TODAY’S OBJECTIVES

• To Better Understand:
  – Different Airport Surfaces
  – Requirements of 14 CFR Part 77
  – “On” vs. “Off” Airport Construction
  – Construction Safety Phasing Plans (CSPP)
  – “20:1”
  – OE/AAA Airspace Program Highlights
  – FAA vs. ODOT Requirements
DIFFERENT AIRPORT AIRSPACE SURFACES

AIRPORTS (AC 5300-13)

FLIGHT PROCEDURES (TERPS)

Air Traffic (PART 77)
14 CFR Part 77
Safe, Efficient Use, and Preservation of the Navigable Airspace

http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=14:2.0.1.2.9
PART 77 ALLOWS FAA TO:

• Evaluate:
  o Effect of proposed construction or alteration on safety in air commerce
  o The efficient use and preservation of the navigable airspace
  o Airport traffic capacity at public use airports

• Determine:
  o Whether proposed construction or alteration is a hazard to air navigation
  o Appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460-1, *Obstruction Marking and Lighting*
  o Other appropriate measures to apply for continued safety of air navigation

• Notify:
  o Aviation community of construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary
PART 77 NOTIFICATION REQUIREMENTS
“NOTICE CRITERIA”

– Any construction or alteration:
  • More than 200 ft. AGL at its site.

• Penetrates an imaginary surface extending outward and upward at any of the following slopes:
  – 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of a public-use airport with its longest runway more than 3,200 ft. in actual length, excluding heliports.
  – 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of a public-use airport with its longest runway no more than 3,200 ft. in actual length, excluding heliports.
  – 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport.

• On a public use airport listed in the Airport/Facility Directory.

– OR the FAA determines a study is necessary
§ 77.9(a) – Any construction or alteration that is more than 200 feet AGL at its site.
PART 77 NOTIFICATION REQUIREMENTS (CONT’D)
NOTICE REQUIREMENT RELATED TO TRAVERSE WAYS

Traverse Way Types and Heights

- Interstate Highway: 17 feet
- Public Road: 15 feet
- Private Road: 10 feet
- Railroad: 23 feet
- Waterway: Tallest Object

Imaginary “Notice” Surface (100:1 or 50:1)

Elevation of Nearest Point of Runway

Apply 10', 15', or 17'
HOW TO NOTIFY THE FAA

- Submit a completed FAA Form 7460-1, *Notice of Proposed Construction or Alteration*.
- How to submit a 7460-1 Form:

**Old School**

**New School**

Our Preference?
NOTIFICATION TIMING

- You must submit this form **at least 45 days** before the start date of the proposed construction or alteration.
## PERMANENT VS. TEMPORARY OBSTRUCTIONS

All obstructions, whether permanent or temporary, are subject to the Part 77 requirements.

<table>
<thead>
<tr>
<th>Permanent Obstructions or Alterations</th>
<th>Temporary Obstructions or Alterations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Antennas</td>
<td>• Construction Equipment</td>
</tr>
<tr>
<td>• AWOS/ASOS</td>
<td>• Drilling Rigs</td>
</tr>
<tr>
<td>• Buildings/Structures</td>
<td>• Haul Routes</td>
</tr>
<tr>
<td>• Fences</td>
<td>• Staging Areas</td>
</tr>
<tr>
<td>• NAVAID Facilities</td>
<td>• Stock Piles</td>
</tr>
<tr>
<td>• Roadways</td>
<td>• Temporary Structures</td>
</tr>
<tr>
<td>• Storage Tanks</td>
<td>• Batch Plants</td>
</tr>
<tr>
<td>• Towers</td>
<td>• Cranes</td>
</tr>
</tbody>
</table>
AIRSPACE DEFINITIONS

• **Object:**
  • Any element of natural growth, terrain, or man-made structure whose height is greater than 3 inches.

• **Obstruction to Air Navigation:**
  • Any object the FAA determined must be properly marked, lighted, and identified on aeronautical publications so it may be easily recognized by aircraft navigating through the airspace.

• **Obstacle:**
  • Any object that does or would penetrate clearance requirements for a specific flight procedure.
  • An obstacle is known as a “controlling obstacle” when a flight procedure is designed around that obstacle as the limiting factor.

