



**FAA
Airports**

ARP SOP 9.2

Effective Date:

05/25/2022

Standard Operating Procedure (SOP)

FAA Aeronautical Study, Coordination and Evaluation

A. PURPOSE

This SOP establishes uniform procedures for the Federal Aviation Administration (FAA) Office of Airports (ARP) that address:

- a. Collection, maintenance and resolution of airport data in the FAA's Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) system.
- b. Receipt, coordination, evaluation, formulation and issuance of agency determinations as appropriate for on airport and off airport notices filed in accordance with Title 14 Code of Federal Regulation (CFR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace (Part 77). This includes when and how to contact an airport sponsor about incompatible development near, or on, a federally obligated airport.
- c. Coordination of airport layout plans (ALPs), construction safety phasing plans (CSPPs), solar facilities, and other items as necessary to assure federally obligated airports are meeting their Airport Improvement Program grant assurances.
- d. Receipt, coordination, evaluation, formulation and issuance of agency determinations as appropriate for on-airport notices filed in accordance with Title 14 CFR Part 157, Notice of Construction, Alteration, Activation and Deactivation of Airports (Part 157).

B. SCOPE

- a. This SOP is applicable to ARP personnel responsible for maintaining the airport and runway database and for processing and/or responding to various notices received by the FAA. The FAA coordinates these notices through the OE/AAA system as a Non-Rulemaking Airport (NRA), Nonrule (NR), or an Obstruction Evaluation (OE) study.
- b. FAA Order JO 7400.2, Procedures for Handling Airspace Matters, establishes procedures unique to airport airspace analysis for specific FAA offices and other federal agencies when using the OE/AAA system. Specifically, each FAA Line of Business (LOB) reviews a proposal against its criteria and responds by offering comments as appropriate to determine the potential for any adverse impacts to their area of responsibility. Participating organizations include Air Traffic Obstruction Evaluation Group (OEG), ARP, Flight Procedures, and Flight Standards, Technical Operations Services and Military Service and other organizations as necessary.

- c. The document is organized as follows to clearly define and document the steps and processes required to maintain airport data and conduct airspace evaluations:
 - (1) Airport Data
 - (2) On-Airport Proposals
 - (3) Processing On-Airport Construction – NRA Studies
 - (4) Processing On-Airport Construction – NR Studies
 - (5) Processing Off-Airport and Military Airport Proposals – OE Studies
- d. Notices Submitted in Accordance with 14 CFR Part 157, Construction, Alteration, Activation and Deactivation of Airports (Processed as an NRA Study)

C. CANCELLATION

This SOP cancels version 9.1, dated March 25, 2019.

D. APPLICABLE REGULATIONS, POLICY, AND GUIDANCE

Requirements identified within this SOP originate in various FAA publications, including regulations, orders and advisory circulars. If a more recent version of a listed document exists, then use the current version.

- a. Title 14 CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace
- b. Title 14 CFR Part 139 (Part 139), Certification of Airports
- c. Title 14 CFR Part 157, Notice of Construction, Alteration, Activation and Deactivation of Airports
- d. Title 49 United States Code 47107(a)(16), Project Grant Application Approval Conditioned on Assurances about Airport Operations
- e. FAA Advisory Circular (AC) 150/5300-13, Airport Design
- f. FAA AC 150/5390-2, Heliport Design
- g. FAA AC 150/5370-2, Operational Safety on Airport During Construction
- h. FAA AC 70/7460-2, Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace
- i. FAA AC 150/5300-16, General Guidance and Specifications for Aeronautical Surveys
- j. FAA AC 150/5300-17, General Guidance and Specifications for Aeronautical Survey Airport Imagery Acquisition and Submission to the National Geodetic Survey.

- k. FAA AC 150/5300-18 General Guidance and Specifications for Aeronautical Surveys to NGS.
- l. FAA AC 150/5100-20, Guidance on the Extraction of Oil and Gas at Federal Obligated Airports
- m. FAA Order JO 7400.2, Procedures for Handling Airspace Matters
- n. FAA Order 5000.3, Coordination with the Federal Highway Administration
- o. FAA Order 5100.38, Airport Improvement Program Handbook
- p. FAA Order 5190.6, Airport Compliance Manual
- q. FAA Order 5200.11, FAA Airports (ARP) Safety Management System (SMS), and associated ARP Safety Risk Management (SRM) Desk Reference
- r. FAA Order 5280.5, Airport Certification Program Handbook
- s. FAA Order 5500.1, Passenger Facility Charge Handbook
- t. FAA Order 8260.19, Flight Procedures and Airspace
- u. SOP for FAA evaluation of sponsors Construction Safety Phasing Plan Funded by the AIP or PFC Programs.
- v. SOP for FAA review and Approval of Airport Layout Plans
- w. SOP for Safety Risk Management under the FAA Office of Airports Safety Management System
- x. Airports OE/AAA User Guide. Located in the internal OE/AAA website. From the top menu bar, select “Help” and then “Downloads”.

E. REQUIREMENTS AND OBJECTIVES

The requirements and objectives of this SOP depend on the type of notice as follows:

- a. For all types of notice, the FAA maintains an airport/runway database in OE/AAA system as needed.
- b. For proposed construction or alteration on a federally obligated public use airport, the FAA evaluates the proposal for consistency with the approved ALP and whether the proposal affects the safety, utility, and efficiency of the airport. For Airport Operating Certificate holders, the FAA verifies compliance with Part 139.
- c. For planning documents, ALPs, Action Plans and Feasibility Studies, etc. at federally obligated airports related to on-airport development, the FAA reviews to determine

consistency with maintaining the safety, utility and efficiency of the National Airspace System (NAS).

- d. For proposed construction, alteration, activation and deactivation of an airport not certificated by or obligated to the FAA, the FAA evaluates all private and public use landing area proposals and all proposed changes to public use airports.
- e. For proposed construction or alteration not located on a public or joint use airport, the FAA evaluates the proposal to determine if it would constitute a hazard to air navigation.

F. LIMITATIONS OF THIS SOP

- a. The procedural steps outlined in this SOP vary depending on the type and location of the aeronautical study filed with the FAA.
- b. This SOP describes the coordination process in accordance with FAA Order JO 7400.2, Procedures for Handling Airspace Matters. If a conflict between this SOP and the current FAA Order JO 7400.2 exists, staff should follow the guidance in the order.

G. DISTRIBUTION

This SOP is distributed to the FAA Office of Airports (ARP) and all interested parties. The SOP will be available electronically on the Office of Airports section of the FAA website.

H. CHANGE TABLE

Date of Change	SOP Version	Principal Changes
03/07/2019	9.1	Order 5300.1G, Modifications to Agency Airport Design, Construction, and Equipment Standards will take effect and any reference to MOSs in this SOP is to be removed. In addition, the SOP has been updated to reflect the automation of the FAA Form 7480-1 (14 CFR Part 157).
04/11/2022	9.2	Updated SOP based on the OE and NRA Process Improvement Work Group effort. Standardized responses to OE aeronautical studies, and provided additional guidance on handling OE studies. Added instructions on the use of the runway design analysis tool. Incorporated equations pertaining to the approach and departure surfaces. Provided procedures for mitigating division responses. Added guidance on reviewing and commenting on marking and lighting of obstructions specific to NRA studies. Provided a notice to sponsor on proposed obstacles outside airport property. Clarification on Flight Procedures evaluation on NRA studies. Identified NRA auto-screen business rules in OE/AAA. Revised procedures on reviewing on-airport solar facilities, in accordance with new FAA policy. Revised the ALP section based on Section 163.



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4/11/2022

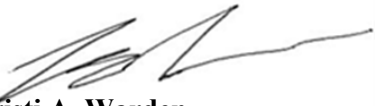
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4/11/2022

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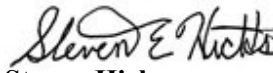
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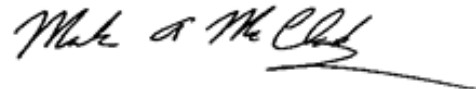
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Table of Contents

1	AIRPORT DATA.....	1
1.1	Purpose.....	1
1.2	Roles and Responsibilities.....	1
1.3	Types of Airport Data	1
1.4	Airport Data Elements.....	6
1.5	Add a New Proposed Airport and/or Creation of Proposed Runways	8
1.6	Airport Data Corrections for Airports with Part 77 Issues	9
2	ON-AIRPORT PROPOSALS.....	9
2.1	Aeronautical Study Numbers	10
2.2	General Airport Definitions	10
3	PROCESSING ON-AIRPORT – NON-RULEMAKING AIRPORT (NRA) STUDIES	11
3.1	Notices of Proposed Construction or Alteration (FAA Form 7460-1).....	11
3.2	Airport Layout Plans (ALPs)	22
3.3	Construction Safety Phasing Plans (CSPPs).....	26
3.4	Solar Facilities.....	29
3.5	Hazardous Wildlife Attractants On or Near Airports.....	30
3.6	Other Items as Necessary.....	30
4	PROCESSING ON-AIRPORT – NON-RULEMAKING (NR) STUDIES.....	32
4.1	Roles and Responsibilities.....	32
4.2	Flow Chart for Coordinating On-Airport NRs for Notice of Proposed Construction.....	33
5	PROCESSING OFF-AIRPORT AND MILITARY AIRPORT PROPOSALS – (FAA FORM 7460-1) OBSTRUCTION EVALUATIONS (OE).....	34
5.1	Aeronautical Study Numbers	34
5.2	Purpose.....	34
5.3	Roles and Responsibilities.....	34
5.4	Flow Chart for Coordination of Off-Airport and Joint Use Airports Proposals (FAA Form 7460-1)	37
6	NOTICES SUBMITTED IN ACCORDANCE WITH 14 CFR PART 157.....	38
6.1	Notification Requirements.....	38

6.2 Establishment of an Airport or Alteration of an Airport/Landing Area (FAA Form 7480-1 or Landing Area Proposal (LAP))	38
Appendix A – Runway Supplemental Data & Runway Design Tool	52
Appendix B – AC 150/5300-13B Approach/Departure Surface Equations	57
Appendix C – OE Standardized Responses	58
Appendix D – Mitigate Division Responses	63
Appendix E – Obstruction Marking & Lighting.....	64
Appendix F – Notice to Airport Sponsor about maintaining a clear approach and departure surface.....	65
Appendix G – Flight Procedures NRA Evaluation	67
Appendix H – NRA Auto-screen Business Rules.....	68

1 AIRPORT DATA

1.1 Purpose

- 1.1.1 The National Airspace System (NAS) relies on the accuracy of the airport data in the FAA's OE/AAA system to protect current and planned airspace improvements and maintain the accuracy of FAA publications. The airport data in the National Airspace System Resources (NASR) is the "official" data source, and the Aeronautical Information Services (formally NFDC) makes all changes to this data. Aeronautical Information Services (AIS) ensures that data changes have been properly coordinated (if necessary) and flight checked (if necessary) prior to making the changes permanent.
- 1.1.2 The NASR database consists of existing data only. This data can be found in the OE/AAA airports/runways database and the Airport Data and Information Portal ([ADIP](#)). The OE/AAA system is also the only source of proposed data. Proposed data is entered to protect the Airport Layout Plan's (ALP) "plan on file" or proposed procedure and its future airspace. Timely establishment of proposed data is important to protect the current and planned NAS.

1.2 Roles and Responsibilities

1.2.1 Airports Organization (ARP)

ARP is responsible for maintaining and updating airport and runway data.

1.2.1.1 Responsible ARP Staffer (RAS)

1.2.1.1.1 The ARP employee responsible for maintaining the airport/runway database might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other position; for consistency, this document refers to the responsible ARP employee as the RAS. ARP, through the RAS, maintains and updates airport and runway data in the OE/AAA system.

1.2.1.1.2 Refer to the State Block Grant agreement with each respective state concerning what RAS duties a state employee can perform.

1.3 Types of Airport Data

1.3.1 Existing Conditions (NASR)

1.3.1.1 To enter data for existing conditions, the RAS:

- First verifies existing conditions not already reported to AIS.
- For conditions that have not been reported, creates a pending record in the OE/AAA system as outlined in Section 1.3.2. Pending data is used to record an existing condition or change in condition or to correct data in the OE/AAA.

- After creating a pending record, notifies AIS of the condition, change in condition or correction.
- 1.3.1.2 Once AIS creates NASR data that matches the pending data, the database automatically removes the pending data.
- 1.3.1.3 Correct deficiencies: Upon learning of data for existing conditions that requires correcting, the RAS must complete steps outlined in section 1.3.1.1 to 1.3.1.2 to correct the data.

1.3.2 Pending Data

- 1.3.2.1 Pending data must be created to change a proposed entry that has now become an existing condition or correct inaccurate existing data. This change is applicable only to the OE/AAA database until AIS updates NASR which then the RAS will need to remove the pending data entry from the OE/AAA database. The pending data entry accounts for the delay in time for the system to be updated so that all airspace cases are being evaluated against current data. To create pending data the RAS must do the following:
- 1.3.2.2 Pending Data Pertaining to Existing Airports
- a. From the “Data” drop-down menu, select “OE/AAA Airports/Runway Database”.
 - b. Fill in the airport locator ID for the specific airport.
 - c. Select “Search” and select airport locator ID (NASR as Source)
 - d. Make changes to airport data.
 - e. Select “Create Pending”.
- 1.3.2.3 Pending Data for New Airports
- For all airports, a proposed record for the subject airport would have already been created and a temporary LOCID assigned through the OE/AAA system. Subsequently, when Form 5010-3 (New Public Use) or 5010-5 (New Private Use) has been received and the permanent LOCID has been established (via NDFC), the temporary airport is to be deleted by the RAS.
- 1.3.2.4 Pending Data for Runways
- a. From the “Data” drop-down menu, select “OE/AAA Airports/Runway Database”.
 - b. Fill in the airport locator ID for the specific airport.
 - c. Select “Search”.

- d. Select the locator ID under “Airport ID” with a status of “Existing”. Do not select a locator ID with a status of “Pre-Pending”.
- e. Under “Runways & Helipads”, select “Runway” (NASR as Source).
- f. Next to “Runway Info”, select “Create Pending Runway”.
- g. Modify the required fields; then select “Save Pending Runway”.

Note: If the pending data entry is for a change in runway end coordinates, length, width and elevation, and has an instrument procedure(s), these changes require a survey to be submitted through Airports GIS in accordance with AC 150/5300-18. Follow-up with AIS staff, Flight Standards, Flight Procedures, and /or flight check.

- h. Review changes and select “Update Runway”
- i. Repeat steps a through d.
- j. Select the newly created pending runway (under the column “name”)
- k. Select “Submit Runway Changes to NFDC”
- l. Once the NASR data matches the pending data in the OE/AAA database, the pending data entry will be automatically deleted.

1.3.3 Proposed Data

1.3.3.1 ALPs, Wide Area Augmentation System (WAAS) Office implementation schedules and Flight Procedures implementation schedules are all sources of “Plans on File” (i.e., proposed) for existing airports. The OE/AAA system includes an airport database that maintains existing, pending, and proposed runway data. Correct airport and planned/proposed airport data is crucial to accurate and timely Part 77 analysis. As airspace cases are continuously filed, it is imperative that Part 77 analyses reflect the most recent planned/proposed data to prevent future petitions (challenges to determinations).

1.3.3.2 The RAS must typically enter the following types of planned/proposed data:

- a. Runway lengths (extensions)
- b. Runway width
- c. Runway elevation
- d. Location (end coordinates)
- e. Approach type (Part 77 code)
- f. Supplemental data

Note: The OE/AAA system automatically calculates the Ultimate Airport Reference Point (UARP) when any proposed data is entered into the database.

- 1.3.3.3 The RAS must also review the airport elevation and/or the ultimate elevation (if applicable).

Note: The airport elevation is the highest point of an airport's usable runways. If the planned/proposed runway is estimated to be at a higher elevation, the RAS should enter the ultimate elevation.

- 1.3.3.4 After checking the accuracy of the proposed data, the RAS enters:
- a. Any proposed public use or joint use airport data into the database within 2 working days from receipt of the information.
 - b. Any change of status from private use to public use within 2 working days from receipt of the information.
 - c. All other public use and military airport runway information within 10 working days from receipt of the information.
 - d. As workload permits, information on private use airports into the database.

Note: The UARP will automatically be calculated but needs to be verified by the RAS.

