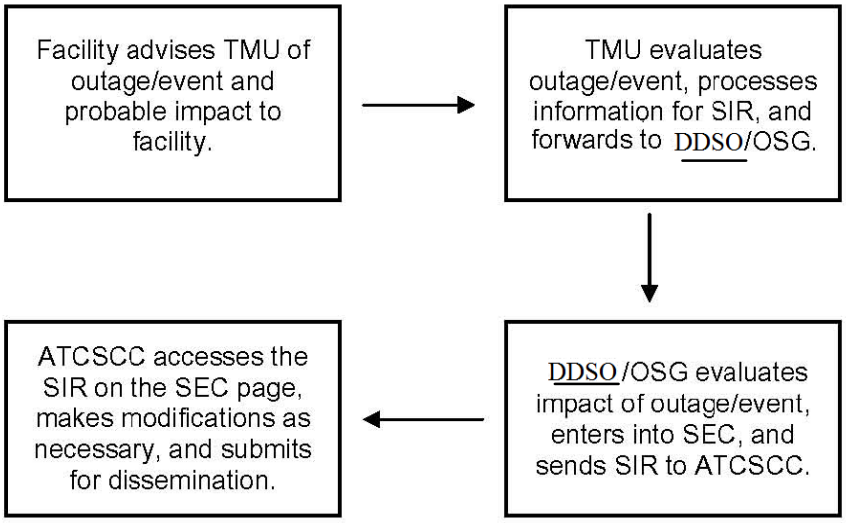
**OLD**

***FIG 17–5–1***
**Electronic SIR Process**




**NEW**

***FIG 17–5–1***
**Electronic SIR Process**



**OLD**

**17−13−2. COORDINATION**

Documentation to justify special procedures must be submitted by the facilities to the En Route and Oceanic Operations Service Area Office and Terminal Operations Area Office 90 days in advance, with a copy to the appropriate Manager, Tactical Operations. The service area office must review and forward the request to the ATCSCC for coordination and approval 60 days in advance.

**NEW**

**17−13−2. COORDINATION**

Documentation to justify special procedures must be submitted by the facilities to the En Route and Oceanic Operations Service Area Office and Terminal Operations Area Office 90 days in advance, with a copy to the appropriate **Deputy Director of System Operations (DDSO)**. The service area office must review and forward the request to the ATCSCC for coordination and approval 60 days in advance.

**OLD**

**17−24−4. RESPONSIBILITIES**

**Title** through **a1**

**2.** Submit a formal letter, in memorandum format, to the ATCSCC Procedures Office, through the regional MTO. The memorandum must include:

**a2(a)** through **a4**

**5.** Determine if the route test timeframe is adequate. A facility may be granted an extension of up to 90 days with the approval of the ATCSCC. Submit requests for extension through the MTO to the ATCSCC Procedures Office, with supporting documentation. Facilities requesting extensions exceeding 180 days must review and comply with FAA Order 1050.1, Policies and Procedures Considering Environmental Impacts, to ensure environmental studies are completed. Include the studies with your request.

**NEW**

**17−24−4. RESPONSIBILITIES**

No Change

**2.** Submit a formal letter, in memorandum format, to the ATCSCC Procedures Office, through the **DDSO**. The memorandum must include:

No Change

**5.** Determine if the route test timeframe is adequate. A facility may be granted an extension of up to 90 days with the approval of the ATCSCC. Submit requests for extension through the **DDSO** to the ATCSCC Procedures Office, with supporting documentation. Facilities requesting extensions exceeding 180 days must review and comply with FAA Order 1050.1, Policies and Procedures Considering Environmental Impacts, to ensure environmental studies are completed. Include the studies with your request.

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**1. PARAGRAPH NUMBER AND TITLE:**
17−16−1. GENERAL
17−16−2. RESPONSIBILITIES
17−16−3. DEVELOPMENT PROCEDURES
17−16−4. COORDINATION PROCEDURES
17−16−5. PROCESSING AND
PUBLICATION

**2. BACKGROUND:** Preferred IFR Routes were created to help expedite the movement of air traffic during heavy demand periods, and to reduce Traffic Management Initiatives as well as coordination.

**3. CHANGE:**

**OLD**

**17−16−1. GENERAL**

**NEW**

**17−16−1. GENERAL**

**a.** This section identifies responsibilities and establishes procedures for the development, revision, and cancellation of preferred IFR routes in the NAS. The objective of preferred routes is the expeditious movement of traffic during heavy demand periods and the reduction of TM initiatives and coordination. User acceptance will be greatly enhanced by the prompt cancellation of unnecessary routes and the prompt and thorough coordination of new or revised routes.

**b.** Preferred IFR routes should be established only when traffic density and safety makes such routes necessary for the expeditious movement of air traffic. Except for the short climb or descent segments between the terminal and the en route structure, preferred routes must be developed using designated airways/routes as depicted on en route charts. Preferred routes are normally established between two terminal areas, but routes may also be established between a terminal and an en route fix, an en route fix and a terminal or two en route fixes.

