

Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)

Protecting Navigable Airspace Briefing

Presented to: NEC/AAAE Airports Conference Participants

FAA Panel (M. Helvey, G. Lebar, D. Ramos)

Date: March 29, 2017



Overview

FAA Role

Notice Requirements

**FAA Form 7480-1, Notice for Construction,
Alteration and Activation/Deactivation of
Airports**

Notice Criteria Tool

**FAA Form 7460-1, Notice of Proposed
Construction or Alteration**

Obstruction Evaluation Process



FAA Role

FAA to insure that Code of Regulations Part 157 and Part 77 are adhered to by any persons proposing Constructions, Activations, Deactivations etc.

FAA will conduct studies against the proposals and respond to the proponents with a Determination.

On-Airport constructions (NRA's); Airports (ARP) LOB will respond.

Off-Airport constructions (OE's); Air Traffic (AT) LOB will respond.



Notice Requirements

14 CFR Part 157.3: notice must be filed with the FAA when anyone proposes any of the following:

1. Construct or otherwise establish a new airport or activate an airport.

2. Construct, realign, alter, or activate any aircraft landing or takeoff area of an airport.

3. Deactivate, discontinue using, or abandon an airport or any landing or takeoff area of an airport for a period of 1 year or more.

4. Construct, realign, alter, activate, deactivate, abandon, or discontinue using a taxiway associated w/ a landing or take-off area at a public-use airport.

5. Change status from private use to public use or public use to private use.

6. Change any traffic pattern/traffic pattern altitude/direction.

7. Change status from IFR to VFR or VFR to IFR.



Notice Requirements

14 CFR Part 77.9: notice must be filed with the FAA **if requested by the FAA** or anyone proposes any of the following types of construction/alteration:

Exceeding 200 feet above ground level (AGL)

Exceeding an imaginary surface extending outward and upward at any of the following slopes:

1:1 to 1:10 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport with its longest runway more than 3,200 ft

1:1 to 1:10 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport with its longest runway no more than 3,200 ft. (excluding heliports)

1:1 to 1:5 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport

Exceeding the height of any highway, railroad or other traverse way for mobile objects, of a height which, if adjusted upward as defined in 14 CFR 77.9(c) would exceed a standard

Any construction or alteration located on an airport



Terms of Reference

OE – Obstruction Evaluation

Airport – Any Airport, Heliport, Helistop, Vertiport, Gliderport, Seaplane base, Ultralight flightpark, Manned balloon facility.

