

CHANGE

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

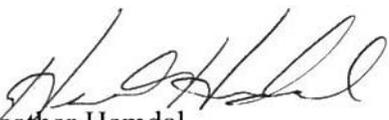
**JO 7400.2K
CHG 2**

Air Traffic Organization Policy

Effective Date:
May 26, 2016

SUBJ: Procedures for Handling Airspace Matters

- 1. Purpose of This Change.** This change transmits revised pages to Federal Aviation Administration Order JO 7400.2K, Procedures for Handling Airspace Matters.
- 2. Audience.** This change applies to all Air Traffic Organization (ATO) personnel and anyone using ATO directives. This order also applies to all regional, service area, and field organizational elements involved in rulemaking and nonrulemaking actions associated with airspace allocation and utilization, obstruction evaluation, obstruction marking and lighting, airport airspace analysis, and the management of air navigation aids.
- 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.
- 5. Distribution.** This change is distributed to select offices in Washington headquarters; the Office of Commercial Space Transportation; regional Flight Standards; Airports Divisions; service area offices; the William J. Hughes Technical Center; the Mike Monroney Aeronautical Center; Technical Operations Aviation System Standards; all field facilities; international aviation field offices; and interested aviation public.
- 6. Disposition of Transmittal.** Retain this transmittal until superseded by a new basic order.
- 7. Page Control Chart.** See the page control chart attachment.


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Director, Air Traffic Procedures
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Date: 4-6-16

Distribution: ZAT-740 (ALL)

Initiated By: AJV-0
Vice President, Mission Support Services

Explanation of Changes

Change 2

**Direct questions through appropriate facility/service center office staff
to the Office of Primary Interest (OPI).**

a. 1-1-7. SUBMISSION CUTOFF AND EFFECTIVE DATES

This change clarifies that although this order is scheduled to be published based on the predetermined AIRAC calendar, that is not always the case. Due to the infrequent nature of changes to this order, there will be times when the order is not published based on the schedule.

b. 1-1-9. RECOMMENDATIONS FOR PROCEDURAL CHANGES

This change updates the office of primary responsibility and procedures for submitting proposed changes to this order.

c. 1-2-6. ABBREVIATIONS 6-3-10. EVALUATING EFFECT ON AIR NAVIGATION AND COMMUNICATION FACILITIES

Since the Microwave Landing System (MLS) has been decommissioned, all references to MLS have been removed.

d. 7-3-2. CORRECTION

This change is clarified to allow correction of any determinations that are built to a lower height or have minor coordinate changes.

e. 29-1-1. PURPOSE

This change revises the language to better describe the purpose of Chapter 29, Outdoor Laser Operations.

f. 29-1-3. POLICY

This change clarifies and emphasizes the role and responsibilities of the Service Center.

g. 29-1-4. RESPONSIBILITIES

This change clarifies the required action for terminated lasers and updates information on Flight Standard (AFS) Division offices and resources.

h. 29-2-1. SERVICE CENTER COORDINATION

This change adds a new paragraph entitled, "Service Center Coordination" that details the responsibilities and expectations of the Service Center point of contact to work closely with their counterpart in AFS to ensure safety and efficiency.

i. 29-2-3. LOCAL LASER WORKING GROUP (LLWG)

This change updates naming conventions and clarifies the makeup and responsibilities of the LLWG.

j. 29-2-5. CONTROL MEASURES

This change adds another method of control measures and clarifies that the proponent must comply with any additional requirements established in the determination. It also adds a note that explains the new ability for proponents to certify compliance with criteria in SAE Aerospace Standard 6029.

k. 29-3-1. FINDINGS

This change clarifies the process for processing letters of determination.

l. 29-3-2. CONTENT OF DETERMINATIONS

This change updates naming conventions and adds a notification requirement for a laser show's completion.

m. 29-3-3. PUBLICATION OF LASER OPERATIONS IN THE NAS

This change adds additional guidance and clarifies the process for publishing laser activities for

situational awareness to National Airspace System (NAS) stakeholders and others.

n. 29-4-1. ISSUANCE OF NOTICES TO AIRMEN (NOTAM)

This change updates naming conventions and provides some flexibility in the issuance of NOTAMs.

o. Chapter 29, Section 5. Aircraft Illumination Actions

This new section provides guidance for air traffic and field facilities to document and notify when laser activities do not perform as expected or do not conform to the expected conditions.

p. 32-1-1. PURPOSE

32-1-2. POLICY

32-1-3. BACKGROUND

32-1-4. DELEGATION OF AUTHORITY

32-1-5. RESPONSIBILITIES

32-2-1. THE PROCESS

32-2-2. ENVIRONMENTAL REVIEW

OF PROCEDURES

32-2-3. SPECIAL USE AIRSPACE (SUA)

32-2-4. 14 CFR PART 150 STUDIES

This change refines guidance regarding the Environmental Review Process and delineates specific requirements for Mission Support personnel both at Headquarters and the Service Centers. Guidance memorandums were also incorporated into the Environmental Review Process where appropriate.

q. Chapter 32, Section 3. Environmental Impact Categories and Other Topics

32-3-1. ENVIRONMENTAL IMPACT CATEGORIES TO BE INCLUDED IN ANALYSIS

32-3-2. ENVIRONMENTAL IMPACT CATEGORIES EXCLUDED FROM ANALYSIS

32-3-3. ENVIRONMENTAL SCREENING AND MODELING TOOLS

32-3-4. RECORDS RETENTION

Chapter 32, Section 4. Air Traffic-Specific Environmental Guidance and Requirements

Appendix 4. FAA Procedures for Processing SUA Actions: Aeronautical and Environmental Summary Table

Appendix 5. Air Traffic Initial Environmental Review

Appendix 7. FAA/DOD Memorandum of Understanding

Appendix 8. FAA Special Use Airspace Environmental Processing Procedures

The material herein is being rewritten to better assist air traffic personnel in applying environmental requirements identified within this order and those requirements identified within FAA Order 1050.1, Environmental Impacts: Policies and Procedures. These changes are necessary to incorporate guidance memorandums into the revised Environmental Review Process.

Chapter 32, section 4, contains rewritten material from section 3, as well as other helpful guidance to foster better application of the Environmental Review Process. The information within this section is distributed amongst nine paragraphs.

To avoid confusion, revision bars were not used in the summary table of Appendix 4. The use of revision bars along the table would give the appearance that more information was revised than what was intended. Therefore, the changes are noted here in the explanation of changes page; in short, Service "Area" was changed to Service "Center" and "Airspace Regulations and ATC Procedures Group" was changed to "Airspace Policy Group." The remaining appendices reflect revision bars where changes were made.

r. Chapter 33. Parasail Operations

This change adds a new chapter which describes FAA policy on parasail operations, provides guidance to ATO Service Centers for completing parasail waivers and directs service centers to share approved waivers with the nearest Flight Standards District Office. This information is distributed amongst seven paragraphs for added clarity.

s. Entire publication.

A global search and replace was conducted on the term "A/FD - Airport/Facility Directory." This term is now being referred to as "Chart Supplement U.S."

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

FAA Order JO 7400.2K
Change 2
Page Control Chart
May 26, 2016

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Order JO 7400.2K Procedures for Handling Airspace Matters

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Part 1. General Procedures for Airspace Management

Chapter 1. General

Section 1. Introduction

1-1-1. PURPOSE OF THIS ORDER

a. This order prescribes policy, criteria, guidelines, and procedures applicable to the System Operations Services, System Operations Airspace and AIM; Technical Operations ATC Spectrum Engineering Services; the Office of Airport Planning and Programming, APP; the Office of Airport Safety and Standards, AAS; Technical Operations Aviation System Standards; and the Flight Standards Service, AFS.

b. While this order provides procedures for handling airspace matters, additional procedures and criteria to supplement those contained herein may be set forth in other directives and should be consulted.

1-1-2. AUDIENCE

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

b. This order also applies to all regional, service area, and field organizational elements involved in rulemaking and nonrulemaking actions associated with airspace allocation and utilization, obstruction evaluation, obstruction marking and lighting, airport airspace analysis, and the management of air navigation aids.

1-1-3. WHERE TO FIND THIS ORDER

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

1-1-4. WHAT THIS ORDER CANCELS

FAA Order 7400.2J, Procedures for Handling Airspace Matters, dated February 9, 2012, and all changes to it are canceled.

1-1-5. CHANGE AUTHORITY

The Vice President, Mission Support Services, will issue changes to this directive after obtaining concurrence from the affected Headquarters offices/services/service units on the cover of this order.

1-1-6. EXPLANATION OF CHANGES

a. 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.

b. If further information is desired, please direct questions through the appropriate facility/service area/regional office to the headquarters office of primary responsibility.

1-1-7. SUBMISSION CUTOFF AND EFFECTIVE DATES

This order and its changes are scheduled to be published to coincide with AIRAC dates. However, due to the infrequent nature of changes submitted for this order, publishing may be postponed.

Publication Schedule		
Basic or Change	Cutoff Date for Submission	Effective Date of Publication
JO 7400.2K	8/22/13	4/3/14
Change 1	4/3/14	7/24/14
Change 2	12/10/15	5/26/16
Change 3	5/26/16	11/10/16
JO 7400.2L	11/10/16	4/27/17

1-1-8. DELIVERY DATES

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

1-1-9. RECOMMENDATIONS FOR PROCEDURAL CHANGES

a. The responsibility associated with processing and coordinating revisions to this order is delegated to the Manager, Airspace Policy Group.

b. Proposed changes or recommended revisions must be submitted, in writing, to the Airspace Policy Group. The proposal should include a description of the proposal and the language to be inserted in the order.

c. When appropriate, the Airspace Policy Group may convene a workgroup for the purpose of reviewing, clarifying, editing, or revising recommendations received to revise this order. Composition of the workgroup will be determined by the subject matter and the expertise required. The Airspace Policy Group is responsible for the selection of the members of the workgroup, and for appointing the chairperson of the group.

d. The Air Traffic Procedures directorate is responsible for ensuring all approved revisions are published.

e. When revised, reprinted, or additional pages are issued, they will be marked as follows:

1. Each revised or added page will show the change number and effective date of the change.

2. Bold vertical lines in the margin of the text will mark the location of substantive procedural, operational, or policy changes (for example, when material that affects the performance of duty is added, revised, or deleted).

1-1-10. DISTRIBUTION

This order is distributed to select offices in Washington headquarters; the Office of Commercial Space Transportation; regional Flight Standards; Airports Divisions; service area offices; the William J. Hughes Technical Center; the Mike Monroney Aeronautical Center; Technical Operations Aviation System Standards; all field facilities; international aviation field offices; and interested aviation public.

Section 2. Authority and Order Use

1–2–1. POLICY

The navigable airspace is a limited national resource that Congress has charged the Federal Aviation Administration (FAA) to administer in the public interest as necessary to ensure the safety of aircraft and its efficient use. Although the FAA must protect the public's right of freedom of transit through the airspace, full consideration must be given to all airspace users, to include national defense; commercial and general aviation; and space operations. Accordingly, while a sincere effort must be made to negotiate equitable solutions to conflicts over the use of the airspace for non-aviation purposes, preservation of the navigable airspace for aviation must be the primary emphasis.

1–2–2. AUTHORITY AND APPLICABILITY

The authority for the procedures and associated rules and regulations addressed in this order are provided in 49 U.S.C. Subtitle VII, Aviation Programs, Part A – Air Commerce and Safety, and Part B – Airport Development and Noise:

- a. Section 40101, Policy.
- b. Section 40102, Definitions.
- c. Section 40103, Sovereignty and Use of Airspace, and the Public Right of Transit.
- d. Section 40106(a), Deviations From Regulations.
- e. Section 40109, Authority to Exempt.
- f. Section 40113, Administrative.
- g. Section 44501(a), Long Range Plans and Policy Requirements.
- h. Section 44502, General Facilities and Personnel Authority.
- i. Section 44502(c), Military Construction, Rockets, and Missiles.
- j. Section 44718, Structures Interfering with Air Commerce.
- k. Section 44719, Standards for Navigational Aids.
- l. Section 44720, Meteorological Services.
- m. Section 44721, Aeronautical Maps and Charts.
- n. Section 46104(e), Designating Employees to Conduct Hearings.
- o. Section 46301, Civil Penalties.
- p. Section 46308, Interference with Air Navigation.
- q. Chapter 471, Airport Development – All of Subchapters I and II.
- r. Chapter 475, Noise – All of Subchapters I and II.

1–2–3. FUNCTIONAL RESPONSIBILITIES

Functional responsibilities of headquarters and regional/service area organizations referred to in this order are detailed in Order 1100.1, FAA Organization – Policies and Standards; Order 1100.2, Organization – FAA Headquarters; and Order 1100.5, FAA Organization – Field.

1–2–4. TITLE 14 CODE OF FEDERAL REGULATIONS (CFR) REFERENCES

- a. Part 11, General Rulemaking Procedures.
- b. Part 71, Designation of Class A, B, C, D, and E Airspace Areas; Air Traffic Service Routes; and Reporting Points.
- c. Part 73, Special Use Airspace.
- d. Part 77, Objects Affecting Navigable Airspace.
- e. Part 91, General Operating and Flight Rules.
- f. Part 93, Special Air Traffic Rules.
- g. Part 95, IFR Altitudes.
- h. Part 97, Standard Instrument Approach Procedures.
- i. Part 101, Moored Balloons, Kites, Unmanned Rockets and Unmanned Free Balloons.
- j. Part 152, Airport Aid Program.
- k. Part 157, Notice of Construction, Alteration, Activation, and Deactivation of Airports.
- l. Chapter III, Commercial Space Transportation.
- m. Chapter V, National Aeronautics and Space Administration.

1-2-5. WORD USAGE

The concept of word usage and intended meaning as used in this order is set forth below:

- a. “Must” means an action/procedure is mandatory.
- b. “Must not” means an action/procedure is prohibited.
- c. “Should” is used when application is recommended.
- d. “May” and “need not” are used when application is optional.
- e. “Will” is used only to indicate futurity, never to indicate any degree of requirement for application of a procedure.
- f. “Navigable airspace” is airspace at or above the minimum altitudes of flight prescribed by the Code of Federal Regulations, and must include airspace needed to ensure safety in the takeoff and landing of aircraft. By policy, the term “airspace above minimum altitudes of flight” is interpreted to mean “airspace at or above minimum flight altitudes.”
- g. “Controlled airspace” is a generic term used to describe Class A, Class B, Class C, Class D, and Class E airspace.

1-2-6. ABBREVIATIONS

As used in this manual, TBL 1-2-1 contains abbreviations found in this order and their meanings.

TBL 1-2-1

FAA Order JO 7400.2 Abbreviations

Abbreviation	Meaning
AAS	Office of Airport Safety and Standards
ADO	Airport District Office
AE	Airport Elevation
AeroNav	Aeronautical Navigation Products
AFS	Flight Standards Service
AGC	Office of the Chief Counsel
AGL	Above Ground Level
AIM	Aeronautical Information Management
ALP	Airport Layout Plan
APO	Office of Aviation Policy and Plans

Abbreviation	Meaning
APP	Office of Airport Planning and Programming
ARP	Airport Reference Point
ARSR	Air Route Surveillance Radar
ARTCC	Air Route Traffic Control Center
ARU	Airborne Radar Unit
ASR	Spectrum Policy and Management
AST	Office of Commercial Space Transportation
ATC	Air Traffic Control
ATCAA	Air Traffic Control Assigned Airspace
ATCRBS	Air Traffic Control Radar Beacon System
ATCSCC	David J. Hurley Air Traffic Control System Command Center
ATCT	Airport Traffic Control Tower
ATO	Air Traffic Organization
ATREP	Air Traffic Representative
CARF	Central Altitude Reservation Function
CDRH	Center for Devices and Radiological Health
CFA	Controlled Firing Area
CFZ	Critical Flight Zone
CFR	Code of Federal Regulations
CP	Construction Permit
DF	Directional Finder
DME	Distance Measuring Equipment
DMS	Docket Management System
DNE	Does Not Exceed
DNH	Determination of No Hazard
DOD	Department of Defense
DOH	Determination of Hazard
EBO	Exceeds But Okay
EMI	Electromagnetic Interference
ERP	Effective Radiated Power
FAAO	Federal Aviation Administration Order
FACSFAC	Fleet Area Control and Surveillance Facility
FCC	Federal Communications Commission

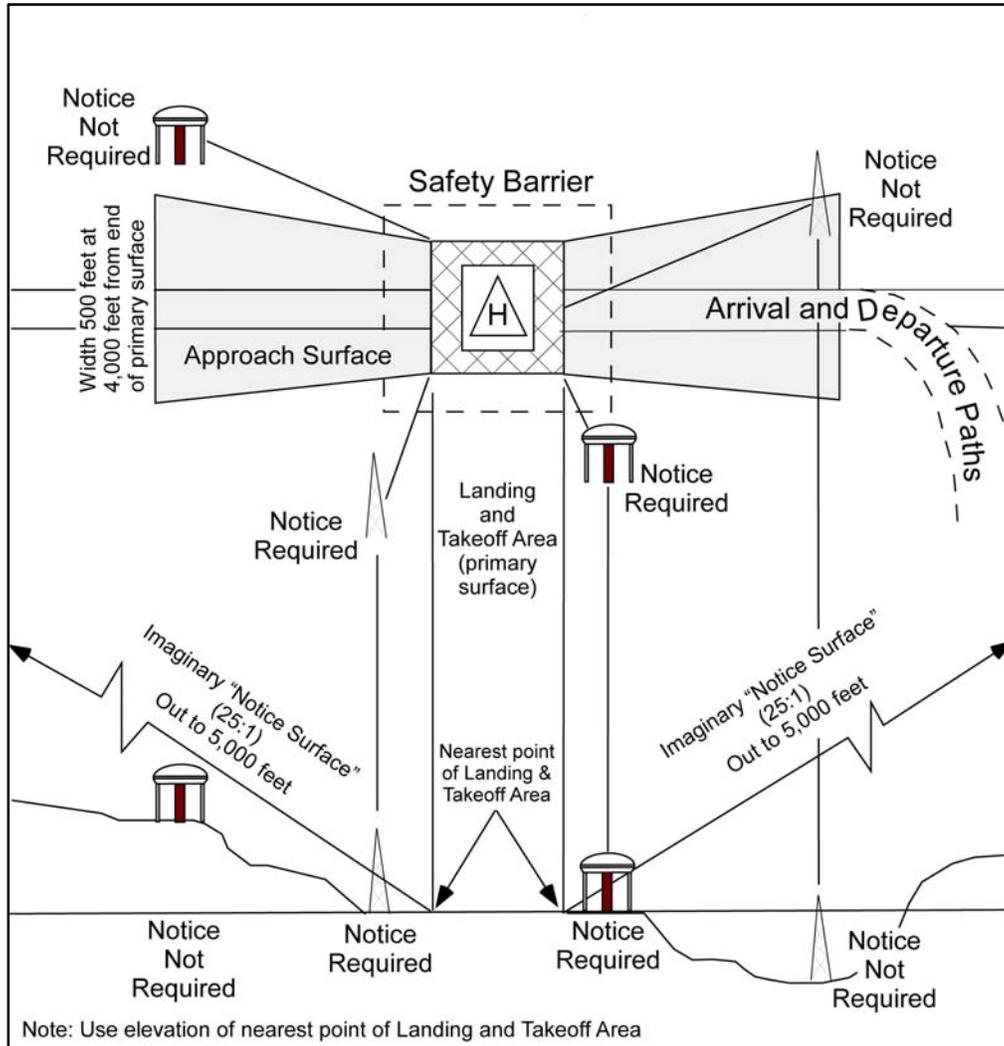
Abbreviation	Meaning
FDA	Food and Drug Administration
FL	Flight Level
FPT	Flight Procedures Team
FSDO	Flight Standards District Office
FSS	Flight Service Station
GAO	Government Accountability Office
HIL	High Intensity Light
IAP	Instrument Approach Procedure
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IR	IFR Military Training Route
IRAC	Interdepartmental Radio Advisory Committee
J	Joule
L/MF	Low/Medium Frequency
LFZ	Laser Free Zone
LLWG	Local Laser Working Group
LMM	Middle Compass Locator
LOA	Letter of Agreement
LOD	Letter of Determination
LOM	Outer Compass Locator
LSO	Laser Safety Officer
MAJCOM	Military Major Command
MCA	Minimum Crossing Altitude
MCP	Minimum Crossing Point
MEA	Minimum En Route Altitude
MHA	Minimum Holding Altitude
MIA	Minimum IFR Altitude
MOA	Military Operations Area
MOCA	Minimum Obstruction Clearance Altitude
MPE	Maximum Permissible Exposure
MRAD	Milliradian
MRU	Military Radar Unit
MSA	Minimum Safe Altitude
MSL	Mean Sea Level

Abbreviation	Meaning
MTR	Military Training Route
MVA	Minimum Vectoring Altitude
NAD	North American Datum
NAS	National Airspace System
NASA	National Aeronautics and Space Administration
NAVAID	Navigational Aid
NDB	Nondirectional Radio Beacon
NEPA	National Environmental Policy Act
NFDD	National Flight Data Digest
NFZ	Normal Flight Zone
NM	Nautical Mile
NPH	Notice of Presumed Hazard
NOHD	Nominal Ocular Hazard Distance
NOTAM	Notice to Airmen
NPIAS	National Plan of Integrated Airport Systems
NPRM	Notice of Proposed Rulemaking
NR	Nonrulemaking
NRA	Nonrulemaking Airport
NSA	National Security Area
NWS	National Weather Service
OE	Obstruction Evaluation
OE/AAA	Obstruction Evaluation/Airport Airspace Analysis
OFZ	Obstacle Free Zone
PAPI	Precision Approach Path Indicator
PFC	Passenger Facility Charge
PL	Public Law
PSR	Project Status Request
RBS	Radar Bomb Site
REIL	Runway End Identifier Lights
RNAV	Area Navigation
ROFA	Runway Object Free Area
RPZ	Runway Protection Zone
RVR	Runway Visual Range
RVV	Runway Visibility Value
SFZ	Sensitive Flight Zone

Abbreviation	Meaning
SIAP	Standard Instrument Approach Procedure
SMO	System Maintenance and Operations
SR	Scientific/Research Lasers
STAR	Standard Terminal Arrival Route
SUA	Special Use Airspace
TERABA	Termination/Abandoned Letter
TEREXP	Termination/Expired Letter
TERPS	United States Standard for Terminal Instrument Procedures
TERPSR	Termination Project Status Letter
TOFA	Taxiway Object Free Area
USC	United States Code

Abbreviation	Meaning
UTC	Coordinated Universal Time
VASI	Visual Approach Slope Indicator
VFR	Visual Flight Rule
VGSI	Visual Glide Slope Indicator
VOR	Very High Frequency Omnidirectional Range
VORTAC	Very High Frequency Omni-Directional Radio Range and Tactical Air Navigation Aid
VR	VFR Military Training Route

FIG 5-2-3
NOTICE REQUIREMENT RELATED TO HELIPORTS



Subpart B – Notice of Construction or Alteration

§77.9(b) – Any construction or alteration that exceeds an imaginary surface extending outward and upward at any one of the following slopes:

- (1) 25:1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph d of this section.

6-3-10. EVALUATING EFFECT ON AIR NAVIGATION AND COMMUNICATION FACILITIES

a. The FAA is authorized to establish, operate, and maintain air navigation and communications facilities and to protect such facilities from interference. During evaluation of structures, factors that may adversely affect any portion or component of the NAS must be considered. Since an electromagnetic interference potential may create adverse effects as serious as those caused by a physical penetration of the airspace by a structure, those effects must be identified and stated. Proposals will be handled, when appropriate, directly with FCC through Spectrum Assignment and Engineering Services.

b. Technical operations services personnel must evaluate notices to determine if the structure will affect the performance of existing or proposed NAS facilities. The study must also include any plans for future facilities, proposed airports, or improvements to existing airports.

c. The physical presence of a structure and/or the electromagnetic signals emanating or reflecting there from may have a substantial adverse effect on the availability, or quality of navigational and communications signals, or on air traffic services needed for the safe operation of aircraft. The following general guidelines are provided to assist in determining the anticipated interference.

1. Instrument Landing System (ILS) – Transmitting antennas are potential sources of electromagnetic interference that may effect the operation of aircraft using an ILS facility. The antenna height, radiation pattern, operating frequency, effective radiated power (ERP), and its proximity to the runway centerline are all factors contributing to the possibility of interference. Normally, any structure supporting a transmitting antenna within the established localizer and/or glide-slope service volume area must be studied carefully. However, extremes in structure height, ERP, frequency, and/or antenna radiation pattern may require careful study of structures up to 30 NM from the ILS frequency's protected service volume area.