1.4 Airport Data Elements

1.4.1 Airport Data

The OE/AAA database includes the following fields under airport data:

- | | |
|---|--|
| • Airport Locator ID | • Activation Date |
| • Airport Name | • Site Number |
| • City | • Standard Instrument Flight Procedure (SIAP) Type |
| • State | • County |
| • Airport District Office (ADO) | • Inspector Code |
| • Airport Ownership | • Airport Elevation |
| • Facility Use | • Elevation Method |
| • Change Status Code | • OC Chart |
| • Airport Latitude/longitude | • Ultimate Elevation |
| • Ultimate Airport Reference Point (UARP) Latitude/Longitude | • UARP Date |
| • Reference Point Source | • Reference Point Date |
| • Part 139 Type | • Magnetic Variation |
| • Central Business District (CBD) to Airport (Cardinal Direction) | • CBD to Airport (nautical miles) |
| • Airport Contacts | • Airspace Determination Code |

1.4.2 Runway Info

The OE/AAA database includes the following runway data elements under runway info:

- Runway Identifier
- Length*
- Width*
- Traffic Pattern
- Surface Type*
- Change Status Code
- Approximate Runway Delete Date

1.4.3 Runway Ends Info

The OE/AAA database includes the following runway data elements for each runway end (asterisks identify essential data required for airspace analysis):

- | | |
|------------------------------------|-------------------------------------|
| • ID * | • Part 77 Code* |
| • True Bearing* | • Elevation Source |
| • Runway Elevation* | • Elevation Datum |
| • Latitude* | • Elevation Date |
| • Longitude* | • Position Source |
| • Displacement Threshold Latitude | • Position Date |
| • Displacement Threshold Longitude | • Stopway Length |
| • Displacement Threshold Elevation | • Takeoff Run Available (TORA) |
| • Displacement Elevation Datum | • Takeoff Distance Available (TODA) |
| • Approach Lights | • Displaced Threshold Length |
| • VGSI | • Right Hand Traffic Pattern |
| | • Runway Marking Type |

1.4.4 Helipad

The OE/AAA database includes the following helipad data elements (asterisks identify essential data required for airspace analysis):

- Helipad Identifier
- Length (TLOF dimensions)*
- Width (TLOF dimensions)*
- Surface Type
- Change Status Code
- Latitude*
- Longitude*
- Elevation*

1.5 **Add a New Proposed Airport and/or Creation of Proposed Runways**

- a. To add a new airport in the OE/AAA Airports/Runway Database:
 - (1) From the “Data” drop-down menu, select “OE/AAA Airports/Runway Database”.
 - (2) Click on the “Add Airport” tab.
 - (3) Enter data in the fields identified with red asterisks.
 - (4) Click on the button, “Create Proposed Airport” which will automatically create a temporary location Identifier (LOCID). This temporary LOCID is specific to the OE/AAA system only.
- b. To create a proposed runway to a new or existing airport in the OE/AAA Airports/Runway Database:
 - (1) From the “Data” drop-down menu, select “OE/AAA Airports/Runway Database”.
 - (2) Under the “Search Airports” tab, enter the airport locator ID for the specific airport and click “Search”.
 - (3) Click on the “Airport ID”.
 - (i) If entering a new runway—
 - Under “Runways and Helipads”, click on “Add Proposed Runway”.
 - Complete all the data fields under “Runway Info” and “Runway Ends Info”.
 - Then at the bottom, click “Add New Runway”.
 - (ii) If it is a modification to a proposed runway—

- Under “Runways and Helipads”, click on the appropriate runway under the “Name” column (Proposed as Source).
- Next to “Runway Info”, click on “Update Runway”.
- Change all relevant data fields under “Runway Info” and “Runway Ends Info”.
- Then at the bottom of the section, click “Update Runway”. Ensure your edits have been saved.

Note: The UARP will automatically be calculated but needs to be verified by the RAS when entering a new or modification to a runway on an existing airport.”

1.6 Airport Data Corrections for Airports with Part 77 Issues

1.6.1 Locate Airports with Part 77 Issues

- a. On the bottom left side of the OE/AAA portal page, select the “Airports with Part 77 Issues” link for airports in the system that cannot be screened for Part 77 surfaces due to data issues.
- b. Click on the drop-down menu at the top of the next page.
- c. Review the list of airports that appears under the following categories:
 - (1) Runway Elevation Greater than Airport Elevation
 - (2) Missing Runways
 - (3) Missing Runway End Coordinates
 - (4) Missing Runway End Elevation
 - (5) Missing Part 77 Category
 - (6) Mismatched Part 77 Categories

1.6.2 Correct Deficiencies

- 1.6.2.1 Correct the specified deficiencies as soon as possible, with the understanding that some of these facilities are seaplane bases, waterways or airports that are under the current Part 157 (previous Form 7480-1, Notice of Landing Area Proposal), which did not require runway end coordinates and elevations.
- 1.6.2.2 Many private airports lack runway data. For those with a visibly identifiable surface, the RAS might be able to obtain the runway end coordinates visually (by using a tool such as Google Earth), the runway length and the bearing, unless the private owner has detailed drawings with this supporting data. Please use your best judgment as to the accuracy of the runway end locations.

2 ON-AIRPORT PROPOSALS

All proposed development on public-use airport property is subject to an airport airspace analysis (AAA) and must be processed as a non-rulemaking airport (NRA) or non-

rulemaking (NR) case regardless of federal funding participation. Non-rulemaking means the proposal does not relate to any regulatory change and is not subject to the process of rulemaking, which includes publishing in the federal register. Common types of on-airport proposals may consist of the following:

- a. Notice of Proposed Construction (Form 7460-1). See Sections 3.1, 4 and 5.
- b. Airport Layout Plan (ALP). See Section 3.2.
- c. Construction Safety Phasing Plan (CSPP). See Section 3.3.
- d. Solar facilities. See Section 3.4.
- e. Wildlife hazards issues (not processed through OE/AAA) See Section 3.5.
- f. Other items as necessary. See Sections 3.6.

2.1 Aeronautical Study Numbers

The OE/AAA system automatically assigns NRA (or NR) numbers when an aeronautical study is entered into the system. An example of a study number for on- airport proposals is 2013-AWP-0051-NRA. You can interpret each part of the number as follows:

- a. The first four numbers (2013) refer to the calendar year in which the proposal was received. In this example, 2013 was the year in which the proposal was received.
- b. The next three letters (AWP) refer to the Regional Office (RO) or, in some regions, the Airports District Office (ADO) in which the study is being conducted. In this example, “AWP” identifies the Western-Pacific Region.
- c. The next four-digit number (0051) is a unique number automatically assigned by the system to the case.
- d. The final two- or three-letter code (NRA or NR) refers to the type of case. In this example, “NRA” identifies it as a non-rulemaking airport case, which ARP processes. Cases that include “NR” as the final element identify non-rulemaking cases, which the Air Traffic Organization (ATO) processes.
- e. Where cases relate to one another they should be grouped together and assigned to an OE/AAA project name.

2.2 General Airport Definitions

- 2.2.1 A **federally obligated airport** is an airport that has received federal grants under the Airport Improvement Program (AIP) or operates on property that was conveyed to the airport under a Federal Surplus Property Program. All federally obligated airports are in the National Plan of Integrated Airport Systems (NPIAS) and are public use.
- 2.2.2 A **joint use airport** is an airport that is either a civilian owned airport or an airport owned by the Department of Defense (DOD), where there is a joint use agreement for both military and civilian aircraft use.

- 2.2.3 A **military airport** is any airport operated by the Department of Defense (DOD). See Section 5.
- 2.2.4 A **public use airport** is an airport available for use by the general public without a requirement for prior approval from the airport owner or operator.
- 2.2.5 A **private use airport** is an airport available for use by the general public with a requirement for prior approval of the airport owner or operator. Private use airports have emergency landing and landmark values.

3 PROCESSING ON-AIRPORT – NON-RULEMAKING AIRPORT (NRA) STUDIES

3.1 Notices of Proposed Construction or Alteration (FAA Form 7460-1)

3.1.1 Purpose

- 3.1.1.1 The proponent/sponsor use FAA Form 7460-1 to notify the FAA of construction or alteration that might affect the navigable airspace under Part 77. They can file FAA Form 7460-1 electronically or download a hard copy at <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>.

Note: The first time the RAS hears of a project at a federally obligated airport should not be from a 7460 submittal. The sponsor is to coordinate with the assigned planner for review and to obtain a determination on whether FAA retains approval authority for the proposed project, and follow-on NEPA review, if applicable.

- 3.1.1.2 Generally, proposed development on public use airports and/or joint use airport property is subject to an airport airspace analysis (AAA) and processed as non-rulemaking airport (NRA) cases regardless of ownership or federal funding participation. Private use airports are exempt from Part 77 unless the airport is operated by a Federal agency or the DOD, or the airport/heliport has a FAA-approved instrument approach procedure. If a private use airport submits an aeronautical study, the RAS may issue a “Termination Letter (TERM)” and explain they are not required to file notice under §77.9.

- 3.1.1.3 There are exceptions to how the RAS processes certain development:
- Non-federal navigational aids (NAVAID) (e.g. DME, GBAS, ILS, Marker, NDB, RVR, VOR) and non-federal Medium Intensity Approach Lighting Systems with Runway Alignment Indicator Lights (MALSRs) and non-federal Medium Intensity Approach Lighting Systems with Sequenced Flashers (MALSFs) are processed as NRs. ATO is the lead on NR cases.

Note: In some regions, federally-owned NAVAIDs and visual aids (VISAIDs) are also processed as NRs.

3.1.2 Permanent Proposals

- 3.1.2.1 Permanent proposals are structures that will be constructed on or above the ground. They include but are not limited to buildings, hangars, runways, aprons, taxiways, taxilanes, equipment not fixed by function (such as a windsock, segmented circle, airport beacon), fuel farms, light poles, parking lots and access roads.
- 3.1.2.2 In accordance with §77.9(e)(2), notice is not required for any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose. Examples of equipment not requiring notice are wind equipment (e.g. AWOS), transmissometers (e.g. RVR), ILS, and VGSI.

3.1.3 Temporary Proposals

Temporary proposals include general construction activity, staging areas, construction employee parking, material stockpiles, concrete and asphalt batch plants, cranes, oil rigs and data gathering (e.g. soil borings).

3.1.4 Roles and Responsibilities

3.1.4.1 Proponent/Sponsor

If required under Part 77, the proponent/sponsor is to notify the FAA of the proposed construction or alteration. The proponent/sponsor may submit notice on the FAA Form 7460-1 by mail, fax, email, or via OE/AAA. The RAS is to encourage the proponent/sponsor to submit all requests electronically via OE/AAA. All such notices submitted by ATO Tech Ops must also be coordinated with the airport sponsor, and all permanent structures must be consistent with the ALP.

Note: The RAS process requests for solar facilities in the same manner as described above.

3.1.4.2 ARP

ARP is responsible for assuring that the safety, utility and efficiency of airports are maintained. This responsibility includes ensuring that airport design standards are not violated. ARP coordinates with other LOBs to ensure the protection of traffic patterns and flight procedures, and identifying electromagnetic effects on navigational facilities.

3.1.4.2.1 Responsible ARP Staffer (RAS)

The ARP employee responsible for handling on-airport notices of proposed construction might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other designated position. This

document refers to the responsible ARP employee as the RAS. As ARP's representative, the RAS must:

- a. ***Check the OE/AAA system for NRA cases.*** The RAS must periodically check the OE/AAA system for assigned cases submitted by the proponent/sponsor or other FAA LOBs. For new NRA cases, the RAS should begin processing at their earliest opportunity.
- b. ***Verify the proposal is on airport.*** If the proposal is off airport and e-filed, inform the proponent/sponsor that they will have to re-file as an off airport (OE) study and terminate the NRA case noting that the proposal was not "on-airport". If your office receives a paper copy of a Form 7460-1 for an off- airport case, scan the file and email it to your Service Area Air Traffic Obstruction Evaluation Group representative (Air Traffic OEG leads all off-airport obstruction evaluations (OE) per FAA JO 7400.2.)
- c. ***Send an acknowledgement of receipt if applicable.*** If a proponent submitted a hard copy of Form 7460-1, it is recommended that the RAS send an acknowledgement to the proponent, using the OE/AAA standard letter or by e-mail. Providing a response to the proponent delivers their assigned aeronautical study number.
- d. ***Check the Form 7460-1 for accuracy and completeness.*** The RAS must finish reviewing all data before coordinating the case. If the RAS has a hard copy, check the information before entering the data into the OE/AAA system. The RAS should verify that the correct component/development type has been selected based upon the proposed project activity.

Note: If the RAS discovers missing or incorrect data, request the information from the proponent/sponsor. For an e-filed case, use the Additional Information template letter in the OE/AAA to make this request. Alternatively, the RAS can terminate the case(s) and request the proponent/sponsor to resubmit. If the RAS does not receive a response from the proponent/sponsor within 30 days from the date the RAS notifies the proponent/sponsor, terminate the case using the template Termination Letter within OE/AAA.

- (1) ***Conduct an initial review.*** Review the submittal and appropriate attachments (e.g. sketches with scaled dimensions, topography, ALP, detailed description of proposed work).
- (2) ***Confirm the data.*** Confirm the proposal location and elevation. Confirm that the latitude, longitude, and site elevation (SE) of the proposal are correct by reviewing the documents submitted with the case, verifying the coordinates/elevation and/or the ALP. The OE/AAA system also provides topography maps, which may assist the RAS in verifying.

- (3) **Check for accuracy.** The OE/AAA system assigns a default obstacle accuracy code of 4-D to all proposals which equates to a horizontal tolerance of +250 feet and vertical tolerance of +50 feet (Reference Table 1). A situation warranting higher accuracy is when Flight Procedures identifies an IFR effect and obtaining a survey would result in less (or no) effect to an instrument procedure. In this case the RAS will make this request to the proponent/sponsor. A licensed engineer or surveyor must certify the provided survey accuracy and include the plus or minus accuracy required as well as the signature/seal of the engineer or surveyor.

Table 1. Accuracy Code System

Horizontal		Vertical	
Code	Tolerance (ft.)	Code	Tolerance (ft.)
1	+ 20	A	+ 3
2	+ 50	B	+ 10
3	+ 100	C	+ 20
4	+ 250	D	+ 50
5	+ 500	E	+ 125
6	+1000	F	+ 250
7	+ 1/2 NM	G	+ 500
8	+ 1 NM	H	+ 1000
9	+ Unknown	I	+ Unknown

Notes:

- (i) Surveys are based on the accuracy of the surveys as shown above.
- (ii) Obstruction Chart = 1A
- (iii) Quadrangle Map = 2C
- (iv) Sectional Chart = 6E
- (v) Mark on Quadrant sheet = 4D
- (vi) GPS = No accuracy

- (i) Submissions often contain elevation and/or location errors. Current directives requires applying accuracy standards to obstacles when evaluating effects on instrument procedures. These accuracy standards typically require a 4D adjustment of 250 feet horizontally and 50 feet vertically to be applied in the most critical direction. Normally, these adjustments are applied to those structures that may become the controlling obstructions and are applicable until their elevation is verified by survey.
- (ii) The Flight Procedures Team (FPT) may request an acceptable accuracy verification method to pursue a favorable determination. The RAS will then make this request to the proponent/sponsor . A licensed engineer or surveyor must certify the provided survey accuracy and include the plus or minus accuracy required as well as the signature of the engineer/surveyor and the

appropriate seal. The RAS will not issue a final determination based on improved accuracy until a certified survey is received. During the aeronautical study process, Flight Procedures may request a certified survey with an accuracy of either 1A (+20 feet horizontally +3 feet vertically) or 2C (+50 feet horizontally + 20 feet vertically). See Appendix G for common terminology used by Flight Procedures when responding to NRA aeronautical studies.

- (4) ***Check for completeness.*** Ensure the proponent/sponsor submitted a detailed description of proposed work, line-of-sight evaluation (as needed), building materials and glare reflection analysis (as needed); an ALP; and other pertinent maps, sketches and topography information. For glare analysis, see Interim Policy, FAA Review of Solar Energy System Projects on Federally Obligated Airports. Also see Section 3.5 of this SOP.
- (5) ***For Federally obligated airports, verify if proposed development is consistent with the current approved ALP.***
 - (i) Confirm the development is consistent with the ALP.
 - (ii) Ensure it meets current airport design standards (FAA AC 150/5300-13) and check for compliance issues (e.g., land use) and conflicts with the airport's proposed Capital Improvement Program (CIP) development or future airport master plan development. If the proposal is not in conformance with airport design standards, discuss with the proponent/sponsor options for mitigating. If the project is funded under AIP or Passenger Facility Charge (PFC) program, and no other practical alternatives exist, request the airport sponsor to submit a MOS through the ADIP system. MOS relating to construction that meets the notice requirements of Part 77 will require an aeronautical study and a 7460 determination letter. This is independent of the MOS approval process. Refer to Order 5300.1 as modifications are limited to certain airport design standards.
 - (iii) If the proposal is not in conformance with the approved ALP (or no ALP exists), the RAS has the option to proceed with the study, but notify the airport sponsor upon completion to update the ALP if a favorable determination is issued.

- (6) ***For non-Federally obligated airports or non-NPIAS airports provide the following advisory note in the determination:*** “If you are not the airport operator, we encourage you to coordinate this proposal with them. We recommend complying with the following FAA Advisory Circulars (AC): AC 150/5300-13, titled Airport Design, contains the FAA’s standards and recommendations for airport design. AC 150/5370-2, titled Operational Safety on Airports During Construction, contains guidelines for operational safety on airports during construction. Copies of the current ACs can be viewed and/or downloaded at https://www.faa.gov/airports/resources/advisory_circulars/”
- e. ***Generate an NRA number.*** The OE/AAA system will generate an aeronautical study number when the proponent/sponsor (for e-filing) or the RAS (for hard copies of Form 7460-1) enters the proposal.
- f. ***Map and Verify.*** Mapping and verifying the case confirms the submitted location and elevation is accurate. The OE/AAA system provides topographic maps, assisting the RAS in verifying elevations. A Part 77 analysis will automatically run which will then put the case into work status. Work status means that the case has been distributed to the selected LOBs for review.
- g. ***Coordinate with other offices and LOBs.*** Based on existing business rules, the OE/AAA system will select the divisions that is to provide a response. Refer to Appendix H for these business rules. Any office (e.g. Runway Safety) that are not included in the system must be contacted directly. Give each office 45 working days to provide comments. If the RAS determines the LOB will not be able to respond in time, the case should be elevated to the regional airspace lead for support in an effort to obtain a comment.
- (1) Flight Procedures identifying an IFR effect to a permanent proposal is motive for an objection. For federally obligated airports, refer to Grant Assurance 20.
 - (2) Projects requiring a reimbursable agreement will require additional coordination by the Airport Sponsor and the NAS Planning & Integration Lead Planner outside the NRA aeronautical review process.
 - (3) In the event one division responds that requires another division, who has already responded, to conduct an additional review the RAS is to click on the “Div Responses” tab of the NRA study. Under the division that requires an additional response, click the “Unlock” checkbox and input a case note explaining the reason for this action. Select the “Submit Form” button. The division is now able to input their new division response.

