

CHANGE

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

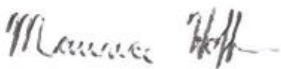
**JO 7400.2M
CHG 1**

Air Traffic Organization Policy

Effective Date:
January 30, 2020

SUBJ: Procedures for Handling Airspace Matters

- 1. Purpose of This Change.** This change transmits revised pages to Federal Aviation Administration Order JO 7400.2M, 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 website 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 that has editorial corrections and changes submitted through normal procedures.
- 5. Distribution.** This change is available online and will be distributed electronically to all offices that subscribe to receive email notification/access to it through the FAA website at http://faa.gov/air_traffic/publications.
- 6. Disposition of Transmittal.** Retain this transmittal until superseded by a new basic order.
- 7. Page Control Chart.** See the page control chart attachment.



Maurice Hoffman
Director, Policy
Mission Support Services
Air Traffic Organization

Date: 12/17/19

Distribution: Electronic

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

Explanation of Changes

Change 1

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

a. 1-1-2. AUDIENCE

This change addresses a requirement that states who participate in the State Block Grant Program must be identified in FAA JO 7400.2, Procedures for Handling Airspace Matters. If states are left out of the order, they may not be recognized, preventing them from fulfilling their responsibilities. States participating in the State Block Grant Program assist the Office of Airports in handling airspace matters.

b. 2-3-8. PUBLICATION IN FEDERAL REGISTER

This change will align our process with the Federal Register's required processes as well as allows the FAA to reduce costs and realize gains in efficiency. This change also authorizes the submission of documents to AGC-200 for publication in the Federal Register within the criteria established by the Office of the Federal Register (OFR).

c. 20-1-1. PURPOSE

20-1-2. CONTROLLED AIRSPACE

20-1-3. WHEN TO DESIGNATE AIR NAVIGATION ROUTES

20-1-4. RESPONSIBILITIES

20-1-5. ROUTE IDENTIFICATION

20-1-6. CHANGEOVER POINTS

20-1-8. MINIMUM EN ROUTE ALTITUDES (MEA)

20-1-9. PROCEDURAL REQUIREMENTS

20-1-10. ACTION TO RAISE BASE OF TRANSITIONAL AREAS

20-2-1. REQUEST FOR FLIGHT INSPECTION DATA

20-2-2. FLIGHT INSPECTION DATA DISTRIBUTION

20-2-3. FLIGHT INSPECTION REQUESTS

20-2-4. FLIGHT INSPECTION REPORT

20-3-1. NAVAID SPACING

20-3-2. VERTICAL AND LATERAL EXTENT

20-3-3. WIDTH REDUCTIONS

20-4-1. DESIGNATION

20-4-2. NAVAID SPACING

20-4-3. JET ROUTE WIDTHCH

20-5-1. DISCUSSION

20-5-2. WAYPOINT CRITERIA

20-5-3. LATERAL PROTECTED AIRSPACE CRITERIA FOR RNAV EN ROUTE SEGMENTS

20-5-4. EN ROUTE TURN PROTECTION CRITERIA

20-5-5. RNAV ROUTE DESCRIPTIONS

This DCP includes editorial changes to clarify and improve the readability of the text, and to replace obsolete office titles. It provides more detailed explanations of the various Air Traffic Service routes, including examples of route legal description formats. Up-to-date references to governing FAA directives are added. The area navigation (RNAV) section is totally rewritten by replacing obsolete VOR-based RNAV information with current advanced RNAV guidance.

d. 32-4-3. COMMUNITY INVOLVEMENT

This change refers practitioners to FAA community engagement guidance documents, which are periodically updated, and states that "...the type of community involvement (workshops, airport meetings, roundtables, presentations, etc.) must be determined on a case-by-case basis." Section 32-4-3 is highly prescriptive regarding community involvement and does not allow for flexibility to determine and engage in community involvement particular to each situation.

e. Editorial

Editorial changes include NOTAM/NTAP corrections in 21-1-15 and other minor changes.

f. Entire publication.

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

FAA Order JO 7400.2M
Change 1
Page Control Chart
January 30, 2020

REMOVE PAGES	DATED	INSERT PAGES	DATED
Table of Contents i through xx	2/28/19	Table of Contents i through xix	1/30/20
1-1-1 and 1-1-2	2/28/19	1-1-1 and 1-1-2	1/30/20
2-3-3	2/28/19	2-3-3	1/30/20
2-4-1 and 2-4-2	2/28/19	2-4-1 and 2-4-2	1/30/20
4-5-1	2/28/19	4-5-1	1/30/20
4-5-2	2/28/19	4-5-2	2/28/19
5-1-1	2/28/19	5-1-1	1/30/20
5-1-2	2/28/19	5-1-2	2/28/19
6-1-1	2/28/19	6-1-1	2/28/19
6-1-2	2/28/19	6-1-2	1/30/20
6-3-25	2/28/19	6-3-25	2/28/19
6-3-26 through 6-3-28	2/28/19	6-3-26 through 6-3-28	1/30/20
7-1-5	2/28/19	7-1-5	1/30/20
7-1-6	2/28/19	7-1-6	2/28/19
7-2-1	2/28/19	7-2-1	1/30/20
9-1-1	2/28/19	9-1-1	1/30/20
9-2-1	2/28/19	9-2-1	1/30/20
12-1-3	2/28/19	12-1-3	2/28/19
12-1-4	2/28/19	12-1-4	1/30/20
13-1-1 and 13-1-2	2/28/19	13-1-1	1/30/20
14-2-1 and 14-2-2	2/28/19	14-2-1 and 14-2-2	1/30/20
15-1-1 and 15-1-2	2/28/19	15-1-1 and 15-1-2	1/30/20
15-2-1	2/28/19	15-2-1	1/30/20
15-2-2	2/28/19	15-2-2	2/28/19
15-3-1	2/28/19	15-3-1	2/28/19
15-3-2 and 15-3-3	2/28/19	15-3-2 and 15-3-3	1/30/20
16-1-1	2/28/19	16-1-1	1/30/20
16-3-1	2/28/19	16-3-1	2/28/19
16-3-2	2/28/19	16-3-2	1/30/20
17-1-1	2/28/19	17-1-1	1/30/20
17-1-2	2/28/19	17-1-2	2/28/19
19-1-1	2/28/19	19-1-1	1/30/20
20-1-1 and 20-1-2	2/28/19	20-1-1 and 20-1-2	1/30/20
20-2-1	2/28/19	20-2-1	1/30/20
20-3-1	2/28/19	20-3-1 and 20-3-2	1/30/20
20-4-1	2/28/19	20-4-1	1/30/20
20-5-1	2/28/19	20-5-1 and 20-5-2	1/30/20
21-1-1	2/28/19	21-1-1	1/30/20
21-1-2	2/28/19	21-1-2	2/28/19

21-1-3 through 21-1-5	2/28/19	21-1-3 through 21-1-5	1/30/20
21-2-1 through 21-2-3	2/28/19	21-2-1 through 21-2-3	1/30/20
21-2-4	2/28/19	21-2-4	2/28/19
21-5-1 through 21-5-4	2/28/19	21-5-1 through 21-5-4	1/30/20
21-7-1 and 21-7-2	2/28/19	21-7-1 and 21-7-2	1/30/20
21-8-3	2/28/19	21-8-3	1/30/20
21-9-1	2/28/19	21-9-1	2/28/19
21-9-2	2/28/19	21-9-2	1/30/20
22-1-1	2/28/19	22-1-1	1/30/20
22-2-1	2/28/19	22-2-1	1/30/20
23-1-1	2/28/19	23-1-1	1/30/20
23-1-2	2/28/19	23-1-2	2/28/19
23-2-1 and 23-2-2	2/28/19	23-2-1 and 23-2-2	1/30/20
24-1-1	2/28/19	24-1-1	1/30/20
24-2-1	2/28/19	24-2-1	1/30/20
25-1-1	2/28/19	25-1-1	2/28/19
25-1-2	2/28/19	25-1-2	1/30/20
25-2-1	2/28/19	25-2-1	1/30/20
26-1-1	2/28/19	26-1-1	1/30/20
26-3-1	2/28/19	26-3-1	1/30/20
28-1-1	2/28/19	28-1-1	1/30/20
28-2-1	2/28/19	28-2-1	1/30/20
29-3-1	2/28/19	29-3-1	1/30/20
29-3-2	2/28/19	29-3-2	2/28/19
31-2-1 and 31-2-2	2/28/19	31-2-1 and 31-2-2	1/30/20
32-1-1	2/28/19	32-1-1	2/28/19
32-1-2 and 32-1-3	2/28/19	32-1-2 and 32-1-3	1/30/20
32-1-4	2/28/19	32-1-4	2/28/19
32-2-5	2/28/19	32-2-5	1/30/20
32-2-6	2/28/19	32-2-6	2/28/19
32-3-1 and 32-3-2	2/28/19	32-3-1 and 32-3-2	1/30/20
32-4-1 through 32-4-5	2/28/19	32-4-1 through 32-4-4	1/30/20

Order JO 7400.2L

Procedures for Handling Airspace Matters

Table of Contents

Part 1. General Procedures for Airspace Management

Chapter 1. General

Section 1. Introduction

Paragraph	Page
1-1-1. PURPOSE OF THIS ORDER	1-1-1
1-1-2. AUDIENCE	1-1-1
1-1-3. WHERE TO FIND THIS ORDER	1-1-1
1-1-4. WHAT THIS ORDER CANCELS	1-1-1
1-1-5. CHANGE AUTHORITY	1-1-1
1-1-6. EXPLANATION OF CHANGES	1-1-1
1-1-7. SUBMISSION CUTOFF AND EFFECTIVE DATES	1-1-1
1-1-8. DELIVERY DATES	1-1-2
1-1-9. RECOMMENDATIONS FOR PROCEDURAL CHANGES	1-1-2
1-1-10. DISTRIBUTION	1-1-2
1-1-11. SAFETY MANAGEMENT SYSTEM	1-1-2

Section 2. Authority and Order Use

1-2-1. POLICY	1-2-1
1-2-2. AUTHORITY AND APPLICABILITY	1-2-1
1-2-3. FUNCTIONAL RESPONSIBILITIES	1-2-1
1-2-4. TITLE 14 CODE OF FEDERAL REGULATIONS (CFR) REFERENCES	1-2-1
1-2-5. WORD MEANING	1-2-2
1-2-6. ABBREVIATIONS	1-2-2

Section 3. Airspace Planning and Analysis

1-3-1. BACKGROUND	1-3-1
1-3-2. POLICY	1-3-1

Chapter 2. Rulemaking/Nonrulemaking Airspace Cases

Section 1. Ex Parte Communications

2-1-1. DEFINITION	2-1-1
2-1-2. SCOPE	2-1-1
2-1-3. POLICY	2-1-1
2-1-4. DISCLOSURE	2-1-1
2-1-5. PERMITTED CONTACT	2-1-1
2-1-6. RECORDING CONTACTS	2-1-2
2-1-7. ADVICE FROM COUNSEL	2-1-2
2-1-8. RELEASE OF RULEMAKING AND/OR NONRULEMAKING TEXTS	2-1-3

Paragraph	Page
2-1-9. ADDITIONAL REFERENCES	2-1-3

Section 2. Executive Order 10854

2-2-1. SCOPE	2-2-1
2-2-2. POLICY	2-2-1

Section 3. Processing Rulemaking Airspace Actions

2-3-1. PURPOSE	2-3-1
2-3-2. RESPONSIBILITY	2-3-1
2-3-3. DOCKETS	2-3-1
2-3-4. COMMENT PERIODS	2-3-1
2-3-5. FLIGHT PROCEDURAL DATA	2-3-1
2-3-6. SUBMISSION OF RULEMAKING AIRSPACE CASES TO HEADQUARTERS ...	2-3-2
2-3-7. EFFECTIVE DATE OF FINAL RULES	2-3-2
2-3-8. PUBLICATION IN FEDERAL REGISTER	2-3-3

Section 4. Processing Nonrulemaking Airspace Actions

2-4-1. PURPOSE	2-4-1
2-4-2. IDENTIFICATION	2-4-1
2-4-3. CIRCULARIZATION	2-4-1
2-4-4. CIRCULARIZATION DOCUMENTATION	2-4-1
2-4-5. SUBMISSION OF NONRULEMAKING SUA CASES TO RULES AND REGULATIONS GROUP	2-4-2
2-4-6. EFFECTIVE DATE OF NONRULEMAKING ACTIONS	2-4-2
2-4-7. PUBLICATION OF NONRULEMAKING ACTIONS	2-4-2

Section 5. Informal Airspace Meeting

2-5-1. PURPOSE	2-5-1
2-5-2. POLICY	2-5-1
2-5-3. CLASS B AND C INFORMAL AIRSPACE MEETING NOTIFICATION PROCEDURES	2-5-1
2-5-4. INFORMAL AIRSPACE MEETING NOTIFICATION PROCEDURES FOR AIRSPACE ACTIONS OTHER THAN CLASS B AND CLASS C	2-5-1
2-5-5. LOCATION	2-5-2
2-5-6. AGENDA ITEMS	2-5-2
2-5-7. RECORD OF MEETINGS	2-5-2

Chapter 3. Aeronautical Information

Section 1. General

3-1-1. POLICY	3-1-1
3-1-2. RESPONSIBILITY	3-1-1
3-1-3. TRUE/MAGNETIC DIRECTIONS	3-1-1
3-1-4. NAVIGATIONAL AID COORDINATES	3-1-1
3-1-5. DIRECTIONS	3-1-1

Section 2. Charted Reporting Points

Paragraph	Page
3-2-1. POLICY	3-2-1
3-2-2. CHART SERIES SELECTION	3-2-1
3-2-3. FAA FORM 8260-2, RADIO FIX AND HOLDING DATA RECORD	3-2-1
3-2-4. PREPARATION OF FORM 8260-2	3-2-1

Section 3. Naming of NAVAIDs, Aeronautical Facilities, and Fixes

3-3-1. GENERAL	3-3-1
3-3-2. RESPONSIBILITY	3-3-1
3-3-3. NAMING OF NAVAIDs	3-3-1
3-3-4. NAMING OF WAYPOINTS, INTERSECTIONS, AND DME FIXES	3-3-1

Chapter 4. NAVAIDs

Section 1. General

4-1-1. PURPOSE	4-1-1
4-1-2. POLICY	4-1-1
4-1-3. RESPONSIBILITY FOR FREQUENCY SELECTION	4-1-1
4-1-4. GOVERNING CRITERIA	4-1-1
4-1-5. LONG-RANGE PLANNING	4-1-1
4-1-6. PROPOSED CHANGES	4-1-1

Section 2. FAA NAVAIDs

4-2-1. POLICY	4-2-1
4-2-2. COORDINATION	4-2-1
4-2-3. INFORMAL AIRSPACE MEETINGS	4-2-1
4-2-4. APPROVAL AUTHORITY	4-2-1
4-2-5. DISTRIBUTION	4-2-1
4-2-6. COMMISSIONING DATE	4-2-1
4-2-7. PROCESSING REGULATORY ACTIONS	4-2-2

Section 3. Military NAVAIDs

4-3-1. POLICY	4-3-1
4-3-2. COORDINATION WITH MILITARY	4-3-1
4-3-3. EVALUATION BY TECHNICAL OPERATIONS SERVICES OFFICE	4-3-1
4-3-4. CIRCULARIZATION	4-3-1
4-3-5. DETERMINATION RESPONSIBILITY	4-3-1
4-3-6. NOTIFICATION AND DISTRIBUTION	4-3-1

Section 4. Non-Federal NAVAIDs

4-4-1. POLICY	4-4-1
4-4-2. REQUEST FOR ESTABLISHMENT	4-4-1
4-4-3. RESPONSIBILITY	4-4-1
4-4-4. EXTERNAL COORDINATION	4-4-2
4-4-5. INFORMAL AIRSPACE MEETING	4-4-2
4-4-6. APPROVAL AND NOTIFICATION PROCESS	4-4-2
4-4-7. DISTRIBUTION	4-4-2

Section 5. Discontinuance of FAA NAVAIDs

Paragraph	Page
4-5-1. POLICY	4-5-1
4-5-2. RESPONSIBILITIES	4-5-1
4-5-3. COORDINATION OF PROPOSALS	4-5-1
4-5-4. OBTAINING APPROVAL	4-5-1
4-5-5. DISCONTINUANCE ACTION	4-5-1
4-5-6. CANCELLATION OF CONTROLLED AIRSPACE AND INSTRUMENT PROCEDURES	4-5-1
4-5-7. DECOMMISSIONING DATE	4-5-1
4-5-8. DISCONTINUANCE OF NAVAIDs INCLUDED IN ICAO PLANS	4-5-2
4-5-9. INTERNATIONAL STAFF NOTIFICATION	4-5-2

Section 6. Discontinuance of Military and Non-Federal NAVAIDs

4-6-1. POLICY	4-6-1
4-6-2. RESPONSIBILITY	4-6-1
4-6-3. ACTION PRIOR TO DISCONTINUANCE	4-6-1
4-6-4. DISCONTINUANCE OF NAVAIDs INCLUDED IN ICAO PLANS	4-6-1

Part 2. Objects Affecting Navigable Airspace

Chapter 5. Basic

Section 1. General

5-1-1. PURPOSE	5-1-1
5-1-2. AUTHORITY	5-1-1
5-1-3. POLICY	5-1-1
5-1-4. SCOPE	5-1-1
5-1-5. RESPONSIBILITY	5-1-1
5-1-6. SENSITIVE CASES REFERRED TO WASHINGTON	5-1-1
5-1-7. AUTOMATION	5-1-2
5-1-8. OE/AAA AUTOMATED SYSTEM AIRPORT/RUNWAY DATABASE	5-1-2
5-1-9. TRAINING	5-1-2
5-1-10. RELEASE OF INFORMATION	5-1-2

Section 2. Notices

5-2-1. REQUIREMENTS	5-2-1
5-2-2. PROCESSING	5-2-1
5-2-3. FAA FORMS	5-2-1

Chapter 6. Aeronautical Studies

Section 1. General

6-1-1. POLICY	6-1-1
6-1-2. AERONAUTICAL STUDY NUMBERS	6-1-1
6-1-3. STUDY OF EXISTING STRUCTURES	6-1-1
6-1-4. PROPOSALS UNDER CONSTRUCTION	6-1-2
6-1-5. STRUCTURES EXCEEDING 2,000 FEET	6-1-2

Paragraph	Page
6-1-6. FEASIBILITY STUDIES	6-1-2
6-1-7. TOWER OWNERSHIP	6-1-3

Section 2. Initial Processing/Verification

6-2-1. VERIFICATION/E-FILING	6-2-1
6-2-2. VERIFICATION/PAPER-FILING	6-2-1
6-2-3. DIVISION COORDINATION	6-2-2
6-2-4. ADDITIONAL COORDINATION	6-2-2

Section 3. Identifying/Evaluating Aeronautical Effect

6-3-1. POLICY	6-3-1
6-3-2. SCOPE	6-3-1
6-3-3. DETERMINING ADVERSE EFFECT	6-3-1
6-3-4. DETERMINING SIGNIFICANT VOLUME OF ACTIVITY	6-3-1
6-3-5. SUBSTANTIAL ADVERSE EFFECT	6-3-2
6-3-6. RESPONSIBILITY	6-3-2
6-3-7. AIRPORT SURFACES AND CLEARANCE AREAS	6-3-11
6-3-8. EVALUATING EFFECT ON VFR OPERATIONS	6-3-11
6-3-9. EVALUATING EFFECT ON IFR OPERATIONS	6-3-18
6-3-10. EVALUATING EFFECT ON AIR NAVIGATION AND COMMUNICATION FACILITIES	6-3-21
6-3-11. EVALUATING PLANNED OR FUTURE AIRPORT DEVELOPMENT PROGRAMS	6-3-23
6-3-12. EVALUATING TEMPORARY CONSTRUCTION	6-3-23
6-3-13. CONSIDERING SHIELDING	6-3-24
6-3-14. CONSIDERING SHADOW PLANE	6-3-24
6-3-15. RECOMMENDING MARKING AND LIGHTING OF STRUCTURES	6-3-25
6-3-16. NEGOTIATIONS	6-3-27
6-3-17. CIRCULARIZATION	6-3-27

Chapter 7. Determinations

Section 1. Issuing Determinations

7-1-1. POLICY	7-1-1
7-1-2. RESPONSIBILITY	7-1-1
7-1-3. DETERMINATIONS	7-1-1
7-1-4. DETERMINATION CONTENT AND OPTIONS	7-1-2
7-1-5. DETERMINATION DATES	7-1-6
7-1-6. EXISTING STRUCTURES	7-1-6
7-1-7. DISTRIBUTION OF DETERMINATIONS	7-1-6

Section 2. Extension of Determinations

7-2-1. AUTHORITY	7-2-1
7-2-2. CONDITIONS	7-2-1
7-2-3. COORDINATION	7-2-1
7-2-4. EXTENSION PERIOD	7-2-1
7-2-5. REVIEW PROVISIONS FOR PETITION	7-2-1
7-2-6. DISTRIBUTION	7-2-1

Section 3. Revision, Correction, and Termination of Determination

Paragraph	Page
7-3-1. REVISIONS AND TERMINATIONS BASED ON NEW FACTS	7-3-1
7-3-2. CORRECTION	7-3-1
7-3-3. STANDARD FORMAT	7-3-1
7-3-4. DISTRIBUTION	7-3-1

Chapter 8. Post Determination Action

Section 1. Action

8-1-1. FOLLOW-UP ACTION	8-1-1
8-1-2. RECEIPT OF COMPLETED PSR	8-1-1
8-1-3. RECEIPT OF COMPLETED FORM 7460-2	8-1-1
8-1-4. PROCESSING PROJECT ABANDONED NOTIFICATION	8-1-2
8-1-5. PROCESSING DISMANTLEMENT NOTIFICATION	8-1-2

Chapter 9. Discretionary Review Process

Section 1. General

9-1-1. AUTHORITY	9-1-1
9-1-2. OEG RESPONSIBILITY	9-1-1
9-1-3. JURISDICTION	9-1-1

Section 2. Petition Processing

9-2-1. ADMINISTRATIVE PROCESSING	9-2-1
9-2-2. RECOMMENDATIONS	9-2-1
9-2-3. DISTRIBUTION OF NOTICES TO GRANT DISCRETIONARY REVIEW	9-2-1
9-2-4. OEG PARTICIPATION	9-2-1
9-2-5. FINAL DECISION	9-2-1
9-2-6. DISTRIBUTION OF DECISION	9-2-1

Part 3. Airport Airspace Analysis

Chapter 10. Basic

Section 1. Policy

10-1-1. PURPOSE	10-1-1
10-1-2. AUTHORITY	10-1-1
10-1-3. AIRPORT PROGRAMS	10-1-1
10-1-4. FUNDING RESPONSIBILITY	10-1-2
10-1-5. RESPONSIBILITY	10-1-2

Section 2. Airport Study

10-2-1. PURPOSE	10-2-1
10-2-2. STUDY NUMBER ASSIGNMENT	10-2-1
10-2-3. PROPOSALS SUBJECT TO AERONAUTICAL STUDY	10-2-1

Section 3. Airport Standards

Paragraph	Page
10-3-1. DESIGN STANDARDS	10-3-1
10-3-2. AIRPORT SPACING GUIDELINES AND TRAFFIC PATTERN AIRSPACE AREAS	10-3-1
10-3-3. DESIGNATION OF INSTRUMENT RUNWAYS, CHANGES OF AIRPORT STATUS VFR TO IFR AND LOWERING MINIMUMS	10-3-2
10-3-4. AIRSPACE FEASIBILITY STUDY	10-3-3
10-3-5. ONSITE EVALUATION	10-3-3
10-3-6. FORMULATION OF FAA DETERMINATION	10-3-3

Section 4. Airport Charting and Publication of Airport Data

10-4-1. POLICY	10-4-1
10-4-2. RESPONSIBILITY	10-4-1
10-4-3. AIRPORT CHARTING	10-4-1

Chapter 11. Evaluating Aeronautical Effect

Section 1. General

11-1-1. EXISTING AND PROPOSED OBJECTS	11-1-1
11-1-2. AIRPORT TRAFFIC PATTERNS	11-1-1
11-1-3. INSTRUMENT FLIGHT PROCEDURES	11-1-1
11-1-4. AIR TRAFFIC CONTROL PROCEDURES	11-1-1
11-1-5. SAFETY OF PERSONS AND PROPERTY ON THE GROUND	11-1-1
11-1-6. NOISE CONSIDERATION	11-1-2
11-1-7. AERONAUTICAL ACTIVITY	11-1-2
11-1-8. WIND ROSE DATA	11-1-2
11-1-9. HELICOPTER INGRESS-EGRESS ROUTES	11-1-2
11-1-10. DISPLACED THRESHOLDS AND CHANGING THE RUNWAY END	11-1-2
11-1-11. EXISTING AIRPORTS	11-1-2

Section 2. Processing of Airport Proposals By Regional Airports Offices

11-2-1. PROPOSALS	11-2-1
11-2-2. AIRPORT LAYOUT PLANS (ALP)	11-2-2
11-2-3. NON-PART 157 PROPOSED CONSTRUCTION OR ALTERATION ON NON-OBLIGATED PUBLIC-USE AIRPORTS	11-2-2
11-2-4. FAA COORDINATION	11-2-2
11-2-5. NEGOTIATION WITH SPONSOR	11-2-3
11-2-6. CIRCULARIZATION	11-2-3
11-2-7. EVALUATE COMMENTS AND AERONAUTICAL EFFECT	11-2-4
11-2-8. INFORMAL AIRSPACE MEETINGS	11-2-4
11-2-9. ISSUE DETERMINATION	11-2-4

Section 3. Processing of Airport Proposals By Regional Flight Standards Offices

11-3-1. EFFECT ON SAFETY OF FLIGHT	11-3-1
11-3-2. EFFECT ON SAFETY OF PERSONS AND PROPERTY ON THE GROUND	11-3-1
11-3-3. ONSITE EVALUATIONS	11-3-1

Section 4. Processing of Airport Proposals By Operations Support Group Flight Procedures Teams

Paragraph	Page
11-4-1. EFFECT ON INSTRUMENT PROCEDURES	11-4-1
11-4-2. CHANGE OF AIRPORT STATUS FROM VFR TO IFR	11-4-1
11-4-3. EVALUATION OF INSTRUMENT RUNWAY DESIGNATIONS	11-4-1

Section 5. Processing of Airport Proposals By Technical Operations Services Area Offices

11-5-1. ELECTROMAGNETIC OR LINE-OF-SIGHT INTERFERENCE	11-5-1
11-5-2. EVALUATION OF INSTRUMENT RUNWAY DESIGNATION	11-5-1
11-5-3. CHANGE IN AIRPORT STATUS FROM VFR TO IFR	11-5-1
11-5-4. AIRPORT PROPOSALS	11-5-1