(a) ILS Localizer. Large mass structures adjacent to the localizer course and/or antenna array are potential sources of reflections and/or re-radiation that may affect facility operation. The

shape and intensity of such reflections and/or re-radiation depends upon the size of the reflecting surface and distance from the localizer antenna. The angle of incidence reflection in the azimuth plane generally follows the rules of basic optical reflection. Normally, in order to affect the course, the reflections must come from structures that lie in or near the on-course signal. Large mass structures of any type, including metallic fences or powerlines, within plus/minus 15 degrees of extended centerline up to 1 NM from the approach end of the runway and any obstruction within 500 feet of the localizer antenna array must be studied carefully. (Refer to FAA Order 6750.16, Siting Criteria for Instrument Landing Systems).

(b) ILS Glide Slope. Vertical surfaces within approximately 1,000 feet of the runway centerline and located up to 3,000 feet forward of the glide slope antenna can cause harmful reflections. Most interference to the glide slope are caused by discontinuities in the ground surface, described approximately as a rectangular area 1,000 feet wide by 5,000 feet long, extending forward from the glide slope antenna and centered at about the runway centerline. Discontinuities are usually in the form of rough terrain or buildings (refer to FAA Order 6750.16, Siting Criteria for Instrument Landing Systems).

2. Very High Frequency Omni-Directional Radio Range and Tactical Air Navigation Aid (VOR/TACAN). Usually, there should be no reflecting structures or heavy vegetation (trees, brush, etc.) within a 1,000 foot radius of the VOR or the TACAN antenna. Interference may occur from large structures or powerlines up to 2 NM from the antenna. Wind turbines are a special case, in that they may cause interference up to 8 NM from the antenna. (Refer to FAA Order 6820.10, VOR, VOR/DME, and TACAN Siting Criteria).

3. Air Route Surveillance Radar/Airport Surveillance Radar (ARSR/ASR). Normally, there should be no reflecting structures within a 1,500-foot radius of the radar antenna. In addition, large reflective structures up to 3 NM from the antenna can cause interference unless they are in the "shadow" of topographic features. Wind turbines are a special case, in that they may cause interference up to the limits of the radar line of site.

4. Air Traffic Control Radar Beacon (ATCRB). The effects encountered due to reflections of the secondary radar main lobe are more serious than those associated with primary radar. Therefore, it is necessary to ensure that no large vertical reflecting surface penetrates a 1,500-foot radius horizontal plane located 25 feet below the antenna platform. In addition, interference may occur from large structures up to 12 miles away from the antenna. This distance will depend on the area of the reflecting surface, the reflection coefficient of the surface, and its elevation with respect to the interrogator antenna. (Refer to FAA Order 6310.6, Primary/Secondary Terminal Radar Siting Handbook).

5. Directional Finder (DF). The DF antenna site should be free of structures that will obstruct line-of-sight with aircraft at low altitudes. The vicinity within 300 feet of the antenna should be free of metallic structures which can act as re-radiators.

6. Communication Facilities. Minimum desirable distances to prevent interference problems between communication facilities and other construction are:

(a) 1,000 feet from power transmission lines (other than those serving the facility) and other radio or radar facilities.

(b) 300 feet from areas of high vehicle activity such as highways, busy roads, and large parking areas.

(c) One (1) NM from commercial broadcasting stations (e.g., FM, TV).

7. Approach Lighting System. No structure, except the localizer antenna, the localizer far field monitor antenna, or the marker antenna must protrude above the approach light plane. For approach light plane clearance purposes, all roads, highways, vehicle parking areas, and railroads must be considered as vertical solid structures. The clearance required above interstate highways is 17 feet; above railroads, 23 feet; and for all other public roads, highways, and vehicle parking areas, 15 feet. The clearance required for a private road is 10 feet or the highest mobile structure that would normally use the road, which would exceed 10 feet. The clearance for roads and highways must be measured from the crown of the road; the clearance for railroads must be measured from the top of the rails. For vehicle parking areas, clearance must be measured from the

average grade in the vicinity of the highest point. Relative to airport service roads substantial adverse effect can be eliminated if all vehicular traffic is controlled or managed by the air traffic control facility. A clear line-of-sight is required to all lights in the system from any point on a surface, one-half degree below the aircraft descent path and extending 250 feet each side of the runway centerline, up to 1,600 feet in advance of the outermost light in the system. The effect of parked or taxiing aircraft must also be considered when evaluating line-of-sight for approach lighting systems.

8. Visual Approach Slope Indicator (VASI)/Precision Approach Path Indicator (PAPI). No structures or obstructions must be placed within the clearance zone for the particular site involved or the projected visual glide path.

NOTE—

VASI and PAPA now fall under the heading of VGSI.

9. Runway End Identifier Lights (REIL). No structures or obstructions must be placed within the established clearance zone.

d. Factors that modify the evaluation criteria guidelines require consideration. Some facility signal areas are more susceptible to interference than others. The operational status of some signals may already be marginal because of existing interference from other structures. In addition, the following characteristics of structures must be considered:

1. The higher the structure's height is in relation to the antenna, the greater the chance of interfering reflections. Any structure subtending a vertical angle greater than one degree from the facility is usually cause for concern. Tall structures, such as radio towers and grain elevators, can interfere from distances greater than those listed in the general criteria.

2. The type of construction material on the reflecting surface of the structure is a factor, with nonmetallic surfaces being less troublesome than metallic or metallic impregnated glass.

3. Aircraft hangars with large doors can be a special problem because the reflecting surface of the hangar varies appreciably with changes in the position of the doors.

4. Interference is usually caused by mirror reflections from surfaces on the structure. Orientation of the structure therefore plays an important part in

the extent of the interference. Reflections of the largest amplitude will come from signals striking a surface perpendicular to the signals. Signals striking a surface at a shallow angle will have a smaller amplitude.

e. Air traffic personnel must request technical operations services personnel to assist them in discussions with sponsors to explore alternatives to resolve the prospective adverse effects to facilities. These may involve design revisions, relocation, or reorientation depending on the character of the construction and facility involved.

f. Attempt to resolve electromagnetic interference (EMI) before issuing a hazard determination. Notify the sponsor by letter (automated DPH letter) that the structure may create harmful EMI and include in the letter the formula and values that were applied, the specific adverse effects expected, and an offer to consider alternatives. Provide the sponsor, as well as the FAA, ample time to exhaust all available avenues for positive resolution. The intent of this process is to allow the sponsor adequate time to consider the problems and the alternatives before a decision is rendered by the issuance of the FAA determination. Follow these guidelines in all situations where harmful EMI is projected by the study.

6-3-11. EVALUATING PLANNED OR FUTURE AIRPORT DEVELOPMENT PROGRAMS

The national system of airports consists of public, civil, and joint-use airport facilities considered necessary to adequately meet the anticipated needs of civil aeronautics. Airport Planning and Programming Offices are the most accurate sources of up-to-date information on airport development plans. Consequently, Airports personnel are expected to extensively review structures in reference to the safe and orderly development of airport facilities, including what development will realistically be accomplished within a reasonable time. Areas of consideration in accomplishing this responsibility are:

a. Future Development of Existing Airports. A detailed review in this area requires looking at current planned airport projects, national airport plan data,

and land-use planning studies in the vicinity of the structure. The results of the study forwarded to air traffic must include appropriate comments regarding the extent of Federal aid, sponsor airport investments, the airport owner's obligations in existing grant-in-aid agreements, and anticipated aeronautical activity at the airport and in the general area. If a structure would adversely impact an airport's efficiency, utility, or capacity, the responsible Airports Office should document this impact in its evaluation. Comments should include recommended new location(s) for the structure as appropriate.

b. New Airport Development. When a structure requiring notice under Part 77 and any new airport development are both in the same vicinity, Airports personnel must study the interrelationship of the structure and the airport. Additionally, supplemental information on the proposed airport site must be furnished to the OEG. If a substantial adverse effect is anticipated, Airports personnel must provide detailed comments and specific recommendations for mitigating the adverse effects.

6-3-12. EVALUATING TEMPORARY CONSTRUCTION

a. Temporary Construction Equipment. Construction of structures normally requires use of temporary construction equipment that is of a greater height than the proposed structure. Appropriate action is necessary to ensure that the temporary construction equipment does not present a hazard to air navigation. It is not possible to set forth criteria applicable to every situation; however, the following action examples may help to minimize potential problems:

1. If use of the temporary construction equipment is on an airport, it may be necessary to negotiate with airport managers/owners to close a runway, taxiway, temporarily move a runway threshold, or take other similar action.

2. Negotiate with equipment operators to raise and lower cranes, derricks, or other construction equipment when weather conditions go below predetermined minimums as necessary for air traffic operations or as appropriate for the airport runways in use.

3. Control the movement of construction vehicle traffic on airports.

4. Adjust minimum IFR altitudes or instrument procedures as necessary to accommodate the construction equipment if such action will not have serious adverse effects on aeronautical operations.

5. Request that the temporary construction equipment be properly marked and/or lighted if needed.

b. Temporary Structures – OE notices for temporary structures are processed in the same manner as a permanent structure, but require special consideration in determining the extent of adverse effect. This is especially true of structures such as cranes and derricks that may only be at a particular site for a short time period. As a general policy, it is considered in the public interest to make whatever adjustments necessary to accommodate the temporary structure of 30 days or less if there is no substantial adverse affect on aeronautical operations or procedures. However, this policy does not apply if the aeronautical study discloses that the structure would be a hazard to aviation. Reasonable adjustments in aeronautical operations and modifications to the temporary structure should be given equal consideration.

6-3-13. CONSIDERING SHIELDING

Shielding as described below should not be confused with notice criteria as stated in Section 77.9(e).

a. Consideration. Shielding is one of many factors that must be considered in determining the physical effect a structure may have upon aeronautical operations and procedures. Good judgment, in addition to the circumstances of location and flight activity, will influence how this factor is considered in determining whether proposed or existing structures would be physically shielded.

b. Principle. The basic principle in applying the shielding guidelines is whether the location and height of the structures are such that aircraft, when operating with due regard for the shielding structure, would not collide with that structure.

c. Limitations. Application of the shielding effect is limited to:

1. The physical protection provided by existing natural terrain, topographic features, or surface structures of equal or greater height than the structure under study; and

2. The structure(s) providing the shielding protection is/are of a permanent nature and there are no plans on file with the FAA for the removal or alteration of the structure(s).

d. Guidelines. Any proposed construction of or alteration to an existing structure is normally considered to be physically shielded by one or more existing permanent structure(s), natural terrain, or topographic feature(s) of equal or greater height if the structure under consideration is located:

1. Not more than 500 feet horizontal distance from the shielding structure(s) and in the congested area of a city, town, or settlement, provided the shielded structure is not located closer than the shielding structures to any heliport or airport located within 5 miles of the structure(s).

2. Such that there would be at least one such shielding structure situated on at least three sides of the shielded structure at a horizontal distance of not more than 500 feet.

3. Within the lateral dimensions of any runway approach surface but would not exceed an overall height above the established airport elevation greater than that of the outer extremity of the approach surface, and located within, but would not penetrate, the shadow plane(s) of the shielding structure(s).

e. OEG must coordinate with FPT before applying shielding criteria for precision approach surface penetrations.

NOTE–

See FIG 6-3-7 and FIG 6-3-12.

6-3-14. CONSIDERING SHADOW PLANE

The term “shadow plane” means a surface originating at a horizontal line passing through the top of the shielding structure at right angles to a straight line extending from the top of the shielding structure to the end of the runway. The shadow plane has a width equal to the projection of the shielding structure’s width onto a plane normal to the line extending from the top and center of the shielding structure to the midpoint of the runway end. The shadow plane extends horizontally outward away from the

Section 3. Revision, Correction, and Termination of Determination

7-3-1. REVISIONS AND TERMINATIONS BASED ON NEW FACTS

The FAA official responsible for issuing a no hazard determination has the delegated authority (Section 77.35) to revise or terminate the determination provided. The decision is based upon new facts that change the basis on which the original determination was made.

a. Revised determinations based on new aeronautical facts must be issued under a new aeronautical study number that would cancel and supersede the original determination.

b. A decision to terminate a no-hazard determination must be based on new facts that change the basis on which the determination was made. Normally in such a case, a subsequent "Determination of Hazard" would be issued under a new aeronautical study number.

c. If a proposed structure is relocated or there is a height change after a determination of no hazard is issued, a new filing must be submitted. When new filings are received, terminate any previous determinations before moving forward with the aeronautical studies. Multiple filings at the same location result in an administrative hardship and create a cumulative impact issue that could result in erroneous data analysis. Determinations must not be used as a basis for financial arrangements.

7-3-2. CORRECTION

The FAA official issuing a determination may also correct that determination as required. Editorial changes that do not involve a coordinate change (of one second or more in latitude or longitude) may be issued as corrections. Elevation changes that do not increase the height of the original proposal may also be issued as corrections. In this case, no change to

dates would be necessary. Adjustments or corrections that involve a coordinate change of less than one second or reduced elevation must be issued as a correction under the original study. Adjustments or corrections to a proposal for a coordinate change of one second or more and/or an increase to the elevation must be refiled as a new study.

7-3-3. STANDARD FORMAT

a. A revised determination based on new aeronautical facts must follow the standard format of the appropriate determination. An explanation should be included addressing the reason for the revision. A statement indicating that the revised determination cancels and supersedes the determination originally issued, should also be included.

b. A determination addressing editorial changes that do not involve structure coordinates or elevations may be issued by duplicating the original determination, making the corrections, adding a statement explaining the correction, and adding "Correction" at the end of the title.

c. A determination addressing corrections to coordinates or elevations must follow the standard format of the appropriate determination. An explanation should be included addressing the correction. This may be done in the description section of the determination. A statement should also be included which indicates that the corrected determination cancels and supersedes the original determination.

7-3-4. DISTRIBUTION

Copies of revised or corrected determinations must be given the same distribution as the original determination and, if appropriate, be distributed to other known interested persons or parties.

Section 4. Airport Charting and Publication of Airport Data

10-4-1. POLICY

a. All landing facilities which have received airspace determinations or those not analyzed, must be properly documented and processed in accordance with procedures contained in FAA Order 5010.4, Airport Safety Data Program.

b. Landing facilities that have received objectionable airspace determinations must be published in the NFDD as “objectionable.” They must be depicted on VFR aeronautical charts only and without identifying text other than to designate objectionable status. They must not be published in the Chart Supplement U.S.

10-4-2. RESPONSIBILITY

As part of Mission Support, Aeronautical Information Management is responsible for the collection, validation, and dissemination of aeronautical information. This office is designated as the focal point for providing aeronautical information/requirements to the aviation industry, the producers of aeronautical charts and publications, and other government agencies and users.

10-4-3. AIRPORT CHARTING

a. Airports meeting the criteria below may be charted, provided the data has been processed in accordance with the policy set forth in paragraph 10-4-1.

1. Public use airports (including stolports and gliderports.)

2. Military airports without charting restrictions.

3. Abandoned airports having landmark value.

4. Private-use airports having emergency landing or landmark values.

5. Public use heliports not associated with an existing airport, private use heliports that have controlled airspace predicted on them, and selected U.S. Forest Service Heliports.

6. Ultralight flightparks when of landmark value.

NOTE-

Airports of lesser aeronautical importance may be omitted in congested areas where other airports with adequate and better facilities are available nearby.

7. Seaplane bases.

b. Airports will be plotted to true geographic positions on charts unless they are in conflict with a navigation aid at the same location. In such cases, the airport will be displaced from, or superimposed upon the navigation aid. However, in displacing for cartographic purposes, the relationship between the airport and navigation aid must be retained.

c. Airports will be depicted on aeronautical charts by using the symbols located in the chart’s legend. Airports having an ATCT are shown in blue, and all other airports are shown in magenta. Airport names and associated data must be shown in the same color as the airport symbol.

Chapter 16. Class C Airspace

Section 1. General

16-1-1. PURPOSE

Class C airspace areas are designed to improve aviation safety by reducing the risk of midair collisions in the terminal area and enhance the management of air traffic operations therein.

16-1-2. NONRULEMAKING ALTERNATIVES

Before initiating rulemaking actions to establish Class C airspace, exhaust all nonrulemaking alternatives that provide for an acceptable level of safety and are consistent with the objectives of standardization and simplification. Such alternatives include, for example, the following actions:

- a. Improved radar services.
- b. Pilot/controller education programs and aviation education safety seminars.

16-1-3. REGIONAL/SERVICE AREA OFFICE EVALUATION

a. Service area offices must biennially evaluate existing and candidate Class C airspace areas using the information contained in this chapter as a guideline.

b. If the conclusion of an evaluation indicates that airspace establishment or modifications should be made, regions/service area offices must follow the applicable procedures in this order.

c. Additionally, any planned modifications to or establishments of Class C airspace areas must be coordinated with the Airspace Policy Group prior to any public announcement.

16-1-4. CLASS C AIRSPACE

a. A provision may be incorporated in part-time Class C airspace area designations (rules) to allow, by Notices to Airmen, for changes when minor variations in time of designation are anticipated. To apply this provision a Notice of Proposed Rulemaking and final rule must be issued which provides the following statement in the specific airspace designation: "This Class C airspace area is effective during the specific dates and times established, in advance, by a Notice to Airmen."

b. The effective date and time will thereafter be continuously published. Information concerning these surface areas must be carried in the following publications as applicable:

1. The Chart Supplement U.S. for the contiguous United States, Puerto Rico, and Virgin Islands.
2. The Chart Supplement Alaska.
3. The Chart Supplement Pacific.

c. Notices to Airmen specifying the dates and times of a designated part-time area may be issued by the appropriate facility only after coordination with the regional/service area office. The service area office must assure that such action is justified and in the public interest.

Chapter 17. Class D Airspace

Section 1. General

17-1-1. PURPOSE

Class D airspace areas are terminal airspace that consist of specified airspace (i.e., Surface Areas) within which all aircraft operators are subject to operating rules and equipment requirements. Service area offices are responsible for the coordination and implementation of Class D airspace designations.

a. Generally, a surface area is designated Class D airspace to provide controlled airspace for terminal VFR or IFR operations at airports having a control tower.

b. For non-towered airports requiring a surface area, the airspace will be designated Class E, see FAAO JO 7400.9, Airspace Designations and Reporting Points.

c. The designation of navigable airspace outside of the United States is the responsibility of the Airspace Policy Group (for example, U.S. territories).

b. May be designated where a non-FAA control tower is in operation.

c. Must be designated to accommodate instrument procedures (planned, published, special, arrival, and departure) if such action is justified and/or in the public interest. The following factors should be considered:

1. Type of procedure, including decision height or minimum descent altitude.

2. The actual use to be made of the procedure, including whether a certificated air carrier or an air taxi/commuter operator providing service to the general public uses it.

NOTE-

For special instrument procedures, consideration should be given to availability to other users.

3. The operational and economic advantage offered by the procedure, including the importance and interest to the commerce and welfare of the community.

4. Any other factors considered appropriate.

17-1-2. REGIONAL/SERVICE AREA OFFICE EVALUATION

a. Service area offices must biennially evaluate existing and candidate Class D airspace areas using the information contained in this chapter as a guideline.

b. If the conclusion of an evaluation indicates that airspace modifications should be made, regions/service area offices must follow the applicable procedures in this order.

17-1-3. DESIGNATION

If the communications and weather observation reporting requirements of paragraphs 17-2-9 and 17-2-10 are met, a surface area:

a. Must be designated where a FAA control tower is in operation. Final rules will not be published in the Federal Register prior to a control tower becoming operational at the primary airport.

17-1-4. TIME OF DESIGNATION

Class D or surface areas may be designated full-time or part-time. If part-time, the effective time must be stated in Coordinated Universal Time (UTC). Service area offices must ensure effective times are forwarded to NFDC to be published in the NFDD.

17-1-5. PART TIME SURFACE AREAS

a. A provision may be incorporated in part-time Class D surface area designations (rules) to allow, by Notices to Airmen, for changes when minor variations in time of designation are anticipated. To apply this provision a Notice of Proposed Rulemaking and final rule must be issued which provides the following statement in the specific airspace designation: "This surface area is effective during the specific dates and times established, in advance, by a Notice to Airmen."

b. The effective date and time will thereafter be continuously published. Information concerning these surface areas must be carried in the following publications as applicable:

- **1.** The Chart Supplement U.S. for the contiguous United States, Puerto Rico, and Virgin Islands.
- **2.** The Chart Supplement Alaska.

3. The Chart Supplement Pacific ■

c. Notices to Airmen specifying the dates and times of a designated part-time area may be issued by the appropriate facility only after coordination with the regional/service area office. The service area office must assure that such action is justified and in the public interest.

Part 5. Special Use Airspace

Chapter 21. General

Section 1. Policy

21-1-1. PURPOSE

In addition to the policy guidelines and procedures detailed in Part 1. of this order, this part prescribes specific policies and procedures for handling special use airspace (SUA) cases.

21-1-2. SCOPE

The primary purpose of the SUA program is to establish/designate airspace in the interest of National Defense, security and/or welfare. Charted SUA identifies to other airspace users where these activities occur.

21-1-3. DEFINITION AND TYPES

a. SUA is airspace of defined dimensions wherein activities must be confined because of their nature, or wherein limitations may be imposed upon aircraft operations that are not a part of those activities.

b. The types of SUA areas are Prohibited Areas, Restricted Areas, Military Operations Areas (MOA), Warning Areas, Alert Areas, Controlled Firing Areas (CFA), and National Security Areas (NSA).

21-1-4. CATEGORIES

There are two categories of SUA: regulatory (rulemaking) and other than regulatory (nonrulemaking). Prohibited Areas and Restricted Areas are rulemaking actions that are implemented by a formal amendment to part 73. MOAs, Warning Areas, Alert Areas, CFAs, and NSAs are nonrulemaking actions.

21-1-5. SUA APPROVAL AUTHORITY

FAA Headquarters is the final approval authority for all permanent and temporary SUA, except CFA's. CFA approval authority is delegated to the service area office. The service area office must forward those proposals recommended for approval (except CFA) to FAA Headquarters for a final determination.

NOTE-

Final approval of Warning Areas is shared with other agencies per Executive Order 10854. Warning Area proposals, except controlling or using agency changes, must be coordinated with the Department of State and the Department of Defense for concurrence. The Airspace Policy Group is responsible for accomplishing this coordination.

21-1-6. MINIMUM NUMBERS AND VOLUME

The dimensions and times of use of SUA must be the minimum required for containing the proposed activities, including safety zones required by military authority. When it is determined that a specified SUA area is no longer required, the using agency, or the appropriate military authority, must inform the service area office that action may be initiated to return the airspace to the NAS.

21-1-7. OPTIMUM USE OF AIRSPACE

a. To ensure the optimum use of airspace, using agencies must, where mission requirements permit, make their assigned SUA available for the activities of other military units on a shared-use basis.

b. SUA should be located to impose minimum impact on nonparticipating aircraft and ATC operations. This should be balanced with consideration of the proponent's requirements. To the extent practical, SUA should be located to avoid airways/jet routes, major terminal areas, and known high volume VFR routes.

c. Consider subdividing large SUA areas, where feasible, in order to facilitate the real-time release of the airspace when activation of the entire area is not required by the user.

NOTE-

Policies concerning airspace utilization for military operations are contained in FAAO JO 7610.4, Chapter 9, Military Operations Requirements.

21-1-8. JOINT-USE POLICY

a. Under the “joint-use” concept, SUA is released to the controlling agency and becomes available for access by nonparticipating aircraft during periods when the airspace is not needed by the using agency for its designated purpose.

b. Restricted areas, warning areas, and MOAs must be designated as “joint-use” unless it is demonstrated that this would result in derogation to the using agency’s mission. For certain SUA areas, joint use may be impractical because of the area’s small size, geographic location, or high level of use in such areas. In these cases, the airspace proposal package must include specific justification of why joint-use is not appropriate.

c. Joint-use does not apply to prohibited areas. Alert areas and CFAs are essentially joint-use because nonparticipating aircraft may transit these areas without limitation.

d. Joint-use procedures must be specified in a joint use “Letter of Procedure” or “Letter of Agreement” between the using agency and the controlling agency. These letters should include provisions for the real-time activation/deactivation of the airspace, where such capabilities exist. They should also provide for the timely notification to the controlling agency when the scheduled activity has changed, been canceled, or was completed for the day.

e. Using agencies must ensure that joint-use SUA is returned to the controlling agency during periods when the airspace is not needed nor being used for its designated purpose.

21-1-9. ENVIRONMENTAL ANALYSIS

a. SUA actions, except as listed in paragraph b, below, are subject to environmental impact analysis in accordance with the National Environmental Policy Act of 1969 (NEPA). Guidance for the environmental analysis of SUA proposals is contained in FAAO 1050.1, Policies for Considering Environmental Impacts, other relevant FAA directives; the FAA/DOD Memorandum of Understanding Concerning Special Use Airspace Environmental

Assessment; and other applicable regulations and statutes.

b. Prohibited area and alert area designations are actions that are neither permissive nor enabling. As such, environmental assessments or statements are not required when designating these areas (see FAAO 1050.1, Environmental Impacts: Policies and Procedures).