• **Hazard to Air Navigation:**
  • An obstruction or other adverse object that FAA aeronautical study concludes would have a “substantial adverse effect” to a “significant volume of aeronautical operations.”
NOTE

• An object can be independently classified as an obstruction, and/or an obstacle, and/or a hazard.

• Classification as one of these types is not necessarily related to classification as another type.
PART 77 OBSTRUCTION STANDARDS

An object would be an obstruction to air navigation if it is of greater height than:

– 499 feet AGL at the site of the object.

– 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 NM of an airport with a runway > 3,200’. That height increases 100 feet for each additional NM from the airport up to 499 feet.

– A height within a terminal obstacle clearance area which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

– A height within an en route obstacle clearance area, including turn that would increase the minimum obstacle clearance altitude.

– The surface of a takeoff and landing area of an airport or any imaginary surface.
PART 77 IMAGINARY SURFACES
### PART 77 IMAGINARY SURFACES

**OBSTRUCTION IDENTIFICATION SURFACES**

**FEDERAL AVIATION REGULATIONS PART 77**

<table>
<thead>
<tr>
<th>DIM</th>
<th>ITEM</th>
<th>VISUAL RUNWAY</th>
<th>NON-PRECISION INSTRUMENT RUNWAY</th>
<th>PRECISION INSTRUMENT RUNWAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END</td>
<td>250</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>B</td>
<td>RADIUS OF HORIZONTAL SURFACE</td>
<td>5,000</td>
<td>5,000</td>
<td>10,000</td>
</tr>
<tr>
<td>C</td>
<td>APPROACH SURFACE WIDTH AT END</td>
<td>1,250</td>
<td>1,500</td>
<td>2,000</td>
</tr>
<tr>
<td>D</td>
<td>APPROACH SURFACE LENGTH</td>
<td>5,000</td>
<td>5,000</td>
<td>10,000</td>
</tr>
<tr>
<td>E</td>
<td>APPROACH SLOPE</td>
<td>20:1</td>
<td>20:1</td>
<td>34:1</td>
</tr>
</tbody>
</table>

- **A** - Utility Runways
- **B** - Runways Larger Than Utility
- **C** - Visibility Minimums Greater Than 3/4 Mile
- **D** - Visibility Minimums As Low As 3/4 Mile
- ***** - Precision Instrument Approach Slope is 50:1 for Inner 10,000 Feet and 40:1 for an Additional 40,000 Feet

**Utility Runway** = A runway constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.
WHAT IS MY CRITICAL AIRCRAFT?

Part 77 Code is based on the “critical aircraft” as defined in Order 5100.38 (i.e. what’s on your ALP)

King Air B200:
- Propeller Driven &
- MTOW = 12,500 lbs

Runway Design
Code (RDC) = B-II

Part 77 Code = A
(utility)

Part 77 and Runway Design Code are not the same
IMPORTANT NOTES

- Part 77 imaginary surfaces identify obstructions not hazards.

- Aeronautical studies as a result of Part 77 requirements determine if an object is a hazard.

- The OE/AAA process is the tool FAA uses to evaluate proposed obstructions and assess whether or not they would constitute a hazard to air navigation. (i.e. Aeronautical Studies)
COMMON MISCONCEPTIONS

- Part 77 Imaginary Surfaces are the only criteria to consider.

- Objects under or outside Part 77 Imaginary Surfaces will not be hazards to air navigation.

- The FAA has direct jurisdictional authority to limit building heights.
“ON” vs. “OFF” AIRPORT CONSTRUCTION

- Off airport projects are called “Obstruction Evaluation” (OE) cases.

- On airport projects are called “Non-Rulemaking Airport” (NRA) cases.

- Airport Boundary/Property Line is used to delineate On-vs. Off-Airport Construction.

- Same process. Only difference is ADO is lead for On-Airport and Air Traffic is lead for Off-Airport.
OE/AAA DEMONSTRATION

https://oeaaa.faa.gov/oeaaa/external/portal.jsp
Obstruction Evaluation / Airport Airspace Analysis (OE/AAA)

In administering Title 14 of the Code of Federal Regulations (14 CFR) Part 77, the prime objectives of the FAA are to promote air safety and the efficient use of the navigable airspace. To accomplish this mission, aeronautical studies are conducted based on information provided by proponents on an FAA Form 7460-1, Notice of Proposed Construction or Alteration.