Section 6. Processing of Airport Proposals By Service Area Offices

11-6-1. EFFECT ON AIR TRAFFIC CONTROL OPERATIONS	11-6-1
11-6-2. COORDINATION	11-6-1
11-6-3. AIRPORT TRAFFIC PATTERNS	11-6-1
11-6-4. PART 77 REVIEW	11-6-2
11-6-5. DESIGNATION OF INSTRUMENT RUNWAY/CHANGE IN AIRPORT STATUS VFR TO IFR	11-6-2
11-6-6. ONSITE EVALUATION	11-6-2

Chapter 12. Airport Determinations

Section 1. General

12-1-1. RESPONSIBILITY	12-1-1
12-1-2. TERMINOLOGY	12-1-1
12-1-3. CONDITIONAL DETERMINATIONS	12-1-1
12-1-4. EXPIRATION DATES	12-1-2
12-1-5. STATEMENT IN DETERMINATIONS	12-1-2
12-1-6. AIRPORT MASTER RECORD	12-1-3
12-1-7. ADVISE FEDERAL AGREEMENT AIRPORT SPONSORS	12-1-3
12-1-8. DISSEMINATION OF STUDY RESULTS	12-1-3
12-1-9. REVIEW OF SENSITIVE OR CONTROVERSIAL CASES AND PART 157 DETERMINATIONS	12-1-3
12-1-10. DISPOSAL OF FEDERAL SURPLUS REAL PROPERTY FOR PUBLIC AIRPORT PURPOSES	12-1-4

Chapter 13. Military, NASA, and Other Agency Airport Proposals

Section 1. General

13-1-1. PRIOR NOTICE TO FAA	13-1-1
13-1-2. FORM OF NOTICE	13-1-1
13-1-3. FAA HEADQUARTERS REVIEWS	13-1-1
13-1-4. REGIONAL/SERVICE AREA OFFICE REVIEW	13-1-1
13-1-5. MILITARY PROPOSALS OTHER THAN MCP	13-1-1

Part 4. Terminal and En Route Airspace

Chapter 14. Designation of Airspace Classes

Section 1. General

Paragraph	Page
14-1-1. PURPOSE	14-1-1
14-1-2. CONTROLLED AIRSPACE	14-1-1
14-1-3. UNCONTROLLED AIRSPACE	14-1-2
14-1-4. FRACTIONAL MILES	14-1-2
14-1-5. AIRSPACE LEGAL DESCRIPTION	14-1-2
14-1-6. EXAMPLES OF TERMINAL AIRSPACE LEGAL DESCRIPTIONS	14-1-3

Section 2. Ad Hoc Committee Procedures for Class B and Class C Airspace Actions

14-2-1. BACKGROUND	14-2-1
14-2-2. POLICY AND PURPOSE	14-2-1
14-2-3. COMMITTEE FORMATION	14-2-1
14-2-4. FAA PARTICIPATION	14-2-1
14-2-5. COMMITTEE PROCESS	14-2-1
14-2-6. FAA ACTION ON COMMITTEE RECOMMENDATIONS	14-2-2

Chapter 15. Class B Airspace

Section 1. General

15-1-1. PURPOSE	15-1-1
15-1-2. NONRULEMAKING ALTERNATIVES	15-1-1
15-1-3. RESPONSIBILITIES	15-1-1
15-1-4. SERVICE CENTER EVALUATION	15-1-1

Section 2. Class B Airspace Planning

15-2-1. CRITERIA	15-2-1
15-2-2. DESIGNATION	15-2-1
15-2-3. CONFIGURATION	15-2-1
15-2-4. IFR TRANSITION ROUTES	15-2-2
15-2-5. VFR CONSIDERATIONS	15-2-2
15-2-6. CHART ENHANCEMENTS	15-2-2

Section 3. Class B Airspace Processing

15-3-1. OVERVIEW	15-3-1
15-3-2. STAFF STUDY	15-3-1
15-3-3. PRE-NPRM AIRSPACE USER COORDINATION	15-3-2
15-3-4. NPRM PHASE	15-3-2
15-3-5. POST-NPRM PROCESSING	15-3-3
15-3-6. REVOKING CLASS B AIRSPACE	15-3-3

Chapter 16. Class C Airspace

Section 1. General

Paragraph	Page
16-1-1. PURPOSE	16-1-1
16-1-2. NONRULEMAKING ALTERNATIVES	16-1-1
16-1-3. RESPONSIBILITIES	16-1-1
16-1-4. SERVICE CENTER EVALUATION	16-1-1

Section 2. Class C Airspace Planning

16-2-1. CRITERIA	16-2-1
16-2-2. DESIGNATION	16-2-1
16-2-3. CONFIGURATION	16-2-1
16-2-4. TIME OF DESIGNATION	16-2-1

Section 3. Class C Airspace Processing

16-3-1. STAFF STUDY	16-3-1
16-3-2. PRE-NPRM AIRSPACE USER COORDINATION	16-3-2
16-3-3. NPRM PHASE	16-3-2
16-3-4. POST-NPRM PROCESSING	16-3-2
16-3-5. PUBLICITY	16-3-2

Chapter 17. Class D Airspace

Section 1. General

17-1-1. PURPOSE	17-1-1
17-1-2. REGIONAL/SERVICE AREA OFFICE EVALUATION	17-1-1
17-1-3. DESIGNATION	17-1-1
17-1-4. TIME OF DESIGNATION	17-1-1
17-1-5. PART TIME SURFACE AREAS	17-1-1

Section 2. Class D Airspace Standards

17-2-1. CONFIGURATION	17-2-1
17-2-2. AIRPORT REFERENCE POINT/GEOGRAPHIC POSITION	17-2-1
17-2-3. SATELLITE AIRPORTS	17-2-1
17-2-4. ADJOINING CLASS D AIRSPACE AREAS	17-2-1
17-2-5. DETERMINING CLASS D AREA SIZE	17-2-1
17-2-6. DEPARTURES	17-2-1
17-2-7. ARRIVAL EXTENSION	17-2-1
17-2-8. VERTICAL LIMITS	17-2-2
17-2-9. COMMUNICATIONS	17-2-2
17-2-10. WEATHER OBSERVATIONS AND REPORTING	17-2-2
17-2-11. LOSS OF COMMUNICATION OR WEATHER REPORTING CAPABILITY ...	17-2-2

Chapter 18. Class E Airspace

Section 1. General

Paragraph	Page
18-1-1. INTRODUCTION	18-1-1
18-1-2. CLASS E SURFACE AREAS	18-1-1
18-1-3. DESIGNATION	18-1-1

Section 2. Transitional Airspace

18-2-1. PURPOSE	18-2-1
18-2-2. 700/1,200-FOOT CLASS E AIRSPACE	18-2-1
18-2-3. 700-FOOT CLASS E AIRSPACE	18-2-1
18-2-4. 1,200-FOOT CLASS E AIRSPACE	18-2-1
18-2-5. CLASS E AIRSPACE FLOORS ABOVE 1,200 FEET	18-2-1
18-2-6. COORDINATION OF MISSED APPROACH ALTITUDES	18-2-1

Section 3. Transitional Airspace Area Criteria

18-3-1. DEPARTURE AREA	18-3-1
18-3-2. LENGTHY DEPARTURE CLASS E AIRSPACE EXTENSIONS	18-3-1
18-3-3. ARRIVAL AREA	18-3-1
18-3-4. ARRIVAL EXTENSION	18-3-1
18-3-5. PROCEDURE TURN PROTECTION	18-3-2
18-3-6. DETERMINING BASE ALTITUDES	18-3-2

Chapter 19. Other Airspace Areas

Section 1. General

19-1-1. EN ROUTE DOMESTIC AIRSPACE AREAS	19-1-1
19-1-2. OFFSHORE/CONTROL AIRSPACE AREAS	19-1-1
19-1-3. DESIGNATION	19-1-1
19-1-4. PROCESSING	19-1-1

Chapter 20. Air Traffic Service Routes

Section 1. General

20-1-1. PURPOSE	20-1-1
20-1-2. CONTROLLED AIRSPACE	20-1-1
20-1-3. DESIGNATION OF ATS ROUTES	20-1-1
20-1-4. RESPONSIBILITIES	20-1-1
20-1-5. ROUTE IDENTIFICATION	20-1-1
20-1-6. BASE ALTITUDES	20-1-2
20-1-7. MINIMUM EN ROUTE ALTITUDES	20-1-2
20-1-8. PROCEDURAL REQUIREMENTS	20-1-2
20-1-9. ACTION TO RAISE BASE OF TRANSITION AREAS	20-1-2

Section 2. Flight Inspection Requirements

20-2-1. FLIGHT INSPECTION REQUESTS	20-2-1
20-2-2. REQUEST FOR FLIGHT INSPECTION DATA	20-2-1

Paragraph	Page
20-2-3. FLIGHT INSPECTION REPORT	20-2-1
20-2-4. FLIGHT INSPECTION DATA DISTRIBUTION	20-2-1

Section 3. Federal Airways

20-3-1. DEFINITION	20-3-1
20-3-2. NAVAID SPACING	20-3-1
20-3-3. VERTICAL AND LATERAL EXTENT	20-3-1
20-3-4. WIDTH REDUCTIONS	20-3-2

Section 4. Jet Routes

20-4-1. DEFINITION	20-4-1
20-4-2. NAVAID SPACING	20-4-1
20-4-3. JET ROUTE WIDTH	20-4-1

Section 5. Area Navigation (RNAV) Routes

20-5-1. PURPOSE	20-5-1
20-5-2. RNAV ROUTE CRITERIA	20-5-1
20-5-3. WAYPOINTS	20-5-1
20-5-4. LATERAL PROTECTED AIRSPACE CRITERIA FOR RNAV EN ROUTE SEGMENTS	20-5-1
20-5-5. RNAV ROUTE DESCRIPTIONS	20-5-1

Part 5. Special Use Airspace

Chapter 21. General

Section 1. Policy

21-1-1. PURPOSE	21-1-1
21-1-2. SCOPE	21-1-1
21-1-3. DEFINITION AND TYPES	21-1-1
21-1-4. CATEGORIES	21-1-1
21-1-5. SUA APPROVAL AUTHORITY	21-1-1
21-1-6. MINIMUM NUMBERS AND VOLUME	21-1-1
21-1-7. OPTIMUM USE OF AIRSPACE	21-1-1
21-1-8. JOINT-USE POLICY	21-1-2
21-1-9. ENVIRONMENTAL ANALYSIS	21-1-2
21-1-10. CONTROLLING AGENCY	21-1-2
21-1-11. USING AGENCY	21-1-2
21-1-12. WAIVERS	21-1-3
21-1-13. PUBLIC NOTICE PROCEDURES	21-1-3
21-1-14. SUA NONRULEMAKING CIRCULARS	21-1-3
21-1-15. CHARTING AND PUBLICATION REQUIREMENTS	21-1-4
21-1-16. CERTIFICATION OF SUA GEOGRAPHIC POSITIONAL DATA	21-1-4
21-1-17. LEAD REGION	21-1-5

Section 2. SUA Legal Descriptions

21-2-1. GENERAL	21-2-1
21-2-2. LATERAL BOUNDARIES	21-2-1

Paragraph	Page
21-2-3. VERTICAL LIMITS	21-2-1
21-2-4. TIMES OF USE	21-2-2
21-2-5. CONTROLLING AGENCY	21-2-3
21-2-6. USING AGENCY	21-2-3
21-2-7. SUA LEGAL DESCRIPTION AMENDMENTS	21-2-3

Section 3. SUA Proposals

21-3-1. GENERAL	21-3-1
21-3-2. CLASSIFIED INFORMATION	21-3-1
21-3-3. PROPOSAL CONTENT	21-3-1
21-3-4. ABBREVIATED PROPOSALS	21-3-3

Section 4. Coordination of Proposals

21-4-1. POLICY	21-4-1
21-4-2. PROPOSAL PRE-COORDINATION	21-4-1
21-4-3. ATC FACILITY COORDINATION	21-4-1
21-4-4. SUBMISSION OF PROPOSALS	21-4-1

Section 5. Regional/Service Area Office Actions

21-5-1. GENERAL	21-5-1
21-5-2. REGIONAL/SERVICE AREA OFFICE PROCESSING REQUIREMENTS	21-5-1
21-5-3. AERONAUTICAL IMPACT CONSIDERATION	21-5-2
21-5-4. ENVIRONMENTAL DOCUMENT REVIEW	21-5-2
21-5-5. REGIONAL/SERVICE AREA OFFICE DETERMINATION	21-5-2
21-5-6. DISAPPROVAL OF PROPOSALS	21-5-2
21-5-7. SUBMISSION OF APPROVAL RECOMMENDATIONS TO FAA HEADQUARTERS	21-5-3
21-5-8. HANDLING OF PROPOSALS TO REDUCE OR REVOKE SUA	21-5-3
21-5-9. FAA INITIATED SUA PROPOSALS	21-5-3

Section 6. Aeronautical Study

21-6-1. PURPOSE	21-6-1
21-6-2. POLICY	21-6-1
21-6-3. CONTENT OF STUDY	21-6-1

Section 7. Restricted Area and MOA Annual Utilization Reports

21-7-1. PURPOSE	21-7-1
21-7-2. REPORTING REQUIREMENTS	21-7-1
21-7-3. SUPPLEMENTARY REPORTS	21-7-1
21-7-4. UTILIZATION REPORT TERMS	21-7-1
21-7-5. REVIEW REQUIREMENT	21-7-2
21-7-6. REVIEW SUMMARY	21-7-2

Section 8. SUA Review and Analysis

21-8-1. GENERAL	21-8-1
21-8-2. POLICY	21-8-1
21-8-3. SOURCES OF INFORMATION	21-8-1
21-8-4. UTILIZATION STANDARDS	21-8-1
21-8-5. SUA REVIEW GUIDE	21-8-2

Paragraph	Page
21-8-6. SUA REVIEW FOLLOW UP ACTION	21-8-3

Section 9. SUA Review Teams

21-9-1. PURPOSE	21-9-1
21-9-2. TEAM COMPOSITION	21-9-1
21-9-3. RESPONSIBILITIES	21-9-1
21-9-4. TEAM REPORT	21-9-1
21-9-5. FOLLOW UP ACTION	21-9-2

Chapter 22. Prohibited Areas

Section 1. General

22-1-1. DEFINITION	22-1-1
22-1-2. PURPOSE	22-1-1
22-1-3. IDENTIFICATION	22-1-1
22-1-4. DESCRIPTION	22-1-1
22-1-5. WAIVERS/AUTHORIZATION	22-1-1

Section 2. Processing

22-2-1. SUBMISSION OF PROPOSALS	22-2-1
22-2-2. REGIONAL/SERVICE AREA OFFICE ACTIONS	22-2-1

Chapter 23. Restricted Areas

Section 1. General

23-1-1. DEFINITION	23-1-1
23-1-2. PURPOSE	23-1-1
23-1-3. IDENTIFICATION	23-1-1
23-1-4. RESTRICTED AREA FLOOR	23-1-1
23-1-5. JOINT USE	23-1-1
23-1-6. TEMPORARY RESTRICTED AREAS	23-1-1

Section 2. Processing

23-2-1. SUBMISSION OF PROPOSALS	23-2-1
23-2-2. TEMPORARY RESTRICTED AREA PROPOSALS	23-2-1

Chapter 24. Warning Areas

Section 1. General

24-1-1. DEFINITION	24-1-1
24-1-2. PURPOSE	24-1-1
24-1-3. IDENTIFICATION	24-1-1
24-1-4. JOINT USE	24-1-1

Section 2. Processing

Paragraph	Page
24-2-1. SUBMISSION OF PROPOSALS	24-2-1
24-2-2. EXECUTIVE ORDER 10854 COORDINATION	24-2-1

Chapter 25. Military Operations Areas

Section 1. General

25-1-1. DEFINITION	25-1-1
25-1-2. PURPOSE	25-1-1
25-1-3. IDENTIFICATION	25-1-1
25-1-4. MOA FLOOR	25-1-1
25-1-5. LOCATION	25-1-1
25-1-6. JOINT USE	25-1-1
25-1-7. TEMPORARY MOAs	25-1-1
25-1-8. MOAs IN CLASS G AIRSPACE	25-1-2

Section 2. Processing

25-2-1. SUBMISSION OF PROPOSALS	25-2-1
25-2-2. TEMPORARY MOA PROCESSING	25-2-1

Chapter 26. Alert Areas

Section 1. General

26-1-1. DEFINITION	26-1-1
26-1-2. PURPOSE	26-1-1
26-1-3. LOCATION	26-1-1
26-1-4. ACTIVITIES	26-1-1
26-1-5. IDENTIFICATION	26-1-1

Section 2. Criteria

26-2-1. GENERAL	26-2-1
26-2-2. TYPES OF OPERATIONS	26-2-1

Section 3. Processing

26-3-1. ALERT AREA PROPOSALS	26-3-1
26-3-2. SUBMISSION OF PROPOSALS	26-3-1

Chapter 27. Controlled Firing Areas

Section 1. General

27-1-1. DEFINITION	27-1-1
27-1-2. PURPOSE	27-1-1
27-1-3. CRITERIA	27-1-1
27-1-4. CHARTING	27-1-1
27-1-5. DIMENSIONS	27-1-1
27-1-6. ACTIVITIES	27-1-1

Paragraph	Page
27-1-7. APPROVAL	27-1-1
27-1-8. SUSPENSION OR REVOCATION	27-1-1

Section 2. Processing

27-2-1. SUBMISSION REQUIREMENTS	27-2-1
27-2-2. CFA PROPOSALS	27-2-1
27-2-3. REGIONAL/SERVICE AREA OFFICE ACTION	27-2-1
27-2-4. APPROVAL LETTER	27-2-1

Section 3. Safety Precautions

27-3-1. USER RESPONSIBILITIES	27-3-1
27-3-2. PRECAUTIONARY MEASURES	27-3-1
27-3-3. AREA SURVEILLANCE	27-3-1

Chapter 28. National Security Areas

Section 1. General

28-1-1. DEFINITION	28-1-1
28-1-2. PURPOSE	28-1-1
28-1-3. CRITERIA	28-1-1
28-1-4. DIMENSIONS	28-1-1
28-1-5. CHARTING	28-1-1
28-1-6. EXPIRATION, SUSPENSION, OR REVOCATION	28-1-1

Section 2. Processing

28-2-1. NSA PROPOSALS	28-2-1
28-2-2. SUBMISSION OF PROPOSALS	28-2-1
28-2-3. REGIONAL/SERVICE AREA OFFICE PROCESSING	28-2-1
28-2-4. RULES AND REGULATIONS GROUP PROCESSING	28-2-1

Part 6. Miscellaneous Procedures

Chapter 29. Outdoor Laser Operations

Section 1. General

29-1-1. PURPOSE	29-1-1
29-1-2. AUTHORITY	29-1-1
29-1-3. POLICY	29-1-1
29-1-4. RESPONSIBILITIES	29-1-1
29-1-5. DEFINITIONS	29-1-1

Section 2. Evaluating Aeronautical Effect

29-2-1. SERVICE CENTER COORDINATION	29-2-1
29-2-2. AERONAUTICAL REVIEW	29-2-1
29-2-3. LOCAL LASER WORKING GROUP (LLWG)	29-2-1
29-2-4. PROTECTION DISTANCE CALCULATIONS	29-2-2
29-2-5. CONTROL MEASURES	29-2-2

Section 3. Aeronautical Determinations

Paragraph	Page
29-3-1. FINDINGS	29-3-1
29-3-2. CONTENT OF DETERMINATIONS	29-3-1
29-3-3. PUBLICATION OF LASER OPERATIONS IN THE NAS	29-3-1

Section 4. Notices to Airmen

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

Section 5. Aircraft Illumination Actions

29-5-1. PROCEDURES	29-5-1
--------------------------	--------

Chapter 30. High Intensity Light Operations

Section 1. General

30-1-1. PURPOSE	30-1-1
30-1-2. POLICY	30-1-1
30-1-3. AUTHORITY	30-1-1
30-1-4. DEFINITIONS	30-1-1

Section 2. Aeronautical Review/Determinations

30-2-1. EVALUATION OF AFFECTED AIRSPACE AREAS	30-2-1
30-2-2. AERONAUTICAL STUDY	30-2-1
30-2-3. CONTENT OF DETERMINATION	30-2-1

Chapter 31. Amateur Rocket and Commercial Space Operations

Section 1. General

31-1-1. PURPOSE	31-1-1
31-1-2. AUTHORITY	31-1-1
31-1-3. POLICY	31-1-1
31-1-4. CONTROLLING FACILITY	31-1-1
31-1-5. DEFINITIONS	31-1-1
31-1-6. RESOURCES	31-1-2

Section 2. Amateur Rockets

31-2-1. RESPONSIBILITIES	31-2-1
31-2-2. GENERAL OPERATING LIMITATIONS	31-2-1
31-2-3. AMATEUR ROCKET PROCESS	31-2-1
31-2-4. AERONAUTICAL ANALYSIS	31-2-2
31-2-5. AIRSPACE MANAGEMENT	31-2-3
31-2-6. WAIVER/AUTHORIZATION FORMAT AND CONTENT	31-2-3
31-2-7. NOTIFICATION TO AIR TRAFFIC FACILITIES	31-2-4
31-2-8. NOTAMS	31-2-4

Section 3. Launch and Reentry Vehicle Operations

Paragraph	Page
31-3-1. RESPONSIBILITIES	31-3-1
31-3-2. LOA CONTENT	31-3-1
31-3-3. LOA COORDINATION	31-3-2
31-3-4. NOTICE TO AIRMEN (NOTAM)	31-3-2
31-3-5. LAUNCH AND REENTRY PROCESS	31-3-2

Section 4. Launch and Reentry Sites

31-4-1. RESPONSIBILITIES	31-4-1
31-4-2. LOA CONTENT	31-4-1
31-4-3. LOA COORDINATION	31-4-1
31-4-4. LAUNCH AND REENTRY SITE PROCESS	31-4-1

Chapter 32. Environmental Matters

Section 1. General Information

32-1-1. PURPOSE	32-1-1
32-1-2. POLICY	32-1-1
32-1-3. BACKGROUND	32-1-1
32-1-4. DELEGATION OF AUTHORITY	32-1-2
32-1-5. RESPONSIBILITIES	32-1-2

Section 2. Environmental Processing

32-2-1. THE PROCESS	32-2-1
32-2-2. ENVIRONMENTAL REVIEW OF PROCEDURES	32-2-5
32-2-3. SPECIAL USE AIRSPACE (SUA)	32-2-7
32-2-4. CFR PART 150 STUDIES	32-2-8

Section 3. Environmental Impact Categories and Other Topics

32-3-1. ENVIRONMENTAL IMPACT CATEGORIES TO BE INCLUDED IN ANALYSIS	32-3-1
32-3-2. ENVIRONMENTAL IMPACT CATEGORIES EXCLUDED FROM ANALYSIS ..	32-3-2
32-3-3. ENVIRONMENTAL SCREENING AND MODELING TOOLS	32-3-3
32-3-4. RECORDS RETENTION	32-3-4

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))	32-4-1
32-4-2. ENVIRONMENTAL JUSTICE (TITLE VI/NEPA)	32-4-1
32-4-3. COMMUNITY INVOLVEMENT	32-4-1
32-4-4. SEGMENTATION, INDEPENDENT UTILITY, AND CUMULATIVE IMPACTS ..	32-4-1
32-4-5. DIVERSE VECTORING AREAS (DVA)	32-4-2
32-4-6. NATIONAL SECURITY AREAS (NSAs)	32-4-2
32-4-7. RECORDS RETENTION	32-4-2
32-4-8. APPENDICES	32-4-3
32-4-9. MEMORANDUMS AND EMAILS SUPERCEDED BY THIS ORDER	32-4-3

Chapter 33. Parasail Operations

Section 1. General

Paragraph	Page
33-1-1. PURPOSE	33-1-1
33-1-2. AUTHORITY	33-1-1
33-1-3. POLICY	33-1-1
33-1-4. CONTROLLING FACILITY	33-1-1
33-1-5. RESOURCES	33-1-1

Section 2. Waivers

33-2-1. RESPONSIBILITIES	33-2-1
33-2-2. GENERAL OPERATING LIMITATIONS	33-2-1
33-2-3. WAIVERS	33-2-1
33-2-4. WAIVER PROCESS	33-2-1
33-2-5. AERONAUTICAL ANALYSIS	33-2-2
33-2-6. FACILITY COORDINATION	33-2-2
33-2-7. WAIVER/AUTHORIZATION FORMAT AND CONTENT	33-2-2

Appendices

Appendix 1. Environmental Study Process Flow Chart	Appendix 1-1
Appendix 2. FAA Procedures for Processing SUA Actions	Appendix 2-1
Appendix 3. Procedures for Processing SUA Actions Aeronautical Process Flow Chart	Appendix 3-1
Appendix 4. FAA Procedures for Processing SUA Actions: Aeronautical and Environmental Summary Table	Appendix 4-1
Appendix 5. Air Traffic Initial Environmental Review (IER)	Appendix 5-1
Appendix 6. Sample DOT FAA Categorical Exclusion Declaration	Appendix 6-1
Appendix 7. FAA/DOD Memorandum of Understanding	Appendix 7-1
Appendix 8. FAA Special Use Airspace Environmental Processing Procedures	Appendix 8-1
Appendix 9. Noise Policy for Management of Airspace Over Federally Managed Lands ...	Appendix 9-1
Appendix 10. Community Involvement Policy	Appendix 10-1
Appendix 11. Federal Aviation Administration (FAA) Notification of Proposed Project(s) Template	Appendix 11-1
Appendix 12. Evaluating Air Traffic Impacts for Wind Turbine Farm Proposals	Appendix 12-1

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; Mission Support Services; Technical Operations Air Traffic Control 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 all ATO personnel and anyone using ATO directives.

b. This order also applies to all regional, Service Center, 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. States that participate in the State Block Grant Program (SBGP) assist the Office of Airport Safety and Standards in these actions, but the overall responsibility remains with the Office of Airports. Participating states include Georgia, Illinois, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, Tennessee, Texas, and Wisconsin.

1-1-3. WHERE TO FIND THIS ORDER

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

1-1-4. WHAT THIS ORDER CANCELS

FAA Order JO 7400.2L, Procedures for Handling Airspace Matters, dated April 27, 2017, and all changes to it are canceled.

1-1-5. CHANGE AUTHORITY

The Director of Policy (AJV-P) 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 7400.2M	9/13/18	2/28/19
Change 1	8/15/19	1/30/20
Change 2	1/30/20	7/16/20
Change 3	7/16/20	12/31/20
JO 7400.2N	12/31/20	6/17/21

1-1-8. DELIVERY DATES

This order will be available on the FAA website 30 days prior to its effective date.

