



# Navigation Systems Requirements

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# Objectives

- **The Program and your facility**
  - What/who we regulate/oversee
  - Non-Federal defined
  - Non-Federal entities' contribution to the NAS
  - Top ten costly mistakes
- **Program Points of Contact**
- **The Program's focus and you**

# Objectives

- **Following Policy**
  - Installation and Operation
  - Verification Authority
  - Design Approval
- **Assumption of Operation & Maintenance**
- **Re-Cap & Resources**

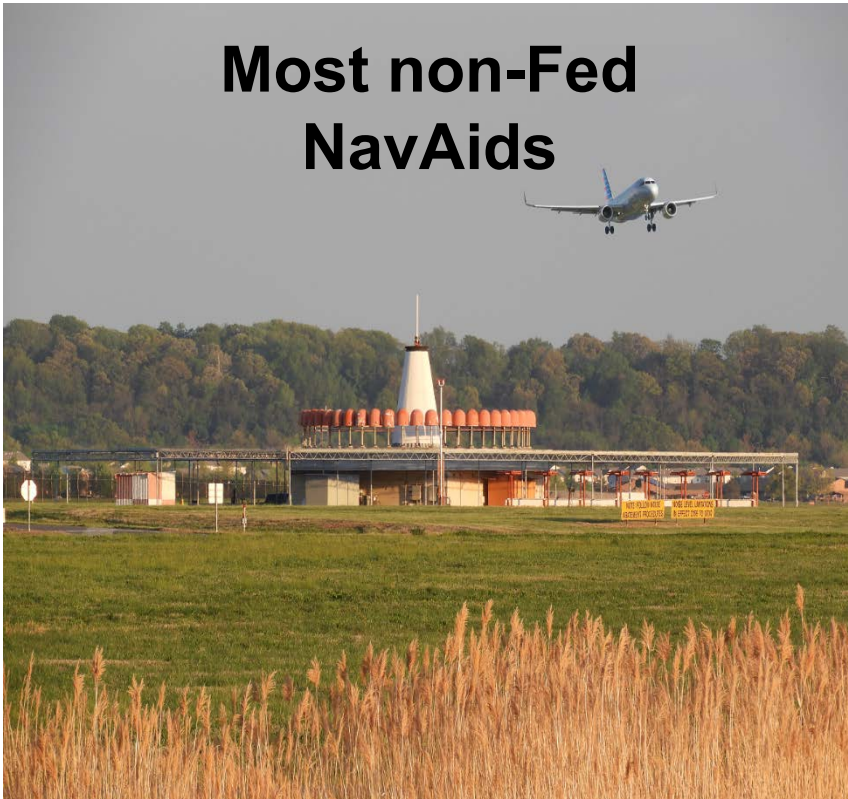
# Section 1

## The Non-Federal Policy & Oversight Program and Your Facility



# The Non-Fed Program Regulates:

**Most non-Fed  
NavAids**



**All non-Fed AWOS**



**Certain Other Systems**

**ex. RTS**

# Systems Regulated

## AWOS

AWOS

## NavAids

GBAS

ILS

GS

LOC

DME

RVR

NDB

VOR

## Comms

RCO

RCAG

## Control Towers

ATCT

Remote ATCT

## VisAids

ALS (if part of ILS)

REIL

PAPI

# The Non-Fed Program Regulates:

**Non-Federally  
Employed  
Maintenance  
Technicians**



**Manufacturers**

**Vendors**



# The Program Does Not Regulate



VFR-only VisAids



Non-Federal Observers



Non-Federal ATCTs (buildings)



Non-Federal Air Traffic Controllers



The FAA's Contract Tower Program (FCT)