**c.** The impact of airspace actions on preferred IFR routes must be considered. Retention of the most user desirable route(s), consistent with TM requirements, must also be considered.

**d.** Comments concerning problems or recommendations to improve the preferred IFR route program are encouraged and should be forwarded to the ATCSCC.

**OLD**

**17–16–2. RESPONSIBILITIES**

**a.** ARTCCs must be responsible for:

**1.** Identifying, developing, coordinating, and establishing preferred routes, as needed, in accordance with the provisions of this section. The originating ARTCC is responsible for ensuring the accuracy of the submitted route (e.g., checking for typographical errors) and for route connectivity and compatibility with NAS processing.

**2.** Maintaining and verifying route validity and accuracy by establishing, revising, and canceling preferred routes as operational needs dictate.

**a.** This section identifies responsibilities and establishes procedures for the development, revision, and cancellation of **Preferred IFR Routes. These routes, as published in the Chart Supplement U.S., include Low Altitude, High Altitude, Tower En route Control (TEC), North American Routes (NAR), and both High and Low Single Direction Routes (HSD/LSD). The objective of Preferred IFR Routes is the expeditious movement of traffic during heavy demand periods and the reduction of TMIs and coordination.**

**b.** Preferred IFR **R**outes **must only** be established when traffic density and**/or** safety make such routes necessary for the expeditious movement of air traffic.

**c. Preferred IFR Routes must be developed in accordance with Paragraph 17–16–3, DEVELOPMENT PROCEDURES.**

Delete

**NEW**

**17–16–2. RESPONSIBILITIES**

**a.** ARTCCs **are** responsible for:

**1. Developing, revising, and deleting Preferred IFR Routes. The originating ARTCC is responsible for coordinating with all affected facilities, ensuring the accuracy of the submitted route(s), examining routes for operational impact, and ensuring compatibility with NAS processing.**

**2. At a minimum, reviewing all Preferred IFR Routes annually and revising or canceling routes as necessary.**

| | |
|---|---|
| **3.** Identifying a single office of responsibility for their preferred IFR routes program. This office must act as the office of primary responsibility (OPR) for the facility and must be the focal point for coordination with the appropriate En Route and Oceanic Operations Service Area Office. | **3.** Identifying a single **O**ffice of **Primary Responsibility (OPR) for their Preferred IFR Routes program. This office must be the focal point for coordination with affected FAA facilities and the ATCSCC.** |
| **b.** En Route and Oceanic Operations Service Area offices must be responsible for: | Delete |
| **1.** Reviewing proposed routes to ensure that NAVAID identifications, airway designations, route connectivity and fix names are correct. | Delete |
| **2.** Reviewing all preferred routes at least annually and revise or cancel routes as necessary. | Delete |
| **3.** Serving as the focal point for coordination with the ATCSCC and System Operations Airspace and Aeronautical Information Management. | Delete |
| **c.** The ATCSCC must be responsible for: | **b.** The ATCSCC **is** responsible for: |
| **1.** Managing the national preferred IFR routes program. | **1. Operating as the OPR at the National level** |
| **2.** Operating as the OPR at the national level. | **2. Reviewing and evaluating Preferred IFR Route submissions** |
| **3.** Providing operational review of submitted preferred routes to examine the routes for operational impact. | **3. Submitting approved Preferred IFR Routes to NFDC for publication** |
| **4.** Acting as the approving authority for preferred IFR routes. | **4. Providing feedback on unapproved routes to the submitting OPR** |
| d. The NFDC must be responsible for: | **Re–letter** as **c** |

| **OLD** | **NEW** |
|---|---|
| **17–16–3. DEVELOPMENT PROCEDURES** | **17–16–3. DEVELOPMENT PROCEDURES** |
| Routes and route segments must be defined by any combination of the following: | Delete |
| **a.** Type and number of the airway, jet route, or RNAV route (e.g., V43, J54). | Delete |
| **b.** NAVAID identifier, intersection name, or fix name codes (e.g., ARD, BELLE). | Delete |
| **c.** NAVAID radial/distance (e.g., ARD201113). | Delete |
| **d.** NAVAID radial (e.g., ARD201). | Delete |
| **e.** Portion of routes not necessary to comply with the preferred route objective should be contained within brackets [ ]. Any routing between the fixes inside the brackets is normally at the pilot's discretion. The first fix after the right –hand bracket is where the preferred portion of the route actually begins. | Delete |
| ***EXAMPLE–***<br>*[DFW GVE] GVE J37 J55 PVD V139 HTM BOS* | Delete |

