Airspace Submittals

Presented to: HLN ADO Conference

Date: 10/30/2024

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Federal Aviation Administration

Objectives

1

Discuss 4 Types of Airspace Submittals

- Early Project Coordination
- Permanent Construction
- CSPP – Construction Safety Phasing Plans
- Temporary Construction

2

Discuss Common Misconceptions & Helpful Hints

- POIs – Points of Interest
- AGLs – Above Ground Level
- Component Types
- Survey Accuracy
- Attachments

3

Discuss OE/AAA Sponsor Extras

- Circularized Case Notifications
- Subscription Preferences
- Manage Airport Operations Staff

AC 150/5300-20 Submission of On-Airport Proposals for Aeronautical Study

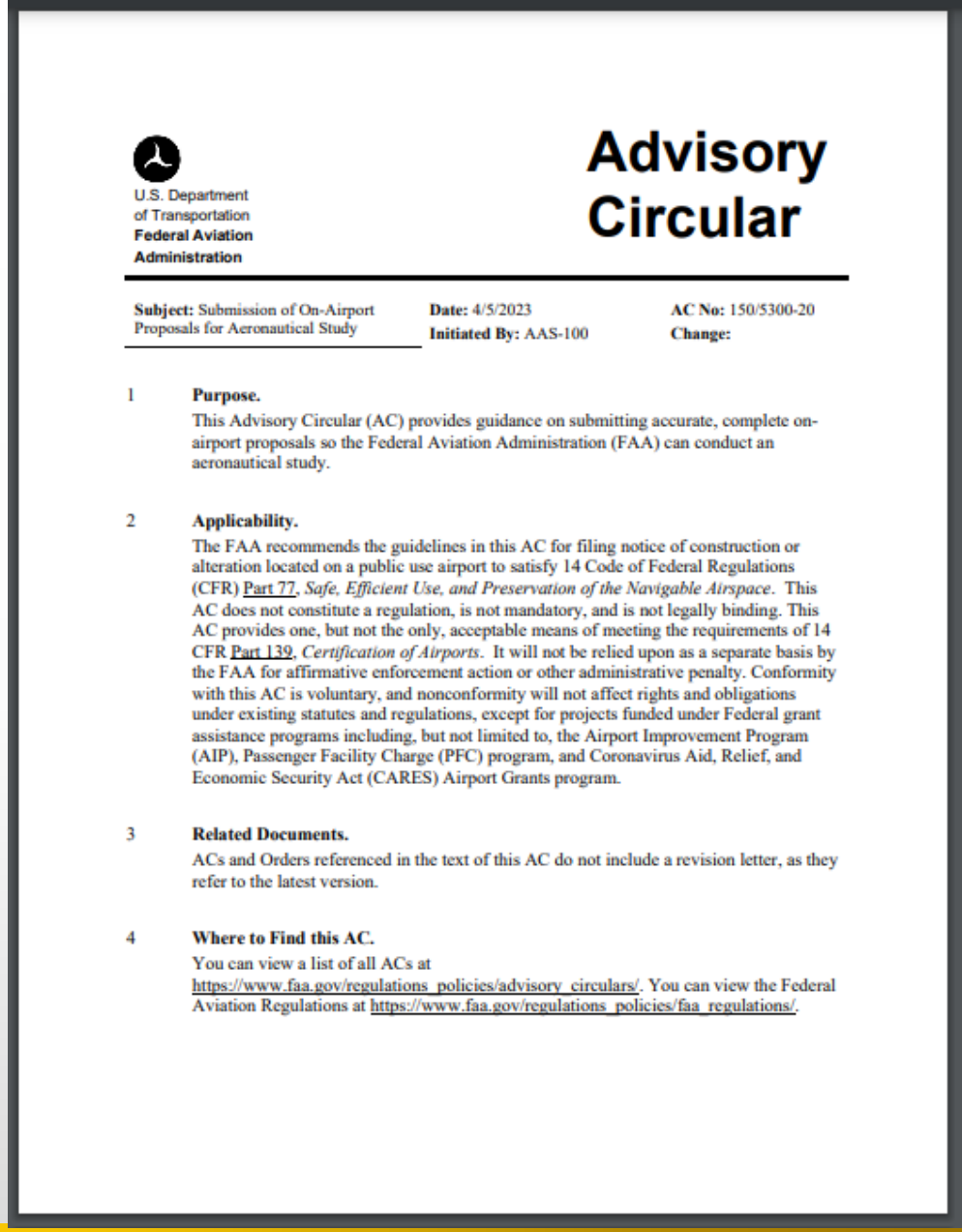
- Released April 5, 2023
- Guidance on submitting accurate, complete on-airport proposals.

