

# U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

Air Traffic Organization Policy

JO 7210.3Z CHG 3

**Effective Date:** 04/27/2017

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 Retain this transmittal until superseded by a new basic order.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.

Orígínal Sígned By: Elízabeth L. Ray

Elizabeth L. Ray Vice President, Mission Support Services Air Traffic Organization

Date: March 8, 2017

# Explanation of Changes Change 3

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

a. 1–2–4. ABBREVIATIONS 10–3–14. GO–AROUND/MISSED APPROACH 10–6–10. RUNWAY STATUS LIGHTS (RWSL)

#### 11–8–1. SYSTEM OPERATION 11–8–4. RAIN CONFIGURATION 11–8–5. LIMITED CONFIGURATION

This change incorporates Airport Surface Surveillance Capability (ASSC) terminology into paragraphs 1-2-4, 10-3-14, and 10-6-10. It incorporates Airport Surface Detection Equipment System (ASDE) in paragraphs 11-8-1 and 11-8-4. This change also adds "false" to "persistent alerts" to paragraph 11-8-5.

#### b. 2–1–2. FACILITY STANDARD OPERATING PROCEDURES DIRECTIVE 4–1–6. PRELIMINARY ENVIRONMEN-TAL REVIEW

This change adds a requirement in paragraph 2–1–2 to include procedural noise commitments resulting from the National Environmental Policy Act (NEPA) processes or other formal/informal agreements in the facility SOP. This change also updates and clarifies language relating to environmental review and references procedures contained FAA Order JO 7400.2, Procedures for Handling Airspace Matters, paragraph 4–1–6.

#### c. 2–1–13. AIRCRAFT IDENTIFICATION-PROBLEMS

This change requires facilities to report and record occurrences of ADS–B alerts to aircraft operators. The procedures for doing so are identical to those currently in use for reporting and recording similar sounding aircraft call signs.

#### d. 2–6–14. WORK ASSIGNMENTS AFTER SUSPENSION OR TERMINATION OF TRAINING

This new paragraph incorporates policy for work assignments after suspension or termination of training to ensure consistency across the National Airspace System.

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

This change removes the requirement for a facility's permanent beacon target location to be included in a facility directive at Digital Terminal Automated System (DTAS) locations, and also updates the Technical Operations System Management Office (SMO) manager to Technical Operations System Support Center (SSC) manager.

#### f. 4-2-2. PILOT EDUCATION

This change significantly modifies paragraph 4-2-2 to delete references to the discontinued Operation Takeoff and adds subparagraphs, notes, and references about the current optional Operation Rain Check program to better support pilot/controller outreach efforts.

#### g. 4-3-1. LETTERS OF AGREEMENT

This change removes the ambiguity of the LOA development guidance by defining that LOAs are developed to provide clarity of operational procedures at the facility and are completed per the determination of the air traffic manager.

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

This change provides a reference that explains the Runway Condition Assessment Matrix and removes "fair" as a reportable braking action condition, replacing it with "medium." This change also adds two new categories to reportable braking action ("good to medium" and "medium to poor").

# i. 6–7–12. TRANSFER OF POSITION RESPONSIBILITY

This change clarifies the previous updates to the legacy language.

#### j. 8–1–4. FLIGHT PLAN DROP INTERVAL 17–5–4. RESPONSIBILITIES

This change adds paragraph 8–1–4 to standardize flight plan drop intervals at air route traffic control centers (ARTCC). This change also modifies paragraph 17–5–4 which requires the Air Traffic Control System Command Center (ATCSCC) to update the its advisory page when notified by an ARTCC that flight plan drop times have been amended.

#### k. 17-2-4. FIELD FACILITIES

This change incorporates existing guidance for Traffic Management Units (TMU) planning telecons for weather impacting routes adjacent to Special Activity Airspace (SAA).

 I. Chapter 17, Section 7. Flow Evaluation
Area (FEA) and Flow Constrained Area (FCA) 17–7–3. RESPONSIBILITIES 17–7–4. PROCEDURES 17–7–5. ARTCC TO ARTCC
COORDINATION 17–7–8. INTEGRATED COLLABORA-TIVE REROUTING (ICR)

This change updates ICR procedures. The new procedures simplify ICR process implementation by eliminating the requirement for an ICR planning (PLN) advisory and eliminating the need for issuing a public flow evaluation area (FEA). This

change cancels and incorporates FAA Notice JO 7210.899 dated September 26, 2016.

#### m. 17–23–2. DEFINITION 17–23–3. RESPONSIBILITIES 17–23–4. PROCEDURES

This change updates the definition of Contingency Plan Support System (CPSS) and its location at http://www.atcscc.faa.gov/ois/. Paragraphs 17–23–3 and 17–23–4 have been updated in accordance with FAA Order JO 1900.47E, Air Traffic Control Operational Contingency Plans.

# n. 20–1–1. SYSTEM OPERATIONS SECURITY MISSION

This change is part of the overall revision of Chapter 20 which updates the organizational missions of ATO System Operations Security. The most notable change is the addition of the Special Operations Security Organizational Mission, which is absent from the original publication of Chapter 20.

#### o. Editorial Changes

Editorial changes were made to paragraphs 3-6-2, 3-8-5, 10-3-14, 13-4-6, 17-6-4, 17-16-3, 17-19-4, and 10-1-7. In addition, ERAM terminology was updated in paragraph 4-3-8.

#### p. Entire Publication

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

# PAGE CONTROL CHART Change 3

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# Part 1. BASIC

# Chapter 1. General

# Section 1. Introduction

### 1-1-1. PURPOSE OF THIS ORDER

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

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

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

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

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

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

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

## 1-1-2. AUDIENCE

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

## 1-1-3. WHERE TO FIND THIS ORDER

This order is available on the FAA Web site at http://faa.gov/air\_traffic/publications and http://em-ployees.faa.gov/tools\_resources/orders\_notices/.

## 1-1-4. WHAT THIS ORDER CANCELS

FAA Order 7210.3Y, Facility Operation and Administration, dated April 3, 2014, and all changes to it are canceled.

#### 1-1-5. EXPLANATION OF CHANGES

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

# 1–1–6. SUBMISSION CUTOFF AND EFFECTIVE DATES

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

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

# 1-1-7. DELIVERY DATES

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

# 1–1–8. RECOMMENDATIONS FOR PROCEDURAL CHANGES

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

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

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

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

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

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

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

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

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

*TBL 1-1-1* Military Headquarters

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

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

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

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

## 1-1-12. DISTRIBUTION

This order is distributed to selected offices in Washington headquarters, Service Area offices, regional offices, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, all air traffic field facilities, international aviation field offices, and interested aviation public.

# 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
ACD0	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	
ASSC	Airport Surface Surveillance Capability	
AT	Air Traffic	
ATA	Air traffic assistant	
ATC	Air traffic control	
ATCAA	Air traffic control assigned airspace	
ATCRBS	Air traffic control radar beacon system	
ATCS	Air traffic control specialist	
ATCSCC	David J. Hurley Air Traffic Control System Command Center	
ATCT	Airport traffic control tower	
ATIS	Automatic terminal information service	
ATM	Air Traffic Manager	
ATO	Air Traffic Organization	
АТОР	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	
СА	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	

Abbreviation	Meaning
СОВ	Close of business
CONUS	Continental/Contiguous/Conterminous United States
СОО	Chief Operating Officer
СОТС	Computer operator terminal console
CPDLC	Controller Pilot Data Link Communications
CTRD	Certified Tower Radar Display
СТА	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
	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
FUIA	Freedom of information act
F000	For Unicial Use Unly
FPI	Filgni plan
FPL	Full performance level

# **Chapter 2. Administration of Facilities**

# Section 1. General

#### 2–1–1. INTERREGIONAL REQUIREMENTS

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

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

# 2-1-2. FACILITY STANDARD OPERATING PROCEDURES DIRECTIVE

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

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

**b.** Review and, if necessary, update SOPs when new or revised instrument flight procedures are published or pertinent national procedures are implemented or changed.

#### NOTE-

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

#### REFERENCE-

FAAO JO 7210.3, Para 2-1-6, Checking Accuracy of Published Data FAAO JO 7210.3, Para 4-1-1, Correspondence Standards FAAO JO 7210.3, Para 4-3-3, Developing LOA FAAO JO 7210.3, Para 4-3-6, Annual Review/Revisions

**c.** Ensure noise abatement procedure commitments are included in the SOP or other facility directives and identified as such.

#### NOTE-

Noise abatement procedure commitments are the result of the NEPA process or other formal/informal agreements.

#### 2-1-3. POSITION/SECTOR BINDERS

Air traffic managers must develop and maintain binders for each position/sector within the facility. In addition to the above, this must include a supervisor position binder. The supervisor position binder should address procedures which will enhance controller performance in areas such as scanning, coordination, use of proper phraseology, and proficiency/remedial training. The binders must contain as a minimum, but not be limited to, the information listed in the En Route, Terminal, Flight Service Option Specific Guidelines. The binder must contain information that is necessary for the safe and efficient operation of each position/sector, including examples and formats where appropriate. A copy of each binder must be in a location easily accessible by each position/sector. Data may be stored and displayed via electronic means on Information Display Systems (IDS) where available. Air traffic managers in terminal facilities may determine the need for individual binders for associated/coordinator positions.

## 2-1-4. REFERENCE FILES

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

#### NOTE-

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

#### 2-1-5. RELEASE OF INFORMATION

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

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

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

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

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

(a) The agency employee must positively identify the requestor by name, organization or

affiliation, and point-of-contact (including a telephone call-back number).

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

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

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

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

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

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

5. If it cannot be ascertained whether the purpose of the request, if from an individual, is in furtherance of aviation safety or efficiency, or if from a United States Government agency or law enforcement organization, is for an official purpose, the agency employee must contact facility management for guidance. If local management is unable to determine whether or not a request should be granted, the official should contact the Quality Assurance Investigator on-call in Washington headquarters. En Route and Oceanic Operations, Terminal Operations, and Flight Services Operations Area Offices may elect to process after-hour requests through the appropriate Service Area office Quality Assurance on-call specialist.
### 2–1–6. CHECKING ACCURACY OF PUBLISHED DATA

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

### NOTE-

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

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

*a. https://www.faa.gov/air\_traffic/flight\_info/aer onav/ procedures* 

**b.** http://aerochart.faa.gov

**3.** Information on aeronautical data changes is available at the National Flight Data Center (NFDC) web portal of which a subscription should be requested, Check NFDD and Transmittal Letters: https://nfdc.faa.gov

4. Notice to Airman information may be viewed at: https://notams.aim.faa.gov/notamSear ch/disclaimer.html

### REFERENCE-

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

FAAO JO 7210.3, Para 2-1-3, Position/Sector Binders FAAO JO 7210.3, Para 2-2-11, Personnel Briefings Regarding Orders, Published Aeronautical Data and Flight Procedures FAAO JO 7210.3, Para 4-3-3, Developing LOA FAAO JO 7210.3, Para 4-3-6, Annual Review/Revisions FAAO JO 7930.2, Notices to Airmen FAAO JO 8260.19, Flight Procedures and Airspace FAAO JO 8260.3, United States Standard for Terminal Instrument Procedures (TERPS) FAAO JO 8260.43, Flight Procedures Management Program

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

Facilities must develop and maintain guidelines to provide continuity of required services during planned (for example, radar out for maintenance, frequency out for repair) or unplanned outages (for example, power failures, natural disasters). **a.** For planned outages, facilities must maintain a checklist that provides guidance on approving shutdowns. This checklist should be maintained at an operational manager's position (for example, OMIC desk, FLM desk). Facilities should consider the following for inclusion on the checklist:

**1.** Traffic volume and complexity.

2. Weather.

**3.** Alternate means of providing air traffic services.

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

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

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

### 2-1-8. HANDLING BOMB THREAT INCIDENTS

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

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

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

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

**d.** If the decision is made to evacuate and air safety is not a factor, immediately release nonessential personnel, instruct aircraft to contact the appropriate facility designated in the facility contingency plan, advise adjacent facilities as appropriate (ARTCCs should advise the ATCSCC of pending evacuation), broadcast that the facility is being evacuated, and evacuate the building.

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

**f.** The evacuation plans will also include recall procedures.

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

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

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

1. Increase security forces and measures.

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

**3.** Room or area monitors can be assigned to "look over" the area at frequent intervals for suspicious objects. In this regard, air traffic personnel

assigned temporary administrative duties would be given building warden responsibilities.

REFERENCE-

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

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

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

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

### 2-1-9. HANDLING MANPADS INCIDENTS

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

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

**REFERENCE**– FAAO JO 7110.65, Para 2–9–3, Content. FAAO JO 7110.65, Para 10–2–13, MANPADS Alert.

FAAO JO 7610.4, Para 16–1–3, Responsibilities.c. Air traffic managers must ensure the Operations

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

- **1.** Call sign (if known);
- 2. Type aircraft (if known);
- 3. Coordinated Universal time;
- 4. Position/location of event;
- 5. Altitude (if known); and

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

### 2-1-10. AIRPORT EMERGENCY PLANS

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

### NOTE-

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

### REFERENCE-

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

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

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

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

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

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

(a) The FAA specialists on duty.

(b) The pilot of the aircraft concerned.

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

(d) A representative of the airport management.

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

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

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

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

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

### NOTE-

Airport management is responsible for notifying other agencies or personnel.

### REFERENCE-

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

### 2–1–11. EXPLOSIVES DETECTION K–9 TEAMS

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

**a.** The facility will relay the pilot's request to the FAA Washington Operations Center, AEO-100,

telephone: commercial (202) 267–3333; ETN 521–0111; or DSN 851–3750 providing the aircraft's identification and position.

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

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

### 2-1-12. INTERSECTION TAKEOFFS

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

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

### NOTE-

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

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

### EXAMPLE-

/NO TKOFF/

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

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

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

#### NOTE-

PROBLEMS

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

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

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

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

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

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

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

(a) Date/time of occurrence.

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

- (c) Call signs involved in the occurrence.
- (d) Date occurrence is reported by facility.
- (e) Office/person that facility contacted.

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

**1.** Scheduled air carrier aircraft:

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

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

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

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

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

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

(a) Date/time of occurrence.

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

- (c) Call signs involved in the occurrence.
- (d) Date occurrence is reported by facility.
- (e) Office/person that facility contacted.

### 2-1-14. 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 coordinatorin-charge (STMCIC), operations supervisor-in-(OSIC), charge 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.

### 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 Air Traffic 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. 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/nonradar 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.

### 2–6–14. WORK ASSIGNMENTS AFTER SUSPENSION OR TERMINATION OF TRAINING

**a.** At the discretion of the Air Traffic Manager, a developmental/CPC-IT/TMC-IT/NTMS-IT/FPL-IT whose on-the-job training has been suspended may be assigned to work the positions on which he/she is certified.

**b.** A developmental/CPC-IT/TMC-IT/NTMS-IT/FPL-IT whose training has been terminated, must only be assigned positions that do not issue control instructions.