| | |
|---|---|
| **f.** When developing or reviewing preferred routes, considerations should include: | Delete |
| **1.** Terminal/en route traffic flow patterns and traffic density. | Delete |
| **2.** Radar coverage. | Delete |
| **3.** Beginning and termination fixes of SIDs/STARs and correlation with the SID/STAR program. | Delete |
| **4.** North American Route (NAR) System. | Delete |
| **5.** Special use airspace. | Delete |
| **6.** Computer–adapted preferential arrival routes, preferential departure routes, and preferential departure/arrival routes. | Delete |
| **7.** Lead time requirements for publication in the AFD, DOD flip, en route high/low altitude charts, area charts, SID/STAR charts, instrument approach procedure charts, and other flight planning publications. | Delete |
| **8.** NAVAID identifiers and name codes must be used in preferred route descriptions, except that intersection/fix names must be spelled out in the AFD, pending assignment of five letter name codes. | Delete |
| **9.** NAVAID radials or radial distance fixes must not be used to avoid airway/jet route rule making actions. NAVAID radials are used only where necessary. Radial/distance fixes must be used only for expediency pending assignment of intersection or fix name code by the NFDC. Route descriptions in the AFD should be compatible with the computer description, except as previously specified. When it is necessary to use NAVAID radials or radial/distance fixes to describe direct route segments, use one of the following: | Delete |
| ***NOTE–***<br>*The originator is responsible for verifying computer adaptation and NAS compatibility before using the above techniques.* | Delete |
| **10.** All preferred IFR routes must have specified effective times of operation based on need. Effective times must be published in the AFD and, in the case of single direction routes, on en route charts as appropriate. | Delete |
| **11.** Low altitude preferred IFR routes must have inclusive altitudes. Minimum obstruction clearance altitude, minimum en route altitude, and minimum reception altitude must be considered when establishing inclusive altitudes. | Delete |

| | |
|---|---|
| **12.** Define points of transition from one airway/route structure to another by using NAVAIDs/fixes which are common to both structures and depicted on en route charts for both structures. When describing high altitude preferred routes, victor airways may be used to define climbing/descending segments provided that such usage does not exceed the service limitations of the NAVAID. | Delete |
| **13.** Low frequency non–directional beacons must not be used except when absolutely necessary or when international routes enter/depart the NAS (e.g., routes in Alaska or oceanic control areas). | Delete |
| **14.** Single–direction routes may be established in the high altitude stratum to enhance safety and expedite air traffic. The routes may begin or end at any fix within the en route structure and need not serve a specific terminal area. Single–direction routes serving terminal/en route needs must be depicted on en route charts and those routes serving a terminal area must be listed in the AFD and may also be depicted on en route charts. | Delete |
| | Add **a. Routes and route segments must be defined by any combination of the following:** |
| | Add **1. DPs/SIDs/STARs if applicable.** |
| | Add **2. NAVAID identifier, intersection name, fix name, RNAV Waypoint or Navigation Reference System Waypoints (NRS) (e.g., FUZ, ZEMMA, KK45G).** |
| | Add **3. Type and number of the airway (e.g., J87 M201 Q40 T295 V16).** |
| | Add **b. When establishing or amending Preferred IFR Routes the following rules must be applied:** |
| | Add **1. When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.** |
| | Add **2. When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).** |
| | Add **3. When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).** |
| | Add **4. The first route element following the origin must not be an airway (e.g., KDFW J4).** |

| | |
|---|---|
| Add | **5. The last route element prior to the destination must not be an airway (e.g., J35 KMSY).** |
| Add | **6. Inclusive altitudes must be used when describing a Low Altitude Preferred IFR Route.** |
| Add | **7. Low frequency non–directional beacons must not be used.** |
| Add | **c. Other considerations should include:** |
| Add | **1. Terminal/en route traffic flows** |
| Add | **2. Radar coverage** |
| Add | **3. SAA/SUA** |
| Add | **4. Adapted Arrival (AARs), Adapted Departure (ADRs) and Adapted Departure and Arrival Routes (ADARs)** |
| Add | **5. MEA, MOCA, and Minimum Reception Altitude (MRA) must be considered when establishing inclusive altitudes for Low Altitude routes** |
| Add | **6. When describing High Altitude preferred routes, victor airways may only be used to define climbing/descending segments, provided that such usage does not exceed the service limitations of the NAVAID** |
| Add | **7. Single direction routes may be established in the high altitude stratum to enhance safety and expedite air traffic. The routes may begin or end at any fix within the en route structure and need not serve a specific terminal area. Single direction routes serving terminal/en route needs must be depicted on en route charts** |

| **OLD** | **NEW** |
|---|---|
| **17–16–4. COORDINATION PROCEDURES** | **17–16–4. COORDINATION PROCEDURES** |
| **a.** General: The coordination process accomplishes two things. First, it informs users/facilities/Service Area offices that a preferred route is being established or revised and solicits input. Second, it provides users, facilities, service area offices, and publishers with timely information so that the necessary actions can be initiated and accomplished within established schedules. Except for editorial corrections, proposed preferred routes must be fully coordinated well in advance of planned publication dates. | Delete |
| **b.** User coordination: Users must be allowed at least 30 days to review and comment on proposed preferred routes. Coordination should be through: | Delete |
| **1.** Designated user representatives. | Delete |