- h. ***Check on the status of coordination.*** The RAS must periodically check on the status of the coordination.
- i. ***Issue the determination.*** Upon issuing the determination letter, the NRA case is closed and the status changes to “DET TO PROP”. The determination does not constitute FAA approval or disapproval of the physical development involved in the proposal. It 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. There may be other Federal, State and/or Local approvals that the proponent must receive to prior to actually commencing their project.
 - (1) After ensuring clear understanding of all comments received and resolving any conflicts between offices and LOBs, consolidate all comments received and prepare a determination letter (no objection, or objectionable) for the proposal.
 - (i) As a signatory of the determination letter, ensure a clear understanding of all division responses. Take caution if revising division responses as it may unintentionally alter the context. Appendix G provides common terms used by the Flight Procedures group. Coordination with the LOB may be necessary prior to committing the letter.
 - (ii) The RAS has the option to mitigate division objections or IFR effects in OE/AAA. Mitigating allows ARP to adjudicate division responses in the OE/AAA system. Refer to Appendix D for instructions.
 - (2) For proposals that penetrate any Part 77 surface (§77.19), provide an obstruction marking/lighting comment. Refer to Appendix E for additional information. The No Objection 7460 determination letter (NO7460) provides a summary of whether the structure penetrates the Part 77 surfaces.
 - (3) If the airport sponsor filed the Form 7460-1, send the determination letter back to the airport sponsor; otherwise, address the determination letter to both the airport sponsor and the proponent/sponsor (or proponent’s representative).
 - (i) The determination should include appropriate language, as identified in current FAA JO 7400.2. This language is contained in the OE/AAA standardized letters.
 - (ii) If the proposal will result in a long-term shutdown of a runway or significant taxiway, the determination

letter is to include a strategic event shutdown form. A long-term runway shutdown is a full or partial runway closure for 24 hours or more. A long-term taxiway shutdown is a full or partial taxiway closure for 24 hours or more at any FAA Core Plan airport or any taxiway closure at a towered airport that the RAS considers significant. In addition, a strategic event shutdown form is necessary for a shutdown of National Airspace System (NAS) equipment (e.g. ILS, VOR, MALSR) for consecutive days (in excess of four hours daily) or for 24 hours or greater. NAS equipment impacts are obtained through OE/AAA coordination. Notify the proponent/sponsor by selecting the checkbox labeled with “*Your proposal impacts the following National Airspace System (NAS) equipment*” and use the free-text field to describe the specific impact. For additional information on this matter, refer to the latest Strategic Events Coordination Service Level Agreement. Upon request, AAS-120 can provide a copy of this agreement.

- (4) Use determination letters generated by the OE/AAA system but keep in mind that such letters only address standard conditions or special conditions commonly encountered. Add any other special condition(s) to address comments received from other FAA offices or LOBs.
 - (i) If using a determination letter not generated by the OE/AAA system, upload the file by selecting the paperclip icon. Under “document type” select “Determination Letter”. This will ensure the NRA study is closed with a “DET to Prop” status. For projects with multiple cases, the RAS will need to upload the determination letter for each individual case to show the cases as determined.
 - (ii) If applicable, committing the “No Objection 7460” letter with the Airport Operations Contact information will enable the FDC NOTAM link on the external (public) site. If the RAS does not use this letter, they can internally submit an NT1 Temporary NOTAMs Alert Letter (T-NTMREQ) – NOTAM Request Letter. Subsequently, the NT2 “NOTAMs Cancel Letter (NTMCAN)” can be used to cancel the FDC NOTAM.
- (5) Furnish a copy of the final determination letter to the appropriate state aviation agency (as requested).

- (6) Ensure the ALP is updated by either a pen-and-ink change or an update to the ALP in accordance with the current ALP SOP.

- j. For permanent on-airport structures, include in the determination letter for the proponent to submit a FAA Form 7460-2 Notice of Actual Construction or Alteration (Supplemental Notice/Form). The sponsor/proponent can email the completed form to 9-AJV-532-OBSTData-REQ@faa.gov. This process will be automated in OE/AAA.

Note: The expiration date of a determination is normally 18 months after the date the determination letter was written. The RAS has the option to modify the expiration date, per the schedule of a specific project. For example, if a temporary crane will only be used for two days, the expiration date should be modified accordingly. If the proposed work is not completed by the established expiration date, the proponent/sponsor must request an extension at least 15 days prior to the expiration date. The proponent/sponsor is expected to explain the circumstance warranting the need for the extension. In addition, they are to provide the RAS the length of extension. It is recommended that the RAS grant an extension of no more than 12 months beyond the current expiration date. If the new extension expires prior to work completion, the proponent/sponsor must submit a new FAA form 7460-1. Upon receiving a request for an extension, ensure the submission is consistent with what was originally evaluated. Coordination with other LOBs is typically not required if the proposal is unchanged, or if the original aeronautical study had no IFR effect. See “final disposition” for uploading the extension letter, paragraph “k” below.

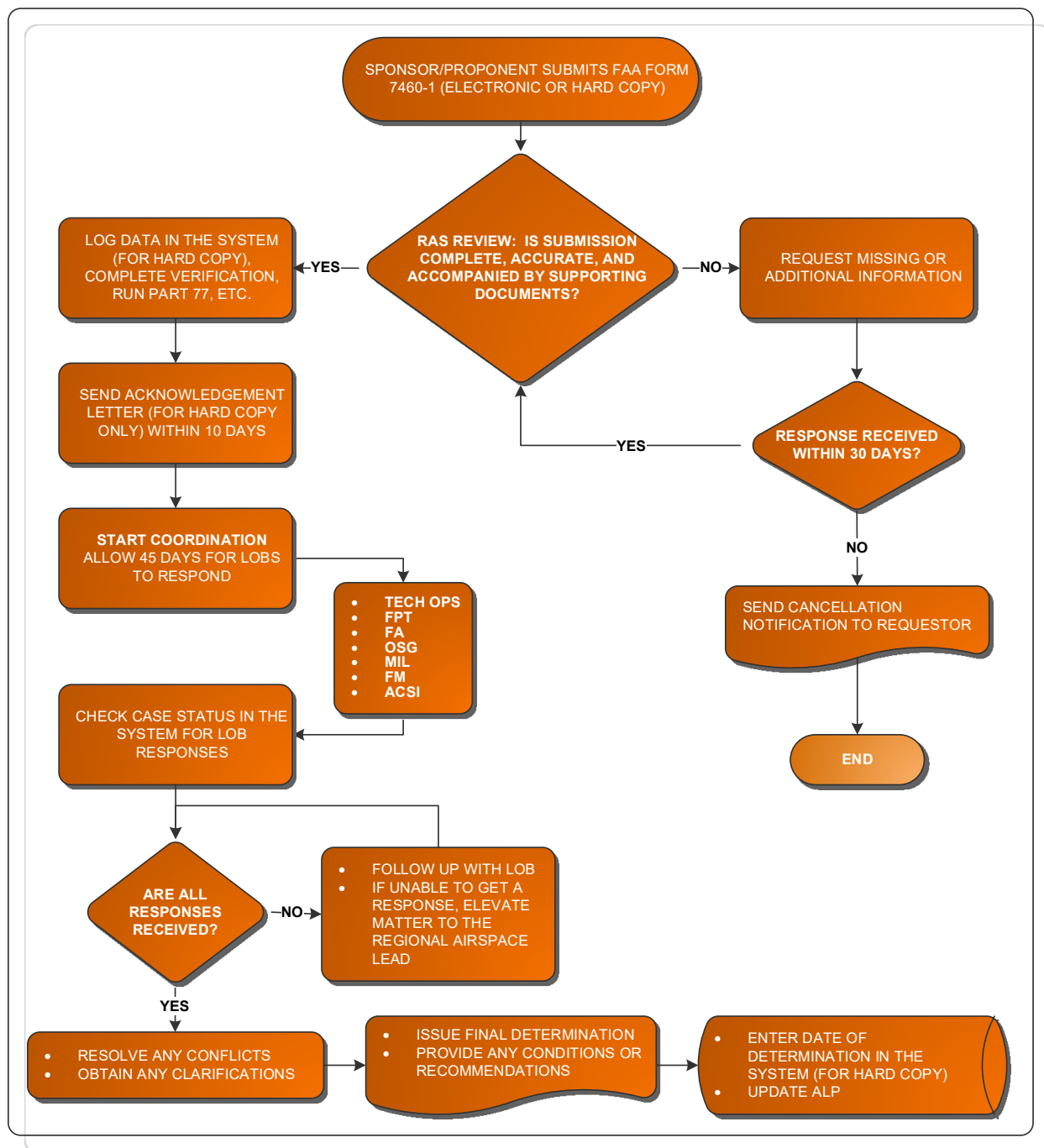
- k. ***Final disposition.*** After learning the final disposition of the NRA, and informing the proponent/sponsor, the RAS must upload to the OE/AAA any related documents (e.g. letters providing the final disposition to the proponent/sponsor not generated by the system including letters extending an expiration date, as well as any comments received via hard copy or email). Uploading documents to multiple cases within a project can be done by using the “Common Project Documents” function in the documents tab.

Note: Refer to each state block grant agreement concerning the ARP RAS responsibilities handled by the respective states pursuant to 49 USC §47128.

- 3.1.4.3 ATO can enter NRAs for FAA-owned NAVAIDs and VISAIDs into the OE/AAA electronically or send hard copies to ARP for processing.

Note: In some regions, ATO processes these facilities as NRs. See Section 3.1.1.2.

- 3.1.4.3.1 For NRAs at non-FAA facilities ATO reviews and responds to ARP through the OE/AAA system. This does not include non-federal NAVAIDs and MALSRs. These are handled as NRs. See current FAA JO 7400.2 for ATO responsibilities.
- 3.1.4.4 Other Offices and LOBs
See current FAA JO 7400.2.

3.1.5 Flow Chart for Coordinating On-Airport NRA for Notice of Proposed Construction

3.2 Airport Layout Plans (ALPs)

3.2.1 Purpose

The complete draft ALP must be circulated for review via the OE/AAA system. When directed to do so by the FAA, the airport sponsor can upload electronic drawings and documents in PDF format. ALP coordination in OE/AAA does not replace the requirement to submit Form 7460-1 in accordance with Part 77 for on-airport construction.

3.2.2 ALPs that Require Airspace Review

ALPs are categorized as revisions or updates.

- a. An ALP revision is a drafting exercise for the principal purpose of modifying existing ALP drawings to reflect recent development. In general, unless there is a change in location of a facility or structure, ALP revisions intended solely to document as-built conditions do not require an airspace review.
- b. An ALP update is a change to an existing ALP (or development of a new ALP) to reflect new thinking on future development of an airport or a proposed change in land uses on or around the airport requiring airspace review and coordination. An ALP update typically takes place as part of the master planning process.

Note: Various elements of the ALP may be coordinated separately from the ALP.

3.2.3 Roles and Responsibilities

3.2.3.1 Airport Sponsor

- a. The airport sponsor is responsible for providing a complete ALP that meets design standards and is in accordance with FAA policy and guidance. See the ALP SOP.
- b. The airport sponsor should review the draft ALP in detail to ensure it meets both sponsor and FAA requirements. After confirming that it does, the airport sponsor can submit the draft ALP to the FAA for coordination.

3.2.3.2 ARP

ARP is responsible for reviewing, coordinating, and approving ALPs. See the ALP SOP.

- a. ARP's initial review of the draft ALP provides an opportunity to resolve issues with the ALP before it is circulated for an aeronautical study.
- b. ARP coordinates the ALP and resolves comments received from other offices and LOBs. ARP ROs and ADOs coordinate the review and ultimately approve the ALP.

3.2.3.2.1 Responsible ARP Staffer (RAS)

The ARP employee responsible for processing the ALP through the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other position. This document refers to the responsible ARP employee as the RAS. The RAS keeps the OE/AAA database current, ensures the database reflects any proposed runway data changes (e.g. for new runways or extensions) and coordinates the ALP. To perform these duties, the RAS must:

- a. **Review the ALP for accuracy.** Review the accuracy and consistency of ALP airport data (i.e. confirm runway end coordinates, elevations and NAVAIDs are consistent with the OE/AAA airport database). See Section 1.3.
- b. **Update Airport/Runway Database in OE/AAA.** For ALP changes that includes plans-on-file (e.g. new proposed runway, proposed runway extension), immediately update the airport/runway database to ensure airspace protection. Refrain from waiting until ALP approval, as new obstacles can be proposed without consideration of the plan-on-file.
- c. **Generate a NRA number.** Once the proponent/sponsor (for e-filing) or the RAS (for hard copy forms) enters a completed submittal, the OE/AAA system automatically assigns an aeronautical study number.
- d. **Enter the Airport Reference Point.** The RAS enters the Airport Reference Point coordinates for the location of the proposal (ALP) but not the elevation.
 - (1) An elevation entry can trigger an unnecessary evaluation as a “structure” by other LOBs. Enter “0” for site elevation (SE) and above ground level (AGL).
- e. **Map and Verify.** Map and verify the case. A Part 77 analysis will automatically run which will then put the case into work status. Work status means that the case has been distributed to the selected LOBs for review.
- f. **Coordinate with other offices and LOBs.** Within the OE/AAA system, select the offices or LOBs beyond the default LOBs that must review the proposal. Some offices or LOBs, such as the Transportation Security Administration, ATO NAS Planning, and the Runway Safety Office may need to be contacted directly. Give each office 45 working days to provide comments.
- g. **Provide a brief summary of the ALP update in the “comments” section of OE/AAA and reference the coordination letter.** The coordination letter should:
 - (1) Cite significant ALP changes such as:
 - (i) New proposed runway added.

- (ii) Proposed runway relocation.
 - (iii) Change in critical aircraft.
 - (iv) New proposed runway extension added.
 - (v) New taxiways added.
 - (vi) Proposed taxiway relocation.
 - (vii) Proposed change in runway approach minimums, (visual to nonprecision, nonprecision to precision, etc.).
 - (viii) Proposed change in declared distances.
 - (ix) Change in runway protection zone (RPZ) dimension and why (e.g., change in critical aircraft or change in approach minimums).
- (2) Highlight nonstandard conditions such as:
 - (i) Nonstandard runway/taxiway separation.
 - (ii) Nonstandard taxiway/taxiway separation.
 - (iii) Nonstandard longitudinal or transverse grades.
 - (iv) Nonstandard runway safety area, object free area, obstacle free zone, etc.
- (3) Identify specific review by a division responder such as:
 - (i) Requesting Flight Procedures to evaluate a proposed runway extension for potential IFR effect.
- (4) Indicate the type of survey data used for ALP geodetic data depiction e.g. Local survey or FAA AGIS survey.
- h. ***Check on the status of the coordination.*** The RAS must periodically check on the status of the coordination.
- i. ***Review comments and issue determination.*** The RAS must review comments from other LOBs in detail and confirm each comment as valid and appropriate. The RAS might need to rewrite internal FAA comments in plain language or work with the commenter. After reviewing comments, the RAS forwards comments to the proponent/sponsor in the form of a final FAA determination letter. Once corrections to the ALP are made, the ALP should be ready for approval.
- j. ***Approve the ALP.*** For guidance on the ALP approval process, see the ALP SOP or contact APP-400. Also see FAA JO 7400.2 for additional guidance on ALP coordination.
- k. ***Upload the ALP approval letter.*** After issuing the ALP approval letter, the RAS must enter into the OE/AAA system the date the letter was

issued and upload a copy of the letter by selecting the paperclip icon. Under “document type” select “Determination Letter”. This will ensure the NRA study is closed with a “DET to Prop” status. Currently the OE/AAA system does not contain a standard ALP letter due to Section 163 of H.R. 302 (P.L. 115-254), the 2018 FAA Reauthorization Act.

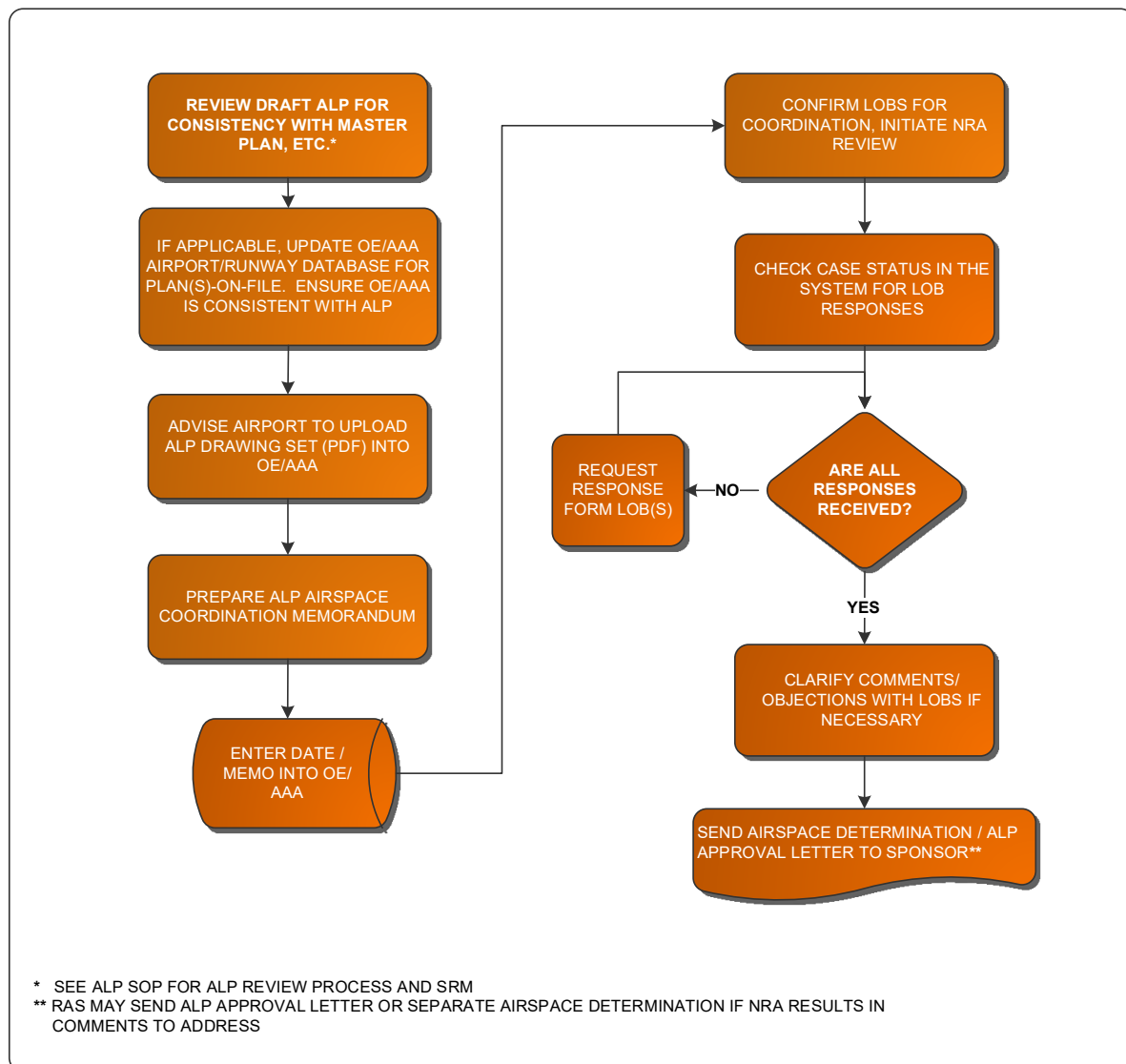
Notes:

- (1) Refer to each state block grant agreement concerning the ARP RAS responsibilities delegated to the respective states.
- (2) Refer to Order 5200.11 regarding applicability of SRM.