Purpose of the FAA Analysis

Keep U.S. navigable airspace safe by determining the proposals' effects to the following:

- Part 77, VFR and IFR Procedures
- FAA facilities or equipment, Air Traffic Control Tower (ATCT) line of site (LOS)
- FAA airport design surfaces

(*not a complete list*)



U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Subject: Submission of On-Airport Proposals for Aeronautical Study
Date: 4/5/2023
Initiated By: AAS-100
AC No: 150/5300-20
Change:

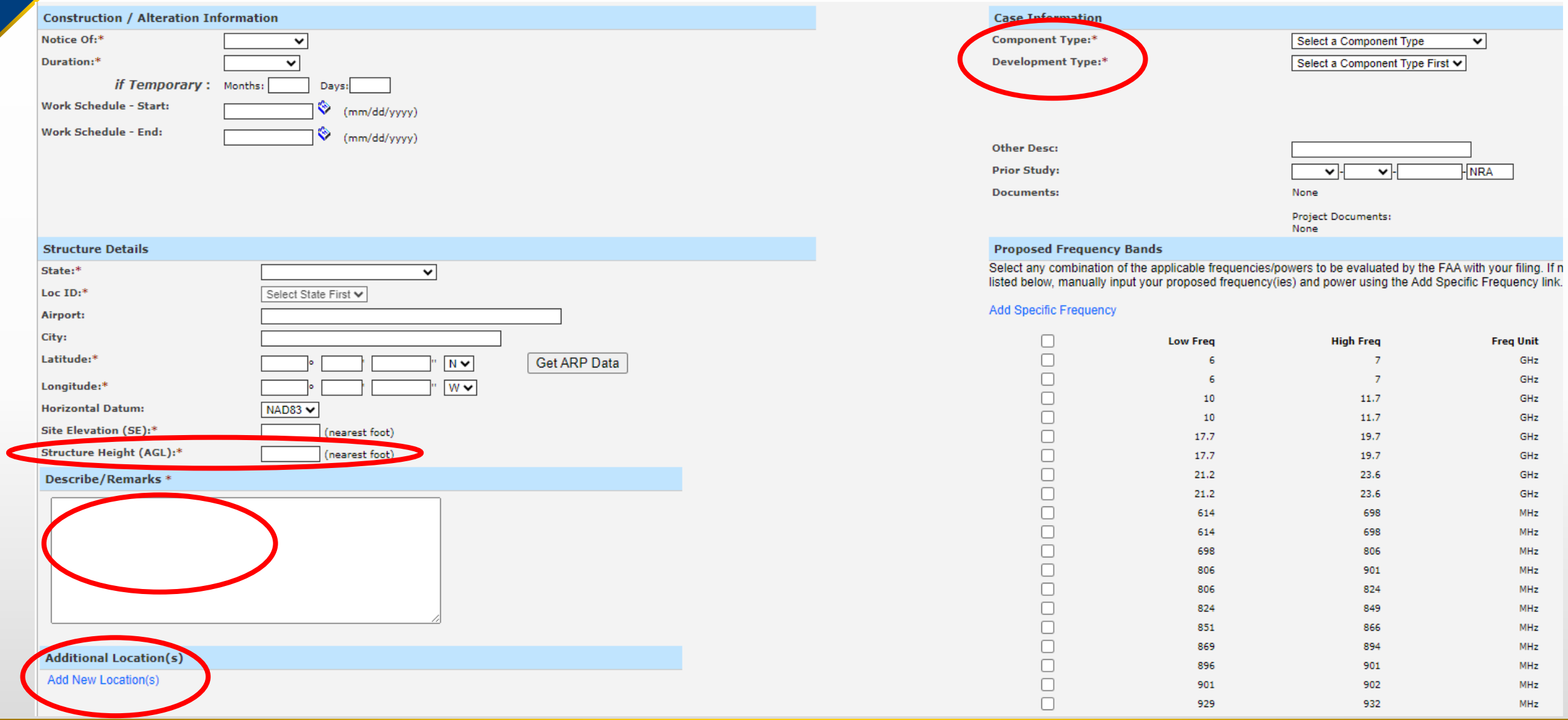
1 **Purpose.**
This Advisory Circular (AC) provides guidance on submitting accurate, complete on-airport proposals so the Federal Aviation Administration (FAA) can conduct an aeronautical study.