### Section 6. Radar Use

### 3–6–1. COMMISSIONING RADAR FACILITIES

a. Electronic Commissioning:

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

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

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

**b.** Operational Implementation:

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

2. Only one phase of service should be implemented at a time. A period of 30 to 60 days should elapse between the implementation of subsequent phases. For example, ARTCCs may initiate en route service on specific routes or within specified areas; terminals may implement either arrival or departure service 30 to 60 days prior to expanding to other areas/services. Advertised services must be implemented on an all-aircraft basis and must be accomplished in accordance with FAAO JO 7110.65, Air Traffic Control. If services are initially implemented on a "part-time" basis, the daily hours (preferably 8 hours or longer) must be specified in the aeronautical information message and the advertised services maintained during those hours. The extent and types of service will be dependent upon operational requirements, personnel, and equipment capabilities. The schedule of radar service implementation must be jointly determined by the facility air traffic manager and the Service Area office. Service Area office approval is required prior to the implementation of each phase of radar service.

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

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

### NOTE-

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

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

(c) Positioning and spacing transitioning aircraft.

c. Notification Procedures:

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

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

(b) Proposed or effective date.

(c) Specific airspace affected.

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

### EXAMPLE-

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

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

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

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

### 3-6-2. ATC SURVEILLANCE SOURCE USE

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

**1.** Surveillance of aircraft to assure the effective use of airspace.

**2.** Vectoring aircraft to provide separation and radar navigation.

3. Vectoring aircraft to final approach.

**4.** Vectoring IFR aircraft to the airport of intended landing.

5. Monitoring instrument approaches.

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

7. Providing assistance to pilots of aircraft in distress.

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

**1.** Conducting precision or surveillance approaches.

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

### NOTE-

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

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

### 3–6–3. ATC RADAR BEACON SYSTEM DECODER CONTROL BOX CHECKS

### NOTE-

Not Applicable to STARS.

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

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

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

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

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

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

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

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

### 3-6-5. RADAR TARGET SIZING

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

### NOTE-

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

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

### NOTE-

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

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

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

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

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

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

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

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

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

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

1. Weather/Radar Gate normal setting.

2. Position startup weather level settings.

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

### 3-6-7. PREARRANGED COORDINATION

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

coordination/penetration of another operational position's airspace. Prior to implementing a P-ACP, negotiations should be accomplished locally and all affected personnel must be thoroughly trained in the application of the procedures.

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

**1.** Requirement that the following are fully operational.

(a) Terminal- ATTS

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

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

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

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

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

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

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

### REFERENCE-

FAAO JO 7110.65, Para 5-5-4, Minima, subparagraph f.

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

REFERENCE-

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

### 3-6-8. OPERATIONAL GUIDANCE FOR FUSION

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

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

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

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

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

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

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

### Section 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 flightchecked radar coverage in the sector concerned. They are based on obstruction clearance criteria and controlled airspace only. It is the responsibility of the controller to determine that a target return is adequate for radar control purposes.

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

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

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

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

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

1. Designated mountainous terrain must be evaluated for precipitous terrain characteristics and the associated negative effects. Facility managers must use FAA Order 8260.3, paragraph 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 Operartions.

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

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

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

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

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

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

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

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

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

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

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

### 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://www.faa.gov/air\_traffic/flight\_info/aeronav/ Aero\_Data/ 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.



### 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.

## Chapter 4. Correspondence, Conferences, Records, and Reports

### Section 1. General

### 4-1-1. CORRESPONDENCE STANDARDS

Prepare and issue facility correspondence in accordance with:

**a.** FAAO 1360.16, FAA Correspondence Policy, which prescribes basic correspondence standards.

**b.** FAAO 1320.1, FAA Directives System, which prescribes the procedures for issuing direction and work information.

### 4-1-2. SIGNATURE

Correspondence addressed to organizations, businesses, or individuals outside FAA must be signed "Air Traffic Manager, Reno Flight Service Station," "Air Traffic Manager, Washington Center," or "Air Traffic Manager, Denver Tower." The authorized contractions for the facility names may be used on correspondence addressed to any component of FAA; e.g., "Air Traffic Manager, Denver FSS."

### 4-1-3. SERVICE AREA REVIEW

Forward copies of facility correspondence concerning facility operating procedures to the Service Area office; e.g., letter to airmen normally sent to pilots, airline companies, military commands or bases, and fixed-base operators. This correspondence must be reviewed and approved at the discretion of the Service Area office prior to distribution. When information sent to users includes a change in operating procedures, facilities must establish an effective date for implementing these operating procedures at least 30 days after the date of distribution unless otherwise authorized by the Service Area office.

### 4–1–4. CORRESPONDENCE REGARDING POLICY/PROCEDURES

Air traffic managers may handle correspondence dealing with matters involving operating policy or procedures directly with other agencies or services. If the matter is not within the jurisdiction of the air traffic manager, acknowledge the correspondence and state that the answer will be prepared and forwarded by the Service Area office. Forward all pertinent background material to the Service Area office with recommendations for further handling.

### 4-1-5. IRREGULAR OPERATION

If information or correspondence is received from an aviation agency indicating an irregular operation (exclusive of policy items) by a facility, the air traffic manager must investigate and reply to the agency within 3 administrative work days of receipt. If the air traffic manager cannot investigate and prepare a reply within 3 days, or if the matter deals with policy items outside his/her purview, he/she must forward a letter of acknowledgment. Send copies of all correspondence, instructions issued to prevent recurrence, and any information on any disciplinary action taken to the service area office.

### 4–1–6. PRELIMINARY ENVIRONMENTAL REVIEW

In coordination with the Service Area Air Traffic Environmental Protection Specialist (EPS), facilities must conduct and document a preliminary environmental review of new or revised ATC procedures in accordance with FAA Order 1050.1, Environmental Impacts: Policies and Procedures and FAA Order JO 7400.2, Procedures for Handling Airspace Matters, Chapter 32, Environmental Matters, concurrent with initial airspace planning requirements. The facility's review requires the documentation necessary to determine whether the proposed procedure(s) warrant(s) a Categorical Exclusion, an Environmental Assessment, or an Environmental Impact Statement.

**a.** Particular attention must be made to determine whether air traffic procedures, either new or modified, will potentially impact noise sensitive areas as defined in FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

**b.** For air traffic modifications to procedures at or above 3,000 feet (above ground level), the current

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appropriate air traffic screening and modeling tools should be applied in accordance with FAA Order JO 7400.2, Paragraphs 32–2–2, Environmental Review of Procedures, and 32–3–3, Environmental Screening and Modeling Tools.

**c.** Modifications to procedures below 3,000 feet (above ground level) require additional analysis. Facilities must contact the EPS for further guidance.

d. If the preliminary environmental review

indicates that an Environmental Assessment or an Environmental Impact Statement is not required, the documentation must be retained in the facility with copies of all documentation forwarded to the EPS. The directive resulting from new or modified air traffic procedures must contain a statement that a preliminary environmental review has been completed and that a Categorical Exclusion, if applicable, as demonstrated through appropriate analysis by an EPS, has been approved by the responsible official.

### Section 2. User Coordination/Conferences/Publicity

### 4-2-1. LOCAL CONFERENCES

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

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

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

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

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

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

a. Operation Rain Check must.

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

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

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

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

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

### REFERENCE-

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

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

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

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

5. Facility Managers should:

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

### NOTE-

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

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

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

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

(1) Runway incursion/excursion prevention.

(2) Airport signage and markings.

(3) Local runway safety related issues.

(4) Pilot/controller communications and read backs.

### NOTE-

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

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

c. Facility sponsored pilot/controller forums.

### 4-2-3. PUBLISHED ITEMS

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

### 4–2–4. COORDINATION OF ATC PROCEDURES

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

**b.** Procedures which will have a significant effect on the users will be coordinated with them by means

of correspondence, individual contacts, or a

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presentation at a meeting for the purpose of soliciting individual comments. When deemed appropriate, the advice and viewpoint of individual users will be obtained prior to the development of a proposed change. When safety is not a factor, a minimum of 45 days should be afforded those responding to a request for comments.

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

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

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

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

### Section 3. Letters of Agreement (LOA)

### 4-3-1. LETTERS OF AGREEMENT

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

**a.** Supplement established operational/procedural instructions.

**b.** Define responsibilities and coordination requirements.

c. Establish or standardize operating methods.

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

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

f. Establish responsibilities for:

**1.** Operating airport equipment.

2. Providing emergency services.

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

4. Reporting operating limitations and hazards.

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

#### REFERENCE-

FAAO JO 7110.65, Para 1–1–10, Constraints Governing Supplements and Procedural Deviations.

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

**i.** Describe airspace areas required to segregate special operations.

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

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

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

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

3. At those airports where vehicles not equipped with two-way radio are permitted by the airport management or other appropriate authority to enter or cross the defined movement area at specific locations without approval from the tower, enter into an LOA with the airport management, or other appropriate authority, specifying the conditions for such operations and include the clause as follows: "The airport owner/operator covenants and expressly agrees that with regard to any liability which may arise from the operation within (area/areas), that party must be solely and exclusively liable for the negligence of its own agents, servants, and/or employees, in accordance with applicable law, and that neither party looks to the other to save or hold it harmless for the consequences of any negligence on the part of one of its own agents, servants, and/or employees."

### 4-3-2. APPROPRIATE SUBJECTS

Examples of subjects of LOAs are:

- a. Between ARTCCs:
  - 1. Radar handoff procedures.
  - **2.** Interfacility coordination procedures.

**3.** Delegation of responsibility for IFR control jurisdiction.

- **b.** Between ATCTs:
  - **1.** Tower en route control service.
  - **2.** Interfacility coordination procedures.

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

- **d.** Between an ARTCC and an ATCT:
  - 1. Approach control service.
  - 2. Interfacility coordination procedures.
  - 3. Tower/center en route control service.

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

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

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

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

- 1. Authorization for separation services.
- **2.** Interfacility coordination procedures.
- **3.** Opposite direction operations procedures.

#### REFERENCE-

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

**i.** Between an ARTCC and another government agency:

**1.** Interfacility coordination for control of ADC aircraft.

**2.** Delegation of responsibility for approach control services.

**3.** MTR procedures.

**j.** Between a tower and another government agency:

**1.** Simulated flameout procedures.

2. Control of helicopter SVFR flights.

3. Operation of aircraft–arresting barriers.

4. MTR procedures.

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

1. Airport emergency service.

2. Operation of airport lighting.

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

#### REFERENCE-

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

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

### NOTE-

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

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

#### REFERENCE-

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

**I.** Between a tower and/or FSS and an airport manager/aircraft operator at airports upon which the tower is located but the FSS is not: Reporting airport runway conditions.
aircraft enters controller C's airspace and after observing that controller C has accepted the transfer of radar identification.

**2.** Transfer of radar identification and altitude control:

### EXAMPLE-

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

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

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

### EXAMPLE-

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

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

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

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

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

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

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

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

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

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

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

**2.** When an unplanned EDST outage occurs, sectors must post and maintain flight progress strips in accordance with FAAO JO 7110.65, Air Traffic Control, requirements for a non-EDST environment, except as otherwise permitted by facility directive.

### NOTE-

**1.** A full transition to strips may not be necessary based on the duration of the outage. Outages of short duration may allow continued use of the EDST data while strips are prepared for use in the event that the outage continues.

**2.** A "snapshot" of EDST flight data at the time of the outage will be available to the sector team. Although the data will not be updated and will become stale, it may be used to assist the sector team while reestablishing the support of strips.

**3.** Any failure recovery action that will result in the automatic clearing of the EDST data on a position's display must be approved by the Operations Manager.

d. Degraded Conditions.

1. In the event that EDST is operational, but alert data may be affected due to an associated equipment malfunction, the National Operations Manager (NOM) must notify the Operations Manager who must in turn notify Operations Supervisors. Each Operations Supervisor must ensure that each sector team in their area of specialization is cognizant of the potential for degradation.

2. When the associated equipment malfunction is corrected, the NOM must notify the Operations Manager who must in turn notify Operations Supervisors. Each Operations Supervisor must ensure that each sector team in their area of specialization is cognizant that the source of possible degradation has been corrected.

## 6-7-8. RESTRICTIONS INVENTORY AND EVALUATION

**a.** Facilities must identify responsibilities and establish procedures for the creation and maintenance of a facility restriction inventory. Facility plans should include identification and cataloging each air traffic restriction, by type, purpose, and frequency/ duration in effect.

**b.** Facilities must create a plan and conduct ongoing evaluations on the need to relax or remove restrictions not warranted during EDST operations.

This must include EDST impact on ability to relax/remove restrictions and identification of dependencies between ability to remove restrictions and automation capabilities/ limitations.

**c.** Submit annually to the Vice President of En Route and Oceanic Services, an Evaluation Report on facility restriction relaxation/removal related to EDST.

**d.** Prior to implementation of restriction changes each ARTCC must:

**1.** Coordinate with any affected ATC facility.

**2.** Coordinate with the ATCSCC, as appropriate.

3. Inform individual air carriers, as appropriate.

### 6-7-9. TRAFFIC COUNTS AND DELAY REPORTING

**a.** Automated counts of traffic activities are the preferred methods.

**b.** Adherence to all applicable delay reporting directives shall continue while EDST is operational.

**c.** Delay information, must be recorded on available flight progress strips, on facility approved forms, or via the automated delay reporting features for aircraft in hold. Facility directives must detail the procedures for collecting and reporting this information to the ATCSCC.

### 6–7–10. COMPUTER DATA RETENTION

Follow the guidelines detailed in this order to retain EDST recorded data.

### 6–7–11. WAIVER TO INTERIM ALTITUDE REQUIREMENTS

**a.** If a facility directive has been issued to waive the mandatory computer entry of interim altitudes, controllers and supervisors in any affected area and adjacent areas or facilities must be informed of the resulting potential for misleading conflict probe alert data.

**b.** Each facility should strongly consider the benefits of conflict probe in evaluating any current or future waiver for data entry of interim altitudes. Conflict probe accuracy in assigning alert priorities for surrounding sectors, including those in adjacent ERAM facilities, are dependent upon the subject sector's entry/update of interim altitudes.

## 6-7-12. TRANSFER OF POSITION RESPONSIBILITY

Each facility must ensure that pertinent EDST information is integrated into any Position Relief briefing list, whether manual or electronic.

### 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.)

### 8-1-4. FLIGHT PLAN DROP INTERVAL

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

### 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.)

	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.	ОМ	Operations Manager			
15.	OS	Operations Supervisor			
16.	PAR	Precision Approach Radar			
17.	STMCIC	Supervisory Traffic Management Coordinator-in-Charge			

#### TBL 10-1-1 Operating Position Designators

**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 2–6–6, 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:

- **1.** Runway status (CLOSED/INACTIVE)
- 2. Runway crossing

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

- 4. Land and Hold Short Operations (LAHSO)
- 5. Line Up and Wait (LUAW)
- **6.** Landing clearance

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

### NOTE-

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

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

#### REFERENCE-

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

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

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

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

2. The use of the cab coordinator in runway crossing procedures must have restraints to guard against unanticipated actions by the local controller to prevent traffic conflicts. Coordinators must not

approve runway crossings in front of aircraft on the runway awaiting takeoff without first coordinating with the local controller. Similar restraints should be included with regard to landing aircraft; e.g., cutoff points that ensure the runway is clear before landing aircraft arrive over the threshold. Based on a direct knowledge of the local controller's instant traffic situation, the cab coordinator may authorize ground control to conduct an operation across an active runway. The cab coordinator must ensure the timeliness of all such operations and initiate any necessary action to prevent runway crossing incidents. When not absolutely certain of local control's traffic, the cab coordinator may still effectively function as a communications link between the local controller and the ground controller.