# “Non-Federal” Defined

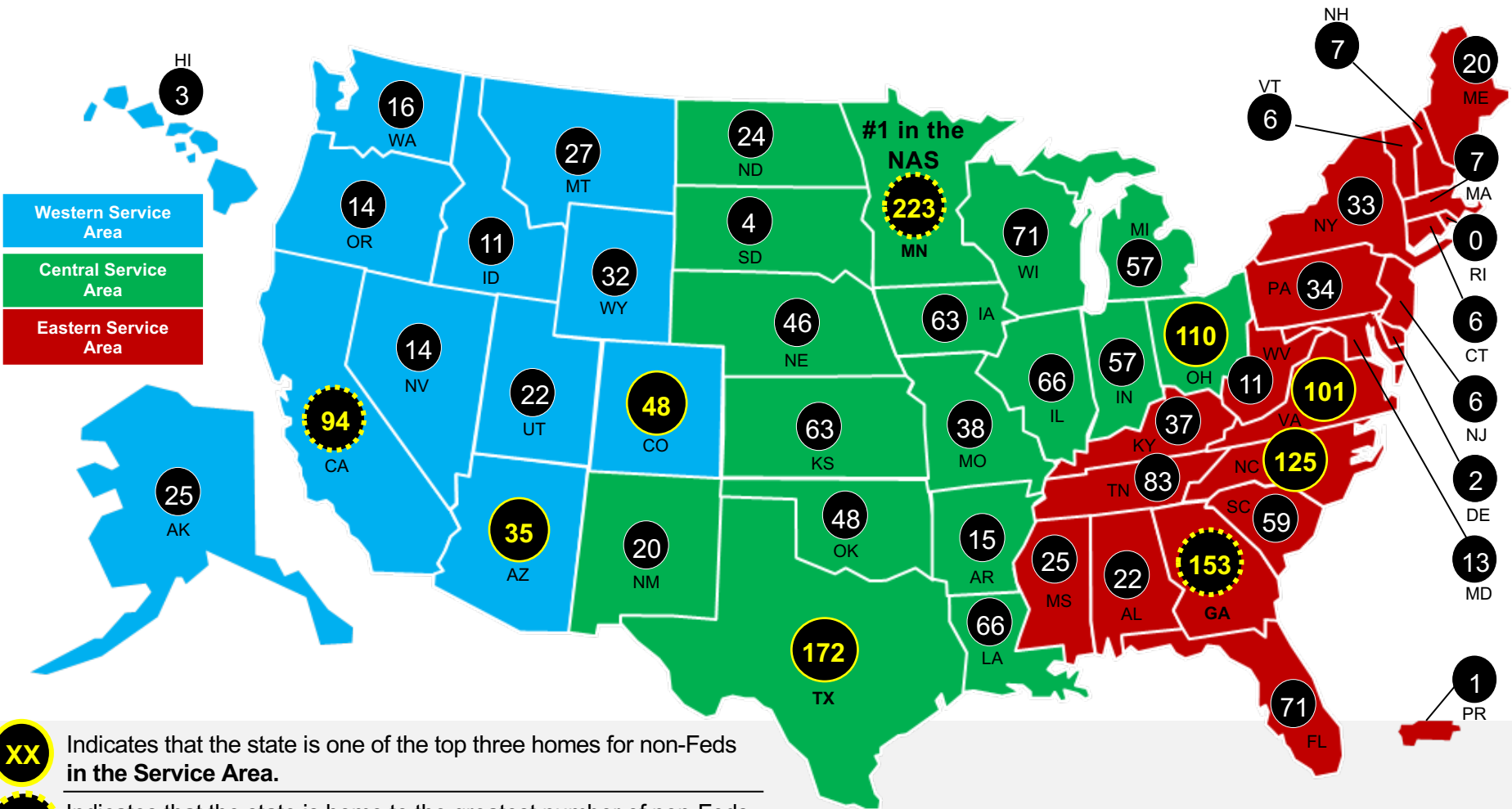
A “Non-Federal” entity is defined as entities other than the FAA or any Federal Agency (including the military).

Examples:

- U.S. territories
- States
- Local governments
- Companies
- Private citizens

**For public or private use**

# FY'18 Overview – Facilities by State



**XX** Indicates that the state is one of the top three homes for non-Feds in the Service Area.

**YY** Indicates that the state is home to the greatest number of non-Feds in the Service Area. (In FY18, the “#1” state in the NAS was Minnesota.)