2 **Applicability.**
The FAA recommends the guidelines in this AC for filing notice of construction or alteration located on a public use airport to satisfy 14 Code of Federal Regulations (CFR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. This AC does not constitute a regulation, is not mandatory, and is not legally binding. This AC provides one, but not the only, acceptable means of meeting the requirements of 14 CFR Part 139, *Certification of Airports*. It will not be relied upon as a separate basis by the FAA for affirmative enforcement action or other administrative penalty. Conformity with this AC is voluntary, and nonconformity will not affect rights and obligations under existing statutes and regulations, except for projects funded under Federal grant assistance programs including, but not limited to, the Airport Improvement Program (AIP), Passenger Facility Charge (PFC) program, and Coronavirus Aid, Relief, and Economic Security Act (CARES) Airport Grants program.

3 **Related Documents.**
ACs and Orders referenced in the text of this AC do not include a revision letter, as they refer to the latest version.

4 **Where to Find this AC.**
You can view a list of all ACs at https://www.faa.gov/regulations_policies/advisory_circulars/. You can view the Federal Aviation Regulations at https://www.faa.gov/regulations_policies/faa_regulations/.

OE/AAA – Obstruction Evaluation/Airports Airspace Analysis



Construction / Alteration Information

Notice Of:*
Duration:*
if Temporary : Months: Days:
Work Schedule - Start: (mm/dd/yyyy)
Work Schedule - End: (mm/dd/yyyy)

Structure Details

State:*
Loc ID:* Select State First
Airport:
City:
Latitude:* ° ' " N Get ARP Data
Longitude:* ° ' " W
Horizontal Datum: NAD83
Site Elevation (SE):* (nearest foot)
Structure Height (AGL):* (nearest foot)

Describe/Remarks *

Additional Location(s)

Add New Location(s)

Case Information

Component Type:* Select a Component Type
Development Type:* Select a Component Type First

Other Desc:
Prior Study: - - - NRA
Documents: None

Project Documents:
None

Proposed Frequency Bands

Select any combination of the applicable frequencies/powers to be evaluated by the FAA with your filing. If n listed below, manually input your proposed frequency(ies) and power using the Add Specific Frequency link.