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

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

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

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

exit the landing runway, in order to taxi clear of the runway.

### NOTE-

This directive is only required at facilities where an aircraft exiting the runway must enter another taxiway/runway/ramp area, other than the one used to exit the landing runway, in order to taxi clear of the runway.

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

### Each ATM:

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

### NOTE-

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

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

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

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

**d.** Must ensure that a facility directive includes procedures for the mandatory use of an approved memory aid that indicates the status of the runway (CLOSED/INACTIVE).

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

### NOTE-

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

REFERENCE-

FAAO JO 7110.65, Para 3-3-1, Landing Area Condition FAAO JO 7110.65, Para 3-3-2, Closed/Unsafe Runway Information FAAO JO 7110.65, Para 4-7-12, Airport Conditions FAAO JO 7210.3, Para 4-7-3, System Impact Reports FAAO JO 7210.3, Para 10-1-7, Use of Active Runways FAAO JO 7210.3, Para 17-5-13, Electronic System Impact Reports

### 10–1–9. FLIGHT PROGRESS STRIP USAGE

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

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

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

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

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

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

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

### 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 FAA Order JO 7110.65, Air Traffic Control, para 2–6–2, PIREP Solicitation and Dissemination.

**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 FAA Order JO 7110.65, Paragraph 2–6–6, 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 4/27/17

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 710.65, 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 7210.3, Para 10-4-8b4(b) FAAO JO 7110.308, Para 6b1(d), Para 6c2(i)

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

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

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

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

### NOTE-

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

a. Arrival Departure Window (ADW)

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

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

#### REFERENCE-

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

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

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

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

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

### NOTE-

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

### 10–3–15. 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.

**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.

**I.** 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.)

FSFO having jurisdiction over the area must be notified of the operational status of the ALS.

(g) When required to meet local atmospheric, topographic, or twilight conditions, prepare a facility directive specifying the intensity settings for the ALS and forward a copy to the FSDO.

c. At airports with air traffic control towers equipped with airport lighting control panels that do not provide direct indication of airport lighting intensities, the ATM, with the airport operator, must annually review and compare the preset selection settings configured in the tower lighting control system to verify that they comply with FAA requirements.

### 10-6-5. VISUAL APPROACH SLOPE INDICATOR (VASI) SYSTEMS

**a.** There are three basic VASI configurations: VASI-2, VASI-4, and VASI-12. Two additional configurations were developed for use with long-bodied aircraft by adding a third bar to either the VASI-4 or the VASI-12. These configurations are referred to as VASI-6 and VASI-16.

**b.** The basic FAA standard for VASI systems permit independent operation by means of a photoelectric device. This system has no remote monitor and no on-off control feature. It is intended for continuous operation.

**c.** Other VASI systems in use include the following:

1. The basic VASI as described in subpara b, except at locations where the system was installed with an on-off remote switch in the control tower. If an on-off switch is provided, it is intended that the VASI be operated on a continuous basis when the runway it serves is in use. Airport operators at some locations may request the facility air traffic manager to operate this system only during certain hours and/or conditions. When this occurs, facility air traffic managers must contact the Terminal Operations Service Area Office for guidance.

### NOTE-

When VASI systems are installed under the FAA's Airport Improvement Program, the sponsor may negotiate a letter of agreement with the regional Airports Division for a part-time VASI operation. Terminal Operations Service Area Offices should consult with the regional Airports Division on such matters. 2. Systems that are operated remotely from the control tower may be either two-step or three-step. It is intended that these systems be operated on a continuous basis when the runway they serve is in use.

**3.** Systems with steep descent profiles intended for STOL operations may be operated on an individual aircraft basis or as determined by the facility air traffic manager dependent upon the frequency of use.

**d.** The basic FAA standard VASI is not provided with a remote status indicator. At locations where a VASI remote status indicator is installed, specialists must notify air traffic when a malfunction is indicated or reported. The VASI should not be turned off nor a NOTAM issued unless the Technical Operations technician advises it is inoperative or if it is obvious that it is inoperative. In the event the technician advises there is a one side operating condition at locations with a VASI on both sides of a runway, the system must remain in operation and NOTAM indicating partial operations issued.

### 10–6–6. PRECISION APPROACH PATH INDICATOR (PAPI) SYSTEMS

**a.** The basic FAA standard for PAPI systems permit independent operation by means of a photoelectric device. This system has no remote monitor and no on–off control feature. It is intended for continuous operation.

**b.** Other PAPI systems in use include the following:

1. The basic PAPI system as described in subpara a, except at locations where the system was installed with an on-off remote switch in the control tower. If an on-off switch is provided, it is intended that the PAPI be operated on a continuous basis when the runway it serves is in use. Airport operators at some locations may request the facility air traffic manager to operate this system only during certain hours and/or conditions. When this occurs, facility air traffic managers must contact the Terminal Operations Service Area office for guidance.

2. Systems that are operated remotely from the control tower may be five-step. It is intended that these systems be operated on a continuous basis when the runway they serve is in use.

### NOTE-

When PAPI systems are installed under the FAA's Airport Improvement Program, the sponsor may negotiate a letter of agreement with the regional Airports Division for a part-time PAPI operation. Terminal Operations Service Area offices should consult with the regional Airports Division on such matters.

### 10-6-7. RUNWAY AND TAXIWAY LIGHTS

When required, prepare a facility directive specifying local procedures for the operation of Runway End Identifier Lights (REIL), High Speed Turnoff Lights, or Runway Centerline and Touchdown Zone Light Systems (RCLS TDZL), and forward a copy to the FSDO.

### 10-6-8. RUNWAY FLOODLIGHTS

Where runway floodlights are installed, local procedures must be established for their operation.

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These must provide that they be turned off when an aircraft is required to taxi toward the lights and they may be blinding to the pilot. Also, that they must be operated as requested by a pilot for his/her operation.

### 10–6–9. RUNWAY EDGE LIGHTS ASSOCIATED WITH MEDIUM APPROACH LIGHT SYSTEM/RUNWAY ALIGNMENT INDICATOR LIGHTS

Two MALS/RAIL installations associated with runway edge lights are available. One is a two step brightness MALS and a one step brightness RAIL. The other is a three step brightness MALS and a three step brightness RAIL. The associations with runway edge step settings are shown in the following table. Facility air traffic managers must coordinate with the Technical Operations SMO sector to determine which of the two has been installed and issue a facility directive informing facility personnel. (For intensity settings see TBL 10–6–1.)

TBL 10-6-1 MALSR Step Intensity Settings

Runway	Edge Lights	Two Step MALS/One Step RAIL		Three Step MALS/Three Step RAIL	
Intensity		Intensity		Intensity	
HIRL	MIRL	MALS	RAIL	MALS	RAIL
Step 5	Step 3	100%	100%	100%	100%
Step 4			100%	100%	100%
Step 3	Step 2	10%	OFF	20%	26% outer 8% inner
Step 2			OFF	4%	1%
Step 1	Step 1	OFF	OFF	4%	1%

### 10–6–10. RUNWAY STATUS LIGHTS (RWSL)

### TERMINAL

The RWSL is a system of runway and taxiway lighting which enhances pilot situational awareness by illuminating runway entrance lights (REL) when the runway is unsafe for entry or crossing, and take-off hold lights (THL) when the runway is unsafe for departure. The RWSL system uses a configuration of in-pavement lights installed on taxiways and runways that indicate runway status only; they are not intended to indicate a clearance. The RWSL system works in conjunction with the ASDE-X/ASSC system along with the Field Lighting System (FLS).

**a.** ATMs must ensure that when available or operating normally, the RWSL systems are operated on a continuous basis.

**b.** As part of the facility checklist, operation of the system must be verified once each shift.

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 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/TER-MINATION 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:

### Section 8. Safety Logic Systems Front–Line Manager/CIC Procedures

### 11-8-1. SYSTEM OPERATION

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

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

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

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

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

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

### NOTE-

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

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

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

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

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

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

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

### REFERENCE-

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

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

### 11-8-2. ENSURE STATUS

**a.** The front-line manager/CIC is responsible for ensuring that the Safety Logic System is set for the correct runway configuration.

**b.** The front-line manager/CIC must ensure that the operational status of the Safety Logic System is known to all operational personnel.

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

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

### 11–8–3. MONITOR ALERTS AND ENSURE CORRECTIVE ACTION

**a.** The front-line manager/CIC must ensure that the Safety Logic System is monitored and all alerts are complied with.

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

**REFERENCE**-Pilot/Controller Glossary Term- Safety Logic System Alerts.

### 11-8-4. RAIN CONFIGURATION

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

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

#### NOTE-

When AMASS is in rain configuration all safety logic

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

### 11-8-5. LIMITED CONFIGURATION

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

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

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

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

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

#### NOTE-

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

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

### Section 4. Services

### 13-4-1. PREFILED FLIGHT PLANS

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

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

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

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

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

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

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

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

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

### 13-4-2. PRACTICE INSTRUMENT APPROACHES

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

REFERENCE-

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

### 13-4-3. OPERATION OF AIRPORT LIGHTS

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

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

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

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

### 13–4–4. RUNWAY EDGE LIGHTS ASSOCIATED WITH MEDIUM APPROACH LIGHT SYSTEM/RUNWAY ALIGNMENT INDICATOR LIGHTS

FSSs having responsibility for the control of MALS/RAIL brightness must comply with the instructions in Paragraph 10–6–8, Runway Edge Lights Associated with Medium Approach Light System/Runway Alignment Indicator Lights.

### 13–4–5. LOCAL AIRPORT ADVISORY (LAA)/REMOTE AIRPORT ADVISORY (RAA)/REMOTE AIRPORT INFORMATION SERVICE (RAIS)

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

**1.** Located on the airport.

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

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

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

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

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

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

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

### EXAMPLE-

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

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

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

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

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

### NOTE-

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

### NOTE-

The productivity factor is compared to the number of employees used to provide the service and must be equal to or greater than the number of employees needed to provide the service. Normally about 2.5 employees are factored annually to provide 10 hours of service per day. (The .5 factor ensures employee vacations, training periods, sick days, and daily break periods).

**c.** Provide RAIS to support special events at airports during NOTAM D service hours when:

**1.** The airport authority has requested the service at least 30 days in advance and the facility has the resources available to provide the service.

**2.** There is no operating control tower at the airport.

**3.** The facility has discrete communications capability at the airport.

**4.** The RAIS airport has automated weather reporting for the pilots with voice capability.

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

**6.** A NOTAM D has been issued at least 24 hours in advance.

### 13–4–6. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) – ALASKA FSSs ONLY

**a.** AFIS provides a continuous broadcast of recorded non-control information at airports in Alaska where a FSS provides local airport advisory service. The AFIS broadcast automates the repetitive transmission of essential but routine information such as weather, wind, altimeter, favored runway, braking action, airport NOTAMs and other applicable information. The information is continuously broadcast over a discrete VHF radio frequency (usually the ASOS frequency). Pilots are urged to listen to AFIS when arriving, departing, and operating within the airport advisory area as it relieves frequency congestion on the local airport advisory frequency. AFIS is not used in terminal areas and does not contain approach information.

**b.** Before transmitting, the voice message must be reviewed to ensure content is complete and accurate. Ensure specialist speech rate does not exceed 100

words per minute, the enunciation is of the highest quality, and each part of the message is easily understood.

**c.** Keep messages as brief and as concise as practical.

**d.** ASOS must not be allowed to broadcast weather concurrent with AFIS.

e. During hours of non-operation of Alaska FSS AFIS, ASOS broadcast capability must allow the automated weather report to be broadcast on the ASOS frequency in the one minute update mode and include the following information:

**1.** The FSS hours of operation or in the case of a seasonal FSS, a statement that the FSS is closed for the season.

**2.** The appropriate common traffic advisory frequency (CTAF).

**3.** The frequency for operating pilot controlled lighting.

**4.** The FSS and frequency for additional information.

**f.** The FSS air traffic manager that has responsibility for a FSS utilizing AFIS equipment must ensure that ATCS personnel assigned to duty in that FSS are in compliance with the AFIS requirements and that they receive training to utilize AFIS equipment and are familiar with required procedures.

### 13–4–7. TRANSMISSION OF MESSAGES FROM AIRPORT INSPECTORS

Accept administrative messages from airport inspectors for transmission to NFDC and other FAA offices as prescribed in Chapter 2 of FAAO 5010.4, Airport Safety Data Program.

### Section 2. Organizational Responsibilities

## 17–2–1. AIR TRAFFIC TACTICAL OPERATIONS PROGRAM

System Operations must:

a. Develop national TM programs.

**b.** Staff/manage the ATCSCC.

**c.** Provide guidance and direction to the TM system concerning national TM programs and policies.

**d.** Coordinate Service Area office requests for special procedures with appropriate headquarters divisions/services.

**e.** Coordinate directly with designated Service Area office/facility TM representatives on plans, procedures, and operations that affect interfacility traffic flows.

**f.** Ensure that all appropriate coordination has been accomplished prior to implementation of any new national TM program.

**g.** Provide briefings to appropriate levels within the FAA and industry on current system status, present/future TM programs, etc.

**h.** Maintain a close liaison with appropriate Service Area office and other FAA service offices on all TM programs.

## 17–2–2. SERVICE CENTER OPERATIONS SUPPORT GROUP

The Operations Support Group (OSG) must:

**a.** Designate a support group TM representative(s) who must act as the focal point for other FAA offices and users on matters that pertain to TM.

**b.** Provide guidance and direction to field facilities in the development and implementation of support group office TM programs.

**c.** Periodically review and evaluate TM programs to assess their effectiveness and to ensure their compliance with support group office/national directives.

**d.** Mediate support group office interfacility TM conflicts.

e. Determine which terminal facilities should be considered for establishing TMUs and forward the justification and the staffing requirements to Director, System Operations for final determination.

### 17-2-3. ATCSCC

The ATCSCC has been delegated the authority to direct the operation of the TM system. All TMUs must assist the ATCSCC, as directed, to ensure system efficiency and effectiveness without compromising safety. The ATCSCC must, in conjunction with local TMUs, users, weather information providers, and airway facilities, as appropriate:

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

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

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

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

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

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

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

**h.** Be the final approving authority regarding all interfacility TM initiatives.

### NOTE-

Traffic Management Units continue to retain the latitude to tactically adjust the flow of traffic within their own facilities. These local actions include sector to sector mile-in-trail restrictions, local airport fix balancing, and other such adjustments required to balance flows within their area of responsibility.

**i.** Evaluate proposed TM initiatives to ensure appropriateness.

### 17-2-4. FIELD FACILITIES

All actions initiated by the TMU must be in accordance with standard operating procedures, applicable directives, and approved TM position descriptions. The TMU is delegated the authority to direct traffic flows and implement approved TM initiatives in conjunction with, or as directed by the ATCSCC.