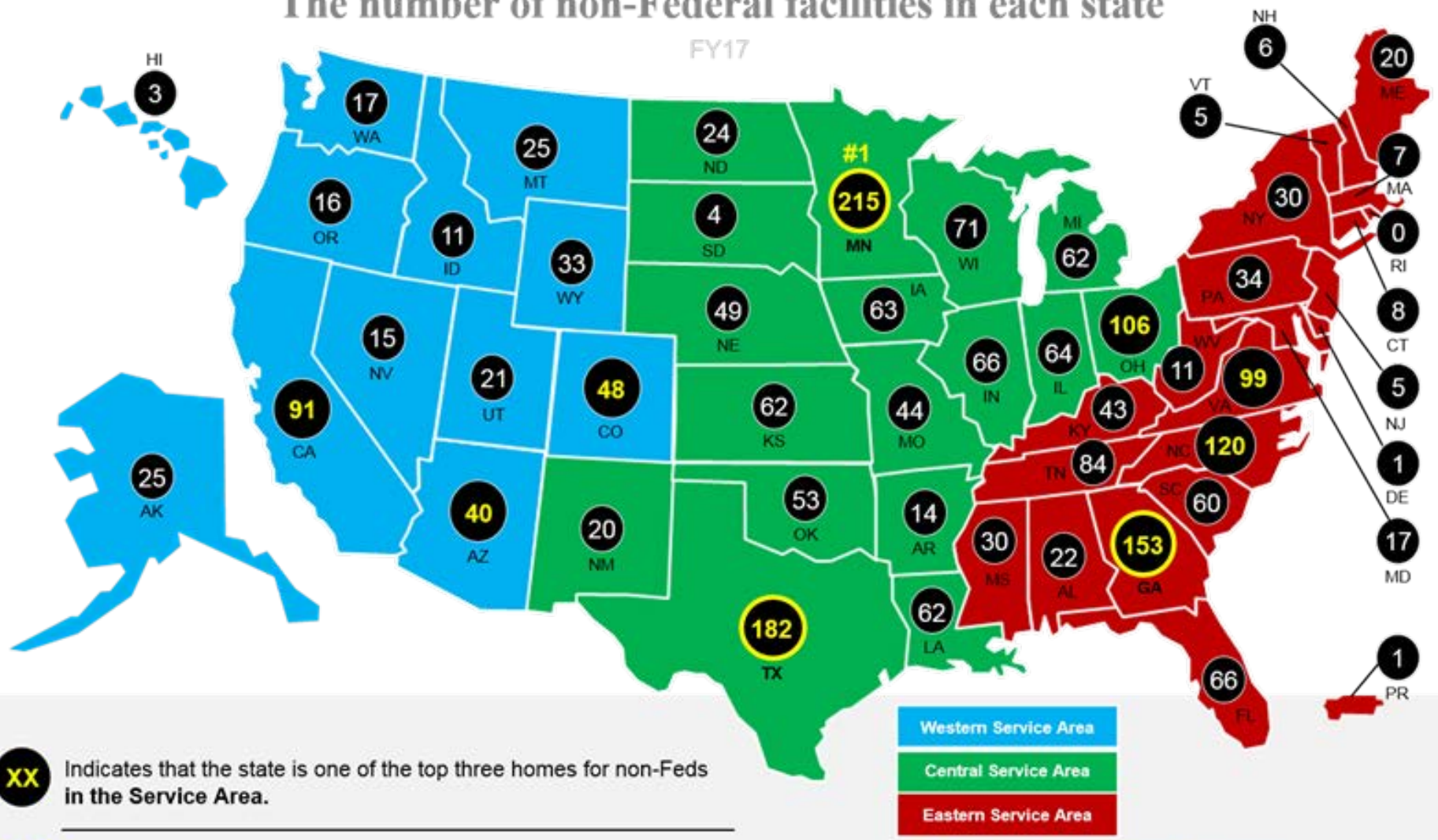
Federal Aviation Administration

# State-by-State

**2330**  
Total

## The number of non-Federal facilities in each state

FY17



**XX** Indicates that the state is one of the top three homes for non-Feds in the Service Area.

**YY** Indicates that the state is one of the top three homes for non-Feds in the NAS. (The "#1" state in FY17 was Minnesota.)