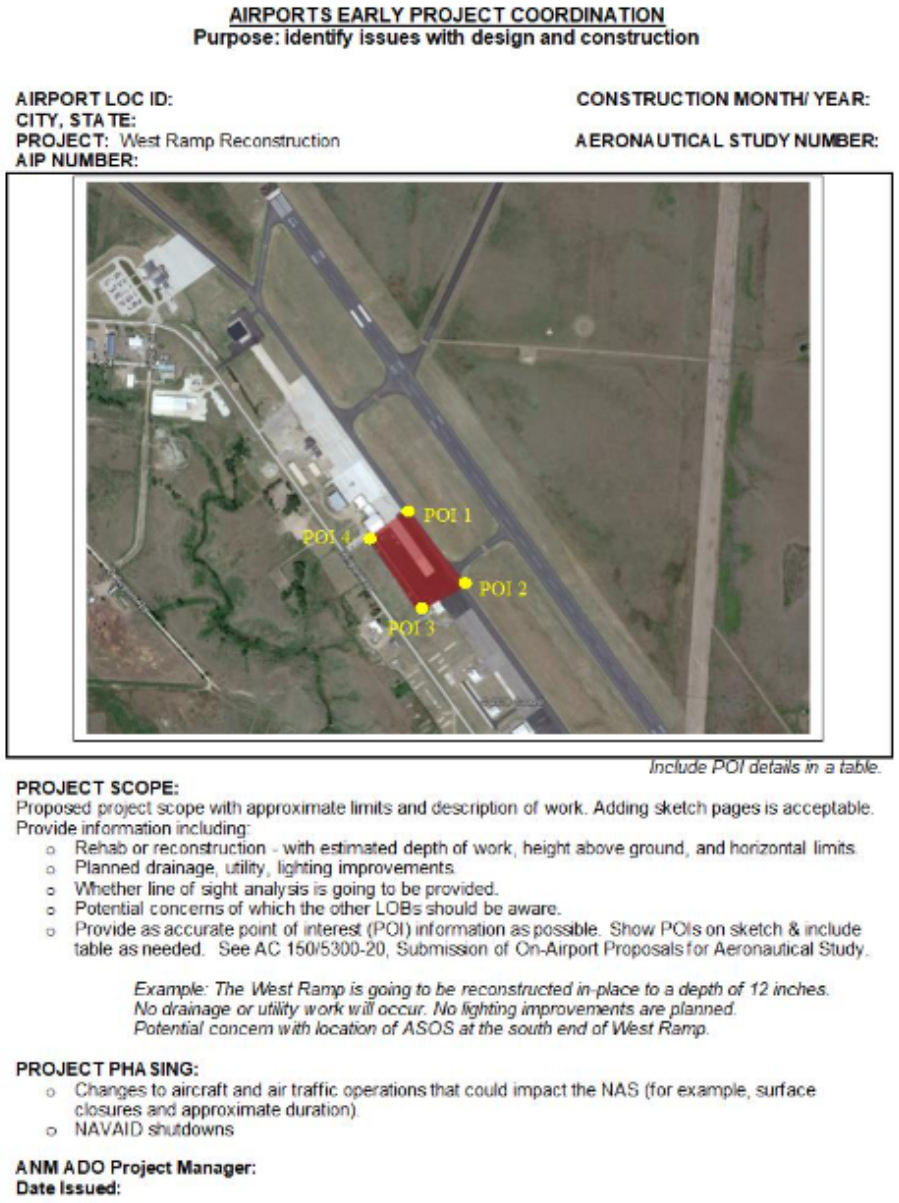
Add Specific Frequency

	Low Freq	High Freq	Freq Unit
☐	6	7	GHz
☐	6	7	GHz
☐	10	11.7	GHz
☐	10	11.7	GHz
☐	17.7	19.7	GHz
☐	17.7	19.7	GHz
☐	21.2	23.6	GHz
☐	21.2	23.6	GHz
☐	614	698	MHz
☐	614	698	MHz
☐	698	806	MHz
☐	806	901	MHz
☐	806	824	MHz
☐	824	849	MHz
☐	851	866	MHz
☐	869	894	MHz
☐	896	901	MHz
☐	901	902	MHz
☐	929	932	MHz

Early Project Coordination Airspace Submittal

- Northwest Mountain Region Early Project Coordination Sheet is communication tool (see NWMR pre-design checklist)
- Located on the Sponsor Guide Website.
- Submit for aeronautical review at very early stage of the project.
  - If known, provide POIs as accurately as possible. Reference 150/5300-20, Appendix D.
  - Project scope and phasing.

- Airspace Submittal Highlights
  - POI: One Point – Airport Reference Point or Point within Project Area
  - AGL: 1 foot
  - Component Type: PLANNING
  - Development Type: PLANNING - Miscellaneous
  - Remarks: Along with description, include AIP Grant No.



AIRPORTS EARLY PROJECT COORDINATION
Purpose: identify issues with design and construction

AIRPORT LOC ID:
CITY, STATE:
PROJECT: West Ramp Reconstruction
AIP NUMBER:

CONSTRUCTION MONTH/ YEAR:
AERONAUTICAL STUDY NUMBER:

Include POI details in a table.

PROJECT SCOPE:
Proposed project scope with approximate limits and description of work. Adding sketch pages is acceptable. Provide information including:

- Rehab or reconstruction - with estimated depth of work, height above ground, and horizontal limits.
- Planned drainage, utility, lighting improvements.
- Whether line of sight analysis is going to be provided.
- Potential concerns of which the other LOBs should be aware.
- Provide as accurate point of interest (POI) information as possible. Show POIs on sketch & include table as needed. See AC 150/5300-20, Submission of On-Airport Proposals for Aeronautical Study.

Example: The West Ramp is going to be reconstructed in-place to a depth of 12 inches. No drainage or utility work will occur. No lighting improvements are planned. Potential concern with location of ASOS at the south end of West Ramp.

PROJECT PHASING:

- Changes to aircraft and air traffic operations that could impact the NAS (for example, surface closures and approximate duration)
- NAVAID shutdowns

ANM ADO Project Manager:
Date Issued:

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Permanent Construction Airspace Submittal

- Permanent objects including new or expanded buildings, fences, power lines, airfield facilities (aprons, taxiways, runways, etc.), retention points, solar arrays, etc.
- Submit cases as early as possible. Can be prior to CSPP submittal.
- Airspace Submittal Highlights
  - POIs:
    - Buildings/Aprons – Make box to capture basic footprint. Add points where aprons meet taxiways/lanes.
    - Taxiways/Taxilanes – At least two points along centerline that clearly define end points and orientation.
    - Runways – New = pair of points at rwy ends. Extension = one point at new rwy end along the extended centerline.
  - AGL: Height of tallest point on object including appurtenances. For aprons and taxiways/lanes - tail height of most demanding aircraft.
  - Component Type: RUNWAY, TAXIWAY, Etc. (Change: For Buildings - Part 77)
  - Development Type: CONSTRUCTION, EXTENSION, SIGNING, Etc. (Change: For Buildings – BUILDING)
  - Remarks: Along with description, include AIP Grant No. If submitted after CSPP, reference CSPP ASN.