21-1-10. CONTROLLING AGENCY

The controlling agency is the FAA ATC facility that exercises control of the airspace when an SUA area is not activated. A military ATC facility may be assigned as the controlling agency, subject to the concurrence of the service area office and the concerned ARTCC. A controlling agency must be designated for each joint-use SUA area.

21-1-11. USING AGENCY

a. The using agency is the military unit or other organization whose activity established the requirement for the SUA. The using agency is responsible for ensuring that:

1. The airspace is used only for its designated purpose.
2. Proper scheduling procedures are established and utilized.
3. The controlling agency is kept informed of changes in scheduled activity, to include the completion of activities for the day.
4. A point of contact is made available to enable the controlling agency to verify schedules, and coordinate access for emergencies, weather diversions, etc.

REFERENCE-

FAAO JO 7610.4, Chapter 9, Military Operations Requirements.

b. Restricted area and MOA using agencies are responsible for submitting Restricted Area/MOA Annual Utilization Reports in accordance with Section 7 of this chapter.

c. An ATC facility may be designated as the using agency for joint-use areas when that facility has been granted priority for use of the airspace in a joint-use letter of procedure or letter of agreement.

21-1-12. WAIVERS

The establishment of SUA does not, in itself, waive compliance with any part of the Code of Federal Regulations. DOD has been granted a number of waivers, exemptions, and authorizations to accomplish specific missions. Information about current waivers, exemptions, and authorizations granted for military operations may be obtained from FAA Headquarters, Airspace Regulations and ATC Procedures Group, or the Office of Rulemaking (ARM).

21-1-13. PUBLIC NOTICE PROCEDURES

Public notice procedures invite the public to comment on the impact of SUA proposals on the safe and efficient use of the navigable airspace. In addition to the public notice procedures described in chapter 2 of this order, SUA proposals are subject to the following:

a. All nonregulatory SUA proposals must be circularized, and an NPRM must be issued for all regulatory SUA proposals, except for those actions that clearly have no impact on aviation and are not controversial. A nonrulemaking circular or NPRM is not normally required for the following types of proposals:

1. Changes to the using or controlling agency.
2. Editorial changes to correct typographical errors.
3. Internal subdivision of an existing area to enhance real-time, joint-use (provided there is no change to the existing external boundaries) times of use, or type/level of activities.
4. Actions that lessen the burden on the flying public by revoking or reducing the size or times of use of SUA.

b. SUA nonrulemaking circulars are prepared and distributed by the service area office. FAA Headquarters prepares SUA NPRMs. Normally, circulars and NPRMs provide a minimum of 45 days for public comment.

c. When comments or coordination show that the proposal may be controversial, or there is a need to obtain additional information relevant to the proposal, an informal airspace meeting may be considered (see Chapter 2 of this order).

21-1-14. SUA NONRULEMAKING CIRCULARS

a. Prepare and distribute SUA nonrulemaking circulars as specified in Chapter 2 of this order and the additional requirements in this paragraph. Ensure wide dissemination to the potentially affected aviation user community. Send one copy of each SUA circular to the Airspace Policy Group and to the appropriate regional military representative(s).

b. CONTENT – Circulars should contain sufficient information to assist interested persons in preparing comments on the aeronautical impact of the proposal. SUA circulars should include:

1. A brief narrative that:

(a) Describes the purpose of the proposed airspace, the types of activities to be conducted, and the expected frequency of those activities. If the proposal modifies existing SUA, describe the changes and explain the desired result. For temporary MOA proposals, include a brief summary of the planned exercise or mission scenario.

(b) Discusses measures planned to minimize impact on nonparticipating aircraft, such as airport exclusions, joint-use procedures, limited activation times, etc. If there are known plans to provide real time area status information and/or traffic advisory services for nonparticipating pilots, include this information in the circular.

2. A complete description of the proposed area consisting of boundaries, altitudes, times of use, controlling agency, and using agency.

3. A copy of a sectional aeronautical chart depicting the boundaries of the proposed area.

4. The name and address (provided by the proponent) of the person to whom comments on the environmental and land-use aspects of the proposal may be submitted.

NOTE–

Do not include statements in the circular that certify NEPA compliance or state that environmental studies are complete. The proponent and/or FAA must consider environmental issues raised in response to the circular before a final determination is made on the proposal.

5. The issue date of the circular and the specific date that the comment period ends. Provide at least 45-days for public comment.

NOTE–

When selecting the comment closing date, consider the

time needed for the preparation, printing and release of the circular, plus a representative mailing time, in order to afford the public the maximum time to submit comments.

c. SPECIAL DISTRIBUTION – In addition to the distribution requirements in Chapter 2, send copies of SUA nonrulemaking circulars to:

1. State transportation, aviation, and environmental departments (or the state clearing house if requested by the state).

2. Local government authorities, civic organizations, interest groups, or individuals that may not have an aeronautical interest, but are expected to become involved in a specific proposal.

3. Public libraries within the affected area requesting that the circular be displayed for public information.

4. Persons or organizations that have requested to be added to the circularization list.

NOTE–

1. *The service area office determines special distribution requirements in accordance with regional/service area office policies and considering the type of proposal, the potential for controversy, and the extent of possible aeronautical impact.*

2. *If the proposed airspace overlaps regional geographical boundaries or airspace jurisdictions, coordinate as required with adjacent regional/service area offices to ensure distribution of circulars to all appropriate parties.*

21–1–15. CHARTING AND PUBLICATION REQUIREMENTS

a. All SUA areas except CFAs, temporary MOAs, and temporary restricted areas, must be depicted on aeronautical charts, and published as required in aeronautical publications.

b. Approved SUA actions normally become effective on the U.S. 56–day, en route chart cycle publication dates (see Part 1. of this order).

EXCEPTION–

Effective dates for temporary restricted areas, temporary MOAs, and CFAs are determined by mission requirements instead of the 56–day en route, charting date cycle.

c. Temporary areas must be described in part 4, Graphic Notices, of the Notices to Airmen

(NOTAM) Publication. Normally, publication of the graphic notice will begin two issues prior to the exercise start date and will continue through completion of the exercise. The notice must include the area’s legal description, effective dates, and a chart depicting the area boundaries. For large exercises, a brief narrative describing the exercise scenario, activities, numbers and types of aircraft involved, and the availability of in–flight activity status information for nonparticipating pilots should be included.

NOTE–

Submit temporary SUA graphic notice information, along with the airspace proposal package, to Mission Support, Airspace Services, Airspace Policy Group by the cutoff dates specified in the appropriate chapter of this order. All graphics submitted must be of high quality and in camera ready form. Facsimile copies are not suitable. The Airspace Policy Group will process and coordinate the notice with Mission Support, Aeronautical Navigation, AT Publications Management Group, for publication in the NOTAM Publication. Do not submit temporary SUA graphic notices directly to Publications.

d. When a SUA action becomes effective before it appears on the affected sectional chart(s), a description and map of the area will be published in part 4 of the NOTAM Publication. This information will be carried in the NOTAM Publication until the change has appeared on the affected sectional chart(s). The Airspace Policy Group is responsible for complying with this requirement.

NOTE–

1. *Minor editorial corrections to a SUA description or changes to the using or controlling agencies, will not be published in the NOTAM Publication.*

2. *In addition to the above, SUA designations or amendments that occur after publication of the latest sectional chart(s) will be listed in the “Aeronautical Chart Bulletin” section of the appropriate Chart Supplement U.S. This information will be carried in the Chart Supplement U.S. until the change is published on the affected sectional chart(s).*

21–1–16. CERTIFICATION OF SUA GEOGRAPHIC POSITIONAL DATA

a. Geographic positional data for all permanent and temporary SUA boundaries (except CFAs) must be certified for accuracy by the AeroNav before publication and charting. The Airspace Policy Group must submit proposed positional data to AeroNav for certification. Latitude and longitude positions used in

SUA descriptions must be based on the current North American Datum.

b. The Airspace Policy Group must forward any corrections or recommended changes made by AeroNav to the service area office. The service area office will forward to AeroNav changes to the regional military representative, or civil proponent, for review. The regional military representative/civil proponent will inform the service area office of its concurrence with AeroNav changes or reason for nonconcurrence. The service area office will advise FAA Headquarters of the proponent's conclusions. A record of this coordination must be included in the airspace case file.

21-1-17. LEAD REGION

a. The regional office that is responsible for the geographical area containing the affected airspace processes the SUA proposal. When a proposal

overlaps regional office geographical jurisdictions, the concerned service area office must coordinate to determine which office will serve as the lead region for processing the proposal. Coordination between regions/service area offices is also required when the affected geographical area, and the ATC facility to be designated as controlling agency, are under the jurisdiction of different regional/service area offices.

b. Concerned regions must ensure that:

1. All affected ATC facilities review the proposal and provide input to the aeronautical study, as required.

2. For nonregulatory proposals, distribution of nonrulemaking circulars includes interested parties in each regional jurisdiction, as necessary.

c. The airspace package submitted to headquarters must include documentation of regional/service area office coordination, affected ATC facility comments and copies of public comments received.

Part 6. Miscellaneous Procedures

Chapter 29. Outdoor Laser Operations

Section 1. General

29-1-1. PURPOSE

This chapter prescribes policy, responsibilities, and guidelines for processing a Notice of Proposed Outdoor Laser Operation(s) and determining the potential effect of outdoor laser activities on users of the NAS. This includes issuing a determination and providing airmen a notification of the hazard. Determinations should not be issued for laser operations that are terminated and do not enter navigable airspace.

29-1-2. AUTHORITY

a. Title 49 of the U.S. Code (49 U.S.C.), Section 40103 gives the Administrator the authority to regulate, control, develop plans for, and formulate policies with respect to the use of the navigable airspace.

b. Regulatory authority for laser light products has been delegated to the Food and Drug Administration (FDA). Product regulations are detailed in 21 CFR, part 1010, Performance Standards for Electronic Products, and part 1040, Performance Standards for Light Emitting Products.

29-1-3. POLICY

a. Determinations must be based on the findings of an aeronautical review.

b. The Service Center Operations Support Group (OSG) having control jurisdiction over the airspace where laser operations are planned must conduct an aeronautical review of all proposed laser operations to be performed in the NAS to ensure that these types of operations will not have a detrimental effect on aircraft operations.

c. Full consideration must be given to national defense requirements, commercial uses, and general aviation operations that have the public right of "freedom of transit" through the NAS.

d. Accordingly, while a sincere effort must be made to negotiate equitable solutions regarding proposed laser operations in the NAS, preservation of the navigable airspace for aviation must be the primary emphasis.

29-1-4. RESPONSIBILITIES

a. The Service Center OSG is responsible for determining the effect of proposed outdoor laser operations on air traffic control operations and issuing a consolidated letter of objection or non-objection. A safety analysis is not required and no determination should be issued, if the laser operation is terminated and all light projections are contained within the venue of the operation and not projected into the NAS.

b. The Flight Standards Division, Regional NextGen Branch (RNGB), is responsible for providing a safety analysis to determine any potential effect that a proposed outdoor laser operation would have on flight crews. AFS will designate a RNGB All Weather Operations (AWO) safety inspector for specified geographical areas.

c. The office of Aerospace Medicine is responsible for providing information regarding the potential effects of laser beams on pilot vision.

29-1-5. DEFINITIONS

a. Afterimage. A reverse contrast shadow image left in the visual field after an exposure to a bright light that may be distracting and disruptive, and may persist for several minutes.

b. Center for Devices and Radiological Health (CDRH). An office of the FDA concerned with enforcing compliance with the Federal requirements for laser products including laser light shows.

c. Demonstration Laser. Any laser product designed or intended for purposes of visual display of laser beams, for artistic composition, entertainment,

and/or advertising display (Reference 21 CFR 1040.10(b) 13). Any demonstration laser in excess of 5 mW requires a variance from the CDRH.

d. Divergence. The increase in diameter of the laser beam with distance from the exit aperture. Divergence is an angular measurement of the beam spread, expressed in milliradians (mrad). In laser safety calculations, divergence is defined at the points where the irradiance is 37% of the peak irradiance.

e. Flashblindness. Generally, a temporary visual interference effect that persists after the source of illumination has ceased.

f. Visual Interference Level. A visible laser beam (normally with an irradiance less than the MPE) that can produce a visual response that interferes with the safe performance of sensitive or critical tasks by air crews or other personnel. This level varies in accordance with the particular zone where the laser is operating. “Visual interference level” is a generic term for critical level, sensitive level, or laser free level.

g. Flight Hazard Zones. Airspace areas specifically intended to mitigate the potential hazardous effect of laser radiation. See FIG 29–1–1, FIG 29–1–2, and FIG 29–1–3.

h. Glare. Obscuration of an object in a person’s field of vision due to a bright light source located near the same line-of sight (e.g., as experienced with oncoming headlights).

i. Irradiance. Irradiance is a means of expressing the power of the beam per unit area, expressed in watts per centimeter squared (W/cm^2).

j. Laser. An acronym for light amplification by stimulated emission of radiation. A laser is a device that produces an intense, directional, coherent beam of visible or invisible light.

1. Continuous Wave (CW). The output of a laser which is operated in a continuous duration rather than a pulsed mode.

2. Repetitive Pulsed (RP). A laser with multiple pulses of radiant energy occurring in a sequence.

k. Laser Manufacturer. A term that refers to persons who make laser products, including those who are engaged in the business of design, assembly, or presentation of a laser light show.

l. Laser Operator. A laser operator should be a knowledgeable person present during laser operation who has been given authority to operate the laser system in compliance with applicable safety standards, subject to direction of the laser safety officer.

m. Laser Safety Officer (LSO). A designated person who has authority to monitor and enforce the control of laser hazards and affect the evaluation and control of laser hazards.

n. Safety Observer. A designated person who is responsible for monitoring the safe operation of a laser and who can immediately terminate the laser beam if necessary to ensure safety. Normally, a safety observer will view airspace in the vicinity of a laser beam to identify any potentially unsafe condition.

o. Local Laser Working Group (LLWG). A group that, when necessary, is convened to assist the service area office in evaluating the potential effect of laser beams on aircraft operators in the local vicinity of the proposed laser activity.

p. Maximum Permissible Exposure (MPE). The level of laser radiation to which a person may be exposed without hazardous effect or adverse biological change in the eye or skin. In general, MPE is expressed as mW/cm^2 or mJ/cm^2 .

q. Nominal Ocular Hazard Distance (NOHD). The distance from the laser system beyond which the laser beam irradiance does not exceed the MPE for that laser.

r. Protection Distances. The minimum distance from the laser system beyond which the laser beams irradiance level does not exceed the following specific effective irradiance levels within the corresponding zones:

1. Laser Free Zone – $50\text{nW}/\text{cm}^2$;

2. Critical Zone – $5\mu\text{W}/\text{cm}^2$;

3. Sensitive Zone – $100\mu\text{W}/\text{cm}^2$;

4. Normal Flight Zone – MPE ($2.6\text{ mW}/\text{cm}^2$ for CW visible lasers).

s. Radiant Exposure – A means of expressing the pulse energy of the beam per unit area, expressed as J/cm^2 .

t. Reflections. Reflections can be diffuse or specular.

1. Diffuse Reflection. A reflection from a surface, which is incapable of producing a virtual

image such as is commonly found with flat finish paints or rough surfaces.

2. Specular Reflection. A mirror-like reflection that usually maintains the directional characteristics of the beam.

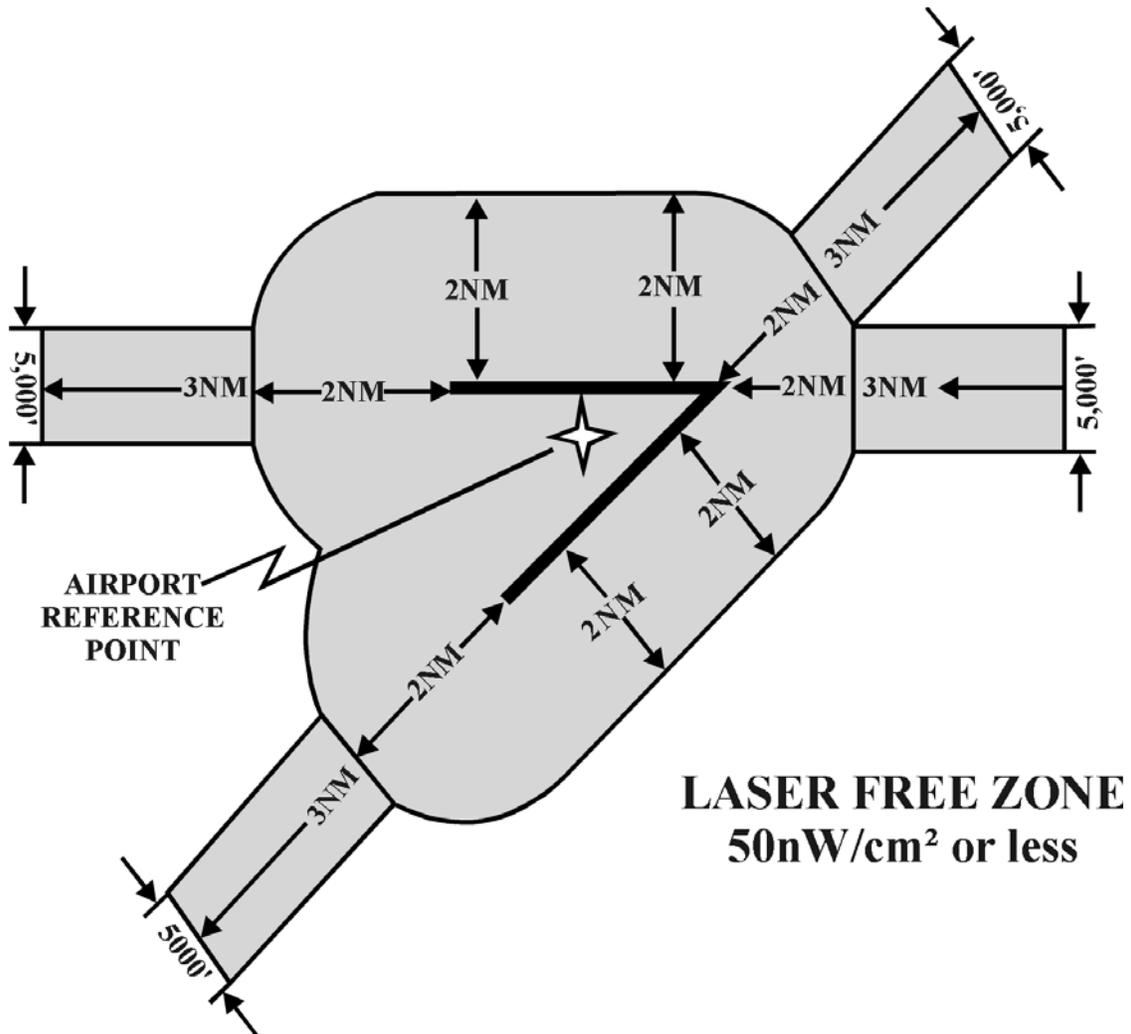
u. Terminated Beam. A laser beam that is blocked from entering navigable airspace.

v. Unterminated Beam. A laser beam that is directed or reflected into the navigable airspace.

w. Variance. Permission from FDA for a laser manufacturer and/or operator to deviate from one or more requirements of 21 CFR 1040 when alternate steps are taken to provide equivalent level of safety.

x. Visible Wavelengths. For the purpose of laser safety, the wavelengths of light that are visible (used for LFZ, CFZ, and SFZ calculations) range from 380 to 780 nanometers (nm).

FIG 29-1-1
Multiple Runway Laser Free Zone



Section 2. Evaluating Aeronautical Effect

29-2-1. SERVICE CENTER COORDINATION

The designated Service Center (SC) Point of Contact (POC) normally serves as the single agency contact with the laser proponent. The SC POC is responsible for:

a. Reviewing the information and data submitted by a proponent for an outdoor laser proposal for completeness.

1. Coordinating with all parties affected by the proposal (for example, state or local aviation authorities, DOD, airport operators, etc.).

2. Air Traffic analysis, including any IFR and VFR flight operations that may be affected by the proposal.

b. Determining on a case-by-case basis that aspects of certain flight operations require consultation and joint analysis by the ATO and AFS to ensure safety during a proposed laser operation. The SC POC will contact the RNGB designee for assistance in those situations.

c. The Flight Standards safety analysis will be conducted by the designated RNGB AWO. AFS analysis will include reviewing potential effects on flight crews operating under IFR or VFR. Special attention will be afforded examining unique local VFR operations and special instrument procedures. The safety analysis provided to the SC POC will state any AFS objections or concerns and indicate whether mitigations, if proposed, appear adequate. The SC POC is responsible for evaluating all input from the affected Air Traffic Facilities/RNGB and resolving conflicting concerns or issues.

29-2-2. AERONAUTICAL REVIEW

a. At a minimum the following items must be studied as part of any aeronautical review:

1. Location of the proposed laser operation.

2. Aircraft operations affected by the proposed operation.

3. Air traffic flows in the proposed area of the operation.

4. An analysis of adverse effect conducted by the ATC facility having control over the affected airspace.

5. A safety analysis conducted by the Flight Standards Division regarding the effects on flight crews.

6. For visible laser systems, plot the LFZ, CFZ, and SFZ (if applicable) for all potentially affected airports and evaluate any control measures, which may mitigate any adverse effect.

7. The effective irradiance levels listed below must not be exceeded in the corresponding zones.

(a) A laser-free zone is limited to 50nW/cm^2 or less.

(b) A critical flight zone is limited to $5\mu\text{W/cm}^2$ or less.

(c) A sensitive flight zone is limited to $100\mu\text{W/cm}^2$ or less.

(d) A normal flight zone, as well as the above zones, is limited to the MPE or less.

EXCEPTION-

The LFZ, CFZ, and SFZ need only be considered for visible laser systems. Further, when control measures (e.g., safety observers) mitigate all hazards or other issues raised by the aeronautical review, irradiance levels may exceed the above levels.

b. Consult FDA/CDRH personnel for technical advice. (e.g., regarding repetitively pulsed laser calculations)

c. Scientific/research lasers in accordance with 21 CFR Section 1010.5 may be exempt from Title 49 and, in addition, may not be able to comply with the above procedures. Regardless of whether or not a proponent is exempt from the provisions, a proposal is still reviewed using the above procedures.

29-2-3. LOCAL LASER WORKING GROUP (LLWG)

When necessary, the Service Center OSG may convene and chair an LLWG to assist in evaluating proposed laser operation.

a. The Service Center OSG will forward all available information on a proposed outdoor laser operation to the appropriate parties of the LLWG.

b. Participants may include, but are not limited to, representatives from the ARTCC, TRACON, ATCTs, Flight Standards Division designee (either the assigned AWO or a designated field office representative), airport management, airspace users, city/county/state officials, other government agencies, military representatives, qualified subject experts, and laser manufacturers, etc.

c. The LLWG will identify and attempt to resolve issues regarding local laser operations.

29–2–4. PROTECTION DISTANCE CALCULATIONS

a. The laser system power range table (TBL 29–2–1) provides the applicable protection distances along the axis of the laser beam with a 1mrad divergence. This table must not be used to determine the protection distances for repetitively pulsed (RP) lasers. Proponents are required to resolve RP laser system calculations with the FDA or laser manufacture before submitting a completed Laser Configuration Worksheet to the FAA.

b. TBL 29–2–2 lists sine and cosine values to be used in determining the vertical and horizontal distances to be protected from the laser source. The distances obtained from TBL 29–2–1 are multiplied by these values to determine the appropriate vertical and horizontal distances to be protected based on the minimum and maximum vertical angles. Differences in site/ground elevations should be considered.

c. The vertical component of the protection distance may be determined by multiplying the laser distance from TBL 29–2–1 by the sine of the maximum elevation angle of the laser beam from TBL 29–2–2. For example, vertical component = protection distance x sine of the maximum elevation angle.

d. The horizontal component of the protection distance may be determined by multiplying the laser distance from TBL 29–2–1 by the cosine of the minimum elevation angle of the laser beam from TBL 29–2–2. For example, horizontal component = protection distance x cosine of the minimum elevation angle.

e. Do not reduce calculated distances for correction factor techniques unless validated by FDA/CDRH.

f. All distances must be rounded up to the next 100-foot increment. See example problems 1, 2, and 3 that follow the Vertical and Horizontal Component Table, TBL 29–2–2.