All organizations are responsible for viewing, downloading, and subscribing to receive electronic mail notifications when changes occur to this order.

Subscriptions can be made at http://www.faa.gov/air_traffic/publications.

1-1-9. RECOMMENDATIONS FOR PROCEDURAL CHANGES

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

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

c. The Airspace Policy Group will review and revise proposed changes as necessary and submit supported proposals to Policy (AJV-P). When appropriate, the Airspace Policy Group may convene a workgroup for this purpose. 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 Policy 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 available online and will be distributed electronically to all offices that subscribe to receive email notification/access to it through the FAA website at http://www.faa.gov/air_traffic/publications.

1-1-11. SAFETY MANAGEMENT SYSTEM

Every employee is responsible for ensuring the safety of equipment and procedures used in the provision of services within the National Airspace System (NAS).

a. Risk assessment techniques and mitigations, as appropriate, are intended for implementation of any planned safety significant changes within the NAS, as directed by FAA Order 1100.161, Air Traffic Safety Oversight.

b. Direction regarding the Safety Management System and its application can be found in the Air Traffic Organization Safety Management System Manual; FAA Order JO 1000.37, Air Traffic Organization Safety Management System; and FAA Order 1100.161, Air Traffic Safety Oversight.

3. Actions that lessen the burden on the public (for example, revocation of restricted areas).

4. Class B and C airspace areas must be made effective on the appropriate sectional aeronautical charting date. To the extent practicable, Class D airspace area and restricted area rules should become effective on a sectional chart date. Consideration should be given to selection on a sectional chart date that matches a 56-day en route chart cycle date.

b. Cutoff dates are established to allow sufficient time for chart production and distribution. To meet this requirement, final rules must be published in the Federal Register on or before the applicable deadline for en route airspace date for the planned airspace effective date.

*REFERENCE—
FAA Order 8260.26, Appendix A.*

2-3-8. PUBLICATION IN FEDERAL REGISTER

a. The Federal Register accepts both paper and

electronic submissions.

b. Paper submissions must have an original NPRM or an original final rule and a CD with two duplicate certified electronic files that are forwarded to AGC-200 for publication in the Federal Register. The Office of the Federal Register requires that all original documents be signed with blue ink.

c. Electronic submissions are submitted through the Federal Register web portal at webportal.fedreg.gov. For more information on how to get a digital signature and the submission process, see the Office of the Federal Register's Document Drafting Handbook, Chapter 6.

d. All documents must meet the criteria and format established by the Office of the Federal Register as outlined in the Document Drafting Handbook; <https://www.archives.gov/federal-register/write/handbook>

Section 4. Processing Nonrulemaking Airspace Actions

2-4-1. PURPOSE

This section prescribes the procedures to be followed when establishing, modifying, or revoking nonrulemaking airspace.

2-4-2. IDENTIFICATION

Nonrulemaking cases are identified by a study number. The study number includes the last two digits of the calendar year, the appropriate FAA regional or airports office abbreviation that the action falls within, a consecutively assigned number within each calendar year, and either an “NR” (nonrulemaking), “NRA” (nonrulemaking airport), or “OE” (obstruction evaluation) suffix as appropriate.

EXAMPLE-

1. *16-AWP-1-NR for studies involving navigational aids and nonrulemaking Special Use Airspace (SUA) cases.*
2. *16-ASO-1-NRA for studies involving airports.*
3. *16-AGL-1-OE for studies involving surface structures.*
4. *16-ORL-1-NRA for studies processed by an airports district office.*

2-4-3. CIRCULARIZATION

a. Except for NRA airspace proposals, nonrulemaking airspace proposals must be circularized by the service area office unless procedures for processing those types of proposals allow exemptions to circularization. Each notice must contain a complete, detailed description of the proposal including charts, if appropriate, to assist interested persons in preparing comments. Circularization lists must include, but not be limited to, all known aviation interested persons and groups such as the state aviation agencies; Service Center military representatives; national and local offices of aviation organizations; local flight schools, local airport owners, managers, and fixed base operators; and local air taxi and charter flight offices. In order to ensure the widest public participation, service centers should consider all available communication alternatives for distributing circulars and receiving

comments (for example, e-mail, fax, etc.). Normally, a 45-day comment period should be provided. Other parts in this order contain additional guidance regarding circularization.

b. Discuss in the nonrulemaking circular any regulatory changes (for example, Part 71, Part 73) that might be affected if the nonrulemaking proposal is adopted. Describe the regulatory changes in as much detail as is known at the time.

c. Regional/service area offices must coordinate with their respective state aviation representatives to ascertain which nonrulemaking circulars each state is interested in receiving. If various agencies within a state government request copies of particular circulars, the regional/service area office may request that one agency be designated to receive and distribute the requested copies.

d. Send one copy of each SUA nonrulemaking circular to the Rules and Regulations Group.

e. Except for Class B and Class C airspace actions, when a nonrulemaking action is associated with a rulemaking action, the nonrulemaking proposal may be included in the NPRM, and a separate nonrulemaking circular is not required. The NPRM will satisfy the circularization requirement and present the full scope of both the rulemaking and nonrulemaking proposal.

2-4-4. CIRCULARIZATION DOCUMENTATION

All notices of aeronautical studies, informal airspace meetings, and determinations issued for obstruction evaluation and airport airspace analysis studies require certificates of mailing. The certificate must be recorded in each case file as follows:

AERONAUTICAL STUDY [NUMBER]
CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT A COPY OF THE ATTACHED [notice/determination] WAS MAILED TO EACH OF THE ADDRESSEES LISTED ON THE ATTACHED [mailing list/distribution list number] THIS [date] DAY OF [month/year].

SIGNED: [specialist/mail clerk/etc.]

2-4-5. SUBMISSION OF NONRULEMAKING SUA CASES TO RULES AND REGULATIONS GROUP

a. After the circular public comment period ends, the OSG must analyze all comments received and coordinate with the concerned ATC facility to develop a response to the issues raised by the comments, and determine if the proposal should be modified as a result of the comments. Coordinate with the appropriate Service Center military representative to discuss possible mitigations or changes based on the comments. If significant changes are made to what was circularized, it may be necessary to recircularize the proposal for additional public comment.

b. After considering all pertinent information, the OSG and the ATC facility will determine whether the proposal should be forwarded for approval or disapproved. If the action is to be disapproved, the OSG will comply with the guidance in Paragraph 21-5-6, Disapproval of Proposals, of this Order.

c. Within 90 days after the circular comment period closing, the OSG Manager will submit a memorandum to the Rules and Regulations Group Manager with either a recommendation to approve, or a status update on the proposal. Include the following information in the memorandum:

1. A discussion of each issue raised by the comments and how it was resolved or addressed.

2. The final version of the airspace description (including a revised chart, if applicable).

3. The requested airspace effective date.

4. Copies of public comments received and any additional information that should be considered by the Rules and Regulations Group.

2-4-6. EFFECTIVE DATE OF NONRULEMAKING ACTIONS

Nonrulemaking actions must be made effective at 0901 UTC and must coincide with the 56-day en route charting dates published in FAA Order 8260.26, Appendix A. Exceptions are as follows:

a. Safety or national interest actions that require an earlier effective time or date.

b. Editorial changes.

c. Actions that lessen the burden on the public (for example, revocation of special use airspace).

d. To the extent practical, consider making the nonrulemaking SUA effective on a sectional chart date that matches the 56-day en route charting dates.

2-4-7. PUBLICATION OF NONRULEMAKING ACTIONS

Nonrulemaking actions must be published in the National Flight Data Digest (NFDD) on or before the applicable charting cutoff date.

REFERENCE—
FAA Order 8260.26, Appendix A.

Section 5. Discontinuance of FAA NAVAIDs

4-5-1. POLICY

Operational requirements, air traffic demand, and budgetary limitations are normally the basis for the retention or decommissioning of FAA NAVAIDs. Since economics are a necessary consideration, a NAVAID becomes a candidate for decommissioning when the activity level, or factors other than activity level on which it may have been justified, are eliminated or changed significantly. Discontinuance criteria are contained in the appropriate Airway Planning Standards (Orders 7031.2, Terminal, and 7031.3, En Route). Any discontinuance should be in accordance with the Federal Radio Navigation Plan.

4-5-2. RESPONSIBILITIES

a. En Route and Oceanic Services and Terminal Services must ensure that FAA-funded NAVAIDs are allocated so that they benefit the greatest number of users consistent with safety and operational efficiency. The service area office must also evaluate the need for the retention of en route NAVAIDs and recommend candidates for decommissioning when their need can no longer be justified.

b. The FPT must ensure that FAA-funded NAVAIDs are allocated so that they benefit the greatest number of users consistent with safety and operational efficiency. The FPT must also evaluate the need for the retention of terminal NAVAIDs and recommend candidates for decommissioning when their need can no longer be justified.

c. ARN-1 must recommend navigational facilities to the Director of Mission Support, Policy as candidates for decommissioning when their function can be equally or better provided by more economically efficient alternatives.

4-5-3. COORDINATION OF PROPOSALS

A navigational facility selected for decommissioning will be the subject of a nonrulemaking study. The appropriate service area office will coordinate the proposed action with personnel from the Technical Operations service area office, FPT, Airports Division, Flight Standards Division, and the regional

military representative. If all concur, the service area office must circularize the proposed decommissioning to all interested persons for comment. Include in the circularization a brief description of the decommissioning effect on airspace and instrument procedures.

NOTE-

Advanced coordination should be accomplished with Transport Canada regarding facilities that would affect transborder operations. This coordination may be handled through headquarters, regional/service area offices, or direct facility to facility.

4-5-4. OBTAINING APPROVAL

In accordance with Order 1100.1, FAA Organization – Policies and Standards, Paragraph 15, certain closings, consolidation, and decommissioning may require approval of the Administrator. Upon completion of the nonrulemaking study, if applicable, the appropriate regional/service area office must forward the study with a summary of comments and a recommendation to the Administrator through the concerned office or service.

4-5-5. DISCONTINUANCE ACTION

Delay initiating steps for discontinuance of a navigational facility that requires approval from the Office of the Administrator until 10 working days after receipt of such approval.

4-5-6. CANCELLATION OF CONTROLLED AIRSPACE AND INSTRUMENT PROCEDURES

The appropriate air traffic office must ensure that the designated airspace based on the NAVAID is revoked or modified. The Flight Procedures Team must coordinate the cancellation of any instrument approach procedure predicated on that NAVAID before the decommissioning date.

4-5-7. DECOMMISSIONING DATE

To the extent possible, the date of decommissioning should coincide with the associated aeronautical charting dates.

4-5-8. DISCONTINUANCE OF NAVAIDS INCLUDED IN ICAO PLANS

To meet the operational requirements of United States and foreign aircraft, certain United States NAVAIDs are included in the Caribbean, North Atlantic, and Pacific Regional Air Navigation Plans of the International Civil Aviation Organization (ICAO). By international agreement, amendments to these plans cannot be made until the necessary coordination is effected through ICAO with all interested contracting states and international organizations.

4-5-9. INTERNATIONAL STAFF NOTIFICATION

The Operations Planning, International, Operations and ATM Services, is the liaison on international issues between the FAA and U.S. Government elements and international organizations. Before action is initiated to discontinue any NAVAID included in an ICAO Air Navigation Plan, the appropriate air traffic office must notify Operations and ATM Services of the proposed action. Notification must be made at least 90 days before the proposed effective date.

Part 2. Objects Affecting Navigable Airspace

Chapter 5. Basic

Section 1. General

5-1-1. PURPOSE

The guidelines, procedures, and criteria detailed in this part supplement those contained in Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace, and address the following:

- a. The performance of functions relating to the processing of notices of proposed construction or alteration.
- b. The conduct of aeronautical studies of any existing or proposed object affecting the navigable airspace.
- c. The conduct of aeronautical studies of the electromagnetic radiation effect of proposed or existing objects on the operation of air navigation facilities.
- d. The conduct of aeronautical studies of the physical effect of proposed or existing objects on the line-of-sight view of all runways, taxiways, and traffic pattern areas from the airport traffic control tower.
- e. The conduct of aeronautical studies regarding the physical effect of proposed or existing objects on airport approach lighting systems.

5-1-2. AUTHORITY

- a. The FAA's authority to promote the safe and efficient use of the navigable airspace, whether concerning existing or proposed structures, is predominantly derived from Title 49 U.S.C. Section 44718 (Section 44718). It should be noted however, that Section 44718 does not provide specific authority for the FAA to regulate or control how land (real property) may be used in regard to structures that may penetrate navigable airspace.
- b. Title 14 of the Code of Federal Regulations (14 CFR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace, was adopted to establish notice standards for proposed construc-

tion or alteration that may result in an obstruction or an interference with air navigation facilities and equipment or the navigable airspace.

5-1-3. POLICY

The prime objective of the FAA in administering Section 44718 and 14 CFR Part 77 in conducting aeronautical studies is to ensure the safety of air navigation and efficient utilization of navigable airspace by aircraft.

5-1-4. SCOPE

- a. 49 U.S.C. Sections 40103 and 44718, and Part 77 apply only to structures located within any state, territory, or possession of the United States, within the District of Columbia, or within territorial waters (12 NM) surrounding such states, territories, or possessions.
- b. Structures that are subject to study requirements associated with 49 U.S.C. Section 40103, 44718, and Part 77 may be man made (including mobile structures) or of natural growth and terrain whether existing, proposed, permanent, or temporary.

5-1-5. RESPONSIBILITY

The responsibility for managing the obstruction evaluation program for those structures that may affect the navigable airspace is delegated to the Obstruction Evaluation Group (OEG).

5-1-6. SENSITIVE CASES REFERRED TO WASHINGTON

The OEG Manager, or designated representative, must brief sensitive or high profile cases to the Manager, Rules and Regulations Group before issuing, revising, or extending the determination.

5-1-7. AUTOMATION

a. To the extent practicable, the obstruction evaluation/airport airspace analysis (OE/AAA) automated programs must be used in lieu of manual processing.

b. Automated obstruction evaluation (OE) correspondence forms must be used.

5-1-8. OE/AAA AUTOMATED SYSTEM AIRPORT/RUNWAY DATABASE

a. To ensure the automated Part 77 obstruction criteria and the military Part 77 obstruction criteria conflict analysis programs consider all known plans on file, the regional Airports Division is responsible for maintaining the automated airport/runway database.

1. Either the Airports Division or the Airports District Office must enter the ultimate airport reference point for any proposed public-use or military airport into the database within two working days from receipt of the information.

2. Either the Airports Division or the Airports District Office must enter any change of airport status from private-use to public-use into the database within two working days from receipt of the information. As workload permits, information on private-use airports must also be entered into the database.

3. Either the Airports Division or the Airports District Office must enter all other public-use and military airport/runway information in the database within 10 working days from receipt of the information.

b. Airports must resolve and correct any discrepancies that have been identified in the automated airport/runway database.

c. Any required corrections must be forwarded to AIM.

5-1-9. TRAINING

Employees involved with the OE/AAA program must attend the Basic Obstruction Evaluation and Airport/Airspace Analysis Course offered by the FAA Academy.

5-1-10. RELEASE OF INFORMATION

Requests from the public for access to or copies of information contained in aeronautical study files are occasionally made to the regional offices. Such requests must be processed in accordance with the provisions of the Freedom of Information Act (5 U.S.C. 552), as implemented by Part 7 of the Department of Transportation Regulations and Order 1270.1, Freedom of Information Act Program.

Chapter 6. Aeronautical Studies

Section 1. General

6-1-1. POLICY

An aeronautical study must be conducted for all complete notices received.

6-1-2. AERONAUTICAL STUDY NUMBERS

For ease of use of the OE/AAA automated obstruction programs and correspondence, a separate aeronautical study number must be assigned and a separate obstruction evaluation study must be conducted for:

a. Each site (location), structure (height), or sponsor.

1. At times, a single sponsor may file notice for multiple sites. Each site must be assigned a separate aeronautical study number and a separate obstruction evaluation study must be conducted.

2. At times, a single FAA Form 7460-1 may be received for a single project that covers multiple structures such as an antenna array, windmill clusters, housing development, cluster of buildings, utility poles, or catenaries. Each structure must be assigned a separate aeronautical study number and a separate obstruction evaluation study must be conducted. However, a single determination addressing all of the structures may be issued.

3. At times, multiple sponsors may be competing for the same FCC license in the same market area and may file notice for the same communications band/frequency/channel using the same effective radiated power at the same location and height. A separate FAA Form 7460-1 should be submitted for each sponsor with information specific to the structure and sponsor. Separate aeronautical study numbers must be assigned and separate obstruction evaluation studies conducted.

NOTE-

A single structure with multiple points of interest, such as a building, may be processed as a single obstruction evaluation study provided that all information including items such as maps, blue prints, elevations, etc., are

coordinated with each division for evaluation. In the automated obstruction evaluation case screen, the highest site elevation, or finished floor elevation should be recorded as the site elevation. The tallest point on the structure should be recorded as the above ground elevation, and the closest point of the structure to the closest runway should be recorded as the latitude/longitude. This information would be considered worst case and should be used for recording purposes. For analysis purposes, it may be necessary to use specific information for each point of interest.

b. Changes to marking/lighting recommendations.

c. Revisions or corrections to coordinates or elevations after the study has been verified and made available for evaluation by other FAA divisions. This would include revisions or corrections to a notice received from the sponsor; revisions or corrections made necessary by the FAA due to mistakes; revisions or corrections as a result of “as-built” surveys; and revisions or corrections due to receipt of supplemental notice.

d. Aeronautical studies that supersede previous studies must include a reference to the previous aeronautical study number.

6-1-3. STUDY OF EXISTING STRUCTURES

a. The authorities for conducting aeronautical studies of existing structures is contained in Section 40103, Section 44718, and Part 77. These studies are conducted when deemed necessary by the FAA to determine the physical or electromagnetic effect on the use of the navigable airspace and air navigation facilities. Obstruction evaluation studies may be initiated as a result of:

1. Information received or a situation observed (e.g., structures reported by flight inspection crews).

2. A request for a study from another FAA component, another agency, or a person with a valid interest in the matter.

3. A notice received under the provisions of Part 77 for proposed construction or alteration that

has already been started and, therefore, must be considered an existing structure.

4. A structure blocking all or portions of runways, taxiways, or traffic patterns from being seen from an airport traffic control tower.

5. Other situations for which such an aeronautical study would be appropriate.

b. Situations that may require obstruction evaluation of existing structures include, but are not limited to:

1. Determining the effect of a change in aeronautical procedures.

2. Determining the effect of a proposed runway construction, extension, or realignment.

3. Determining the need for providing technical assistance in the design and development of airports.

4. Determining whether the FAA should recommend that an existing structure be altered or removed.

5. Determining whether the FAA should recommend that an existing structure be made conspicuous by marking and/or lighting in accordance with current standards.

6. Determining whether the marking and/or lighting display on an existing structure can be removed or reduced without adversely affecting aviation safety or should be increased to more effectively make its presence known to airmen.

7. Determining whether an existing structure has an electromagnetic effect upon an air navigation or communications facility, or obstructs the required line of sight from an airport traffic control tower.

8. Providing recommendations to FCC concerning dismantling abandoned antenna structures.

9. Providing technical assistance or information to a person, or government organization (Federal, state or local) expressing an interest in the structure and the FAA's responsibility associated with the structure's effect on the safe and efficient use of the navigable airspace.

c. Conduct an aeronautical study for an existing structure in the same manner as proposed structures except as specifically noted in this order.

6-1-4. PROPOSALS UNDER CONSTRUCTION

A proposal for which construction has already started must be studied as an existing structure. Construction is considered to have started if actual structural work has begun such as the laying of a foundation but not including excavation.

6-1-5. STRUCTURES EXCEEDING 2,000 FEET

Any proposed structure that would exceed a height of 2,000 feet above ground is presumed to have a substantial adverse effect upon the safe and efficient use of navigable airspace and must be determined to be a hazard to air navigation unless the sponsor, at the time of filing, makes a clear and compelling showing to the contrary.

a. Notices proposing a structure greater than 2,000 feet in height above the ground that are accompanied with the detailed explanation required in Section 77.7(d) must be processed in the normal manner with one exception. The Obstruction Evaluation Group (OEG) must advise the Rules and Regulations Group when an aeronautical study for a proposed structure exceeding 2,000 feet is being conducted.

b. Notices received without the detailed explanation must be responded to with a notice stating that the proposed structure is presumed to be a hazard to air navigation and the sponsor has the burden of overcoming this presumption in accordance with Section 77.7(d).

6-1-6. FEASIBILITY STUDIES

a. A feasibility study is a limited aeronautical review based on very broad, estimated, or general information supplied for the structure. The study usually addresses only certain issues; e.g., feasibility of height at a general location, feasibility of frequency and power at a general location.

b. Requests for feasibility studies should be accommodated to the extent existing resources and workloads allow. The need for coordination with other divisions will be based on the type of information supplied for the structure.

c. A feasibility study must result in a report rather than an official determination.

shielding structure until it intersects or reaches the end of one of the imaginary approach area surfaces; see FIG 6-3-13, FIG 6-3-14, and FIG 6-3-15.

6-3-15. RECOMMENDING MARKING AND LIGHTING OF STRUCTURES

a. STANDARDS. FAA standards, procedures, and types of equipment specified for marking and lighting structures are presented in AC 70/7460-1, Obstruction Marking and Lighting. These standards provide a uniform means to indicate the presence of structures and are the basis for recommending marking and lighting to the public. These standards are the minimum acceptable level of conspicuity to warn pilots of the presence of structures. They must also apply when Federal funds are to be expended for the marking and lighting of structures.

b. AERONAUTICAL STUDY. All aeronautical studies must include an evaluation to determine whether obstruction marking and/or lighting are necessary and to what extent. The entire structure or complex, including closely surrounding terrain and other structures, must be considered in recommending marking and lighting. A subsequent study may indicate a need to change an earlier determination by recommending marking and/or lighting when such recommendation was not made in the original study or, in some cases, after a determination was issued.

1. Proposed Structures. A change in runway length or alignment, a new airport development project, a change in aeronautical procedures, or other similar reasons may be cause for additional study of proposed structures to determine whether marking and/or lighting are now appropriate even when not recommended in the original study.

2. Existing Structures. A marking and/or lighting recommendation may be made at any time. In making the recommendation consider changes that have occurred in the vicinity of the structure since the initial determination was made and include such factors as increased aircraft activity, the closing of an airport, changes in IFR and VFR routes, and shielding by taller structures.

c. RECOMMENDATIONS. Recommend the marking and/or lighting standard most appropriate for the height and location of any temporary or permanent structure that:

1. Exceeds 200 feet in overall height above ground level at its site or exceeds any obstruction standard contained in Part 77, Subpart C, unless an aeronautical study shows the absence of such marking and/or lighting will not impair aviation safety.

2. Is not more than 200 feet AGL, or is not identified as an obstruction under the standards of Part 77, Subpart C, but may indicate by its particular location a need to be marked or lighted to promote aviation safety.

d. PARTIAL MARKING AND/OR LIGHTING. Omitting marking and/or lighting on the structure's bottom section; for example, the lowest 200 feet of a tall structure should be discouraged unless that part of the structure is shielded. Marking and lighting standards are based on a total system configuration and are only effective when used as intended. Therefore, the structure and its location must be given careful consideration before recommending partial marking and/or lighting.

e. OMISSION/DELETION OF MARKING AND/OR LIGHTING. When recommending that marking and/or lighting be omitted because the structure is sufficiently conspicuous by its shape, size, and/or color, include a judgment that the structure would not blend into any physical or atmospheric background that may reasonably be expected in the vicinity.

f. EXCESSIVE MARKING AND/OR LIGHTING. Recommend specific advisory circular chapters, paragraphs, and, when appropriate, specific intensities that address the minimum marking and/or lighting standards for safety. Recommendation of specific chapters allow for the use of those chapters only, although they may contain references to other chapters. If the sponsor insists on or the FAA finds that high intensity white lights would not be objectionable, indicate in the determination that the FAA does not object to increased conspicuity provided the lighting is in accordance with guidelines of AC 70/7460-1, Obstruction Marking and Lighting.

g. VOLUNTARY MARKING AND/OR LIGHTING. When it is determined not necessary for aviation safety, marking and/or lighting may be accomplished on a voluntary basis. However, marking and/or lighting should not be a condition of the determination, but instead, it must be recommen-

ded that, if voluntary, marking and/or lighting be installed and maintained in accordance with AC 70/7460-1.

h. HIGH AND MEDIUM INTENSITY WHITE OBSTRUCTION LIGHTING SYSTEMS:

1. High intensity lighting systems should not be recommended for structures 700 feet above ground level or less, except when an aeronautical study shows otherwise. This does not apply to catenary support structures.

2. Use caution in recommending the use of high or medium intensity white obstruction lighting systems, especially in a populated area. Aircraft operations can be adversely affected where strobe-lighted structures are located in an area of limited visual cues. These situations can contribute to spatial disorientation when pilots are maneuvering in minimum visibility conditions. Marine or surface vessels and other vehicles, especially on nearby elevated roadways, could also experience operational difficulties from strobe lights. External shielding may minimize adverse effects. Examples are:

(a) At locations within the airport/heliport environment in a sparsely lighted rural setting.

(b) At an offshore installation.

3. Dual lighting systems should be considered when a structure is located in or near residential areas, especially in hilly terrain where some houses are higher than the base of the structure.

i. LIGHTED SPHERICAL MARKERS. Lighted spherical markers are available for increased night conspicuity of high-voltage (69kv or greater) transmission-line catenary wires. These markers should be recommended for increased night conspicuity for such wires when located near airports, heliports, across rivers, canyons, lakes, etc. Consider the following when recommending lighted spherical markers: aeronautical activity, nighttime operations, low level operations, local weather conditions, height of wires, length of span, etc. If the support structures are to be lighted, also consider lighting the catenary wires. Installation, size, color, and pattern guidelines can be found in Advisory Circular 70/7460-1, Obstruction Marking and Lighting.

j. DEVIATIONS AND MODIFICATION TO MARKING AND/OR LIGHTING. When the sponsor or owner of a structure requests permission to deviate from or modify the recommended marking and/or lighting, an appropriate aeronautical study should be made to determine whether the deviation/modification is acceptable, and/or whether the recommended marking and/or lighting should be retained.

1. A deviation refers to a change from the standard patterns, intensities, flashing rates, etc. A marking and lighting deviation is considered to be marking patterns or colors and lighting patterns, intensities, flashing rates, or colors other than those specified in AC 70/7460-1.

(a) Requests for deviations must be forwarded to Rules and Regulations Group only after an aeronautical study has been conducted on the proposal. The results of the study and the regional recommendation must be submitted with the request.