CSPP Airspace Submittal

- A CSPP is developed for each on-airfield construction project funded by AIP or as a means to ensure compliance with Part 139. (SOP 1, Table 1)
- In addition to the CSPP, the airport sponsor is obligated to provide notification to the FAA for both temporary and permanent objects under Part 77 for the project.
- Submit by HLN ADO Deadline of February 11, 2025.
- Airspace Submittal Highlights
  - POI: One Point – Airport Reference Point or point within construction area.
  - AGL: 1 foot
  - Component Type: CONSTR. SAFETY PLAN (not choosing this indicates a study to the LOBs – not as high of a priority as a CSPP)
  - Development Type: CONSTR. SAFETY PLAN - Miscellaneous
  - Remarks: – Along with description, Include AIP Grant No. Reference the Early Project Coordination ASN.

BEFORE SUBMITTING INTO OE/AAA – Go through CSPP with HLN ADO Project Manager and local ATCT, if applicable.

Temporary Construction Airspace Submittals

- Temporary construction includes elements such as construction vehicles on access routes and in work areas, staging areas, stockpiles, batch plants, haul routes, cranes, etc.
- Submit cases at same time as CSPP airspace submittal.
- Airspace Submittal Highlights
  - POIs:
    - Define limits of work areas, staging areas, batch plants, cranes, etc. Area is shaped by operational impacts - footprint.
    - Haul routes – minimum number of points that define the route beginning to end. Add POIs when there are significant changes in alignment and grade.
  - AGL: Height of tallest equipment (fully extended) or material in the area.
  - Component Type: PART 77
  - Development Type: CONSTRUCTION (Stationary/Mobile Equipment), CRANE (Type), etc.
  - Remarks: In addition to description, include AIP Grant No. Reference CSPP ASN.

Discuss Common Misconceptions & Helpful Hints

- POIs – Points of Interest
- AGLs – Above Ground Level
- Component Types
- Survey Accuracy
- Attachments

POIs - Points of Interest

Too many POIs
Not enough POIs
And just the right amount…

Federal Aviation Administration

Too Many POIs – FICTICIOUS Example – Multiple POIs on runways, taxiways, aprons at airport that will be closed during construction as per the CSPP.

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Note:

When airport is closed, some POIs may not be needed depending on CSPP details and ADO coordination. POIs are typically needed for temporary construction objects such as staging areas, stockpile locations, batch plants, etc. that may be in operation before and after closure.

Before submitting POIs, coordinate with your ADO Project Manager.

Too Many POIs – FICTICIOUS Example - Multiple POIs for haul road noted on existing roads near airport or on airport property.

Remedy:

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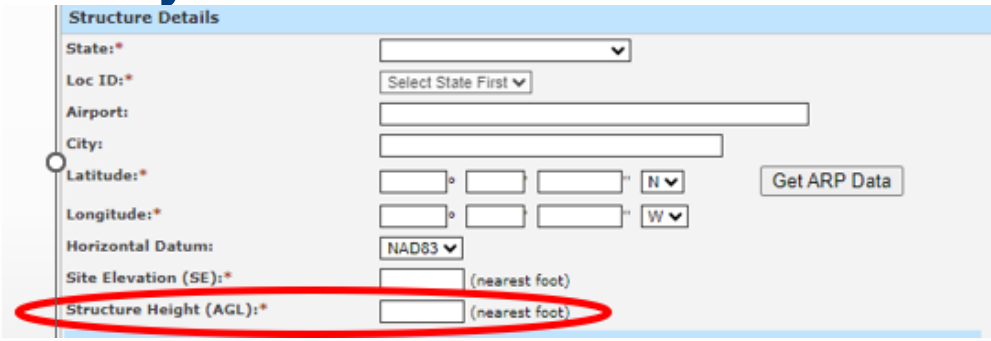
Not Enough POIs - Examples

- One POI on RWY/TWY for reseal project intended to account temporary construction cases. Need the following:
  - CSPP airspace submittal
  - Airspace case submittals for temporary construction objects such as staging areas, haul roads, etc. Each specific temporary construction object/area may have several POIs. Group POIs related to the object together as a “project”. A “project” can be more than one object.
- One POI for a building.
  - At a minimum, 4 POIs on the corners of the buildings.
- One POI for a crane that weathervanes (spins, moves to relieve stresses on equipment during winds).
  - At a minimum, 4 POIs at the farthest reaches of the crane in the wind.