AAA – Airport Airspace Analysis

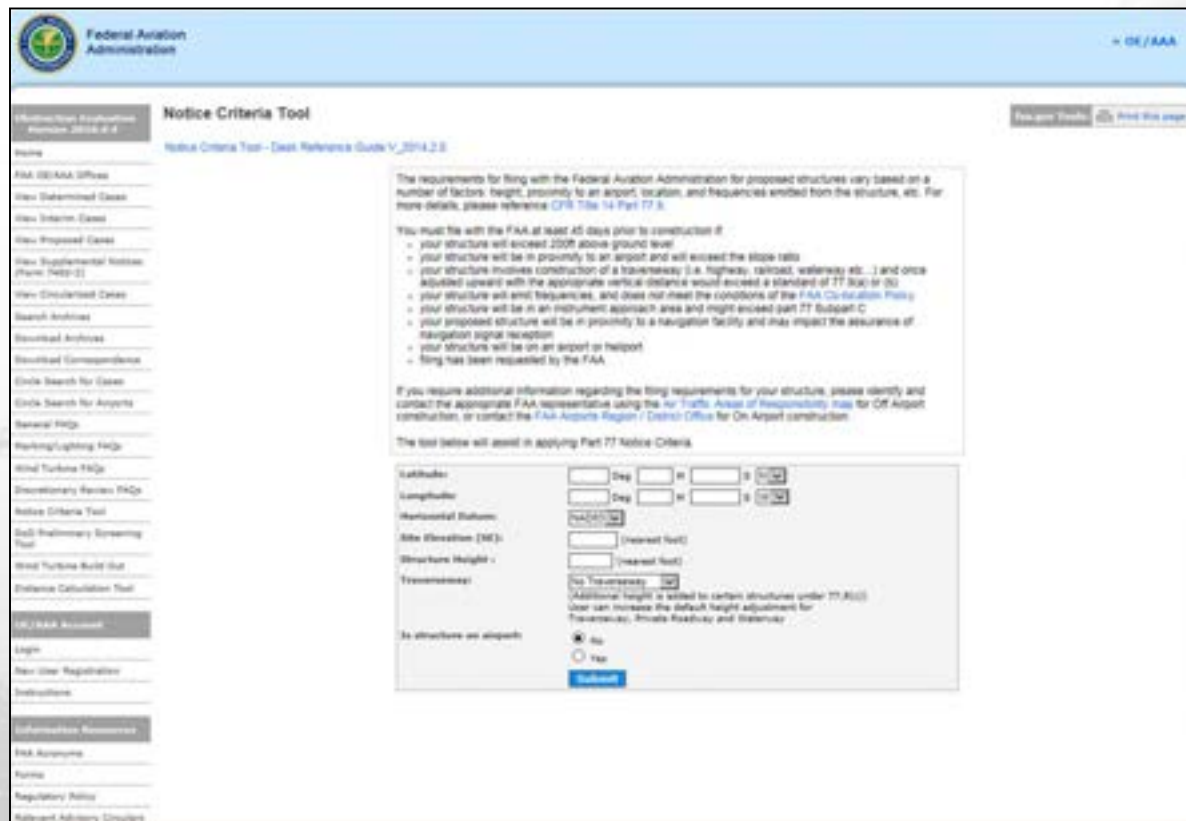
NRA – Non-rulemaking Airports

oeaaa.faa.gov – Public website



Notice Criteria Tool

Provides a simple way for the public to determine if they are required to file notice with the FAA.



The screenshot shows the FAA Notice Criteria Tool web interface. The header includes the Federal Aviation Administration logo and the text "Federal Aviation Administration" and "FAA / FAA". The main content area is titled "Notice Criteria Tool" and includes a "Home" link and a "Notice Criteria Tool - User Reference Guide V_2014.2.3" link. The left sidebar contains a list of navigation links: "Construction Evaluation Process 2013.4.4", "Home", "FAA (O)AAA Office", "New Determined Cases", "New Inform Cases", "New Proposed Cases", "New Supplemental Notices (Form 700-2)", "New Discontinued Cases", "Search Notices", "Notified Notices", "Notified Correspondence", "Circle Search for Cases", "Circle Search for Airports", "General Help", "Lighting/Signage Help", "Wind Turbine Help", "Discretionary Review FAQs", "Notice Criteria Tool", "Sub-Primary Screening Tool", "Wind Turbine Build Out", "Distance Calculation Tool", "O)AAA Account", "Login", "New User Registration", "Helpdesk", "Information Resources", "FAQ Answers", "Forms", "Regulatory Action", and "Advisory Circulars". The main content area contains the following text: "The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.5](#). You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope table
- your structure involves construction of a transportation (i.e. highway, railroad, waterway etc.) and once finished exceeds with the appropriate vertical offset a would exceed a standard of 77.5(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-Location Policy
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA.

 If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Area of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction. The test below will assist in applying Part 77 Notice Criteria. Latitude: [] Deg [] M [] S Longitude: [] Deg [] M [] S Horizontal Return: [] Site Elevation (ME): [] (nearest foot) Structure Height: [] (nearest foot) Transmission: [] (No Transmission) (Additional height is added to certain structures under 77.5(c) user can increase the default height adjustment for Transmission, Arrivals Roadway and Waterway) Is structure on airport: No Yes [Submit]



Filing For Aeronautical Study- 7460-1

ed Construction or Alteration - Off Airport

ent - Desk Reference Guide V_2019.1.0

ent for Wind Turbines - Nat Towers - Desk Reference Guide V_2019.1.0

Company, etc., proposing this action)