(b) Deviations require approval by the Director of Mission Support, Policy. Rules and Regulations Group must effect all coordination necessary for issuing the decision to approve or disapprove. The approval or disapproval decision must be forwarded to the region/service area office for response to the sponsor. Examples of deviations are contained in AC 70/7460-1.

2. The OEG may approve a request for a modified application of marking and/or lighting. Examples of modified applications may be found in AC 70/7460-1. A modified application of marking and lighting refers to the amount of standard marking and/or lighting such as:

(a) Placing the standard marking and/or lighting on only a portion of a structure.

(b) Adding marking and/or lighting in addition to the standard marking and lighting to improve the conspicuity of the structure;

(c) Reducing the amount of standard marking and/or lighting to the extent of eliminating one or the other as may be considered appropriate.

(d) Adjusting the standard spacing of recommended intermediate light levels for ease of installation and maintenance as considered appropriate.

6-3-16. NEGOTIATIONS

Negotiations must be attempted with the sponsor to reduce the structure's height so that it does not exceed obstruction standards, mitigate any adverse effects on aeronautical operations, air navigation and/or communication facilities, or eliminate substantial adverse effect. If feasible, recommend collocation of the structure with other structures of equal or greater heights. Include in the aeronautical study file and determination a record of all the negotiations attempted and the results. If negotiations result in the withdrawal of the OE notice, the obstruction evaluation study may be terminated. Otherwise, the obstruction evaluation must be continued to its conclusion.

6-3-17. CIRCULARIZATION

a. Circularizing a public notice allows the FAA to solicit information that may assist in determining what effect, if any, the proposed structure would have to the navigable airspace. The OEG determines when it is necessary to distribute a public notice.

1. If a structure first exceeds obstruction standards, then a public notice should be circularized if:

- (a) An airport is affected;
- (b) There is possible VFR effect; or
- (c) There is a change in aeronautical operations or procedures.

2. Circularization is not necessary for the following types of studies:

- (a) A reduction in the height of an existing structure.
- (b) A structure that would be located on a site in proximity to another previously studied structure, would have no greater effect on aeronautical operations and procedures, and the basis for the determination issued under the previous study could be appropriately applied.

(c) A proposed structure replacing an existing or destroyed structure, that would be located on the same site and at the same or lower height as the original structure, and marked and/or lighted under the same provisions as the original structure (this does not preclude a recommendation for additional marking/lighting to ensure conspicuity).

(d) A proposed structure that would be in proximity to, and have no greater effect than, a previously studied existing structure, and no plan is on file with the FAA to alter or remove the existing structure.

(e) A structure that would be temporary and appropriate temporary actions could be taken to accommodate the structure without an undue hardship on aviation.

(f) A structure found to have substantial adverse effect based on an internal FAA study.

(g) A structure that would exceed Part 77.23(a)(2) and would be outside the traffic pattern.

(h) A structure that would affect IFR operations but would only need FAA comment. For instance a structure that:

- (1) Would raise a MOCA, but not a MEA.
- (2) Would raise a MVA.
- (3) Would raise a MIA.

3. Circularization for existing structures will be determined on a case-by-case basis.

b. Each public notice (automated letter CIR) must contain:

1. A complete, detailed description of the structure including, as appropriate, illustrations or graphics depicting the location of the structure:

(a) On-airport studies. Use airport layout plans or best available graphic.

(b) Off-airport studies. Use the appropriate aeronautical chart. Additional illustrations may be included, as necessary.

2. A complete description of the obstruction standards that are exceeded, the number of feet by which the structure exceeds the standards.

3. An explanation of the potential effects of the structure in sufficient detail to assist interested persons in formulating comments on how the structure would affect aeronautical operations.

4. A date by which comments are to be received. The date established should normally allow interested persons 30 days in which to submit comments, but a shorter comment period may be established depending upon circumstances.

c. Public notices should be distributed to those who can provide information needed to assist in

evaluating the aeronautical effect of the structure. As a minimum, the following governmental agencies, organizations, and individuals should be included on distribution lists due to their inherent aeronautical interests:

- 1.** The sponsor and/or his representative.
- 2.** All known aviation interested persons and groups such as state, city, and local aviation authorities; airport authorities; various military organizations within the DOD; flying clubs; national, state, and local aviation organizations; flight schools; fixed base operators; air taxi, charter flight offices; and other organizations or individuals that demonstrate a specific aeronautical interest such as county judges and city mayors.
- 3.** Airport owners as follows:
 - (a)** All public-use airports within 13 NM of the structure.
 - (b)** All private-use airports within 5 NM of the structure.
- 4.** The specific FAA approach facility, en route facility (ARTCC), and Flight Service Station (FSS) in whose airspace the structure is located.
- 5.** Flight Standards.
- 6.** An adjacent regional/service area office if the structure is within 13 NM of the regional state boundary.
- 7.** As appropriate, state and local authorities; civic groups; organizations; and individuals who do not have an aeronautical interest, but may become involved in specific aeronautical cases, must be included in the notice distribution, and given supplemental notice of actions and proceedings on a case-by-case basis. Those involved should clearly understand that the public notice is to solicit

aeronautical comments concerning the physical effect of the structure on the safe and efficient use of airspace by aircraft.

8. A proposed structure that penetrates the 40:1 by 35 feet or more, departure slope must be circularized to the following:

- (a)** Aircraft Owners and Pilots Association;
 - (b)** National Business Aviation Association;
 - (c)** Regional Air Line Association;
 - (d)** Department of Defense;
 - (e)** Air Transport Association;
 - (f)** Air Line Pilots Association; and
 - (g)** Other appropriate persons and organizations listed in this section.
- d.** Document and place in the obstruction evaluation file the names of each person and/or organizations to which public notice was sent. Reference to a distribution code, mailing list, or other evidence of circularization is sufficient provided a printout or list of each coded distribution is maintained for future reference. Also record the time period during which each printout or list is used. The retention schedule is listed in Order 1350.15, Records Organization, Transfer, and Destruction Standards.
- e.** Consider only valid aeronautical objections or comments in determining the extent of adverse effect of the structure. Comments of a non-aeronautical nature are not considered in obstruction evaluation as described in Part 77.
- f.** If the sponsor agrees to revise the project so that it does not exceed obstruction standards and would have no adverse effect, cancel the public notice, advise interested parties, as necessary, revise the obstruction evaluation study, and proceed as appropriate.

7. Reasons and basis for the determination that the structure will not be a hazard to air navigation and any accommodations necessary by aeronautical users or sponsors.

8. Consideration given to any valid aeronautical comments received during the aeronautical study. The official FAA determination must be a composite of the comments and findings received from other interested FAA offices.

9. Conditions of the determination including recommendations for marking and/or lighting of a structure, changes in procedures and/or altitudes that are necessary to accommodate the structure. The “conditions” should include a statement that appropriate action will be taken to amend the effected procedure(s) and/or altitude(s) upon notification to the FAA by the sponsor prior to the start of construction or alteration.

10. Limitations, if any.

11. Petitioning information regardless of whether the structure is proposed or existing using the following specific language: “This determination is subject to review if an interested party files a petition that is received by the FAA (30 days from issued date). In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Rules and Regulations Group, Federal Aviation Administration, 800 Independence Ave., SW., Washington, DC 20591. This determination becomes final on [40 days from issued date] unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review.”

c. A DOH must include or address:

1. FULL DESCRIPTION. A full description of the structure, project, proposal, etc. including all submitted frequencies and ERP must be included. Use exact information to clearly identify the nature of the project. Use wording, such as microwave antenna tower, FM or AM antenna tower, suspension bridge, TV antenna tower, or four-stack power plant.

2. LATITUDE, LONGITUDE, AND HEIGHT. Specify the latitude, longitude, and height(s) of each structure. When an obstruction evaluation study concerns an array of antennas or other multiple-type

structures, specific information on each structure should be included.

3. BASIS FOR THE DETERMINATION. The reasons and basis for the determination must include the adverse effect of the proposal upon the safe and efficient use of the navigable airspace by aircraft and upon air navigation facilities. Also, state the reasons the affected aeronautical operations or the procedure cannot be adjusted to alleviate or eliminate the conflicting demands for the airspace. As a minimum, the determination must address the following:

(a) Obstruction standards exceeded.

(b) The effect on VFR/IFR aeronautical departure/arrival and en route operations, procedures, and the minimum flight altitudes effect on existing public-use airports and aeronautical facilities.

(c) The effect on all planned public-use airports and aeronautical facilities on file with the FAA or for which the FAA has received adequate notice.

(d) The cumulative impact resulting from the proposed construction or alteration of a structure when combined with the impact of other existing or proposed structures.

(e) Information and comments received as a result of circularization, informal airspace meetings and negotiations.

(f) Reasons and basis for the determination as to why the structure would be a hazard to air navigation (for example, a clear showing of substantial adverse effect).

4. PETITIONING INFORMATION – Include petitioning information regardless of whether the structure is proposed or existing using the following specific language: “This determination is subject to review if an interested party files a petition on or before [30 days from issued date]. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Rules and Regulations Group, Federal Aviation Administration, 800 Independence Ave., SW., Washington, DC 20591. This determination becomes final on [40 days from issued date] unless a petition is timely filed. The determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review.”

7-1-5. DETERMINATION DATES

a. ISSUED DATE – The issuance date of a determination is the date the determination is distributed.

b. PETITION DEADLINE – For determinations that involve petition rights, the deadline for receipt of petition must be 30 days from the date of issuance.

c. EFFECTIVE DATE –

1. The effective date of determinations that do not involve petition rights must be the date of issuance.

2. The effective date of determinations that involve petition rights, whether for existing or proposed structures, must be 40 days from the date of issuance provided a petition for review is not filed. If a petition for review is filed, the determination will not become final pending disposition of the petition.

NOTE–

The effective date and the issued date may or may not be the same. The effective date may also be referred to as the final date.

7-1-6. EXISTING STRUCTURES

A determination issued as a result of the study of an existing structure may be written in the following forms:

a. As a DOH or DNH.

b. As a formal letter outlining the effects of the structure and perhaps recommending to the sponsor that the structure be marked and/or lighted, specifying that it be reduced in height, or specifying that it be removed.

c. As an informal letter or staff study making an internal FAA recommendation.

d. As a formal letter to the FCC recommending the dismantling of an abandoned tower.

7-1-7. DISTRIBUTION OF DETERMINATIONS

A record of the distribution for each determination whether original, revised, extended, or affirmed must be maintained in the aeronautical study file. When appropriate, a reference to the distribution code, a mailing list, or any other evidence of distribution will be sufficient.

a. Copies of all determinations must be sent to the:

1. Sponsor (with FAA Form 7460-2 as necessary)

2. Sponsor's representative (if any).

3. FCC (if the structure is subject to its licensing authority).

4. AeroNav in lieu of FAA Form 7460-2 (if the structure is existing and does not involve a proposed physical alteration). Copies of the determination must always be accompanied by a copy of the submitted map and, if applicable, a copy of the survey; or if the determination involves a change to marking and/or lighting of an existing structure for which the sponsor has been requested to notify AeroNav directly of the change.

5. Copies of the determination must always be accompanied by a copy of the submitted map and, if applicable, a copy of the surveys.

6. Other persons, offices, or entities as deemed necessary or as requested.

b. In addition to the above distribution, copies of a DNH and DOH must also be sent to:

1. AeroNav.

2. Military representatives.

3. All other interested persons.

Section 2. Extension of Determinations

7-2-1. AUTHORITY

The FAA official issuing a determination has the delegated authority to grant an extension. Where a petition for an extension generates public interest or controversy, the OEG must inform the office of Mission Support, Policy.

7-2-2. CONDITIONS

An extension may be granted provided the request is timely (received by the FAA 15 days before the determination expires) and a review of aeronautical activity shows no significant adverse effect resulting from a change that has occurred since the determination was issued. In the event a request for extension to the expiration date cannot be granted based on new facts, a “Determination of Hazard to Air Navigation” should be issued effective on the day following the expiration date of the no hazard determination.

7-2-3. COORDINATION

Coordination with Rules and Regulations Group must be obtained before denying extensions that pertain to structures that are subject to FCC licensing authority.

7-2-4. EXTENSION PERIOD

Normally, one extension for a period of 18 months may be granted, unless the sponsor requests a shorter period.

7-2-5. REVIEW PROVISIONS FOR PETITION

If an extension is granted on a DNH, petition rights apply, and therefore, each such extension must contain a statement advising of the petition period, the effective date, and the new expiration date.

7-2-6. DISTRIBUTION

Distribution must be accomplished in accordance with paragraph 7-1-7.

Chapter 9. Discretionary Review Process

Section 1. General

9-1-1. AUTHORITY

■ The Director of Mission Support, Policy is delegated the authority to:

- a. Grant or deny a petition for discretionary review;
- b. Decide the procedural basis upon which a review will be made;
- c. Affirm, revise, or reverse a determination issued in accordance with Part 77, section 77.31 or 77.35; and
- d. Remand the case to OEG for termination, re-study or other action as necessary.

9-1-2. OEG RESPONSIBILITY

- a. Any written communication that contains an objection to a determination issued under Part 77, sections 77.31 or 77.35, and which may be

considered a petition under section 77.37, must be treated as a petition.

- b. Any FAA office receiving a petition for discretionary review must immediately forward the document to the Rules and Regulations Group. ■

- c. If a petition regarding a “Determination of No Hazard” is received toward the end of the 30-day petition-filing period, the receiving office must notify the Rules and Regulations Group as soon as possible. ■

- d. The OEG must assist, as requested, and provide information in a timely manner.

9-1-3. JURISDICTION

Upon receipt of a petition, jurisdiction of the case immediately transfers to the Rules and Regulations Group, and any further coordination with the petitioner, the sponsor, or designated representative must be conducted by the Rules and Regulations Group. ■

Section 2. Petition Processing

9-2-1. ADMINISTRATIVE PROCESSING

Upon receiving a petition, the FAA will:

a. Assign an OE case number to the petition composed of the last two digits of the calendar year in which the assignment is made, the symbol “AWA” to indicate Washington headquarters, the symbol “OE” to indicate obstruction evaluation, and a serial number. Serial numbers run consecutively within each calendar year.

b. If the petition does not meet the criteria in Part 77, notify the petitioner in writing.

c. If the petition meets the criteria in Part 77, notify the sponsor, the petitioner (or designated representative), the OEG, and, if appropriate, the FCC that the determination is not and will not become final pending disposition of the petition.

d. Distribute a copy of a valid petition and the associated determination to the Spectrum Assignment and Engineering Services, NAS Support Group, Flight Procedures Standards Branch, AFS-420, Airport Engineering Division, AAS-100; and the Terminal Procedures and Charting Group for their examination.

e. Coordination and consultation with the Office of the Chief Counsel (AGC) is required for high interest or controversial cases.

f. There are no regulatory time frames for completion of the response to a petition of discretionary review. However, every effort should be made to complete the examination, or review, within six months of receipt of the petition.

9-2-2. RECOMMENDATIONS

Based upon the results of the examination of the petition and further coordination with Spectrum Assignment and Engineering Services, AFS-420, AAS-100, Terminal Procedures and Charting Group, and, as appropriate, AGC, the Rules and Regulations Group must recommend to the Director of Mission

Support, Policy whether to grant or deny the review, and whether the review should include a public comment period.

9-2-3. DISTRIBUTION OF NOTICES TO GRANT DISCRETIONARY REVIEW

The Rules and Regulations Group will distribute the notice to grant discretionary review in writing to the petitioner, the sponsor (or designated representative), interested parties of record, and the FCC, if appropriate. The notice will include, but is not limited to: a statement of the specific issues to be considered; the aeronautical study number; a description of the proposal’s location and height; the obstruction standards that are exceeded; the date the comment period closes (no less than 45 days from issuance of the grant); where to send comments; and a person to contact for more information.

9-2-4. OEG PARTICIPATION

When a discretionary review is granted, the Rules and Regulations Group must request the OEG submit written documentation verifying that the electronic case file is complete.

9-2-5. FINAL DECISION

Based on the review of the aeronautical study, the petition, current directives and orders, and comments received, the Rules and Regulations Group must draft and coordinate a document for the Director of Mission Support, Policy signature that affirms, reverses, or revises the initial determination, or remands the case to OEG for termination, re-study or other action as necessary.

9-2-6. DISTRIBUTION OF DECISION

Copies of the final decision must be distributed by the Rules and Regulations Group to the petitioner(s), sponsor (or designated representative), interested parties of record, OEG, and FCC, if appropriate.

proponent: “This is a determination with respect to the safe and efficient use of navigable airspace by aircraft and with respect to the safety of persons and property on the ground. In making this determination, the FAA has considered matters such as the effect the proposal would have on existing or planned traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, the effects it would have on the safety of persons and property on the ground, and the effects that existing or proposed manmade objects (on file with the FAA) and natural objects within the affected area would have on the airport proposal.”

c. Notice of Completion – Include a reminder that the sponsor is required to notify the nearest Airport District Office (ADO) or regional office within 15 days after completion of the project. For a Part 157 airport, this is accomplished by returning the FAA Form 5010-5 to the appropriate Airport office.

12-1-6. AIRPORT MASTER RECORD

When appropriate, enclose within the determination, FAA Form 5010, Airport Master Record, and include a statement in the determination letter providing the sponsor guidance on its use.

12-1-7. ADVISE FEDERAL AGREEMENT AIRPORT SPONSORS

When a determination is sent to the sponsor, include the following additional statement: “This determination does not constitute a commitment of Federal funds and does not indicate that the proposed development is environmentally acceptable in accordance with applicable Federal laws. An environmental finding is a prerequisite to any major airport development project when Federal aid will be granted for the project. This approval is given subject to the condition that the proposed airport development identified below must not be undertaken without prior written environmental approval by the FAA. These items include [list items] (see FAAO 5050.4A, Chapter 3, for more information).”

12-1-8. DISSEMINATION OF STUDY RESULTS

The Airports Office must make available to FAA offices that participated in the study a copy of each

determination issued. Include a copy to AAS-330 for Part 157 proposals. AAS-330 must be provided a copy of the entire airspace determination when the FAA Form 5010-5, is returned from the proponent. Additionally, the results of an airport study circularized outside the FAA or discussed in an informal meeting should be disseminated by the Airports Office to those persons/offices on the circular distribution list, attendees at the informal airspace meeting, and any other interested person, as soon as feasible after the sponsor has been notified. Outside of agency distribution must be in the form of a notice “To All Concerned.” Include in the notice the aeronautical study number together with a brief summary of the factors on which the determination was based and a recital of any statement included in the determination. In addition, if a conditional statement concerning environmental acceptability has been included in the determination to the proponent, include a similar statement in the notice.

12-1-9. REVIEW OF SENSITIVE OR CONTROVERSIAL CASES AND PART 157 DETERMINATIONS

a. A proponent of an airport proposal or interested persons may, at least 15 days in advance of the determination void date, petition the FAA official who issued the determination to:

1. Revise the determination based on new facts that change the basis on which it was made.

2. Extend the determination void date. Determinations will be furnished to the proponent, aviation officials of the state concerned, and, when appropriate, local political bodies and other interested persons.

b. The petition must be based on aeronautical issues and will not be accepted after airport construction has begun. The appropriate regional office should attempt to resolve the issue(s) in the following manner:

1. Informal Meeting. The Airports Office should hold a special informal airspace meeting with all interested parties when requested. Emphasize that the scope of an airport study analysis is limited, and that the FAA’s determination is based on the safe and efficient use of navigable airspace by aircraft and the safety of persons and property on the ground (see paragraph 12-1-5). The air traffic office

must assist in the meeting when requested by Airports.

2. Reevaluate. If any new factors regarding the safe and efficient use of the airspace become known as a result of the informal meeting then reevaluate the airport proposal. Affirm or revise the original determination as appropriate.

3. Public Hearing. The regulations provide no right to, or procedures for, a public hearing regarding airport matters. An airport airspace determination is only advisory and for the FAA's own use. Circularization and, where required, informal airspace meetings should be sufficient to provide interested persons a forum to present their views. When Federal funds are, or will be involved in the airport or its development, there is a right to a public hearing on site location, but no similar right exists to a hearing on airspace matters. If a party is emphatic in their demand for a public hearing Mission Support, Policy, through the service area office, should be notified and there must be no

implication made that a hearing may be granted. It is general policy not to grant such hearings. However, should circumstances dictate otherwise, Mission Support, Policy would direct the conduct of the hearing to be informal in nature, not within the scope of the Administrative Procedures Act, and the subject matter would be limited to the scope of the airspace analysis (i.e., the safe and efficient use of navigable airspace by aircraft).

12-1-10. DISPOSAL OF FEDERAL SURPLUS REAL PROPERTY FOR PUBLIC AIRPORT PURPOSES

a. Site Endorsement. The FAA must study and officially endorse the site before property interest in land owned and controlled by the United States is conveyed to a public agency for public airport purposes.

b. Processing Procedures. Surplus Federal property cases must be processed in the same manner as Federal airport proposals.

Chapter 13. Military, NASA, and Other Agency Airport Proposals

Section 1. General

13-1-1. PRIOR NOTICE TO FAA

49 U.S.C. § 44718 provides, in part, that the Department of Defense (DOD), the National Aeronautics and Space Administration (NASA), or other agencies must not acquire, establish, or construct any military airport, missile or rocket site, or substantially alter any runway layout unless reasonable prior notice is given to the FAA Administrator so that the appropriate committees of Congress, and other interested agencies, may be advised as to the effects of such projects upon the use of airspace by aircraft.

13-1-2. FORM OF NOTICE

The DOD forwards military airport or missile site projects to FAA Washington Headquarters in the form of an annual Military Construction Program (MCP). Military projects not involved in the annual program are submitted to the FAA regional office by the individual services or commands through the regional military representatives (see paragraph 13-1-5). NASA and other agencies submit their projects directly to FAA Washington Headquarters.

13-1-3. FAA HEADQUARTERS REVIEWS

Annual MCPs and proposals submitted by NASA or other agencies are forwarded to Rules and Regulations Group for review and processing. Rules and Regulations Group must coordinate with appropriate headquarters ATP, Flight Technologies and Procedures, and Spectrum Assignment and Engineering Services Offices prior to forwarding the proposal to the regional/service area office for study. Any problems with the proposal at the headquarters level should be resolved prior to requesting regional/service area input.

13-1-4. REGIONAL/SERVICE AREA OFFICE REVIEW

Rules and Regulations Group will then forward the projects to the appropriate regional office for

processing in the same manner as civil airport proposals, except that service area offices are responsible for the study. The determination and recommendation on the proposal, plus all pertinent comments and related material, must be forwarded to Rules and Regulations Group by the service area office. The official FAA determination must be formulated by Rules and Regulations Group after review and any required inter-services coordination and forwarded to DOD, NASA, or other agencies as appropriate. A copy of the determination must be forwarded to the affected regional/service area office.

13-1-5. MILITARY PROPOSALS OTHER THAN MCP

Other military airport proposals may be submitted by individual services through the appropriate regional military representatives to the regional/service area office. These proposals must be processed in the same manner as civil airport proposals except as indicated below. This exception does not apply to notices on joint-use airports received under Part 157 or AIP projects.

a. The regional Airports Division must coordinate with the service area office, Flight Standards Division, technical operations services area office, FPT, and other offices as required for formulation of the official FAA determination. The determination must be issued to the appropriate regional military representative with a copy to Rules and Regulations Group.

b. When a controversial proposal is referred to Washington Headquarters for resolution, the airspace finding and official agency determination must be formulated by the AAS-100 in coordination with Rules and Regulations Group and other offices, as required, and forwarded to the appropriate regional military representatives through the regional/service area office.

Section 2. Ad Hoc Committee Procedures for Class B and Class C Airspace Actions

14-2-1. BACKGROUND

The ad hoc committee process was adopted in the 1980s in response to criticism that local user needs and suggestions were not being considered by the FAA during the initial airspace design phase prior to the issuance of an NPRM.

14-2-2. POLICY AND PURPOSE

a. An ad hoc committee must be formed to give users the opportunity to present input and recommendations to the FAA regarding the proposed design of, or modifications to, Class B and C airspace areas. The intent is to obtain suggestions from affected users before a proposed airspace design is developed by the FAA for publication in an NPRM.

b. The ad hoc committee process is not required for proposals to revoke Class B or C airspace or change the airspace designation from full-time to part-time or part-time to full-time.

14-2-3. COMMITTEE FORMATION

a. To initiate the formation of an ad hoc committee, the Service Center must first submit a request to the Rules and Regulations Group for approval to begin the public involvement phase (See chapter 15 or 16). A copy of the ATC facility's staff study must be included with the request.

b. Upon approval by the Rules and Regulations Group, the Service Center begins the ad hoc process by requesting an aviation-related group, such as the concerned state government aviation department or another aviation organization to coordinate the formation of an ad hoc committee. Committee makeup and size should be determined by the local situation or requirements. Committee membership should represent a cross section of airspace users and aviation organizations that would be affected by the proposed airspace change.

c. Once formed, the group should elect a chairperson to lead the committee's efforts.

14-2-4. FAA PARTICIPATION

a. FAA participation on the committee is limited to the role of technical advisor or subject matter expert only. The FAA is not a voting member of the group and is not responsible for the operation of the committee or the development of recommendations.

b. The Service Center, in collaboration with the affected ATC facility and overlying ARTCC, will designate FAA representative(s). The FAA representative(s) will provide advice and assistance to the committee on technical matters such as ATC procedures, operations, and safety issues.

NOTE-

The number of FAA representatives designated to the committee should be kept to the minimum number required to avoid the appearance of FAA influence on the committee's discussions and recommendations.

c. Upon request, the FAA may provide administrative support to the committee, resources permitting.

14-2-5. COMMITTEE PROCESS

a. There is no set number of ad hoc committee meetings required. The committee should meet as needed to develop its recommendations to present to the FAA.

NOTE-

The ad hoc committee meetings should not be confused with the separate, informal airspace meetings that are also required for Class B and Class C airspace actions (see chapter 2 of this order).

b. At the first ad hoc committee meeting, the FAA representative should:

1. Review the FAA's policy for establishing ad hoc committees and the intended purpose of ad hoc committees.

2. Brief the committee on the purpose and need for the proposed airspace action. A depiction of current/projected traffic flows may be useful to illustrate what the issue is and why an airspace change is needed.

c. The ad hoc committee should limit its focus and efforts to addressing the specific airspace issue for

which it was established. The committee should not address other airspace or procedural enhancement actions that do not contribute to resolving the issue under consideration.

d. Upon completion of the committee's work, the chairperson will ensure that a written report is prepared, summarizing the committee's efforts and documenting its recommendations for FAA consideration. The report is submitted to the FAA Service Center.

e. The ad hoc committee must automatically be dissolved upon submission of the committee's written report to the FAA.