- Western Service Area
- Central Service Area
- Eastern Service Area

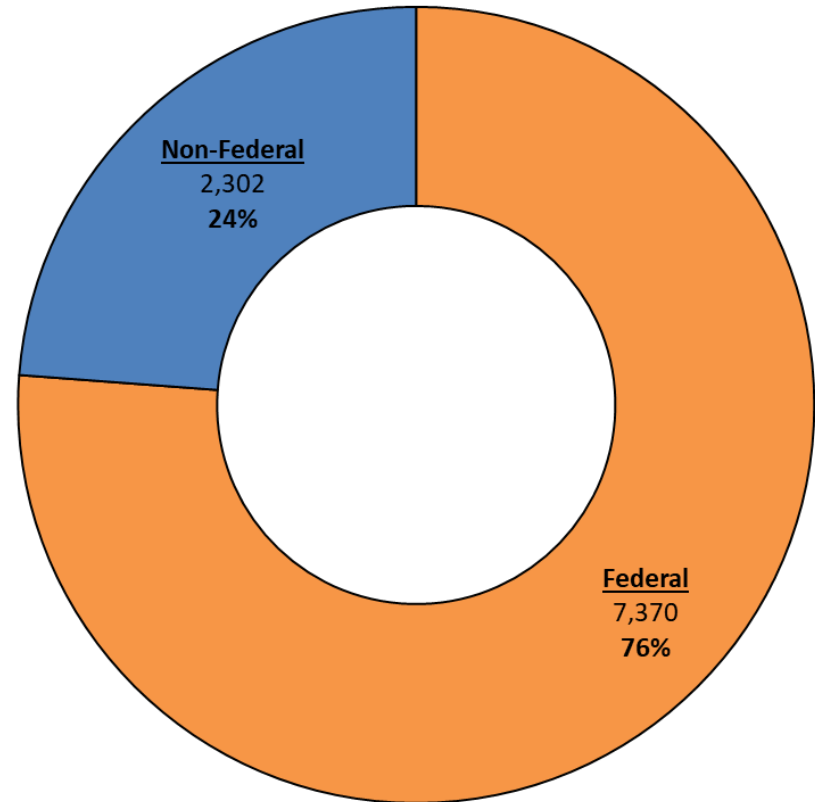
### The FAA's Non-Federal Program

- [Non-Federal-Program@FAA.gov](mailto:Non-Federal-Program@FAA.gov)
- [www.FAA.gov/Go/NonFed](http://www.FAA.gov/Go/NonFed)

# Overview – NAS Inventory

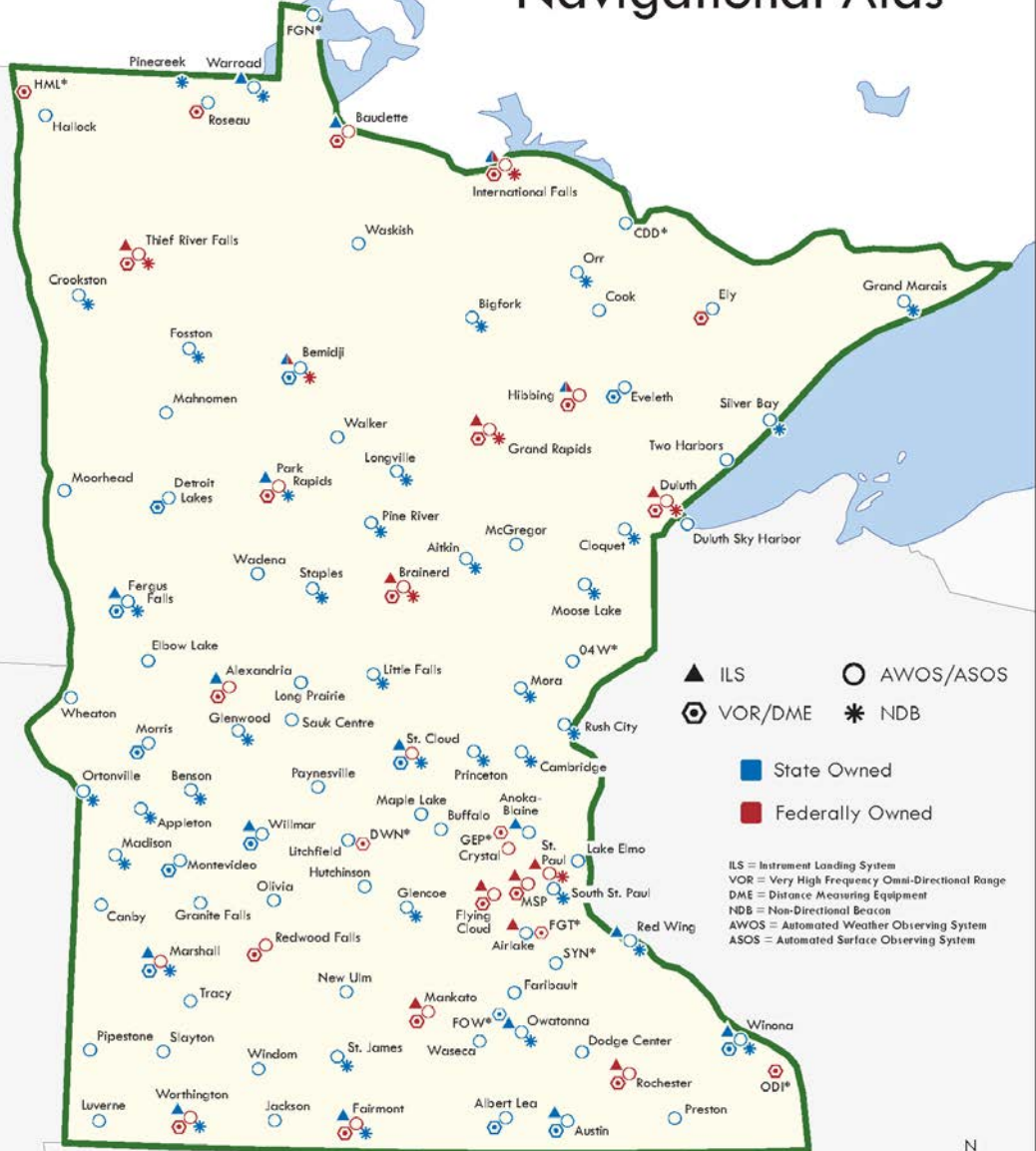
- **Non-Fed facilities play a BIG role in our National Airspace System**
- **There are currently more than 2,300 facilities.**
- **This represents 24% of all NavAids & automated weather systems in the NAS.**