* Sponsor:

Structure Information

Structure Type:

Structure Name:

NOTAM Number:

PCE Number:

Four ABB: - - - or

Does the permanent structure require separate notice to the FAA? Yes No

Structure Summary

Structure Type:

Structure Name:

NOTAM Number:

PCE Number:

Four ABB: - - - or

Common Frequency Bands

	Low Freq	High Freq	Freq Unit	ERP	ERP Unit
<input type="checkbox"/>	800	800	MHz	1000	W
<input type="checkbox"/>	800	804	MHz	800	W
<input type="checkbox"/>	804	808	MHz	800	W
<input type="checkbox"/>	808	812	MHz	800	W
<input type="checkbox"/>	812	816	MHz	800	W
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<input type="checkbox"/>	1184	1188	MHz	800	W
<input type="checkbox"/>	1188	1192	MHz	800	W
<input type="checkbox"/>	1192	1196	MHz	800	W
<input type="checkbox"/>	1196	1200	MHz	800	W

Specific Frequencies

Add Specific Frequency

Close Prior ABB Frequencies

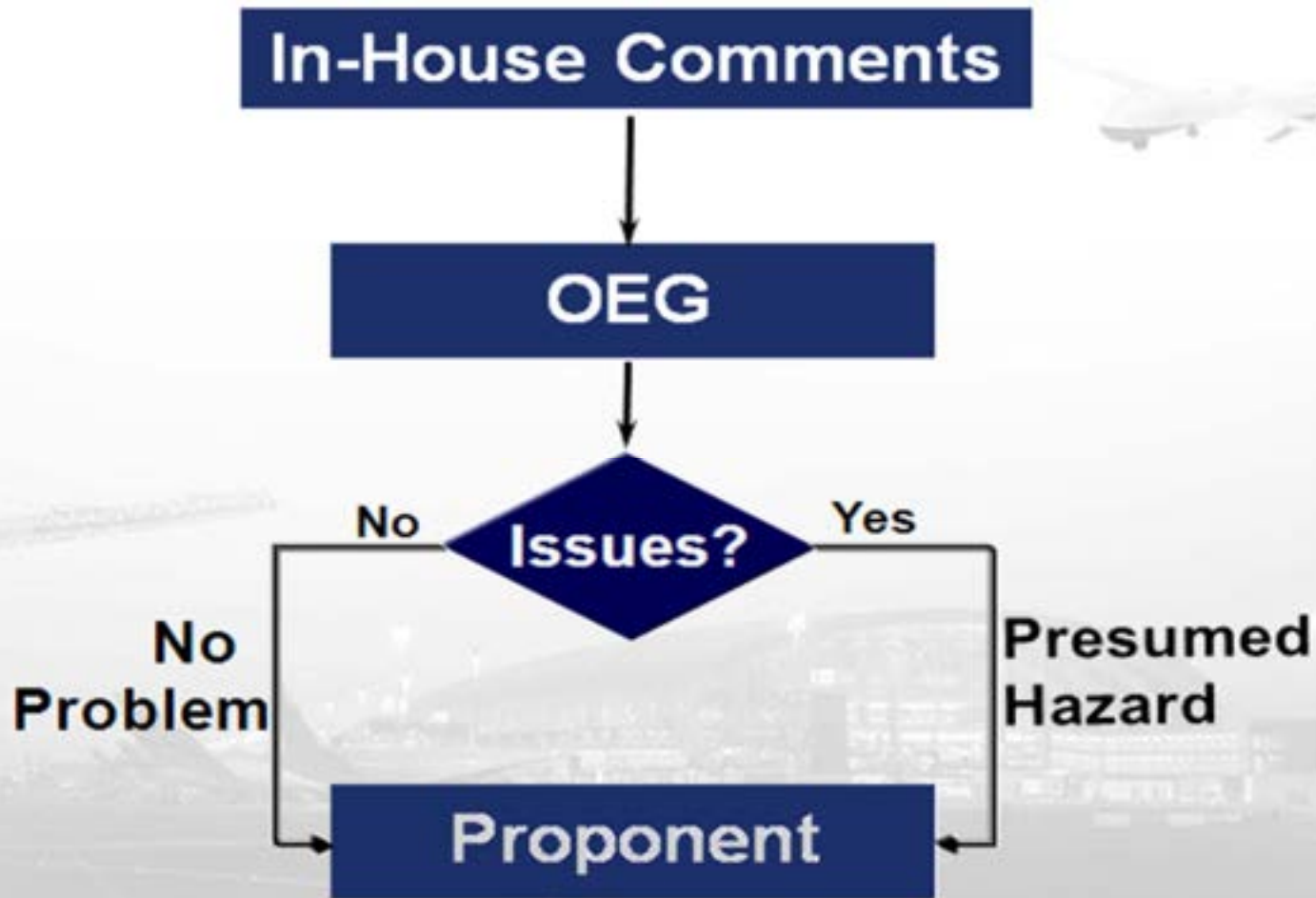
*Note: Selecting this link will only add frequency(s)/power from the prior ABB listed in Structure Summary. Additional Frequency (s)/power must be manually added before submitting to the FAA if they are to be considered with your new filing.



