



MnDOT Update at the 2022 Minnesota Airports Conference

Ryan E Gaug, AICP | Aeronautics Assistant Director

Agenda and Goals for this Session

State of the State of the Office/Agency

- A (re)introduction to our office, who we are, and how we are organized
- An overview of challenges and opportunities ahead
- For today's presentation, a greater focus on Nav Systems than other business lines

The broad-brush strokes included in this presentation are just the start of the conversation

- Visit us at the booth, join us at our presentations, stop us in the halls, sit with us at meals
- Unlikely to have time for questions during the session

Meet Your Aeronautics Staff At the MnDOT Booth



Development
Operations
Planning

Wednesday, April 6th 1:15 - 1:45 pm South Region Jim McCanney Luke Bourassa
Thursday, April 7th 10:30 - 11:45 am Central Region Tim Jarvis Dan Boerner Junior Lindsay Arika Johnson
Thursday, April 7th 3:00 - 3:30 pm North Region Kevin Carlson Jared Wedel



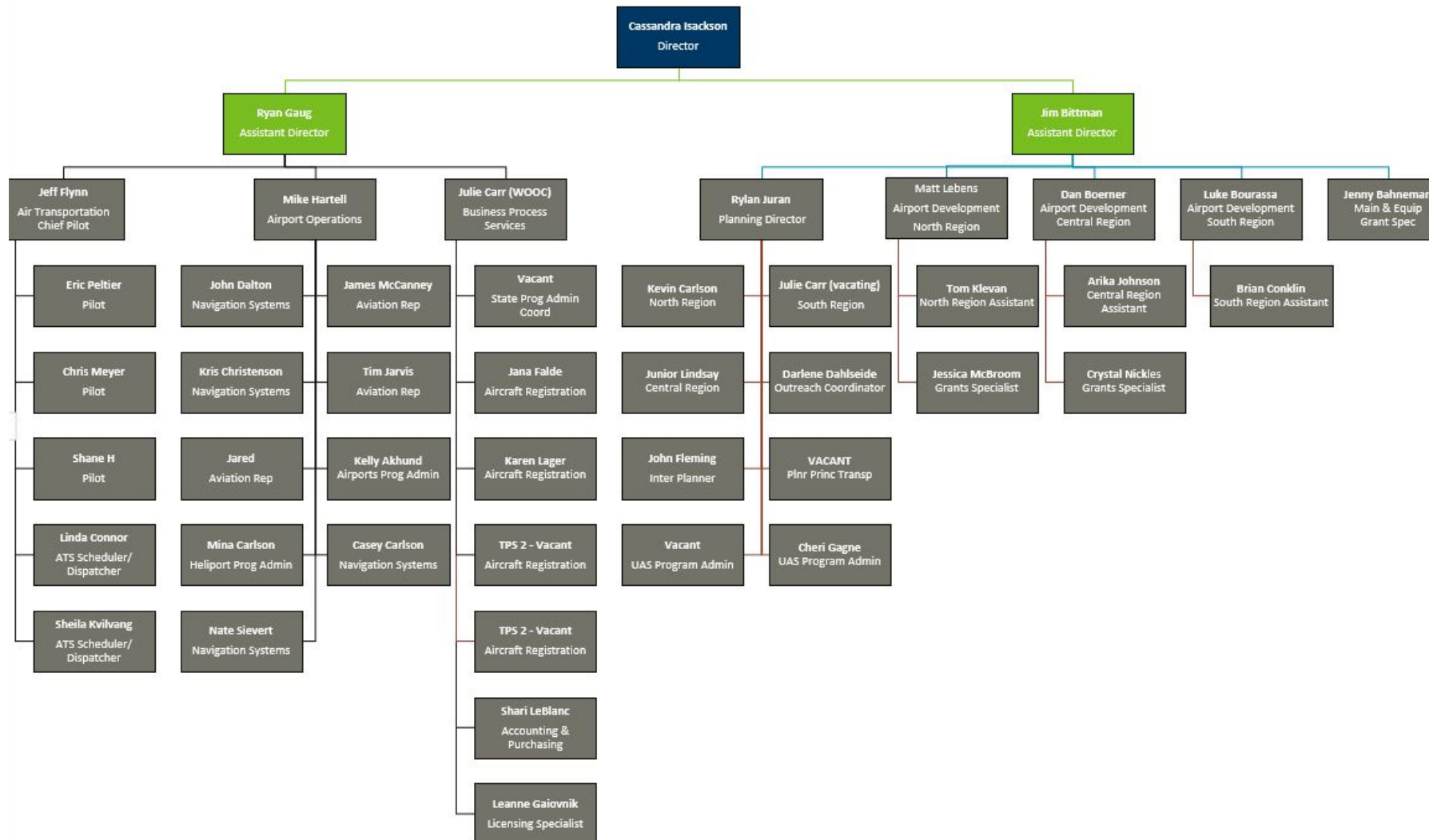
Navigation Systems

Wednesday, April 6th 4:30 - 5:00 pm Mike Hartell Nate Sievert
Thursday, April 7th 1:45 - 2:00 pm Kris Christenson Casey Carlson