| | |
|---|---|
| **2.** Designated organization or association representatives when users are members. | Delete |
| **3.** FAA/user meetings. | Delete |
| **4.** The ATCSCC for user organizations at the national level. | Delete |
| **c.** Interfacility coordination: | Delete |
| **1.** The originating ARTCC must be defined as follows: | Delete |
| **(a)** New routes: The ARTCC identifying the need to establish a new preferred IFR route. | Delete |
| **(b)** Existing routes: The ARTCC identifying the need to change or delete a preferred IFR route. | Delete |
| **(c)** When establishment, change, or deletion of a preferred route is proposed by a facility other than an ARTCC, the requesting facility must coordinate with the parent ARTCC. The parent ARTCC must assume responsibility as the originator. | Delete |
| **2.** The originating ARTCC must: | Delete |
| **(a)** Coordinate with all affected ATC facilities and users at the local level. | Delete |
| **(b)** Forward the completed data to the En Route and Oceanic Operations Service Area office and Terminal Operations Service Area office. | Delete |
| **3.** Each Service Area office must: | Delete |
| **(a)** Resolve differences between its ATC facilities. | Delete |
| **(b)** Coordinate with the users at the Service Area office level. | Delete |
| **(c)** Forward the completed data to the ATCSCC. | Delete |
| **d.** The originating Service Area office must forward unresolvable controversial proposals, with all comments and objections, to ATCSCC for resolution. Proposals which are approved will be sent for processing. Disapprovals will be returned to the Service Area office originating the proposal. | Delete |
| **1.** The ATCSCC must: | Delete |
| **(a)** Complete coordination with the users at the national level. | Delete |
| **(b)** After the 30 day coordination forward completed preferred IFR routes to System Operations Airspace and Aeronautical Information Management for publication. | Delete |
| | Add **a. Interfacility Coordination** |
| | Add **1. The originating ARTCC is defined as follows:** |

| | |
|---|---|
| Add | **(a) New Routes: The ARTCC identifying the need to establish a new Preferred IFR Route.** |
| Add | **(b) Existing Routes: The ARTCC identifying the need to amend or delete a Preferred IFR Route.** |
| Add | **(c) When establishing, amending, or deleting a Preferred IFR Route is proposed by a facility other than an ARTCC, the requesting facility must coordinate with the parent ARTCC. The overlying ARTCC must assume responsibility as the originator.** |
| Add | **2. The originating ARTCC must:** |
| Add | **(a) Coordinate with all affected ATC facilities.** |
| Add | **(b) Upon completion of the coordination process, submit data to the ATCSCC Point of Contact (POC).** |
| Add | **3. The ATCSCC must:** |
| Add | **(a) Resolve differences between ATC facilities.** |
| Add | **(b) Review for accuracy and forward the completed data to the NFDC for publication.** |

| OLD | NEW |
|---|---|
| **17−16−5. PROCESSING AND PUBLICATION** | **17−16−5. PROCESSING AND PUBLICATION** |
| **a.** The airspace information cutoff dates listed in the AFD are the last date that preferred routes may be received by the NFDC to assure publication on the planned effective date. The following procedures must apply: | **a.** The airspace information cutoff date listed in the **Chart Supplement U.S. is** the **latest** date route information may be received by NFDC to ensure publication on the planned effective date. The following procedures must apply: |
| **1.** Plan "effective" dates to coincide with the issue date of the AFD. | **1.** Plan **effective** dates to coincide with the **Chart Supplement U.S.** publication dates. |
| **2.** Send approved preferred routes to the ATCSCC at least 15 weeks prior to the desired effective date. Include the desired effective date. Effective dates must coincide with the 56−daycharting cycle due to airway changes affecting preferred routes. | **2. ARTCCs must submit completed data to the ATCSCC at least 21 days prior to the desired publication cutoff date. The data must be submitted via the NFDC Preferred IFR Routes submission form. The ATCSCC will provide the OPR with this form.** |
| **3.** ATCSCC must forward approved preferred routes to arrive at the NFDC at least 9 weeks prior to the desired effective date. | **3. The** ATCSCC must forward **the completed data to** the NFDC **on or before** the desired **publication cutoff** date. |
| ***NOTE−*** *The importance of adequate lead time cannot be overemphasized. Experience has shown that early submission for publication reduces errors, workload, and printing costs. In the case of major or lengthy changes, additional lead time may be necessary. Facilities should coordinate with the ATCSCC to determine if the requested effective date can be met.* | Delete |

| | |
|---|---|
| **b.** Preferred routes must be submitted to the NFDC on standard 8.5 by 11 (inches) white bond paper, camera ready, to be included in the NFDD. To facilitate editing and processing, it is recommended that the preferred route text be submitted as an electronic mail attachment. The specific format for preferred routes is noted in examples 1, 2, and 3 below. For those submissions not covered by example, the originator should contact NFDC for guidance. | Delete |
| **c.** The following three examples show the formats for the submission of preferred IFR route data. The first shows the addition of new routes, the second shows the modification of existing routes, and the third shows the deletion of existing routes. Compliance is mandatory to eliminate the possibility of error in publication. | Delete |

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**1. PARAGRAPH NUMBER AND TITLE:**
17−18−4. RESPONSIBILITIES
17−18−5. CDR DATA FORMAT
17−18−6. PROCEDURES

**2. BACKGROUND:** The CDR program is a combination of coded air traffic routing and refined coordination procedures designed to mitigate the potential adverse impact to the FAA and system stakeholders during periods of severe weather or other events that impact the NAS.