**a.** Air traffic facilities must ensure that:

**1.** A TMU is established at ARTCCs and designated terminal facilities.

**2.** Delays are reported as specified in FAAO JO 7210.55, Operational Data Reporting Requirements.

**3.** The ATCSCC is provided with all formal agreements and directives that relate to interfacility TM programs, initiatives, and procedures.

**4.** National and local TM programs are maintained within the guidelines set forth by this order.

**5.** Requests for special procedures are coordinated with Service Area offices, assuring 90 days of lead time for evaluation and processing.

6. The ATCSCC is advised by telephone or hotline coordination of all known component changes that could have a significant system impact (for example, route/airway closures, NAVAID/radar shutdowns, runway closures, TELCO outages, computer malfunctions or outages, and procedural changes affecting key terminals and/or centers).

### NOTE-

This information must be provided to the ATCSCC as soon as the facility becomes aware of any event that may have a possible impact on NAS capacity. Example: LRR outage, runway closure, ILS outage, etc.

**7.** Actively coordinate and communicate traffic management actions with adjacent TMUs through the ATCSCC to optimize traffic flows throughout the NAS.

**8.** In conjunction with ATCSs, OSs, weather service providers, and the ATCSCC, develop, implement, monitor, and analyze TM programs, procedures, and initiatives that are specific to the facility's area of responsibility.

**9.** Standard traffic management unit procedures contained in this order must be applied when weather

is scheduled to impact an active or scheduled SAA with the following additions/changes:

(a) Facilities must conduct a telecon if weather is forecasted to impact a facility's traffic flow, which may potentially cause an aircraft to enter the protected airspace of an active SAA within their facility.

### NOTE-

If the facility has instantaneous recall of the SAA airspace, then a telecon is not required.

(b) Participants must include, at a minimum, the using agency or scheduling agency and the controlling agency. If available, the Center Weather Service Unit (CWSU), Operations, and any other entities necessary to ensure a comprehensive look at the day ahead should be included.

(c) The intent of the telecon is to address any issues that may arise due to weather, the usage of SAA, civil traffic flow, and alternate plans. These calls will also serve as a venue in which the facility can determine the type of activity that will be occurring in the SAA.

(d) Unless it is clearly understood and agreed upon by the using or scheduling agency that the SAA will be available for civil traffic, facilities must not base their plan on using active military airspace.

(e) If the SAA will not be available for civil traffic, then Traffic Management Initiative(s) (TMI) must be put in place to ensure aircraft remain clear of the protected airspace of an active special use airspace that is impacted by weather.

### NOTE-

If the facility has instantaneous recall of the SAA airspace, then TMI(s)may not be required.

(f) If a deviation due to forecasted weather occurs that causes an aircraft to enter into an active SAA:

(1) The Supervisor Traffic Management Coordinator (STMC) must immediately conduct an evaluation of TMI(s) in place with emphasis on adjusting the flow of traffic away from the SAA.

(2) The Air traffic manager (ATM) must ensure the appropriate service review (i.e.; system service review or traffic management review) is completed in accordance with FAA Order JO 7210.634, Air Traffic Organization (ATO), Quality Control, Chapter 3.
**10.** A full description of all TM actions/initiatives (e.g., ground delay programs, miles-in-trail (MIT)) is entered in the TMU log, including, but not limited to, start and stop times, facilities/operations affected, and justification.

**11.** As a minimum, the unit is operated during the hours necessary to encompass peak traffic periods and the associated time to complete the logging and the reporting requirements.

**b.** In ARTCC facilities TMUs must:

**1.** In conjunction with terminal TMUs, develop arrival strategies and deliver arrival aircraft to achieve the Airport Arrival Rate (AAR).

**2.** Actively utilize the Traffic Situation Display (TSD) and the monitor and alert function of the TFMS to adjust traffic flows on a proactive basis.

**3.** Periodically analyze and review procedures to ensure effectiveness and adherence to programs/ initiatives, and, when necessary, make adjustments. Cancel TM initiatives promptly when no longer needed.

4. The facility manager must make provisions to ensure a Weather Coordinator (WC) is assigned on each shift by designating a TM representative to serve as the WC. During midnight operations or when no TM personnel are available, the WC position may be combined at the OMIC position. The manager must additionally ensure that personnel assigned WC duties receive prior training in the associated duties and responsibilities of the position and establish procedures.

#### REFERENCE-

FAAO JO 7210.3, Section 26. Weather Management.

**5.** Establish an analysis function referred to in Chapter 17, Section 4, as amended.

6. Address approved local TM messages on TFMS to:

(a) The ATCSCC and the adjacent facilities concerned.

(b) Other ARTCCs whose terminals are expected to generate a significant amount of traffic

for the affected area during the effective time of the message.

(c) Appropriate flight service stations/ international flight service stations/(FSS)/(IFSS).

c. In terminal facilities, TMUs must:

**1.** Balance the arrival flow and the tower en route flow by coordinating with the appropriate ARTCC TMUs and/or adjoining terminal facility(s) to ensure that demand does not exceed current capabilities.

**2.** Through coordination with the tower and TRACON, establish AAR and assist the ARTCC and adjacent terminal facility(s) in the development of strategies to achieve the AAR.

**3.** Oversee departure fix balancing to ensure sector efficiency into the next facility's airspace.

**4.** Implement gate hold procedures as required to reduce airport surface congestion.

**5.** Coordinate with airport officials to ensure closures of runways, taxiways, and other airport facilities minimize operational impact.

**6.** Ensure optimum airspace/runway configurations.

7. Periodically analyze and review TM procedures to ensure effectiveness and adherence to programs/initiatives and, when necessary, make adjustments. Cancel TM initiatives promptly when no longer needed.

**8.** Notify the appropriate facilities concerning local TM initiatives.

### NOTE-

The appropriate ARTCC TMU must be the focal point for any interface concerning TM related issues, as well as the mediator between terminal facilities. The ARTCC TMU will then coordinate with the ATCSCC on behalf of the TRACON or the tower. Because of the unique situation of the New York TRACON having three centers, the New York TRACON must coordinate directly with the ATCSCC and have the ATCSCC conference the appropriate ARTCCs. In those instances where the ARTCC TMU is unable to resolve disputes between multiple terminal facilities, the ATCSCC must have the final decision making authority.

### Section 5. Coordination

### 17-5-1. COORDINATION

Coordinate through verbal and automated methods. At times, it may be required to utilize both methods to ensure complete communication and situational awareness.

### 17-5-2. COMMUNICATION

When time permits, utilize communication techniques that emphasize collaboration and consensus decision-making. Use tools that provide for common situational awareness to the extent possible.

### 17-5-3. DOCUMENTATION

The National Traffic Management Log (NTML) is utilized to record TM activities in the facility. It does not replace the facility log; however it may be utilized as the facility log when documented in a facility directive. Facilities with the NTML are required to make data entries. At non–NTML facilities, the first facility overlying the non–NTML facility is responsible for entering the NTML entries. This enables all facilities to be knowledgeable of conditions throughout the NAS.

### 17-5-4. RESPONSIBILITIES

a. All facilities must:

**1.** Communicate and coordinate events that may have an impact on the NAS.

**2.** Use the NTML to document events and traffic management initiatives (TMI).

**b.** The ATCSCC must:

**1.** Provide an FAA ATCSCC data entry web page for facilities identified in TBL 17–5–1, Aviation System Performance Metrics Airport Traffic Control Towers.

**2.** Transmit these data to other FAA offices for analysis.

**3.** Provide the NTML to all ARTCC TMUs and designated terminals.

**4.** Communicate directly with facility and service area representatives for a critique of operations and future plans for TM.

**5.** Coordinate directly with service area representatives on plans, procedures, and operations that affect interfacility traffic flows.

6. Consult with weather information providers to ensure the receipt of timely weather forecasts (including the collaborative convective forecast), observed terminal weather sequences, and any weather data that may have a significant impact on the NAS.

7. Coordinate with the TMUs in the day-to-day operations of the NAS and resolve operational TM disagreements between facilities.

**8.** Conference affected ARTCC TMUs as needed when contacted by a terminal facility.

**9.** Initiate telecons and Hotlines with customers and facilities, as necessary, to obtain input and to provide operational information, as well as other significant events affecting the NAS.

**10.** Subscribe to the NTML entries pertinent to its position of operation.

**11.** Indicate the implementation or termination of extended flight plan drop times, when notified by field facilities, via numbered ATCSCC advisory.

c. ARTCC TMUs and designated terminals must:

**1.** Advise the ATCSCC of situations and conditions that may require implementation of TMIs or are of national interest.

**2.** Present unresolved conflicts between adjacent TMUs to the ATCSCC for resolution.

**3.** Notify the ATCSCC if a significant change in capacity is expected or has occurred.

4. Be the contact for their underlying facilities about coordinating any TM issues, initiatives, programs, or information. Data received from underlying facilities must be forwarded to the ATCSCC in a timely manner.

**5.** Advise the ATCSCC if an operational Hotline is requested including:

(a) Facility participation required.

(b) Requested customer participation and assist the ATCSCC in determining if the Hotline will be limited to "listen–only" customer capability.

(c) Other aviation/airport resources requested.

**6.** Advise the ATCSCC when extended flight plan drop times have been implemented or terminated.

d. Terminal facilities must:

**1.** Coordinate with the appropriate ARTCC TMU and ensure it is kept aware of situations and conditions that may require the implementation of TM initiatives.

**2.** Report to the ARTCC TMU any significant change in capacity that is expected or has occurred.

**3.** Present TM conflicts to the ARTCC TMU.

**4.** Consult with the ATCSCC, the affected ARTCC TMU, terminals, and customer organizations about the development and implementation of procedures, when appropriate.

e. Terminal facilities listed in TBL 17–5–1 must:

**1.** Enter the runway configurations (specifying runway numbers) and their associated AAR and ADR using the NTML.

### NOTE-

Local procedures must be established to determine whether the tower or TRACON is responsible for these entries.

**2.** Enter the hourly arrival and departure counts starting at 0700 and ending at 2259 local using the ATCSCC–supplied web page.

#### NOTE-

These counts must include IFR/VFR arrivals and departures that are fixed wing itinerants. Helicopter and local operations must not be included in the traffic count.

**3.** Investigate and resolve issues about their web page.

**4.** Submit suggestions for improvement to the Terminal Operations area office, when applicable.

**f.** The information for subpara e above applies to any airport in a ground delay program.

g. Field facility specialists with the NTML must:

**1.** Enter sign on/off times and initials.

**2.** Mark entries for equipment (E) when they cause a TMI or result in a TMI.

**3.** Enter TMIs initiated by your facility.

**4.** Enter constraints in your area of responsibility that may impact the NAS and forward them to the ATCSCC.

**5.** Enter arrival, departure, and en route delay status, as appropriate.

6. Enter deicing status (in/out).

### NOTE-

Facilities with the NTML are required to make the above data entries. At non–NTML facilities, the first facility overlying the non–NTML facility is responsible for entering data into the NTML. Facility personnel must enter data in a timely manner on the appropriate template. Timely is construed to mean that it would be useful to someone looking at the data in current time. If workload conditions or the situation prohibits entering the data in a timely manner, the information should be recorded by a subsequent or delayed entry.

### Section 6. Traffic Management Initiatives

### 17-6-1. GENERAL

**a.** Traffic Management Initiatives (TMIs) are techniques used to manage demand with capacity in the NAS.

**1.** Properly coordinated and implemented TMIs are an important tool in the air traffic system. These initiatives contribute to the safe and orderly movement of air traffic.

**2.** Any TMI creates an impact on customers. It is imperative to consider this impact and implement only those initiatives necessary to maintain system integrity.

**b.** Dynamic TMIs are those imposed on an as needed basis to manage fluctuations in traffic demands.

### 17-6-2. BACKGROUND

Some TMIs may also be considered "control instructions" or procedures; the difference is determined by the magnitude of the event, the coordination process, and the length of time it is implemented. TMIs may also be referred to as "restrictions," especially in conjunction with miles–in–trail.

### 17-6-3. POLICY

To maintain the integrity of the air traffic system, facility TM personnel must employ the least restrictive methods available to minimize delays.

### 17-6-4. TYPES OF TMIs

### a. Altitude.

**1.** Utilized to segregate different flows of traffic, or to distribute the number of aircraft requesting access to a specified geographic region.

2. Colloquialisms:

(a) Tunneling– Term to indicate traffic will be descended prior to the normal descent point at the arrival airport to remain clear of an airspace situation; e.g., holding.

(b) Capping- Term to indicate aircraft will be cleared to an altitude lower than their requested

altitude until they are clear of a particular airspace. Capping may apply to the initial segment of the flight or for the entire flight.

**3.** Low Altitude Arrival/Departure Routing (LAADR). A set of routings with altitude expectations for usage in times of severe weather constraints on the system. LAADR may apply to the departure or the arrival phase of flight. LAADR requires a written agreement with the customers prior to implementing.

**b.** Miles-in-trail (MIT). The number of miles required between aircraft that meet a specific criteria. The criteria may be separation, airport, fix, altitude, sector, or route specific. MIT are used to apportion traffic into manageable flows, as well as, provide space for additional traffic (merging or departing) to enter the flow of traffic.

**c.** Minutes-in-trail (MINIT). The number of minutes required between successive aircraft. It is normally used in a non-radar environment, or when transitioning to a non-radar environment, or additional spacing is required due to aircraft deviating around weather.

**d.** Fix balancing. Assigning an aircraft a fix other than in the filed flight plan in the arrival or departure phase of flight to equitably distribute demand.

**e.** Airborne holding. Planned holding of aircraft may be utilized. This is normally done when the operating environment supports holding and the weather conditions are expected to improve shortly; this ensures aircraft are available to fill the capacity at the airport.

**f.** Sequencing Programs. These programs are designed to achieve a specified interval between aircraft; they may be software generated or determined by TM personnel. Different types of programs accommodate different phases of flight.

**1.** Departure Sequencing Program (DSP)– Assigns a departure time to achieve a constant flow of traffic over a common point. Normally, this involves departures from multiple airports.

**2.** En route Sequencing Program (ESP)–Assigns a departure time that will facilitate integration in the en route stream.

**3.** Arrival Sequencing Program (ASP)– Assigns fix crossing times to aircraft destined to the same airport.

**4.** Time-Based Metering (TBM). The action of personnel providing air traffic services to meet a scheduled time at which airborne aircraft should cross a metering point or arc.

g. Reroutes:

**1.** Reroutes are ATC routings other than the filed flight plan. They are issued to:

(a) Ensure aircraft operate with the "flow" of traffic.

(b) Remain clear of special use airspace.

(c) Avoid congested airspace.

(d) Avoid areas of known weather or where aircraft are deviating or refusing to fly.

**2.** Operators should amend flight plans when they are more than 45 minutes from departure.

**3.** Sources for route information:

(a) Chart Supplement U.S.

(b) Preferential Route Information in facilities.

(c) Route Management Tool.

(d) North American Route Notice.

(e) Federal Air Regulations.

(f) Notices to Airmen.

(g) Advisories issued by ATCSCC. (These are listed on the Operational Information System.)

4. More information on routes is contained in Section 18, Coded Departure Routes, Section 19, Route Advisories, and Section 21, National Playbook.