29–2–5. CONTROL MEASURES

Physical, procedural, and automated control measures, or some combination of the three, may be used to ensure that aircraft will not be exposed to levels of illumination greater than the respective maximum irradiance levels established for the various protected zones, or any additional restrictions established as a provision, condition, or limitation of a determination.

a. Physical beam stops at the system location or at a distance may be used to prevent laser light from being directed into protected zones.

b. The beam divergence, azimuth, elevation, and output power may be adjusted to meet appropriate irradiance levels.

c. Beam direction should be specified by giving bearing in the azimuth scale 0 – 360 degrees and elevation in degrees ranging from 0 – 90 degrees, where zero degrees is horizontal and +90 degrees is vertical. Bearings must be given in both true and magnetic north.

d. Manual operation of a shutter or beam termination system can be used in conjunction with safety observers. Observers must have an adequate view of the airspace surrounding the beam's paths to a distance appropriate to the affected airspace.

e. Scanning of a laser system that is designed to automatically shift the direction of the laser beam can be used. However, scanning safeguards must be found to be acceptable by the FDA and the FAA. The FDA recommendation must be included in the proposal to the FAA.

NOTE–

Scanning may reduce the level of illumination; however, it may also increase the potential frequency of an illumination.

f. Any automated system designed to detect aircraft and automatically terminate the beam, redirect the beam, or shutter the system, must be reviewed and found to be acceptable by the FAA before the use of the device may be accepted as a control measure.

Section 3. Aeronautical Determinations

29-3-1. FINDINGS

a. All determinations for an outdoor laser operation must be issued in writing.

b. Determinations rendered must either be objectionable or non-objectionable. A non-objectionable letter of determination (LOD) issued by the FAA is not permission nor an endorsement of the outdoor laser operation.

c. Determinations may be telephoned to the proponent and to the CDRH; however, each must be followed up with a written response.

d. Send a copy of the LOD to the military liaison offices, RRGB and geographic field office/FSDO, affected ATC facilities, and other offices as appropriate.

e. Forward a copy of objectionable LODs to Airspace Policy Group.

f. The iOE/AAA, Laser Module may be used in lieu of sending copies when feasible.

5. Specify that the FAA determination does not relieve the sponsor or operator of compliance responsibilities related to laws, ordinances or regulation of any federal, state, or local government.

6. Include the name and telephone number of the ATC facility to be notified and other information as deemed appropriate.

7. Indicate NOTAM requirements.

b. An objectionable LOD must inform the proponent:

1. That a determination of objection is being issued.

2. Why the proposal does not satisfy FAA requirements.

3. That supplementary information may be submitted for reconsideration.

c. If negotiations to resolve any objectionable effects are not successful, the determination of objection stands.

29-3-2. CONTENT OF DETERMINATIONS

a. As a minimum, letters of non-objection determinations must:

1. Include a listing of any provisions, conditions, or limitations.

2. Inform the proponent not to incorporate change(s) into the proposed activity once a non-objection LOD has been issued unless the Service Center OSG amends the LOD change in writing.

3. Stipulate a requirement that proponents must notify the FAA designated representative of:

(a) Any changes to show “start/stop” times or cancellation 24 hours in advance.

(b) The laser light activity 30 minutes before start time and upon completion.

4. Include a statement advising the proponent that the determination is based on FAA requirements only and final approval must also be obtained from the appropriate authority.

29-3-3. PUBLICATION OF LASER OPERATIONS IN THE NAS

a. When the Service Center OSG issues a determination of non-objection, consider the time of duration (in days) of the laser activity.

b. The Service Center OSG must review these publications for currency of published laser operations bi-annually. The Service Center will initiate paperwork to delete or amend any published information that requires amending.

c. The Service Center OSG will forward to Aeronautical Information Management information for publication as follows:

1. Class II Publications. Temporary laser operations at a specific location that will exceed 56 days but less than 180 days.

NOTE—
Publication in the Class II publication is dependent on established cutoff dates.

2. Appropriate aeronautical charts. Laser operations at a specific location that will exceed 180 days or are considered permanent.

3. Chart Supplement U.S. Publish in the Chart Supplement U.S. laser operations that will exceed 180 days at a specific location.

Section 4. Notices to Airmen

29-4-1. ISSUANCE OF NOTICES TO AIRMEN (NOTAM)

a. To enhance safety of flight, the appropriate Service Center OSG must prepare the NOTAM, for visible lasers or if requested by the facility having jurisdiction over that airspace, and notify the United States NOTAM Office facility via telephone (540) 422-4262/4263, or fax (540) 422-4298 within seven days of a proposed laser activity.

b. The NOTAM will emphasize the potential hazardous effects and other related phenomena that may be encountered by laser light emissions.

Include facility to notify, and any other information deemed appropriate.

c. The Service Center OSG may further delegate notification responsibility to the Air Traffic facility.

d. When deemed appropriate, the Service Center OSG may direct the proponent to activate or cancel the FDC NOTAM, specific to the laser activity. The Service Center OSG must explain the responsibility of the proponent concerning appropriate NOTAM actions.

e. The Service Center OSG is responsible for canceling the NOTAM except as noted above in paragraph 29-4-1.c. and d.

Section 5. Aircraft Illumination Actions

29-5-1. PROCEDURES

a. If an Air Traffic Control (ATC) field facility receives or initiates a complaint indicating that an outdoor laser operation is not performing as expected or not conforming to the conditions outlined in the Letter of Determination (LOD), the facility will:

1. Contact the proponent using the “emergency” telephone number and instruct that the laser activity be terminated or adjusted. The termination or application of additional/adjusted mitigation will be at the discretion of the ATC field facility.

2. Notify the Regional Operations Center (ROC) and file an Incident Report, FAA Form 8020-11, in accordance with FAA Order 8020.16, Chapter 3, Air Traffic and Other Initial Notification and Reporting Responsibilities.

3. Notify the Service Center POC of the expectations or conditions of the LOD which were not met.

b. The Service Center POC will notify the Mission Support Services Program Manager and the assigned geographical AWO of the incident and provide the available details of the incident and any actions taken.

c. If an ATC field facility receives information from a specialist, pilot or passenger that laser/high intensity light from an unknown source has illuminated an aircraft, the facility will comply with the requirements outlined in Advisory Circular 70-2, Reporting of Laser Illumination of Aircraft.

NOTE-

Suspected intentional illumination of an aircraft may constitute a violation of 14 Code of Federal Regulations, Part 91.11. In those situations the geographic area FSDO should be notified.

Chapter 32. Environmental Matters

Section 1. General Information

32-1-1. PURPOSE

This section provides guidance and establishes policy and procedures to assist air traffic personnel in applying the requirements of FAA Order 1050.1, Environmental Impacts: Policies and Procedures, to proposed air traffic actions. The guidance in this chapter will assist air traffic personnel in determining the level of environmental study appropriate for a proposed action and in preparing the required environmental documentation.

The policies and procedures set forth in this chapter are intended to supplement the requirements of FAA Order 1050.1 and other Department of Transportation and FAA directives.

Further, this chapter outlines the approach for considering environmental issues and helps reduce the complexity of the review process, while ensuring that the environmental process associated with proposed air traffic actions is thoroughly and properly documented.

32-1-2. POLICY

It is air traffic policy to use an interdisciplinary approach to assure compliance with all environmental laws and regulations. This policy requires that all projects be reviewed as early as possible to determine if there is the potential for impact to the quality of the human environment. All units of Air Traffic Services and Mission Support Services must adhere to the requirements in FAA Order 1050.1.

In addition, all units must comply with the guidelines and directions detailed in this chapter whenever reviewing regulatory and nonregulatory airspace actions.

32-1-3. BACKGROUND

a. FAA Order 1050.1 establishes policies and procedures and assigns responsibility for ensuring FAA compliance with the National Environmental Policy Act of 1969, as amended (NEPA), the implementing regulations issued by the Council on Environmental Quality (CEQ) (40 CFR parts 1500-1508), the Department of Transportation (DOT) Order 5610.1, FAA Order 1050.1, and other related statutes and directives.

b. The complexity of environmental issues associated with some air traffic activities necessitates a systematic and uniform approach to the environmental review process. This process must assess all impacts, as well as provide the data for preparing the necessary documentation.

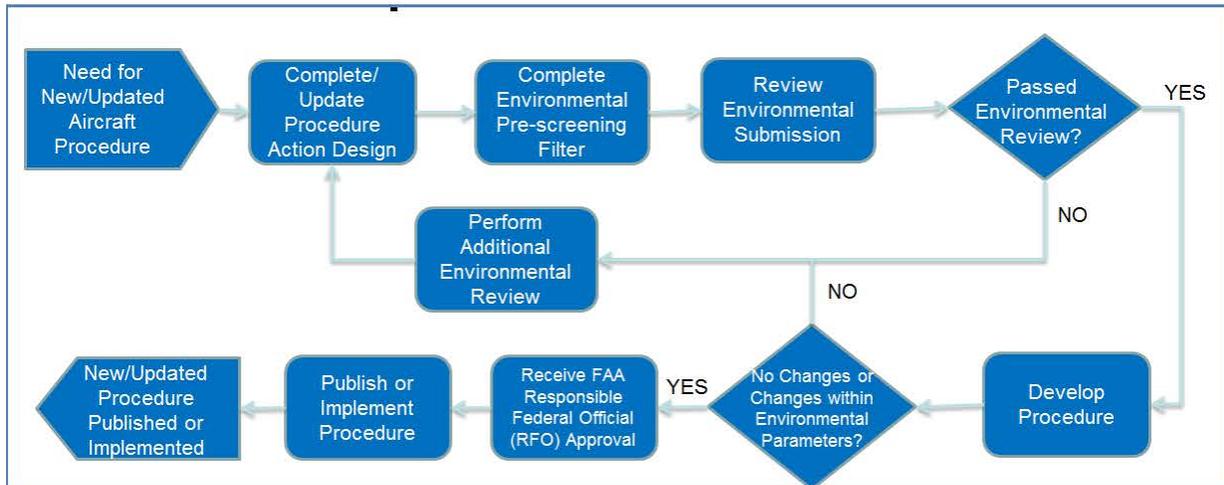
c. FAA Order 1050.1 provides the overall procedures and guidance for the FAA's environmental responsibilities. It is the intent of this chapter to complement, and not repeat in its entirety, what is already contained in FAA Order 1050.1. However, there are issues addressed in FAA Order 1050.1 that require further detail for air traffic or additional emphasis to ensure they are properly addressed.

d. The re-engineered environmental review process for Instrument Flight Procedures (IFPs) requires completion of a pre-screening filter and eliminates the need to complete the Air Traffic IER form (see Appendix 5), the checklist in support of a Categorical Exclusion (CATEX) Determination, and the CATEX Memo. The re-engineered environmental review process is depicted in FIG 32-1-1.

e. This chapter is designed to address these unique actions (for example, special use airspace proposals) and provide the additional detail necessary for air traffic to conduct an adequate environmental review.

FIG 32-1-1

IFP Re-Engineered Environmental Review Process

**32-1-4. DELEGATION OF AUTHORITY**

The Approving Official for Environmental Assessments (EAs), Findings of No Significant Impact (FONSIs) and Environmental Impact Statements (EISs) is the FAA official with signature authority for these documents. The FAA official with signature authority to approve a Record of Decision (ROD) is the decision-maker (see Order 1100.154A, Delegation of Authority).

a. The air traffic facility manager has signature authority for memoranda related to administrative actions listed in FAA Order 1050.1, paragraph 2-1.2.d. and advisory actions discussed in FAA Order 1050.1, paragraph 2-1.2.b.

b. The Vice President for Mission Support Services has signature authority for EAs, FONSIs, EISs, and RODs for all Performance-Based Navigation (PBN) and airspace re-design (for example, Metroplex) projects and may delegate this authority to a Service Center Director in the respective Service Center.

c. The Service Center Directors have signature authority for CATEXs and, as delegated by the Vice President for Mission Support Services, for EAs, FONSIs, EISs, and RODs which are exclusively within the scope of a single Service Center; and may delegate this authority to the Operations Support Group Manager within that Service Center. For Special Use Airspace (SUA) actions that require approval at the Headquarters level, the associated

environmental document also requires approval and signature at the Headquarters level.

d. The Vice President for Mission Support Services has signature authority for EAs, FONSIs, EISs, and RODs that are beyond the scope of authority of a single Service Center. This authority cannot be delegated.

e. The Service Center Directors are responsible for air traffic environmental compliance for proposed actions within the jurisdiction of air traffic facilities within their respective service areas.

f. The Mission Support, Airspace Policy Group is responsible for coordinating environmental processes that cross service area boundaries.

g. The Service Center Operations Support Group (OSG) Flight Procedures Team (FPT) is responsible for CATEXs produced based on the results of the re-engineered environmental review process for IFPs unless it is routed to an OSG Environmental Specialist, at which time it is subject to the authority and responsibilities described above in this Order.

32-1-5. RESPONSIBILITIES

The order of delegated authority for air traffic environmental processes is as follows:

a. Mission Support, Airspace Services, Airspace Policy Group. The Airspace Policy Group has been delegated authority to direct and implement environmental policy and procedures for air traffic actions. It must design and initiate training programs

to educate air traffic personnel in Headquarters, in the Service Centers, Air Traffic Services Service Areas, and in air traffic field facilities on environmental laws, regulations, policies, and processes related to the implementation or revision of air traffic airspace and procedures.

The Airspace Policy Group must direct and implement training for air traffic Environmental Specialists in the use of environmental screening and modeling tools (see Subparagraph 32-1-5.b, Service Center Directors). Additionally, the Airspace Policy Group must serve as the air traffic focal point for the Headquarters Environmental Network chaired by the Office of Environment and Energy (AEE).

b. Service Center Directors.

1. The Service Center Directors have the final responsibility for ensuring that all appropriate environmental documentation within their area of jurisdiction is prepared accurately and completely.

2. The Service Center Directors must be responsible for designating at least one person to serve as the Environmental Specialist within his/her service area to address air traffic environmental issues. Funding for training associated with the duties of the Environmental Specialist must also be the responsibility of the Service Center Director (or his/her designee).

3. The Service Center Director (or his/her designee) must appoint a representative to serve as the focal point for his/her service area on Regional Environmental Networks within his/her service area. The representative must coordinate any environmental activity in his/her service area with the Airspace Policy Group, as appropriate.

4. The Service Center Directors must ensure that the Environmental Specialist attends the following training or equivalent, as soon as practical after his/her appointment to the position:

(a) FAA Academy Course #50019, Airspace and Procedures.

(b) Electronic Learning Management System (eLMS) Course #60000076, Mission Support Services' National Environmental Policy Act (NEPA) & Air Traffic Applications.

(c) NEPA 102 for the Re-engineered Environmental Review Process for Instrument Flight Procedures (IFPs).

(d) Re-engineered Environmental Review Process for IFPs and the Environmental Pre-Screening Filter.

(e) Environmental screening tools (pre-screening filter, noise screening guidance document, Aviation Environmental Screening Tool (AEST), and/or TARGETS Environmental Plug-in.)

(f) Environmental Modeling Tool (Aviation Environmental Design Tool (AEDT)).

NOTE-

Recurrent training to supplement these minimums should be provided, as appropriate. Additionally, when members of the FPT or other specialists have duties that include the use of the Pre-Screening Filter, they must complete training on the Filter, NEPA 101, and NEPA 102.

c. OSG Manager.

The OSG manager must act as the FAA environmental point of contact when another Federal agency (for example, Department of Defense (DOD)) requests FAA participation as a Cooperating Agency on air traffic or airspace actions.

NOTE-

When a request for Cooperating Agency status is received from the DOD related to Special Use Airspace (SUA), a copy of Appendix 2 and Appendix 3, (flow charts for SUA environmental and aeronautical non-rulemaking and rulemaking actions, respectively) along with a copy of Appendix 4 (a summary of FAA procedures for processing DOD SUA actions), will be attached to the response. A copy of the response, which will also identify the Service Area environmental point of contact, will be provided to the appropriate Service Area.

d. Service Center Environmental Specialist.

1. Center, TRACON, and ATCT facility managers are responsible for participating in the development of all appropriate environmental documentation for proposed air traffic actions within their jurisdiction, and assisting the Service Center Environmental Specialist in ensuring that such documentation is prepared accurately and completely.

The facility managers also are responsible for designating at least one facility staff specialist within their scope of operations to coordinate with the Service Center Environmental Specialist when addressing environmental issues. The facility specialist may be required to perform his/her environmental duties on a full-time or collateral basis. The decision about the need for a full-time

Environmental Specialist at a field facility must be made by the facility manager.

2. The Service Center Environmental Specialist is responsible for the preparation of CATEXs, EAs, EISs, Letters of Adoption, Written Reevaluations, FONSI, and RODs for air traffic actions unless it is a CATEX prepared based on the results of the IFP Environmental Pre-Screening Filter that do not require additional environmental review (in that case, the OSG FPT is responsible (see paragraph 32-1-5e)). When the results of the Pre-Screening Filter indicate that additional environmental review is needed, the Service Center Environmental Specialist is responsible for that additional review and preparation of the appropriate NEPA documentation. The Service Center Environmental Specialist is also responsible for posting these documents to the Airspace Services KSN.

3. The Service Center Environmental Specialist must provide guidance in the use of the IFP Environmental Pre-Screening Filter.

4. The Service Center Environmental Specialist must provide guidance in and oversee the preparation of the Air Traffic Initial Environmental Reviews (see Appendix 5).

5. The Service Center Environmental Specialist is responsible for reviewing environmental studies and forwarding written concurrence to the air traffic facilities that originate the environmental documentation.

6. The Service Center Environmental Specialist must review environmental compliance documentation initiated by Technical Operations in the Service Centers.

7. The Service Center Environmental Specialist must cooperate with Airport District Offices or the Airports Division, within his/her jurisdiction, on the preparation of environmental compliance documents and 14 CFR, Part 150, Airport Noise Planning, Land Use Compatibility Guidelines (Part 150) studies undertaken by these offices. Review and comments by the Service Center Environmental Specialist must be directed to those matters affecting the operation of the air traffic program. Comments must be forwarded to the appropriate organization in the Office of Airports. The Service Center Environmental Specialist may also be requested to attend public meetings or hearings to provide support to the facility,

region/service area, or other lines of business convening the meeting or hearings.

8. The Service Center Environmental Specialist must review other agencies' environmental documentation when applicable (for example, when the FAA is considering adopting the environmental documentation).

9. In the case of SUA actions, the Service Center Environmental Specialist must review environmental studies in accordance with paragraph 32-2-3.

10. The Service Center Environmental Specialists must coordinate with each other and with their counterparts in other agencies, as appropriate.

e. Flight Procedures Team.

1. For IFP requests, the initial responsibility for environmental compliance rests with the OSG FPT.

2. The OSG FPT is responsible for preparing a CATEX that is based on the results of the IFP Environmental Pre-Screening Filter that do not require additional environmental review. When the results of the Pre-Screening Filter indicate that additional environmental review is needed, the Service Center Environmental Specialist is responsible for that additional review and preparation of the appropriate environmental compliance documentation.

f. Air Route Traffic Control Center (ARTCC), Terminal Radar Approach Control (TRACON), and Airport Traffic Control Tower (ATCT) facility managers.

1. ARTCC, TRACON, and ATCT facility managers are responsible for ensuring that all appropriate environmental documentation for proposed air traffic actions within their jurisdiction is prepared accurately and completely. For procedures reviewed through the IFP Environmental Pre-Screening Filter, these managers must ensure that the results of the Filter are reviewed by appropriate FAA personnel.

(a) For actions that require additional environmental review, these managers are responsible for recommending to the Service Center Environmental Specialist the appropriate level of environmental review.

(b) For actions other than Advisory or Emergency Actions (as defined in FAA Order 1050.1), and actions that require additional environ-

mental review beyond the IFP Environmental Pre-Screening Filter, the facility manager must ensure that, at a minimum, the Air Traffic Initial Environmental Review (IER) (see Appendix 5) is prepared and submitted, with supporting information, to the Service Center Environmental Specialist along with the proposed action (see Paragraph 32-2-1a, Determination of Appropriate Environmental Documentation). Under some limited circumstances, the Service Center Environmental Specialist may waive the need for completion of the IER by substituting an appropriate level of documentation, such as a memorandum to the file.

(c) For IFP actions reviewed through the IFP Environmental Pre-Screening Filter, the OSG FPT or Environmental Specialist will determine the appropriate level of environmental documentation after reviewing the results from the Filter. The Service Center Environmental Specialist must then prepare the Categorical Exclusion Declaration (if appropriate) for signature by the Service Center Director (or his/her designee). Because preparation of an EA or EIS will require the use of contractor funds and staff, the field facility must forward that recommendation up to the Service Center Director for approval and action.

2. The ATCT facility manager should be involved early in the design phase of a proposal to ensure that a full understanding of tower/airport operations is included in the alternatives development. The facility manager is responsible for ensuring that information provided to the ARTCC and/or TRACON is complete and accurate.

3. Facility managers also are responsible for designating at least one facility staff specialist within their scope of operations to address environmental issues.

(a) The facility specialist may be required to perform his/her environmental duties on a full-time or collateral basis. The decision about the need for a full-time Environmental Specialist at a field facility must be made by the facility manager.

(b) Facility managers must ensure that the specialist who performs environmental duties on a

full-time basis attends the training specified in paragraph 32-1-5b. above, as soon as practical.

(c) The environmental screening and modeling tools training is also recommended, but is not mandatory. Additionally, where other facilities have, or are authorized to have, an operations specialist (for example, Plans and Programs Specialist or Procedure Specialist) to conduct environmental activities as a collateral duty, it is recommended that these specialists attend the above-referenced training.

4. Facility managers must ensure that their facility is represented at meetings of the Office of Airports and other lines of business, such as environmental compliance and Part 150 process meetings, where decisions rendered could affect air traffic operations in their area of responsibility.

(a) Facility managers are responsible for working with operating divisions, airport sponsors, and contract support personnel in the environmental review processes. Air traffic attendance at these meetings does not necessarily constitute air traffic endorsement or sanction of the proposed action.

(b) Environmental compliance and Part 150 studies must receive thorough review at the facility level. Review and comments on Office of Airports documents must be directed to those matters that affect the operation of the air traffic program. Facility comments must be forwarded to the Service Center Environmental Specialist, not more than 15 days after receipt of the document or study. (Requests for longer periods of review must be coordinated with the Service Center Environmental Specialist on an as needed basis.) Prior to a facility submitting comments directly to other operating divisions, or airport sponsors, the facility point of contact must discuss the issues with the Service Center Environmental Specialist.

5. Facility managers (or their designees) must not make or recommend a proposed flight track, route, or air traffic flow as a preferred action for the sole purpose of noise abatement. They may, however, indicate if the proposed action is operationally feasible or safe (within the context of aircraft separation standards). The airport sponsor (operator) is solely responsible for the recommendation of noise abatement procedures.

Section 2. Environmental Processing

32-2-1. THE PROCESS

The ARTCC, TRACON, and ATCT facilities, in cooperation with the Service Center, must conduct the environmental compliance process for any proposed air traffic action in their area of jurisdiction with the potential to impact the human environment. Examples of air traffic actions include, but are not limited to, procedural changes that create new or alter existing flight tracks over noise sensitive areas or altitudes utilized by aircraft, certain SUA requests or changes, and initiatives effecting operational changes (for example, changes in runway use percentage or heading). Environmental documentation for such actions must be completed prior to approval and subsequent implementation (see Appendix 1, Environmental Study Process Flow Chart, for the steps from action concept to implementation).

a. Some basic questions to ask when considering the potential environmental impact of actions are:

1. Are there aircraft currently flying over the area of change?
2. Are route altitudes increasing or decreasing?
3. Are the routes moving laterally, and if so, how far from the baseline route?
4. Will the number of operations increase?
5. Are there projected changes in runway use?
6. Will the types of aircraft change?
7. Will nighttime operations increase?

If the FAA is not the proponent of the proposed air traffic action (for example, the Department of Defense or an Airport Sponsor [the proponent] requests the FAA to take the action) then the proponent is responsible for funding and preparation of environmental documentation associated with the proposed action. FAA Order 1050.1, paragraph 2-2.2 discusses responsibility for preparation of EAs or EISs (respectively) where FAA must approve the project. Signature authority for the environmental documents discussed in this section must be in accordance with Paragraph 32-1-4, Delegation of Authority, of this chapter.

The FAA or non-FAA proponent must prepare and submit the associated environmental documentation

in conjunction with the proposed air traffic action, as follows:

b. Determination of Appropriate Environmental Documentation. The appropriate level of environmental documentation required must be determined after all portions of a proposed action have undergone the Air Traffic Initial Environmental Review (IER) (see Appendix 5). The IER must be used for all projects that will require headquarters-level funding for completion of the environmental process. For those projects not being funded at the headquarters level, completion of the IER is optional. Facility personnel and the Service Center Environmental Specialist must coordinate the IER process.