**3. CHANGE:**

| **OLD** | **NEW** |
|---|---|
| **17−18−4. RESPONSIBILITIES** | **17−18−4. RESPONSIBILITIES** |
| **Title** through **a3** | No Change |
| **4.** Notify activation/deactivation of CDR usage through the ATCSCC Advisory System. | **4. Issue an advisory when facilities implement or terminate use of CDRs.** |
| **b.** The National Flight Data Center must: | **b. NFDC** must: |
| **1.** Forward to the ATCSCC Point of Contact (POC) any changes to published navigational database, (i.e., SIDs/STARs, NAVAIDs, preferred routes, etc.) contained in the National Flight Data Digest(s) (NFDD) that are effective for the subsequent chart date. This data must be provided at least 45 days before the chart date. | **1.** Forward to the ATCSCC POC any changes to the published navigational data base (i.e., SIDs/STARs, NAVAIDs, **Fixes, RNAV Waypoints, etc.**) contained in the NFDD(s) that are effective for the subsequent chart date. This data must be provided at least 45 days prior to the chart date. |
| **b2** through **c3** | No Change |
| **4.** Ensure CDRs in the national database are limited to 20 per city pair. | Delete |

**5.** Notify the originating Center when a CDR must be modified to accommodate changes within your airspace, e.g., traffic flow changes, airway realignments, and navigational aid designator changes. Exceptions–revisions to Standard Terminal Arrival (STAR) Procedure and Standard Instrument Departure (SID) Procedure numbers will be entered at the ATCSCC.

**6.** Ensure EAS Stereo Flight Plans utilized for CDRs and CDRs published in the operational database are identical.

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

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

Add

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

**4.** Notify the originating Center when a CDR must be modified to accommodate changes within their airspace, **such as** traffic flow changes, airway realignments, **and/or** navigational aid designator changes. **Exceptions: Revisions to STAR/SID/DP numbers will be entered into the CDR database by the ATCSCC via Global Modification.**

**5.** Ensure **ERAM CDR data is identical to data published in the CDR operational database.**

**6.** Report unusable, inaccurate, or unsatisfactory CDRs to the ATCSCC POC**.** Reports must include the CDR **Route Code,** specific description of the impact and if appropriate, suggestion for modification.

**7. When requested, facilitate the coordination necessary for the use of abbreviated clearances.**

**8. Notify the ATCSCC when implementing and terminating use of CDRs.**

**d. T**erminal facilities must coordinate with their **overlying** ARTCC for all matters pertaining to CDRs.

**OLD**

**17–18–5. CDR DATA FORMAT**

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

**a.** Eight–Character Designator. All facilities must use the eight character naming convention. The eight character name must comply as follows:

**a1** through **a3**

***NOTE–***
*O and I must not be used to preclude confusion with numbers zero and one. (Examples of the naming convention are: ATLLAX9N, BOSLAX01, and EWRSFOGR).*

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

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

**NEW**

**17–18–5. CDR DATA FORMAT**

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

**a. Utilize the eight character naming convention as follows:**

No Change

***NOTE–***
*O and I must not be used to preclude confusion with **the** numbers zero and one.*

**b. Although the use of RNAV procedures is preferred when developing or amending CDRs, ARTCCs may also include conventional CDRs in their CDR database.**

Delete

| | |
|---|---|
| ***NOTE–***<br>*Examples of acceptable procedure numbers are: LGC8, OTT5, and SWEED5. Examples of unacceptable procedure numbers are: MINKS#, MINKS STAR, MINKS%.* | Delete |
| **d.** All CDR route strings must tie into normal arrival routings into the destination airport. | **c.** All CDR route strings must tie into normal arrival routings into the destination airport. |
| **e.** Approved database format: | **d. CDRs must be developed and/or amended in accordance with the following:** |
| **1.** Route string data must include only uppercase characters (A–Z) or numbers with spaces separating each element (J48 ODF MACEY2 ATL). | **1. Routes and route segments must be defined by any combination of the following:** |
| Add | **(a) DPs/SIDs/STARs if applicable**. |
| Add | **(b) NAVAID identifier, intersection name, fix name, RNAV Waypoint or NRS Waypoint (e.g., FUZ, ZEMMA, KK45G).** |
| Add | **(c) Type and number of the airway (e.g., J87 M201 Q40 T295 V16).** |
| **2.** No dots, dashes, asterisks, plus signs, or placeholders are to be included, because most flight planning systems will not accept them. | **2. When establishing or amending CDRs the following rules must be applied:** |
| Add | **(a) When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.** |
| Add | **(b) When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).** |
| Add | **(c) When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).** |
| Add | **(d) The first route element following the origin must not be an airway (e.g., KDFW J4).** |
| Add | **(e) The last route element prior to the destination must not be an airway (e.g., J35 KMSY).** |
| **3.** No leading zeroes are permitted in victor or jet airways (J12 is permitted, J012 is not). | Delete |

**f.** CDRs for each location must be published via the national CDR database. Updates to the CDR database will coincide with the normal 56–day chart updates. There are two segments of the CDR database. The operational database is a read–only record of all the current CDRs. The staging database is read–only to users but amendable by FAA facilities. The staging database replaces the operational database on each chart date.