3.2.3.3 Other Offices and LOBs

See FAA JO 7400.2 for a list of roles and responsibilities.

3.2.4 Flow Chart for ALP Coordination



3.3 Construction Safety Phasing Plans (CSPPs)

3.3.1 Purpose

This section describes the process for coordinating the CSPP. For more information about CSPPs, see the CSPP SOP. CSPP coordination in OE/AAA does not replace the requirement to submit Form 7460-1 for construction related activities (e.g. stockpiles, work areas).

3.3.2 Roles and Responsibilities

3.3.2.1 Airport Sponsor

The airport sponsor or the sponsor's consultant submits a CSPP that conforms to the current version of AC 150/5370-2 to the FAA for coordination and action. For applicability, refer to the aforementioned AC. Sponsors should be encouraged to submit CSPPs via the OE/AAA system.

3.3.2.2 ARP

ARP is responsible for reviewing, coordinating and approving CSPPs with the other FAA lines of businesses.

3.3.2.2.1 Responsible ARP Staffer (RAS)

The ARP employee responsible for processing the CSPPs through the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other position. This document refers to the responsible employee as the responsible ARP staffer (RAS). When coordinating the CSPP through the OE/AAA system, the RAS must:

- a. ***Review the CSPP for accuracy.*** Review the accuracy and conformity to AC 150/5370-2. If incomplete, return to the airport sponsor.
- b. ***Generate a NRA case number.*** The system auto assigns an NRA case number when the RAS enters the proposal into the system.
- c. ***Enter the Airport Reference Point.*** The RAS enters the Airport Reference Point coordinates for the airport the proposal is located at.

Note: An elevation entry can trigger an unnecessary evaluation as a "structure" by other LOBs. (Enter "0" for site elevation (SE) and above ground level (AGL))

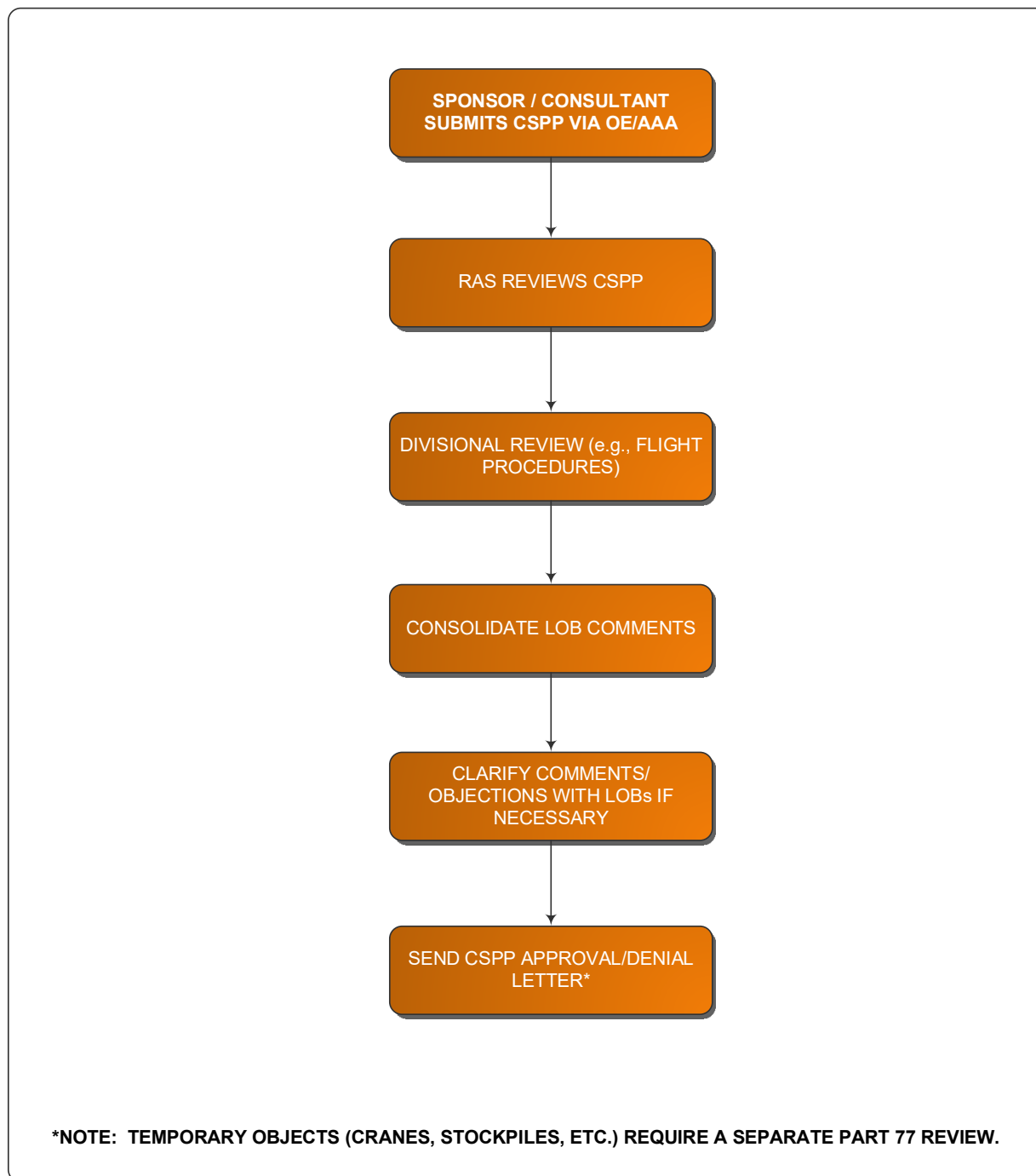
- d. ***Coordinate with other offices and LOBs.*** Coordinate with other offices and LOBs. The OE/AAA system business rules determine which LOBs review CSPPs. It is important that the component type in OE/AAA be selected as "CONSTR SAFETY PLAN(SP)" and that the correct development type be selected. If "CONSTR SAFETY PLAN - Miscellaneous" is selected, Flight Standards (FS) is screened, if

"CONSTR SAFETY PLAN - NONSTRD RWY/TWY/APPCH" is selected, FS will see the case.

- e. ***Check on the status of the coordination.*** The RAS must periodically check on the status of the coordination.
- f. ***Receive and forward comments.*** The RAS must provide all comments, including those received via email and hardcopy, to the appropriate ARP planner, engineer or other staff person to make a decision about the CSPP.
- g. ***Communicate and final determination.***
 - (1) The RAS is to utilize the standardized CSPP letter in the OE/AAA system. If there are any documents relating to the CSPP that is critical for historical purposes (e.g. emails, drawings), upload these document(s) to the NRA study.
 - (2) If the proposal will result in a long-term shutdown of a runway or significant taxiway, the determination letter is to include a strategic event shutdown form. A long-term runway shutdown is a full or partial runway closure for 24 hours or more. A long-term taxiway shutdown is a full or partial taxiway closure for 24 hours or more at any FAA Core Plan airport or any taxiway closure at a towered airport that the RAS considers significant. In addition, a strategic event shutdown form is necessary for a shutdown of National Airspace System (NAS) equipment (e.g. ILS, VOR, MALSR) for consecutive days (in excess of four hours daily) or for 24 hours or greater. NAS equipment impacts are obtained through OE/AAA coordination. Notify the proponent/sponsor by selecting the checkbox labeled with "*Your proposal impacts the following National Airspace System (NAS) equipment*" and use the free-text field to describe the specific impact. For additional information on this matter, refer to the latest Strategic Events Coordination Service Level Agreement. Upon request, AAS-120 can provide a copy of this agreement.

Notes:

- Refer to each state block grant agreement concerning the ARP RAS responsibilities delegated to the respective states.
- Refer to Order 5200.11 regarding applicability of SRM.

3.3.3 Flow Chart for Coordinating a CSPP

3.4 Solar Facilities

3.4.1 Purpose

- 3.4.1.1 This section outlines FAA roles and responsibilities when processing NRA requests for the installation of proposed solar photovoltaic (PV) and solar hot water (SHW) systems at federally obligated airports.
- 3.4.1.2 Solar panel photovoltaic (PV) arrays installed at airports can cause glint/glare to personnel working in ATCT cabs or interfere with communication systems. Eliminating the potential for glare-related impacts will ensure safety.
- 3.4.1.3 For federally obligated airports, airport sponsors must request FAA review and approval to depict certain proposed solar installations on their ALPs before construction begins.

3.4.2 Roles and Responsibilities

3.4.2.1 Airport Sponsor

Airport sponsors are not required to submit the results of an ocular analysis to FAA. Instead, to demonstrate compliance with 14 CFR 77.5(c), the RAS will rely on the submittal of Form 7460-1 in which the sponsor confirms that it has analyzed the potential for glint and glare and determined there is no potential for ocular impact to the airport's ATCT cab. This process will enable FAA to evaluate the solar energy system project, with assurance that the system will not impact the ATCT cab.

3.4.2.2 ARP

ARP is responsible for reviewing, coordinating and approving solar facilities with the other FAA lines of businesses.

3.4.2.2.1 Responsible ARP Staffer (RAS)

The ARP employee responsible for handling the solar facilities through the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other designated position. This document refers to the responsible ARP employee as the RAS. When handling a solar facility, the RAS must:

- a. Maintain contact with the airport sponsor regarding the proposed solar facility.
- b. Ensure the airport sponsor provides the updated ALP along with FAA Form 7460-1.
- c. Send an additional information letter to the airport sponsor before coordinating the FAA Form 7460-1 with other LOBs if the information provided by the airport sponsor is insufficient.

- d. Coordinate the FAA Form 7460-1 with all FAA LOBs through OE/AAA.
- e. Issue the final NRA determination.

3.5 Hazardous Wildlife Attractants On or Near Airports

3.5.1 Purpose

- 3.5.1.1 ARP does not coordinate wildlife hazard issues through the OE/AAA system, but the RAS does need to ensure they are properly routed to the appropriate channels for review if they are part of another project being coordinated. Appendix C contains standardized language for proposals that may cause wildlife hazards.
- 3.5.1.2 Hazardous wildlife attractants include waste disposal operations and waste management facilities. See the current version of AC 150/5200-33.

3.5.2 Roles and Responsibilities

ARP is responsible for assuring that wildlife issues received by the Airports Division are appropriately routed to the appropriate channels for review.

3.5.2.1 Responsible ARP Staffer (RAS)

- 3.5.2.1.1 The ARP employee responsible for processing proposals through the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other designated position. This document refers to the responsible ARP employee as the RAS.
- 3.5.2.1.2 While the OE/AAA is not used for coordinating issues related to hazardous wildlife issues, a RAS who becomes aware of hazardous wildlife attractants on or near an airport, through a notice of proposed construction or some other means, should refer the matter to the appropriate regional or ADO staff for a land use compatibility review. If the airport is a Part 139 airport, the issue(s) should be brought to the appropriate Part 139 inspector's attention.

3.6 Other Items as Necessary

3.6.1 Planning Alternatives

The RAS may conduct an aeronautical study of planning alternatives leading up to a final draft ALP. (e.g., airport and runway site selection evaluations)

3.6.2 Other Planning Studies

The RAS may conduct an aeronautical study of other planning studies, such as adjacent land use proposals, that introduces above ground structures. For land uses in the RPZ see the interim RPZ policy.

3.6.3 Other Unidentified Items

Occasionally, the RAS may need to coordinate other on-airport items not mentioned in this document (e.g. drilling on federally obligated airports for oil or gas). See AC 150/5100-20.

3.6.4 Roles and Responsibilities

3.6.4.1 ARP

ARP is responsible for reviewing and coordinating various planning studies and other proposals related to airport activity.

3.6.4.1.1 Responsible ARP Staffer (RAS)

The ARP employee responsible for processing proposals through the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other designated position. This document refers to the responsible ARP employee as the RAS. In processing the items identified in Sections 3.6.1, 3.6.2, and 3.6.3, the RAS must do the following:

- a. ***Generate an NRA number.*** The OE/AAA system automatically assigns an aeronautical study number once the proposal is added to the system.
- b. ***Enter the Airport Reference Point.*** The RAS enters the Airport Reference Point coordinates of the airport the proposal is located at.
Note: An elevation entry can trigger an unnecessary evaluation as a “structure” by other LOBs. Enter “0” for site elevation (SE) and above ground level (AGL).
- c. ***Coordinate with other offices or FAA LOBs.*** Within the OE/AAA system, select the offices and LOBs that must review the proposal. Those offices that are not included in the system must be contacted directly. Give each office 45 working days to provide comments.
- d. ***Check on the status of the coordination.*** The RAS must periodically check on the status of the coordination.
- e. ***Receive and forward comments.*** The RAS must provide all comments, including those received via email and hard copy, to the appropriate ARP planner, engineer or other staff person to make a decision about the proposal.

- f. ***Communicate and upload the final disposition.*** After learning the final disposition of the proposal, the RAS must communicate this disposition to the airport sponsor and then upload into the OE/AAA system any documents informing the airport sponsor of the final disposition as well as any comments received via email or hardcopy.

4 PROCESSING ON-AIRPORT – NON-RULEMAKING (NR) STUDIES

Non-federal navigational aids (NAVAIDs) (e.g. DME, GBAS, ILS, Marker, NDB, RVR, VOR) and non-federal Medium Intensity Approach Lighting Systems with Runway Alignment Indicator Lights (MASLRs) are processed as NRs. Coordination with the FAA ATO's Non-Fed Office is necessary for projects affecting non-federal NAVAIDs. In some regions, federally owned NAVAIDs and visual aids (VISAIDs) are also processed as NRs. NR studies may be processed outside of the OE/AAA program or through the OE/AAA program. These proposals are often submitted on FAA Form 7460-1.

4.1 Roles and Responsibilities

4.1.1 ARP

ATO is the lead on NR cases. ARP reviews the NR cases for impacts to airport design standards and to the airport's safety, utility and efficiency.

4.1.1.1 Responsible ARP Staffer (RAS)

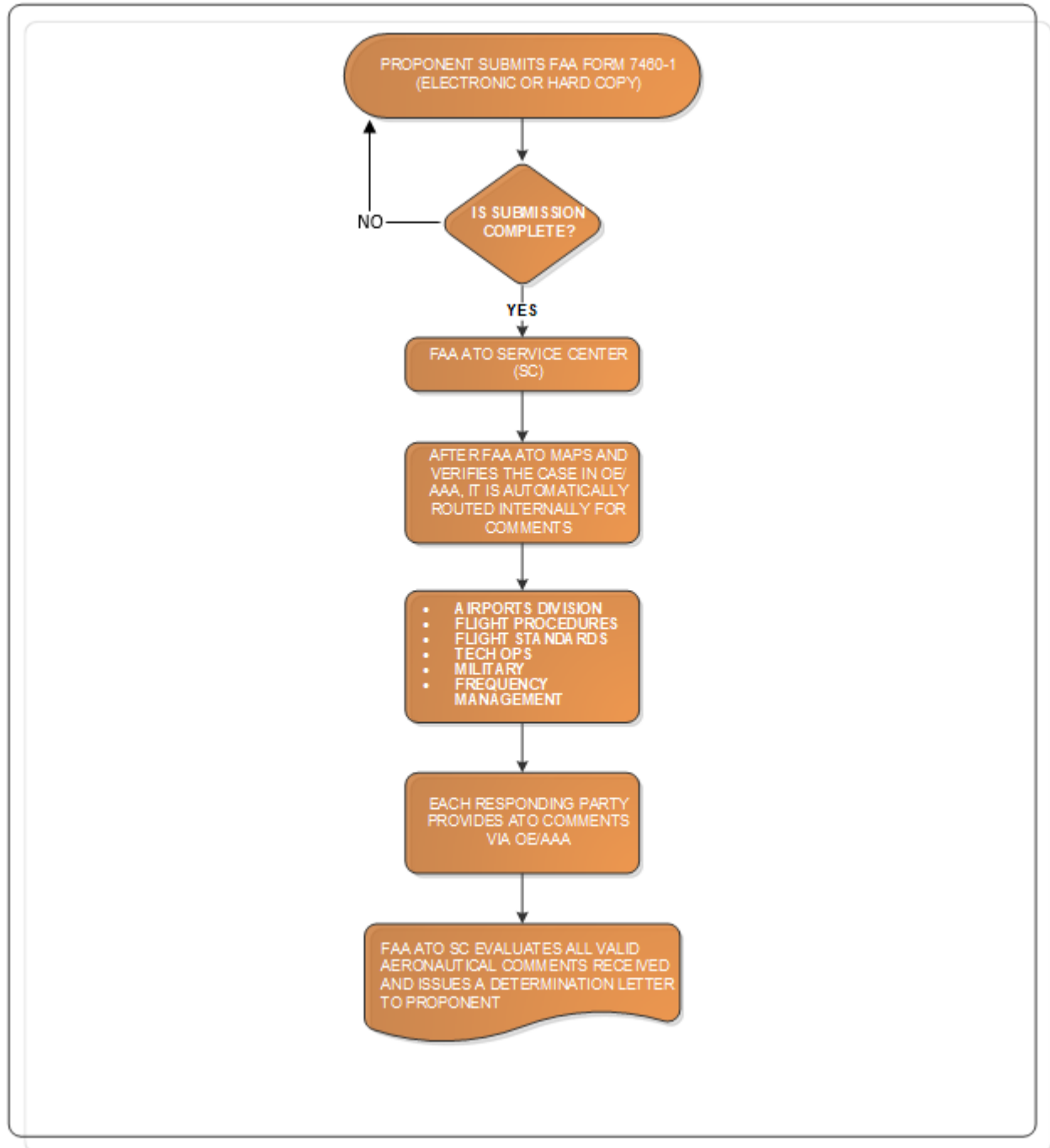
The ARP employee responsible for providing the final ARP response to an NR in the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace, specialist or other designated position. This document refers to the responsible ARP employee as the RAS. The RAS response will be made after appropriate coordination throughout ARP. It is recommended that ARP respond to an NR case within 15 working days.