14-2-6. FAA ACTION ON COMMITTEE RECOMMENDATIONS

a. The committee's recommendations must be considered and, to the extent practicable, should be incorporated into the proposed airspace design (i.e., if operationally feasible, safety and/or efficiency would not be compromised, and there is no conflict with regulations or ATC procedures.)

b. A copy of the committee's report will be included with the Service Center's recommendation to the Rules and Regulations Group that the project continue to the NPRM phase. ■

Chapter 15. Class B Airspace

Section 1. General

15-1-1. PURPOSE

a. Class B airspace areas are designed to improve aviation safety by reducing the risk of midair collisions in the airspace surrounding airports with high-density air traffic operations. Aircraft operating in these airspace areas are subject to certain operating rules and equipment requirements.

b. Additionally, Class B airspace areas are designed to enhance the management of air traffic operations to and from the airports therein, and through the airspace area.

15-1-2. NONRULEMAKING ALTERNATIVES

Before initiating a Class B airspace proposal, determine if there are nonrulemaking alternatives that could resolve the issue(s). If nonrulemaking alternatives resolve the issue(s), no Class B rulemaking action is required.

15-1-3. RESPONSIBILITIES

a. The Rules and Regulations Group is responsible for oversight of the Class B airspace designation/modification/revocation process and issuance of all informal airspace meeting notices, NPRMs, and final rules. The Rules and Regulations Group will provide assistance, as needed, to the Service Centers in developing Class B airspace proposals.

b. The Service Center is responsible for coordination to determine Class B airspace candidacy or the need for modifications or revocation of an existing area. As part of this responsibility, the Service Center must request a staff study be conducted by the appropriate office and perform an analysis of the staff study. All Class B airspace establishment, modification, or revocation plans must be coordinated with the Rules and Regulations Group before any public announcement.

15-1-4. SERVICE CENTER EVALUATION

a. Service centers must biennially evaluate existing Class B airspace areas to determine if the area continues to meet the purpose of Class B airspace and if airspace modifications are required. The evaluation should consider, but is not limited to, the following:

1. The Class B airspace guidance in this chapter;
2. Review the current configuration to determine if:

(a) It ensures the containment of instrument procedures.

(b) Any lateral or vertical gaps exist between adjacent airspace areas where VFR flight could increase hazards for Class B operations; or if the configuration contains any “traps” or “dead-end” corridors for VFR aircraft.

(c) There is a record of Class B excursions.

3. Airspace modeling results (PDARS, TARGETS, etc.);

4. Controller input and user feedback;

5. Applicable safety data; for example:

(a) Traffic Alert and Collision Avoidance System (TCAS) events;

(b) Air Traffic Safety Action Program (ATSAP);

(c) Aviation Safety Reporting System (ASRS);

(d) Mandatory Occurrence Reports (MOR);

(e) Near Midair Collision (NMAC) reports;

(f) FAA Aviation Safety Information Analysis and Sharing (ASIAS) System; and

(g) Other sources as appropriate.

6. Significant changes in primary airport traffic flows, runway utilization, or instrument procedures that affect the Class B configuration;

7. Secondary/satellite airport operations affecting Class B operations or controller workload;

8. Planning activities such as construction of new runways, changes to existing runways (for example, decommissioned, lengthened, etc.), development of new instrument procedures, or cancellation of existing procedures, resectorization plans (determine whether planned changes require Class B airspace modifications);

9. Need for charting enhancements: Sectional Aeronautical Chart, Terminal Area Chart (TAC), VFR Flyway Planning Chart; and

REFERENCE—

FAA Order JO 7210.3, Para 10–1–4, *Sectional Aeronautical and Terminal Area Charts*.

10. Any other factors deemed relevant to the Class B airspace area being evaluated.

b. The Service Center must document the biennial evaluation to the file, with an information copy of the evaluation sent to the Rules and Regulations Group (AJV–P21). If the evaluation indicates that airspace modifications or revocation should be made, Service Centers must follow the applicable procedures in this Order.

c. In addition to the biennial evaluation, airspace specialists should maintain coordination with planners (such as Metroplex, NextGen, Performance–Based Navigation, FPT, etc.) for awareness of instrument flight procedures under development to determine if they will be contained within the existing Class B airspace configuration. If the planned procedures would exit the existing Class B airspace, initiate a corresponding Class B modification project.

Section 2. Class B Airspace Planning

15-2-1. CRITERIA

a. The criteria for considering a given airport as a candidate for a Class B airspace designation is based primarily on the volume of aircraft at the airport being considered, and an assessment of the midair collision risk in the terminal area.

b. For a site to be considered as a Class B airspace candidate, the Class B designation must contribute to the safety and efficiency of operations, be necessary to correct a current situation that cannot be solved without a Class B designation, and meet the following criteria:

1. The airport being considered has a total airport operations count of at least 300,000 (of which at least 240,000 are air carriers and air taxi) and at least 5 million passengers enplaned annually; or

2. The airport being considered has a total airport operations count of more than 220,000 operations and will exceed 300,000 operations (of which 240,000 operations must be air carrier and air taxi) when the itinerant traffic count from (a) and (b) below are added, and at least 5 million passengers enplaned annually.

(a) 50% of the annual itinerant traffic count of any airport within 15 nautical miles (NM) from the airport being considered that has at least 15,000 annual itinerant operations, and

(b) 25% of the annual itinerant traffic count of any airport that is between 15 NM and 30 NM from the airport being considered that has at least 15,000 annual itinerant operations.

c. The Service Center must request a staff study to evaluate whether or not to revoke a primary airport's Class B airspace when that airport has not met the Class B airspace criteria for at least a five-year period and is projected to remain below those criteria for the next five years (See paragraph 15-3-6.).

d. These criteria are subject to periodic review by the Rules and Regulations Group and Service Centers to determine whether adjustments are required.

15-2-2. DESIGNATION

Class B airspace locations must include at least one primary airport around which the Class B airspace area is designated.

15-2-3. CONFIGURATION

a. General Design. There is no standard Class B design. Instead, the size and shape of the Class B airspace area will vary depending upon location-specific ATC operational and safety requirements. The Class B airspace design should be as simple as practical, with the number of sub-areas kept to a minimum. Its vertical and lateral limits must be designed to contain all instrument procedures at the primary airport(s) within Class B airspace.

1. Designers have the flexibility to use the configuration that best meets the purposes of reducing the midair collision potential, assures containment of instrument procedures, and enhances the efficient use of airspace.

2. Ensure that the design does not contain lateral or vertical gaps between adjacent airspace where VFR flight could pose increased hazards for Class B operations.

3. Avoid configurations that create "traps" or "dead-end" corridors for VFR aircraft attempting to navigate the area.

b. Lateral Boundaries. Boundaries may be defined using a variety of techniques such as latitude/longitude points, Fix/Radial/Distance references, NAVAIDs, alignment to coincide with prominent landmarks or terrain features (where feasible), etc.

1. The airspace should be centered on the airport reference point (ARP), an on-airport NAVAID, or a "point-of-origin" (defined by latitude/longitude coordinates), as dictated by local requirements.

2. The outer limits of the airspace should extend to the minimum distance necessary to provide containment of instrument procedures, including radar vectoring, but must not extend beyond 30 NM from the primary airport. This will ensure that the Class B boundaries remain within the 30 NM "Mode-C Veil." The boundaries should be designed

considering operational needs, runway alignment, adjacent regulatory airspace, and adjacent airport traffic.

3. If a circular design is appropriate, the airspace may be configured in concentric circles to include a surface area and intermediate and outer shelf sub-areas. A combination of circular and linear boundaries may also be used, as required.

(a) The surface area should be designed based on operational needs, runway alignment, adjacent regulatory airspace, or adjacent airports, but must encompass, as a minimum, all final approach fixes.

(b) The intermediate and outer shelf sub-areas may be subdivided based on terrain and other regulatory airspace, but must contain instrument procedures.

c. Vertical Limits. The upper limit of the airspace should not exceed 10,000 feet MSL. However, high airport field elevation, adjacent high terrain, or operational factors may warrant a ceiling above 10,000 feet MSL.

1. The surface area extends from the surface to the upper limit of the Class B airspace. This area may be adjusted to coincide with runway alignment, adjacent airports, other regulatory airspace, etc., but must encompass, as a minimum, all final approach fixes and minimum altitudes at the final approach fix.

2. The altitude floors of sub-areas should step up with distance from the airport. Determination of sub-area floors should be predicated on instrument procedure climb/descent gradients to ensure containment of the procedures. Sub-area floors may be adjusted to have various floor altitudes considering terrain, adjacent regulatory airspace, and common vectored flight paths that are not on procedures.

3. Sub-area exclusions are permitted to accommodate adjacent regulatory airspace and/or terrain.

4. Different Class B altitude ceilings may be designated for specific sub-areas if there is an operational or airspace efficiency advantage, provided this would not cause pilot confusion or lead to inadvertent intrusions into, or excursions from, Class B airspace. Address the need for different altitude ceilings in the staff study.

d. Variations. Variation from the above lateral or vertical design guidance is permissible, but must be

justified in the staff study and recommended by the Service Center.

e. Satellite Airports. When establishing Class B airspace floors, consider the adverse effect on satellite airport operations. When airspace directly over a satellite airport is not required, it should be excluded from the Class B airspace. Special published traffic patterns, and/or procedures may be required for satellite airports.

15-2-4. IFR TRANSITION ROUTES

If ATC operational factors and traffic permit, consider whether RNAV T-routes could be developed to guide transiting pilots to fly through, or navigate around, the Class B airspace area.

15-2-5. VFR CONSIDERATIONS

To the extent feasible, procedures must be developed to accommodate VFR aircraft desiring to transit the Class B airspace (See FAA Order JO 7210.3, Facility Operation and Administration, Chapter 11, National Programs). The following charts can assist pilots in identifying Class B boundaries and to transit or circumnavigate the area.

a. VFR Terminal Area Charts (TAC). TAC charts are published for most Class B airspace areas. They provide detailed information needed for flight within or in the vicinity of Class B airspace.

b. Charted VFR Flyway Planning Charts. VFR Flyway Planning Charts are published on the back of selected TAC charts. The Flyway Planning Charts are intended to facilitate VFR transitions through high-density areas. They depict generalized VFR routing clear of major controlled traffic flows. An ATC clearance is not required to fly these routes. If not already published, Class B facilities are encouraged to develop a flyway planning chart.

15-2-6. CHART ENHANCEMENTS

Consider enhancements to TAC and VFR Flyway Planning Charts that would increase situational awareness for VFR pilots and others transiting the area, aid the identification of Class B boundaries, and assist pilots desiring to avoid the Class B airspace. Example chart depictions include, but are not limited to:

a. Identification of key boundary points with a combination of latitude/longitude coordinates and

Section 3. Class B Airspace Processing

15-3-1. OVERVIEW

Class B airspace actions require rulemaking under 14 CFR Part 71. Due to their size and operating requirements, Class B airspace proposals tend to be controversial with processing times extending to several years. This section describes the steps required from the development of a Class B proposal through the issuance of a final rule that implements the airspace change.

15-3-2. STAFF STUDY

A Staff Study is required to identify and document the need to establish or modify a Class B airspace area. The study will be used to determine if an ad hoc committee should be formed to begin the airspace change process. The content of the study will depend on site-specific details for the situation being considered. The following is a list of suggested items for the study. This list and study format may be modified as needed.

a. Executive Summary. A one-page summary that describes the problem, alternatives considered, and justification for the proposed airspace change request.

b. Background. Describe the current operation and aviation activity in the area and forecast data for the primary and secondary airports.

1. Primary airport(s).

(a) Current passenger enplanement count.

(b) Airport(s)' latest total annual operations count.

2. Secondary/satellite airport(s).

(a) Current passenger enplanement count.

(b) Airport(s)' total operations count.

(c) Types of operations conducted (for example, flight school training, gliders, parachuting, Unmanned Aircraft System (UAS) activities, etc.).

3. Description of the terminal area.

(a) IFR and VFR departure and arrival traffic flows at primary and secondary/satellite airports.

(b) Existing routes and altitudes that IFR and VFR traffic use while operating en route through the area or transitioning to/from all affected airports.

(c) Numbers of VFR operations that receive ATC services that are denied service, and that circumnavigate the present terminal airspace configuration.

NOTE-

Include any anticipated increase or decrease in these numbers if the Class B airspace configuration is designated or modified as proposed.

4. Adjacent airspace considerations.

(a) Other ATC facility delegated airspace.

(b) Special use airspace.

(c) Unique geographical features.

5. Overflight traffic volume affecting Class B operations.

6. FAA Terminal Area Forecast (TAF) data. Include the latest TAF data for the primary and key secondary airports.

c. Statement of the Problem.

1. Identify and document the operational issue(s). Explain how safety and the efficient management of air traffic operations in and through the terminal area are affected.

2. Provide supporting data to illustrate the operational issue(s), such as TCAS Resolution Advisories, Near Midair Collision (NMAC) reports, airspace modeling graphics, containment issue documentation, controller/user input, etc.

d. Alternatives Considered. Non-rulemaking alternatives must be examined before proposing rulemaking airspace changes, such as:

1. Are there internal measures that could resolve the problem (for example, new equipment/control positions, changing facility procedures, resectorization, etc.?)

2. Modification of instrument procedures.

3. Pilot/Controller education programs.

e. Analysis of staffing options and issues, such as:

1. Current staffing status and the anticipated staffing requirements for implementing the proposed Class B airspace.

2. Impact on air traffic and air navigation facilities, including new or modified control positions required; and new, or relocation of existing, navigational aids/communication equipment.

f. Preliminary airspace design.

1. A written description of the complete Class B airspace area including full boundaries of all sub-areas, existing and proposed. (For examples, see FAA Order JO 7400.11, Airspace Designations and Reporting Points.)

2. A depiction of the preliminary Class B airspace configuration on a VFR aeronautical chart.

3. An explanation of how the preliminary airspace design addresses the operational issue.

4. Discussion of any anticipated adverse impacts on nonparticipating aircraft.

g. Charting. Consider enhancements to the VFR TAC that add information to assist pilots in identifying Class B boundaries, navigating through the area, or avoiding Class B airspace. Examples include, but are not limited to:

1. Depiction of prominent terrain features or landmarks.

2. Proposed VFR Flyways, with associated recommended altitudes that would be charted to accommodate VFR aircraft desiring to avoid the Class B airspace area.

REFERENCE—
FAA Order JO 7210.3, Chapter 12, Section 4, VFR Flyway Planning Chart Program.

3. VFR corridor and transition routes to transit through the Class B airspace area.

4. GPS waypoints and VFR checkpoints.

5. RNAV routes for transiting or deviating around the Class B airspace.

NOTE—
TAC chart content is separate from the Class B rulemaking process. Service centers/ATC facilities must coordinate chart content/design requests directly with Aeronautical Information Services.

h. Environmental considerations.

i. Conclusions. Explain how the proposed airspace designation/modification will reduce the midair collision potential and enhance safety and efficiency in the terminal area.

15-3-3. PRE-NPRM AIRSPACE USER CO-ORDINATION

The Service Center must ensure that user input is sought and considered before formulating any proposed Class B airspace area design.

a. An ad hoc advisory committee, composed of representatives of local airspace users, must be formed to present input or recommendations to the FAA regarding the proposed design of the Class B airspace area (See Chapter 14 of this order).

b. Informal airspace meeting(s) must be conducted in accordance with Chapter 2 of this order.

c. Based on the results of the Service Center's analysis of the staff study and user input, the Service Center determines whether the proposal should be continued to NPRM or terminated.

15-3-4. NPRM PHASE

a. The air traffic facility, assisted by the appropriate Service Center office, will develop a proposed Class B airspace design, incorporating user input, to be published in an NPRM.

NOTE—

If modifying an existing Class B area that has a published Charted VFR Flyway Planning Chart, determine if changes are also needed to the flyways to ensure there are no conflicts with the proposed Class B design. Service centers/ATC facilities must coordinate flyway chart changes directly with Aeronautical Information Services (See FAA Order JO 7210.3).

b. The Service Center will submit a memorandum to the Rules and Regulations Group to initiate rulemaking action. The memorandum must summarize the background, requirement, justification, and Service Center recommendation. Include, as attachments, the following information:

1. Ad hoc Committee Report.

2. Informal Airspace Meeting summary(ies) and comments submitted.

3. Responses to substantive ad hoc committee recommendations and Informal Airspace Meeting public comments received.

4. Written proposed Class B airspace description.

5. An explanation of how the proposed airspace design addresses the operational issue.

6. Any other pertinent information.

c. The Rules and Regulations Group will prepare the NPRM for publication in the Federal Register. A 60-day comment period applies to Class B NPRMs.

15-3-5. POST-NPRM PROCESSING

a. The Service Center must:

1. Review all comments received in response to the NPRM.

2. Coordinate with the ATC facility(ies) to address all substantive aeronautical comments.

3. Finalize the Class B airspace design for submission to the Rules and Regulations Group.

4. Submit a memorandum to the Rules and Regulations Group with recommendations for final action on the proposal. Include, as attachments, the following information:

(a) A discussion of how each substantive comment was addressed.

(b) The final version of the Class B airspace description. Explain any differences from the NPRM design.

(c) The requested airspace effective date (must match the Sectional/TAC chart date).

5. If required, coordinate Sectional, TAC, and VFR Flyway charting changes with Aeronautical Information Services (AIS).

b. The Rules and Regulations Group will review the Service Center package and prepare the final rule for publication in the Federal Register.

15-3-6. REVOKING CLASS B AIRSPACE

a. When a Class B primary airport no longer meets the Class B airspace criteria, and is identified during the Biennial Review process, the Class B airspace must be considered for revocation.

b. The Service Center requests a staff study be conducted by the appropriate office.

c. Based on their analysis of the staff study, the Service Center must determine if the Class B airspace will be:

1. Retained as Class B airspace; or

2. Revoked and redesignated as Class C or Class D airspace, as appropriate.

d. If the Service Center determines that Class B airspace should be retained, they must document their analysis and determination to file with the biennial evaluation, and send an information copy of the retention determination to the Rules and Regulations Group (AJV-P21). If it is determined that the Class B airspace should be revoked and redesignated as Class C or Class D airspace, the Service Center must initiate rulemaking action as specified in this Order.

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. Aircraft operating in these airspace areas are subject to certain operating rules and equipment requirements.

16-1-2. NONRULEMAKING ALTERNATIVES

Before initiating a Class C airspace proposal, determine if there are nonrulemaking alternatives that could resolve the operational issue(s). If nonrulemaking alternatives resolve the issue(s), no Class C rulemaking action is required.

16-1-3. RESPONSIBILITIES

a. The Rules and Regulations Group is responsible for oversight of the Class C airspace designation/modification process and issuance of all Notices of Proposed Rulemaking (NPRM) and final rules. The Rules and Regulations Group will provide assistance, as needed, to the Service Centers in developing Class C airspace proposals.

b. The Service Center is responsible for coordination to determine Class C airspace candidacy or the need for modifications to an existing area. All Class C airspace establishment or modification plans must be coordinated with the Rules and Regulations Group

prior to any public announcement. The Service Center must perform an analysis of the Class C airspace candidate and document the analysis in a staff study. Preparation of the staff study may be delegated to the facility.

16-1-4. SERVICE CENTER EVALUATION

a. Service Centers must biennially evaluate existing Class C airspace areas to determine if the area meets candidacy requirements, satisfies the intended purpose of reducing the potential for midair collision, and enhances the management of air traffic operations in the terminal area. Some suggested evaluation considerations include, but are not limited to:

1. The Class C standards in this chapter;
2. Airspace modeling results (PDARS, TARGETS, etc.);
3. Traffic Alert Collision Avoidance System – Resolution Advisories;
4. User feedback/controller input;
5. Safety reports (ATSAP, ASRS, etc.);
6. Significant changes in airport operations and/or terminal area traffic flows; and/or
7. Airport runway configuration changes.

b. If the evaluation indicates that airspace modifications should be made, Service Centers must follow the applicable procedures in this Order.

Section 3. Class C Airspace Processing

16-3-1. STAFF STUDY

A Staff Study is required to identify and document the need to establish or modify a Class C airspace area. The study will be used to determine if an ad hoc committee should be formed to begin the airspace change process. The content of the study will depend on site-specific details for the situation being considered. The following is a list of suggested items for the study. This list and study format may be modified as needed.

a. Executive Summary. A one-page summary that describes the problem, alternatives considered, and justification for the proposed airspace change request.

b. Background. Describe the current operation and aviation activity in the area.

1. Primary airport(s).

(a) Current passenger enplanement count.

(b) Airport(s)' latest total annual operations count.

2. Satellite/secondary airport(s).

(a) Current passenger enplanement count.

(b) Airport(s)' total operations count.

(c) Types of operations conducted (for example, flight school training, gliders, parachuting, etc.).

3. Description of the terminal area.

(a) IFR and VFR departure and arrival traffic flows at primary and satellite/secondary airports.

(b) Existing routes and altitudes that IFR and VFR traffic use while operating en route through the area or transitioning to/from all affected airports.

4. Adjacent airspace considerations.

(a) Other ATC facility delegated airspace.

(b) Special use airspace.

(c) Unique geographical features.

c. Statement of the Problem.

1. Identify and document the operational issue. Explain how safety and the efficient management of

air traffic operations in and through the terminal area are affected.

2. Provide supporting data to illustrate the operational issue, such as Traffic Alert and Collision Avoidance System (TCAS) RAs, airspace modeling graphics, user/controller input, etc.

d. Alternatives Considered. Nonrulemaking alternatives must be examined before proposing rulemaking airspace changes, for example:

1. Are there internal operational measures that could resolve the problem (for example, new equipment, changing facility procedures, resectorization, etc.).

2. Modification of instrument procedures.

3. Pilot/controller education programs and aviation education safety seminars.

e. Analysis of staffing options, and issues, such as:

1. Current staffing status and the anticipated staffing requirements for implementing the proposed Class C airspace.

2. Impact on air traffic and air navigation facilities, including new or modified control positions required; and new, or relocation of existing, navigational aids/communication equipment.

f. Proposed airspace design.

1. A written description of the complete Class C airspace area including full boundaries of all sub-areas existing and proposed. For examples, see FAA Order JO 7400.11, Airspace Designations and Reporting Points.

2. A depiction of the proposed Class C airspace configuration on a VFR aeronautical chart.

3. An explanation of how the proposed airspace design addresses the operational issue.

4. Discussion of any anticipated adverse impacts on nonparticipating aircraft.

g. Environmental considerations.

h. Conclusions. Explain how the proposed airspace designation/modification will reduce the midair collision potential and enhance safety and efficiency in the terminal area.

16-3-2. PRE-NPRM AIRSPACE USER COORDINATION

The Service Center must ensure that user input is sought and considered prior to formulating any proposed Class C airspace area design.

a. An ad hoc advisory committee, composed of representatives of local airspace users, must be formed to present input or recommendations to the FAA regarding the proposed design of the Class C airspace area. (See Chapter 14 of this order).

b. Informal airspace meeting(s) must be conducted in accordance with Chapter 2 of this order.

c. Based on the results of the Service Center's analysis of the staff study and user input, the Service Center determines whether the proposal should be continued to NPRM or terminated.

16-3-3. NPRM PHASE

a. The Service Center and facility will develop a proposed Class C airspace design, incorporating user input, to be published in an NPRM.

b. The Service Center will submit a memorandum to Headquarters to initiate rulemaking action. The memorandum should summarize the background, requirement, justification, and Service Center recommendation. Include, as attachments, the following information:

- 1.** Ad hoc Committee Report.
- 2.** Informal Airspace Meeting summary(ies) and comments submitted.
- 3.** Responses to substantive ad hoc committee recommendations and Informal Airspace Meeting public comments received.
- 4.** Written proposed Class C airspace description.

5. An explanation of how the proposed airspace design addresses the operational issue.

6. Any other pertinent information.

c. The Rules and Regulations Group will prepare the NPRM for publication in the Federal Register. A 60-day comment period applies to Class C NPRMs.

16-3-4. POST-NPRM PROCESSING

The Service Center must:

a. Review all comments received in response to the NPRM.

b. Coordinate with the ATC facility(ies) to address all substantive aeronautical comments.

c. Finalize the Class C airspace design for submission to Headquarters.

d. Submit a memorandum to Headquarters with recommendations for final action on the proposal. Include, as attachments, the following information:

- 1.** A discussion of how each substantive comment was addressed.
- 2.** The final version of the Class C airspace description. Explain any differences from the NPRM design.
- 3.** The requested airspace effective date.
- e.** Headquarters will prepare the final rule.

16-3-5. PUBLICITY

After issuance of the final rule designating Class C airspace, user education meetings are required to publicize the implementation of Class C service. See FAA Order JO 7210.3, Facility Operation and Administration, Chapter 12, National Programs, for details.

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 FAA Order JO 7400.9, Airspace Designations and Reporting Points.

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

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.

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.

17-1-4. 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.

Chapter 19. Other Airspace Areas

Section 1. General

19-1-1. EN ROUTE DOMESTIC AIRSPACE AREAS

a. En Route Domestic Airspace Areas consist of Class E airspace that extends upward from a specified altitude to provide controlled airspace in those areas where there is a requirement to provide IFR en route ATC services but the Federal airway structure is inadequate. En Route Domestic Airspace Areas may be designated to serve en route operations when there is a requirement to provide ATC service but the desired routing does not qualify for airway designation. Consideration may also be given to designation of En Route Domestic Airspace Areas when:

1. The NAVAIDs are not suitable for inclusion in the airway system, but are approved under Part 171, are placed in continuous operation, and are available for public use; or

2. Navigation is by means of radar vectoring. En route Domestic Airspace Areas are listed in FAA Order JO 7400.9, Airspace Designations and Reporting Points.

b. En Route Domestic Airspace Areas are designated under 14 CFR § 71.71 and are listed in FAA Order JO 7400.9, Airspace Designations and Reporting Points.

19-1-2. OFFSHORE/CONTROL AIRSPACE AREAS

a. Offshore/Control Airspace Areas are locations designated in international airspace (between the U.S. 12-mile territorial limit and the CTA/FIR boundary, and within areas of domestic radio navigational signal or ATC radar coverage) wherein domestic ATC procedures may be used for separation purposes.

b. These areas provide controlled airspace where there is a requirement to provide IFR en route ATC services, and to permit the application of domestic ATC procedures in that airspace.

c. Class A Offshore/Control Airspace Areas are identified as “High” (for example, Atlantic High; Control 1154H). Class E areas are identified as “Low” (for example, Gulf of Mexico Low, Control 1141L).

d. Since there is no standard established for offshore routes NAVAID spacing, such spacing should be determined on a regional, site-by-site basis.

e. In determining which configuration to use, consider user requirements, NAVAID quality and dependability, radar vectoring capabilities, transition to/from offshore airspace areas, requirements of other users for adjacent airspace, and possible future requirements for controlled airspace.

f. Offshore/Control areas that require use of one NAVAID for an extended distance should be based on L/MF facilities so that lower MEAs can be established.