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

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

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

**2.** 30–35 Days Prior to the Chart Date. During this period, the staging database is checked for errors. Any errors are forwarded to the POC designated at each facility for correction. If the error cannot be corrected immediately, the route involved will be deleted from the database for that cycle. Once the error is corrected, the route may be reentered for a future date.

***NOTE–***
*30 days prior to the Chart Date the staging database is available to FAA and users for downloading or updating of their files.*

**3.** On each chart date, the staging database replaces the operational database and a mirror copy becomes the new staging database. The staging database is available for changes until it is locked 35 days prior to the next chart date, and the cycle starts over.

**e.** CDRs for each location must be published via the **Route Management Tool (RMT) CDR database.** Updates to the database will coincide with the normal 56–day chart updates. There are two components of the CDR database. The operational database is a read–only record of all the current CDRs. **The staging database is amendable by ARTCC POCs. The staging database replaces the operational database on each chart date.**

**f. CDR changes must be entered into the staging database at least 36 days prior to the chart date. The staging database is closed to changes 35 days prior to the chart date.**

Delete

***NOTE–***
*The timeline for the CDR staging database is available **in RMT under the Help tab, Show Chart Dates. The status of the staging database is provided at each login to the CDR database.***

**g.** 30–35 **d**ays **p**rior to the Chart Date. During this period, the staging database is checked for errors. Any errors are forwarded to the POC designated at each facility for correction. If the error cannot be corrected immediately, the route involved will be deleted from the database for that cycle. Once the error is corrected, the route may be reentered for a future date.

No Change

**h.** On each chart date, the staging database replaces the operational database and a mirror copy becomes the new staging database. The staging database is available for changes until it is locked 35 days prior to the next chart date, and the cycle starts over.

| OLD | NEW |
|---|---|
| **17–18–6. PROCEDURES** | Delete |
| **a.** Facilities must notify ATCSCC when implementing and terminating CDRs. | Delete |
| **b.** The ATCSCC must issue an advisory when facilities are implementing or terminating CDRs. | Delete |
| **c.** Facilities must make real–time reports of unusable or inaccurate CDRs through the ATCSCC for follow–up by the ATCSCC POC. | Delete |

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**1. PARAGRAPH NUMBER AND TITLE:**
17–21–3. DEFINITION
17–21–4. RESPONSIBILITIES
17–21–5. NATIONAL PLAYBOOK DATA FORMAT
17–21–6. PROCEDURES

**2. BACKGROUND:** The National Playbook is a collection of Severe Weather Avoidance Plan (SWAP) routes that have been pre–validated and coordinated with impacted ARTCCs. The purpose is to aid in expediting route coordination during periods of constraint in the NAS.

**3. CHANGE:**

| OLD | NEW |
|---|---|
| **17–21–3. DEFINITION** | **17–21–3. DEFINITION** |
| The National Playbook is a traffic management tool developed to give the ATCSCC, other FAA facilities, and customers a common product for various route scenarios. The purpose of the National Playbook is to aid in expediting route coordination during those periods of constraint on the NAS. The National Playbook contains common scenarios that occur during each severe weather season, and each includes the resource or flow impacted, facilities included, and specific routes for each facility involved. These routes may include any combination of the following NAS elements: Navigation Reference System (NRS) waypoints, RNAV waypoints, RNAV fixes, NAVAIDS, DPs, and STARs. The playbooks are validated by the individual facilities involved in that scenario. The National Playbook is available on the ATCSCC Web site at http://www.atcscc.faa.gov/Operations/operations.html. | The National Playbook is a traffic management tool developed to give the ATCSCC, FAA facilities, and **industry** a common product for various route scenarios. The purpose of the National Playbook is to aid in expediting route coordination during periods of constraint **in** the NAS. The National Playbook contains common scenarios that occur during each severe weather season, and each includes the **airspace** or flow impacted, facilities included, and specific routes for each facility involved. The National Playbook is available on the ATCSCC **website** at: http://www.atcscc.faa.gov/Operations/operations.html. |

| OLD | NEW |
|---|---|
| **17–21–4. RESPONSIBILITIES** | **17–21–4. RESPONSIBILITIES** |
| **Title** through **a1** | No Change |
| **2.** Operate as OPI at the national level. | **2.** Operate as **the** OPI at the **N**ational **L**evel. |