4.1.2 ATO

ATO is responsible for NR cases. ATO creates the NR case, coordinates with the appropriate offices including ARP and renders the final NR determination. See FAA JO 7400.2.

4.1.3 All Other Offices

See the current FAA JO 7400.2 for the responsibilities of other FAA LOBs.

4.2 Flow Chart for Coordinating On-Airport NRs for Notice of Proposed Construction

5 PROCESSING OFF-AIRPORT AND MILITARY AIRPORT PROPOSALS – (FAA FORM 7460-1) OBSTRUCTION EVALUATIONS (OE)

All proposed development off airport property or on military airports is subject to an airport airspace analysis and may be processed as an obstruction evaluation (OE).

Proponents may submit off-airport proposals with FAA Form 7460-1.

5.1 Aeronautical Study Numbers

The OE/AAA system automatically assigns an OE number when a study is entered into the system (see Section 2.1). The only difference is the last few letters that appear in the non-rulemaking case. For example, an aeronautical study for an off-airport or military airport proposal could have the following number: 2013-AWP-0051-OE. The last two letters identify the type of case:

- OE refers to an Obstruction Evaluation case, which is the responsibility of ATO.

5.2 Purpose

Proponent/sponsor use FAA Form 7460-1 to notify the FAA of any construction or alteration that might affect navigable airspace under Part 77. Proponents can e-file or download a PDF copy of the form on the OE/AAA website at

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>.

5.3 Roles and Responsibilities

5.3.1 ATO –OEG

ATO-OEG handles all OE cases in accordance with FAA JO 7400.2. Their primary tasks, from ARP’s perspective, are as follows:

- Initiating evaluation by other offices by changing the OE case status in the OE/AAA system to “WRK”.
- Evaluating all aeronautical comments received as a result of this evaluation and issuing a determination to the proponent/sponsor .

5.3.2 ARP

ARP is responsible for evaluating off-airport proposals for impacts to the safety and efficiency of public use airports.

5.3.2.1 Responsible ARP Staffer (RAS)

- The ARP employee responsible for providing the final ARP response to an OE case in the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace, specialist or other designated position. This document refers to the responsible ARP employee as the RAS. The RAS response will be made after appropriate coordination throughout ARP. ARP has 15 working days to respond to an OE case.

- b. Although other staff might review OE cases, an airport planner usually does the review. Responsibilities for the RAS include the following:
 - (1) The OE study case data screen will provide the nearest airport. Verify the airport runway database in the OE/AAA system is correct and contains all plans on file pertaining to the nearest airport. This includes ensuring the Part 77 code is provided and accurate.
 - (2) At the earliest opportunity, upload supplemental data relating to the nearby federally obligated airport in the OE/AAA system, which the Flight Procedures group will use in evaluating instrument procedures. Refer to Appendix A on instructions on uploading supplemental data.
 - (3) For federally obligated airports, identify the structure's effect on existing and planned public use airports or improvements to airports related to airport design criteria, including potential restrictions or impacts on airport operations, capacity, efficiency and development. Refer to Appendix A on instructions on using the runway analysis tool.
 - (4) Confirm the OE proposal is not on land that was once obligated airport land, released by the FAA with conditions. Confirm the proposal does not violate conditions of the approval. If the proposal violates conditions, provide the standardized response contained in Appendix C and immediately contact the airport sponsor.
 - (5) Coordinating with other ARP specialists, including other planners, the airport certification safety inspector, the airport engineer, environmental protection specialists and/or the compliance officer.
 - (6) Updating the ALP showing the development (i.e. pen and ink change) where appropriate.
 - (7) Providing comments to ATO-OEG. Refer to Appendix C for standardized responses.
- c. Certain off-airport proposals may require subsequent actions directly with the airport sponsor as described below.
 - (1) In accordance with the 2012 interim guidance titled "Interim Guidance on Land Uses Within a Runway Protection Zone", work with the airport sponsor to identify and document the full range of alternatives.
 - (2) In accordance with the 2015 memorandum titled "Reminder of Responsibilities for FAA Personnel and Airport Sponsors for Protecting Approach and Departure Surfaces", notify the airport sponsor about their responsibility in maintaining a

clear approach and departure surface. Appendix F provides a sample notice to the airport sponsor.

5.3.2.1.1 Airspace Evaluations

The RAS must evaluate all notices of proposed construction or alteration received regardless of whether notice was required under Part 77, except as follows:

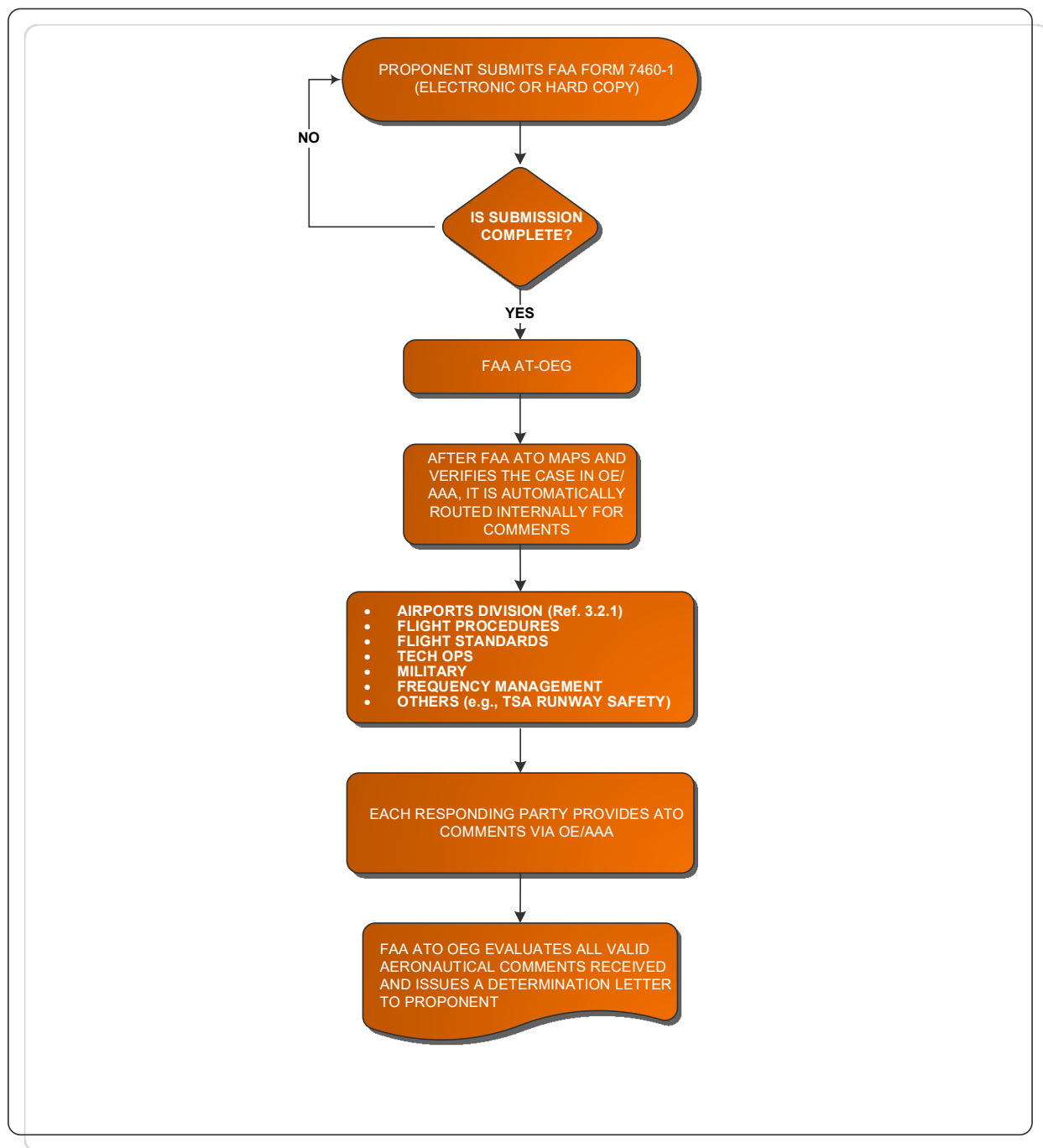
- a. ***Side-mounted non-microwave antennas and microwave dishes.*** ARP does not normally review OE cases that involve the addition of antennas to a previously studied structure that does not increase the overall height of the structure.
- b. ***Obstruction marking and lighting changes.*** ARP does not normally review OE cases that involve only marking and lighting changes.
- c. ***Temporary structures.*** ARP does not normally review OE cases that involve temporary structures of a 6-month or less duration.
- d. ***Non-federally obligated airports.*** ARP does not normally review OE cases that are submitted to the FAA for proposed construction near a non-federally obligated airport. Please note, at the timing of this SOP the OE/AAA system has not completed its automation changes for this business rule.
- e. ***Distant structures.*** ARP does not normally review OE cases that do not infringe upon runway design standards for existing and future runways. The OE/AAA system can make this determination when runway supplemental data is provided. When supplemental data is not provided, ARP does not normally review OE cases that are beyond the lateral limits of the Part 77 conical surface of a public-use or military airport. Please note, at the timing of this SOP the OE/AAA system has not completed its automation changes for this business rule.

5.3.2.1.2 Comments to ATO-OEG

The RAS provides the Airports Division response in the OE/AAA system as follows:

- a. Reviews the airspace case and provides comments in the OE/AAA system within 15 working days. (See FAA JO 7400.2.) If the RAS is unable to meet this time frame, they should contact ATO-OEG immediately and request additional review time.
- b. Refer to Appendix C for standardized comments.

5.4 Flow Chart for Coordination of Off-Airport and Joint Use Airports Proposals (FAA Form 7460-1)



6 NOTICES SUBMITTED IN ACCORDANCE WITH 14 CFR PART 157

6.1 Notification Requirements

Part 157 establishes standards and notification requirements for anyone proposing to construct, alter or deactivate (including abandon) a civil or joint use airport. This regulation also addresses proposals that alter the status or use of such an airport. Airports subject to Federal Aid to Airports Program (FAAP), the Airport Development Aid Program (ADAP), and Airport Improvement Program (AIP) agreements are required to maintain an airport layout plan (ALP). These types of airports are exempt from the Part 157 regulation, and coordinates changes to their airport via ALP.

6.1.1 This notification serves as the FAA's basis for evaluating the effects of the proposed action on the safe and efficient use of airspace by aircraft and on the safety of persons and property on the ground. These effects include the following:

- a. Effects on existing or proposed traffic patterns of neighboring airports.
- b. Effects on the existing airspace structure and projected programs of the FAA.
- c. Effects that existing or proposed objects (on file with the FAA) within the affected area would have on the airport proposal.

6.1.2 Notification allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing the adverse impacts on the safe and efficient use of navigable airspace.

6.2 Establishment of an Airport or Alteration of an Airport/Landing Area (FAA Form 7480-1 or Landing Area Proposal (LAP))

6.2.1 Purpose

6.2.1.1 Proponents use FAA Form 7480-1 to notify the FAA of the establishment, alteration and deactivation of an airport or landing area for non-federally obligated airports under Part 157. An electronic version of the FAA Form 7480-1, referred to as a LAP, is available at:

<https://ocaaa.faa.gov/ocaaa/external/portal.jsp>

6.2.1.2 Proposals reported with FAA Form 7480-1 may be subject to an airport airspace analysis and be processed as an NRA.

Note: Proponents alert the FAA of the establishment, alteration and deactivation of an airport for federally obligated airports by submitting an ALP update.

6.2.2 Aeronautical Study Numbers

6.2.2.1 The OE/AAA system automatically assigns a LAP case number and a subsequent NRA case numbers will be generated when a study is entered into

the system. The LAP number will be generated by service area, for example, 2018-WSA-42-LAP, but will be distributed in the same manner as the NRA cases. For example, an aeronautical study for the establishment of an airport or modification of an airport/landing area might be numbered as follows: 2013-AWP-0051-NRA. The last three letters (NRA) identify the study as a non-rulemaking airport case, which is processed by ARP. The case remark section of the NRA aeronautical study should provide detailed information pertaining to the proposal, which will ensure all division responders have a clear understanding of what they are reviewing.

- 6.2.2.2 If an FAA Form 7480-1 is submitted as a hard copy, the RAS should contact the submitter and encourage them to resubmit electronically as a LAP. Electronic submittals are typically handled quicker than paper submittals, and provides electronic confirmation. If the submitter prefers hard copy, the RAS is to manually enter the FAA Form 7480-1 as a LAP in OE/AAA.

6.2.3 Roles and Responsibilities

6.2.3.1 ARP

ARP evaluates the proposal against the appropriate design standards, consolidates internal responses, reconciles any conflicts and, if possible, assists the proponent/sponsor in mitigating any conditions that will result in an objectionable determination.

6.2.3.1.1 Responsible ARP Staffer (RAS)

- a. The ARP employee responsible for processing form 7480-1 through the OE/AAA might be an airport planner, airport engineer, program manager, project manager, airspace specialist or other designated position. This document refers to the responsible ARP employee as the RAS.
- b. The RAS assigned to the proposal processes it from start to finish. The RAS may need to coordinate with the appropriate ADO/RO Airports Division engineer, planner or project manager as well as with other FAA offices.

6.2.3.2 Other Offices and LOBs

See the current FAA JO 7400.2 for the roles and responsibilities for each FAA office and other federal agencies.

6.2.4 Overview

- 6.2.4.1 The FAA's review of airport proposals is a collaborative process primarily among ARP, ATO and Flight Standards. This review considers the traffic patterns of neighboring airports, any impacts on the existing airspace structure and programs of the FAA, the effects objects (existing and proposed) on file with the FAA would have on the airport proposal, and the safety of persons

and property on the ground. The FAA's review and subsequent determination is in accordance with Part 157. The determination is only advisory.

6.2.4.2 The steps required to process, review, determine and complete any post-determination actions for an airport proposal varies depending on the type of proposal. There are five distinct types of Part 157 related proposals, each with unique steps:

- a. Establishment of an airport or modification of an airport/landing area.
- b. Change in status (e.g. visual flight rules (VFR) to instrument flight rules (IFR)).
- c. Change in use (e.g. private use to public use).
- d. Change in traffic pattern (e.g. implement right traffic, a specific altitude or change in category of aircraft).
- e. Deactivate an airport, a specific landing area or an associated taxiway on an airport.

Note: If the airport is an existing location, confirm whether it is subject to a federal agreement requiring an ALP. If the airport is required to maintain an ALP and keep it up to date, do not follow the procedural steps listed below. Instead follow the procedural steps for ALP reviews described in Section 3.2.

6.2.5 Establishment of an Airport or Alteration of an Airport/Landing Area

The RAS must complete the following steps for a new airport or alteration to an existing one.

6.2.5.1 **Step 1 – Receive the Airport Proposal (FAA Form 7480-1 or Landing Area Proposal (LAP))**

- a. ***Verify the proposal for accuracy and completeness.*** Verify the sponsor/proponent has completed FAA Form 7480-1 sufficiently to initiate a formal study and has provided the minimum supporting documents (e.g. vicinity map, runway or heliport layout sketch) so the RAS can add or modify the airport or landing area data in the OE/AAA database, conduct an airport airspace analysis and process the proposal.
- b. ***Verify the airport and/or landing area coordinates provided are consistent with the map and layout provided.*** The documents provided must locate the airport and its landing area(s) in relation to known roads, terrain and other features so the RAS can locate the runway(s) accurately and efficiently.
- c. ***Add or modify the airport data in the OE/AAA database.*** For an internal entry of an LAP case, use the Landing Area Data: Runways or Landing area Data: Heliport to change or add additional surface(s)/area(s) to the facility. For e-filed LAPs, proceed to (d) below. Create or edit pending records to capture current (existing) conditions. Create or modify proposed records for any planned changes

to the airport or its landing area(s). Please note the Part 77 code is not automatically populated, therefore the RAS will need to manually enter the Part 77 Code for each runway end.

- d. Use the Create/View: Airport & Runways button to add/verify the modifications to the Airports/Runways Database.
- e. Open the runway record to verify information. Map the new runway to verify the location checks with the sketch submitted.
- f. Return back to the LAP window and click on the Create NRA Case.

6.2.5.2 Step 2 – Process the Airport Proposal

- a. Ensure the description is clear. The LAP case number is auto-populated. Augment the description if necessary. The description should be a stand-alone, concise narrative of the airport proposal. The description should include the name, owner, intended/current use of the airport, general location, and city, state and county. Describe the landing area and whether IFR procedures are anticipated. Use a description similar to the following examples:
 - Example 1 – Proposal for a new private owned, private use hospital heliport. Proposed Research Medical Center Heliport, Fort Worth, TX, Tarrant County. The helipad will be located on the rooftop, 50' x 50' elevated 85' AGL, with eight perimeter lights, airport beacon and lighted windsock. No IFR procedures anticipated.
 - Example 2 – Proposal for a new private owned, public use heliport. Proposed Research Medical Center Heliport, Fort Worth, TX, Tarrant County. The helipad will be located on the rooftop, 50' x 50' elevated 85' AGL, with eight perimeter lights, airport beacon and lighted windsock. No IFR procedures anticipated.
 - Example 3 – Big Expectations Airport in City, ST, County, proposes to extend runway 10-28 1,400' to the west resulting in a 6000' x 60' paved runway.
 - Example 4 – Big Horn Ranch Airport in City, ST, County, plans to pave their existing turf runway 18-36 resulting in a 3000' x 60' paved runway.
- b. Add case or project notes as needed.
- c. Upload any additional documents.
- d. Map and verify the case/project. Confirm the study location and elevation.