The completed IER, along with a recommendation as to whether the proposed action warrants no further environmental review, a CATEX, or preparation of an EA or an EIS must be forwarded to the Service Center Environmental Specialist. Field personnel must consult FAA Order 1050.1 before making a recommendation on the appropriate level of environmental review for a proposed action.

For IFP actions reviewed through the IFP Environmental Pre-Screening Filter, the OSG FPT or Environmental Specialist must determine the appropriate level of environmental documentation after reviewing of the results from the Filter. If the Filter results indicate that a CATEX is warranted, the OSG FPT must prepare the CATEX and proceed with the action.

The following are specific sections of FAA Order 1050.1 that must be reviewed:

1. Advisory Actions, Paragraph 2-1.2b. A memorandum to the file may be the only documentation necessary.
2. Emergencies, paragraph 5-6.1a.
3. Extraordinary Circumstances, Paragraph 5-2.
4. Categorical Exclusions, Paragraph 5-6.5, and Extraordinary Circumstances, Paragraph 5-2. Only those categorical exclusions listed may be cited. However, the categorical exclusion referenced in AEE's Guidance Memo #5 dated December 6, 2012, Guidance for Implementation of the Categorical Exclusion in Section 213(c)(1) of the FAA

Modernization and Reform Act of 2012 (known as CATEX 1), (see FAA Order 1050.1, paragraph 5-6.5.q) may also be used.

A review of Categorical Exclusion Documentation, Paragraph 5-3, will assist in determining the appropriate level of environmental documentation required for a CATEX (see Appendix 6 of this order for a “Sample Categorical Exclusion Declaration”).

5. Chapter 6 of FAA Order 1050.1 addresses EAs and FONSI. A review of this chapter will assist in determining when to prepare these documents. The FAA may adopt, in whole or in part, an EA prepared by another Federal agency. Consult FAA Order 1050.1 paragraph 6-3.c to determine if the EA meets the criteria for FAA adoption.

6. Chapter 7 of FAA Order 1050.1 addresses EISs and RODs. A review of this chapter will assist in determining when and how to prepare these documents.

7. A review of FAA Order 1050.1, Appendix B, will assist in determining whether a noise analysis is warranted and if so, what type of analysis should be conducted. A noise analysis requires several different types of input data including radar data. This data is available to FAA and other Federal Government personnel. Request for the data should be made through the Service Center Environmental Specialist assigned to the proposal.

8. Requests for the FAA to release radar data, to other than FAA personnel, for use in noise studies or environmental compliance documents should be via FAA Order 1200.22, External Requests for National Airspace System (NAS) Data, or the Freedom of Information Act (FOIA) process. It may be simpler and more expedient to utilize the FOIA process, as FOIA does not require use of the Data Release Review Committee or a Memorandum of Agreement between the FAA Field Facility and an Environmental Contractor. Consultation with the Service Center Environmental Specialist should occur if radar data is needed.

c. Preparation of Environmental Documents. The following are various levels of environmental review and documentation that may be prepared:

1. Actions Not Subject to NEPA Review. See FAA Order 1050.1, paragraph 2-1.2, for a list of actions that do not require an environmental study.

2. No Further Environmental Review Required. Some air traffic actions are subject to NEPA review, but require no further environmental action after the initial environmental review is completed. These actions relate to modifications to airspace and/or procedures and may fit some or all of the following criteria. Special purpose environmental requirements may still apply to airspace and/or procedures that fit some or all of these criteria. No further environmental review is required if the proposed change:

(a) is over 18,000 ft above ground level (AGL). Currently, there is no need to analyze aircraft noise above 18,000 ft AGL. However, there is the potential for future greenhouse gas requirements to require analysis of fuel burn and carbon dioxide (CO₂) impacts.

(b) is over 7,000 AGL for arrivals, and/or over 10,000 ft AGL for departures and/or overflights.

(1) Any decision to analyze aircraft noise over 10,000 ft AGL is an exception and should be coordinated with the ATO Airspace Policy and Regulation Group at FAA headquarters at the earliest possible time.

(2) Consideration for analyzing the proposed change between 10,000 ft and 18,000 ft AGL will be given when there is a national park or wildlife refuge in the study area where a quiet setting is a generally recognized purpose and attribute and the change is likely to be highly controversial.

(c) is over a non-noise sensitive area(s)

(d) does not alter the current noise footprint.

(e) does not cause the following noise level change over noise sensitive areas, as defined in FAA Order 1050.1, paragraph 11-5 (10): +1.5 dB for 65 DNL and higher.

For IFP actions reviewed through the IFP Environmental Pre-Screening Filter, most of these determinations will be made automatically based on the information input into the Filter.

NOTE-

An FAA-approved environmental screening tool or model must be used to confirm the noise data when the project is not processed through the IFP Environmental Pre-Screening Filter.

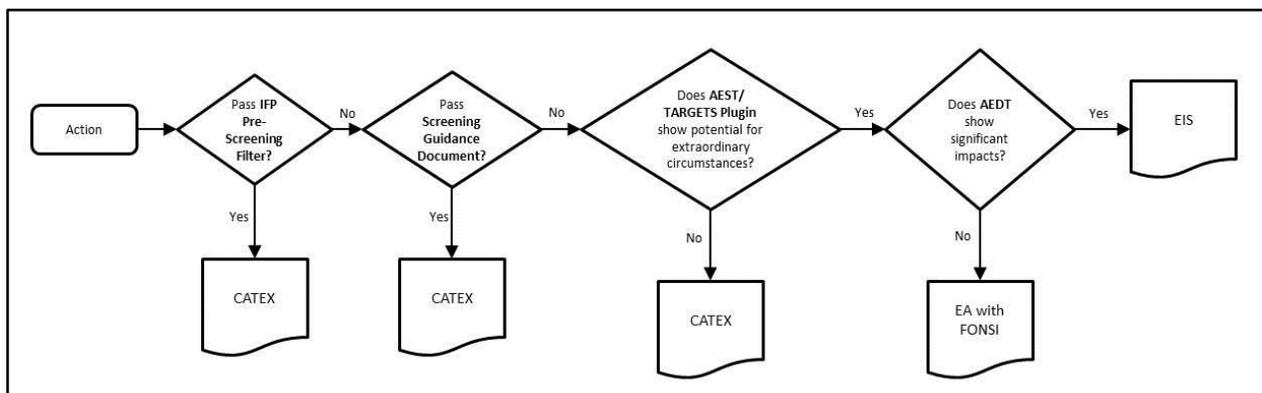
3. Actions Not Requiring a Noise Analysis. (See FAA Order 1050.1, Appendix B, Paragraph B-1.)

4. Following review and consultation, the field facility manager and Service Center Environmental Specialist may agree that no further environmental review is required. When this occurs, the originating facility must prepare a memorandum to the file and attach any supporting documentation, which indicates the basis for the determination (such as a copy of the proposed action that includes references to the above criteria, results of the noise review, etc.).

The memorandum must include, if applicable, references to the provisions of FAA Order 1050.1 that support the determination (for example, whether the proposed action is administrative or advisory in nature).

5. Actions Requiring Environmental Modeling for NEPA Compliance. FIG 32-2-1 shows the levels of environmental screening and modeling that are required for NEPA compliance.

FIG 32-2-1
Levels of Environmental Screening and Modeling for NEPA Compliance



6. Non-FAA proponents and third party developers. To meet the requirements of NEPA and other applicable environmental requirements, potential environmental impacts of flight procedures submitted by third party procedure developers must be considered. A proposed procedure development package submitted by a third party developer to an environmental specialist must include (at a minimum) the following information:

(a) Draft Initial Environmental Review (IER) in accordance with process outlined in Appendix 5 of this this Order.

(b) Documentation (email or letter) from the responsible FAA facility to the proponent indicating concurrence with the proposed development of the procedure(s).

7. The Service Center Environmental Specialist will review the documentation to determine if a categorical exclusion is applicable. If the procedure qualifies for a categorical exclusion, the Environmental Specialist will prepare a Categorical Exclusion Declaration and process it in accordance with the requirements of Appendix 6 of this Order.

(a) If necessary, the Service Center Environmental Specialist must use the MITRE Screening

Guidance Document referenced in paragraph 32-3-3, below, to assist in determining if the CATEX is applicable.

(b) The Service Center Environmental Specialist must contact the proponent if any additional information is needed to support the CATEX.

8. If the Screening Guidance Document indicates that additional review is required, the Service Center Environmental Specialist will use one of the following tools, as appropriate, to perform the next level of screening to determine if the CATEX is applicable:

(a) Aviation Environmental Screening Tool (AEST) or other FAA-approved screening tool.

(b) Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS) tool with the Environmental “Plug-in.”

(c) If that level of screening indicates that the CATEX is applicable, the Environmental Specialist will prepare the CATEX declaration (Appendix 6 of this Order) with results from the above screening tool(s) attached.

(d) If the procedure(s) indicate that a CATEX is not applicable, then an Environmental Assessment (EA) must be completed. Procedures requiring an EA

will be returned to the proponent for this additional environmental documentation.

(1) A “focused” EA with required noise analysis may be appropriate in this situation. Preparation of the EA and any related environmental analysis required will be the responsibility of the proponent, and must be completed in accordance with all applicable environmental regulations and requirements.

(2) The Service Center Environmental Specialist will be responsible for providing advice and assistance to the proponent during the EA preparation; independent review and EA completion; and preparation and completion of a FONSI or decision that an EIS is required.

9. Categorical Exclusions. After completion of the IER (when applicable), the originating facility must forward the IER and any supporting environmental documentation (CATEX, EA, or EIS) to the Service Center Environmental Specialist for concurrence.

(a) The Service Center Environmental Specialist must then prepare the CATEX declaration. If the IFP Environmental Pre-Screening Filter is used, then the environmental data is gathered electronically instead of through the IER, and it is forwarded to the appropriate next step in the IFP process.

(b) A CATEX does not apply to a proposal if extraordinary circumstances, as described in FAA Order 1050.1, Paragraph 5-2, Extraordinary Circumstances, exist.

10. Environmental Assessments. Although the facility manager must make a recommendation on the level of environmental review, the Service Center Environmental Specialist must make the final determination as to whether the proposed action warrants preparation of an EA or an EIS. For proposed actions that warrant an EA, the Service Center Environmental Specialist may need to request additional resources, funding, and information to support the proposal.

(a) Consultation with the Airspace Policy and Regulation Group regarding projects at this stage is recommended.

(b) If an independent contractor is to prepare the EA, the Service Center Environmental Specialist

must oversee the preparation to ensure compliance with FAA Order 1050.1, Chapter 6, Environmental Assessments and Findings of No Significant Impact.

(c) Chapter 6 of FAA Order 1050.1 summarizes and supplements requirements of Council on Environmental Quality (CEQ) regulations for EAs. The CEQ regulations do not specify a required format for an EA; however, FAA Order 1050.1, paragraph 6-2.1, contains a sample format that will facilitate preparation of an EA, and integrate compliance with other environmental laws, regulations, and Executive Orders with NEPA review.

(d) All EAs must be focused and concise in accordance with CEQ and AEE guidance. As defined in the CEQ regulations implementing NEPA, an EA is a “concise public document” that “briefly provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.”

(1) 40 CFR §1508.9(a). An EA must include “brief discussions” of the need for the proposed action, alternatives to the proposed action, and the potential environmental impacts of the proposed action and alternatives.

(2) 40 CFR §1508.9(b). In addition to these specific directions for EAs, the CEQ regulations also contain more general admonitions regarding the importance of reducing paperwork (for example, by “[d]iscussing only briefly issues other than significant ones”) and reducing delay (for example, by setting time limits for deciding whether to prepare an EIS.) (See 40 C.F.R. §§ 1500.4(c), 1500.5, 1501.8(b)(2)(i)).

11. These concepts are also emphasized in subsequent CEQ guidance, as well as in DOT and FAA orders, and guidance for implementing NEPA actions. To achieve a focused and concise EA, the following must be considered:

(a) Where there are some anticipated effects to a resource, but those effects are clearly below thresholds of significance as defined in FAA Order 1050.1, briefly document that fact with an explanation that thresholds would not be reached or exceeded.

(b) Do not address impact categories that the action has no potential to impact, such as construction, farmland, and water quality.

(c) Scale the NEPA review process to the nature and level of the expected environmental impact. Include only what is absolutely necessary in the document and include any additional required supporting data in an appendix.

(d) Do not include information in the document (not even in an appendix) that can be incorporated by reference and be made available on a website.

12. Findings of No Significant Impact. If an EA reveals that a proposed air traffic action would not cause significant adverse impacts, the Service Center Environmental Specialist must prepare a FONSI.

(a) FAA Order 1050.1, Paragraph 6-3, Finding of No Significant Impact, summarizes and supplements CEQ requirements for FONSI. The CEQ regulations do not specify a format for FONSI, but FONSI must contain the information discussed in 40 CFR 1508.13. The FONSI may be attached to an EA, may be combined with the EA in a single document, or may be a stand-alone document.

(b) Paragraph 6-3 should be reviewed in detail prior to completion of a FONSI to assist in determining the type of document to prepare.

(1) If the FONSI is not combined with, or attached to an EA, it must include a summary of the EA and note any other environmental documentation related to it.

(2) If the FONSI is attached or included with the EA, the FONSI does not need to repeat any of the discussions in the EA but may incorporate them by reference.

(3) All documentation relied upon must be made available to the public upon completion of the environmental process.

(c) If mitigation is included as a requirement in the FONSI, the appropriate follow-up actions must be taken to ensure that the required mitigation is implemented. The Service Center preparing the FONSI is responsible for ensuring that the required mitigation is implemented.

13. Environmental Impact Statement. If a proposed action requires preparation of an EIS, the Service Center Environmental Specialist must advise the Area Director when there is a need to seek funding and/or resources for the EIS. Consultation with the

Airspace Policy Group regarding projects at this stage is highly recommended.

(a) The FAA, or a contractor it selects, will prepare an EIS for projects that potentially may cause significant environmental impacts (40 CFR Part 1506.5(c)).

(b) If an independent contractor is to prepare the EIS, the Service Center Environmental Specialist must oversee the preparation to ensure compliance with FAA Order 1050.1, Paragraph 7-1.2, Environmental Impact Statement Process.

NOTE–

The Service Center Environmental Specialist will ensure that all EAs and any subsequent EISs for proposed air traffic action within his/her area of jurisdiction meet the requirements of FAA Order 1050.1. The originating facility is responsible for the accuracy of operational data and assumptions contained therein.

14. Record of Decision. For all proposed air traffic actions that have been the subject of an EIS, the Service Center Environmental Specialist must prepare an ROD in accordance with FAA Order 1050.1, paragraph 7-2.

(a) For proposed air traffic actions for which a FONSI is prepared, the Service Center Environmental Specialist should consider preparing an ROD in accordance with FAA Order 1050.1, paragraph 7-2.

(b) If an independent contractor prepares the EIS, that contractor may also support preparation of the ROD; however, the ROD documents the agency's decision on the Federal action and remains the responsibility of the FAA.

32-2-2. ENVIRONMENTAL REVIEW OF PROCEDURES

a. "Procedures." The term "procedures" in FAA Order 1050.1 refers to published procedures (conventional, PBN IFPs, and visual) and radar tracks, which are the actual flight paths.

b. Performance-Based Navigation (PBN) Procedures: Refers to satellite-based navigation procedures known as Area Navigation/Required Navigation Performance (RNAV/RNP) procedures. Establishing and implementing a new or revised PBN Instrument Flight Procedure (IFP) constitutes a federal action under NEPA. Accordingly, the FAA must consider environmental impacts before it can take steps to

implement a PBN IFP. There are several CATEXs in FAA Order 1050.1 that may apply to preclude the need to prepare an EA or EIS for new or revised PBN IFPs.

c. Categorical Exclusions for Procedures: FAA Order 1050.1 includes several CATEXs that normally apply to procedures (provided no extraordinary circumstances apply). See FAA Order 1050.1, subparagraphs 5-6.5g, 5-6.5i, and 5-6.5 p. These CATEXs apply to procedures that:

1. Use overlay of existing procedures (paragraph 5-6.5g).
2. Are conducted at 3,000 feet AGL or more (paragraph 5-6.5 i).
3. Are conducted below 3,000 feet AGL, but do not cause traffic to be routinely routed over noise-sensitive areas (paragraph 5-6.5 i).
4. Are modifications to currently approved IFPs conducted below 3,000 feet AGL that do not significantly increase noise over noise-sensitive areas, or involve increases in minimum altitudes or landing minima (paragraph 5-6.5 i).
5. Are new procedures that routinely route aircraft over non-noise-sensitive areas (paragraph 5-6.5 p).
6. Are published, but do not change existing tracks, create new tracks, change altitude, or change concentration of aircraft on these tracks (paragraph 5-6.5 k).

FAA Order 1050.1 also recognizes that increasing the concentration of aircraft over existing noise-sensitive areas below 3,000 feet AGL and introducing new traffic on a routine basis over noise-sensitive areas below 3,000 feet AGL may cause a significant noise increase that would preclude the use of a CATEX (see FAA Order 1050.1, subparagraphs 5-6.5i and 5-6.5k).

d. Conducting Environmental Review of Proposed Procedures. Additional environmental analysis is needed in some cases to determine the appropriate level of NEPA review for proposed procedures. A determination of whether a proposed procedure that would normally be categorically excluded and requires an EA or EIS depends on whether the proposed action involves “extraordinary circumstances.” (See FAA Order 1050.1, paragraph 5-2).

1. If additional analysis shows that extraordinary circumstances do not exist, then the procedure can be categorically excluded from further environmental review under NEPA.

2. If analysis shows that extraordinary circumstances do exist, then the procedure does not qualify for a CATEX, and an EA or EIS is required. Extraordinary circumstances exist when the proposed action involves any of the conditions described in FAA Order 1050.1, paragraph 5-2, and may have a significant effect on the environment.

3. Circumstances listed in FAA Order 1050.1 that are most likely to require additional analysis with respect to a proposed procedure include:

- (a) An impact on noise levels of noise-sensitive areas (paragraph 5-2 b (7)).
- (b) Effects on the quality of the human environment that are likely to be highly controversial on environmental grounds (paragraph 5-2 b (10)).

(c) An adverse effect on cultural resources protected under the National Historic Preservation Act of 1966, as amended (subparagraph 5-2 b (1)).

(d) An impact on properties protected under section 4(f) of the Department of Transportation Act (subparagraph 5-2 b (2)).

4. If any of the circumstances described in FAA Order 1050.1, paragraph 5-2, exist for a proposed new or modified procedure, additional analysis is required to determine the potential for significant environmental effects.

e. Noise Focusing. The term used to characterize the concentration of noise is “noise focusing.” The actual flight tracks of aircraft flown on conventional IFPs using ground-based Navigational Aids (NAVAIDs) show broad dispersion around the trajectory of the defined procedures. The dispersion is typically based on the performance characteristics of individual aircraft types and pilot technique. In contrast, FAA’s experience with satellite-based navigation procedures shows that actual flight tracks and RNAV/RNP PBN procedures converge to a much greater degree. Therefore, aircraft flying RNAV/RNP procedures and the associated noise are concentrated over a smaller area than would be the case for the same operations using conventional, non-RNAV/RNP IFPs.

f. Screening Requirements. Due to concerns with noise focusing as described above, it is particularly

important to conduct appropriate noise screening to determine whether or not extraordinary circumstances exist that warrant preparation of an EA or EIS for PBN IFPs that would normally be categorically excluded.

1. Noise screening must be done for PBN IFPs over noise-sensitive areas below 10,000 feet AGL to determine the potential for extraordinary circumstances that may preclude use of a CATEX.

2. PBN IFPs that are not over noise-sensitive areas do not require noise screening; however, a CATEX declaration should be prepared in accordance with FAA Order 7400.2, paragraph 32-2-1.b.3.

3. Noise screening is also required between 10,000 feet and 18,000 feet AGL if a procedure would result in operational changes at an altitude that could increase aircraft noise in an area within a national park, national wildlife refuge, historic site (including a traditional cultural property), or similar area where quiet is an attribute and the noise increase is likely to be highly controversial. (See FAA Order 1050.1, Appendix B, paragraph B-1.5 and paragraph 32-2-1b2(e) of this chapter.) Such screening is used to determine if aircraft flying these procedures would cause increased noise over noise-sensitive areas, and if so, the magnitude of the increase.

4. There are several tools that the FAA has developed to screen for the level of change in noise exposure between the existing condition and a proposed procedure (see paragraph 32-3-3).

g. Obstacle Departure Procedures (ODPs). According to FAA Order 8260.46, Departure Procedure (DP) Program, paragraph 2-1-1b(4), there are two types of ODPs: Textual and Graphic. They are defined as:

1. Textual ODP. A relatively simple ODP may be published textually unless a graphical depiction is required for clarity. Textual ODP instructions that exceed a maximum of one turn, one altitude change, and one climb gradient must be published graphically.

(a) A Textual ODP does not define a specific route nor have a name or computer code assignment, but only advises the operator how to avoid potential obstacles.

(b) This type of action is not considered a major Federal action under NEPA; therefore, FAA

Order 1050.1, Paragraph 2-1.2 b, Advisory Actions, applies.

2. Graphic ODP. Complex ODPs are those that require a visual presentation to clearly communicate the departure instructions and desired flight paths. If the ODP is depicted graphically, it must be clearly stated on FAA Form 8260-15A, Takeoff Minimums and Textual Departure Procedures (DP), in the Departure Procedure section; for example, "USE JONES DEPARTURE." The decision to graphically publish ODPs rests within AeroNav Products.

(a) A Graphic ODP has a repeatable ground track, has the same naming conventions and computer code assignments, looks almost the same on a chart, and is processed the same as a standard instrument departure (SID). (See FAA Order 8260.46, Departure Procedure (DP) Program, Appendix A).

(b) A Graphic ODP is considered a major Federal Action under NEPA just like an SID. FAA Order 1050.1, Paragraph 5-6.5, Categorical Exclusions for Procedural Actions, should be reviewed to determine if a CATEX applies. FAA Order 1050.1, Appendix B, Paragraph B-1.1, Aircraft Noise Screening, should also be reviewed to determine if noise screening or analysis would be required.

32-2-3. SPECIAL USE AIRSPACE (SUA)

The purpose of this section is to ensure that air traffic personnel and SUA proponents are aware of the need to comply with NEPA and CEQ requirements for evaluating the environmental impacts of proposed SUA actions. (For example, see FAA Order 1050.1, paragraph 3-1.2.b(14). This section supplements the airspace processing requirements contained in Part 5. of this Order.

Normally, SUA is designated to support DOD requirements. The FAA/DOD Memorandum of Understanding (MOU) provided in Appendix 7, sets forth procedures and responsibilities for the evaluation of the environmental impacts of DOD SUA proposals. It designates when DOD is the lead agency and when FAA is the cooperating agency for NEPA compliance on SUA proposals.

Appendix 8, FAA Special Use Airspace Environmental Processing Procedures, establishes air traffic environmental processing procedures for proposed SUA actions. In the case of SUA proposals submitted

by non–DOD Federal agencies, the responsibility for preparation of an EA or EIS, if required, rests with the proponent (i.e., the requesting Federal agency). However, the FAA retains responsibility under NEPA to ensure that its SUA actions are supported by adequate environmental documentation.

In accordance with FAA Order 1050.1, Paragraph 8-2, Adoption of Other Agencies' National Environmental Policy Act Documents, the FAA may adopt, in whole or in part, draft or final EAs, EISs, or the EA portion of another agency's EA/FONSI. When the FAA adopts an EA, EIS, or the EA portion of another agency's EA/FONSI, the responsible FAA official must independently evaluate the information contained in the EA or EIS, take full responsibility for the scope and content that address FAA actions, issue its own FONSI and/or ROD, and, if applicable, provide notification to EPA that the FAA has adopted the EIS.

32–2–4. CFR PART 150 STUDIES

a. Airport sponsors (Operators) may choose to conduct a 14 CFR Part 150, Airport Noise Planning, Land Use Compatibility Guidelines study to analyze the operation of an airport, identify compatible and non-compatible land uses, and assess the costs and benefits of noise mitigation techniques.

b. Noise Compatibility Programs that result from Part 150 studies often recommend modifications to air traffic routes and/or procedures to accomplish noise abatement. The FAA does not normally make changes in air traffic routes and/or procedures solely for the purpose of noise abatement.

1. Under Part 150, the FAA can approve flight procedures to reduce noise that are recommended in a Noise Compatibility Plan.

2. If modifications to air traffic routes and/or procedures are recommended, air traffic will evaluate those recommendations as to feasibility and provide input to the appropriate organization in the Office of Airports.

c. Preparation of a Part 150 study does not necessarily invoke NEPA; however, the potential implementation of recommended noise abatement measures, such as alternative air traffic procedures, is subject to the NEPA process by the air traffic program.