- WSA – 15%
- CSA – 49%
- ESA – 36%





# Minnesota Navigational Aids



\*Nav Aid / Weather Station not located at a publicly-funded airport

NOTE: AWOS/ASOS geographic location is accurate - all other nav aids present at an airport are offset for presentation



# FAA or Non-Fed ?

# Top Ten Costly Mistakes

## Example #10:

Assuming that if a system is marketed as a non-Fed, it's also FAA approved for use in the NAS.

## Example #9:

Buying a non-Fed system that isn't FAA approved.

## Example #8:

Siting and/or assembling your facility in a way that doesn't meet FAA standards.

# Top Ten Costly Mistakes

## Example #7:

Assuming that the FAA will let the technician who maintains your other facilities also maintain your new facility.

## Example #6:

Expecting the FAA to provide your technician with test equipment during commissioning & recurring inspections.

## Example #5:

Failing to anticipate the significant costs & responsibilities of facility ownership.

# Top Ten Costly Mistakes

## Example #4:

Assuming that the FAA will take over ownership or maintenance of your new facility. (Or, assuming that takeover will occur quickly.)

## Example #3A:

Assuming that any AWOS can be connected to WMSCR. (WMSCR connection requires an AWOS III or better.)

## Example #3B:

Not budgeting for the cost of connecting your AWOS to WMSCR. (Owners bear this cost – not the FAA.)



# Top Ten Costly Mistakes

## Example #2:

Making configuration changes that are not FAA approved.

## Example #1:

**Waiting to contact the Non-Federal Program until after you've made a mistake.**

# Potential Consequences

## Owners:

- System doesn't operate optimally.
- Delayed entry into service.
- Unexpected/early decommissioning of system.

## Note:

All the above potentially could adversely impact safety to the flying public.

# Potential Consequences

## Technicians:

- You contract with an airport to maintain its non-Federal facilities, but discover you lack the required training to obtain FAA verification authority.

# Potential Consequences

## Manufacturers / Vendors:

- Sell non-FAA approved systems.
- Make unapproved configuration changes to a system.

## Note:

This will result in the facility being immediately NOTAM'd out of service upon discovery.