**h.** Ground Delay Programs. (See Section 9, Ground Delay Programs.)

**i.** Airspace Flow Programs. (See Section 10, Airspace Flow Programs (AFP).)

**j.** Ground Stops. (See Section 12, Ground Stop(s).)

### 17-6-5. EXCEPTION

The above list is not all-inclusive and does not preclude the innovation and application of other procedures that will result in improved customer service.

### 17-6-6. TMI DATA

The efficiency of the NAS is enhanced when all participants have access to the same data. Utilization of shared technology, (e.g., Flow Evaluation Area) enhances the coordination process.

### 17-6-7. TMI APPROVAL AUTHORITY

**a.** The ATCSCC is the approval authority for all en route and designated terminals inter-facility TMIs, except as identified in subparagraph (b) below and MIT restrictions of ten (10) miles or less. TMIs that are expected to result in reportable delays must be coordinated through the ATCSCC. Reportable delays are delays of 15-minutes or more as defined in FAA Order JO 7210.55, Operational Data Reporting Requirements.

#### NOTE-

New York TRACON is a designated terminal and others may be included at the direction of System Operations.

**b.** The Center/TRACON is responsible for TMI within their area of jurisdiction (underlying terminals) that do not cause reportable delays.

### 17-6-8. PROCESSING TMI

**a.** The initiating facility must identify the need for a TMI, explore alternatives, and prepare a justification.

**b.** The initiating facility must be prepared to discuss the proposal at the request of the ATCSCC and/or the receiving facility prior to implementation during the joint review process.

**c.** Facilities must continuously monitor and evaluate the TMI, and make adjustments as necessary, including cancellation.

**d.** Facilities must conduct post event analysis on the TMI, and document any known negative impacts/feedback.

### 17–6–9. FIELD FACILITY RESPONSIBILITIES FOR TMIs

**a.** Evaluate capacity and demand. The assessment must include the evaluation of all data required to

### Section 7. Flow Evaluation Area (FEA) and Flow Constrained Area (FCA), and Integrated Collaborative Rerouting (ICR)

### 17-7-1. GENERAL

FEAs and FCAs support common situational awareness and provide customers increased flexibility in responding to conditions in the (NAS) by providing a graphical description of a constraint and an associated list of flights that traverse the area identified. FEAs and FCAs provide reroutes which are published through a reroute advisory with an optional flight list attached. Stakeholders can monitor FEAs and FCAs through the reroute monitor in traffic situation display the TSD, the Web situation display (WSD), or the collaborative constraint situation display (CCSD).

### 17-7-2. DEFINITIONS

**a.** Default route: A route published by the ATCSCC in conjunction with user preferred trajectory (UPT) for facilities to assign any aircraft that remain on the dynamic list.

**b.** Dynamic list: A list of flights captured in an FEA/FCA that is continually updated as changes occur to the aircraft's route of flight.

c. Early Intent (EI): Customer route preference submitted to the Traffic Flow Management System (TFMS). EI routes identify routing preferences or remove the flight from the constrained area. Customers are expected to file their flight plans in accordance with EI unless otherwise coordinated with the ATCSCC.

**d.** EI Window: Time period when customers can submit EI or file out of the FEA.

**e.** FCA: The defined region of airspace, flight filters, and time interval used to identify flights subject to a constraint. System stakeholders may be required to take action to mitigate the constraint identified by the FCA.

**f.** FEA: The defined region of airspace, flight filters, and time interval used to identify flights. An FEA should be used by system stakeholders to evaluate and/or mitigate potential or existing constraints.

**g.** FEA/FCA flight list: Aircraft that penetrate the FEA/FCA during the specified valid time.

**h.** ICR: Strategic process for stakeholders to define and structure TMIs to mitigate constraints identified by an FEA or FCA.

**i.** Route guidance: Suggested reroutes, issued in an advisory that suggest or provide examples of routing possibilities away from a defined constraint associated with an FEA/FCA. This guidance may not provide routes for all flights captured in the FEA/FCA.

### 17-7-3. FEA/FCA RESPONSIBILITIES

Customers are expected to:

**a.** Enter the FCA name in the remarks section when filing the flight plan.

**b.** Review advisories and examine their affected flights.

**c.** Use EI capability as needed, considering FAA route guidance. Early filing of a flight plan may be used in lieu of this requirement.

**d.** Examine their affected flights and submit decisions for routing in accordance with the FEA/FCA. If unable, coordinate with the ATCSCC Tactical Customer Advocate.

e. Consider using private FEAs to monitor a situation and evaluate an area of concern.

**f.** Evaluate and select routes that meet their objectives.

### NOTE-

Customers may identify available routes via the Route Options Generation (ROG).

### 17-7-4. FEA/FCA PROCEDURES

**a.** The FAA TMU must:

**1.** Remain cognizant of operational areas of interest and use FEAs to evaluate those areas.

2. When naming FEAs that will be shared, ensure the name is descriptive to the constraint or airspace captured. Ensure FEAs do not contain FCA

in the name and do not begin with a number or special character.

**3.** Share FEAs with the ATCSCC that may require implementation of TMIs (i.e., reroutes, miles–in–trail, ground stops, etc.) If requesting a reroute in conjunction with a shared FEA, notify the ATCSCC via the NTML of the FEA and the proposed reroute.

**4.** Contact the ATCSCC to coordinate a public FEA or an FCA.

**5.** Coordinate public FEAs and FCAs with facilities within their area of jurisdiction.

**6.** Monitor the FCA dynamic list. Based on information provided in the FCA advisory, appropriate action must be taken in regard to flights that remain on the list.

7. Monitor the system impact of the routes and contact the ATCSCC if these routes will cause a local flow issue.

**8.** Coordinate with the ATCSCC if it becomes necessary to issue an FCA.

**9.** Monitor the public FEA or FCA and, as required, coordinate modifications to the initiatives with the ATCSCC.

**10.** When an FCA is used to manage a constraint; review the advisory issued by the ATCSCC and comply with the provisions of the advisory.

**11.** When TMIs that impact other stakeholders will be required to resolve a situation:

(a) Coordinate with the ATCSCC.

(b) Provide local information which aids the ATCSCC with developing successful reroute options for customers to consider.

(c) Monitor impacts of customer preferences.

(d) Take tactical action as necessary.

**12.** Assign default routes to flights that are not routed around the constraint as directed in reroute advisories.

**b.** The ATCSCC must:

**1.** Issue public FEAs and issue an advisory, as necessary. Public FEAs must have a descriptive name that is pertinent to the event.

**2.** Issue FCAs and, issue an advisory, as necessary. Include in the advisory any actions required by customers and field facilities.

**3.** Create FEAs that define the geographical area of concern with appropriate altitude and time limits, plus any other relevant filters to select affected traffic.

**4.** Monitor the NTML and respond to field facility requests for reroutes associated with shared FEAs. Evaluate reroute requests and, if applicable, conference the appropriate stakeholders to coordinate the reroute.

**5.** Issue any associated routes via the "Create Reroute" tool.

**6.** Ensure the FCA or public FEA expires at the end of the published valid time unless coordination is accomplished and an advisory issued that cancels the initiative.

7. Provide FAA facilities with guidance on the use of default routes and when they may be discontinued.

# 17–7–5. ARTCC TO ARTCC FEA/FCA COORDINATION

These procedures must be utilized in the development and coordination of ARTCC to ARTCC and ARTCC to N90 MIT.

### 17-7-6. RESPONSIBILITIES

ARTCC TMU must follow guidelines for the FEA naming convention as follows:

**a.** For Airport MIT: [Requester]\_[Provider]\_[Airport]

### EXAMPLE-

**1.** ZDC\_ZJX\_EWR

**2.** *ZTL\_ZID\_ATL* 

**b.** For Airway/Route: [Requester]\_[Provider]\_[Airway]

#### EXAMPLE-

**1.** *ZDC\_ZJX\_J55* 

**2.** *ZNY\_N90\_PARKE* 

### 17-7-7. PROCEDURES

### The ARTCC TMU must:

**a.** Draw the FEA at the common ARTCC or ARTCC/N90 boundary.

**b.** Draw the FEA per route.

**c.** Filter the FEA for single airport destinations, except where MITs are requested for multiple destinations in an 'as one' restriction; in which case, the FEA must be filtered to reflect that information.

**d.** Review the total number of aircraft as presented in the 15-minute FEA/FCA timeline bar.

e. Select and review the FEA/FCA Dynamic List for restrictions needed based on distance between aircraft, making sure the "ENTRY" column is set to display aircraft in chronological order of times as they enter the FEA.

**1.** An accepted distance consideration for the en route environment is 7 miles per minute of flight time.

### EXAMPLE-

Two aircraft passing through an FEA 3 MINITs should be considered to be 21 MITs of one another.

**2.** An accepted distance consideration for N90 TMIs is 5 miles per minute of flight time.

**f.** Complete electronic coordination and share the FEA with the ATCSCC as required.

**g.** Continually evaluate and assess MIT for effectiveness and cancel the restriction at the earliest opportunity.

### 17–7–8. INTEGRATED COLLABORATIVE REROUTING (ICR)

**a.** Customers are expected to:

**1.** Examine their affected flights and, when practical, enter early intent (EI) and/or file a flight plan that will route the aircraft away from the affected area. When acceptable options are not available, contact the ATCSCC Tactical Customer Advocate.

**2.** Enter "NRP" in the remarks section of the flight plan.

**b.** The FAA traffic management unit (TMU) must:

**1.** Coordinate with the Air Traffic Control System Command Center (ATCSCC) to initiate the ICR process.

**2.** Provide assistance in developing flow constrained areas (FCA), reroute options, and associated restrictions for the impacted area.

c. The ATCSCC must:

**1.** Share the FCA with all affected stakeholders, and issue an ICR FCA that defines the geographical area of concern with appropriate altitude and time limits, plus any other relevant filters to select affected traffic.

### NOTE-

An EI window should be effected no less than 45 minutes prior to implementation of the ICR Process.

**2.** Conference the affected stakeholders and communicate the objectives for the flights captured in the FCA.

**3.** Send an ICR advisory that provides an early intent window and route guidance if deemed necessary.

**4.** Issue route guidance using an advisory in the Create Reroute tool. Preferential routes, recommended routes, and constraint avoidance may all be suggested.

#### NOTE-

Required reroutes may not be necessary if the response taken by customers alleviates the need for this initiative or the reason for initiating the ICR process changes (weather does not materialize, significant volume reductions, etc.).

- **5.** At the end of the EI window, either:
  - (a) Issue required reroutes;
  - (b) Issue an AFP;
  - (c) Extend the EI window; or
  - (d) Cancel ICR.

**d.** The FCA expires at the end of the published valid time unless it is coordinated and an advisory is issued that cancels the initiative.

### Section 19. Route Advisories

### 17-19-1. PURPOSE

This section prescribes policies and guidelines for issuing Route Advisories.

### 17-19-2. POLICY

In accordance with Federal Air Regulations, all operators have the right of refusal of a specific route and may elect an alterative. Alternatives include, but are not limited to, ground delay, diversion to another airport, or request to stay on the filed route.

### 17-19-3. EXPLANATION OF TERMS

**a.** Required (RQD): System stakeholders must take action to comply with the advisory.

**b.** Recommended (RMD): System stakeholders should consider Traffic Management Initiatives (TMI) specified in the advisory.

**c.** Planned (PLN): Traffic management initiatives that may be implemented.

**d.** For Your Information (FYI): Advisories requiring no action.

**e.** User Preferred Trajectory (UPT): The route that the user requests based on existing conditions.

**f.** System stakeholders: A group of interdependent NAS users and FAA air traffic facilities.

**g.** Protected Segment: The protected segment is a segment on the amended TFM route that is to be inhibited from automatic adapted route alteration by ERAM.

**h.** Protected Segment Indicator: The protected area will be coded on the display and strips using the examples in TBL 17–19–1.

**i.** TMI Indicator: This denotes protected coding exists for a flight's route even though the coding within the route may be scrolled off the view surface.

**j.** TMI Identifier: Identifies the name of the initiative and is inserted into the beginning of Interfacility Remarks after the clear weather symbol.

TBL 17–19–1
<b>Example of Protected Segment Indicators</b>

Presentation	Character Used	Example
Display	Bracketing chevrons ><	ILMFAKJ109.>LEONI.J110.IHD.J518.DJB <dtw< td=""></dtw<>
Enroute Flight Strip	Reverse bracketing parentheses )(	ILM FAK J109 )LEONI J110 IHD J518 DJB( DTW

### 17-19-4. ROUTE ADVISORY MESSAGES

**a.** All route advisories must specify whether an action is RQD, RMD, PLN, FYI.

**b.** The following information will be included in a route advisory:

**1.** Header: Includes the DCC advisory number, category of route, and action. A "/FL" indicates that a flight list is attached to the advisory.

**2.** Name: Descriptive of the situation to the extent possible.

**3.** Constrained Area: Impacted area referenced by the advisory.

4. Reason: Causal factors for the advisory.

**5.** Include Traffic: Factors identifying specific flows of traffic in the route.

**6.** Facilities Included: May indicate the specific facilities or use the phrase "multiple facilities;" a minus sign (–) indicates to omit that facility's traffic from the route.

7. Flight Status: Will indicate all, airborne, or nonairborne.

**8.** Valid: Time frame for the route will be specified.

**9.** Probability of Extension: High, medium, low, or none will be stated.

10. Remarks: Further clarifying information.

**11.** Associated Restrictions: Traffic management restrictions to be implemented in conjunction

with the route, e.g., miles in trail. ALT RSTN indicates that there is an altitude restriction associated with the advisory.

**12.** Modifications: Amendments to the standard Playbook routing.

**13.** Route: A specific route, route options, or user preferred trajectory around the area may be

indicated. When UPT is indicated, an additional route(s) must be listed. This route becomes the "default" route.

**14.** Footer: Date/time group for Flight Service Station information.

**c.** Categories of route advisories and possible actions are listed in TBL 17–19–2 .

ROUTE CATEGORY	REQUIRED RQD	RECOMMENDED RMD	PLANNED PLN	INFORMATION FYI
1. Route	/	~	$\checkmark$	~
2. Playbook		V	~	
3. CDR	/	V	~	
4. Special Operations				
5. NRP Suspensions				
6. VACAPES (VS)		~	$\checkmark$	
7. NAT				
8. Space Operations		V	~	
9. FCA				
10. FEA		V	~	
11. Informational		V	~	
12. Miscellaneous		1	$\checkmark$	1

TBL 17–19–2 Categories of Route Advisories and Possible Actions

### 17-19-5. RESPONSIBILITIES

**a.** The ATCSCC must:

**1.** Be the final approval authority for all routes that traverse multiple center or terminal boundaries.

**2.** Coordinate routes with impacted facilities prior to implementing the route.

**3.** Verbally notify all impacted en route facilities of the implementation, modification, or cancellation of routes as the situation dictates.

**4.** Document and disseminate coordinated routes through an advisory with a flight list, if appropriate.

5. Implement, modify, and/or cancel routes.

**b.** Field facilities must:

**1.** Remain cognizant of operational areas of interest in the National Airspace System (NAS)

including local adaptations that affect route changes; e.g., Preferential Arrival Routes and Preferential Arrival Departure Routes, and forward any issues that may require modification to normal traffic flows within their area of jurisdiction when national support may be required.