| | |
|---|---|
| **3.** As a minimum, conduct a yearly review of the National Playbook routes and procedures. | **3. Identify and coordinate the development/modification/deletion of National Playbook routes as needed.** |
| **4.** Facilitate the validation process for additions, modifications, updates, and corrections. | **4. Evaluate and coordinate, as appropriate, National Playbook development/modification/deletion requests received from the ARTCCs.** |
| **5.** Coordinate the activation/deactivation of National Playbooks. | **5. Conduct a yearly review of the National Playbook routes and procedures.** |
| **6.** Maintain a listing of all National Playbook routes on the ATCSCC web page. | **6. The ATCSCC will hold telcons/meetings to facilitate the coordination of playbooks on an as needed basis.** |
| **b.** The NFDC must forward to the ATCSCC point of contact (POC) any changes to published navigational database, (i.e., SIDs/STARs, NAVAIDs, preferred routes, etc.) contained in the National Flight Data Digests (NFDD) that are effective for the subsequent chart date. This data must be provided at least 45 days before the chart date. | **b.** The NFDC must forward to the ATCSCC any changes to the published navigational database, (i.e.**, DPs**/SIDs/STARs, NAVAIDs, **Fixes, Waypoints,** etc.) contained in the NFDD**(s)** that are effective for the subsequent chart date. The data must be provided at least 45 days **prior to** the chart date. |
| **c.** The En Route and Oceanic Operations Service Area and Terminal Operations Service Area offices must: | Delete |
| **1.** Ensure facilities submit data as required. | Delete |
| **2.** Resolve discrepancies and issues identified. | Delete |
| **3.** Submit suggestions for improving the process, when applicable. | Delete |
| **d.** The ARTCCs must: | **c.** The ARTCCs must: |
| **1.** Identify, develop, and coordinate National Playbook routes as needed, in accordance with this section. | **1. Forward to the ATCSCC any request to develop/modify/delete National Playbook routes in accordance with this section. Requests must include the National Playbook designation and a description of the desired additions/deletions/modifications.** |
| **2.** Supply a POC for the ATCSCC to contact regarding National Playbook routes. | No Change |
| **3.** Participate in the validation process of National Playbook routes impacting their facility. The validation of a National Playbook route is considered complete when all facilities affected by that route have confirmed the route as acceptable. Validation may also be accomplished by responding through the Route Management Tool (RMT), where it is available. | **3. Participate in the coordination process of National Playbook routes impacting their facility.** |
| **4.** Report unusable, inaccurate, or unsatisfactory route data contained in the National Playbook to the ATCSCC Strategic Operations office. Reports must include the National Playbook designation and specific description of the data error and, if appropriate, suggestion for modification. | Delete |

**5.** Recommend improvements in the process, if applicable.

Delete

**e.** Terminal Facilities must coordinate with their parent ARTCC for all matters pertaining to the National Playbook.

**d.** Terminal facilities must coordinate with their **overlying** ARTCC for all matters pertaining to the National Playbook.

**OLD**

**17–21–5. NATIONAL PLAYBOOK DATA FORMAT**

**a.** All ARTCCs must develop and update the National Playbook in accordance with the following:

**1.** All National Playbook routes that specify the use of an arrival and departure procedure must have that procedure number (SID/STAR) included as part of the route string.

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

Add

Add

Add

**2.** Approved database format:

**(a)** Route string data must include only uppercase characters (A – Z) or numbers with spaces separating each element (i.e., J48 ODF MACEY2 ATL.)

**(b)** No dots, dashes, asterisks, plus signs, or placeholders are to be included.

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

Add

Add

**NEW**

**17–21–5. NATIONAL PLAYBOOK DATA FORMAT**

**a. Playbooks must be developed and/or amended** in accordance with the following:

**1. Routes and route segments must be defined by any combination of the following:**

Delete

**(a) STAR and associated STAR number.**

**(b) NAVAID identifier, intersection name, fix name, RNAV Waypoint, or NRS Waypoints (e.g., FUZ, ZEMMA, KK45G).**

**(c) Type and number of the airway (e.g., J87 M201 Q40 T295 V16.**

**2. When establishing or amending Playbook Routes the following rules must be applied:**

**(a) When including a DP/SID/STAR use a published transition fix or the common fix for the procedure.**

**(b) When describing an airway include a published entry and exit point (e.g., CVE J87 BILEE).**

**(c) When connecting two airways, a published fix common to both airways and that is depicted on en route charts must be included (e.g., ADM J21 ACT J50). If there is not a fix common to both airways, include a published exit point for the first airway and a published entrance point for the second airway (e.g., OCS J206 NLSEN CYS J148).**