# To Avoid Costly Mistakes

**Work closely with the Non-Federal Program.**

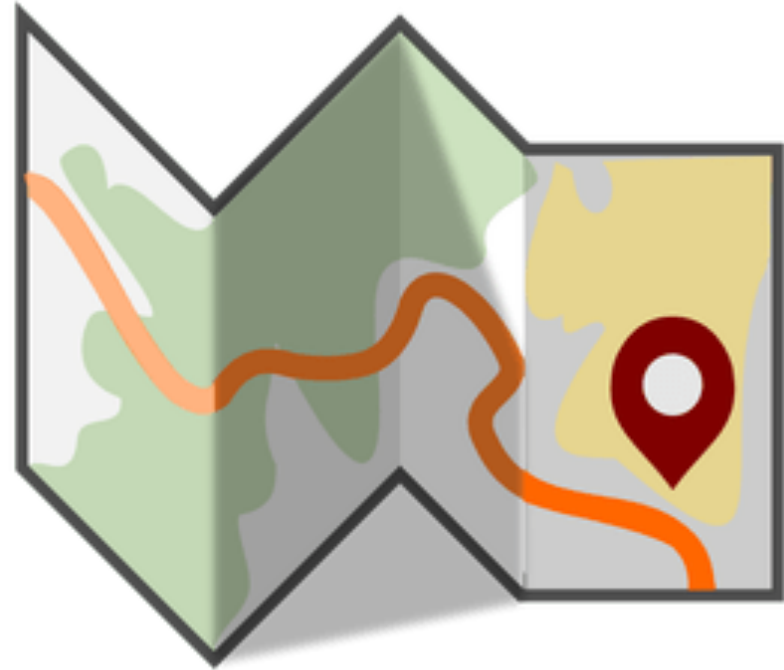
**We're happy to advise & guide you!**

## Section 2

# Your Non-Federal Program Liaison



# Program Implementation Manager (PIM)



**Non-Federal Process**

***Trail Guides***

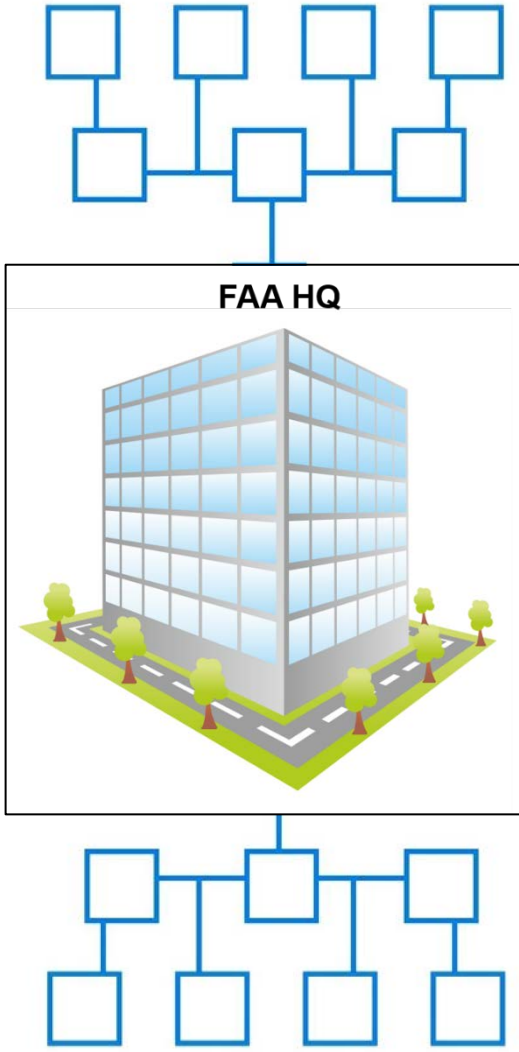
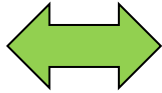
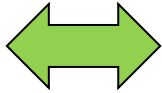
# PIM's Primary Duties

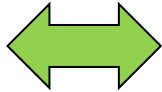
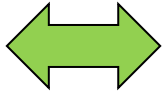
- **Help you coordinate with:**
  - The Non-Federal Program HQ Office.
  - All FAA stakeholders involved in the Non-Federal Process.
  - Is your Subject Matter Expert (SME).

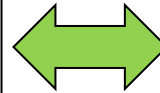
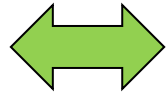


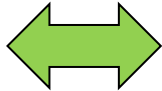
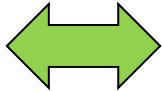
# PIM's Related Duties Include

- Coordinating facility installations.
- Coordinating Air Space Studies.
- Processing takeover requests.
- Reviewing & approving Reimbursable Agreements.
- Coordinating facility decommissioning.