6.2.5.3 Step 3 – Review the Airport Proposal

- a. Review the proposal in accordance with FAA JO 7400.2 and the applicable FAA Design AC.

- For non–Federally obligated airports, it should be recommended and encouraged that the airport proponent/sponsor comply with FAA airport design standards. Typically for Part 157 establishments, conflicting traffic patterns is the cause of an objectionable determination.

Note: When airport design standards are combined with appropriate state and local zoning ordinances, the resultant effect should:

- Assure the lowest possible operational altitudes for aircraft;
 - Protect the economic investment in the airport; and
 - Promote safety in the areas affected by the airport by assuring, through proper development, compatible land use.
- b. Determine what recommendations to provide to the airport.
 - c. For heliports, state any approach/departure path clearance requirements or recommendations.
 - d. Identify required and/or recommended airport actions.
 - (1) Identify any known obstructions that must or should be marked, lighted or removed or that require displacement of the threshold.
 - (2) List any visual aids that are required and/or recommended such as lighting, wind sock or segmented circle beacon.
 - (3) Identify if the thresholds should be moved or displaced.

6.2.5.4 Step 4 – Issue the Determination

- a. Review internal FAA responses.
- b. Reconcile and/or mitigate any objections.
- c. Issue a determination providing applicable conditions and recommendations. Provide the proponent/sponsor a copy of the Reverse Part 77 report.
- d. Upload any determination issued not using the OE/AAA standard letters.

6.2.5.5 Step 5 – Complete Post-Determination Actions

- a. The RAS may send the completed case for proponent review by clicking on the "Send to Proponent Review" from the LAP window.

- b. The RAS has the option of either waiting for a response to the “proponent review” function (Acknowledgement is indicated on the LAP case page under Case Status as: PROPONENT_APPROVED) or receiving a written or verbal acknowledgement that the proponent intends to proceed with the activation. While the determination is typically valid for 18 months, it is recommended that the RAS notifies the proponent of their required action on a continual basis. If no response is provided and the determination expires, notify the proponent he/she must refile and terminate the LAP.
- c. Go to the airport database via the LAP page, Create/View Airport & Runways and then View Airport.
- d. Click on the Submit to NFDC button. There will be a confirmation that the 7480 form and NRA determination letter is attached. Click on the Submit to NFDC button.
- e. You will receive in your email that the requested change has been received by NFDC.

6.2.6 Change in Status

The RAS must complete the following steps for a change in status.

6.2.6.1 **Step 1 – Receive the Airport Proposal (FAA Form 7480-1 or Landing Area Proposal (LAP))**

- a. ***Verify the proposal for accuracy and completeness.*** Verify the proponent/sponsor has completed FAA Form 7480-1 sufficiently to initiate a formal study and has provided the minimum supporting documents (e.g. Verify the proposal for accuracy and completeness. Verify the proponent/sponsor has completed FAA Form 7480-1 sufficiently to initiate a formal study and has provided the minimum supporting documents (e.g. condition of the runway, type and condition of markings, lighting system and category of aircraft)) so the RAS can confirm the data in the OE/AAA database and assess any impacts.
- b. ***If required, add or modify the airport data in the OE/AAA.*** Use the Create/view: Airport & Runways button to verify or add the modifications to the Airports/Runways Database.
- c. Return back to the LAP window and click on the Created NRA Case.

6.2.6.2 **Step 2 – Process the Airport Proposal**

- a. ***Ensure the description is clear.*** Ensure the description is clear. Edit the sponsor/proponents description if necessary. The description should be a stand-alone, concise narrative of the airport proposal. The description should include the name, owner, general location, city, state, county and proposed change. Use a description similar to the following example:

- Example 1 – Big Expectations Airport in City, ST, County, proposes to change runway 10-28 from VFR to IFR (both runways).
- b. Add case or project notes as needed.
- c. Upload any additional documents.
- d. “Verify Map” the case/project. Confirm the study location and elevation.

6.2.6.3 **Step 3 – Review the Airport Proposal**

For example, for a change to “IFR”:

- a. Review the proposal in accordance with the applicable FAA Design AC. See Section 6.2.5.3(a).
- b. Determine what design standards should be satisfied to support Instrument Flight Procedures (IFP).
- c. List any navigational aids that are required and/or recommended.
- d. Identify any markings or marking improvements that are recommended.
- e. Identify any signage or lighting improvements that are recommended.

6.2.6.4 **Step 4 – Issue the Determination**

- a. Review internal FAA responses.
- b. Reconcile and/or mitigate any objections.
- c. Issue a determination providing: Conditions of the determination.
 - (1) Recommendations.
 - (2) Obstacles on file with the FAA that penetrate the larger Part 77 surfaces associated with the IFR category. A reverse Part 77 analysis will identify obstacles on file with the FAA that penetrate a Part 77 surface. Include this information (location, height, structure type) when sending the determination to the proponent/sponsor.
 - (3) Instructions if needed to:
 - (i) Initiate a request for procedure development.
 - (ii) Permanently remove existing procedures.
 - (iii) Conduct an obstruction survey.
- d. Upload any determination issued not using the OE/AAA standard letters.

6.2.6.5 **Step 5 – Complete Post-Determination Actions**

- a. If an “objectionable” determination is issued to a proposal to change status to IFR, delete any proposed records that were created in the OE/AAA Airports/Runway Database to study the change proposal.
- b. Proceed to the Airport Database and select the Airport ID with the Data Source “LAP”.
- c. The RAS has the option of either waiting for a response to the “proponent review” function in the system or receiving a written or verbal acknowledgement that the proponent intends to proceed with the activation prior to submitting the case to NFDC. Verify the changes and then click on the Submit to NFDC button. There will be a confirmation that the 7480 form and NRA determination letter is attached.
- d. Click on the Submit to NFDC button.
- e. You will receive in your email that the requested change has been received by NFDC.
- f. RAS to delete the LAP airport entry after the NASR airport record has been processed.

6.2.7 Change in Use

The RAS must complete the following steps for a change in use.

6.2.7.1 **Step 1 – Receive the Airport Proposal (FAA Form 7480-1 or Landing Area Proposal (LAP))**

- a. ***Verify the proposal for accuracy and completeness.*** Verify the proponent/sponsor has completed FAA Form 7480-1 sufficiently to initiate a formal study and has provided the minimum supporting documents (e.g. condition of the runway, type and condition of markings, lighting system and category of aircraft) so the RAS can confirm the data in the OE/AAA database and assess any impacts.
- b. If required, add or modify the airport data in the OE/AAA database.
 - (1) Create or edit pending records to capture current (existing) conditions.
- c. Use the Create/view: Airport & Runways button to verify or add the modifications to the Airports/Runways Database.
- d. Advise the airport that if the FAA issues a favorable study:
 - (1) Their airport information will be published in the Chart Supplement (if public use airport only).
- e. Their airport may be inspected by a contractor on behalf of the FAA.
- f. Return back to the LAP window and click on the Created NRA Case.

6.2.7.2 Step 2 – Process the Airport Proposal

- a. ***Ensure the description is clear.*** If the airport proponent/sponsor was directed to e-file the proposal, edit the e-filed description if necessary. The description should be a stand-alone, concise narrative of the airport proposal. The description should include the name, owner, general location, city, state, county and proposed change. Use a description similar to the following example:
 - Example 1 – Proposal to change the use of Bird’s Nest Airport in City, ST, County, from private use to public use. No IFR procedures anticipated.
- b. Add case or project notes as needed.
- c. Upload any additional documents.
- d. “Verify Map” the case/project. Confirm the study location and elevation.

6.2.7.3 Step 3 – Review the Airport Proposal

For a change to “Public Use”, identify what recommendations relating to airport standards should be considered, including:

- Runway improvements such as markings and lighting.
- Approach path.
- Navigational aids.

6.2.7.4 Step 4 – Issue the Determination

- a. Review internal FAA responses.
- b. Reconcile and/or mitigate any objections.
- c. Issue a determination to the proponent/sponsor providing any conditions and/or recommendations and a copy of the airport’s existing FAA Form 5010.
- d. Upload any determination issued not using the OE/AAA standard letters.

6.2.7.5 Step 5 – Complete Post-Determination Actions

- a. Proceed to the Airport Database and select the Airport ID with the Data Source “LAP”.
- b. The RAS has the option of either waiting for a response to the “proponent review” function in the system or receiving a written or verbal acknowledgement that the proponent intends to proceed with the activation prior to submitting the case to NFDC. Verify the changes and then click on the Submit to NFDC button. There will be a

confirmation that the 7480 form and NRA determination letter is attached.

- c. Click on the Submit to NFDC button.
- d. You will receive in your email that the requested change has been received by NFDC.
- e. RAS to delete the LAP airport entry after the NASR airport record has been processed.

6.2.8 Changes in Traffic Pattern

The RAS must complete the following steps for a change in traffic pattern.

6.2.8.1 **Step 1 – Receive the Airport Proposal (FAA Form 7480-1 or Landing Area Proposal (LAP))**

- a. ***Verify the proposal for accuracy and completeness.*** Verify the proponent/proponent has completed FAA Form 7480-1 sufficiently to initiate a formal study and has provided the minimum supporting documents (a proposed traffic pattern diagram may be needed).
- b. ***Modify the airport data in the OE/AAA database.*** Use the Create/view: Airport & Runways button to add the modifications to the Airports/Runways Database.
- c. Return back to the LAP window and click on the Created NRA Case.

6.2.8.2 **Step 2 – Process the Airport Proposal**

- a. ***Ensure the description is clear.*** If the airport proponent/sponsor was directed to e-file the proposal, edit the e-filed description if necessary. The description should be a stand-alone, concise narrative of the airport proposal. The description should include the name, owner, general location, city, state, county and proposed change. Use a description similar to the following example:
 - Example 1 – Proposal to change standard left traffic to runway 10 to right traffic (all local traffic to remain south of the runway) at the Bird's Nest Airport in City, ST, County.
 - Example 2 – Proposal to change the traffic pattern altitude at the Burns Municipal Airport in City, ST, County, from 800' AGL to 1000' AGL.
- b. Add case or project notes as needed.
- c. Upload any additional documents.
- d. "Verify Map" the case/project. Confirm the study location and elevation.

6.2.8.3 **Step 3 – Review the Airport Proposal**

6.2.8.4 Step 4 – Issue the Determination

- a. Review internal FAA responses.
- b. Reconcile and/or mitigate any objections.
- c. Issue a determination to the proponent/sponsor and state the reasons if the determination is “objectionable”.
- d. Upload any determination issued not using the OE/AAA standard letters.

6.2.8.5 Step 5 – Complete Post-Determination Actions

- a. If an “objectionable” determination is issued and the proponent does not return a signed 5010-5 Form, then delete the airport from the OE/AAA database. If the proponent returns a signed 5010-5 Form to activate their objectionable landing facility, then it needs to be activated by sending the form to NFDC. Public use facilities with an objectionable determination will be published as objectionable on aeronautical charts.
- b. Proceed to the Airport Database and select the Airport ID with the Data Source “LAP”.
- c. The RAS has the option of either waiting for a response to the “proponent review” function in the system or receiving a written or verbal acknowledgement that the proponent intends to proceed with the activation prior to submitting the case to NFDC. Verify the changes and then click on the Submit to NFDC button. There will be a confirmation that the 7480 form and NRA determination letter is attached.
- d. Click on the Submit to NFDC button.
- e. You will receive in your email that the requested change has been received by NFDC.
- f. RAS to delete the LAP airport entry after the NASR airport record has been processed.

6.2.9 Deactivation/Abandonment/Change from Public Use to Private use

The RAS must complete the following steps for a deactivation and abandonment.

6.2.9.1 Step 1 – Receive the Airport Proposal (FAA Form 7480-1 or Landing Area Proposal (LAP)) or Letter

Verify the proposal or letter is from the airport owner or the airport’s representative. For the airport, review the airport’s history for any possible federal obligations such as surplus property. The RAS should reference Order 5190.2 titled “List of Public Airports, Affected by Agreements with the Federal Government, and the Airport Master Record (item #25

NPIAS/Federal Agreements). The RAS should coordinate with the regional compliance lead regarding the deactivation.

6.2.9.2 **Step 2 – Enter the Request to Deactivate**

a. For a public use airport:

- (1) Conduct an aeronautical study.
- (2) At a minimum, circularize public notice of the proposed public use airport closure to:
 - (i) Local official(s) (judges, county manager, city manager).
 - (ii) State aviation office.
 - (iii) Nearby airports within a minimum 5 nautical mile radius. Depending on the nature of the proposal, the RAS may need to increase this radius.
 - (iv) State airport operators association. Also consider notifying AAAE, ACI and NBAA.
 - (v) Other groups or associations as needed.
- (3) Ensure the description is clear in the OE/AAA database. If the airport proponent/sponsor was directed to e-file the proposal, edit the e-filed description if necessary. The description should be a stand-alone, concise narrative of the airport proposal. The description should include the name, owner, general location, city, state, county and proposed change. Use a description similar to the following example:
 - Example 1 – The Make-Believe Municipal Airport, a public use airport in City, ST, County, has filed notice with the FAA to deactivate the airport.
- (4) Add case or project notes as needed.
- (5) Upload any additional documents.
- (6) “Verify Map” the case/project. Confirm the study location and elevation.

b. For a private use airport:

- (1) Either review an e-filed LAP case or create a LAP (enter the Loc ID and the 7480 will autofill) case with the purpose of notification as to 'Deactivate Airport.'
- (2) Create a NRA case.
- (3) Navigate to the corresponding NRA case.
- (4) Verify the case.

- (5) Det-to-prop the case. This will by-pass the distribution of the case for review. No aeronautical study is required.
- (6) Generate and issue a 'Deactivate Landing Area' determination letter.
- (7) Return to the LAP case, and navigate to 'Create/View Airports and Runways'. Click 'View Airport'
- (8) Under the 'Airport Data' tab select 'Submit to NFDC Button'

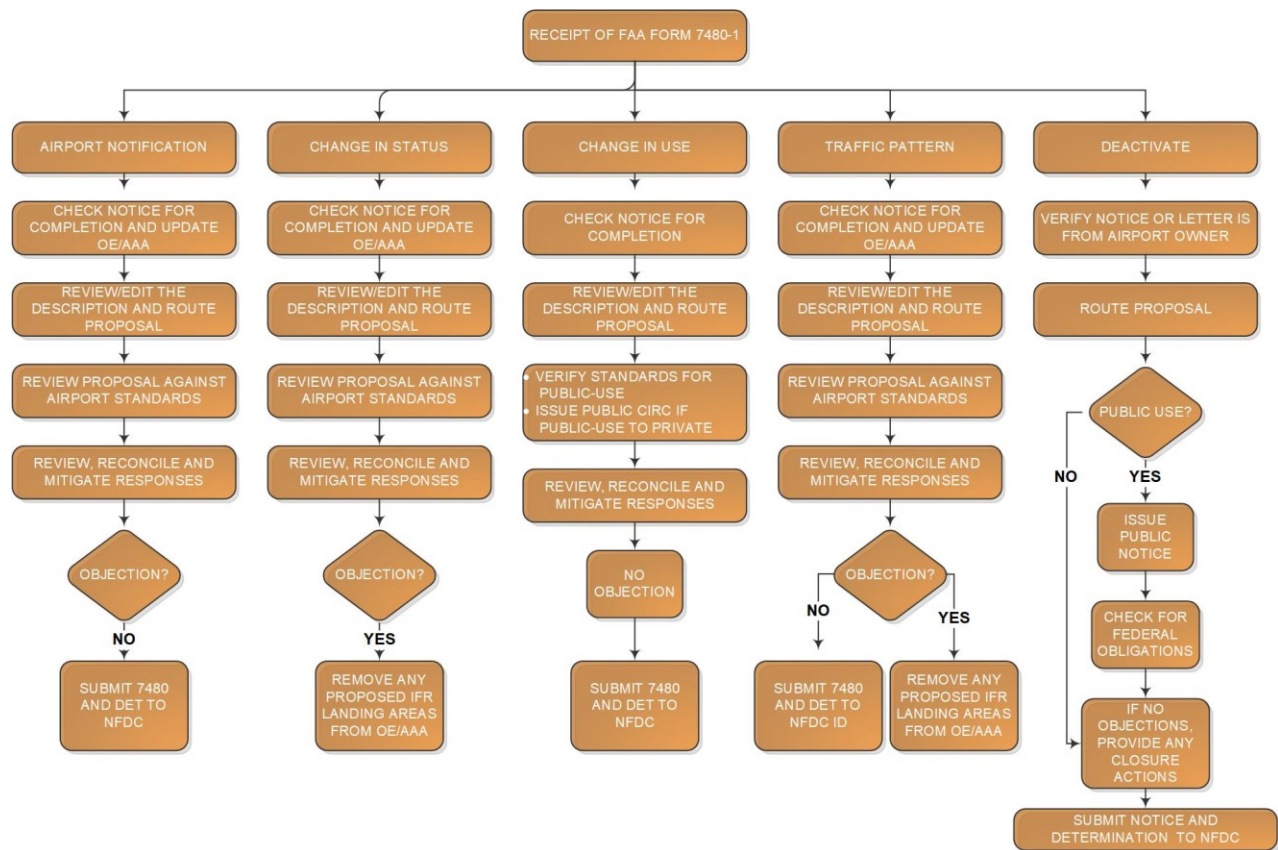
6.2.9.3 **Step 3 – Issue the Determination**

Issue a determination to the proponent/sponsor providing any conditions to the closure of the airport such as removal of runway/taxiway markings, maintaining closure markings, disabling or removing, navigational aids and issuing Notices to Airmen (NOTAMs).