Advisory Circular 70/7460-1L, Obstruction Marking and Lighting, describes the standards for marking and lighting structures such as buildings, chimneys, antenna towers, cooling towers, storage tanks, supporting structures of overhead wires, etc.

OE/AAA Filing Process

If your organization is planning to sponsor any construction or alterations which may affect navigable airspace, you must file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) either electronically via this website or manually with the FAA.

CLICK HERE if you have received a postcard

CLICK HERE for instructions on how to E-file your proposal with the FAA

If construction or alteration IS NOT LOCATED on an airport:

- File forms 7460-1 and 7460-2 electronically via this website - New User Registration.
- E-filing your proposal is preferred because:
  - It’s the fastest, most accurate method to submit to the FAA and immediately assigns an aeronautical study number to your case.
  - It establishes an electronic communications link with FAA and allows you to obtain project status and notifications directly from this site.

Who Needs to File

Please click here to use the FAA’s Notice Criteria Tool to determine if you meet the requirements to file notice of your construction or alteration.

14 CFR Part 77.9 states that any person or organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 ft above ground level, or

ISO 9001:2008 Certified

GlobalGroup ISO 91001 9001

Comments?
To file a comment on a case or to request a hearing, please contact the appropriate representative.

Federal Aviation Administration
OE/AAA DEMONSTRATION

Click here to use the FAA's Notice Criteria Tool to determine if you meet the requirements to file a notice of your construction or alteration.

14 CFR Part 77.9 states that any person or organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 ft above ground level or
- Any structure or alteration on an airport airfield.
OE/AAA DEMONSTRATION

Questions? Please contact the appropriate representative.

Who Needs to File

Please click here to use the FAA's Notice Criteria Tool to determine if you meet the requirements to file notice of your construction or alteration.

14 CFR Part 77.2 states that any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- any construction or alteration exceeding 200 feet above ground level;
- any construction or alteration:
  - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet;
  - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet;
  - within 5,000 feet of a public use heliport which exceeds a 25:1 surface;
- any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards; or
- when requested by the FAA, or
- any construction or alteration located on a public use airport or heliport regardless of height or location.

To determine your appropriate point of contact please click on the state where your structure will be located.

Air Traffic Contacts for Ohio

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Email</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technician</td>
<td>Tangoski, Joan</td>
<td><a href="mailto:joan.tangoski@faa.gov">joan.tangoski@faa.gov</a></td>
<td>(817) 222-5932</td>
</tr>
<tr>
<td>Specialist</td>
<td>Vilaro, Vivian</td>
<td><a href="mailto:vivian.vilaro@faa.gov">vivian.vilaro@faa.gov</a></td>
<td>(487) 294-7575</td>
</tr>
<tr>
<td>Canoe Specialist</td>
<td>Vilaro, Vivian</td>
<td><a href="mailto:vivian.vilaro@faa.gov">vivian.vilaro@faa.gov</a></td>
<td>(487) 294-7575</td>
</tr>
</tbody>
</table>

Air Traffic Wind Turbine Contacts for Ohio

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Email</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technician</td>
<td>Rosgen, Tracy</td>
<td><a href="mailto:tracy.rosgen@faa.gov">tracy.rosgen@faa.gov</a></td>
<td>(202) 267-5235</td>
</tr>
<tr>
<td>Specialist</td>
<td>Whitten, Cindy</td>
<td><a href="mailto:cindy.whitten@faa.gov">cindy.whitten@faa.gov</a></td>
<td>(816) 329-2328</td>
</tr>
<tr>
<td>Backup Technician</td>
<td>Rosgen, Tracy</td>
<td><a href="mailto:tracy.rosgen@faa.gov">tracy.rosgen@faa.gov</a></td>
<td>(202) 267-5235</td>
</tr>
</tbody>
</table>
Light Outage Reporting

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light should be reported immediately by calling 877-487-6867.
QUESTION: WHAT IS A 20:1?