NOTE-

Care should be exercised in relocating NAVAIDs on which offshore airspace areas are based so that the desired offshore airspace configuration can be retained.

g. Where Offshore/Control Class E airspace is extended to the domestic/oceanic boundary, the diverging lines must terminate at their intersection with the domestic/oceanic boundary.

19-1-3. DESIGNATION

Offshore control airspace areas are designated in Sections 71.33 and 71.71. These areas are listed in FAA Order JO 7400.9, Airspace Designations and Reporting Points.

19-1-4. PROCESSING

Offshore airspace area rulemaking actions are processed by Rules and Regulations Group. Regions/service area offices may process those domestic cases that are ancillary to a terminal airspace action with approval of Rules and Regulations Group.

Chapter 20. Air Traffic Service Routes

Section 1. General

20-1-1. PURPOSE

a. This chapter prescribes general guidance for the designation of Air Traffic Service (ATS) routes.

b. An ATS route is a specified route designed for channeling the flow of air traffic as necessary for the management of air traffic operations.

c. This chapter applies only to those U.S. domestic ATS routes that are listed in 14 CFR section 71.13, Classification of Air Traffic Service (ATS) Routes; specifically: jet routes, VOR Federal airways, L/MF (Colored) Federal airways, and area navigation routes.

NOTE—

This chapter does not apply to the designation of nonregulatory oceanic ATS routes (e.g., AR11, B760, etc.) that are established primarily outside of U.S. domestic airspace. Those routes are not designated in 14 CFR part 71.

d. Unless otherwise specified, the criteria and procedures for the development of ATS routes are contained in FAA Orders: 7100.41, Performance Based Navigation Implementation Process; 8260.3, United States Standard for Terminal Instrument Procedures (TERPS); 8260.19, Flight Procedures and Airspace; 8260.43, Flight Procedures Management Program; and 8260.58, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design.

20-1-2. CONTROLLED AIRSPACE

ATS routes are designated as either Class A airspace (section 71.31) or Class E airspace (section 71.71) corresponding to the altitude structure of the route.

20-1-3. DESIGNATION OF ATS ROUTES

a. ATS routes are designated through rulemaking action under 14 CFR part 71. The designation of ATS routes is based on air traffic and user requirements.

b. ATS routes must be predicated upon NAVAIDs that are suitable for inclusion in the NAS or area

navigation (RNAV) references, as applicable to the type of route.

c. The benefits of the designation should outweigh any adverse effects to the NAS and provide airspace users with charted information pertaining to navigational guidance, minimum en route altitudes, changeover points, etc.

20-1-4. RESPONSIBILITIES

a. The Rules and Regulations Group is responsible for part 71 rulemaking to establish, amend, or remove ATS routes.

b. Service Center OSGs must:

1. Coordinate ATS routes with appropriate offices (e.g., ATC facilities, adjacent Service Center offices, AIS, Technical Operations, and regional Frequency Management Offices) to determine if operational requirements and air traffic warrant a rulemaking action.

NOTE—

ATS route actions must be coordinated with and have concurrence from affected ATC facilities.

2. Ensure that the FPT and the Rules and Regulations Group coordinate the details of proposed new and amended ATS routes to facilitate part 71 rulemaking action.

3. Conduct periodic reviews of ATS routes in their area of responsibility in accordance with FAA Order 8260.19, Flight Procedures and Airspace, Chapter 2, and initiate Part 71 rulemaking action as necessary.

20-1-5. ROUTE IDENTIFICATION

All alpha-numeric ATS route identifiers are assigned by the Rules and Regulations Group as follows:

a. L/MF (Colored) Federal airways are identified by color names (Amber, Blue, Green, or Red). The identifier consists of the first letter of the color followed by a number (e.g., R-50, G-13, A-1, etc.).

1. Identify L/MF (Colored) airways oriented mainly west and east as Green or Red.

2. Identify L/MF (Colored) airways oriented mainly south and north as Amber or Blue.

b. VOR Federal airways (below FL 180) are identified by the letter “V” prefix followed by a number (e.g., V-104).

c. Jet routes (FL 180 through FL 450) are identified by the letter “J” prefix followed by a number (e.g., J-75).

d. RNAV routes are identified as follows:

1. Low altitude (below FL 180) RNAV routes are identified by a “T” prefix followed by a number (e.g., T-245).

2. High altitude (FL 180 through FL 450) RNAV routes are identified by a “Q” prefix followed by a number (e.g., Q-120).

3. Helicopter RNAV routes are identified by a “TK” prefix followed by a number (e.g., TK-502).

e. ATS route numbers are assigned as follows:

1. Even numbers for ATS routes oriented mainly west and east.

2. Odd numbers for ATS routes oriented mainly south and north.

f. ICAO has allocated the following number sets for U.S. RNAV routes:

1. Q routes: 1 through 499.

2. T routes: 200 through 500.

3. TK routes: 501 through 650.

g. Points in route descriptions must be listed from west to east for even numbered ATS routes and south to north for odd numbered ATS routes.

h. Points listed in 14 CFR part 71 route descriptions consist of:

1. The beginning and end points of the route;

2. Points where a route changes direction;

3. Holding fixes; and

4. Points required due to the maximum distance allowed between NAVAIDS (see service volume limitations in FAA Order 9840.1, U.S. National Aviation Handbook for the VOR/DME/TACAN Systems).

i. When radials or bearings from a navigation aid are used to define intersections in an ATS route

description, both True and Magnetic degrees must be stated in the NPRM. Only True degrees are stated in the final rule.

20-1-6. BASE ALTITUDES

a. The base of an ATS route must be at least 1,200 feet above the surface and at least 500 feet below the minimum en route altitude (MEA) except that route floors may be established no less than 300 feet below the MEA when:

1. The 500-foot buffer would result in the loss of a cardinal altitude; or

2. A definite operational advantage would exist.

b. The route floor should conform, as closely as possible to the floor of transitional airspace.

20-1-7. MINIMUM EN ROUTE ALTITUDES

Procedures for establishing MEAs are set forth in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), and FAA Order 8260.19, Flight Procedures and Airspace. MEAs are designated in 14 CFR part 95, IFR Altitudes.

20-1-8. PROCEDURAL REQUIREMENTS

Procedural requirements may dictate designation of airspace lower than 500 feet below the MEA or Minimum Reception Altitude (MRA) in certain en route radar vectoring areas or when necessary to accommodate climb or descent operations. Such airspace must not be designated for the specific purpose of including a Minimum Obstruction Clearance Altitude (MOCA) unless use of the MOCA is procedurally required.

20-1-9. ACTION TO RAISE BASE OF TRANSITION AREAS

When action is initiated to raise the base of transition airspace associated with a route segment, care must be taken to designate, in accordance with applicable criteria, sufficient airspace to encompass IFR procedures prescribed for airports which underlie the route. Additionally, care must be taken to ensure that controlled airspace, such as transition airspace or lower floor of control area, is provided for aircraft climbing from one MEA to a higher one.

Section 2. Flight Inspection Requirements

20-2-1. FLIGHT INSPECTION REQUESTS

Requests for ATS route flight inspections are processed in accordance with FAA Orders 8240.32, Request for Flight Inspection Services, and 8200.44, Flight Inspection Services Instrument Flight Procedure Coordination. Aeronautical Information Services (AIS) is responsible to submit a procedure package to Flight Inspection Services for review, analysis, and flight check (if needed).

20-2-2. REQUEST FOR FLIGHT INSPECTION DATA

The Service Center OSG is responsible for providing AIS with a copy of the NPRM relating to new or revised ATS routes. Requests for flight inspection data (e.g., MEA, COP, etc.) for ATS routes must be initiated by the Service Center office (see paragraph 2-3-5, Flight Procedural Data, of this order for actions that will be processed by a final rule without an NPRM).

20-2-3. FLIGHT INSPECTION REPORT

Flight Inspection Services use FAA Forms 8200-17 and 18, Flight Inspection Procedure Control (FIPC), to record the results of flight inspections. The FIPC provides the following status options:

- a. SAT: the procedure is satisfactory.
- b. SAT W/CHANGES: the procedure is approved provided the modifications noted in the remarks are incorporated.
- c. UNSAT: the procedure does not meet flight inspection requirements.

20-2-4. FLIGHT INSPECTION DATA DISTRIBUTION

Aeronautical Information Services (AIS) must notify the Rules and Regulations Group when the flight inspection of an ATS route is complete. A satisfactory flight inspection is required before the Rules and Regulations Group can issue a 14 CFR part 71 final rule.

Section 3. Federal Airways

20-3-1. DEFINITION

a. Federal airways consist of VOR Federal airways and Low/Medium Frequency (L/MF) (Colored) Federal airways.

b. Unless otherwise specified, the names appearing in VOR Federal airway descriptions are the names of VOR or VORTAC navigation aids. DME fixes and latitude/longitude coordinates are not used in Federal airway descriptions.

20-3-2. NAVAID SPACING

a. VOR Federal airways are based on VOR or VORTAC NAVAIDs which normally are spaced no farther apart than 80 NM. They may be based on more widely spaced NAVAIDs if a usable signal can be provided and frequency protection afforded for the distance required (see FAA Order 9840.1, U.S. National Aviation Handbook, for the VOR/DME/TACAN Systems).

b. L/MF (Colored) Federal airways are based on Non-Directional Beacon (NDB) NAVAIDs. NDB NAVAID spacing is determined on an individual basis.

20-3-3. VERTICAL AND LATERAL EXTENT

The standard vertical and lateral extent of Federal airways is specified in FAA Orders 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), and 8260.19, Flight Procedures and Airspace. Nonstandard dimensions may be specified, when required, subject to any flight inspection limitations and by paragraph 20-1-6, Base Altitudes, of this order.

a. Each Federal airway is based on a center line that extends from one navigational aid or intersection to another navigational aid (or through several navigational aids or intersections) specified for that airway.

b. Unless otherwise specified:

1. Each Federal airway includes the airspace within parallel boundary lines 4 miles on each side of the center line. Where an airway changes direction, it

includes that airspace enclosed by extending the boundary lines of the airway segments until they meet.

2. Where the changeover point for an airway segment is more than 51 miles from either of the navigational aids defining that segment, and—

(a) The changeover point is midway between the navigational aids. The airway includes the airspace between lines diverging at angles of 4.5° from the center line at each navigational aid and extending until they intersect opposite the changeover point; or

(b) The changeover point is not midway between the navigational aids. The airway includes the airspace between lines diverging at angles of 4.5° from the center line at the navigational aid more distant from the changeover point, and extending until they intersect with the bisector of the angle of the center lines at the changeover point; and between lines connecting these points of intersection and the navigational aid nearer to the changeover point.

3. Where an airway terminates at a point or intersection more than 51 miles from the closest associated navigational aid, it includes the additional airspace within lines diverging at angles of 4.5° from the center line extending from the associated navigational aid to a line perpendicular to the center line at the termination point.

4. Where an airway terminates, it includes the airspace within a circle centered at the specified navigational aid or intersection having a diameter equal to the airway width at that point. However, an airway does not extend into an oceanic control area.

c. Unless otherwise specified—

1. Each Federal airway includes that airspace extending upward from 1,200 feet above the surface of the earth (or higher) to, but not including, 18,000 feet MSL, except that Federal airways for Hawaii have no upper limits. Variations of the lower limits of an airway are expressed in digits representing hundreds of feet above the surface or MSL and, unless otherwise specified, apply to the segment of an airway between adjoining navigational aids or intersections; and

2. The airspace of a Federal airway, within the lateral limits of a Class E airspace area with a lower floor, has a floor coincident with the floor of that area.

d. A Federal airway does not include the airspace of a prohibited area.

EXAMPLE–

Variable airway floor description:

V–497

From Rome, OR; via Wildhorse, OR; Kimberly, OR; 49 miles, 65 MSL, Klickitat, WA; INT Klickitat 053 ° and Moses Lake, WA, 206 ° radials; Moses Lake; to Ephrata, WA.

NOTE–

In the example above, the floor of V–497 is 1,200 feet AGL from Rome, OR, to Kimberly, OR; then 6,500 feet MSL starting at Kimberly and continuing for 49 miles from Kimberly, then the floor drops back to 1,200 feet AGL the rest of the way to Klickitat, WA and on to Ephrata, WA.

20–3–4. WIDTH REDUCTIONS

a. Width reductions are not applicable to L/MF (Colored) Federal airways.

b. For ATS routes other than L/MF (Colored) Federal airways, a reduced airway width of 3 NM on

one or both sides of the centerline may be established from the NAVAID to the point where 4.5 degree intersecting lines equal 3 NM. Normally, lines perpendicular to the airway centerline determine the ends of the reduced portion. If required, the ends of the reduced portion may be defined differently. A reduced width is permissible to obtain additional traffic capacity and flexibility through the use of multiple routes and to avoid encroachment on special use airspace or other essential maneuvering areas. Width reductions are considered the exception rather than the rule and are approved only where adequate air navigation guidance and justification exist.

EXAMPLE–

Reduced airway width description:

V–204

From Hoquiam, WA; Olympia, WA; INT Olympia 114 ° and Yakima, WA, 271 ° radials; Yakima; 25 miles, 7 miles wide (3 miles N and 4 miles S of centerline), Pasco, WA; INT Pasco 035 ° and Spokane, WA, 221 ° radials; to Spokane.

NOTE–

In the example above, V–204 reduces from 8 miles wide to 7 miles wide starting at Yakima, WA for 25 miles from Yakima then reverts back to 8 miles wide the rest of the way to Pasco, WA, and on to Spokane, WA.

Section 4. Jet Routes

20-4-1. DEFINITION

a. Jet routes extend from FL 180 to FL 450, inclusive, and are designated to indicate frequently used routings. Jet routes are not designated above FL 450 due to navigation aid service volume limitations and frequency protection issues.

b. Unless otherwise specified, the names appearing in jet route descriptions are the names of VOR or VORTAC navigation aids. DME fixes and latitude/longitude coordinates are not used in jet route descriptions.

NOTE—

Terminal class VOR (TVOR) NAVAIDs must not be used to designate jet routes.

20-4-2. NAVAID SPACING

Jet routes are normally based on “H” class NAVAIDs

spaced no farther apart than 260 NM or non-VOR/DME area navigation system performance. They may be based on more widely spaced NAVAIDs if a usable signal can be provided (e.g., expanded service volume) and frequency protection is afforded for the distance required.

20-4-3. JET ROUTE WIDTH

Jet routes have no specified width; however, alignment should be planned using protected airspace specified for VOR Federal airways in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), or any flight inspection limitation to prevent overlapping special use airspace or the airspace to be protected for other jet routes.

Section 5. Area Navigation (RNAV) Routes

20-5-1. PURPOSE

Area navigation (RNAV) is a method of navigation that permits aircraft operation on any desired flight path within the coverage of ground- or space-based navigation aids, or within the limits of the capability of self-contained aids, or a combination of these. The potential advantages of RNAV routes include:

- a. Time and fuel savings;
- b. Reduced dependence on radar vectoring, and speed assignments allowing a reduction in required ATC transmissions; and
- c. More efficient use of airspace.

20-5-2. RNAV ROUTE CRITERIA

- a. Refer to FAA Orders 7100.41, Performance Based Navigation Implementation Process; 8260.3, United States Standard for Terminal Instrument Procedures (TERPS); 8260.19, Flight Procedures and Airspace; and 8260.58, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, for criteria and procedures applicable to RNAV route development.
- b. The basic width of an RNAV route is 8 NM (4 NM each side of the route centerline).
- c. Operational and airworthiness guidance regarding operation on U.S. Area Navigation routes may be found in AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations.

20-5-3. WAYPOINTS

- a. A waypoint is a predetermined geographical position defined in terms of latitude/longitude coordinates, using a degrees, minutes, seconds, and hundredths of a second format.
- b. RNAV waypoints are used not only for navigation references, but also for ATC operational fixes. Waypoints are to be established along RNAV routes at:
 - 1. The beginning and end points of the route;
 - 2. Points where a route changes direction;
 - 3. Holding fixes; and
 - 4. Points required due to the maximum distance allowed between NAVAIDs, fixes or waypoints.

- c. Waypoint names must consist of a single, five-letter pronounceable name. Five-letter names are assigned by AIS (see paragraph 3-3-4 in this order).

20-5-4. LATERAL PROTECTED AIRSPACE CRITERIA FOR RNAV EN ROUTE SEGMENTS

The primary en route obstacle clearance area has a width of 8 NM; 4 NM on each side of the centerline of the route. Primary, secondary, and turning area criteria are found in FAA Orders 8260.3, United States Standard for Terminal Instrument Procedures (TERPS); 8260.19, Flight Procedures and Airspace; and/or 8260.58, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design, as applicable.

20-5-5. RNAV ROUTE DESCRIPTIONS

- a. RNAV route descriptions are published in Order JO 7400.11. RNAV routes consist of points that may be defined as waypoints, fixes, and/or ground-based navigation aids.
- b. RNAV route descriptions must be formatted as follows:
 - 1. On line one:
 - (a) The route number; and
 - (b) The route start/end points (i.e., point name, state, and NAVAID ID as required);
 - 2. On subsequent lines for each point that makes up the route:
 - (a) The point name, state, and NAVAID ID as required;
 - (b) The type of point (i.e., WP, Fix, or NAVAID type); and
 - (c) The geographic coordinates of each point expressed in degrees, minutes, seconds, and hundredths of a second.

3. On the last line, if applicable: Any exclusions from the route (e.g., “Excluding the airspace within Canada”).

c. See Section 1 of this chapter for information on route numbering.

d. Examples of RNAV route descriptions:

EXAMPLE–

1. Q-71 BOBBD, TN to Philipsburg, PA (PSB)

BOBBD, TN WP (lat. 35°47'57.59"N., long. 083°51'33.90"W.)

ATUME, KY WP (lat. 36°57'13.65"N., long. 083°03'24.36"W.)

HAPKI, KY WP (lat. 37°04'55.73"N., long. 082°51'02.62"W.)

KONGO, KY FIX (lat. 37°30'19.46"N., long. 082°08'12.56"W.)

WISTA, WV WP (lat. 38°17'00.52"N., long. 081°27'46.55"W.)

GEFFS, WV FIX (lat. 39°00'49.86"N., long. 080°48'49.85"W.)

EMNEM, WV WP (lat. 39°31'27.12"N., long. 080°04'28.21"W.)

PSYKO, PA WP (lat. 40°08'37.00"N., long. 079°09'13.00"W.)

Philipsburg, PA (PSB) VORTAC (lat. 40°54'58.53"N., long. 077°59'33.78"W.)

2. T-329 Morro Bay, CA (MQO) to NACKI, CA

Morro Bay, CA (MQO) VORTAC (lat. 35°15'08.12"N., long. 120°45'34.44"W.)

Paso Robles, CA (PRB) VORTAC (lat. 35°40'20.87"N., long. 120°37'37.59"W.)

LKHRN, CA WP (lat. 36°05'59.82"N., long. 120°45'22.53"W.)

Panoche, CA (PXN) VORTAC (lat. 36°42'55.65"N., long. 120°46'43.26"W.)

MKNNNA, CA WP (lat. 37°04'23.41"N., long. 120°50'22.26"W.)

OXJEF, CA WP (lat. 37°46'11.40"N., long. 121°02'03.31"W.)

TIPRE, CA WP (lat. 38°12'21.00"N., long. 121°02'09.00"W.)

HNNRY, CA WP (lat. 38°23'27.61"N., long. 121°37'43.50"W.)

ROWWN, CA WP (lat. 38°24'55.86"N., long. 121°47'00.05"W.)

RAGGS, CA FIX (lat. 38°28'34.94"N., long. 122°09'24.65"W.)

POPES, CA FIX (lat. 38°29'09.41"N., long. 122°20'45.16"W.)

NACKI, CA WP (lat. 38°43'47.73"N., long. 123°05'52.93"W.)

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 Rules and Regulations 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 FAA Order 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 FAA Order 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 FAA Order 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-

FAA Order 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, Rules and Regulations 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 Rules and Regulations 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 2, Graphic Notices, of the Notices to Airmen Publication (NTAP). 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, Rules and Regulations 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 Rules and Regulations 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 2 of the NTAP. This information will be carried in the NTAP until the change has appeared on the affected sectional chart(s). The Rules and Regulations 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 NTAP.*

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 Rules and Regulations 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 Rules and Regulations 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.

Section 2. SUA Legal Descriptions

21-2-1. GENERAL

a. The legal description is the official airspace definition used for NAS database and charting purposes. This section provides guidelines and formats for preparing SUA legal descriptions. See TBL 21-2-1 for examples of regulatory and nonregulatory SUA legal descriptions.

b. All bearings and radials used in SUA legal descriptions are true from point of origin.

c. Mileage used in the description must be expressed in nautical miles (NM).

d. Descriptions of approved SUA, except temporary areas and CFA's, are compiled and published once a year in FAA Order JO 7400.10, Special Use Airspace. Updates to the order are not published between editions and the listings are considered current only as of the date specified in the order. For this reason FAA Order JO 7400.10 should be used as a general reference only and should not be relied upon as a sole source when accurate positional data are needed (for example, video maps, letters of agreement, etc). For up-to-date descriptions of SUA areas, contact Rules and Regulations Group or AIM.

21-2-2. LATERAL BOUNDARIES

a. SUA lateral boundaries are normally defined by geographic (latitude/longitude) coordinates. All coordinates must be expressed in a "degrees, minutes, and seconds" format. Do not round off, or convert seconds to tenths of minutes (enter 00' and 00" to specifically reflect the "zero" minutes and "zero" seconds places respectively). See TBL 21-2-1 for examples.

b. Other methods may be used to define boundaries if necessary to simplify the description, such as defining the boundaries by reference to a NAVAID radial/DME. When a NAVAID is used as a reference point, include its geographic location in degrees, minutes, and seconds.

c. To aid pilots in area identification, boundaries may be aligned along a prominent terrain feature such as rivers, highways, railroad tracks, etc., provided the feature is clearly discernable from the air.

d. Except for temporary SUA areas, boundaries must not be described as "along the boundary" of another designated airspace area.

e. Where feasible, consider subdividing large SUA areas to enhance joint use of the airspace.

21-2-3. VERTICAL LIMITS

a. For areas that contain aircraft operations exclusively, altitudes at or above 18,000 feet MSL must be expressed as flight levels (FL).

b. For areas that contain other than aircraft operations, altitudes above 18,000 feet MSL must be expressed in feet above MSL.

c. Where terrain considerations or other factors would make the use of an MSL altitude impractical, the floor of the area may be described in feet above ground level (AGL).

d. In describing SUA ceilings, unless otherwise specified in the description, the word "to" an altitude or flight level means "to and including" that altitude or flight level. If the upper vertical limit does not include the altitude or flight level, the ceiling must be stated as "to but not including" the altitude or flight level.

e. Do not designate variable altitudes to describe the floor or the ceiling of an SUA area. When there is a requirement for the altitude of the floor or ceiling to change based on time of use, or geographic position within the SUA area, etc.; the differing sections must be established as separate subdivisions.

EXCEPTION-

The floor of an area may be described using a combination of MSL and AGL altitudes if necessary due to terrain or operational considerations. For example, "5,000 feet MSL or 3,000 feet AGL, whichever is higher."

f. In limited situations, and provided a specific operational requirement exists, the same altitude may be used to describe both the ceiling of one SUA subdivision and the floor of an overlying subdivision. In this case, the same ATC facility must be designated as the controlling agency for both subdivisions.

g. Where feasible consider stratification of SUA areas to enhance joint-use of the airspace.

21-2-4. TIMES OF USE

a. The times of use indicate the period during which the using agency is authorized to schedule and use a SUA area. These times should reflect when normal operations are expected to occur. In determining the times of use, the proponent should select the minimum period needed to meet the using agency's requirements. The goal is to capture the majority of the day-to-day activities. When the using agency has a requirement for intermittent, less frequent use of the airspace (outside the specific published time-period), a provision to activate the airspace by NOTAM may be stated in the SUA legal description.

NOTE-

The times of use should be based on the intended typical use of the area. These times are depicted on aeronautical charts to assist other airspace users in determining the most likely periods of area activation.

b. Times of use are stated using the options, or combination of options, shown below:

1. Specific hours/days. Local time using the 24-hour clock, and days of the week. If the time of use will change significantly on a seasonal basis, or mission requirements call for specific time blocks, variable times of use may be designated.

EXAMPLE-

1. "0700 – 2200, Monday – Friday."
2. "Sep – Apr, 0800 – 1700, Monday – Friday; an May – Aug, 0600 – 2400 Monday – Friday."
3. "0800 – 0930 and 1300 – 1600, Monday – Friday."
4. "0700 – 1600, daily."

NOTE-

1. As used in SUA legal descriptions, the term "daily" means 7 days per week.
2. If the SUA area overlaps more than one local time zone, state the predominant time zone in the description, for example: "0700 – 1800 central time; Monday – Friday."

2. Continuous. Use only when justification exists for utilization 24 hours a day, 365 days a year.

EXCEPTION-

"Continuous" may also be used when the area will be

utilized 24 hours per day over a specific period, such as "Continuous, Monday – Friday;" or "Continuous, April – June."

3. NOTAM activation. Use "By NOTAM" or "Other Times by NOTAM" to indicate when a NOTAM must be issued in order to activate the area. NOTAM options are:

(a) "Other times by NOTAM." Used along with specific times to provide for activation of the area outside the specified times of use that were established according to b.1., above.

EXAMPLE-

"0700–1900 local time, Monday – Friday – other times by NOTAM."

(b) "By NOTAM," along with specific times from b.1., above: Used when issuance of a NOTAM is required prior to activating the area during the specified hours.

EXAMPLE-

1. "By NOTAM 0700–1800 local time, Monday – Friday."
2. "0700–1800 local time, Monday – Friday, by NOTAM 4 hours in advance."

(c) "By NOTAM" without specific times: Used when anticipated usage times cannot be specifically determined, or when the nature of the user's mission requires infrequent or erratic use.

(d) The NOTAM provision must apply to the entire area and not only a portion thereof. If times of use will vary from one portion of the area to another, the dissimilar portions should be subdivided or redesignated as separate areas.

(e) NOTAMs should be issued as far in advance as feasible to ensure widest dissemination of the information to airspace users. Normally, the minimum advance notice should be at least 4 hours prior to the activation time.

NOTE-

Under no circumstances may SUA be activated by a NOTAM unless the words "By NOTAM" or "other times by NOTAM" are stated in the area's legal description.