6.2.9.4 **Step 4 – Complete Post Determination Actions**

- a. Proceed to the Airport Database and select the Airport ID with the Data Source "LAP".
- b. For change of use, verify the change. For deactivation, do nothing.
- c. Click on the Submit to NFDC button.
- d. There will be a confirmation that the 7480 form and NRA determination letter is attached.
- e. Click on the Submit to NFDC button.
- f. You will receive in your email that the requested change has been received by NFDC.
- g. RAS to delete the LAP airport entry after the NASR airport record has been processed.

6.2.10 Flow Chart for Part 157 Coordination (FAA Form 7480-1)



Appendix A – Runway Supplemental Data & Runway Design Tool

Purpose

The runway analysis tool provides the Office of Airports the ability to assess proposed (NRA, OE, NR) structures for impact to runway design criteria described in Advisory Circular 150/5300-13, titled Airport Design. OE/AAA has the ability to provide an analysis report and depict the surfaces in both Map 2D and 3D. Please note this tool does not assess taxiway design criteria therefore, it is the responsibility of the RAS to identify any taxiway impacts. The tool takes into account declared distances, when provided.

Instructions

The tool relies upon the RAS to input runway data that is not available in NASR. This information is necessary for the system to know what design criteria applies to the runway. Once data is entered for a runway, the tool will be able to generate surfaces. It will also create a report that evaluates those surfaces against case data, as well as display those surfaces in MapIt. The following instructions are broken into three main categories; entering supplemental data for an airport, running the analysis tool, and mapping. Once the supplemental data is inputted, it will be stored in OE/AAA so users will not have to continuously enter the data.

Entering Supplemental Data

1. From the OE/AAA Portal Screen click on “data” located on the top blue menu bar.
2. Click the “Airports/Runways Database”.
3. Enter the Airport Locator ID and click “Search”.
4. Click the Airport ID.
5. Click the Runway Name (Runways may have multiple sources (e.g. NASR, Proposed)).

Note: Users must enter the supplemental data for each runway type separately.

6. Scroll to the bottom and click “Create Runway Supplemental Info for Design Surfaces”.
7. User inputs the following information. For existing runways, users may need to reference the approved ALP or published instrument approach procedures in order to obtain the appropriate data. For future proposed runways, the ALP is the main source for all data.
 - a. Aircraft Approach Category (See Table 1-1 of AC 150/5300-13A. This information is obtainable in the ALP).
 - b. Airplane Design Group (See Table 1-2 of AC 150/5300-13A. This information is obtainable in the ALP). If the design group pertains to small

aircraft (aircraft with a maximum certificated takeoff weight of 12,500 lbs. or less), ensure user select the group with the “small” annotation.

- c. Vertical Guidance (Pertains to runways that provide vertical guidance to approaching pilots, not including PAPI/VASIs. The following common instrument approach procedures provide vertical guidance: ILS, LPV, LNAV/VNAV, GLS, and RNP. This information is obtainable in the instrument approach plates, contained in the [ADIP system](#)).
- d. Precision Approach Category (Refer to ¶102 of AC 150/5300-13A for the definition of the various categories. Until OE/AAA is updated, users can ignore the “A”, “B”, and “C” sub-categories. Future update will remove these attributes. This information is obtainable in the ALP or the instrument approach plates).
- e. Visibility Minimum Code (Provide the visibility minimums, in statute miles, that applies to the runway. If the approach procedure provides the visibility in RVR, refer to Table 1-3 of AC 150/5300-13. This information is obtainable in the Airport Layout Plan, which should coincide with the instrument approach plates. The image below provides where to locate the visibility minima from the approach chart. In this example, the Straight-in ILS has a visibility RVR of 2400 that equates to lower than 3/4 mile but not lower than 1/2 mile. In comparison, the Straight-in LOC and Circling does not provide lower visibility minimums. For these reasons, 1/2 mile is used as the visibility minimum code).

LANDING MINIMA FORMAT

In this example airport elevation is 1179, and runway touchdown zone elevation is 1152.

	DA	Visibility (RVR 100's of feet)	Aircraft Approach Category HAT/HATh	
CATEGORY	A	B	C	D
Straight-in ILS to Runway 27 S-ILS 27	1352	24	200	(200-1/2)
Straight-in with Glide Slope Inoperative or not used to Runway 27 S-LOC 27	1440/24	288	(300-1/2)	1440/50 288 (300-1)
CIRCLING	1540-1 361 (400-1)	1640-1 461 (500-1)	1640-1 1/2 461 (500-1 1/2)	1740-2 561 (600-2)
	MDA	HAA	Visibility in Statute Miles	

All weather minimums in parentheses not applicable to Civil Pilots.
Military Pilots refer to appropriate regulations.

RVR (ft) *	Instrument Flight Visibility Category (statute mile)
5000	Not lower than 1 mile
4000	Lower than 1 mile but not lower than ¾ mile
2400	Lower than ¾ mile but not lower than ½ mile
1600	Lower than ½ mile but not lower than ¼ mile
1200	Lower than ¼ mile

* RVR values are not exact equivalents.

- f. Offset Approach Course (Not common, however at times instrument approach procedures are offset to avoid obstacles. Refer to Figure 3-3 of AC 150/5300-13A. Users must enter the offset value, or leave blank if this does not apply).
- g. Approach Landing System (Refer to the Airport Master Record – 5010. Field #49 provides the type of approach lights, if installed).
- h. Instrument Departure. Select whether the runway end has instrument departures. The OE/AAA system will automatically select “yes” for runway ends that are mentioned specifically in departure procedures in the Terminal Procedures Publications. Specific departure procedures are not established at all airports, therefore, there will be instances where the runway has an instrument departure, but is not identified by the OE/AAA system. Users can reference the ALP or the Obstacle Departure Procedures (see steps below) to validate the applicability of the instrument departure surface.

STEPS TO IDENTIFY THE APPLICABILITY OF EXISTING INSTRUMENT DEPARTURE*

Steps	Action
1	Open ADIP - https://adip.faa.gov/agis/public/#/public
2	Type Loc ID (e.g. OXI)
3	Click “Charts”, located on the left side of screen
4	Click on “Takeoff Minimums”
5	The “Obstacle Departure Procedure” (ODP) will open in Adobe.
6	Locate Airport Loc ID. Tip: Simultaneously hit the “Ctrl” and “F” keys, to open the “find” box. Type the LOC ID. Click the “Gear” icon, and click “Whole Words Only”. Hit the “Enter” key. This should bring you directly to the airport.
7	Runways not available for instrument departures will be labeled as “NA”. Therefore, select “no” in the Supplemental Data field. Please note, runway ends <u>not</u> listed in the ODP indicates the runway is available for instrument departure but there is no specific procedures (i.e. standard climb gradient, no obstacles). In this instance, select “yes” in the Supplemental Data Field.

*For future/proposed runways, refer to the ALP for the applicability of the instrument departure surface.

- i. Comments (Enter any comments, not a required field).
- j. Runway Centerline point (The runway design surfaces are all based on the threshold and the departure end of the runway. Users who wish to assess at a specific location along a runway, they may enter the location and click the “Add Point” button. This is not a required field).

Running the Analysis Tool

1. Access any NRA/NR/OE aeronautical study.
2. Click on the “Analysis” tab.
3. Click on “Design Surfaces” located on the left blue column. You should be able to see a table with all runways and its supplemental data. If you see the runways but the supplemental data columns are empty, refer back to the “Entering Supplemental Data” instructions above.
4. Click on the report automatically created by the system or “Run New Report”. RAS is to create a new report whenever runway supplemental data changes.

Case Data	Part 77	Analysis	Generate Letters	Documents	Corresp Archive	Dir Responses																																																																				
Analysis Menu ASR: 2018-AGL-123-NRA Project: App-352745937-16 Description: GATE 6 PAX BOARDING BRIDGE AREA 3 - POINT H ON SITE SKETCH City, State: APPLETON, WI Latitude: 44-15-35.589 NAD 83 Longitude: 88-30-45.69W Proposed SEI: 585 Ft AGL: 75 Ft AMSL: 940 Ft Airport Design Surfaces is a beta tool for use by the Airports Division. This beta version allows testing the tool in a real-world environment by the end-user to quickly identify any errors in design surface logic and/or further enhancements which may be needed to meet your needs. The tool relies upon runway data input by Airports Specialists. Once data is entered for an airport, the tool will generate surfaces. It will also create a report which evaluates those surfaces against case data, as well as display those surfaces in MapIt. Additional enhancements to the tool are planned. If you have suggestions for changes and/or enhancements, or if you encounter any problems or issues with the tool, please contact the OEIAAA Support Desk at either 202-580-7500 or OEIAAA Support Desk .																																																																										
Runway Supplemental Data																																																																										
<table border="1"> <thead> <tr> <th>Runway Ident</th> <th>ACC</th> <th>ADG</th> <th>End</th> <th>Vis</th> <th>Time</th> <th>PAC</th> <th>Vert</th> <th>ALS</th> <th>Offset</th> <th>End</th> <th>Vis</th> <th>Time</th> <th>PAC</th> <th>Vert</th> <th>ALS</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>Runway 12 / 30 (NASR)</td> <td>C</td> <td>IV</td> <td>12</td> <td>1/4V</td> <td>DN</td> <td>I</td> <td>N</td> <td></td> <td>30</td> <td>1/4V/N</td> <td>DN</td> <td>I</td> <td></td> <td>Y</td> <td>MALSR</td> <td></td> </tr> <tr> <td>Runway 03 / 21 (NASR)</td> <td>C</td> <td>IV</td> <td>03</td> <td>1/4V/N</td> <td>DN</td> <td>I</td> <td>Y</td> <td>MALSR</td> <td>21</td> <td>1/4V</td> <td>DN</td> <td>I</td> <td></td> <td>Y</td> <td></td> <td></td> </tr> <tr> <td>Runway 12R / 30L (OEAAA)</td> <td>C</td> <td>II</td> <td>12R</td> <td></td> <td>DN</td> <td>I</td> <td></td> <td></td> <td>30L</td> <td></td> <td>DN</td> <td>I</td> <td></td> <td>Y</td> <td></td> <td></td> </tr> </tbody> </table>							Runway Ident	ACC	ADG	End	Vis	Time	PAC	Vert	ALS	Offset	End	Vis	Time	PAC	Vert	ALS	Offset	Runway 12 / 30 (NASR)	C	IV	12	1/4V	DN	I	N		30	1/4V/N	DN	I		Y	MALSR		Runway 03 / 21 (NASR)	C	IV	03	1/4V/N	DN	I	Y	MALSR	21	1/4V	DN	I		Y			Runway 12R / 30L (OEAAA)	C	II	12R		DN	I			30L		DN	I		Y		
Runway Ident	ACC	ADG	End	Vis	Time	PAC	Vert	ALS	Offset	End	Vis	Time	PAC	Vert	ALS	Offset																																																										
Runway 12 / 30 (NASR)	C	IV	12	1/4V	DN	I	N		30	1/4V/N	DN	I		Y	MALSR																																																											
Runway 03 / 21 (NASR)	C	IV	03	1/4V/N	DN	I	Y	MALSR	21	1/4V	DN	I		Y																																																												
Runway 12R / 30L (OEAAA)	C	II	12R		DN	I			30L		DN	I		Y																																																												
Run new report Run Date: 06/05/2018 08:26:41 PM Run By: Carlton Lamberti																																																																										

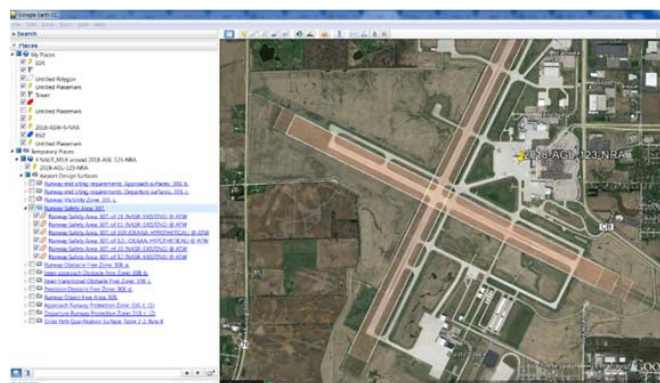
Note: Once a report is created, it will be archived on the bottom of the screen. Users can refer to the analysis later or re-run a new report. The report will provide users what runway design criteria has been penetrated along with shortest distance and direction out. On the bottom, identified errors will be shared with the user that may contribute to inaccurate findings.

Users must review and fix any errors identified.

Mapping the runway design surfaces

1. To map in 2D, click on the 2D mapping icon located on the bottom of the aeronautical study case.
2. On the left side of the screen, locate “Airport Design”. The checkbox must be checked in order to turn on/off each design layer. Click the layers you wish to view and hit the “refresh” button.

3. To map in 3D, click on the 3D mapping icon located on the bottom of the aeronautical study case.
4. Select the “Airport Design Surfaces” layer, and any other layer you wish to view. Click Map. Users can select/deselect any design surface they wish to view. Click on the design surface to view the various runways.



Appendix B – AC 150/5300-13B Approach/Departure Surface Equations

The following provides the equations for assessing the approach and departure surfaces provided in AC 150/5300-13B.

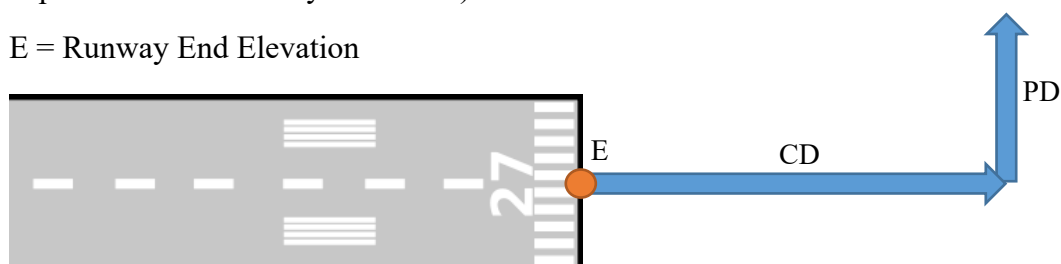
Surface	Half-width Formula	Surface Height Above Threshold Elevation
Surface 1	If $CD \leq 500$; then $PD = (0.18 \times CD) + 60$ If $3000 \geq CD > 500$, then $PD = 150$	15:1 Surface Height = $CD/15$
Surface 2	If $CD \leq 2,250$; then $PD = (0.10 \times CD) + 125$ If $5000 \geq CD > 2,250$, then $PD = 350$	20:1 Surface Height = $CD/20$
Surface 3	If $CD \leq 1,500$; then $PD = (0.20 \times CD) + 200$ If $10,000 \geq CD > 1,500$, then $PD = 500$	20:1 Surface Height = $CD/20$
Surface 4	$PD = (0.15 \times CD) + 200$	20:1 Surface Height = $(CD - 200)/20$ 34:1 Surface Height = $(CD - 200)/34$
Surface 5	$PD = (0.15 \times CD) + 200$	20:1 Surface Height = $(CD - 200)/20$ 34:1 Surface Height = $(CD - 200)/34$
Surface 6	$PD = [((760 - k)/10,000) \times CD] + k$ Where $k = (\text{rwy width}/2) + 100$	30:1 Surface Height = $CD/30$
Surface 7	$PD_{\text{Section 1}} = \frac{1}{2}(\text{RWY Width}) + \tan 15^\circ \times CD$ $PD_{\text{Section 2}} = 500 - (1/2 \text{ RWY Width})$	Surface Height _{Section 1} = $CD/40$ Surface Height _{Section 2} = $(CD/40) + E + \tan \Theta \times (PD - PD_{\text{Section 1}})$ Where $\Theta = \tan^{-1} \times (150 / [500 - (0.5 \times \text{RWY Width})])$

Where:

PD = Perpendicular distance (feet) from the extended runway centerline to area edge

CD = Distance (feet) measured along the extended runway centerline from threshold (or departure end of runway for Row 7)

E = Runway End Elevation



Appendix C – OE Standardized Responses

The following standardized responses are specific to off-airport OE aeronautical studies near federally obligated airports. The standardized responses provide a baseline division response. If other pertinent information is available pertaining to the aeronautical study, provide this to ATO-OEG.

Runway Design Standard or Potential Concern	Response Type	ARP Division Response
RUNWAY OFZ	Objection	The FAA is in receipt of a plan on file by XYZ airport. The proposed object conflicts with this plan. Specifically, the proposed object infringes upon the Runway Obstacle Free Zone of planned runway XX/XX, affecting its usable length. In accordance with 14 CFR §77.29, the Office of Airports has determined the proposed structure is an adverse effect on a planned public use airport, thereby objecting to the proposal.
INNER-APPROACH OFZ	No Objection with Provision	The FAA is in receipt of a plan on file by XYZ airport. The proposed object conflicts with this plan and is an adverse effect. Specifically, the proposed object infringes upon the Inner-Approach Obstacle Free Zone of planned runway XX/XX, affecting its future Approach Lighting System. No objection provided the structure does not exceed a height of _____ feet.
INNER-TRANSITIONAL OFZ	No Objection with Provision	The FAA is in receipt of a plan on file by XYZ airport. The proposed object conflicts with this plan and is an adverse effect. Specifically, the proposed object infringes upon the Inner-Transitional Obstacle Free Zone of planned runway XX/XX, affecting its future IFR aeronautical arrival operations. No objection provided the structure does not exceed a height of _____ feet.
PRECISION OFZ	Objection	The FAA is in receipt of a plan on file by XYZ airport. The proposed object conflicts with this plan and is an adverse effect. Specifically, the proposed object infringes upon the Precision Obstacle Free Zone of planned runway XX/XX, affecting its future IFR aeronautical arrival operations. In accordance with 14 CFR §77.29, the Office of Airports has determined the proposed structure impacts a planned public use airport, thereby objecting to the proposal.