**2.** Coordinate routes with facilities within their area of jurisdiction.

#### NOTE-

Normally the ATCSCC coordinates with en route facilities, en route facilities coordinate with terminals.

**3.** Participate in the PT TELCON as appropriate.

**4.** Implement the required routes for flights less than 45 minutes from departure or airborne. The departure Center is responsible for ensuring that proposed flights are on the proper route, and airborne traffic is the responsibility of the Center with track

### Section 23. Contingency Plan Support System (CPSS)

### 17-23-1. PURPOSE

This section prescribes policies and guidelines for managing ARTCC Operational Contingency Plan (OCP) data within the Contingency Plan Support System (CPSS). The CPSS is maintained via the RMT.

### 17-23-2. DEFINITION

CPSS is a collection of contingency non-radar routes maintained by the ATCSCC on an internal website. CPSS data is available via the "Contingency Plan" tab located at: http://www.atcscc.faa.gov/ois.

### 17-23-3. RESPONSIBILITIES

**a.** The ATCSCC must designate a POC for the management of the CPSS.

**b.** ARTCCs must:

**1.** Develop and maintain the accuracy of OCP data within CPSS following FAA Order JO 1900.47, Air Traffic Organization Operational Contingency Plan.

**2.** Designate a POC to coordinate with the ATCSCC on the management of the ARTCC's CPSS database information.

**3.** Coordinate with all affected facilities when changing CPSS data before including them in the CPSS database.

**4.** Ensure that CPSS data are available to operational positions.

### NOTE-

Before publication in the CPSS, the facility must ensure that hardcopy, or other electronic means of making this information available, is provided to operational personnel and the ATCSCC.

**5.** Tell all affected offices when making any change to the National Airspace System that might

affect internal or adjacent ARTCC contingency plans (for example, airway changes, frequency changes, airspace redesign, airway realignment, etc.)

**6.** Report unusable, inaccurate, or unsatisfactory CPSS information directly to the ATCSCC CPSS POC. Real-time implementation problems should be reported to the ATCSCC National System Strategy Team and to the ATCSCC CPSS POC. Reports must include the facility plan name, affected sectors, specific description of the impact, and if appropriate, suggestion for modification.

7. Coordinate with underlying terminal facilities for all matters pertaining to CPSS data information.

c. Service Center Operations Support Group must:

**1.** Review CPSS data for currency and consistency.

**2.** Serve as liaison between ARTCCs and ATCSCC on CPSS matters.

**3.** Serve as information and training resource for ARTCCs to help them maintain current and accurate information in CPSS.

### 17-23-4. PROCEDURES

**a.** Contingency non-radar route data must be published in CPSS. Updates will coincide with the 56-day chart update cycle.

**b.** Non-radar data is processed via the RMT in accordance with the following timelines:

**1.** All revisions to CPSS data must be provided to the ATCSCC CPSS POC at least 30 days before each chart date.

**2.** The ATCSCC POC must enter all revisions to the CPSS data at least 14 days before the chart update. The RMT database will then be locked.

### Part 7. SYSTEM OPERATIONS SECURITY

# Chapter 20. Operations Security: Tactical, Special, and Strategic

### Section 1. Organizational Missions

# 20-1-1. SYSTEM OPERATIONS SECURITY MISSION

**a.** System Operations Security leads the Air Traffic Organization's (ATO) use of the agency's Air Navigation Services (ANS) authorities, expertise, and operational capability to help protect the United States and its interests from Air Domain related threats and hazards in the national defense, homeland security, law enforcement, and disaster response arenas. System Operations Security is also responsible for leading the ATO's Air Traffic Management (ATM) security efforts to mitigate the impacts of those threats and hazards on the safety and efficiency of the National Airspace System (NAS).

#### NOTE-

**1.** To align with ICAO Document 9985, Air Traffic Management Security Manual, the FAA defines ATM security as the safeguarding of the ATM system from security threats and vulnerabilities; and the contribution of the ATM system to civil aviation security, national security and defense, and law enforcement.

**2.** To align with ICAO Document 9985, Air Traffic Management Security Manual, the FAA defines "air domain" as the global airspace; all manned and unmanned aircraft operating in the global airspace; all people and cargo present in the global airspace; and all aviation-related infrastructure.

**b.** System Operation Security's collaboration with air traffic field facilities and interaction with Federal, State, and local interagency partners falls into three general mission areas, which broadly reflect the organization structure of the office's groups: Tactical Operations Security, Special Operations Security, and Strategic Operations Security.

# 20–1–2. TACTICAL OPERATIONS SECURITY MISSION

Tactical Operations Security is responsible for the

management of ATO's real-time ATM security-related operations. These tactical operations principally focus on: monitoring air traffic and using intelligence information to detect potential threats, validating those threats, and facilitating tactical responses in order to reinforce efforts to defeat those threats while mitigating safety and efficiency impacts on the NAS.

# 20-1-3. SPECIAL OPERATIONS SECURITY MISSION

Special Operations Security is principally responsible for the development and coordination of near-term plans to provide ATM security related support to classified or sensitive operations undertaken by national defense, homeland security, and law enforcement interagency partners. Special Operations also serves as the primary interface with NORAD and other interagency partners for the development of protocols and plans to support the integration of live and exercise missions into the NAS, mitigating any safety and efficiency impacts.

# 20–1–4. STRATEGIC OPERATIONS SECURITY MISSION

Strategic Operations Security is principally responsible for supporting ATM security measures through development and coordination of procedures, plans, programs, exercises, and policies needed to effectively carry out ATO's efforts in the national defense, homeland security, law enforcement, and disaster response arenas while mitigating safety and efficiency impacts on the NAS. In addition, this group leads ATO's efforts on Continuity of Operations, disaster response, and other emergency operations.

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# **BRIEFING GUIDE**



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

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### **1. PARAGRAPH NUMBER AND TITLE:**

1–2–4. ABBREVIATIONS 10–3–14. GO–AROUND/MISSED APPROACH 10–6–10. RUNWAY STATUS LIGHTS (RWSL) 11–8–1. SYSTEM OPERATION 11–8–4. RAIN CONFIGURATION 11–8–5. LIMITED CONFIGURATION

**2. BACKGROUND:** The FAA Surveillance and Broadcast Services (SBS) Program Office (PO) intends to implement the Airport Surface Surveillance Capability (ASSC) for situational awareness and surveillance of the surface movement area as well as approach and departure routes at select airports within the National Airspace System (NAS). ASSC will augment visual observation of landing or departing aircraft, and aircraft or vehicle traffic on the surface movement area.

#### 3. CHANGE:

#### <u>OLD</u>

#### **1-2-4. ABBREVIATIONS**

TBL 1-2-1

Add

#### 10–3–14. GO–AROUND/MISSED APPROACH

#### Title through b2

**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.

### <u>NEW</u>

### **1-2-4. ABBREVIATIONS**

TBL 1-2-1

ASSC – Airport Surface Surveillance Capability

#### 10-3-14. GO-AROUND/MISSED APPROACH

No Change No Change

#### 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/<u>ASSC</u> Virtual Runway Intersection Point (VRIP)

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

### 10–6–10. RUNWAY STATUS LIGHTS (RWSL) TERMINAL

The RWSL is a system of runway and taxiway lighting which enhances pilot situational awareness by illuminating runway entrance lights (REL) when the runway is unsafe for entry or crossing, and take-off hold lights (THL) when the runway is unsafe for departure. The RWSL system uses a configuration of in-pavement lights installed on taxiways and runways that indicate runway status only; they are not intended to indicate a clearance. The RWSL system works in conjunction with the ASDE-X system along with the Field Lighting System (FLS).

### 11-8-1. SYSTEM OPERATION

**a.** Safety logic systems are software enhancements to the <u>ASDE-3 and Airport Surface</u> <u>Detection Equipment System – Model X</u> (<u>ASDE-X</u>) that predict the path of aircraft landing and/or departing, and/or vehicular movements on runways. Visual and aural alerts are activated when the safety logic projects a potential collision.

**1.** <u>Airport Movement Area Safety System</u> (AMASS) is a safety logic system enhancement to the ASDE-3.

2. <u>ASDE-X safety logic is a system</u> enhancement to ASDE-X.

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

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

### c1

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

### 10–6–10. RUNWAY STATUS LIGHTS (RWSL) TERMINAL

The RWSL is a system of runway and taxiway lighting which enhances pilot situational awareness by illuminating runway entrance lights (REL) when the runway is unsafe for entry or crossing, and take-off hold lights (THL) when the runway is unsafe for departure. The RWSL system uses a configuration of in-pavement lights installed on taxiways and runways that indicate runway status only; they are not intended to indicate a clearance. The RWSL system works in conjunction with the ASDE-X/ASSC system along with the Field Lighting System (FLS).

#### 11-8-1. ASDE SYSTEM OPERATION

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

### Delete

### Delete

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

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

#### No Change

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

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

#### e

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

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

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

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

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

### 11-8-4. RAIN CONFIGURATION

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

#### No Change

#### NOTE-

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

No Change No Change

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

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

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

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

#### 11-8-4. RAIN CONFIGURATION

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

#### **11–8–5. LIMITED CONFIGURATION**

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

b

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

### d

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

#### NOTE-

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

**2.** For ASDE-X the limited configuration disables all alerts except arrivals to and departures on a closed runway and is not considered full-core alert status.

#### 11-8-5. LIMITED CONFIGURATION

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

#### No Change

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

No Change No Change

### NOTE-

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

**2.** For ASDE-X<u>/ASSC</u> the limited configuration disables all alerts except arrivals to and departures on a closed runway and is not considered full-core alert status.

### 1. PARAGRAPH NUMBER AND TITLE:

2–1–2. FACILITY STANDARD OPERATING PROCEDURES DIRECTIVE 4–1–6. PRELIMINARY ENVIRONMENTAL REVIEW

**2. BACKGROUND:** Air traffic control (ATC) facilities have procedural noise commitments resulting from the National Environmental Policy Act (NEPA) process or other formal/informal agreements. They consistently need to be identified and included as part of their Standard Operating Procedures (SOP) manual. This will ensure that Air Traffic managers, supervisors, and controllers are aware of FAA environmental commitments. This will also allow ATC facilities to adequately provide input to noise complaints related to the environmental commitments. In addition, when environmental commitments are made based upon a NEPA review, including them in a Record of Decision (ROD) for specific projects may lead to better compliance.

### 3. CHANGE:

OLD 2–1–2. FACILITY STANDARD OPERATING PROCEDURES DIRECTIVE

### <u>NEW</u>

**2–1–2. FACILITY STANDARD OPERATING PROCEDURES DIRECTIVE** 

Title through b	No Change
Add	<u>c.</u> <u>Ensure noise abatement procedure</u> <u>commitments are included in the SOP or other</u> <u>facility directives and identified as such.</u>
Add	<u>NOTE-</u> Noise abatement procedure commitments are the result

#### Noise abatement procedure commitments are the result of the NEPA process or other formal/informal agreements.

## 4–1–6. PRELIMINARY ENVIRONMENTAL REVIEW

In coordination with the <u>Service</u> Area Air Traffic Environmental Protection Specialist (EPS), facilities must conduct and document a preliminary environmental review of new or revised ATC procedures in accordance with FAA <u>Order</u> 1050.1, Environmental Impacts: Policies and Procedures and FAA Order JO 7400.2, Procedures for Handling Airspace Matters, Chapter 32, Environmental Matters, concurrent with initial airspace planning <u>requirements</u>. The facility's review requires the documentation necessary to determine <u>whether the proposed procedure(s)</u> warrant(s) a Categorical Exclusion, an Environmental Assessment, or an Environmental Impact Statement.

**a.** Particular attention must be made to determine whether <u>air traffic</u> procedures, either new or modified, will potentially impact noise sensitive areas as defined in FAA <u>Order</u> 1050.1, Policies and Procedures for Considering Environmental Impacts.

**b.** For air traffic modifications to procedures at or above 3,000 feet (above ground level), the <u>current</u> <u>appropriate air traffic screening and modeling</u> <u>tools</u> should be applied <u>in accordance with FAA</u> <u>Order JO 7400.2</u>, <u>Paragraphs 32–2–2</u>, <u>Environmental Review of Procedures, and</u> <u>32–3–3</u>, <u>Environmental Screening and Modeling</u> <u>Tools.</u>

### 4–1–6. PRELIMINARY ENVIRONMENTAL REVIEW

In coordination with the <u>Terminal Operations</u> Area <u>Operations</u> Air Traffic Environmental Protection Specialist (EPS), facilities must conduct and document a preliminary environmental review of new or revised ATC procedures in accordance with FAA<u>O</u> 1050.1, Environmental Impacts: Policies and Procedures, concurrent with initial airspace planning. The facility's review requires the documentation necessary to determine foreseeable noise impacts and controversies.

**a.** Particular attention must be made to determine whether procedures, either new or modified, will potentially impact noise sensitive areas as defined in FAA<u>O</u> 1050.1, Policies and Procedures for Considering Environmental Impacts.

**b.** For air traffic modifications to procedures at or above 3,000 feet (above ground level), the <u>Air</u> <u>Traffic Noise Screening Procedure (ATNS)</u> should be applied. **d.** If the preliminary environmental review indicates that an Environmental Assessment or an Environmental Impact Statement is not required, the documentation must be retained in the facility with copies of all documentation forwarded to the EPS. The directive resulting from <u>the</u> air traffic procedure must contain a statement that a preliminary environmental review has been <u>accomplished</u> and that a Categorical Exclusion has been approved by the responsible official.

#### No Change

**d.** If the preliminary environmental review indicates that an Environmental Assessment or an Environmental Impact Statement is not required, the documentation must be retained in the facility with copies of all documentation forwarded to the EPS. The directive resulting from <u>new or modified</u> air traffic procedures must contain a statement that a preliminary environmental review has been <u>completed</u> and that a Categorical Exclusion, <u>if</u> <u>applicable</u>, <u>as</u> <u>demonstrated</u> <u>through</u> <u>appropriate analysis by an EPS</u>, has been approved by the responsible official.

### 1. PARAGRAPH NUMBER AND TITLE: 2–1–13. AIRCRAFT IDENTIFICATION PROBLEMS

**2. BACKGROUND:** Automatic Dependent Surveillance–Broadcast (ADS–B) equipped aircraft have unique broadcast elements from typical transponder equipped aircraft. These broadcast elements include the ADS–B broadcast call sign and ICAO address. An ADS–B alert will be generated if these broadcast elements conflict with corresponding information filed in flight plans or broadcast by other aircraft. The alerts appear in different forms dependent upon the automation platform (STARS, ERAM, Mearts, etc.) in use. Automation specific training will instruct controllers in the correct procedure to respond to alerts. DUPLICATE ICAO ADDRESS: Each ADS–B aircraft is expected to have a unique ICAO address incorporated into their avionics. Should this fail to occur and two or more aircraft with the same ICAO address are within the same ADS–B Service Volume (regardless of altitude), the ADS–B network may be unable to resolve the targets. If radar reinforcement is available, then tracking will continue. If radar is unavailable, the controller may lose target resolution on one or both targets.