Obstruction Evaluation Process



Obstruction Evaluation Process



Notice of Presumed Hazard (NPH)

Pre-decisional

Documents initial findings

Notifies proponent of possible concerns

Opens negotiations

Mail Processing Center
Federal Aviation Administration
Dallas Regional Office
Obstruction Evaluation Group
3000 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2011-NYW-001

Issued Date: 01/11/2011

NOTICE OF PRESUMED HAZARD

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44714 and if applicable Title 14 of the Code of Federal Regulations, part 75, concerning:

Structure	Wind Turbine
Location:	740-41
Latitude:	
Longitude:	
Height:	(For sea elevation (FEI) or above ground level (AGL), see above items on form (A300))

Initial Findings of this study indicates that the structure as described exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace at an airport facility. Pending resolution of the issues described below, the structure is presumed to be a hazard to air navigation.

See Attachment for Additional information.

NOTE: PENDING RESOLUTION OF THE ISSUES DESCRIBED ABOVE, THE STRUCTURE IS PRESUMED TO BE A HAZARD TO AIR NAVIGATION. THIS LETTER DOES NOT AUTOMATICALLY REVOKE CONSTRUCTION OF THE STRUCTURE EVEN AS A BUREAU-ORDER. ANY RESOLUTION OF THE ISSUES DESCRIBED ABOVE MUST BE COMMUNICATED TO THE FAA SO THAT A FAVORABLE DETERMINATION CAN SUBSEQUENTLY BE ISSUED.

IF MORE THAN 90 DAYS FROM THE DATE OF THIS LETTER HAS ELAPSED WITHOUT ATTEMPTED RESOLUTION, IT WILL BE NECESSARY FOR YOU TO REACTIVATE THE STUDY BY FILING A NEW FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION.

If we can be of further assistance, please contact our office at [REDACTED]. In any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-NYW-001.