1. During the Part 150 process, facility managers must keep the Airports Division or Airports District Office representative and the Service Center Environmental Specialist advised of any alternative air traffic control procedures that have the potential to invoke the NEPA process.

2. Facility managers are responsible for ensuring that current operational data and assumptions (furnished to the entity completing the Part 150 process) are accurate and that future operational data and assumptions reflect reasonable conditions. (Operational data in this context relates to flight track and profile data and/or documentation.)

d. The facility environmental representative and the Service Center Environmental Specialist must coordinate with the Airports Division or Airports District Office representative throughout the Part 150 process. This coordination should ensure that assumptions and data used are reviewed at each phase and results can be verified early in the process. Early coordination will allow for needed adjustments in any operational assumptions prior to completion of the study.

e. The Service Center Environmental Specialist must coordinate with the Airports Division or Airports District Office personnel to furnish any data necessary for use in the Part 150 study. Additionally, air traffic participation in the process does not constitute air traffic approval for a Part 150 action.

f. During other noise studies conducted by the airport sponsor, facility managers and Service Center Environmental Specialists must work with the airport sponsor and the Office of Airports personnel on the exchange of information as described above.

Section 3. Environmental Impact Categories and Other Topics

Chapter 4 of FAA Order 1050.1, “Impact Categories, Significance, and Mitigation,” summarizes the requirements and procedures for environmental impact analyses according to the resource impact category. Executive Orders, DOT and FAA Orders, and memoranda and guidance documents described FAA Order 1050.1, Paragraph 1–10.13, Environmental Impact Categories, may also contain requirements that apply.

Although all resource impact categories may receive the same level of review and analysis, the actual level of detail of review and analysis for a particular resource is dependent upon the potential for impact. The following paragraphs address those impact categories that may be required as part of the environmental review for proposed air traffic actions.

32–3–1. ENVIRONMENTAL IMPACT CATEGORIES TO BE INCLUDED IN ANALYSIS

a. The following environmental resource categories or sub-categories could potentially be impacted by the Proposed Action. Accordingly, they must be included in an EA or EIS for further detailed analysis. For proposed actions that qualify for a categorical exclusion, certain categories or sub-categories may still need to be analyzed due to special purpose environmental requirements.”

1. Air Quality
2. Compatible Land Use
3. DOT Act: Section 4(f)
4. Biological Resources: Birds and Bats. Conduct analysis related to bird and bat strikes.

5. Biological Resources: All Species. If the proposed action increases the number of aircraft flights, changes the origins of flights, or changes their destinations, the proposed action may also need to be analyzed for the opportunity for an invasive species to be introduced into the general study area (GSA).

A significant impact would occur if the U.S. Fish and Wildlife Service or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally

listed threatened or endangered species, or would result in the destruction or adverse modification of federally designated critical habitat.

6. Historical, Architectural, Archeological, and Cultural Resources (*Historical and Cultural Resources only*). Review the potential for adverse effects related to the introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic or cultural features.

7. Light Emissions and Visual Impacts (*Visual Impacts only*).

8. Natural Resources and Energy Supply (*fuel burn analysis only*). Calculate fuel burn in accordance with methodology referenced in AEE-400 Guidance Memo #3 dated January 12, 2012, Considering Greenhouse Gases and Climate Under the National Environmental Policy Act (NEPA): Interim Guidance.

9. Noise. Calculate day-night sound level (DNL) exposure levels for population centroids and unique grid points. For California analyses, CNEL may be provided as a supplemental metric. Use of other supplemental metrics requires coordination with the Environmental Policy Team, AJV-114. Change analysis must be conducted as directed in FAA Order 1050.1, Appendix B.

b. The proposed procedure(s) would create a significant noise impact if it would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.

1. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB. (See FAA Order 1050.1, Appendix B, Paragraph B-1.5, Significance Determination).

2. If the noise screening shows that the proposed procedure(s) would cause such an impact, a CATEX cannot be used, and an EA or EIS must be prepared.

3. If the procedure(s) can be modified to reduce the noise below the significance threshold, an EA and mitigated Finding of No Significant Impact (FONSI) may be prepared. (See FAA Order 1050.1, paragraphs 2-3.6, 4-4, and 6-2.3).

4. If the noise screening shows that noise over a noise-sensitive area would increase by 5 dB or more, within the DNL 45-60 dB noise range; or would increase by 3 dB or more within the DNL 60-65 dB noise range, further analysis may be required to determine the potential for the procedure(s) to be highly controversial because of the potential noise impacts.

5. The determination of the appropriate level of additional analysis should be made in consultation with Mission Support, Airspace Services, Airspace Policy Group and Environmental Policy Team.

c. If the noise screening shows that none of the above increases would occur, the results of the noise screening with these conclusions should be attached to the CATEX Declaration resulting in a documented CATEX. (See FAA Order 7400.2, Appendix 6).

32-3-2. ENVIRONMENTAL IMPACT CATEGORIES EXCLUDED FROM ANALYSIS

a. The following environmental resource categories or sub-categories would not be affected by the Proposed Action because the resource either does not exist within the general study area (GSA) or the types of activities associated with the Proposed Action would not affect them. Accordingly, they would not be included in an EA or EIS for further detailed analysis.

1. Coastal Resources (Coastal Barriers and Coastal Zones).

(a) Coastal Barriers. The Proposed Action is not expected to involve any actions (physical changes or development of facilities) that would be inconsistent with management plans for designated Coastal Barrier Resource System (CBRS) areas. However, if there are coastal zones within the GSA, management plans will need to be reviewed to ensure that there are no activities related to aircraft overflight noise in the management plan.

(b) Coastal Zones. The Proposed Action is not expected to directly affect any shorelines or change the use of shoreline zones and be inconsistent

with the NOAA-approved state Coastal Zone Management Plan (CZMP). However, if there are coastal zones within the GSA, the CMZP should be reviewed to confirm.

2. Construction Impacts. The implementation of new air traffic procedures does not involve any construction activity or ground-based impacts.

3. Farmland. The Farmland Protection Policy Act (FPPA) (7 CFR Part 658) regulates federal actions having the potential to convert farmland to non-agricultural uses. Implementation of the Proposed Action does not involve the development of any land regardless of use, nor does it have the potential to convert any farmland to non-agricultural uses.

4. Biological Resources (habitat).

(a) Air traffic airspace and procedure changes do not involve ground disturbance activities. They will not destroy or modify critical habitat for any species.

(b) The Proposed Action would not affect habitat for non-avian animals, fish, or plants.

5. Floodplains. The Proposed Action would not result in the construction of facilities. Therefore, it would not encroach upon areas designated as a 100-year flood event area as described by the Federal Emergency Management Agency (FEMA), and no further analysis is required.

6. Hazardous Materials, Pollution Prevention, and Solid Waste. The Proposed Action would not result in any construction or development or any physical disturbances of the ground. Therefore, the potential for impact in relation to hazardous materials, pollution prevention, and solid waste is not anticipated, and no further analysis is required.

7. Historical, Architectural, Archeological, and Cultural Resources (*except Historical and Cultural*).

(a) Archeological. The Proposed Action would not result in any construction, development, or any physical disturbances of the ground. The Proposed Action would not involve excavation of archaeological resources on Federal and Indian lands, disposition of cultural items, or affect the physical integrity and access to American Indian sacred sites.

(b) Architectural. The Proposed Action would not result in any construction, development, or any physical disturbances of the ground. Therefore,

the potential for impact in relation to architectural compatibility with the character of a surrounding historic district or property is not anticipated, and no further analysis is required.

8. Light Emissions and Visual Impacts (*except Visual Impacts*). There are no special purpose laws for light impacts and visual impacts. Aviation lighting is required for security, obstruction clearance, and navigation and is the chief contributor to light emissions from airports.

(a) An analysis is necessary when projects introduce new airport lighting facilities that may affect residential or other sensitive land uses.

(b) Only in unusual circumstances, for example, when high intensity strobe lights shine directly into a residence, is the effect of light emissions considered sufficient to warrant special study and planning to reduce such effects.

(c) The Proposed Action will not change aviation lighting; therefore, no further analysis is required.

9. Natural Resources and Energy Supply (*except fuel burn*). The Proposed Action would not require the need for unusual natural resources and materials, or those in short supply. Therefore, no further analysis is required.

10. Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks (*except Environmental Justice*). Potential impacts in this category as a result of disproportionately high adverse noise and air quality impacts are dealt with in the noise and air quality impacts sections, respectively.

(a) Socioeconomic Impacts. The Proposed Action would not involve acquisition of real estate, relocation of residents or community businesses, disruption of local traffic patterns, loss in community tax base, or changes to the fabric of the community.

(b) Children's Environmental Health and Safety Risks. The Proposed Action would not affect products or substances that a child would be likely to come into contact with, ingest, use, or be exposed to, and would not result in environmental health and safety risks that could disproportionately affect children.

11. Water Quality. The Proposed Action would not result in any changes to existing discharges to

water bodies, create a new discharge that would result in impacts to water quality, or modify a water body. The Proposed Action would, therefore, not result in any direct or indirect impacts on water quality.

12. Wetlands. The Proposed Action would not result in the construction of facilities and would therefore not encroach upon areas designated navigable waters. Therefore, no further analysis is required.

13. Wild and Scenic Rivers. If there are no Wild and Scenic River segments (<http://www.rivers.gov/rivers/>) located in the GSA, the Proposed Action would not foreclose or downgrade Wild, Scenic, or Recreational river status of a river or river segment included in the Wild and Scenic River System and therefore, no further analysis is required.

32-3-3. ENVIRONMENTAL SCREENING AND MODELING TOOLS

a. Screening. FAA Order 1050.1 contains a list of air traffic actions which normally do not result in significant impacts to the environment (CATEX) and therefore, do not require the preparation of an EA or an EIS. One of the requirements for a CATEX determination is to ensure that there are no extraordinary circumstances as defined in FAA Order 1050.1.

1. The environmental screening process provides a solid and repeatable approach to identify extraordinary circumstances and/or the potential for significant impacts associated with impacts of proposed air traffic actions for aircraft. The process is based on currently approved FAA tools and policies.

2. In practice, the proponent of an air traffic action would perform a series of relatively simple tests prior to contacting a Service Center Environmental Specialist based on the geographic area.

3. Actions that pass the screening tests (see paragraph 32-3-3c1) would normally be eligible for a CATEX, but could still require compliance with special purpose environmental requirements.

b. Passing noise screening implies that the potential for significant impacts and/or extraordinary circumstances due to aircraft noise is negligible, and a CATEX is appropriate. The noise screening documentation can be used to support the CATEX determination.

c. The recommended practice is to start with the simple tools, switching to more complex ones only if the test fails. In general, the simple tools evaluate isolated changes with the goal of deriving quick but conservative results and require input of a minimal amount of data. The more complex tools evaluate multiple interdependent changes and require input of a more comprehensive set of data.

1. The following are the available tools that can screen for noise and/or fuel burn and carbon dioxide (CO₂) impacts as indicated:

(a) **Pre-Screening Filter.** The Environmental Pre-screening Filter has been developed to guide users through an initial environmental requirement associated with IFP request approval. Using a series of simple questions, the filter collects procedure information to determine the next steps in completing the NEPA process. The filter provides the FAA information that can be used to identify an appropriate CATEX or if additional environmental review is required.

(b) **Noise Screening Guidance Document.** Using a series of look-up tables, the document guides users through the process to determine if a CATEX is appropriate or if additional environmental review is required.

(c) **Aviation Environmental Screening Tool (AEST).** AEST is used to evaluate changes in aircraft routing, aircraft altitude, aircraft fleet mix, number of operations, time of day, and operational procedures. AEST leverages the technology of the Aviation Environmental Design Tool (AEDT) and provides the capability to conduct tradeoff analysis between noise, fuel burn, and CO₂. Once the user has performed the analysis, AEST prepares a report for the user detailing the results and any potential increase or decrease in noise due to the proposed air traffic action. AEST replaced the NIRS Screening Tool (NST).

(d) **Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS) Environmental Plug-in.** The TARGETS Plug-in allows specialists to design procedures for the terminal environment and assess alternative concepts leading to final designs that consider both operational noise and emissions constraints. Once the user has performed the analysis, the TARGETS Plug-in provides results detailing any potential increase or

decrease in noise due to the proposed air traffic action. The TARGETS Plug-in also leverages the technology of AEDT and provides the capability to conduct tradeoff analysis between noise, fuel burn, and CO₂.

2. **Modeling.** If the result of screening indicates that additional analysis is required, then a more complex modeling tool will need to be used. FAA environmental modeling has evolved to a single tool that allows analysis of noise, emissions, and climate impacts and their interdependencies:

(a) **Aviation Environmental Design Tool.** AEDT is a software system that dynamically models aircraft performance in space and time to produce fuel burn, emissions and noise. Full flight gate-to-gate analyses are possible for study sizes ranging from a single flight at an airport to scenarios at the regional, national, and global levels.

(b) AEDT is currently used by the U.S. government to consider the interdependencies between aircraft-related fuel burn, noise, and emissions.

(c) The AEDT initially replaced the Noise Integrated Routing System (NIRS) that was used for the noise analysis of large regional study areas that included multiple airports. AEDT has subsequently also replaced the Integrated Noise Model (INM) and the Emissions and Dispersion Modeling System (EDMS).

32-3-4. RECORDS RETENTION

Records retention must be in accordance with the appropriate paragraph(s) in FAA Order 1350.15, Records Organization, Transfer, and Destruction Standards.

NOTE-

Although chapter 10 of FAA Order 1350.15 contains Air Traffic-specific information, guidance for retention of environmental documentation is contained in that portion of the order specific to the Airports Division.

a. Environmental record-keeping should receive special attention at the field facility level. If an action requires preparation of an EA or an EIS, the Service Center Environmental Specialist must maintain the Administrative File. The Administrative File is important in the environmental process because it is a compilation of all the information relied upon by FAA in the decision-making process.

b. Since some environmental projects may extend over several years, the Administrative File becomes a history of events. In the event of a legal challenge, the Administrative File will be used to develop the Administrative Record. The Administrative Record will be reviewed by the U.S. Court of Appeals to determine if the FAA complied with environmental requirements. The data and documentation contained in the File can also be used as the starting point for any follow-on environmental studies.

c. Field facility personnel must consult with their Service Center Environmental Specialist to obtain

guidance on what should or should not become part of the Administrative File. Regional counsel or AGC-620, as appropriate, should also be consulted on this. Federal court rules provide that when an FAA action is challenged in court, the agency has 40 days to compile the Administrative Record, make necessary copies, and file an index to the Record with the court. Therefore, it is preferable to begin development of the Administrative Record by maintaining an accurate Administrative File from the earliest stages of a project, instead of waiting until a lawsuit is filed.

Section 4. Air Traffic–Specific Environmental Guidance and Requirements

32–4–1. DEPARTMENT OF TRANSPORTATION (DOT) ACT SECTION 4(f) (RECODIFIED AS 49 USC SECTION 303(c))

Air Traffic personnel need to consult with all appropriate Federal, state and local officials having jurisdiction over an affected Section 4(f) resource when determining whether project–related noise impacts would constitute a use of that resource.

FAA Order 1050.1, Appendix B, provides guidance on matters relevant to Section 4(f). (See also Appendix 9, “Noise Policy for Management of Airspace Over Federally Managed Lands.”)

32–4–2. ENVIRONMENTAL JUSTICE (TITLE VI/NEPA)

a. Environmental Specialists need to know the process and requirements for environmental justice compliance.

b. DOT Order 5610.2, Environmental Justice, requires analysis of impacts of proposed FAA actions to ensure that minority and low–income population groups are not disproportionately affected. Additionally, FAA Order 1050.1, Appendix B, paragraph B-1.5; Chapter 2, paragraphs 2-2.1.b(2)(a), 2-5.2.b, and Chapter 4, paragraph 4-1, summarize the requirements and procedures to be used in environmental impact analysis related to environmental justice, as well as other socioeconomic impacts and children’s environmental health and safety risks.

c. Environmental Specialists should identify who benefits and who is adversely affected by the proposed actions, while noting impacts on specific subgroups.

32–4–3. COMMUNITY INVOLVEMENT

Air Traffic personnel need to ensure that the FAA fulfills the spirit and the letter of NEPA, and that the environmental process is efficient and legally sufficient.

a. Community involvement at the earliest possible time in developing alternatives is essential in the preparation of an EIS and, where appropriate, for an EA.

b. The Service Area Directors (or their designee) must ensure that the community involvement process is coordinated appropriately during the alternatives development process for proposed modification to air traffic airspace and/or procedures (See FAA Order 1050.1, Paragraph 2–5, Public Involvement, and the FAA’s “Community Involvement Policy” statement in Appendix 10 of this order).

32–4–4. SEGMENTATION, INDEPENDENT UTILITY, AND CUMULATIVE IMPACTS

a. Environmental Specialists must ensure that projects that do not have independent utility are not separated into smaller components (segmented) in order to avoid analyzing the overall impact of the project. A project has independent utility when a portion of the project can be implemented without any of the other portions being implemented.

b. Environmental Specialists must ensure that cumulative impacts are appropriately addressed in all EAs or EISs for air traffic actions.

1. Cumulative impacts are those that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal and non–Federal) or person undertakes such other actions.

2. Cumulative impacts may result from individually minor, but collectively significant actions taking place over a period of time. (See FAA Order 1050.1, paragraph 4-2.d (3) and also “Considering Cumulative Effects Under the National Environmental Policy Act (1997).”)

32–4–5. DIVERSE VECTORING AREAS (DVA)

a. According to National Policy 8260.3B, United States Standard for Terminal Instrument Procedures (TERPS), a DVA is an area established to avoid obstacles.

1. A DVA is used by air traffic control (ATC) radar facilities to allow the radar vectoring of aircraft below the minimum vectoring altitude (MVA), or for en route facilities, the minimum instrument flight rules altitude (MIA).

2. A DVA consists of designated airspace associated with a departure runway where the use of the applicable departure criteria, specified in National Policy 8260.3B, and this order have been applied to identify and avoid obstacles that penetrate the departure obstacle clearance surface (OCS).

3. Avoidance of obstacles is achieved through the application of a sloping OCS within the boundaries of the DVA. Since a sloping OCS is applicable to climb segments, a DVA is valid only when aircraft are permitted to climb uninterrupted from the departure runway to the MVA/MIA (or higher). A DVA is not applicable once an aircraft's climb is arrested.

b. Since DVAs generally do not define a specific route to avoid potential obstacles, this type of action is not considered a major Federal action under NEPA and therefore, FAA Order 1050.1, Paragraph 2-1.2.b, Advisory Actions, applies.

c. In accordance with FAA Order 1050.1, paragraph 2-1.2.b, the establishment of a DVA could result in subsequent action that may be subject NEPA. The facility and service center specialists working on these subsequent actions need to consult with their environmental specialist to determine if that action is subject to NEPA. (See questions in paragraph 32-2-1.)

32-4-6. NATIONAL SECURITY AREAS (NSAs)

a. According to Paragraph 28-1-1, Definition, a National Security Area (NSA) consists of airspace of defined vertical and lateral dimensions established at locations where there is a requirement for increased security of ground facilities. Pilots are requested to voluntarily avoid flying through an NSA. When it is necessary to provide a greater level of security, flight in an NSA may be temporarily prohibited pursuant to the provisions of 14 CFR 99.7, Special Security Instructions.

b. In accordance with Paragraph 28-2-1, NSA Proposals, NSAs do not require environmental

analysis; therefore, this type of action is not considered a major Federal action under NEPA, and FAA Order 1050.1, Paragraph 2-1.2.b, Advisory Actions, applies.

32-4-7. RECORDS RETENTION

Records retention must be in accordance with the appropriate paragraph(s) in FAA Order 1350.15, Records Organization, Transfer, and Destruction Standards.

NOTE-

Although chapter 10 of FAA Order 1350.15 contains Air Traffic-specific information, guidance for retention of environmental documentation is contained in that portion of the order specific to the Airports Division.

a. Environmental record-keeping should receive special attention at the field facility level. If an action requires preparation of an EA or an EIS, the Service Area Environmental Specialist must maintain the Administrative File. The Administrative File is important in the environmental process because it is a compilation of all the information relied upon by FAA in the decision-making process.

b. Since some environmental projects may extend over several years, the Administrative File becomes a history of events. In the event of a legal challenge, the Administrative File will be used to develop the Administrative Record. The Administrative Record will be reviewed by the U.S. Court of Appeals to determine if the FAA complied with the requirements of NEPA. The data and documentation contained in the File can also be used as the starting point for any follow-on environmental studies.

c. Field facility personnel must consult with their Service Area Environmental Specialist to obtain guidance on what should or should not become part of the Administrative File. Regional counsel or AGC-620, as appropriate, should also be consulted on this. Federal court rules provide that when an FAA action is challenged in court, the agency has 40 days to compile the Administrative Record, make necessary copies, and file an index to the Record with the court. Therefore, it is preferable to begin development of the Administrative Record by maintaining an accurate Administrative File from the earliest stages of a project, instead of waiting until a lawsuit is filed.

32-4-8. APPENDICES

- a. Appendix 1. Environmental Study Process Flow Chart.
- b. Appendix 2. Special Use Airspace Aeronautical Processing Flow Chart
- c. Appendix 3. Special Use Airspace Environmental Processing Flow Chart
- d. Appendix 4. FAA Procedures for Processing SUA Actions Summary Table
- e. Appendix 5. Air Traffic Initial Environmental Review (IER)
- f. Appendix 6. Sample Categorical Exclusion Declaration.
- g. Appendix 7. FAA/DOD Memorandum of Understanding.
- h. Appendix 8. FAA Special Use Airspace Environmental Processing Procedures.
- i. Appendix 9. Noise Policy for Management of Airspace Over Federally Managed Lands.
- j. Appendix 10. Community Involvement Policy.

32-4-9. MEMORANDUMS AND EMAILS SUPERCEDED BY THIS ORDER

The following guidance memorandums (memos) and emails have been incorporated and therefore cancelled.

- a. ATA-1 Memo dated January 17, 2001, Change in Air Traffic Noise Screen Policy (Federal Register/Vol. 65, No. 235/Wednesday, December 6, 2000/Notices, p. 76339).
- b. ATA-300 Memo dated September 15, 2003, Altitude Cut-Off for National Airspace redesign (NAR) Environmental Analyses.
- c. AJR-34 Memo dated August 21, 2009, Environmental Guidance for Actions Involving Propeller-Driven Aircraft.

- d. AJR-34 Memo dated August 21, 2009, Guidance Regarding the Number of Procedures for Noise Screening.

- e. AJV-1 Memo dated December 15, 2010, Guidance for Conducting Environmental Review of Proposed Performance Based Navigation (PBN) Flight Procedures.

- f. AEE-400 Guidance Memo #1 dated December 20, 2010, Clarification of CATEXs 311g and 311i for Procedural Actions; FAA Order 1050.1E.

- g. AEE-400 Memo #2 dated January 10, 2011, Guidance on Preparing Focused, Concise and Timely Environmental Assessments.

- h. AEE-400 Guidance Memo #4 dated March 21, 2012, Guidance on Using AEDT2a to Conduct Environmental Modeling for FAA Air Traffic Airspace and Procedure Actions.

- i. D. Warren email dated March 23, 2012; In accordance with FAA Order 1050.1, National Security Areas (NSAs) are considered Advisory Actions and do not require environmental analysis.

- j. D. Warren email, dated May 8, 2012, CATEXs for Departure.

- k. AJV-114 memo dated July 17, 2012, Interim Guidance: Using the Lateral Movement Tests (LAT Tests) for Noise Screening of Air Traffic Actions.

- l. AJV-11 memo dated January 4, 2013, Authorized Use of the MITRE Noise Screening Guidance Document, dated December 2012.

- m. D. Warren email dated March 11, 2013, Diverse Vectoring Areas (DVAs).

- n. AJV-0 Memo dated March 21, 2013, Signature Authority and Process for Environmental Findings and Decision Documents Related to Performance Based Navigation and Airspace Redesign.

- o. AJV-0 Guidance Memo dated September 19, 2013, Implementation of the Re-engineered Environmental Review Process for Instrument Flight Procedures: FAA Order JO 7400.2J.

Chapter 33. Parasail Operations

Section 1. General

33-1-1. PURPOSE

This chapter provides guidance, policies, and procedures for processing requests for parasail operations in the NAS.

33-1-2. AUTHORITY

a. Title 49 of the U.S. Code (49 U.S.C), Section 40103 gives the Administrator the authority to regulate, control, develop plans for, and formulate policies with respect to the use of the navigable airspace.

b. Title 14 of the Code of Federal Regulations (14 CFR) Part 101 prescribes in part, rules governing the operation of kites in the United States.