**(d) The first route element following the origin must not be an airway (e.g., KDFW J4).**

**(e) The last route element prior to the destination must not be an airway (e.g., J35 KMSY).**

| | |
|---|---|
| Add | **(f) Low frequency non−directional beacons must not be used.** |
| **b.** National Playbook routes will be published on the ATCSCC Web site. Updates to the National Playbook will coincide with the normal 56−day chart updates. | **b. The** National Playbook will be published on the ATCSCC site. Updates to the National Playbook will coincide with the normal 56−day chart updates. |
| **c.** Changes to the National Playbook must be processed in accordance with the following timelines: | **c. All changes to the National Playbook require coordination with affected facilities. Therefore, changes must be submitted to the ATCSCC at least 60 days prior to the desired publication date to be eligible for inclusion in the update.** |
| **1.** All changes require validation with affected facilities and therefore must be submitted to the ATCSCC POC at least 35 days prior to each chart date. | Delete |
| **2.** All National Playbook additions, deletions, and significant route modifications require coordination with FAA facilities and customers, and must be coordinated with the ATCSCC and validated at least 35 days prior to each chart date to be eligible for inclusion in that update. | Delete |
| ***NOTE−***<br>***1****. The ATCSCC will conduct an annual meeting or telecon to coordinate the National Playbook additions, deletions, and significant route modifications. This coordination will include FAA facilities and customers.*<br>***2****. Seven days prior to the chart date, a preview version of the National Playbook will be made available to FAA facilities via the ATCSCC Web site.* | Delete |

| **OLD** | **NEW** |
|---|---|
| **17−21−6. PROCEDURES** | **17−21−6. IMPLEMENTATION PROCEDURES** |
| **a.** National Playbook routes are considered active when the ATCSCC has completed coordination with all impacted facilities. An ATCSCC numbered advisory will be sent by the ATCSCC describing the route being used. | **a. Implementation of National Playbook routes may be initiated by the ATCSCC or requested by the TMU at an ARTCC.** |
| **b.** National Playbook routes may be modified tactically to achieve an operational advantage. The ATCSCC will coordinate these changes verbally with all impacted facilities and ensure that the published advisory contains the modifications. | **b. The ATCSCC will coordinate the activation/deactivation of National Playbook routes. National Playbook routes are considered active when the ATCSCC has completed coordination with all impacted facilities. A numbered advisory will be sent by the ATCSCC describing the route(s) being used.** |
| **c.** Facilities must monitor and provide real−time reports of the impact and continued need for the use of the National Playbook routes through the ATCSCC. | **c. The ATCSCC will display current National Playbook advisories on the ATCSCC web page.** |

| | |
|---|---|
| **d.** A National Playbook route is no longer active when the expiration time stated on the advisory has been reached without an extension coordinated or a decision to cancel the route has been reached. If the route is cancelled prior to the expiration time, the ATCSCC will coordinate with all impacted facilities and publish an advisory stating that the route has been cancelled. | **d. National Playbook routes may be modified tactically to achieve an operational advantage. The ATCSCC will coordinate these changes verbally with all impacted facilities and ensure that the published advisory contains the modifications.** |
| **e.** If there are circumstances that prevent the use of a National Playbook route, then the air traffic facility involved must inform the ATCSCC. It is the responsibility of the impacted facility and the ATCSCC to ensure the route is not utilized until the circumstances preventing its use are corrected or the route is deleted. | **e. Facilities must monitor and provide real–time reports of the impact and continued need for the use of the National Playbook routes through the ATCSCC.** |
| Add | **f. A National Playbook route is no longer active when the expiration time stated on the advisory has been reached without an extension coordinated or a decision to cancel the route has been reached. If the route is cancelled prior to the expiration time, the ATCSCC will coordinate with all impacted facilities and publish an advisory stating that the route has been cancelled.** |
| Add | **g. If there are circumstances that prevent the use of a National Playbook route, then the air traffic facility involved must inform the ATCSCC. It is the responsibility of the impacted facility and the ATCSCC to ensure the route is not utilized until the circumstances preventing its use are corrected or the route is deleted.** |

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**1. PARAGRAPH NUMBER AND TITLE:** Appendix 3. Air Carrier Aircraft for Air Traffic Activity Operations Count

**2. BACKGROUND:** This appendix defines an air carrier aircraft and lists the aircraft type designators used in the criteria of an air carrier aircraft.

**3. CHANGE:**

| **OLD** | **NEW** |
|---|---|
| **Appendix 3. Air Carrier Aircraft for Air Traffic Activity Operations Count** | **Appendix 3. Air Carrier Aircraft for Air Traffic Activity Operations Count** |
| AT72 – ATR–72–200 | AT72 – ATR–72–201**, ATR–72–202** |
| AT73 – ATR–72–210 | AT73 – ATR–72–211**, ATR–72–212** |
| AT75 – ATR–72–210A, ATR–72–500 | AT75 – ATR–72–212**A (500), ATR–72–500** |
| AT76 – ATR–72–600 | AT76 – **ATR–72–212A (600),** ATR–72–600 |
| B744 – 747–400 (international, winglets), YAL–1 | B744 – 747–400 (international, winglets) |
| Add | **B778 – 777–8** |

| | |
|---|---|
| Add | **B779 – 777–9** |
| E170 – 170, 175, ERJ–170 | E170 – 170, ERJ–170**–100** |
| Add | **E75L – 175, ERJ–170–200 (long wing)** |
| Add | **E75S – 175, ERJ–170–200 (short wing)** |
| Add | **I114 – I1–114** |
| Add | **MRJ9 – MRJ–70** |
| Add | **MRJ9 – MRJ–90** |