# Your Non-Federal PIM

Contact us to avoid making costly mistakes!

Name	Email	Phone
<b>Western Service Area – PIM Contact Information</b>		
Joshua Eicher	joshua.eicher@faa.gov	(206) 231-2875
<b>Central Service Area – PIM Contact Information</b>		
Angie Anderson	angie.anderson@faa.gov	(817) 222-4198
<b>Eastern Service Area – PIM Contact Information</b>		
Robert “Chris” Linscheid	robert.linscheid@faa.gov	(404) 305-7134





## Section 3

# The Non-Federal Policy & Oversight Program's Focus

**Pay Attention – There's going to be a test!**

# The Program's Mission

- To **ensure** that non-Federal facilities are operated & maintained to the same standards as Federally-owned facilities.
- The Non-Federal Program's policies are documented in the most recent version of **Order 6700.20**, *Non-Federal Navigational Aids, Air Traffic Control Facilities, and Automated Weather Systems*.



# The Program's Focus Areas

- Approval Process – new types of facilities.
- Approval Process – Configuration changes to existing facility types.
- Facility Operation & Maintenance.
- Maintenance Technicians.
- FAA takeover of non-Fed Facilities.

# What This Means For You

## Owners

1. We provide **guidance** in the purchase & installation of your new non-Fed facility.
2. We **evaluate** your newly-installed facility, to ensure it's safe for use in the NAS.
3. We regularly **inspect** your facility, to verify that it continues to be safe.
4. We **decommission** the facility at the end of its **lifecycle**.
5. We facilitate FAA takeover of your facility, IF requested and appropriate.

# What This Means For You

## Manufacturers/Vendors

1. We **review** your proposed new facility designs.
2. We **review** your proposed configuration changes to current approved facilities.

## Technicians

1. We **ensure** you have the training and meet the qualifications necessary to maintain non-Federal facilities.

## Section 4

# Installation & Operation, Verification Authority, and Design Approval



# Installation & Operation

## Owners

Commissioning requirements include, but are not limited to, the following:

1. NavAids must comply with the Federal Aviation Regulations' Part 171.
2. AWOS must comply with the “non-Federal AWOS Advisory Circular.”
3. You must hire a maintenance technician who is eligible to receive Verification Authority from the FAA.

# Installation & Operation

## Commissioning requirements continued:

4. You must sign an agreement, acknowledging that you & your technician(s) will:
  - Follow FAA operations and maintenance practices, **AND**
  - Allow the Non-Federal Program to regularly conduct inspections.
- **Important:** The FAA will not allow you to operate a newly-installed non-Federal system until it's been commissioned by the Non-Federal Program. For addition information, please contact your PIM.

# Verification Authority

## Maintenance Technicians

- The term “verification authority” refers to the fact that, by performing maintenance, you’re also verifying that the facility is operating safely, in accordance with FAA standards.
- Owners must contact the PIM to request verification authority for their intended maintenance technician.

# Verification Authority

- If you do not have *system specific* and *site specific* Verification Authority, you must **not** perform maintenance on any facility/system.
- Doing so will result in the FAA shutting down the facility/system.



# Verification Authority

- “System specific” & “Site specific”
  - Verification Authority is a physical letter issued by the FAA District Office that oversees the location of the installed facility.
  - You must have Verification Authority for each individual non-Federal system that you maintain.

# Verification Authority

- “System specific” & “Site specific”
  - For example, even if there are 2 identical type/make/model glide slopes at adjacent airports that you work for, you must have separate Verification Authority for each of those systems.

# Verification Authority

- Obtaining verification authority requires that technicians must:
  - Successfully complete an FAA-approved system training course;
    - Out of Agency Training is available through the FAA Academy for some facilities.
    - Appendix 3 of FAA Order 3000.57 lists FAA-approved courses not provided by the FAA.

# Verification Authority

- Pass the respective applicable Theory-of Operation Exam;
- Satisfactorily complete a Hands-On Performance Exam;
  - Performance Exams are administered by the FAA.