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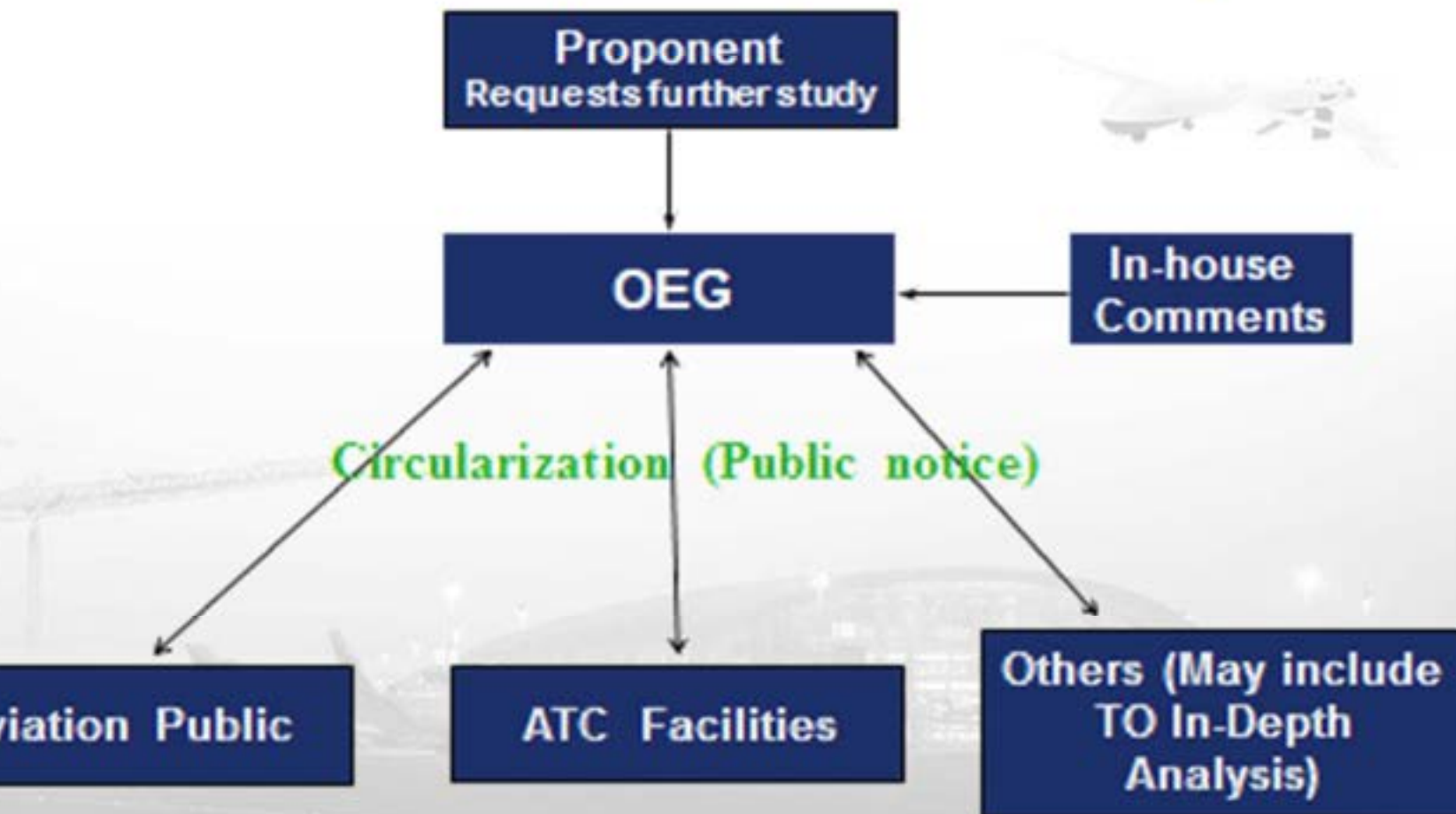


Notice of Presumed Hazard (NPH)

- Provides the sponsor a “No Exceed Height”
- The sponsor has 3 options:
 - Reduce** the height of the proposal
 - Withdraw** the proposal
 - Request** the FAA conduct **further study** of the proposal at the originally requested height



Further Aeronautical Study



Aeronautical Study

FAA JO 7400.2 K, 6-3-3 DETERMINING ADVERSE EFFECT

structure **first exceeds** the construction standards of Part 77, is found to have physical or electromagnetic radiation **effect** the operation of **air navigation facilities**, then the proposed or existing structure, if not amended, altered, or removed, has an adverse effect **if it would:**

- a. **Require a change** to an existing or planned IFR minimum flight altitude, a published or special instrument procedure, or an IFR departure procedure for a public-use airport.
- b. **Require a VFR operation, to change** its regular flight course or altitude.
- c. **Restrict the clear view** of runways, helipads, taxiways, or traffic patterns from the control tower cab.
- d. **Derogate airport** capacity/efficiency.
- e. **Affect future** VFR and/or IFR operations as indicated by plans on file.
- f. **Affect the usable length** of an existing or planned runway.