Answer: Depends on who you ask?
Air Traffic Organization’s

14 CFR Part 77 – 20:1

Not to Scale. Part 77 approach surface shown is for non-precision instrument runways having visibility minimums greater than ¾-mile.
Flight Procedure’s

20:1 TERPS
Terminal Instrument Procedures

Paragraph 3.3.2(d)(2)(b) of TERPS ORDER

If the straight-in runway’s 20:1 surface is penetrated take ONE of the following actions:

1. Adjust the obstacle height below the surface or remove the penetrating obstacles.

2. Do not publish a VDP, limit minimum visibility to 1 mile/5000 RVR, and take action to have the penetrating obstacles marked and lighted.

3. Do not publish a VDP, limit minimum visibility to 1 mile/5000 RVR, and publish a note denying the approach (both straight-in and circling) to the affected runway at night.
### Table 3-2. Approach/Departure Standards Table

<table>
<thead>
<tr>
<th>Runway Type</th>
<th>DIMENSIONAL STANDARDS*</th>
<th>Slope/OCS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Approach end of runways expected to serve small airplanes with approach speeds of 50 knots or more. (Visual runways only, day/night)</td>
<td>0</td>
<td>250</td>
</tr>
<tr>
<td>Approach end of runways expected to serve large airplanes (Visual day/night); or instrument minimums ≥ 1 statute mile (1.6 km) (day only).</td>
<td>0</td>
<td>400</td>
</tr>
<tr>
<td>Approach end of runways expected to support instrument night operations, serving approach Category A and B aircraft only.</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>Approach end of runways expected to support instrument night operations serving greater than approach Category B aircraft.</td>
<td>200</td>
<td>800</td>
</tr>
<tr>
<td>Approach end of runways expected to accommodate instrument approaches having visibility minimums ≥ 3/4 but &lt;1 statute mile (≥ 1.2 km but &lt; 1.6 km), day or night.</td>
<td>200</td>
<td>800</td>
</tr>
</tbody>
</table>
Question:
What’s the difference between the 20:1 TERPS & 20:1 AC 150/5300-13A?

Answer: Not much
EXAMPLE

Assumptions:
A/B approach, d=10,000 feet

TERPS
1/2W = (0.138*d)+200
1/2W = (0.138*10,000)+200
W = 3,160 feet

AC 150/5300-13A
Table 3-2 Surface
Row 4
Dimensional Standard
(Column "D") W = 3,800 feet
NOTE

• If you have a 20:1 penetration to TERPS, you have a 20:1 penetration to AC 150/5300-13A.
CONSOLIDATED SURFACE

TERPS

PART 77

AC 5300-13
20:1 TERPS
NOTIFICATIONS

FLIGHT PROCEDURES (TERPS)
20:1 MITIGATION FLOW CHART

FP Discovers 20:1 Penetration
(NRA, OE, Feasibility Study, Procedure Development/Amendment, Flight Inspection, Bi-Annual Review.)

20:1 Notification

Airport verify within 30 days?

Yes

No

FP to restrict IAP

Airport Sponsor

Obstructions to be removed from FP database. No IAP restrictions.

Obstruction will be removed from FP database by the TOD Team.

Valid Data?

YES

No

20:1 Penetration lighted, lowered, or removed?

Take action to restrict IAP

Airport submits Compliance Plan to FP within 30 days of verification

FP to take Action based on Risk Level

20:1 Notification

Airport submits Compliance Plan to FP within 30 days of verification

FP to restrict IAP
FLIGHT PROCEDURES
NOTIFICATION

• Notification via e-mail
  – List of obstructions from Terrain Obstacle Database
  – No obstruction information on file
  – Combination

• ADO Notified
  – Ensure proper notification
AGIS MITIGATION PLAN

Contact the AGIS help desk to get a login 844-357-2447
Airport GIS “Surface Analysis and Visualization” Tool
Airport GIS “Surface Analysis and Visualization” Tool
# AGIS COMPLIANCE PLAN