4. Sunrise to sunset. This option should be reserved for cases where seasonal sunrise/sunset time variations make publication of specific clock times impractical.

5. Intermittent. Must include an associated time-period or "by NOTAM" provision. In any case,

intermittent must not be used for restricted areas without a “by NOTAM” provision.

EXAMPLE–

1. *“Intermittent, 0700 – 2200, Monday – Friday.”*
2. *“Intermittent by NOTAM at least 4 hours in advance.”*

21–2–5. CONTROLLING AGENCY

The ATC facility designated as the controlling agency (see paragraph 21–1–10).

NOTE–

A controlling agency is not designated for prohibited areas, alert areas, or controlled firing areas.

21–2–6. USING AGENCY

The agency, organization, or military command designated as the using agency (see paragraph 21–1–11).

21–2–7. SUA LEGAL DESCRIPTION AMENDMENTS

All changes to a published SUA legal description must be made through the appropriate regulatory or non-regulatory procedures described in this order. This includes minor changes, editorial corrections, internal subdivisions of an existing area, changes of the controlling or using agency, or reducing the area’s dimensions or times of use.

*TBL 21-2-1***EXAMPLES OF SPECIAL USE AIRSPACE LEGAL DESCRIPTIONS****REGULATORY SUA DESCRIPTION:****R-2305 Gila Bend, AZ**

Boundaries – Beginning	at lat. 32°50'25"N., long. 112°49'03"W.; to lat. 32°50'52"N., long. 112°42'56"W.; to lat. 32°49'00"N., long. 112°39'03"W.; to lat. 32°29'00"N., long. 112°43'03"W.; to lat. 32°29'00"N., long. 112°53'33"W.; to the point of beginning.
Designated altitudes	Surface to FL 240.
Time of designation	0700–2300 local time daily, other times by NOTAM.
Controlling agency	FAA, Albuquerque ARTCC.
Using agency	U.S. Air Force, 58th Fighter Wing, Luke AFB, AZ.

NONREGULATORY SUA DESCRIPTION:**Taiban MOA, NM**

Boundaries – Beginning	at lat. 34°34'36"N., long. 104°07'00"W.; to lat. 34°33'00"N., long. 103°55'02"W.; to lat. 34°10'00"N., long. 103°55'02"W.; to lat. 34°10'00"N., long. 104°07'00"W.; to the point of beginning.
Altitudes	500 feet AGL to but not including FL 180.
Times of use	0800–2400 Monday–Friday; other times by NOTAM.
Controlling agency	FAA, Albuquerque ARTCC.
Using agency	U.S. Air Force, Commander, 27th Fighter Wing, Cannon AFB, NM.

COORDINATE FORMAT – Do not round off latitude and longitude coordinates. Always use the full format consisting of degrees, minutes, and seconds, as follows:

Correct

40°06'00"N.
104°35'30"W.
39°00'00"N.

Incorrect

40°06'N.
104°35.5'W.
39°N.

Section 5. Regional/Service Area Office Actions

21-5-1. GENERAL

a. SUA proposals should be processed as expeditiously as possible, consistent with thorough analysis, public notice procedures, and environmental requirements. This is necessary to ensure that decisions are based on the most current data, and that limited funding and personnel resources are used efficiently. The proponent should receive a timely determination on the disposition of the proposal in order to conduct its mission or consider alternatives. Lengthy delays in processing the proposal may result in the need for a supplemental public comment period, and/or the revalidation of the aeronautical and environmental studies.

b. The service area office will notify the appropriate regional military representative, in writing, if a significant processing delay is anticipated or major problems arise.

21-5-2. REGIONAL/SERVICE AREA OFFICE PROCESSING REQUIREMENTS

This paragraph describes the basic SUA processing items accomplished at the regional/service area office level. The service area office may supplement or modify the sequence of these items as needed.

a. Assign a rulemaking docket number or nonrulemaking study number, as appropriate (see Chapter 2 of this order).

NOTE-

When amending any part of the legal description of an existing SUA area, a docket number, or study number must be assigned. This includes minor changes, editorial corrections, and the reduction or revocation of the airspace.

b. Review the proposal package for content and compliance with the requirements of this order.

c. Task concerned ATC facilities to conduct an aeronautical study of the proposal (see Section 6 of this chapter).

d. Determine if other airspace or airport actions are pending or on file at the region/service area office for possible conflict with the proposal.

e. Coordinate with other FAA offices (for example, Airports, FPT, Flight Standards, etc.) as required for assistance in identifying impacts on airport development plans, aviation safety, and IFR/VFR operations.

f. Coordinate the proposal with adjacent regional office service area office, if necessary.

g. Circularize nonrulemaking proposals as specified in Chapter 2, and Chapter 21, Section 1 of this order. Send an information copy of each circular to Rules and Regulations Group.

h. For restricted area or prohibited area proposals, submit the proposal package to Rules and Regulations Group to initiate rulemaking action.

i. Determine if an informal airspace meeting will be held.

NOTE-

If informal airspace meetings or environmental public meetings are planned, and the schedule is known, include meeting information in the nonrulemaking circular, or in the rulemaking package for publication in the NPRM. Also, see meeting notification requirements in Chapter 2 of this order.

j. Review all public comments received. Evaluate comments with respect to the proposal's effect on the safe and efficient utilization of airspace. All substantive aeronautical comments must be addressed in the final rule or nonrulemaking case file. Where required, consider the proposal's impact on the safety of persons and property on the ground. Provide copies of pertinent public comments to the concerned regional military representative.

k. Review aeronautical study results.

l. Evaluate aeronautical impacts identified through public comments, aeronautical study, or other sources. Coordinate with the proponent regarding ways to lessen aeronautical impact and/or resolve problem areas. As additional impacts are identified during the processing of the proposal, provide the information to the proponent.

m. Review environmental or land–use comments addressed to the FAA, then forward them to the proponent for consideration in appropriate environmental documents.

n. If, after the publication of an NPRM or a non–rulemaking circular, the proposal is modified by the proponent or to mitigate aeronautical or environmental impacts, determine if the changes are significant enough to necessitate a supplemental public comment period.

o. Coordinate with the service area office Environmental Specialist for review of the proponent’s environmental documents (see paragraph 21–5–4, below).

p. Determine whether to recommend FAA headquarters approval of the proposal, or disapprove the proposal at the regional/service area office level (see paragraphs 21–5–6 and 21–5–7, below).

21–5–3. AERONAUTICAL IMPACT CONSIDERATION

There is no set formula for balancing the various competing user requirements for the use of airspace. If approval of the SUA proposal would result in an adverse aeronautical impact, every effort must be made to seek equitable solutions to resolve or minimize the adverse aeronautical effects. If the aeronautical impact cannot be mitigated, the service area office must carefully weigh the extent of that impact against the need and justification provided by the SUA proponent. The region’s/service area office’s recommendation should include a discussion of how any aeronautical issues were resolved.

21–5–4. ENVIRONMENTAL DOCUMENT REVIEW

In coordination with the service area office Environmental Specialist, the Airspace Specialist will review the proponent’s draft and final environmental documents to ensure that the environmental analysis matches the proposed airspace parameters (e.g., time of use, lateral and vertical dimensions, types and numbers of operations, supersonic flight). Any environmental issues identified in this review must be forwarded to the proponent for consideration.

21–5–5. REGIONAL/SERVICE AREA OFFICE DETERMINATION

After considering all pertinent information, the service area office determines whether to recommend approval of the proposal to FAA Headquarters, negotiate changes with the proponent, or disapprove the proposal. If the regional/service area office aeronautical processing is completed before the proponent’s environmental documents have been finalized, the proposal may be forwarded to FAA Headquarters for review of the aeronautical portion. In all cases, a final determination on the proposal by FAA Headquarters must be deferred until applicable NEPA requirements are completed.

NOTE–

Supplemental public notice with an additional comment period may be necessary if significant changes are made to the proposal after it was advertised for public comment. If a FAA determination has not been issued within 36 months of the last aeronautical public comment period or, if it is known that the aeronautical conditions in the area have changed significantly from what existed at the time of that last comment period, a supplemental comment period is required. Supplemental comment periods may be reduced to 30 days in length.

21–5–6. DISAPPROVAL OF PROPOSALS

a. The service area office may disapprove any SUA proposal, however, such disapproval should be based on valid aeronautical reasons. The service area office must notify the proponent, in writing, stating the reasons for disapproval. Reasonable efforts should be made to resolve problem areas before rejecting the proposal. Provide an information copy of the disapproval correspondence to Rules and Regulations Group.

b. If the proponent resubmits the proposal after resolving problem areas, the service area office should determine required actions and resume processing the proposal.

c. If the proponent resubmits the proposal without resolving problem areas, the service area office must forward the case along with the region’s recommendation to Rules and Regulations Group for further action.

21-5-7. SUBMISSION OF APPROVAL RECOMMENDATIONS TO FAA HEADQUARTERS

Submit SUA proposals recommended for approval to Rules and Regulations Group for final determination and processing. Include the following (as applicable):

a. A service area office transmittal memorandum containing a brief overview of the proposal and the region's/service area office's recommendation for headquarters action. Summarize any amendments made to the original proposal in response to public comments, or negotiations to mitigate impacts, etc. If coordination with the designated controlling agency indicates that plans exist to provide nonparticipating pilots with traffic advisories, or real-time area activity status information, provide a VHF frequency and facility identification to be depicted on aeronautical charts.

b. A separate attachment that contains the recommended legal description of the area (for example, boundaries, altitudes, times, controlling agency, and using agency). Use the format shown in TBL 21-2-1.

NOTE-

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

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

d. A copy of the proponent's airspace request correspondence and proposal package, to include all applicable items required by Section 3 of this chapter.

e. A copy of aeronautical comments received in response to the NPRM or non-rulemaking circular, along with a discussion of how each substantive comment was addressed or resolved.

f. A synopsis of FAA environmental issues or concerns which were forwarded to the proponent, if applicable. Identify any modifications made to the proposal to mitigate environmental effects.

g. A copy of the aeronautical study.

h. A summary of meeting discussions and copies of written comments submitted at the meeting, if an informal airspace meeting was held.

i. Copies of pertinent correspondence from other FAA offices (for example, Flight Standards, Airports, adjacent service area office, affected ATC facilities, etc.).

j. Environmental documents (if not submitted separately).

k. Any other information that should be considered by FAA Headquarters in making a final determination on the proposal.

21-5-8. HANDLING OF PROPOSALS TO REDUCE OR REVOKE SUA

a. Normally, proposals which lessen the burden on the public by reducing the size, or times of use, or by revoking SUA, do not require advance public notice and comment. An abbreviated proposal package may be submitted in accordance with paragraph 21-3-4.

b. An environmental analysis of the SUA reduction or revocation action is not normally required. However, if FAA plans to implement new routes or air traffic procedures in the affected airspace, that route or procedural action may require its own environmental analysis.

21-5-9. FAA INITIATED SUA PROPOSALS

a. Proposals to establish or modify SUA are normally initiated by a DOD proponent. However, since it is responsible for ensuring the safe and efficient use of the navigable airspace, the FAA may initiate SUA proposals when such actions are necessary to resolve a safety issue, enhance joint use, or enhance the capability of the SUA to accommodate the using agency's mission. Prior to initiating a SUA proposal, the service area office must exhaust every avenue to resolve the issues by other means. When modification of an existing SUA area is contemplated, full consideration must be given to providing the affected user with an equivalent capability to perform its mission.

b. When initiating a proposal, the service area office will prepare the SUA proposal package and required documentation. The proposal will be coordinated with the affected military units through the appropriate regional military representative. If an environmental analysis is required, the service area office will determine responsibility assignment.

c. In developing a proposal, the service area office must, through the regional military representative, consult with the concerned DOD department to identify and document the impact of the proposed change on affected military units' mission(s).

d. If any using agency objects and agreement cannot be reached, but there is strong justification to proceed with the proposal, the service area

office must send the proposal package to Rules and Regulations Group for further action. Include with the proposal package, the reason for the proposal, a copy of the objections, a summary of efforts to resolve the objections, and the region's recommendations. Do not initiate public notice procedures for such proposals, without Rules and Regulations Group concurrence.

Section 7. Restricted Area and MOA Annual Utilization Reports

21-7-1. PURPOSE

Annual utilization reports provide the FAA with information regarding the times and altitudes used, and the types of activities conducted in restricted areas and MOAs. These reports assist the FAA in its management of the SUA program.

21-7-2. REPORTING REQUIREMENTS

a. Using agencies are required to submit annual reports to the FAA detailing the use of all assigned restricted areas and/or MOAs. Actual utilization data are required. See FIG 21-7-1 for report format. Instructions for preparing the report are contained in FIG 21-7-2.

b. Reports must cover each fiscal year period (October 1 through September 30). If the area was assigned to the using agency for only part of the fiscal year, report the utilization for that partial period.

c. For areas that are subdivided by legal description, a separate report is required for each officially designated sub-area published in FAA Order JO 7400.10, Special Use Airspace.

d. Do not include classified information in the report.

e. Submit reports by January 31 following the end of each fiscal year, to the office of the service area office director having jurisdiction over the airspace being reported.

f. Military using agencies must submit reports to the FAA through the appropriate regional military representative. The military representative will ensure that an information copy of each report is sent to the Director of Mission Support, Policy, Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591.

g. Non-military using agencies must submit reports directly to the FAA service area office director. The service area office will send an information copy of nonmilitary reports to Rules and Regulations Group.

21-7-3. SUPPLEMENTARY REPORTS

The service area office may request the using agency to submit a supplementary report if it determines that additional information is needed to evaluate the use of a restricted area or MOA. Requests will be submitted through the appropriate regional military representative. Using agencies should provide the requested information within 60 days of receiving the request.

21-7-4. UTILIZATION REPORT TERMS

Terms as used in Restricted Area and MOA Annual Utilization Reports are defined as follows:

a. **ATCAA.** Airspace assigned by ATC to segregate air traffic between the specified activities being conducted within the assigned airspace and other IFR traffic.

b. **Activated.** The time-period during which the controlling agency has returned the restricted area or MOA to the using agency; regardless of whether any activity is actually occurring.

c. **Controlling Agency.** The designated ATC facility having jurisdiction over the SUA airspace when it is not in use by the using agency. Also, the facility that authorizes transit through, or flight within, special use airspace, in accordance with joint-use procedures contained in a letter of agreement.

d. **Joint Use.** A term applied to SUA which is released to the controlling agency for public access during periods when the airspace is not needed by the using agency. It also means airspace wherein access may be granted to non-participating aircraft subject to the joint-use procedures specified in a letter of agreement between the controlling and using agencies.

e. **Nonparticipating aircraft.** An aircraft, civil or military, which is not a part of the activities being conducted within a SUA area.

f. **Scheduled.** The using agency's planned time period(s) of intended use of a SUA area as submitted in advance to the controlling agency (for military using agencies, see the scheduling requirements

contained in FAA Order JO 7610.4, Chapter 9, Military Operations Requirements).

g. Using agency – The organization, unit, or military command that the SUA was established; and the agency responsible for compilation and submission of Restricted Area/MOA Annual Utilization Reports.

h. Utilized – Amount of time (hours or days) that activities were actually conducted in the SUA area (for example, when participating aircraft were operating, or other designated activities were conducted, in the airspace).

21-7-5. REVIEW REQUIREMENT

a. The service area office must perform a thorough review of all annual utilization reports for restricted areas and MOAs within its jurisdiction. At a minimum, the following utilization report items should be analyzed:

1. Activities. Are the reported activities appropriate for the airspace type and designated purpose?

2. Altitudes. Do the reported activities and altitudes reflect a requirement for the altitudes published in the area's legal description?

3. Utilization Data. Consider whether actual use supports the published parameters, or if discussions should be held with the user to determine if an airspace amendment action is appropriate. Calculate the following percentages for reference in comparing the published parameters of the area with its reported actual utilization.

(a) Hours actually utilized as a percentage of hours activated.

(b) Hours scheduled as a percentage of hours published in the area's legal description.

(c) Hours activated as a percentage of hours scheduled.

(d) Days actually utilized as a percentage of days activated.

4. Joint Use Information. Is the airspace being made available for joint use (if applicable)?

5. Remarks. Consider any mitigating factors that explain or clarify reported data. Are any other issues identified that require further action?

b. If additional information is needed to complete the utilization report review, request the user to submit a supplementary report as described in paragraph 21-7-3.

c. As required, initiate discussions to resolve issues or forward recommendations for corrective action, to the regional military representative or responsible official for nonmilitary SUA.

d. Refer to Section 8 of this chapter for additional information regarding SUA review procedures and utilization standards.

21-7-6. REVIEW SUMMARY

The service area office must prepare a summary of the results of its annual utilization report review. The summary should document the findings, recommendations, and actions taken, as appropriate. Submit review summaries to Rules and Regulations Group by March 31 of each year. It is not necessary to submit copies of the actual utilization reports with the summary.

4. NOTAM Activation. If a NOTAM provision is included in the SUA legal description, and activation by NOTAM is extensive or routine, consider whether it would be advantageous to increase the published times of use to include the routine NOTAM period. This action may better inform the flying public of expected area usage periods, and reduce NOTAM system workload.

5. Intermittent Time of Use. If regular use of the area occurs during a set time period daily, or if use has become other than sporadic, consider whether specific times of use should be published to better inform the flying public of expected area usage periods and reflect current mission requirements.

d. Non-utilization of SUA. A using agency is required to explain in the remarks section of its annual utilization report why it did not use the SUA area during an entire reporting period. If no such explanation is provided, request that the military representative or using agency provide the reasons and the using agency's plans for future use of the airspace.

1. If the user responds that the SUA is no longer required, initiate action to revoke the airspace.

2. If the user validates a continuing need for the airspace, coordinate with the user to determine if the area's dimensions and/or times of use remain valid or should be amended to reflect current requirements.

3. If the airspace remains unused for a second consecutive fiscal year period, inform the military representative of the FAA's intent to revoke the area unless additional justification for retaining the airspace is submitted.

e. Joint-use and Real-time Use Procedures. Evaluate the effectiveness of joint-use procedures and real-time activation/deactivation procedures (if applicable). Obtain input from the controlling agency as needed.

1. Are procedures for timely release of joint-use airspace contained in a letter of agreement?

2. Are real-time activation/deactivation procedures specified and used?

f. Area Scheduling. Does the using agency schedule the area in accordance with FAA Order JO 7610.4, Special Operations, requirements?

g. Aeronautical Charts and Publications. Check the accuracy of SUA information shown on aeronautical charts and contained in applicable publications. Submit required corrections to Rules and Regulations Group for processing.

h. Other Issues. Determine if there are any other issues that require further investigation, such as:

1. Adverse impact on NAS operations.

2. Recurring spill outs.

3. Frequent instances of limitations on the use or activation of the SUA by the controlling agency.

21-8-6. SUA REVIEW FOLLOW UP ACTION

The service area office's annual SUA review forms the basis for further discussions with user representatives to resolve any discrepancies noted or other issues that were identified. Results of the review should be documented and maintained on file in accordance with current administrative guidance. Regional/service area office follow up actions are dependent on the results of the review as follows:

a. If it is determined that the existing SUA parameters (times, altitudes, boundaries) are valid, no further action is required other than documentation of the review results.

b. If any SUA parameters are found to exceed the user's requirements or if it is determined that the SUA does not accommodate the user's current mission requirements, then the service area office should discuss the finding with the military representative/using agency official. When appropriate, the service area office should request the user to submit an airspace proposal to amend the SUA description.

Section 9. SUA Review Teams

21-9-1. PURPOSE

a. A SUA Review Team is one option available to the service area office director for conducting the annual SUA review detailed in paragraph 21-8-2.

b. When this option is selected, the SUA Review Team must:

1. Evaluate the need for, or obtain additional information regarding a specific SUA proposal; or

2. Develop recommendations for the retention, modification, or revocation of the SUA airspace based on actual utilization or a change in user requirements.

c. A team established for this type of review must be dissolved upon completion of its overall conduct of the review.

21-9-2. TEAM COMPOSITION

Review teams must be composed of at least two FAA members plus the regional military representative. The team membership must be based on the requirements and purpose of the review. Members may be selected from the reviewing region/service area office, another service area office, concerned ATC facilities, or other FAA Headquarters (for example, Strategic Operations Security or Safety Evaluations representative), regional, or field offices, as required (for example, Flight Standards or FPT).

21-9-3. RESPONSIBILITIES

a. When the service area office director determines that there is a need for a team to review a SUA, the service area office director must designate a team chairperson who will be responsible for the overall conduct of the review.

b. The team chairperson must:

1. Prepare an agenda and pre-brief team members on the purpose and procedures for the review.

2. Begin coordination sufficiently in advance to provide local officials with adequate time to prepare the required information.

3. Coordinate visits to military SUA sites through the appropriate regional military representative.

4. Determine if an informal airspace meeting should be held to allow users and other interested parties an opportunity to present comments and offer recommendations. If a meeting is planned, follow the informal airspace meeting procedures in Chapter 2 of this order.

c. The team must examine:

1. The actual hours, altitudes, and geographical area used, the types of activities conducted, and the impact on other users.

2. Review the effectiveness of procedures for real-time, joint-use of the airspace, and identify problem areas or aeronautical impacts.

3. Draft recommendations to resolve problems, improve the efficient use of airspace, and/or enhance the service to the using agency.

21-9-4. TEAM REPORT

a. A report must be prepared to document the results of the review. The report contents should include at a minimum:

1. Copies of notification memoranda.

2. A team member list.

3. An Executive Summary.

4. A description and chart of the SUA reviewed.

5. Team Observations and Recommendations.

6. An informal airspace meeting summary and copies of written comments submitted at the meeting (if applicable).

7. Supporting documents or source information (if applicable).

(a) SUA utilization data.

(b) Letters of Agreement.

(c) Other pertinent documents.

b. Within 60 days after completion of the review, the report must be forwarded through the service area office director to the regional military representative,

or responsible official for nonmilitary SUA. A copy of the report must be sent to Rules and Regulations Group and concerned ATC facilities.

21-9-5. FOLLOW UP ACTION

a. The regional military representative, or responsible official for non-military SUA, should respond to the report in writing within 60 days of receipt. If the user concurs with the team's observations and recommendations, the service area office must coordinate with the user representative to initiate any required airspace action or other recommendations.

b. If the user does not agree with the stipulated recommendations, the service area office must coordinate with the appropriate representative to resolve any issue(s). If agreement cannot be reached, the service area office must forward its recommendation, along with an explanation of the user's position, to Rules and Regulations Group for further action. A copy of the region's/service area office's recommendation must be provided to the appropriate user representative.

c. The service area office will monitor the status of open items until all required actions have been addressed.

Chapter 22. Prohibited Areas

Section 1. General

22-1-1. DEFINITION

A prohibited area is airspace established under 14 CFR part 73 provisions, within which no person may operate an aircraft without permission of the using agency.

22-1-2. PURPOSE

Prohibited areas are established when necessary to prohibit flight over an area on the surface in the interest of national security and welfare.

22-1-3. IDENTIFICATION

Identify prohibited areas with the prefix letter “P” followed by a dash, a two-digit number, location,

and the two-letter state abbreviation (for example, “P-47, Amarillo, TX”). Identification numbers are assigned by Rules and Regulations Group. ■

22-1-4. DESCRIPTION

Prohibited areas normally extend from the surface upward to a specified altitude, with a “continuous” time of designation

22-1-5. WAIVERS/AUTHORIZATION

No person may conduct operations within a prohibited area except under a certificate of waiver issued by the Administrator.

Section 2. Processing

22-2-1. SUBMISSION OF PROPOSALS

a. Submit prohibited area proposals to the service area office for processing in accordance with the requirements in Chapter 21 of this order. Although specifying a minimum processing time is impractical, at least 6 months would be needed for a routine, non-controversial proposal.

b. The restrictions imposed by a prohibited area may be highly controversial and require in-depth study as well as strong justification.

22-2-2. REGIONAL/SERVICE AREA OFFICE ACTIONS

After completing the requirements of Chapter 21, prohibited area proposals must be forwarded to Rules and Regulations Group for final determination.

Chapter 23. Restricted Areas

Section 1. General

23-1-1. DEFINITION

A restricted area is airspace established under 14 CFR Part 73 provisions, within which the flight of aircraft, while not wholly prohibited, is subject to restriction.

23-1-2. PURPOSE

Restricted areas are established when determined necessary to confine or segregate activities considered hazardous to nonparticipating aircraft.

23-1-3. IDENTIFICATION

Identify restricted areas with the letter “R” prefix followed by a dash, a four-digit number, a location, and the two-letter state abbreviation (for example, R-2309, Yuma, AZ). A letter suffix is used to indicate area subdivisions. Rules and Regulations Group assigns identification numbers.

23-1-4. RESTRICTED AREA FLOOR

a. The restricted area floor may be established to the surface only when the using agency owns, leases, or by agreement, controls the underlying surface.

NOTE-

Existing restricted areas established from the surface before December 1, 1967, are exempt from the “own, lease, or control” requirement. This remains valid until amendment action is taken which would expand the boundaries, altitudes, or times of use, or changes the designated purpose of the area. Nevertheless, using agencies of such restricted areas are encouraged to acquire sufficient control of the property to prevent possible disruption of that agency’s activities.

b. Provisions must be made for aerial access to private and public use land beneath the restricted area, and to accommodate instrument arrivals/departures at affected airports with minimum delay.

c. The restricted area must exclude the airspace 1,500 feet AGL and below within a 3 NM radius of airports available for public use. This exclusion may be increased if necessary based on unique circumstances.

23-1-5. JOINT USE

a. Restricted areas are established for joint use by assigning an ATC facility as the controlling agency, and by executing a joint use letter of procedure between the controlling and using agencies. The letter of procedure provides for the operation of nonparticipating IFR and/or VFR aircraft within the area. Flight within the restricted area is controlled by the using agency except when the area has been released to the controlling agency. During such periods, the controlling agency may permit nonparticipating aircraft operations in the restricted area.

b. Prepare letters of procedure in accordance with FAA Order JO 7210.3, Facility Operation and Administration. The format of the letter may be modified as needed based on local requirements. The joint-use letter must include procedures for the timely activation, release, or recall of the airspace. The letter may also specify conditions and procedures whereby the controlling agency may route traffic through the area while in use, if approved separation can be maintained between nonparticipating aircraft and the user’s activities.

c. The service area office must be the approval authority for joint-use letters of procedure. This authority may be delegated to a FAA ATC facility designated as the controlling agency.

d. Requirements for coordination and communications between the controlling and using agencies concerning the activation and release of joint-use restricted areas must be outlined in the letter of procedure. A record must be made of all such communications. These records must be retained in accordance with FAA Order JO 7210.3, Facility Operation and Administration.