33-1-3. POLICY

a. The FAA's Office of General Counsel has determined that parasail operations are subject to the requirements for kites under Part 101.

b. The FAA's primary mission is to mitigate impacts to the NAS from parasail operations. The FAA has no authority regarding the parasail vessel, or the rigging of the parasail itself.

c. Waiver requests should be processed in accordance with the guidance contained in FAA

Order 7210.3, Chapter 18, Waivers, Authorizations and Exemptions.

d. ATO Service Centers must provide all issued waivers for parasail operations to the Flight Standards District Office nearest the location of the proposed operation.

33-1-4. CONTROLLING FACILITY

The FAA or DOD ATC facility having control jurisdiction over the affected airspace where the parasail operation is projected to operate must be designated as the controlling facility. When an operation may impact multiple facilities, one facility will be designated as the lead and be designated as the controlling facility. The controlling facility will be responsible for the execution of the appropriate airspace management.

33-1-5. RESOURCES

a. FAA Order 7210.3, Facility Operation and Administration, contains guidance and policy for processing waiver/authorizations and is applicable to waiver/authorizations issued for parasail operations.

b. ASTM F3099-14, Standard Practices for Parasailing, contains guidelines for the operation, maintenance, and inspection of parasail vessels, equipment, and associated activities including crew training and flying passengers aloft in a parasail.

Section 2. Waivers

33-2-1. RESPONSIBILITIES

a. Air Traffic is authorized to issue waiver/authorizations to Part 101 for parasail operations, and is responsible for integrating those activities into the NAS. The appropriate Service Center is air traffic's point of contact for Part 101 and associated waiver/authorizations, and is responsible for coordinating certain proposals regarding airspace operations and procedures with Flight Standards.

b. The Airspace Policy Group provides oversight and support to Service Centers for parasail operations.

c. Service Centers must provide approved parasail waivers to the appropriate Flight Standards District Office (FSDO).

33-2-2. GENERAL OPERATING LIMITATIONS

a. In accordance with Part 101, a parasail must not operate:

1. Less than 500 feet from the base of any cloud.
2. More than 500 feet above the surface of the earth.
3. From an area where the ground visibility is less than three miles.
4. Within five miles from the boundary of an airport.
5. In a manner that creates a hazard to persons or property.
6. In such a manner to allow an object to be dropped, if such action creates a hazard to other people or their property.

b. Parasail operators must operate in accordance with the provisions of 14 CFR § 101.7. Due to the limited maneuverability of the parasail and its towing vessel, it is inadvisable to place requirements on parasail operators to give way to aircraft. Aircraft operators are expected to comply with 14 CFR § 91.119(c) to ensure minimum distance from parasail operations.

33-2-3. WAIVERS

a. A waiver/authorization is required for parasail operations conducted outside the requirements defined in 14 CFR Part 101. An applicant must submit its waiver/authorization request to the ATO Service Area operations Support Group (OSG) office. If the applicant submits its request directly to an air traffic facility, the air traffic facility must direct the applicant to submit its request directly to the Service Center.

b. The Service Center OSG office must perform the initial review of the waiver/authorization request.

1. The Service Center OSG office must verify that FAA Form 7711-2, Application for Certificate of Waiver or Authorization (COA), is complete and that the information required in 14 CFR § 101.15, Notice Requirements, has been provided. The Service Center OSG office must return incomplete waiver/authorization requests to the applicant for additional information.

2. Requests that cannot be accommodated will not be coordinated beyond the Service Center.

33-2-4. WAIVER PROCESS

a. The applicant must submit FAA Form 7711-2 at least 45 days prior to the event, and must include the required information as outlined in 14 CFR § 101.15.

b. The Service Center OSG office is the focal point for receiving, processing, and signing waiver requests.

c. When a proposal overlaps Service Center geographical jurisdictions, the affected Service Centers must coordinate to determine which office will serve as the lead office for processing the proposal. Coordination between Service Centers is also required when the affected geographical area and the ATC facility are under the jurisdiction of different Service Centers or facilities.

d. Service Centers must provide approved parasail waivers to the appropriate FSDO.

33-2-5. AERONAUTICAL ANALYSIS

Prior to issuing a COA for parasail operations, the Service Center and appropriate facilities must conduct an aeronautical analysis to identify any aeronautical impacts to be resolved or mitigated. The analysis must be specific to the proposed site, and may include, but is not limited to, the following steps:

- a. Details on the parasail operation, such as location, date(s), time, number of operations, and expected altitude.
- b. Identify the operations specified in the COA, as this will determine which sections of 14 CFR Part 101 apply.
- c. Determine the class of airspace where the event is proposed and consider the impact of the parasail operation to local airports, VFR aircraft and routes, IFR routes and procedures, military training routes, special use airspace, etc.

33-2-6. FACILITY COORDINATION

- a. Per 14 CFR § 101.7, the parasail operator is responsible to operate in a manner that does not create a hazard to other persons, or their property.
- b. Facilities should determine impact, if any; meet with the sponsor, if possible; and discuss notification requirements to the flying public to maintain the safety and efficiency of the NAS.

33-2-7. WAIVER/AUTHORIZATION FORMAT AND CONTENT

- a. Use FAA Form 7711-1 to issue the waiver/authorization.
- b. At a minimum, the waiver/authorization must contain the following:
 1. Specific section of Part 101 to be waived or authorized.
 2. Name, address, and telephone number of the applicant.
 3. Location of the approved parasail operating area in coordinates or description of location (for example, west of Pier A).
 4. Approved dates and times of operations.

5. Advance notification requirements to the designated FAA facilities and, if desired, cancellation and termination notification.

6. Approved projected altitudes of the parasail(s).

7. Other provisions or requirements deemed necessary to maintain safety of the NAS. Waivers for parasail operations should be unique and specific to each environment where parasails are operating.

- c. The Service Center office may suspend or revoke a waiver/authorization whenever a question arises about the safety of the operation, compliance with safety precautions or conditions of approval, or if an unforeseen impact on aeronautical operations occurs.

- d. Terms and conditions. In most cases, an attachment containing terms and conditions of the COA will be included. Provisions commonly addressed in terms and conditions may include, but are not limited to, the following:
 1. Cancellation of COA if the operator fails to comply with the conditions or requirements as provided in Part 101.
 2. Any special altitude restrictions specific to the operating area.
 3. The COA must be carried aboard the parasail vessel at all times, and operators briefed on its contents and requirements.
 4. Recommendation to attend an annual operator safety meeting, if available.
 5. The parasail vessel operator is responsible for obtaining current weather information from the nearest air traffic facility.
 6. Operations must not be conducted between sunset and sunrise.
 7. Prior to conducting parasail operations, contact the nearest ATC facility to advise of the proposed area of operation, duration of the activity, and altitude of the parasail.
 8. Any restrictions designed to avoid protected departure or arrival areas to nearby airports, as necessary.
 9. Recommendation for the operator to use ground observers (“spotters”) to maintain operator awareness of nearby aircraft activity.

10. Parasail operators must ensure that the parasail is marked and lighted in compliance with 14 CFR § 101.17(b).

11. Additional requirements on the operator for ensuring public safety.

12. Include a statement that, in accordance with 14 CFR § 101.7(a), “A parasail operator may not operate in a manner that creates a hazard to other persons or their property.”

Appendix 4. FAA Procedures for Processing SUA Actions: Aeronautical and Environmental Summary Table

(The aeronautical and environmental processes may not always occur in parallel.)

(This Appendix is for use with Appendix 2 and Appendix 3, and the numbers correlate to numbers on those charts.)

(See note below.)

AERONAUTICAL	ENVIRONMENTAL
1. Proponent must present to the Facility a Pre-draft concept (for example, new/ revisions to SUA needed or required).	1. Proponent must discuss with the Service Center, at the earliest time, the potential for environmental impacts associated with the proposal.
	2. If there is the potential for environmental impacts, Proponent must make a request to the FAA for a Cooperating Agency (CA) status when Proponent decides to initiate the environmental process. Proponent must forward the request to the Director of the Mission Support, Airspace Services. The Director will transmit the request to the Airspace Management Group who prepares and forwards the response to Proponent. The Airspace Management Group will send a courtesy copy of the response to the responsible Service Center. The Service Center environmental specialist works as the FAA point of contact throughout the process in development of any required environmental documentation.
	3. Proponent submits a Preliminary Draft EA or EIS to the Service Center environmental specialist. The Service Center environmental specialist must provide comments, in consultation with the airspace specialist and the Airspace Management Group, back to Proponent.

<p>2. Proponent forwards the aeronautical proposal to the FAA Service Center for review and processing by the airspace specialist.</p>	<p>4. Proponent prepares a Draft EA or EIS with a 45–day public comment period. As the FAA CA point of contact, the Service Center environmental specialist reviews the associated draft environmental documentation to ensure that the Proponent addressed adequately all environmental concerns submitted on the Preliminary Draft. If required, the Service Center environmental specialist forwards the draft environmental documentation to the Airspace Management Group for review and comment by the headquarters environmental specialist and the Office of Chief Counsel.</p>
<p>3. The Service Center airspace specialist, in accordance with this order, determines the type of airspace action(s) necessary, either Non–Rulemaking or Rulemaking. FAA Service Center and Proponent determine if informal Airspace Meetings are required.</p>	
<p>For Non–Rulemaking:</p>	
<p>4. The Service Center airspace specialist sends out a circularization with a 45–day public comment period. The Service Center airspace specialist reviews and prepares, in consultation with the Proponent, responses to the aeronautical comments from the study and circularization in accordance with Chapter 21 of this order.</p>	<p>5. The Proponent reviews comments received on their Draft EA/FONSI or EIS and prepares their responses to the comments, in consultation with the FAA and other cooperating agencies, if necessary, and in accordance with Chapter 32 of this order.</p>
	<p>6. Proponent prepares and submits their Final EA/FONSI or EIS/ROD to the Service Center environmental specialist.</p>
	<p>7. The Service Center environmental specialist prepares a Draft FAA FONSI/ROD or Draft FAA Adoption Document/ROD.</p>
	<p>8. The Service Center environmental specialist submits the Draft FAA FONSI/ROD or Draft FAA Adoption Document/ROD and the Proponent’s Final EA/FONSI or EIS/ROD to the Service Center airspace specialist for inclusion with the airspace proposal package.</p>
<p>5. The Service Center airspace specialist then sends the completed package containing the aeronautical proposal, response to comments, Proponent’s Final EA/FONSI, and the Draft FAA FONSI/ROD to the Headquarters Airspace Policy Group with their recommendation.</p>	

For Rulemaking:	
<p>6. The Service Center airspace specialist sends the proposal to the Airspace Policy Group—who prepares a Notice of Proposed Rulemaking (NPRM). The Headquarters Airspace Policy Group submits the NPRM for publication in the Federal Register with a 45–day comment period in accordance with Chapter 2 of this order.</p>	
<p>7. The Headquarters airspace specialist sends comments received on the NPRM to the Service Center airspace specialist for resolution.</p>	
<p>8. The Service Center airspace specialist then sends the completed package containing the response to comments, final Service Center recommendation, the proposal, Proponent’s Final EA/FONSI or EIS/ROD, and the Draft FAA FONSI/ROD or Draft FAA Adoption Document/ROD to the Headquarters Airspace Policy Group for preparation of the Final Rule.</p>	
<p>9. The Headquarters airspace specialist forwards the draft final rule package or draft non–rulemaking case summary (NRCS) with all supporting documentation to the Headquarters Airspace Management Group for review (after all aeronautical comments have been resolved).</p>	<p>9. The Headquarters environmental specialist reviews the package for environmental technical accuracy; then submits the environmental documentation to the Office of the Chief Counsel, Airports and Environmental Law Division, for legal sufficiency review (having collaborated throughout the process).</p>
	<p>10. The Chief Counsel’s environmental attorney’s comments are incorporated into the final FAA environmental decision and signed by Headquarters Airspace Management Group Manager.</p> <p>The package is then returned to the Headquarters Airspace Policy Group.</p>
<p>10. For Non–rulemaking: The non–rulemaking action is published in the National Flight Data Digest (NFDD).</p> <p>11. For Rulemaking: The Final Rule is published in the Federal Register. The Final Rule will contain a reference to the decision rendered and location of documentation for the associated environmental process.</p>	

Consult the following documents throughout the process for further information:

- Council on Environmental Quality Regulations for Implementing the National Environmental Policy Act (NEPA), 40 CFR Parts 1500–1508
- FAA Order 1050.1E, “Environmental Impacts: Policies and Procedures”
- FAA Order JO 7400.2, “Procedures for Handling Airspace Matters,” Part 5
- FAA Order JO 7400.2, Chapter 32, “Environmental Matters,” and the associated appendixes (for specific SUA environmental direction)

NOTE: The time periods below are for a non–controversial aeronautical proposal and its associated environmental process. The time periods are for FAA review/processing only. Times for proponent and/or environmental contract support processing must be added.

ENVIRONMENTAL: The estimated time of completion for EA processing is 12 to 18 months or, for EIS processing, 18 to 36 months.

AERONAUTICAL (Non–Rulemaking): A minimum 4 months is required from submission of the Formal Airspace Proposal by the Proponent to the Service Center through completion of the circularization process. Additionally, a minimum of 6 months is required from submission of the Formal Airspace Proposal by the Service Center to Headquarters through completion of the charting process.

AERONAUTICAL (Rulemaking): A minimum 6 weeks for Service Center processing, and a minimum of 9 months to complete rulemaking once the formal package is received at Headquarters.

Appendix 5. Air Traffic Initial Environmental Review

Facility/Office: _____

Date: _____

Prepared by: _____ Phone: _____ Fax: _____

(Also see Section X for the complete listing of preparers.)

=====

This initial environmental review should provide some basic information about the proposed project to better assist in preparing for the environmental analysis phase. Although it requests information in several categories, not all the data may be available initially; however, it does represent information, in accordance with FAA Order 1050.1, Environmental Impacts: Policies and Procedures, which ultimately will be needed for preparation of the environmental document. If the IFP Environmental Pre-Screening Filter is used for initiating the environmental review process, then the data must be entered into the filter, making this form unnecessary.

Project Description

A. Attach copy of the most recent Project Status Report.

B. Has airspace modeling been conducted using SDAT, TAAM, TARGETS, or other airspace/air traffic design tool? Yes Model: _____ No

If yes, provide a summary of the output from the modeling.

C. Describe the present (no action alternative) procedure in full detail. Provide the necessary chart(s) depicting the current procedure. Describe the typical fleet mix, quantifying (if possible) the number of aircraft on the route and depict their altitude(s) along the route.

D. Describe the proposed project, providing the necessary chart(s) depicting changes. Describe changes to the fleet mix, numbers of aircraft on the new route, and their altitude(s), if any.

1. Will there be actions affecting changes in aircraft flights between the hours of 10 p.m. – 7 a.m. local? Yes No

2. Is a preferential runway use program presently in effect for the affected airport(s), formal or informal? Yes No

3. Will airport preferential runway configuration use change as a result of the proposed project? Yes No

4. Is the proposed project primarily designed for Visual Flight Rules (VFR), Instrument Flight Rules (IFR) operations, or both? VFR IFR Both

If this specifically involves a charted visual approach (CVA) procedure, provide a detailed local map indicating the route of the CVA, along with a discussion of the rationale for how the route was chosen.

5. Will there be a change in takeoff power requirements? Yes No

If so, what types of aircraft are involved, i.e., general aviation propeller-driven versus large air carrier jets?

6. Will all changes occur above 3,000 feet above ground level (AGL)? Yes No

What is the lowest altitude change on newly proposed routes or on existing routes that will receive an increase in operations?

7. Will there be actions involving civil jet aircraft (heavier than 75,000 pounds gross weight) arrival procedures between 3,000–7,000 feet AGL or departures between 3,000–10,000 feet AGL? Attach a copy of the results of the noise screening analysis using the AEST, TARGETS Environmental Plug-in, or other FAA-approved noise screening methodology.

8. If noise analysis was already performed using the FAA's AEST, Integrated Noise Model (INM), or Noise Integrated Routing System (NIRS), provide a summary of the results.

Purpose and Need

A. Describe the purpose and need for the proposed project. If detailed background information is available, summarize here and provide a copy as an attachment to this review.

B. What operational/economic/environmental benefits will result if this project is implemented?

1. If a delay reduction is anticipated, can the reduction be quantified? Yes No N/A

2. Can reduced fuel costs/natural energy consumption be quantified? Yes No N/A

If not quantifiable, describe the approximate anticipated benefits in lay terms.

C. Is the proposed project the result of a user or community request or regulatory mandate?

Community Request Regulatory Mandate

If not, what necessitates this action?

Describe the Affected Environment

A. Provide a description of the existing land use in the vicinity of the proposed project.

B. Will the proposed project introduce air traffic over noise sensitive areas not now affected?

Yes No

Will they be affected to a greater or lesser extent?

Note: An area is noise sensitive if aircraft noise may interfere with the normal activities associated with the use of the land. See FAA Order 1050.1 for full definition of noise sensitive areas.

C. Are wildlife refuge/management areas within the affected area of the proposed project?

Yes No

If so, has there been any communication with the appropriate wildlife management regulatory (federal or state) agencies to determine if endangered or protected species inhabit the area? Yes No

1. At what altitude would aircraft overfly these habitats?

2. During what times of the day would operations be more/less frequent?

D. Are there cultural or scenic resources, of national, state, or local significance, such as national parks, outdoor amphitheatres, or stadiums in the affected area? Yes No

If so, during what time(s) of the day would operations occur that may impact these areas?

E. Has there been communication with air quality regulatory agencies to determine if the affected area is a non-attainment area (an area which exceeds the National Ambient Air Quality Standards for ozone, carbon monoxide, lead, particulate matter, sulfur dioxide, or nitrogen dioxide) or maintenance area (an area which was in non-attainment but subsequently upgraded to an attainment area) concerning air quality?

Yes No

If yes, please explain:

F. Are there reservoirs or other public water supply systems in the affected area?

Yes No

Community Involvement

Formal community involvement or public meetings/hearings may be required for the proposed project. Make a determination if the proposed project has the potential to become highly controversial. The effects of an action are considered highly controversial when reasonable disagreement exists over the project's risks of causing environmental harm. Opposition on environmental grounds by a Federal, State or local government agency or by a Tribe, or by a substantial number of the person affected by the action should be considered in determining whether reasonable disagreement regarding the effects of a proposed action exists (see FAA Order 1050.1, paragraph 5-2b(10)).

A. Have persons/officials who might have some need to know about the proposed project due to their location or by their function in the community been notified, consulted, or otherwise informed of this project?

Yes No

1. Are local citizens and community leaders aware of the proposed project?

Yes No

2. Are any opposed to or supporting it? If so, identify the parties and indicate the level of opposition and/or support.

a. If they are opposed, what is the basis of their opposition?

b. Has the FAA received one or more comments objecting to the proposed project on environmental grounds from local citizens or elected officials? Yes No

Has the FAA received one or more comments objecting to the proposed project on environmental grounds from local citizens or elected officials? Yes No

If so, state the nature of the comment and how the FAA was notified (e.g. resolution, Congressional, Public meeting/workshop, etc.).

1. Are the airport proprietor and users providing general support for the proposed project?

Yes No

2. Is the proposed project consistent with local plans and development efforts?

Yes No

3. Has there been any previous aircraft–related environmental or noise analysis, including
 - a. FAR Part 150 Studies, conducted at this location? Yes No
 - b. If so, was the study reviewed as a part of this initial review? Yes No N/A

Extraordinary Circumstances

The determination of whether a proposed action may have a significant environmental effect is made by considering any requirements applicable to the specific resource (see FAA Order 1050.1, Appendix B).

A. Will implementation of the proposed project result in any of the following? As stated in FAA Order 1050.1, paragraph 5–2, extraordinary circumstances exist when a proposed action involves any of the following circumstances AND may have a significant effect (40 CFR 1508.4).

1. An adverse effect on cultural resources protected under the National Historic Preservation Act of 1966, as amended (see FAA Order 1050.1, paragraph 5–2b (1)). Yes No Possibly

Comment:

2. An impact on properties protected under section 4(f) of the Department of Transportation Act (see paragraph 304b). Yes No Possibly

Comment:

3. An impact on natural, ecological (e.g. invasive species) or scenic resources of Federal, Tribal, State, or local significance (for example, Federally listed or proposed endangered, threatened, or candidate species or proposed or designated critical habitat under the Endangered Species Act); resources protected by the Fish and Wildlife Coordination Act; wetlands; floodplains; prime, unique, State, or locally important farmlands; energy supply and natural resources; wild and scenic rivers, including study or eligible river segments; and solid waste management. (See paragraph 304c.) Yes No Possibly

Comment:

4. A division or disruption of an established community; a disruption of orderly, planned development; or an inconsistency with plans or goals that have been adopted by the community in which the project is located (see paragraph 304d). Yes No Possibly

Comment:

5. An increase in congestion from surface transportation, by causing a decrease in the Level of Service below the acceptable level determined by the appropriate transportation agency (i.e., a highway agency). (See paragraph 304e.) Yes No Possibly

Comment:

6. An impact on noise levels of noise–sensitive areas (see paragraph 304f). Yes No Possibly

Comment:

7. An impact on air quality or a violation of local, State, Tribal, or Federal air quality standards under the Clean Air Act amendments of 1990 (see paragraph 304g). Yes No Possibly

Comment:

8. An impact on water quality, sole source aquifers, a public water supply system, or State or Tribal water quality standards established under the Clean Water Act and the Safe Drinking Water Act (see paragraph 304h). Yes No Possibly

Comment:

9. Effects on the quality of the human environment that are likely to be highly controversial on environmental grounds (see paragraph 304i). Yes No Possibly

Comment:

10. Likelihood of an inconsistency with any Federal, State, Tribal, or local law relating to the environmental aspects of the proposed action (see paragraph 304j). Yes No Possibly

Comment:

11. Likelihood of directly, indirectly, or cumulatively, creating a significant impact on the human environment (see paragraph 304k). Yes No Possibly

Comment:

Alternatives

A. Are there alternatives to the proposed project? Yes No

If yes, describe any alternatives to the proposed action.

B. Please provide a summary description of alternatives eliminated and why.

Mitigation

Are there measures, which can be implemented that might mitigate any of the potential impacts, i.e., GPS/FMS plans, NAVAIDS, etc.? Yes No N/A

Cumulative Impacts

What other projects (FAA, non-FAA, or non-aviation) are known to be planned, have been previously implemented, or are ongoing in the affected area that would contribute to the proposed project's environmental impact?

References/Correspondence

Attach written correspondence, summarized phone contacts using Memorandums for the File, etc.

Additional Preparers

The person(s) listed below, in addition to the preparer indicated on page 1, are responsible for all or part of the information and representations contained herein:

- A. Name
- B. Title
- C. Facility/Agency/Company
- D. Telephone Number
- E. Specific area of Responsibility

Facility/Service Center Conclusions

This initial review and analysis indicates that extraordinary circumstances or other reasons exist that would cause the responsible federal official to believe that the proposed project might have the potential for causing significant environmental impacts.

■ The undersigned have determined that the proposed project may not qualify as a categorically excluded action in accordance with FAA Order 1050.1, and on this basis, recommend that further environmental review be conducted before the proposed project is implemented.

The undersigned recommend that the proposed project be submitted for environmental funding for preparation of an EA EIS Not sure – more analysis is needed.

Facility Manager Review/Concurrence

Signature: _____ Date: _____

Title: _____

Address: _____

Phone: _____ Fax: _____

■ **Service Center Environmental Specialist Review/Concurrence**

Signature: _____ Date: _____

Title: _____

Address: _____

Phone: _____ Fax: _____

■ **Service Center Director Review/Concurrence (if necessary)**

Signature: _____ Date: _____

Title: _____

Address: _____

Phone: _____ Fax: _____

Appendix 7. FAA/DOD Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING BETWEEN
THE FEDERAL AVIATION ADMINISTRATION AND
THE DEPARTMENT OF DEFENSE
Concerning
Environmental Review of Special Use Airspace Actions

I. Purpose and Scope.

The purpose of this Memorandum of Understanding (MOU) is to describe the guidelines for compliance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321) and the Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500–1508) without unnecessary duplication of effort by the Federal Aviation Administration (FAA) and the Department of Defense (DOD). This MOU promotes early coordination between FAA and DOD during the environmental review process associated with the establishment, designation, and modification of Special Use Airspace (SUA); permits the application of “lead agency” and “cooperating agency” procedures to environmental assessments (EA) and findings of no significant impact as well as to environmental impact statements (EIS); and provides for the issuance of environmental documents for the development, designation, modification, and use of SUA.