## Surface Analysis and Visualization - Verification

<table>
<thead>
<tr>
<th>Object Identifier</th>
<th>Object Type</th>
<th>Object Verification</th>
<th>Runway End Designator</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMRTT0141</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 35.94</td>
<td>W 83 20 18.91</td>
<td>High</td>
</tr>
<tr>
<td>KMRTT0139</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 35.95</td>
<td>W 83 20 18.81</td>
<td>High</td>
</tr>
<tr>
<td>KMRTT0111</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 37.63</td>
<td>W 83 20 17.10</td>
<td>Medium</td>
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<tr>
<td>KMRTT0080</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 36.17</td>
<td>W 83 20 14.03</td>
<td>Medium</td>
</tr>
<tr>
<td>KMRTT0133</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 36.36</td>
<td>W 83 20 18.25</td>
<td>Medium</td>
</tr>
<tr>
<td>KMRTT0116</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 36.09</td>
<td>W 83 20 17.11</td>
<td>Medium</td>
</tr>
<tr>
<td>KMRTT0124</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 36.73</td>
<td>W 83 20 17.57</td>
<td>Medium</td>
</tr>
<tr>
<td>KMRTT0464</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>09</td>
<td>N 40 13 27.73</td>
<td>W 83 21 37.71</td>
<td>Medium</td>
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<tr>
<td>KMRTT0118</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 35.80</td>
<td>W 83 20 17.14</td>
<td>Medium</td>
</tr>
<tr>
<td>KMRTT0103</td>
<td>TREE</td>
<td>✅ Valid</td>
<td>27</td>
<td>N 40 13 36.88</td>
<td>W 83 20 16.20</td>
<td>Medium</td>
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<td>KMRTT0128</td>
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<td>27</td>
<td>N 40 13 35.75</td>
<td>W 83 20 17.75</td>
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<td>KMRTT0130</td>
<td>TREE</td>
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<td>27</td>
<td>N 40 13 35.98</td>
<td>W 83 20 18.04</td>
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<td>KMRTT0083</td>
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<td>27</td>
<td>N 40 13 36.29</td>
<td>W 83 20 14.41</td>
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<td>KMRTT0146</td>
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<td>27</td>
<td>N 40 13 36.71</td>
<td>W 83 20 17.77</td>
<td>Medium</td>
</tr>
</tbody>
</table>
## AGIS COMPLIANCE PLAN

### Surface Analysis and Visualization - Penetration Report

<table>
<thead>
<tr>
<th>Object Identifier</th>
<th>Object Type</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Runway End Designator</th>
<th>Risk Level</th>
<th>Penetrates</th>
<th>Penetration Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMITT0141 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 35.94</td>
<td>W 83 20 18.91</td>
<td>27</td>
<td>High</td>
<td>20:1 Surface(s)</td>
<td>15.8 feet</td>
</tr>
<tr>
<td>KMITT0139 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 35.95</td>
<td>W 83 20 18.81</td>
<td>27</td>
<td>High</td>
<td>20:1 Surface(s)</td>
<td>14.41 feet</td>
</tr>
<tr>
<td>KMITT0111 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 37.83</td>
<td>W 83 20 17.10</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>6.57 feet</td>
</tr>
<tr>
<td>KMITT0086 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 36.17</td>
<td>W 83 20 14.65</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>7.26 feet</td>
</tr>
<tr>
<td>KMITT0133 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 36.36</td>
<td>W 83 20 18.25</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>7.0 feet</td>
</tr>
<tr>
<td>KMITT0116 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 36.08</td>
<td>W 83 20 17.11</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>6.76 feet</td>
</tr>
<tr>
<td>KMITT0124 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 36.09</td>
<td>W 83 20 17.57</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>6.55 feet</td>
</tr>
<tr>
<td>KMITT0464 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 27.73</td>
<td>W 83 21 37.71</td>
<td>09</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>6.23 feet</td>
</tr>
<tr>
<td>KMITT0118 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 35.80</td>
<td>W 83 20 17.14</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>6.07 feet</td>
</tr>
<tr>
<td>KMITT0103 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 36.88</td>
<td>W 83 20 16.29</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>5.13 feet</td>
</tr>
<tr>
<td>KMITT0128 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 35.75</td>
<td>W 83 20 17.75</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>4.45 feet</td>
</tr>
<tr>
<td>KMITT0109 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 35.98</td>
<td>W 83 20 18.04</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>4.42 feet</td>
</tr>
<tr>
<td>KMITT0082 (20:1 Slope)</td>
<td>TREE</td>
<td>N 40 13 36.20</td>
<td>W 83 20 14.41</td>
<td>27</td>
<td>Medium</td>
<td>20:1 Surface(s)</td>
<td>4.26 feet</td>
</tr>
</tbody>
</table>
NO OBSTRUCTION DATA