23-1-6. TEMPORARY RESTRICTED AREAS

a. Temporary restricted areas may be designated when necessary to accommodate hazardous activities associated with military exercises, test programs, etc.

b. Proponents must be encouraged to seek permission from using agencies to conduct their activities within existing permanent restricted areas before submitting a request for designation of a temporary restricted area.

c. The duration of a temporary restricted area must be specified in the NPRM/Final Rule.

Section 2. Processing

23-2-1. SUBMISSION OF PROPOSALS

Submit restricted area proposals to the service area office at least 10 months prior to the desired effective date. The following schedule is an estimate of the minimum time needed to process proposals that require only routine coordination.

NOTE—

Proposals that are complex, controversial, or require extensive environmental analysis could need up to 24 months or more additional processing time beyond that shown in TBL 23-2-1.

TBL 23-2-1

Calendar Days	Action
D	Proposal received by FAA regional/service area office.
D+30	Proposal reviewed by region/service area office; aeronautical study initiated. Proposal sent to Rules and Regulations Group to begin Rulemaking Process.
D+95	Proposal reviewed by Rules and Regulations Group.
D+105	NPRM published in Federal Register; Public comments directed to appropriate region.
D+150	Public comment period ends.
D+180	Comments reviewed by the region/service area office, and recommendations sent to Rules and Regulations Group.
D+240	Headquarters review of proposal, comments, and regional/service area office recommendations. Final determination; Rule prepared and submitted to Federal Register.
D+250	Rule published in Federal Register (at least 30 days prior to effective date).
D+250-306	Within this time frame; AeroNav cutoff date, and Rule effective date.

23-2-2. TEMPORARY RESTRICTED AREA PROPOSALS

a. Temporary restricted areas are subject to the same rulemaking processing (for example, NPRM and final rule) and environmental analysis requirements as permanent areas. However, since temporary restricted area effective dates are determined by the exercise or mission requirements rather than the standard 56-day en route chart cycle, a shorter overall processing time is the norm.

b. The FAA will attempt to accommodate changes in temporary restricted area requirements. Nonetheless, exercise planners should be aware that the Administrative Procedure Act requires public notice of the proposal and publication of the final rule at least 30 days before the airspace effective date. Moreover, these requirements may not permit late changes to the airspace proposed in the NPRM without causing a delay in the planned exercise start date. Significant changes to the proposal after the NPRM is published could necessitate an additional public comment period, further study of the aeronautical impact, and/or supplemental environmental analysis. Therefore, early planning, careful ground site selection, and close coordination between concerned parties throughout the entire planning process are essential. In selecting the ground site, specific attention must be given to the impact of the proposed temporary restricted area on existing aeronautical operations near the site. In any case, no change should be made within 45 days of the exercise start date unless:

1. It is absolutely essential to the safety and successful conduct of the exercise; or

2. To reduce the amount of airspace to be restricted.

NOTE—

For processing times, see TBL 23-2-2. See FAA Order JO 7610.4, Chapter 2, Exercise Planning, for additional details.

TBL 23-2-2

Calendar Days	Action
D	Proposal received by FAA regional/service area office.
D+30	Proposal reviewed by region/service area office and submitted to Rules and Regulations Group; aeronautical study initiated as required.
D+95	Proposal received by Rules and Regulations Group, AeroNav coordination; NPRM sent to Federal Register. Comments directed to appropriate regional/service area office.
D+105	NPRM published in Federal Register.
D+150	Public comment period ends.
D+180	Comments reviewed by region/service area office; recommendation sent to Rules and Regulations Group.
D+240	Rules and Regulations Group review of proposal, comments, and regional/service area office recommendation. Final determination. Rule prepared and sent to Federal Register. Graphic Notice sent to NOTAM Publication.
D+250	Rule published in Federal Register (at least 30 days prior to effective date).

Chapter 24. Warning Areas

Section 1. General

24-1-1. DEFINITION

A warning area is airspace of defined dimensions, (extending from 3 NM outward from the coast of the United States), designated to contain activity that may be hazardous to nonparticipating aircraft.

24-1-2. PURPOSE

The purpose of a warning area is to warn nonparticipating pilots of the potential danger from activities being conducted. A warning area may be located over domestic waters, international waters, or both.

24-1-3. IDENTIFICATION

Identify warning areas with the letter “W” prefix followed by a dash; a two- or three-digit number; a

location; and the two-letter state abbreviation (for example, W-291, San Diego, CA). A letter suffix is used to indicate subdivisions. Identification numbers are assigned by Rules and Regulations Group. ■

24-1-4. JOINT USE

Warning areas may be considered for joint use if the area can be released to the FAA during periods when it is not required for its designated purpose, and provided the warning area is located in airspace wherein the FAA exercises ATC authority under ICAO agreements. When designating a warning area for joint use, a letter of agreement must be executed between the controlling and using agencies to define the conditions and procedures under which the controlling agency may authorize nonparticipating aircraft to transit, or operate within the area. Apply the provisions of paragraph 23-1-5, as appropriate.

Section 2. Processing

24-2-1. SUBMISSION OF PROPOSALS

TBL 24-2-1

Submit warning area proposals to the service area office at least 7 months prior to the desired effective date. The following schedule is an estimate of the minimum time needed to process proposals that require only routine coordination.

NOTE—

Proposals that are complex or controversial could require significantly longer processing time than that shown in TBL 24-2-1.

24-2-2. EXECUTIVE ORDER 10854 COORDINATION

In accordance with Executive Order 10854, all warning area proposals must be coordinated with the Departments of State and Defense. This coordination will be accomplished by Rules and Regulations Group.

Calendar Days	Action
D	Proposal received by FAA regional/service area office.
D+30	Proposal reviewed by region/service area office; aeronautical study initiated, as required Nonrule circular published.
D+75	Public comment period ends. Aeronautical study due.
D+105	Comments reviewed by region/service area office; recommendation sent to Rules and Regulations Group.
D+150	Executive Order 10854, AeroNav coordination, and final determination by Rules and Regulations Group.
D+160	AeroNav cutoff date. Warning area published in NFDD (on or before cutoff date for next available charting date).
D+240	Warning area effective date.

Chapter 25. Military Operations Areas

Section 1. General

25-1-1. DEFINITION

A military operations area (MOA) is airspace designated outside of Class A airspace, to separate or segregate certain nonhazardous military activities from IFR traffic and to identify for VFR traffic where these activities are conducted.

25-1-2. PURPOSE

MOAs are designated to contain nonhazardous, military flight activities including, but not limited to, air combat maneuvers, air intercepts, low altitude tactics, etc.

25-1-3. IDENTIFICATION

Identify a MOA by a name followed by the acronym MOA and the two-letter state abbreviation (for example, Dome MOA, AZ). MOA subdivisions may be identified by a suffix consisting of a number, letter, cardinal point, or the terms “High” or “Low,” (for example, Moody 1; Gamecock B; Tiger North; Smoky High). Either the proponent or the service area office selects MOA names.

NOTE-

Select an easily understood word. Lengthy or composite names are cumbersome and tend to be confusing when communicating and in charting.

25-1-4. MOA FLOOR

MOAs may extend below 1,200 feet AGL if a mission requirement exists and there is minimal adverse aeronautical effect. Provisions must be made to enable aerial access to private and public use land beneath the area, and for terminal VFR and IFR flight operations. Provisions must also be made to accommodate instrument arrivals/departures at affected airports with minimum delay. The MOA must exclude the airspace 1,500 feet AGL and below within a 3 NM radius of airports available for public use. This exclusion may be increased if necessary based on unique circumstances. If the MOA floor extends below 1,200 feet AGL over a charted private

airport, coordination should be effected with the airport operator to determine whether there would be any conflict between the MOA activity and airport operations.

25-1-5. LOCATION

MOAs should be located to create minimum adverse impact on nonparticipating aircraft operations. MOAs must not be established offshore beyond the United States 12 NM territorial limit. To the extent possible, locate MOAs:

a. Within 100 miles of the user’s base of flight origin.

b. Outside terminal area airspace, Federal airways, charted terminal VFR routes, and known high volume VFR flyways.

c. Within radar and communications coverage of an ATC facility or MRU.

NOTE-

Do not designate MOAs to overlap existing, charted Terminal Area VFR Routes, or charted VFR Flyways (See FAA Order JO 7210.3, Chapter 12, National Programs).

25-1-6. JOINT USE

a. In effect, MOAs are always joint use in that VFR aircraft are not denied access, and IFR aircraft may be routed through the airspace, by agreement between controlling and using agencies, when approved separation can be provided from the MOA activity.

b. Procedures for access to the airspace by nonparticipating IFR traffic must be specified in a letter of agreement between the controlling and using agencies.

25-1-7. TEMPORARY MOAs

a. Temporary MOAs are designated to accommodate the military’s need for additional airspace to periodically conduct exercises that supplement routine training. When existing airspace is inadequate to accommodate these short-term military

exercises, temporary MOAs may be established for a period not to exceed 45 days. On a case-by-case basis, Rules and Regulations Group may approve a longer period if the proponent provides justification for the increase.

b. When it is determined that the need for a temporary MOA will occur on a regular and continuing basis, the airspace should be considered for establishment as a permanent MOA with provisions for activation by NOTAM/Special Notice disseminated well in advance of scheduled exercises.

c. Once a temporary MOA is approved, the military must be responsible for publicizing the exercise within 100 miles of the affected airspace. The publicity may be accomplished through the

public media, pilot forums, distribution of information bulletins to known aviation interests, etc.

25-1-8. MOAs IN CLASS G AIRSPACE

MOAs may be designated in Class G airspace. Using agencies and pilots operating in such MOAs should be aware that nonparticipating aircraft may legally operate IFR or VFR without an ATC clearance in these MOAs. Pilots of nonparticipating aircraft may operate VFR in Class G airspace in conditions as low as 1 statute mile flight visibility and clear of clouds (see Section 91.155 for complete Class G airspace VFR minima). Any special procedures regarding operations within MOAs that encompass Class G airspace should be included in a letter of agreement between the controlling and using agencies.

Section 2. Processing

25-2-1. SUBMISSION OF PROPOSALS

Submit MOA proposals, other than temporary MOAs, to the service area office at least 8 months prior to the desired effective date (see paragraph 25-2-2 for temporary MOA proposals). The following schedule is an estimate of the minimum time needed to process proposals that are non-controversial, without significant aeronautical impact, and require only routine coordination.

NOTE-

Proposals that are complex, controversial, or require extensive environmental analysis could need up to 24 months or more additional processing time beyond that shown in TBL 25-2-1.

TBL 25-2-1

Calendar Days	Action
D	Proposal received by FAA regional/service area office.
D+30	Proposal reviewed by region/service area office. Nonrule circular published. Aeronautical study initiated, as required.
D+75	Public comment period ends. Aeronautical study due.
D+105	Comments reviewed by region and recommendation sent to Rules and Regulations Group.
D+165	Proposal, comments, and recommendation reviewed by Rules and Regulations Group. AeroNav coordination and final determination.
D+175	AeroNav cutoff date. MOA published in NFDD on or before this date.
D+231	MOA effective date and/or 56-day airspace effective date.

25-2-2. TEMPORARY MOA PROCESSING

- a. Submit temporary MOA proposals to the

service area office at least 4 months prior to desired effective date (See TBL 25-2-2). When there is a known requirement for multiple activations of the same temporary MOA over a specific time period, proponents are encouraged to combine the requests into a single proposal covering the entire period. This will provide notice to the public that is more effective and reduce administrative processing workload.

- b. Temporary MOA effective dates are determined by the exercise requirements rather than the 56-day en route chart cycle used for permanent SUA. Consequently, a shorter overall processing time is required.

- c. See paragraph 21-1-15 of this order for graphic notice and narrative description information to be submitted with the proposal package.

- d. For recurring temporary MOAs, an abbreviated proposal package may be submitted at the discretion of the service area office. See paragraph 21-3-4 of this order for details.

TBL 25-2-2

Calendar Days	Action
D	Proposal received by FAA regional/service area office.
D+30	Proposal reviewed by region/service area office; Nonrule circular published; aeronautical study initiated.
D+75	Public comment period ends. Aeronautical study due.
D+105	Comments reviewed by region/service area office. Recommendation sent to Rules and Regulations Group.
D+135	Proposal, comments, and recommendation reviewed by Rules and Regulations Group. AeroNav coordination and final determination. Graphic Notice sent to NOTAM Publication.

Chapter 26. Alert Areas

Section 1. General

26-1-1. DEFINITION

An alert area is airspace wherein a high volume of pilot training or an unusual type of aeronautical activity is conducted.

26-1-2. PURPOSE

Alert areas are designated to inform nonparticipating pilots of areas that contain a high volume of pilot training operations, or an unusual type of aeronautical activity, that they might not otherwise expect to encounter. Pilots are advised to be particularly alert when flying in these areas.

26-1-3. LOCATION

Alert areas must not extend into Class A, B, C, and D airspace, or Class E airport surface areas. To the extent possible, alert areas should avoid Federal airways, major terminal areas, and high volume VFR routes. Once an alert area is designated, the establishment of Federal airways through such areas should be kept to a minimum.

26-1-4. ACTIVITIES

a. Only those activities that do not pose a hazard to other aircraft may be conducted in an alert area.

b. All alert area activities must be conducted in accordance with visual flight rules, and in compliance with applicable Sections of 14 CFR.

c. Flight Service Stations may broadcast information regarding alert area activities as circumstances dictate.

26-1-5. IDENTIFICATION

Alert areas must be identified by the letter “A” prefix followed by a dash, a two or three digit number, a location, and the two-letter state abbreviation (for example, A-292, Pensacola, FL). A letter suffix is used to indicate subdivisions. Identification numbers are assigned by Rules and Regulations Group. Aeronautical charts must be annotated to reflect the type of activity conducted in the alert area.

Section 3. Processing

26-3-1. ALERT AREA PROPOSALS

TBL 26-3-1

Alert area proposals must contain all applicable items listed in Chapter 21, Section 3 of this order; except that designation of a controlling agency, completion of an aeronautical study, and FAA environmental analysis are not required.

26-3-2. SUBMISSION OF PROPOSALS

Submit alert area proposals to the service area office at least 6 months prior to the desired effective date. The following schedule is an estimate of the minimum time needed to process proposals that require only routine coordination.

NOTE—

Controversial proposals may require significantly greater processing time than that shown in TBL 26-3-1.

Calendar Days	Action
D	Proposal received by FAA regional/service area office.
D+30	Proposal reviewed by region/service area office. Nonrule circular published.
D+75	Public comment period ends.
D+105	Comments reviewed; recommendation sent to Airspace and Rules
D+135	AeroNav coordination; proposal, comments and recommendation reviewed by Rules and Regulations Group. Final determination.
D+145	Alert Area cutoff date and effective date published in NFDD.
D+145-201	Within this time frame; AeroNav cutoff date and Alert Area effective date.

Chapter 28. National Security Areas

Section 1. General

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. Where there is a need to restrict flight operations in an NSA, the required restriction will be issued by Rules and Regulations Group and disseminated via NOTAM.

28-1-2. PURPOSE

An NSA is designated to enhance national security and protect national assets.

28-1-3. CRITERIA

An NSA should be considered when a need to protect national assets or a need to protect an area in the interest of national security is identified.

28-1-4. DIMENSIONS

There are no standard dimensions for an NSA. The dimensions should be the minimum to promote the protection of the national asset or area identified.

28-1-5. CHARTING

NSAs must be depicted on aeronautical charts to inform users of the NAS regarding their vertical and lateral dimensions. Additionally, a note must be depicted on the chart adjacent to the NSA stating the requested avoidance altitude.

28-1-6. EXPIRATION, SUSPENSION, OR REVOCATION

An NSA does not expire. However, an NSA may be suspended or revoked at the discretion of Rules and Regulations Group.

Section 2. Processing

28-2-1. NSA PROPOSALS

NSA proposals must contain all applicable items listed in Chapter 21, Section 3, of this order. References to environmental analysis, ATCAAs, controlling agency, using agency, and times of use are not required.

28-2-2. SUBMISSION OF PROPOSALS

a. An NSA proposal may be initiated by any agency of the Federal government. Send any NSA proposal to the service area office at least 6 months prior to the desired effective date. Such requests must include sufficient justification for the requested action.

b. Requests should be sent to the service area office responsible for the affected area.

28-2-3. REGIONAL/SERVICE AREA OFFICE PROCESSING

The service area office must evaluate the effect of proposals on aircraft operations in the NAS as

specified in Chapter 21. The service area office must then forward their recommendation and justification to Rules and Regulations Group for processing.

28-2-4. RULES AND REGULATIONS GROUP PROCESSING

Upon receipt of an NSA proposal, Rules and Regulations Group must:

a. Review the proposal for justification and impact on aircraft operations in the NAS.

b. Coordinate the request as appropriate.

c. Approve or disapprove the request.

d. Forward the approved request to Aeronautical Information Management for charting.

e. Take action to suspend or revoke the NSA when it is no longer justified.

f. Take appropriate action to inform users of the designation, suspension, or revocation of the NSA.

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 Rules and Regulations Group.

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

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.

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.

29-3-3. 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 2. Amateur Rockets

31-2-1. RESPONSIBILITIES

a. Air traffic is authorized to issue waiver/authorizations to Part 101 for amateur rocket activities and is responsible for integrating amateur rocket activities into the NAS. The appropriate service area 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 AST.

b. AST supports the waiver/authorization process by providing Air Traffic with the results of safety analyses and recommendations pertaining to proposed amateur rocket activities.

c. AJV-P2 provides oversight and support to service areas for amateur rocket operations.

d. Communication and coordination between AST and Air traffic is paramount. Since AST personnel are not located at the regional offices, the required AST coordination occurs at FAA HQ.

31-2-2. GENERAL OPERATING LIMITATIONS

a. In accordance with Part 101, an amateur rocket must:

1. Launch on a suborbital trajectory;
2. Not cross into the territory of a foreign country unless an agreement is in place between the United States and the country of concern;
3. Be unmanned;
4. Not create a hazard to persons, property, or other aircraft.

b. In addition to the above, Class 2-High Power Rockets and Class 3-Advanced High Power Rockets, must not operate:

1. At any altitude where clouds or obscuring phenomena of more than five-tenths coverage prevail;
2. At any altitude where the horizontal visibility is less than five miles;
3. Into any cloud;

4. Between sunset and sunrise without prior authorization from the FAA;

5. Within 5 nautical miles of any airport boundary without prior authorization from the FAA;

6. In controlled airspace without prior authorization from the FAA;

7. Unless observing the greater of the following separation distances from any person or property that is not associated with the operation:

(a) Not less than one-quarter of the maximum expected altitude;

(b) 1,500 feet;

8. Unless a person at least eighteen years old is present, is charged with ensuring the safety of the operation, and has final approval authority for initiating high-power rocket flight;

9. Unless reasonable precautions are provided to report and control a fire caused by rocket activities.

31-2-3. AMATEUR ROCKET PROCESS

The applicant must submit FAA Form 7711-2, Application for Certificate of Waiver or Authorization, at least 45 days prior to the event, and must include the required information as outlined in section 101.29.

The service area is the focal point for receiving, processing, and signing waiver/authorization requests. A service area may delegate waiver/authorization processing responsibilities to a facility, in accordance with FAA Order JO 7210.3.

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

a. A waiver/authorization is required for amateur rocket operations conducted outside the operating limitations per paragraph 31-2-2. The most common reason for requesting a waiver/authorization is to operate within controlled airspace. An applicant must

submit its waiver/authorization request to the service area. If the applicant submits its request directly to AST, AST must direct the applicant to submit its request directly to the service area.

b. The service area must perform the initial review of the waiver/authorization request.

1. The service area must verify that FAA Form 7711-2 is complete and that the information required in section 101.29 has been provided. The service area must return incomplete waiver/authorization requests to the applicant for additional information. Requests that cannot be accommodated will not be coordinated beyond the service area.

2. All complete waiver/authorization requests must be assigned a unique waiver/authorization number for ease of processing. The number must consist of the three-letter service area identifier, four digits containing the year and number of the request received that year, and the contraction "RKT" (for example, WSA-1034-RKT indicates Western Service Area, the year 2010, and the 34th waiver/authorization for that year). This number must be used in all correspondence and coordination when referring to this operation.

3. No less than 30 days prior to the proposed launch date, the service area must forward requests that require AST safety analysis (all Class II intended to enter Class A airspace, all Class III requests and all requests to waive the standoff distance of section 101.25(g)) to AST and the ATO Commercial Space POC (ATO POC).

4. AST must conduct a safety analysis that determines or verifies the following:

(a) The size and location of the ground hazard area.

(b) The size and location of the aircraft hazard area(s) and the times during which the hazard area(s) must remain clear of aircraft during both normal operations and in the event of a failure.

(c) Any additional steps that the amateur rocket operator must take to ensure public safety.

5. AST must coordinate with the service area when additional information is required from the applicant.

6. No less than 10 days prior to the proposed launch date, AST must provide its safety analysis

results and any related recommendations to the service area and the ATO POC.

c. The service area must coordinate with the appropriate facility(ies) for the processing of the waiver/authorization. This coordination must include the performance of an Aeronautical Analysis, as described in paragraph 31-2-4.

d. The service area must sign and issue the waiver/authorization with appropriate terms/conditions.

1. The service area must provide a copy of the approved waiver/authorization to the applicant and facilities.

2. For any waiver/authorization requests that require review under subparagraph b.3, the service area must provide a copy of approved waiver/authorization to AST and AJV-P2.

3. The service area must archive the approved waiver/authorization and associated data for tracking purposes through a local process.

e. The facility must develop an Airspace Management strategy as described in paragraph 31-2-5.

f. Prior to each activity, the facility must develop an Electronic System Impact Report in accordance with FAA Order JO 7210.3.

g. A NOTAM must be issued per the terms of the waiver/authorization.

31-2-4. AERONAUTICAL ANALYSIS

Prior to issuing a Certificate of Waiver or Authorization for amateur rocket operations, the service area 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. Gather details on the amateur rocket event, such as location, date(s), time, number of launches, and expected altitude.

b. Identify the class of rocket operations specified in the Certificate of Waiver or Authorization, as this will determine which sections of 14 CFR Part 101 apply.

NOTE-

The applicant is responsible for determining the

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 ensure compliance with all environmental laws and regulations. This policy requires that all projects be reviewed as early as possible to determine if there is potential to impact the quality of the human environment as defined by the National Environmental Policy Act of 1969, as amended (NEPA). 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 NEPA and its 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.

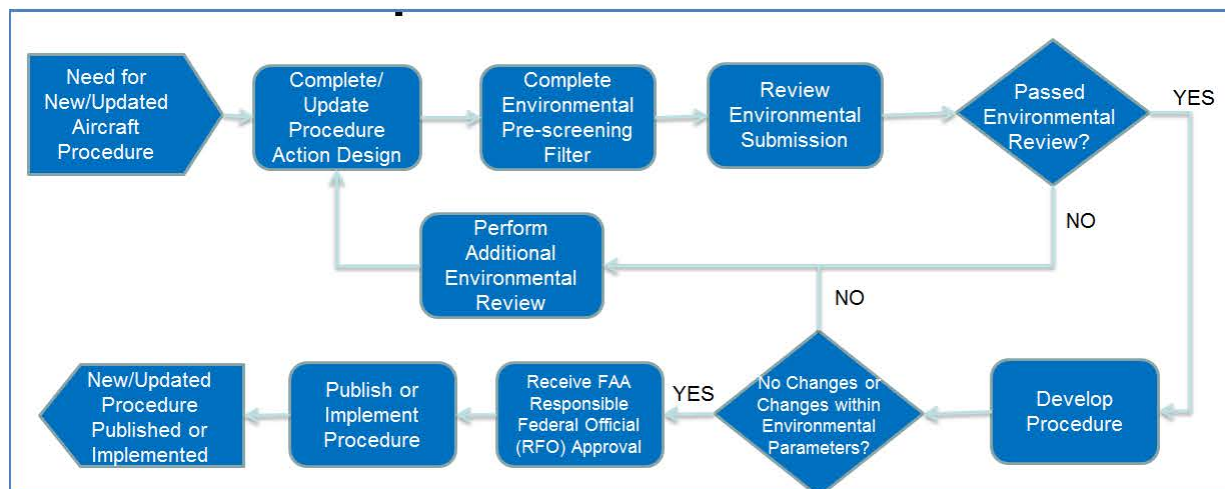
b. The complexity of environmental issues associated with some air traffic activities necessitates a systematic and uniform approach to the environmental review process. This process must assess all impacts, as well as provide the data for preparing all required environmental and supporting documentation.

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, in certain cases, 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, Rules and Regulations Group is responsible for coordinating environmental processes that cross service area boundaries.

g. The Service Center Operations Support Group (OSG) Flight Procedures Team (FPT) must assist the Service Center Environmental Specialist in preparing CATEXs 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, Policy, Rules and Regulations Group. The Rules and Regulations 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 Rules and Regulations 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 Rules and Regulations 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 Rules and Regulations 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 must assist the Environmental Specialist in preparing a CATEX that is based on the results of the IFP Environmental Pre-Screening Filter, and does 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.

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 FONSIs. The CEQ regulations do not specify a format for FONSIs, but FONSIs 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 Rules and Regulations 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

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 Rules and Regulations Group, AJV-P2. 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, Policy, Rules and Regulations Group.

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 JO 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,

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

a. Community involvement is the process of engaging in dialogue and collaboration with communities affected by FAA actions. Collaboration means all parties taking responsibility to engage in meaningful dialogue with their counterparts. This includes making a genuine effort to ensure that the

interests of all have been identified and as many as possible have been addressed before an outcome is determined.

b. The FAA is committed to open dialogue with communities and regards community input as an important consideration in decisions that affect the airspace. Because the FAA must prioritize the safe and efficient operation of the National Airspace System, community involvement does not guarantee outcomes that satisfy everyone. However, decisions that take community input into consideration are more likely to reflect the collective public interest, receive broader community acceptance, and experience fewer implementation and post–implementation problems.

REFERENCE–

FAA Community Involvement Manual, February 2016, Section 1.1 “Background”

c. Therefore, ATO personnel should reference the following materials to determine the type and extent of community involvement, if any, for a project or action:

1. *FAA Order 1050.1*
2. *FAA Community Involvement Manual (CIM)*
3. *FAA Air Traffic Organization Community Involvement Plan (ATO CIP)*
4. *FAA Community Involvement Performance Based Navigation Desk Guide (CIPDG)*
5. *FAA Order JO 7400.2, Appendix 10, FAA’s “Community Involvement Policy” statement.*

d. Community involvement should be considered early in the project development process. Note that the type of community involvement (workshops, airport meetings, roundtables, presentations, etc.) must be determined on a case–by–case basis.

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 Environ-

mental Review Process for Instrument Flight Procedures: FAA Order JO 7400.2J.