II. Definitions.

The definitions contained in the CEQ Regulations (40 CFR Parts 1500–1508), FAA Orders, and relevant DOD and/or Service guidance are applicable to this MOU.

III. Designation of Lead and Cooperating Agency.

A. Introduction: The actions taken by DOD and FAA in the establishment, designation, or modification of SUA are subject to environmental impact evaluation pursuant to NEPA, as implemented by the CEQ regulations. The CEQ regulations encourage a lead agency be designated where related actions by several Federal agencies are involved.

The lead agency, in such instances, is responsible for consultation with other agencies, for coordination of appropriate environmental studies and evaluations, and for preparation of any NEPA–related determinations or documents in cooperation with other Federal agencies. Each agency recognizes the need to eliminate duplication. The cooperating agency assumes responsibility to independently review the environmental documents prepared by the lead agency and to assess whether the environmental documents meet the standards for adequacy under NEPA.

The DOD and the FAA will ensure appropriate consideration of all actions and impacts, including cumulative impacts. The resultant environmental documents of the lead agency are accepted and used in decisions and planning by all agencies involved with the proposed action.

B. Designation of lead agency. When the DOD proposes that the FAA establish, designate, or modify SUA, the DOD shall serve as the lead agency for the evaluation of environmental impacts and the preparation and

processing of environmental documents. However, when the FAA proposes the establishment, designation, or modification of SUA affecting DOD, the FAA shall serve as the lead agency for the evaluation of environmental impacts and the preparation and processing of environmental documents.

C. Designation of cooperating agency. When the DOD proposes that the FAA establish, designate, or modify SUA, the FAA shall act as a cooperating agency for the evaluation of environmental impacts. However, when the FAA proposes the establishment, designation, or modification of SUA affecting DOD, the DOD shall act as a cooperating agency for the evaluation of environmental impacts.

IV. Level of Environmental Documentation

A. General. Environmental documentation will be processed in accordance with applicable FAA Orders, and DOD and/or Service directives.

B. Categorical Exclusions. Where the actions of one agency are subject to a categorical exclusion (CATEX), and the actions of the other agency, with respect to the same SUA request, require an EA, the agency requiring the EA will prepare the appropriate environmental documentation. The applicability of a CATEX to parts of the actions of one of the agencies will be noted in the environmental document. The background information in support of CATEXs, identified by either DOD or FAA, shall be forwarded to the agency requiring preparation of the EA and may be used by either agency, as allowed by their respective regulations/directives.

When the categorical exclusion of the proponent is not listed in FAA Order 1050.1, Chapter 5, which would require FAA to prepare the environmental documentation; FAA budget constraints may delay processing and implementation of a proponent's proposal.

V. General Guidance

A. Scheduling. Whenever an action under this MOU requires cooperation or coordination between the FAA and DOD, the two agencies shall agree on a schedule to ensure that required actions are taken on a timely basis. Each agency will notify the other of any difficulty with meeting scheduled deadlines or any need to revise the schedule.

B. Resolution of disagreements. If the FAA and DOD fail to reach agreement at the normal working level on any issue relating to environmental processing of SUA proposals, the matter will be referred, in ascending order, as outlined in the table below. At any time, the FAA's Office of the Chief Counsel and the Office of the General Counsel of the Service Department involved shall be consulted for assistance with legal issues.

Equivalent Levels of Responsibility for Resolution of Disagreements	
FAA Administrator Vice President, Mission Support Services	Service Secretary Policy Board on Federal Aviation (PBFA) Principal Member
Director, System Operations & Safety	PBFA Alternate Principal Member
Manager, System Operations & Safety, Environmental Programs	PBFA Working Group Member

VI. Effective Date. This MOU shall become effective on the last signature date below and shall remain in effect until otherwise rescinded or modified by both signatory parties. If either party determines that it is necessary to amend this MOU, the other party shall be notified in writing of the specific change(s) desired, with proposed language and the reason(s) for the amendment. The proposed amendment shall become effective upon written agreement of both parties.

SIGNED:

DATE: October 4, 2005

Carl P. McCullough
Department of Defense

Michael A. Cirillo
Federal Aviation Administration

Appendix 8. FAA Special Use Airspace Environmental Processing Procedures

1. GENERAL.

This appendix provides guidance for FAA participation in the environmental review of proposed special use airspace (SUA) actions. The requirements in this appendix are in addition to the airspace proposal processing procedures contained in this order. The aeronautical and environmental processes for SUA proposals involve some overlap and the actions taken, or modifications made, to the proposal in one process may affect the actions required and/or the outcome of the other process.

2. BACKGROUND.

a. The SUA program is designed to accommodate national security requirements and military training activities wherein activities must be confined because of their nature, or wherein limitations are imposed upon aircraft operations.

b. SUA proposals are subject to both NEPA and aeronautical processing requirements. Since the FAA is the approval authority for SUA actions, the agency cannot make a final decision on any particular SUA proposal prior to the completion of the NEPA and aeronautical processing phases.

3. POLICIES.

The following policies apply to the processing of SUA proposals:

a. In addition to responsibilities of a cooperating agency as defined in 40 CFR Parts 1500–1508, FAA must:

1. Provide to DOD information and technical expertise within the special expertise and jurisdiction of the FAA as it relates to the proposed action.
2. Resolve or respond to environmental issues raised during the NEPA process relating to aeronautical issues.
3. If an EA or EIS is required, identify and evaluate the environmental impacts relating to the proposal.
4. Furnish to DOD the names of organizations, agencies, or other parties the FAA believes may be interested in the DOD proposal.
5. Notify and coordinate FAA proposed airspace actions with DOD components that may be affected.

b. FAA Participation in NEPA Meetings. The FAA must participate in scoping, interagency, and public NEPA meetings conducted by the proponent. The Air Traffic Service Center Director (or the Director's Designee) with responsibility for Cooperating Agency participation will determine FAA representation in the meetings. When FAA personnel participate in such meetings:

1. The audience must be informed that FAA participation is to provide aeronautical technical expertise and is not to be construed as FAA endorsement or support of any SUA proposal, and that no decisions concerning the proposal will be made at the meeting.
2. If requested, the FAA will provide an overview of the procedures followed by the FAA for processing SUA proposals.
3. The FAA will advise the audience of the Service Center handling the processing of the aeronautical proposal. Additionally, the audience should be advised that written comments on the aeronautical aspects of the proposal should be submitted during the public comment period associated with the aeronautical circularization.

c. **FAA NEPA Compliance Options.** In accordance with CEQ regulations, the FAA must participate in the NEPA process as a cooperating agency. The FAA may adopt an EA or EIS prepared by DOD if the FAA independently evaluates the information in the document and takes full responsibility for the scope and content that addresses FAA actions. Where the proponent’s NEPA documentation is insufficient, additional NEPA documentation will be required before the FAA can make a final decision. The FAA may ask the applicant to correct any deficiencies and re-submit the assessment if the FAA is not satisfied (see FAA Order 1050.1, “Environmental Impacts: Policies and Procedures,” paragraphs 2–2.1 and 2–2.2). The FAA must issue its own FONSI and/or ROD. See FAA Order 1050.1, paragraph 8–2.

d. **Time Limits for Final Environmental Impact Statements (EISs).** If three years have expired following the approval of a final EIS, and major steps towards implementation have not commenced, a written reevaluation of the adequacy, accuracy, and validity of the final EIS must be prepared by the proponent. Written reevaluations must comply with the requirements set forth in FAA Order 1050.1, paragraph 9–2. The proponent may also elect to prepare new documentation if circumstances dictate.

4. LEAD AND COOPERATING AGENCIES.

The FAA/DOD MOU provides for the application of “lead agency” and “cooperating agency” responsibilities in the SUA environmental process. When the DOD is the proponent, the DOD will serve as lead agency for the evaluation of SUA environmental impacts and the preparation and processing of environmental documents.

a. The DOD, as lead agency, will determine whether an SUA proposal:

1. Is a major action significantly affecting the quality of the human environment requiring an environmental impact statement (EIS);

2. Requires an environmental assessment (EA); or,

3. Is categorically excluded in accordance with FAA Order 1050.1, paragraphs 5–6.1 through 5–6.5.

These determinations must be coordinated with the FAA at the earliest possible time to prevent delay in preparation of any required NEPA documentation.

b. The appropriate FAA Service Center, as identified in response to a request to participate, will act as the point of contact for Cooperating Agency status during the evaluation of the proposal’s environmental study. The FAA may use documents prepared by the proponent in its environmental process, provided the FAA has independently reviewed the scope and content of the documentation and assumes responsibility as described in subparagraph 3c, above. (See FAA Order 1050.1, paragraph 8–2.)

c. Where the actions of one agency are subject to a categorical exclusion and the actions of the other agency with respect to the same SUA is not subject to a categorical exclusion, then the other agency will prepare the appropriate environmental documentation. The applicability of a categorical exclusion to parts of the action will be noted in the environmental document. FAA budget constraints may delay processing and implementation of a proponent’s proposal when the categorical exclusion of the proponent is not listed in FAA Order 1050.1, chapter 5.

5. SUA ENVIRONMENTAL CONCERNS.

In addition to other environmental considerations required under NEPA, CEQ regulations, and FAA Order 1050.1, the following are items the FAA expects to be considered, if applicable, in SUA environmental documents. This list should not be considered all-inclusive:

a. **Other Times by NOTAM.** When specified in the proposal, this provision permits access to the SUA area 24 hours per day. The environmental document must address the potential impact for use of the SUA during the “other times by NOTAM” period.

b. **Flares and Chaff.** Address the potential impact of flare and/or chaff use when this activity is specified in the SUA proposal.

- c. “No Action Alternative.” Include discussion of this alternative.
- d. Coastal Zone Consistency Determination. Include if applicable.
- e. Proposed Airspace Parameters. The environmental analysis in the EA or EIS for the SUA proposal must match the airspace parameters contained in the SUA proposal (for example, boundaries, altitudes, times of use, and type and extent of activities).
- f. Non-participating Aircraft. Include a discussion of the effect of the SUA proposed action on non-participating aircraft, if applicable.
- g. Mitigation. As defined in CEQ regulations, mitigation includes:
 - 1. Avoiding the impact altogether by not taking a certain action or parts of an action;
 - 2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
 - 3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - 4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
 - 5. Compensating for the impact by replacing or providing substitute resources or environments.
- h. Cumulative Impacts. Cumulative impacts on the environment are those that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or Non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
- i. Consultation. Consultation must be conducted in accordance with the National Historic Preservation Act, Section 106; the Endangered Species Act, Section 7; FAA Order 1210.20. “American Indian and Alaska Native Tribal Consultation Policy and Procedures,” and other applicable laws, regulations, and Department of Transportation and FAA Orders.

6. INTERAGENCY SUA ENVIRONMENTAL PLANNING MEETING.

To facilitate early coordination between the FAA and the DOD proponent, the DOD proponent must make a request to the FAA for Cooperating Agency status as soon as the proponent decides to initiate the environmental process.

When the FAA is invited to participate as a cooperating agency, it is suggested that a planning meeting be held as soon as practical. The agenda of the meeting should be based on the type of SUA proposal, the extent of the planned environmental analysis.

- a. The appropriate Regional Military Representative (Milrep) will coordinate the proponent’s request for a planning meeting with the appropriate Service Center Director (or his/her designee). Representatives of the FAA, the proponent, and the proponent’s NEPA consultant, if any, should be invited to participate by the military representative.
- b. The meeting should include discussion of pertinent issues, including but not limited to:
 - 1. The type of SUA proposal to be submitted,
 - 2. Identification of points-of-contact and establishment of liaison between concerned parties,
 - 3. Determination of the appropriate type of environmental documentation,
 - 4. The appropriate extent of FAA participation,
 - 5. Identification of potentially significant impacts,
 - 6. Consideration of the need for scoping, interagency, and/or other public meetings,
 - 7. Setting processing milestones,
 - 8. Clarifying any questions the proponent may have regarding the FAA’s requirements for the environmental analysis and documentation; and,
 - 9. Exchange of information on any environmental and/or aeronautical concerns in the area of potential effect.

c. At the meeting, the Service Center airspace representative should:

1. Brief attendees on the airspace processing procedures in Part 5 of this order that will apply to the SUA proposal.
2. Encourage the proponent to work proactively with aviation user groups and individuals to address aeronautical issues as they arise. This should ensure early consideration of aeronautical mitigation.

d. At the meeting, the Service Center environmental representative should:

1. Brief attendees on the environmental processing procedures in FAA Order 1050.1 and Chapter 32 of this order that apply to the SUA proposal.
2. Encourage the proponent to work proactively with other Federal, State, and Local agencies; Tribal Governments; and the public on environmental concerns as they arise. This will ensure that mitigation to address environmental concerns is considered early in the process.
3. Advise attendees that the FAA cannot render a final determination on the environmental effects of the SUA proposal until after completion of the proponent's environmental process, the FAA's aeronautical process, the FAA's independent review of the proponent's environmental documentation, and any additional environmental analyses conducted by the FAA.

e. The meeting format may be tailored to the needs of the specific proposal. It may be conducted by a teleconference, if permitted by the scope of the proposal or if necessary due to funding or other constraints.

f. Additional meetings should be scheduled as needed to discuss changes, revise milestones, share updated environmental and/or aeronautical impact data or public comments, discuss alteration of the proposal in order to mitigate valid aeronautical objections, incorporate agreements by the proponent to mitigate environmental impacts, or discuss other matters.

7. RELATIONSHIPS AND TIMING OF ENVIRONMENTAL AND AERONAUTICAL PROCESSES.

a. SUA proposals are subject to both environmental and aeronautical processing requirements. These processes are separate but closely related. Any actions by a proponent to mitigate environmental impacts, and/or changes to the proposal to address valid aeronautical objections, may alter the type and extent of environmental analysis required.

b. Normally, the SUA proponent will initiate the environmental process well in advance of submitting an actual SUA proposal to the FAA for review. The appropriate Milrep should inform the appropriate Service Center as soon as possible after receiving notice that a DOD proponent plans to initiate the environmental study process. A letter requesting FAA participation in the environmental study process as a Cooperating Agency should be forwarded to the Director of the Office of Mission Support, Airspace Services, at FAA Headquarters.

c. Proponents should submit SUA proposals to the FAA Service Center prior to completion of the NEPA process. This will enable the FAA to initiate the aeronautical processing phase prior to completion of any required NEPA documents, which will facilitate the earlier consideration of aeronautical factors that may result in modification of the proposal and may affect the environmental analysis. In all cases, the FAA will defer a final decision on the proposal until the required NEPA process is completed.

d. During the aeronautical processing of a proposal with alternatives, only the alternative submitted to the FAA in accordance with Part 5. of this order will be subjected to the aeronautical process described in this order (such as non-rulemaking circularization or Notice of Proposed Rulemaking (NPRM)) by the FAA. However, all reasonable alternatives, including the alternative of no action, must be evaluated in the environmental document.

8. SERVICE CENTER PROCEDURES.

a. Normally, FAA participation in the SUA environmental process will begin at the headquarters level with a request by the proponent of an SUA proposal for the FAA to participate in the process as a Cooperating Agency. However, the FAA point of contact will generally be a representative from the Air Traffic Organization at the Service Center level. Close coordination is required between the Service Center Airspace Specialist and Environmental Specialist throughout the process. This will ensure that FAA concerns are provided to the proponent for consideration, and that NEPA and DOT/FAA environmental requirements are met.

b. Once notified of the initiation of the environmental process by the SUA proponent, the Service Center environmental specialist should request that the proponent provide a minimum of five copies of all preliminary, draft, and final environmental documents for FAA review. The Service Center environmental specialist will forward three copies of the documents to FAA Headquarters (Mission Support, Airspace Services, and Airspace Policy Group).

c. To the extent practicable, the Service Center should provide FAA representation at pre-scoping, scoping, and/or other NEPA public meetings concerning the SUA proposal. If requested by the Service Center, representation from the headquarters Airspace Policy and/or Airspace Management Groups will be provided.

d. Service Center Airspace Specialist Responsibilities:

1. Coordinate requests from the Milrep to schedule an interagency SUA environmental planning meeting with the Service Center Director (or the Director's designee) and the environmental specialist.

2. Participate in interagency SUA environmental planning meetings as directed, by the Service Center Director (or the Director's designee). (See paragraph 6, above.)

3. Participate in pre-scoping, scoping and/or other public meetings as directed.

4. Provide information and assistance as required to the proponent regarding the aeronautical aspects of the proposal and processing procedures under Part 5 of this order.

5. Coordinate with and assist the environmental specialist in the review of environmental documents to ensure consideration of pertinent aeronautical issues. Compare the SUA proposal parameters with the analysis in the environmental document to ensure that the analysis is consistent with the proponent's airspace request. Provide corrections and/or comments to the environmental specialist for transmittal to the proponent.

6. Maintain liaison with the proponent's environmental team to determine if any comments received pertain to aeronautical issues; provide information regarding the aeronautical aspects of alternatives developed by the proponent.

7. Provide to the proponent aeronautical impact information obtained from the formal aeronautical study conducted in accordance with Chapter 21 of this order and during the aeronautical public comment period. As required, negotiate with the proponent to modify the proposal to mitigate valid aeronautical objections or adverse aeronautical impact.

8. Upon receipt of the SUA proposal, initiate processing in accordance with Part 5 of this order.

(a). Determine if an Informal Airspace Meeting will be held in accordance with the procedures in Part 5. of this order. If a meeting is planned, request participation by the proponent to explain and answer questions about the proposal.

NOTE:

Informal Airspace Meetings are optional for SUA proposals. Normally, they are held only if the Service Center determines that there is a need to obtain additional aeronautical facts and information relevant to the SUA proposal under study. Informal airspace meetings may also be held based on known or anticipated controversy of the proposal.

(b). Complete the appropriate rulemaking or non-rulemaking processing requirements as defined in Part 5 of this order.

9. In consultation with the Service Center environmental specialist and the Regional Counsel, review the proponent's decision document to ensure that it is consistent with any modifications made to the SUA proposal, if applicable, and that any agreed upon aeronautical mitigation measures are included.

10. If the Service Center airspace specialist recommends approval of the SUA proposal, submit the completed proposal package to the Airspace Policy Group for final review and determination. The Airspace and Rules Team will receive the SUA package from the Airspace Policy Group for review of any environmental documentation.

e. Service Center Environmental Specialist Responsibilities.

1. Coordinate as required with the Service Center Airspace Specialist regarding SUA matters.

2. Notify the Airspace Policy Group when informed of scheduled interagency SUA environmental planning meetings. Participate in such meetings as directed by the Service Center Director (or the Director's designee) (see paragraph 6 above).

3. Provide information as required to the SUA proponent regarding FAA environmental requirements and concerns.

4. In coordination with the Service Center Airspace Specialist, review the SUA proponent's environmental documents to ensure that applicable impact categories and any specific FAA environmental concerns are considered. After each review, forward any corrections and FAA comments to the proponent.

5. Review the proponent's final document to assess whether it meets the standards for an adequate document under NEPA, the CEQ regulations, DOT Order 5610.1C, and FAA Order 1050.1. Following consultation with the Regional Counsel, determine if the FAA considers the document adequate for adoption. Provide documentation of the results of this review and a recommendation regarding FAA adoption to the Airspace Policy Group.

6. If the proponent takes the position that a categorical exclusion (CATEX) applies to an SUA proposal:

(a). Determine if FAA Order 1050.1, Chapter 5, Categorical Exclusions, lists the CATEX. Verify that no extraordinary circumstances exist that would preclude use of the CATEX for the SUA proposal. Determine what additional environmental analysis would be required if the CATEX is not listed.

(b). Document the results of the review in subparagraph (a) above, and submit the findings to the Airspace Policy Group.

7. Retain the administrative record in accordance with FAA retention guidelines. If DOD is the lead agency for the proposed project, a copy of relevant documents in its administrative record should be obtained and included in the FAA record.

9. MISSION SUPPORT, AIRSPACE SERVICES, AIRSPACE MANAGEMENT GROUP PROCEDURES:

a. Review the proponent's environmental document(s) to verify that the analysis matches the parameters specified in the SUA aeronautical proposal and that any required environmental issues are considered. Conduct this review simultaneously with the Service Center's review as described in paragraph 8. Provide corrections and identify deficiencies to the Service Center Airspace and/or Environmental Specialist for transmittal to the proponent.

b. The Airspace Policy Group must review the proponent's environmental documents for content and compliance with NEPA, CEQ regulations, and applicable DOT and FAA Orders. Coordinate with the Airspace Policy Group as needed, regarding concerns, corrections, or other comments on aeronautical impacts. Provide FAA Headquarters comments to the Service Center Environmental Specialist for transmittal to the proponent.

c. Provide concurrent assistance and policy guidance regarding SUA environmental processing to the Service Center environmental specialist upon request.

d. Coordinate with the Airspace Policy Group as needed for additional information concerning the SUA proposal and aeronautical impact matters.

e. Review the proponent's Final EIS or EA/Finding of No Significant Impact (FONSI), and the Service Center environmental specialists' comments regarding compliance with NEPA, CEQ, and applicable DOT and FAA requirements. Determine if the document is suitable for adoption by the FAA. Prepare FAA adoption memorandum and provide a copy to the Airspace Policy Group for inclusion in the airspace docket or case file.

f. Review the proponent's and Service Center environmental specialist's comments regarding applicability of a CATEX. If the CATEX does not apply, determine if additional environmental analysis is required. Consider if CATEX documentation is required in accordance with FAA Order 1050.1, chapter 5. Provide a copy of the determination to Airspace Policy Group for inclusion in the airspace docket or case file.

g. As appropriate, coordinate with the FAA Office of the Chief Counsel, Airports and Environmental Law Division. See FAA Order 1050.1, paragraphs 2-2.1b(2)(b); 4-3.3, 5-2a(2) and b(10); 5-3e; 6-4a; 7-1.2b; 7-1.2d(3)(c); 8-2c; 8-7; 9-2e; 10-2b, d, e; 10-3b; 10-4a(2); 10-6a(2), b; 11-3; 11-4a, b.

h. Prepare a separate FAA FONSI and/or Record of Decision (ROD) if circumstances dictate. Provide a copy to the Airspace Policy Group for inclusion in the airspace docket or case file.

i. In the case of rulemaking SUA actions, assist the Airspace Policy Group by preparing the statement to be included in the ENVIRONMENTAL REVIEW sections of the NPRM and the Final Rule. In the case of non-rulemaking SUA actions, prepare the FONSI/ROD for the airspace case file for the non-rulemaking documentation and notify the public in accordance with FAA Order 1050.1, paragraph 6-2.2b.

10. MISSION SUPPORT, AIRSPACE SERVICES, AIRSPACE POLICY GROUP:

a. Upon receipt at headquarters, review the proponent's environmental document(s) from an airspace/aeronautical impact perspective to verify that the environmental analysis matches the parameters specified in the SUA proposal and that any required aeronautical issues are considered. Conduct this review simultaneously with the Service Center aeronautical review as described in paragraph 8 above.

b. Ensure that the Service Center airspace specialist provided a copy of the proposal, including any environmental documentation, to the Service Center environmental specialist.

c. Coordinate with the Airspace Policy Group, as required, to discuss the environmental analysis of the proposal.

d. Submit all SUA NPRMs, final rules, and non-rulemaking airspace determinations to the Airspace Management Group for coordination prior to issuance.

e. Insert the following statement in the environmental review section of SUA NPRMs:

"This proposal will be subject to appropriate environmental impact analysis by the FAA prior to any final FAA regulatory action."

f. Consult with the Airspace Policy Group to draft the text for the ENVIRONMENTAL REVIEW section for SUA final rules. In the case of rulemaking SUA actions, assist the Airspace Policy Group by preparing the statement to be included in the ENVIRONMENTAL REVIEW sections of the NPRM and the Final Rule. In the case of non-rulemaking SUA actions, prepare the FONSI/ROD for the airspace case file for the non-rulemaking documentation and notify the public in accordance with FAA Order 1050.1, paragraph 6-2.2b.

Note:

For “Direct-to-Final-Rule” actions which are categorically excluded under FAA Order 1050.1, the following statement may be inserted in the environmental review section of the Final Rule:

“This action is categorically excluded under FAA Order 1050.1, “Environmental Impacts: Policies and Procedures,” Paragraph (insert Paragraph Number). Therefore, this action is not subject to further environmental review.”

g. Coordinate with the Airspace Policy Group to determine the status of FAA adoption of the proponent’s environmental document(s). Obtain a copy of FAA adoption documentation for inclusion in the rulemaking docket file or non-rulemaking airspace case file.

h. Complete final airspace processing requirements in accordance with Part 5 of this order, including the final determination on the airspace request. In all cases the FAA must not issue a final decision until after the NEPA process is completed; the FAA has adopted the proponent’s EIS or EA, as applicable; and any additional FAA environmental requirements are satisfied.