• Airport must certify the 20 to 1 Visual Surface is clear. Typically done by hiring a surveyor.
• What if it is not clear?
OBSTRUCTION SURVEYS

• **Obstruction Surveys** can be funded as stand-alone system planning (either as a state system plan or metropolitan system plan) or master planning projects if the ADO determines that they are both necessary and reasonable in scope.

SOURCE: Handbook 5100.38D
FUNDING OF OBSTRUCTION MITIGATION

- Per the AIP Handbook, any of the surfaces in the Design AC, Part 77, and TERPS can be used to determine eligibility of obstruction removal/lighting/marking.

- Obstruction removal, lowering, lighting or marking is limited to the airport category shown on the approved ALP.

- Obstructions are looked at on a case by case basis to determine eligibility.
MITIGATION

- **VGSI (PAPI/VASI)** Commissioned VGSI might be used to mitigate where removal, lowering, lighting are not possible.
Construction Safety and Phasing Plan (CSPP)
PURPOSE OF CSPP

- Primary tool used to ensure operational safety on the airport during construction.
ARP SOP 1.00
Effective Date: 10/1/2013

• Include completed SOP checklist when submitting CSPP

• Identify in “Remarks” section where the CSPP Element can be found
# WHEN IS A CSPP REQUIRED?

<table>
<thead>
<tr>
<th>AIP Funded Projects (Includes partial AIP participation)</th>
<th>PFC Funded Projects (100%)</th>
<th>Non-Federally Funded Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 139</td>
<td>Non-Part 139</td>
<td>Part 139</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------------------------</td>
<td>------------------------------</td>
</tr>
</tbody>
</table>
| **Part 77 Notice (Construction Objects)**
| Within AOA | Required | Required | Required | Required | Required |
| Outside of AOA | Required | Required | Required | Required | Required |
| **Sponsor Preparation and Submittal of a CSPP**
| Within AOA | Required | Required | Required | Certificate holder must comply with §139 requirements4 |
| Outside of AOA | Not Required | Not Required | Not Required | Not Required | Not Required |
| **PM Review of CSPP for Conformance to AC 150/5370-2 Standards**
| Within AOA | Required | Required | Not Required | Not required | Not Required |
| Outside of AOA | Not Required | Not Required | Not Required | Not Required | Not Required |
| **ACSI Review of CSPP for Compliance with Part 139**
| Within AOA | ACSI Discretion | Not Required | ACSI Discretion | ACSI Discretion | Not Required |
| Outside of AOA | Not Required | Not Required | Not Required | Not Required | Not Required |
Figure C-1 – Identifying Potential Points-of-Interest for Airfield Construction Activity
CONSTRUCTION IN THE RSA vs. OFZ

• AC 150/5370-2F – Operational Safety on Airports During Construction states:
  – “No construction may occur within the existing RSA while the runway is open for aircraft operations.”
  – “In general, personnel, material, and/or equipment may not penetrate the OFZ while the runway is open to aircraft operations.

• At smaller airports the OFZ is larger than the RSA.

  Example: B-II Airport, >12,500 lbs
  RSA = 150’ Wide
  OFZ = 400’ Wide
RSA
ARC B-II Airport with 1 mile or greater approach visibility minimums
RSA vs OFZ

ARC B-II Airport with 1 mile or greater approach visibility minimums
OFZ Large vs Small
ARC B-II Airport with 1 mile or greater approach visibility minimums

250’
<12,500 lbs

400’
Small OFZ & RSA

ARC B-II Airport with 1 mile or greater approach visibility minimums
IMPLEMENTATION OF CSPP

- Preparing a CSPP is not the final step.
- The sponsor must monitor that the safety plan is being implemented properly during construction.
FAA vs. STATE REQUIREMENTS

- Meeting FAA’s Part 77, TERPS, and AC requirements does not mean you’ve met any state or local requirements.

- ODOT has separate regulations for construction/alteration near an airport.