Runway Design Standard or Potential Concern	Response Type	ARP Division Response
RUNWAY SAFETY AREA	Objection	The FAA is in receipt of a plan on file by XYZ airport. The proposed object conflicts with this plan and is an adverse effect. Specifically, the proposed object infringes upon the Runway Safety Area of planned runway XX/XX, affecting its usable length. In accordance with 14 CFR §77.29, the Office of Airports has determined the proposed structure impacts a planned public use airport, thereby objecting to the proposal.
RUNWAY OBJECT FREE AREA	Objection	The FAA is in receipt of a plan on file by XYZ airport. The proposed object conflicts with this plan and is an adverse effect. Specifically, the proposed object infringes upon the Runway Object Free Area of planned runway XX/XX, affecting its usable length. In accordance with 14 CFR §77.29, the Office of Airports has determined the proposed structure impacts a planned public use airport, thereby objecting to the proposal.
RUNWAY PROTECTION ZONE (RPZ)	No Objection with Provision	<p>“No objection provided the determination letter contains the advisory statement from paragraph 7-1-4(a)(8)(c) of JO 7400.2.”</p> <p>Note: ADO/RO is to assess the proposal and identify if there is a need for the airport sponsor to submit a RPZ alternative analysis in accordance with the 2015 APP-1/AAS-1 memorandum titled “Interim Guidance on Land Uses Within a Runway Protection Zone”.</p>
POTENTIAL WILDLIFE HAZARD	No Objection with Provision	<p>Landfill proposals:</p> <p>No objection provided the determination letter contains the advisory statement provided in paragraph 7-1-4(a)(8)(d) of JO 7400.2.</p> <p>All other proposals:</p> <p>No objection provided the determination letter contains the advisory statement provided in paragraph 7-1-4(a)(8)(e) of JO 7400.2.</p>

Runway Design Standard or Potential Concern	Response Type	ARP Division Response
<p>VISUAL APPROACH SURFACE</p>	<p>Objection</p>	<p>The proposed construction of the structure conflicts with Runway XX at XYZ airport. As a federally obligated airport, the airport sponsor has the responsibility to comply with FAA airport design standards. The structure, as proposed, will penetrate the visual approach surface used for threshold siting. This results in the need to displace the runway threshold, decreasing the usable length of the existing runway. Specifically, the structure will require the threshold of RWY XX to be displaced by XXX feet. The not to exceed height is XXX feet. In accordance with 14 CFR §77.29, the Office of Airports has determined the proposed structure impacts an existing federally obligated public use airport, thereby objecting to the proposal.</p> <p>¹The FAA is in receipt of a plan on file by XYZ airport. The proposed construction of the structure conflicts with this plan. Specifically, the proposed structure infringes upon the visual approach surface used for siting RWY XX threshold at XYZ airport. As a federally obligated airport, the airport sponsor has the responsibility to comply with FAA airport design standards. The structure, as proposed, will have an adverse effect by affecting the usable length of a future runway. The structure will require the future threshold of RWY XX to be displaced by XXX feet. The not to exceed height is XXX feet. In accordance with 14 CFR §77.29, the Office of Airports has determined the proposed structure impacts a future plan-on-file of a federally obligated public use airport, thereby objecting to the proposal.</p> <p>¹RAS to select this response if the proposal conflicts with a future runway.</p>

Runway Design Standard or Potential Concern	Response Type	ARP Division Response
INSTRUMENT APPROACH	No Objection with Provision	<p>No objection provided the proposed object be handled as an adverse effect. The object infringes upon the instrument approach surface of existing/future* (select one or both) Runway XX/XX as defined in Advisory Circular 150/5300-13, Airport Design. Optimum visibility minimums is achieved by ensuring this surface is clear of penetrations, including the prevention of future obstacles.</p> <p>*If future, review the ALP or Masterplan and provide in your response additional information pertaining to the comment. For example, does this future runway provide PA, APV, NP procedures? What are the airport operator's planned visibility minima? This information should be provided in the supplemental data of the Airport/Runway database in OE/AAA.</p>
DEPARTURE SURFACE	No Objection with Provision	<p>No objection provided the proposed object be handled as an adverse effect. The object infringes upon the instrument departure surface of existing/future* (select one or both) Runway XX/XX as defined in Advisory Circular 150/5300-13, Airport Design.</p> <p>*If future, review the ALP or Master Plan and provide in your response additional information pertaining to the comment. For example, provide a description of the future instrument procedures of that runway including if the runway will be PA, APV, or NP. If available, provide information pertaining to the critical aircraft. This information should be provided in the supplemental data of the Airport/Runway database in OE/AAA.</p>
Proposed Construction on Land Released by the FAA	Objection	<p>Airport XYZ is a federally obligated airport. The proposed construction is on land released by the FAA in accordance with Title 14 CFR Part 155. The FAA's approval for this land release contained terms and conditions, which is being violated by the proposed construction.</p> <p>Note to RAS: This response is specific to proposed construction that is violating any specific conditions, terms, or</p>

Runway Design Standard or Potential Concern	Response Type	ARP Division Response
		restrictions contained in the FAA's approval of the airport sponsor's request to release land. After providing your response in OE/AAA, contact the airport sponsor regarding their potential violation of the land release approval.

Appendix D – Mitigate Division Responses

For division responses that have resulted in an IFR effect or an objection, the OE/AAA system allows users to provide a mitigation. Click on the “Div Responses” tab, then click on the division that provided the IFR effect (i.e. Flight Procedures) or objection. This will bring up the “Response Detail” window, along with the mitigation link. See screen shot below.

Step 1

Response Detail

Division

Responded By:

Responded Date:

Response Type:

Duration:

Locked:

Flight Procedures

Kyle Thompson
(206) 231-2275

04/11/2018

IFR Effect

6 days

Locked

Mitigate

Comments

If RWY is closed during overrun work, then no IFR Effect. If equipment will be in the overrun during operations, then equipment must be identified as a low close in obstacle via NOTAM. All requests for FDC NOTAM action should be made using your OE/AAA account. If

^

▼

Click here to Mitigate Division Response

This response was submitted by: EP to ASNs: 2018-AWP-1197-NRA, 2018-AWP-1198-NRA, 2018-AWP-1199-NRA, 2018-AWP-1200-NRA, 2018-AWP-1202-NRA, 2018-AWP-1203-NRA, 2018-AWP-1204-NRA, 2018-AWP-1205-NRA, 2018-AWP-1206-NRA

Go to Batch Response Assignment

Step 2

Mitigate Division Response

Runway 10/28 will be closed during construction. |

^

▼

Mitigate

Cancel

Step 3

Flight Procedures	Carlton Lambiasi	10/24/2018	Carlton Lambiasi (847) 294-7531	10/24/2018	Mitigated	Runway 10/28 will be closed during construction.
Flight Procedures	SYSTEM OEAAA	04/02/2018	Kyle Thompson (206) 231-2275	04/11/2018	IFR Effect	If RWY is closed during overrun work, then no IFR Effect. If equipment will be in the overrun during operations, then equipment must be identified as a low close in obstacle via NOTAM. All requests for FDC NOTAM action should be made using your OE/AAA account. If unable to use the OE/AAA account, contact the Western Flight Procedures Team at (425) 917-6720. Requests must be initiated a minimum of 5 business days prior to conducting operations/construction to allow for processing and issuance of NOTAMS. The Sponsor (or Sponsor's representative) is responsible for verifying NOTAMS are active prior to beginning operations.

63

Appendix E – Obstruction Marking & Lighting

The RAS is responsible for identifying the need of obstruction marking and lighting for NRA aeronautical studies. ATO-OEG is responsible for this as it pertains to OE aeronautical studies. At the time of publication of this SOP, ATO-OEG is providing comments to the RAS specific to obstruction marking and lighting.

An obstruction is an object that infringes upon the imaginary surfaces described in Subpart C of 14 CFR Part 77. To increase conspicuity for aviation safety, marking and/or lighting the obstruction may be necessary. Marking makes obstructions visible to pilots during daylight hours, while lighting makes them visible during nighttime hours or during low-visibility conditions. For permanent on-airport obstructions, marking is only typical for NAVAID facilities such as a localizer shelter or a glide slope antenna. It is not expected for hangars to be marked with an orange and white checkerboard pattern. Rather, lighting will be provided to ensure pilots are able to identify its existence.

OE/AAA provides standardized responses for NRA determination letters where the object penetrates an obstruction standard of Part 77. The no objection 7460 letter (NO7460) provides a Part 77 obstruction summary and identifies whether the proposed structure conflicts with Part 77, thus requiring marking and/or lighting. See the image below. The RAS is to object to any permanent proposal that results in an IFR effect. For temporary proposals that results in an IFR effect, provide the standardized response in the NRA determination letter.

The Airport sponsor shall notify the FAA's Air Traffic Organization (ATO) Planning and Requirements (P&R) Service Area office a minimum of 45 days prior to the "physical construction start date" for this project. Submit FAA Form entitled Airport Sponsor Strategic Event Submission Form including all date, time and/or duration changes via email to 9-AJV-SEC-CSA@faa.gov.

☒ (If the proponent's proposal will exceed Part 77 obstruction standards, add this paragraph and select the appropriate text via the drop down menu.)

Part 77 Obstruction Summary:

77.17(a)(1): DNE 499 ft AGL
 77.17(a)(2): Does not exceed
 77.17(a)(3): No IFR effect.
 77.17(a)(4): No IFR effect.
 77.19(a): Does not apply
 77.19(b): DNE Conical surface
 77.19(c): Outside Primary surface
 77.19(d): DNE Approach surface
 77.23(a): BRO[EXISTING][NASR] - RWY 18/36[PROPOSED][OEAAA]: Transitional Surface ---> Exceeds by 29 ft.
 77.23(a): DNE Heliport primary surface
 77.23(b): DNE Heliport approach surface

As a condition to this Determination, the structure is marked and/or lighted in accordance with (NAVAIDS and associated objects) Chapters 3, 4, and 5 of Advisory Circular 70/7460-1M, Obstruction Marking and Lighting.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Requests for Modifying Marking and Lighting Standards or Further Assistance on M&L Standards

For additional assistance on obstruction marking and lighting, or requests for modifying the marking and lighting standards outlined in AC 70/7460-1 will require coordination with the Air Traffic Policy Assurance Group, AJV-P13. Depending on the situation, coordination with Flight Standards may be necessary. Contact your regional airspace lead for current point of contacts. AAS-120 is available to assist, upon request. Communication relating to any modification or deviation is to be uploaded as a NRA case document, which can occur after the determination letter has been issued.

Appendix F – Notice to Airport Sponsor about maintaining a clear approach and departure surface

[Type the letter date here]

[Type name of addressee and address here]

Dear [Type addressee name here]:

The Federal Aviation Administration (FAA) Office of Airports is in receipt of an off-airport aeronautical study (2020-AXX-XXXX-OE) in proximity to your airport. This notice serves as awareness and to facilitate communication relating to the development that may have land use compatibility implications or operational effect. To view the aeronautical study, refer to the following website: <https://ocaaa.faa.gov>. This email serves as a reminder of your responsibility to establish and maintain clear approach and departure surfaces, to comply with federal grant obligations. The following FAA Grant Assurances define these responsibilities:

- **Grant Assurance 19, Operations and Maintenance.** The airport shall be operated in a safe and serviceable condition and in accordance with appropriate minimum standards required by Federal, state and local agencies for maintenance and operation.
- **Grant Assurance 20, Hazard Removal.** The airport sponsor must take appropriate action to ensure that terminal airspace will be adequately cleared and protected by removing, lowering, lighting, or otherwise mitigating existing airport hazards and by preventing the establishment of future hazards.
- **Grant Assurance 21, Compatible Land Use.** The airport sponsor must take appropriate action, to the extent practicable, including the adoption of zoning laws, to restrict the use of land adjacent to the airport or uses compatible with normal airport operations.

The FAA Obstruction Evaluation Group (OEG) may circulate the above referenced aeronautical study to the aeronautical community (e.g. state aviation agencies, local airport owners, local air taxi and charter flight offices) for comment. The FAA will only issue a hazard determination if it affects a significant volume of aeronautical operations. This includes the following:

- One or more aeronautical operations per day, regardless of the type of activity.
- An average of one aeronautical operation a week for an instrument approach procedure or minimum altitude if the procedure serves as the primary procedure under certain conditions.

The FAA will issue a hazard determination if a significant adverse effect is found, otherwise it will issue a no hazard determination. A hazard determination can result in lowering or not building the obstacle.

The Office of Airports expects airport sponsors to carefully evaluate the proposed structure and coordinate with users to identify if a significant adverse effect exists. If aeronautical operations are affected, please immediately notify the OEG. To determine your appropriate point of contact, refer to the following website:

<https://oeaaa.faa.gov/oeaaa/external/public/aorMap.jsp>

If the OEG did not circulate the aeronautical study or if you did not have the opportunity to comment, you may petition the FAA for a discretionary review. You must file a written petition for discretionary review and the FAA must receive it within 30 days after the issuance of a determination.

If you have any other questions pertaining to your responsibility in establishing and maintaining clear approach and departure surfaces, contact me.


Sincerely,

[Type name of person letter is from]

[Type Title]

Appendix G – Flight Procedures NRA Evaluation

Unlike other division responders, Flight Procedures provides a “No IFR Effect” or “IFR Effect” response. They are evaluating instrument flight procedures and identifies what impacts a proposal will have, which may require a FDC NOTAM or an amendment to an instrument procedure. Instrument procedures, such as the one below, typically contains various categories per approach chart. Flight Procedures will evaluate each one, and provide an independent evaluation for each effect. This is because each approach type and category requires varying obstacle clearances.

	← 6.7 NM →		← 3.8 NM →		← 2.3 NM →	
CATEGORY	A	B	C	D		
LPV DA	394-1¼ 380 (400-1¼)					
LNAV/ VNAV DA	745-2½ 731 (800-2½)					
LNAV MDA	800-1 786 (800-1)	800-1¼ 786 (800-1¼)	800-2½	786 (800-2½)		
 CIRCLING	800-1 786 (800-1)	800-1¼ 786 (800-1¼)	840-2½ 826 (900-2½)	900-3 886 (900-3)		

The following are common terms used in Flight Procedures response to NRA studies.

Low Close-In Obstacle – Objects located within 1 nautical mile of the departure end, are less than 200 feet above the DER elevation, and penetrates the departure surface. These objects will be identified in the Obstacle Departure Procedure, to ensure pilots are aware of its presence. The standard required obstacle clearance (ROC) to clear these obstacles would require a climb gradient greater than 200 FPNM for a very short distance, only until the aircraft was 200 feet above the DER. To eliminate publishing an excessive climb gradient, the obstacle above ground level, MSL height and location relative to the DER is noted in the ODP as a low close-in obstacle.

Climb Gradient – Often an obstacle requires a new climb gradient to meet the required obstacle clearance (ROC). The standard climb gradient is 200 feet per nautical mile. The aircraft climb path assumption provides a minimum of 35 feet of additional obstacle clearance above the ROC.

1A, 3C, 4D Vertical Accuracies – In accordance with Order 8260.19, all obstacles will be assumed 4D accuracy (+250 feet horizontal and +50 feet vertically), unless a different accuracy is specified.

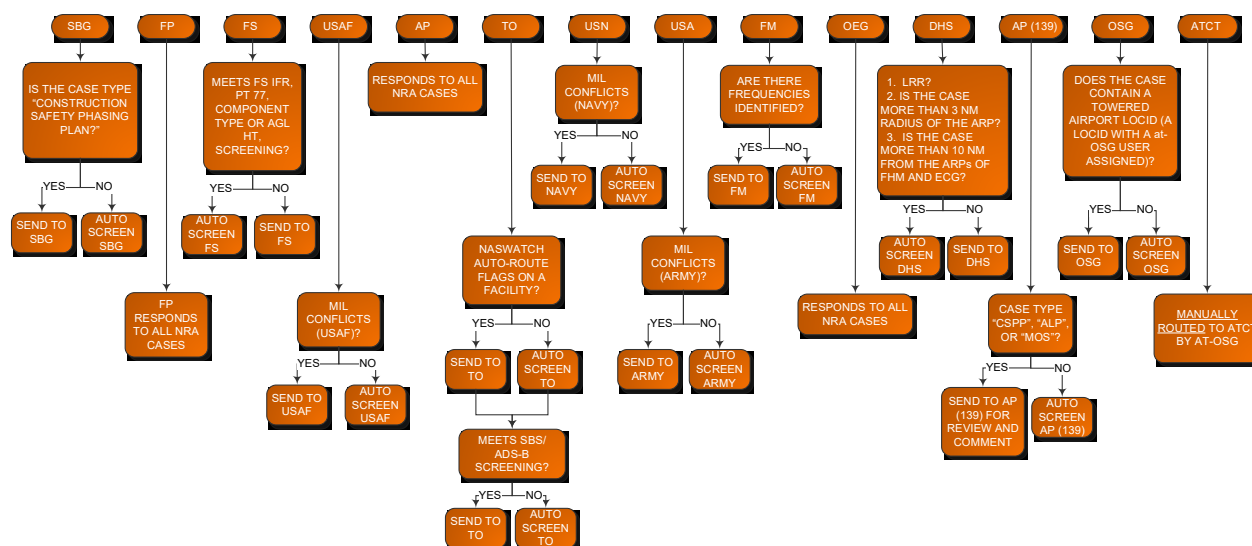
No Effect Height (NEH) – Sometimes referred as “not to exceed height”. Maximum height without infringing upon an obstacle clearance surface.

FDC NOTAM – NOTAM relating to IFP Procedures. Common for temporary construction projects, where FDC NOTAM will N/A a procedure or temporarily raise its minima.

Appendix H – NRA Auto-screen Business Rules

The OE/AAA system identifies NRA aeronautical studies for Line of Business (LOB) Assigned Work-NRA based on LOB divisions screening criteria. Aeronautical studies not meeting the LOB division criteria to be reviewed are AUTO-SCREENED and not sent to the LOB division for response. Airports division screening criteria may further determine studies where LOB division response is not needed and therefore auto screened and not sent to the LOB division for response.

Note: The RAS may determine they want a previously AutoScreened case reviewed by a screened LOB; they can Unlock (override the LOB autoscreen) and send the case(s) to the LOB division for response.



Acronym Names:

USA	FM	OEG ¹	DHS	AP(139)	OSG	ATCT
U.S. Army	Frequency Management	Obstruction Evaluation Group	Department of Homeland Security	Part 139 Airport Certification Safety Inspector	Air Traffic, Operations Support Group	Airport Traffic Control Tower

¹OEG normally must not be required to review NRA cases. NRA business rules pending changes.