  Coordinate with ADO Project Manager.

AGL – Above Ground Level Summary



- Early Project Coordination
  - AGL: 1 Foot
- Permanent
  - AGL: Height of tallest point on object including appurtenances. Aprons/Taxiways - tail height of most demanding aircraft for aprons.
- CSPP
  - AGL: 1 Foot
- Temporary
  - AGL: Height of tallest equipment (fully extended) or material in the area.

Most common error - submitting an elevation instead of a height for structure/equipment.

Component/Development Types - Summary

- Early Project Coordination
  - Component Type: PLANNING
  - Development Type: PLANNING - Miscellaneous
- Permanent Construction
  - Component Type: RUNWAY, TAXIWAY, Etc. (Change: For Buildings - Part 77)
  - Development Type: CONSTRUCTION, EXTENSION, SIGNING, Etc. Change: For Buildings – BUILDING)
- CSPP
  - Component Type: CONSTR. SAFETY PLAN
  - Development Type: CONSTR. SAFETY PLAN - Miscellaneous
- Temporary Construction
  - Component Type: PART 77
  - Development Type: CONSTRUCTION (Stationary/Mobile Equipment), CRANE (Type), etc.

Accuracy

- 2.2 Survey Accuracy.
- 2.2.1 Data accuracy is a critical aspect of aeronautical studies. Experience shows that submissions often contain elevation and/or location errors. Therefore, the FAA's Flight Procedures Office applies a 4D accuracy standard code, per Table 2-1, to obstacles when evaluating effects on instrument procedures. Normally, the Flight Procedures Office applies these adjustments to those structures that may become the controlling obstacles and are applicable until Flight Procedures verifies their elevation and location by survey. If the sponsor provides a survey certification signed by the engineer/surveyor, the FAA may modify the accuracy code based on that certification. Providing the survey certification often mitigates airport operational impacts.

Table 2-1. Survey Accuracy Codes

Horizontal Code Tolerance	Vertical Code Tolerance
1 +20 ft (6 m)	A +3 ft (1 m)
2 +50 ft (15 m)	B +10 ft (3 m)
3 +100 ft (30 m)	C +20 ft (6 m)
4 +250 ft (75 m)	D +50 ft (15 m)

Attachments

Most common error – not providing attachments.

Guidance In Addition to AC 150/5300-20

- *AC 150/5370-2 Operational Safety on Airports During Construction,*
- *SOP 1 FAA Evaluation of Sponsor's Construction Safety and Phasing Plans*
  - *Appendix C, Table C-1 (Snip-It below)*

Table C-1 – Guidance for Identifying Objects for Temporary Construction Activity

Object/Group	Points-of-Interest	Height	Remarks
Work Site Area	– Corners of work area boundary – Phase boundary limits – Select points based on terrain change or proximity to other airfield elements	– Height of highest piece of equipment (as extended) that is anticipated to operate in various locations of the work area (e.g. 25' agl)	– Encourage Sponsor to initiate these studies prior to submittal of CSPP to FAA – If project is phased, identify the area boundaries per phase limits – Identify areas that may still have work activities **after** runway is re-opened
Equipment Parking	– Corners of parking area	– Height of highest piece of equipment (e.g. 15' agl)	– Encourage Sponsor to initiate these studies prior to submittal of CSPP to FAA – May be combined with staging area
Staging area	– Corners of staging area	– Height of highest piece of equipment or material stockpile	– Encourage Sponsor to initiate these studies prior to submittal of CSPP to FAA – May include batch plant information
Stockpile	– Corners of area designated for material stockpiles	– Height of anticipated stockpile (e.g. 25' agl) – If equipment operates on top or above stockpile, add height of equipment to stockpile elevation	– Encourage Sponsor to initiate these studies prior to submittal of CSPP to FAA – Recommend Sponsor establish contractual limits on stockpile heights (e.g. "must not exceed 25' agl")
Batch Plant	– Corners of area reserved for batch plant.	– Height of the highest appurtenance on the	– Typically submitted by contractor – Assume highest point occurs at all

C-1

Discuss OE/AAA Sponsor Extras

- Circularized Case Notifications
- Subscription Preferences
- Manage Airport Operations Staff

Questions?