Aeronautical Study

FAA JO 7400.2 K, 6-3-3 DETERMINING ADVERSE EFFECT

if it exceeds Part 77 standard
or
Effects air navigation facilities
It will have adverse effect if it
would:

- a. Require a change to IFR altitude, a instrument procedure, or departure procedure for a public-use airport
- b. Require a VFR operation to change course or altitude
- c. Restrict the clear view from the control tower cab
- d. Derogate airport capacity/efficiency.
- e. Affect future operations (plans on file)
- f. Affect the usable length a runway



Aeronautical Study

FAA JO 7400.2K 6-3-4

DETERMINING SIGNIFICANT VOLUME OF ACTIVITY

significant” depends on the type of activity. For example:

One or more operations per day affected would indicate regular and continuing activity--thus a significant volume, no matter the type

An affected instrument procedure or minimum altitude used only once a week may be considered significant if the procedure is primary under certain conditions

FAA JO 7400.2K 6-3-5.

DETERMINING SUBSTANTIAL ADVERSE EFFECT

if it causes electromagnetic interference to the operation of an air navigation facility or the signal used by aircraft, or if there is a combination of:

- a. Adverse effect as described in paragraph 6-3-3, *Determining Adverse Effect*, and
- b. A significant volume of aeronautical operations, as described in 6-3-4, *Determining Significant Volume of Activity*, would be affected



Recap

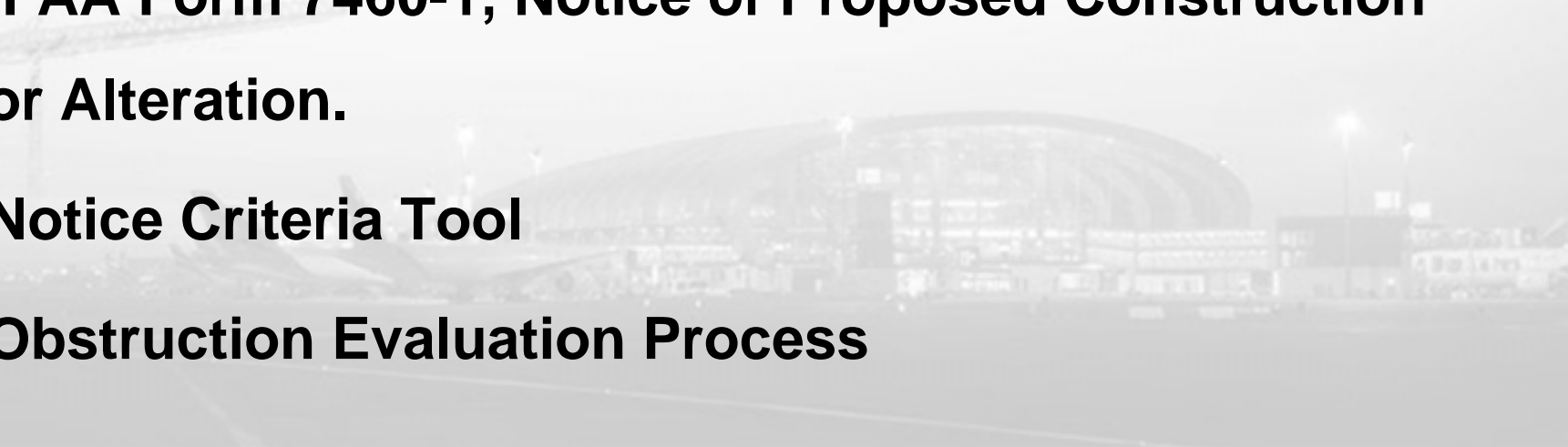
Notice Requirements

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**FAA Form 7460-1, Notice of Proposed Construction
or Alteration.**

Notice Criteria Tool

Obstruction Evaluation Process



Contact Information

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Questions and Answers