### 3. CHANGE:

### <u>OLD</u>

# 2–1–13. AIRCRAFT IDENTIFICATION PROBLEMS

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

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

#### <u>NEW</u>

# 2–1–13. AIRCRAFT IDENTIFICATION PROBLEMS

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

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

#### NOTE-

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

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

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

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

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

Add

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

**<u>1.</u>** Date/time of occurrence.

**<u>2.</u>** Location (e.g., RUS VORTAC, sector 90, Shannon Airport).

**<u>3.</u>** Call signs involved in the occurrence.

**<u>4.</u>** Date occurrence is reported by facility.

5. Office/person that facility contacted.

Add

No Change

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

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

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

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

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

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

(<u>a)</u> Date/time of occurrence.

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

(c) Call signs involved in the occurrence.

(d) Date occurrence is reported by facility.

(e) Office/person that facility contacted.

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

1. Scheduled air carrier aircraft:

Add	(a) In the case of carriers listed in Appendix 2. Air Carrier Points of Contact for Aircraft Identification Problems, contact the appropriate airline office or officer and request that action be taken to have the ICAO address reviewed for correctness.
Add	(b) If other than one of the carriers listed in Appendix 2, Air Carrier Points of Contact for Aircraft Identification Problems, contact the operator or the chief pilot of the carrier concerned and request that action be taken to have the ICAO address reviewed for correctness.
Add	2. <u>Military aircraft: Contact base operations</u> of the departure airport and request that action be taken to have the ICAO address reviewed for correctness. If additional assistance is required, immediately advise the military representative assigned to the Service Area office.
Add	3. Civil aircraft other than air carrier: Advise Mission Support Services, Aeronautical Information Management, when two or more aircraft broadcast the same ICAO address within the same ADS-B Service Volume.
Add	(a) <u>The designated facility official must</u> email each occurrence to AFS-300 at <u>9-AWA-AFS-300-ADSB-FIDReport@faa.gov.</u>
Add	4. <u>The designated facility official must</u> maintain a record of actions taken and provide feedback to operations supervisors. That record should include:
Add	(a) Date/time of occurrence.
Add	(b) <u>Location (e.g., RUS VORTAC, sector 90,</u> <u>Shannon Airport).</u>
Add	(c) Call signs involved in the occurrence.
Add	(d) Date occurrence is reported by facility.
Add	(e) Office/person that facility contacted.

# **1. PARAGRAPH NUMBER AND TITLE:** 2–6–14. WORK ASSIGNMENTS AFTER SUSPENSION OR TERMINATION OF TRAINING

**2. BACKGROUND:** On November 3, 2014, Air Traffic Services issued a memorandum, Subject: Policy for Working Positions after Termination of Training, to be superseded by this change. This memorandum supplemented guidance provided in FAA Order JO 3120.4N, Air Traffic Technical Training, to determine what positions a Developmental or CPC-IT would be permitted to work during the suspension of training or termination of training.
# 3. CHANGE:

<u>OLD</u>	NEW
Add	<u>2–6–14. WORK ASSIGNMENTS AFTER</u> SUSPENSION OR TERMINATION OF TRAINING
Add	a. <u>At the discretion of the Air Traffic Manager,</u> <u>a/developmental/CPC-IT/TMC-IT/NTMS-IT/</u> <u>FPL-IT whose on-the-job training has been</u> <u>suspended may be assigned to work the positions</u> <u>on which he/she is certified.</u>
Add	b. <u>A developmental/CPC-IT/TMC-IT/NTMS</u> <u>-IT/FPL-IT</u> whose training has been <u>terminated, must only be assigned positions that</u> <u>do not issue control instructions.</u>

# **1. PARAGRAPH NUMBER AND TITLE:** 3–6–6. TERMINAL DIGITAL RADAR SYSTEM AND DIS-PLAY SETTINGS

**2. BACKGROUND:** A facility's permanent beacon target (PARROT) was out of service which resulted in questions as to whether the radar system was certified for use since video maps could not be checked for alignment. Technical Operations has detailed procedures for alternate methods of radar service certification. It has been determined that a PARROT is not a requirement for video map alignment on Digital Terminal Automation Systems (DTAS). The current requirement accounts for older analog video maps which may still be in existence at some locations. In today's NAS, video maps are all digital; and at DTAS, locations the maps are compiled into the adaptation for the platform and do not require individual alignment.

# 3. CHANGE:

# <u>OLD</u> 3–6–6. TERMINAL DIGITAL RADAR SYSTEM AND DISPLAY SETTINGS

## Title through a5

**6.** <u>Permanent beacon target (Parrot)</u> used for map alignment location.

## **b1** and **b2**

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

## <u>NEW</u>

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

No Change

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

#### No Change

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

# 1. PARAGRAPH NUMBER AND TITLE: 4–2–2. PILOT EDUCATION

2. BACKGROUND: The outdated FAA Order 7230.16C, Pilot Education Program–Operation Rain Check, dated December 18, 1987, was canceled in 2014. Nevertheless, optional Operation Rain Check programs continue to have positive influences on pilot and air traffic communities in many parts of the NAS. In lieu of publishing a new separate order, this paragraph provides current Operation Rain Check guidance. Many of today's successful Operation Rain Check programs focus more on two-way pilot and controller outreach efforts rather than strictly pilot education. This change also adds focus on runway safety. While Operation Rain Check programs remain optional, this change addresses requirements, considerations and references.

# 3. CHANGE:

# OLD 4-2-2. PILOT EDUCATION

Air traffic facilities should maintain an aggressive pilot education program whereby facility personnel provide briefings and conduct seminars for Pilots. In addition to briefings on local airspace and procedures, information on national programs should be provided. Emphasis should be placed on operations within Class B and Class C airspace and the FSS Modernization Program. The following are examples of the type of voluntary programs that may be offered:

#### **a.** Operation Rain Check. a. Operation Rain Check must: 1. Be performed as an additional duty and Add must not adversely impact facility resources. Add mutual understanding, cooperation and a free exchange of information. 3. Demonstrate a desire to help pilots make Add use of FAA services, and reflect a spirit of service to NAS operators, while also benefitting controllers. b. Important success factors to consider for Add **Operation Rain Check:** 1. Facility access and security. Use good Add judgment and proper security measures while planning, setting up and conducting local programs. Add REFERENCEhttp://www.faasafety.gov/ FAA Advisory AC 61-91J WINGS - Pilot Proficiency Program FAA Order 8900.1. Flight Standards Information Management System, Volume 15, FAAS Team Policies and Procedures (http.V/fsims. faa.gov/) FAA Order JO 7200.21, Partnership for Safety Program

#### **NEW**

# 4-2-2. PILOT/CONTROLLER OUTREACH: **OPERATION RAIN CHECK**

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

2. Be conducted in an atmosphere that fosters

**Briefing Guide** 

Add	2. <u>Continuous and extensive publicity may be</u> vital to a successful program. FAA Public Affairs may provide guidance on local media relations activities. Also, consider collaborating program agendas and events with the FAA WINGS program representatives. 3. Distribute program announcements
	and/or information to airport authorities, flight schools, fixed base operators, military airfield managers, and neighboring facilities, including Flight Standards District Offices (FSDO) and Airport District Offices (ADOs).
Add	4. <u>Consider presenting Letters of</u> <u>Appreciation to key program participants.</u>
Add	5. Facility Managers should:
Add	(a) Determine what program materials, resources and other safety organizations would add value to implementing local Operation Rain Check programs.
Add	<u>NOTE–</u> <u>At locations where more than one air traffic facility ex-</u> <u>ists, consider cooperative efforts.</u>
Add	(b) <u>Ensure locally adopted indoctrination</u> materials comply with Privacy Act stipulations.
Add	(c) <u>Offer participation to Partnership for</u> <u>Safety Local Safety Councils, Runway Safety</u> <u>Action Teams, FSDOs, and Airport Authorities.</u>
Add	(d) Be emphatic about Runway Safety and should include the following on the agenda:
Add	(1) <u>Runway incursion/excursion preven-</u> tion.
Add	(2) Airport signage and markings.
Add	(3) Local runway safety related issues.
Add	(4) Pilot/controller communications and read backs.
Add	<u>NOTE-</u> <u>1. Runway Safety Action Team meetings are required</u> at all towered airports (FAA Order 7050.1, Chapter 4) and may be included to provide a positive venue for controllers, pilots and airport personnel to address surface safety.
Add	2. <u>Additional runway safety information is available</u> through FAA National and Service Area Runway Safety Offices and Runway Safety Program Managers.
b. Facility sponsored pilot/controller forums.	Delete
c. FSDO accident prevention safety meetings.	Delete

**2. BACKGROUND:** When developing a response to a CAP for AOV Audit Compliance COMP-FY15-013, AJV-8 and AJT determined that the current FAA Order JO 7210.3, para 4-3-1 can be interpreted that an LOA is required with all operators in the National Airspace System because Air Traffic Control requires "cooperation and concurrence" from all other persons/facilities/organizations. This change removes the ability of a reader to misconstrue the intent of the LOA development guidance. It clarifies the position that LOAs are developed to provide clarity of operational procedures at the facility and are completed per the determination of the Air Traffic Manager.

# 3. CHANGE:

## <u>OLD</u> 4–3–1. LETTERS OF AGREEMENT

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

#### <u>NEW</u>

# 4-3-1. LETTERS OF AGREEMENT

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

<u>b</u> through <u>l</u>

## Re-letter $\underline{a}$ through $\underline{k}$

## 1. PARAGRAPH NUMBER AND TITLE:

4–3–1. LETTERS OF AGREEMENT 4–3–2. APPROPRIATE SUBJECTS 13–4–6. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) – ALASKA FSSs ONLY

**2. BACKGROUND:** In December 2005, a Boeing 737–700 experienced a runway excursion (overrun) while attempting to land at Chicago Midway (MDW) during winter conditions. As a result, the FAA established an internal team to review related FAA regulations, policies, and industry practices in an effort to develop mitigation strategies designed to reduce/eliminate these occurrences. The result was a group known as Takeoff and Landing Performance Assessment (TALPA). TALPA found deficiencies in multiple areas, most notably in the lack of a standardized method to assess landing performance during arrival, and particularly when airport conditions had changed while en route. The FAA is proposing operators to conduct a landing performance assessment, while en route, and with this decision, the terms associated with this assessment and the methods used to transmit these conditions requires updating. The goal of TALPA is to standardize runway contamination reporting through the NAS and to harmonize with ICAO procedures.

## 3. CHANGE:

# <u>OLD</u>

## 4-3-1. LETTERS OF AGREEMENT

## Title through g2

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

#### <u>NEW</u>

#### 4–3–1. LETTERS OF AGREEMENT

#### No Change

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

## 4–3–2. APPROPRIATE SUBJECTS

### Title through k2

**3.** Reporting airport conditions, to include how all PIREP braking action reports of <u>"nil" and "poor"</u> are to be immediately transmitted to <u>the</u> airport <u>operator</u>, and an agreement on actions by air traffic personnel for the immediate cessation of operations on runways subject to "nil" braking action reports.

#### REFERENCE-

Advisory Circular AC 150/5200-30<u>C</u>, Airport Winter Safety and Operations

#### 13-4-6. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) – ALSAKA FSSs ONLY

a. <u>Alaska FSS</u> AFIS provides a continuous broadcast of recorded non-control information at airports in Alaska where a Flight Service Station (FSS) provides local airport advisory service. The AFIS broadcast automates the repetitive transmission of essential but routine information such as weather, wind, altimeter, favored runway, breaking action, airport NOTAMs and other applicable information. The information is continuously broadcast over a discrete VHF radio frequency (usually the ASOS frequency). Pilots are urged to listen to AFIS when arriving, departing, and operating within the airport advisory area as it relieves frequency congestion on the local airport advisory frequency. AFIS is not used in terminal areas and does not contain approach information.

#### 4-3-2. APPROPRIATE SUBJECTS

#### No Change

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

#### REFERENCE-

Advisory Circular AC 150/5200-30<u>D</u>, Airport Winter Safety and Operations

#### 13-4-6. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) – ALSAKA FSSs ONLY

**a.** AFIS provides a continuous broadcast of recorded non-control information at airports in Alaska where a FSS provides local airport advisory service. The AFIS broadcast automates the repetitive transmission of essential but routine information such as weather, wind, altimeter, favored runway, **braking** action, airport NOTAMs and other applicable information. The information is continuously broadcast over a discrete VHF radio frequency (usually the ASOS frequency). Pilots are urged to listen to AFIS when arriving, departing, and operating within the airport advisory area as it relieves frequency congestion on the local airport advisory frequency. AFIS is not used in terminal areas and does not contain approach information.

# 1. PARAGRAPH NUMBER AND TITLE: 6-7-12. TRANSFER OF POSITION RESPONSIBILITY

**2. BACKGROUND:** The transition to ERAM was completed in the spring of 2015. This change clarifies the previous updates to the legacy language.

## 3. CHANGE:

# <u>OLD</u> 6–7–12. TRANSFER OF POSITION RESPONSIBILITY

Each <u>EDST</u> facility must ensure that pertinent information is integrated into any Position Relief briefing list, whether manual or electronic.

# <u>NEW</u> 6–7–12. TRANSFER OF POSITION RESPONSIBILITY

Each facility must ensure that pertinent <u>EDST</u> information is integrated into any Position Relief briefing list, whether manual or electronic.

# **1. PARAGRAPH NUMBER AND TITLE:**

8–1–4. FLIGHT PLAN DROP INTERVAL 17–5–4. RESPONSIBILITIES

**2. BACKGROUND:** In response to a Corrective Action Plan (CAP), a Safety Risk Management Panel (SRMP) was convened to determine the safety hazards associated with Multiple Flight Plan(s) (MFP). When MFPs occur there is the potential that a controller can clear the flight for departure based upon a flight plan that is different than what was previously issued. This could result in the aircraft flying a route not anticipated or planned by Air Traffic Control (ATC). The panel identified MFPs as a low risk hazard and proposed several mitigations to reduce the frequency of MFP's.

#### 3. CHANGE:

<u>OLD</u>	NEW
Add	<u>8-1-4. FLIGHT PLAN DROP INTERVAL</u>
Add	Set a standard Flight Plan Drop Interval appropriate for daily operations. Coordinate increased drop interval times due to temporary conditions with underlying facilities and the Air Traffic Control System Command Center (ATCSCC). Record temporary adjustments on FAA Form 7230–4, Daily Record of Operations, and the National Traffic Management Log (NTML).
<u>OLD</u>	<u>NEW</u>
<u>OLD</u> 17–5–4. RESPONSIBILITIES	<u>NEW</u> 17–5–4. RESPONSIBILITIES
OLD 17–5–4. RESPONSIBILITIES Title through <b>b10</b>	<u>NEW</u> 17–5–4. RESPONSIBILITIES No Change
OLD 17–5–4. RESPONSIBILITIES Title through b10 Add	<u>NEW</u> 17–5–4. RESPONSIBILITIES No Change <u>11. Indicate the implementation or</u> termination of extended flight plan drop times, when notified by field facilities, via numbered ATCSCC advisory.
OLD 17–5–4. RESPONSIBILITIES Title through b10 Add c1 through c5(c)	NEW 17–5–4. RESPONSIBILITIES No Change 11. Indicate the implementation or termination of extended flight plan drop times, when notified by field facilities, via numbered ATCSCC advisory. No Change

# 1. PARAGRAPH NUMBER AND TITLE: 17–2–4. FIELD FACILITIES

**2. BACKGROUND:** A Corrective Action Plan (CAP) for Air Traffic Safety Action Program (ATSAP) Corrective Action Request (CAR) 2010–040, Special Use Airspace (SUA) and Weather Deviations, established a notice containing procedures for Traffic Management Unit (TMU) planning telecons for weather impacting routes adjacent to Special Activity Airspace (SAA).