# Verification Authority

- Out of Agency Training Coordinator Contact Information:

<i>Address</i>	Mike Monroney Aeronautical Center FAA Academy – Technical Operations Training Division NAV/LAN/COM/RADAR Branch 6500 S. MacArthur Blvd. Oklahoma City, OK 73169
<i>Telephone</i>	(405) 954 – 5906
<i>Fax</i>	(405) 954 – 8413
<i>Email</i>	<a href="mailto:9-AMC-AMA-AF-OAT@faa.gov">9-AMC-AMA-AF-OAT@faa.gov</a>
This contact information is current as of 08/13/2019.	

# Design Approval

## Manufacturers/Vendors

- **Submit all proposed design or configuration changes to the Non-Federal Program.**
  - Proposals for NavAids must meet the technical requirements of FAR Part 171.
  - Proposals for AWOS must meet the technical requirements of the Non-Fed AWOS Advisory Circular.
  - And it's important to note that these are not the only requirements. Other Orders and Advisory Circulars may apply.

**The FAA will not allow airports/owners to operate your system until the Agency formally approves its design and/or configuration changes.**

# Three Key Takeaways

**1st**, each type/make/model of a facility (and any configuration changes) must be sanctioned by the FAA.

*–In other words, they must be “FAA Approved.”*

**2nd**, the non-Federally-employed technicians who will maintain the facility must first receive permission to do so from the FAA.

*–This permission is known as “Verification Authority.”*

**3rd**, FAA personnel will regularly inspect a facility’s operation & maintenance.

## Section 5

# Facility Assumption of Operation and Maintenance (O&M)





# Assumption of O&M

- **A Facility Transfer is the act of the FAA assuming financial responsibility for the operation and maintenance of your facility.**
- **Many non-Federal systems are not eligible for transfer.**

*and*

- **Eligibility does not guarantee approval!**

*Approval is determined on a case-by-case basis.*

# Section 6

## Re-cap & Resources



# Re-Cap

- The FAA regulates non-Federally owned facilities and the guidelines owners, non-Federal technicians, manufacturers and vendors must follow.
- To avoid costly mistakes, contact your Non-Federal PIM.
- Your Non-Federal PIM is your direct FAA point of contact.
- Order 6700.20 contains the Program's policy guidance.
- Owners must only install FAA-approved facilities and allow periodic inspections.

# Re-Cap

- Maintenance Technicians must have Verification Authority.
- Manufacturers/Vendors must not sell new facilities nor make configuration changes without FAA approval.
- All facilities are not eligible for assumption of O&M and eligibility does not guarantee approval.

# Resources

- Visit the Non-Federal Program's public website at the following link:

[www.FAA.gov/Go/NonFed](http://www.FAA.gov/Go/NonFed)

- The generic email address for the Program is as follows:

[Non-Federal-Program@faa.gov](mailto:Non-Federal-Program@faa.gov)

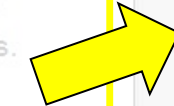
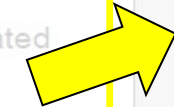
## Non-Federal Program for NavAids and AWOS Airports

### Resources

- [Program Liaisons \(PDF\)](#)
- [Guidance & Policy](#)
- [Frequently Asked Questions \(FAQs\)](#)
- [AWOS-WMSCR FAQ \(PDF\)](#)
- [AWOS FAA-Approved Third-Party Service Providers \(PDF\)](#)
- [AWOS Type Certification & Modifications](#)
- [Airport Improvement Program \(AIP\) grants](#)
- [Contact us](#)

### Audiences

- **Airports**  
Plan a non-Federal project
- **Technician of Record**  
Information about maintaining non-Federally owned systems, including AWOS
- **Manufacturers**  
Learn how to request FAA approval for non-Federal use of your system
- **AWOS Owners**  
Learn valuable information on buying, operating, & maintaining AWOS



# Your Point of Contact

Contact us to avoid making costly mistakes!

Name	Email	Phone
<b>Western Service Area – PIM Contact Information</b>		
Joshua Eicher	joshua.eicher@faa.gov	(206) 231-2875
<b>Central Service Area – PIM Contact Information</b>		
Angie Anderson	angie.anderson@faa.gov	(817) 222-4198
<b>Eastern Service Area – PIM Contact Information</b>		
Robert “Chris” Linscheid	robert.linscheid@faa.gov	(404) 305-7134