## 3. CHANGE:

# <u>OLD</u> 17–2–4. FIELD FACILITIES

# <u>NEW</u> 17–2–4. FIELD FACILITIES

Title through a8	No Change
Add	<u>9.</u> <u>Standard traffic management unit</u> <u>procedures contained in this order must be</u> <u>applied when weather is scheduled to impact an</u> <u>active or scheduled SAA with the following</u> <u>additions/changes:</u>
Add	(a) Facilities must conduct a telecon if weather is forecasted to impact a facility's traffic flow, which may potentially cause an aircraft to enter the protected airspace of an active SAA within their facility.
Add	<u>NOTE–</u> If the facility has instantaneous recall of the SAA airspace, then a telecon is not required.
Add	(b) Participants must include, at a minimum, the using agency or scheduling agency and the controlling agency. If available, the Center Weather Service Unit (CWSU), Operations, and any other entities necessary to ensure a comprehensive look at the day ahead should be included.
Add	(c) The intent of the telecon is to address any issues that may arise due to weather, the usage of SAA, civil traffic flow, and alternate plans. These calls will also serve as a venue in which the facility can determine the type of activity that will be occurring in the SAA.
Add	(d) Unless it is clearly understood and agreed upon by the using or scheduling agency that the SAA will be available for civil traffic, facilities must not base their plan on using active military airspace.
Add	(e) If the SAA will not be available for civil traffic, then Traffic Management Initiative(s) (TMI) must be put in place to ensure aircraft remain clear of the protected airspace of an active special use airspace that is impacted by weather.
Add	<u>NOTE–</u> If the facility has instantaneous recall of the SAA airspace, then TMI(s)may not be required.
Add	(f) If a deviation due to forecasted weather occurs that causes an aircraft to enter into an active SAA:
Add	(1) The Supervisor Traffic Management Coordinator (STMC) must immediately con- duct an evaluation of TMI(s) in place with em- phasis on adjusting the flow of traffic away from the SAA.

Add	(2) The Air traffic manager (ATM) must
	ensure the appropriate service review (i.e.; sys-
	tem service review or traffic management re-
	<u>view) is completed in accordance with FAA Or-</u>
	der JO 7210.634, Air Traffic Organization
	(ATO), Quality Control, Chapter 3.
<u><b>a9</b></u> and <u><b>a10</b></u>	Renumber <b><u>a10</u></b> and <b><u>a11</u></b>

## **1. PARAGRAPH NUMBER AND TITLE:**

Chapter 17, Section 7. Flow Evaluation Area (FEA) and Flow Constrained Area (FCA) 17–7–2. DEFINITIONS 17–7–3. RESPONSIBILITIES 17–7–4. PROCEDURES 17–7–5. ARTCC TO ARTCC COORDINATION 17–7–8. INTEGRATED COLLARBORATIVE REROUTING (ICR)

**2. BACKGROUND:** ICR is a process that builds on the FEA and FCA technology. The ICR process requires that a constraint be identified early. ICR has been a developing process to allow customers to take action with their trajectory preferences in response to an identified system constraint. System stakeholders have an opportunity to consider the area of concern and provide early intent (EI) messages that communicate their decisions in response to the constraint. EI messages update traffic flow management system flight trajectories, monitor alert values, and routing intentions. At the expiration of the EI window, traffic managers can analyze the customer responses and decide if the actions taken have resolved the issue or decide if recommended routes, required routes, airspace flow programs, or other traffic management initiatives (TMI) will be necessary to further reduce demand. ICR gives system stakeholders flexibility in managing their flights based on identified National Airspace System constraints and reduces the possibility of more restrictive initiatives. Traffic flow managers benefit from enhanced flight information and from collaborative responses to system capacity actions.

## 3. CHANGE:

## <u>OLD</u>

Section 7. Flow Evaluation Area (FEA) and Flow Constrained Area (FCA)

## **17–7–2. DEFINITIONS**

#### Title through g

**h.** Route guidance: Suggested reroutes, issued in an advisory that suggest or provide examples of routing possibilities away from a defined constraint associated with an FEA/FCA. This guidance may not provide routes for all flights captured in the FEA/FCA.

Add

## <u>NEW</u>

Section 7. Flow Evaluation Area (FEA), Flow Constrained Area (FCA), and Integrated Collaborative Rerouting (ICR)

## 17–7–2. DEFINITIONS

No Change

h. <u>ICR: Strategic process for stakeholders to</u> <u>define and structure TMIs to mitigate</u> <u>constraints identified by an FEA or FCA.</u>

i. Route guidance: Suggested reroutes, issued in an advisory that suggest or provide examples of routing possibilities away from a defined constraint associated with an FEA/FCA. This guidance may not provide routes for all flights captured in the FEA/FCA.

#### 17-7-3. RESPONSIBILITIES 17-7-3. FEA/FCA RESPONSIBILITIES 17-7-4. FEA/FCA PROCEDURES 17-7-4. PROCEDURES 17-7-5. ARTCC TO ARTCC 17-7-5. ARTCC TO ARTCC FEA/FCA **COORDINATION** COORDINATION Add **17-7-8. INTEGRATED COLLABORATIVE REROUTING (ICR)** Add a. Customers are expected to: Add 1. Examine their affected flights and, when practical, enter early intent (EI) and/or file a flight plan that will route the aircraft away from the affected area. When acceptable options are not available, contact the ATCSCC Tactical **Customer Advocate.** 2. Enter "NRP" in the remarks section of the Add flight plan. Add b. The FAA traffic management unit (TMU) must: 1. Coordinate with the Air Traffic Control Add System Command Center (ATCSCC) to initiate the ICR process. Add 2. Provide assistance in developing flow constrained areas (FCA), reroute options, and associated restrictions for the impacted area. Add c. The ATCSCC must: Add 1. Share the FCA with all affected stakeholders, and issue an ICR FCA that defines the geographical area of concern with appropriate altitude and time limits, plus any other relevant filters to select affected traffic. NOTE-Add An EI window should be effected no less than 45 minutes prior to implementation of the ICR Process. Add 2. Conference the affected stakeholders and communicate the objectives for the flights captured in the FCA. Add 3. Send an ICR advisory that provides an early intent window and route guidance if deemed necessary. Add 4. Issue route guidance using an advisory in the Create Reroute tool. Preferential routes, recommended routes, and constraint avoidance may all be suggested.

Add	<u>NOTE-</u> <u>Required reroutes may not be necessary if the response</u> <u>taken by customers alleviates the need for this initiative</u> <u>or the reason for initiating the ICR process changes</u> (weather does not materialize, significant volume re- <u>ductions, etc.).</u>
Add	5. At the end of the EI window, either:
Add	<u>(a) Issue required reroutes;</u>
Add	(b) Issue an AFP;
Add	(c) Extend the EI window; or
Add	(d) Cancel ICR.
Add	d. The FCA expires at the end of the published valid time unless it is coordinated and an advisory is issued that cancels the initiative.

## 1. PARAGRAPH NUMBER AND TITLE:

17–23–2. DEFINITION 17–23–3. RESPONSIBILITIES 17–23–4. PROCEDURES

**2. BACKGROUND:** Instances of major facility outages identified specific shortcomings in Operational Contingency Plan (OCP) procedures. OCPs were primarily for the contingency response to an event rather than continuity of services over a prolonged period. FAA Order JO 1900.47, Air Traffic Control Operational Contingency Plans, is updated to include operational guidance to be used during contingency events and clarifies methods for continuity of required services. The policies and guidelines for managing ARTCC OCP data within the Contingency Plan Support System (CPSS) have been updated to be correctly aligned with FAA Order JO 1900.47E.

#### 3. CHANGE:

## <u>OLD</u>

#### 17–23–2. DEFINITION

The CPSS, as defined in FAA Order JO 1900.47, Air Traffic Organization Contingency Plan, is a software application used to collect, share, publish, and distribute OCPs for operational access and use by field facilities, the ATCSCC, and customers during ATC Zero events.

#### 17-23-3. RESPONSIBILITIES

a. The ATCSCC must:

**1.** <u>Manage the CPSS database following FAA</u> <u>Order JO 1900.47, Air Traffic Organization</u> <u>Contingency Plan.</u>

**<u>2.</u>** <u>Designate a POC for the management of the</u> <u>CPSS database.</u>

## <u>NEW</u>

#### 17–23–2. DEFINITION

<u>CPSS is a collection of contingency non-radar</u> routes maintained by the ATCSCC on an internal website. CPSS data is available via the "Contingency Plan" tab located at: http://www.atcscc.faa.gov/ois.

#### 17-23-3. RESPONSIBILITIES

a. The ATCSCC must <u>designate a POC for the</u> management of the CPSS.

Delete

Delete

# 17-23-4. PROCEDURES

**a.** <u>OCP data for each ARTCC must be published</u> within CPSS via the national RMT database. Updates to the RMT database</u> will coincide with the 56-day chart update cycle.

**b.** <u>OCP</u> data <u>must be processed</u> in accordance with the following timelines:

# 17-23-4. PROCEDURES

a. <u>Contingency non-radar route data must be</u> <u>published in CPSS.</u> Updates will coincide with the 56-day chart update cycle.

**b.** <u>Non-radar</u> data <u>is processed via the RMT</u> in accordance with the following timelines:

# 1. PARAGRAPH NUMBER AND TITLE:

Chapter 20. Operations Security, Strategic and Tactical 20–1–1. SYSTEM OPERATIONS SECURITY MISSION 20–1–2. STRATEGIC OPERATIONS SECURITY MISSION 20–1–3. TACTICAL OPERATIONS SECURITY MISSION

**2. BACKGROUND:** FAA Order JO 7210.3, Facility Operation and Administration, Chapter 20, Operations Security, Strategic and Tactical, describes the organizational duties and responsibilities of ATO System Operations Security. Since originally published, organizational responsibilities have expanded and evolved to include ATO's alignment with ICAO efforts in Air Traffic Management Security. This makes it necessary to revise and update Chapter 20 to include the changes. Therefore, Chapter 20 is undergoing revision through the DCP process on a section–by–section basis until completed.

# 3. CHANGE:

# <u>OLD</u>

Chapter 20. Operations Security, <u>Strategic and</u> <u>Tactical</u>

Section 1. Organizational Missions

# 20-1-1. SYSTEM OPERATIONS SECURITY MISSION

The System Operations Security mission is to balance the demands of homeland security/national defense with the operational integrity and economic consideration of the National Airspace System (NAS). System Operations Security coordinates to preserve national security regarding real time operational issues and events in the NAS. This commitment is fostered through interagency coordination at the strategic and tactical levels with the communication of dynamic decision making during real time events.

#### <u>NEW</u>

Chapter 20. Operations Security<u>: Tactical,</u> <u>Special, and Strategic</u>

No Change

20–1–1. SYSTEM OPERATIONS SECURITY MISSION

Delete

Add	a. System Operations Security leads the Air Traffic Organization's (ATO) use of the agency's Air Navigation Services (ANS) authorities, expertise, and operational capability to help protect the United States and its interests from Air Domain related threats and hazards in the national defense, homeland security, law enforcement, and disaster response arenas. System Operations Security is also responsible for leading the ATO's Air Traffic Management (ATM) security efforts to mitigate the impacts of those threats and hazards on the safety and efficiency of the National Airspace System (NAS).
Add	NOTE- 1. <u>To align with ICAO Document 9985, Air Traffic</u> <u>Management Security Manual, the FAA defines ATM</u> <u>security as the safeguarding of the ATM system from</u> <u>security threats and vulnerabilities; and the contribu-</u> <u>tion of the ATM system to civil aviation security,</u> <u>national security and defense, and law enforcement.</u>
Add	2. <u>To align with ICAO Document 9985, Air Traffic</u> <u>Management Security Manual, the FAA defines "air</u> <u>domain" as the global airspace; all manned and</u> <u>unmanned aircraft operating in the global airspace; all</u> <u>people and cargo present in the global airspace; and all</u> <u>aviation-related infrastructure.</u>
Add	b. System Operation Security's collaboration with air traffic field facilities and interaction with Federal, State, and local interagency partners falls into three general mission areas, which broadly reflect the organization structure of the office's groups: Tactical Operations Security, Special Operations Security, and Strategic Operations Security.

## <u>OLD</u>

#### 20–1–2. STRATEGIC OPERATIONS SECURITY MISSION

Strategic Operations Security is responsible for the planning and coordination of homeland security/ national defense needs within the NAS. In this capacity, Strategic Operations Security is the focal point for all internal and external security requests that impact the NAS. Strategic Operations Security is responsible for communicating the implementation of all operational security procedures and any impacts on the NAS. <u>NEW</u> Delete

Delete

Add	<u>20–1–2. TACTICAL OPERATIONS SECURI- TY MISSION</u>
Add	Tactical Operations Security is responsible for the management of ATO's real-time ATM security-related operations. These tactical oper- ations principally focus on: monitoring air traffic and using intelligence information to detect potential threats, validating those threats, and facilitating tactical responses in order to reinforce efforts to defeat those threats while mitigating safety and efficiency impacts on the
	NAN

#### OLD 20-1-3. TACTICAL OPERATIONS SECURITY MISSION

Tactical Operations Security is responsible to ensure the real-time coordination and implementation of security procedures within the NAS mainly through the Domestic Events Network, (DEN) and National Capital Region Coordination Center, (NCRCC). Tactical Operations Security is the focal point for all active security measures and adjustments made for security and/or operational considerations. Tactical Operations Security is also responsible for the coordination of intelligence reporting and its nexus to the operational aspects of the NAS.

# OLD

Add

**Briefing Guide** 

<u>NAS.</u>

<u>NEW</u>
Delete

Delete

# **NEW**

# **20–1–3. SPECIAL OPERATIONS SECURITY** MISSION

**Special Operations Security is principally** responsible for the development and coordination of near-term plans to provide ATM security related support to classified or sensitive operations undertaken by national defense, homeland security, and law enforcement interagency partners. Special Operations also serves as the primary interface with NORAD and other interagency partners for the development of protocols and plans to support the integration of live and exercise missions into the NAS, mitigating any safety and efficiency impacts.

<u>OLD</u>	NEW
Add	20-1-4. STRATEGIC OPERATIONS SECURITY MISSION
Add	Strategic Operations Security is principally responsible for supporting ATM security mea- sures through development and coordination of procedures, plans, programs, exercises, and policies needed to effectively carry out ATO's efforts in the national defense, homeland security, law enforcement, and disaster response arenas while mitigating safety and efficiency impacts on the NAS. In addition, this group leads ATO's efforts on Continuity of Operations, disaster response, and other emergency opera- tions.