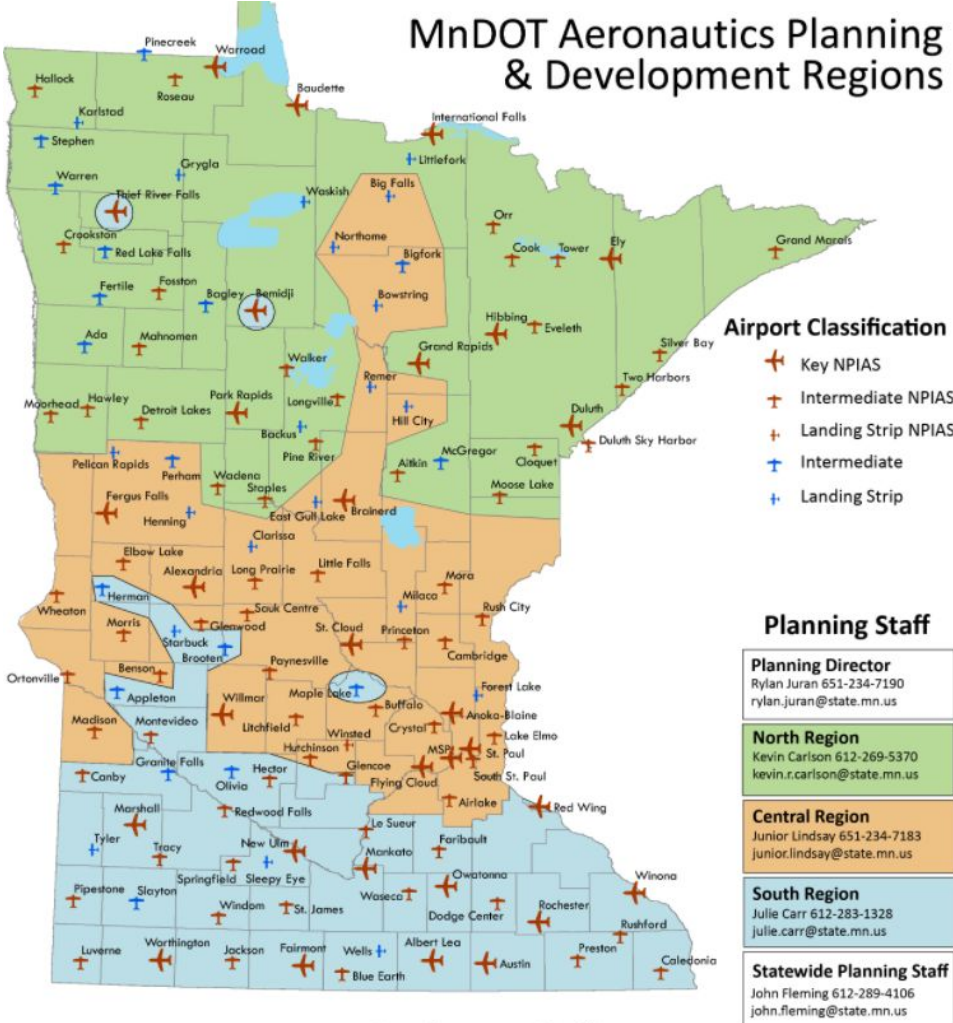
We've moved



Aeronautics Org Chart



We've Regionalized



- Planning
- Airport Development
- Airport Operations

Development Staff

North Region Matt Lebens, P.E. 612-422-4171 matthew.lebens@state.mn.us Dan Barra 612-709-0464	Central Region Dan Boerner, P.E. 651-427-3858 dan.boerner@state.mn.us	South Region Luke Bourassa, P.E. 651-508-0448 luke.bourassa@state.mn.us	Grants Specialists Jenny Bahneman 651-234-7240 jenny.bahneman@state.mn.us
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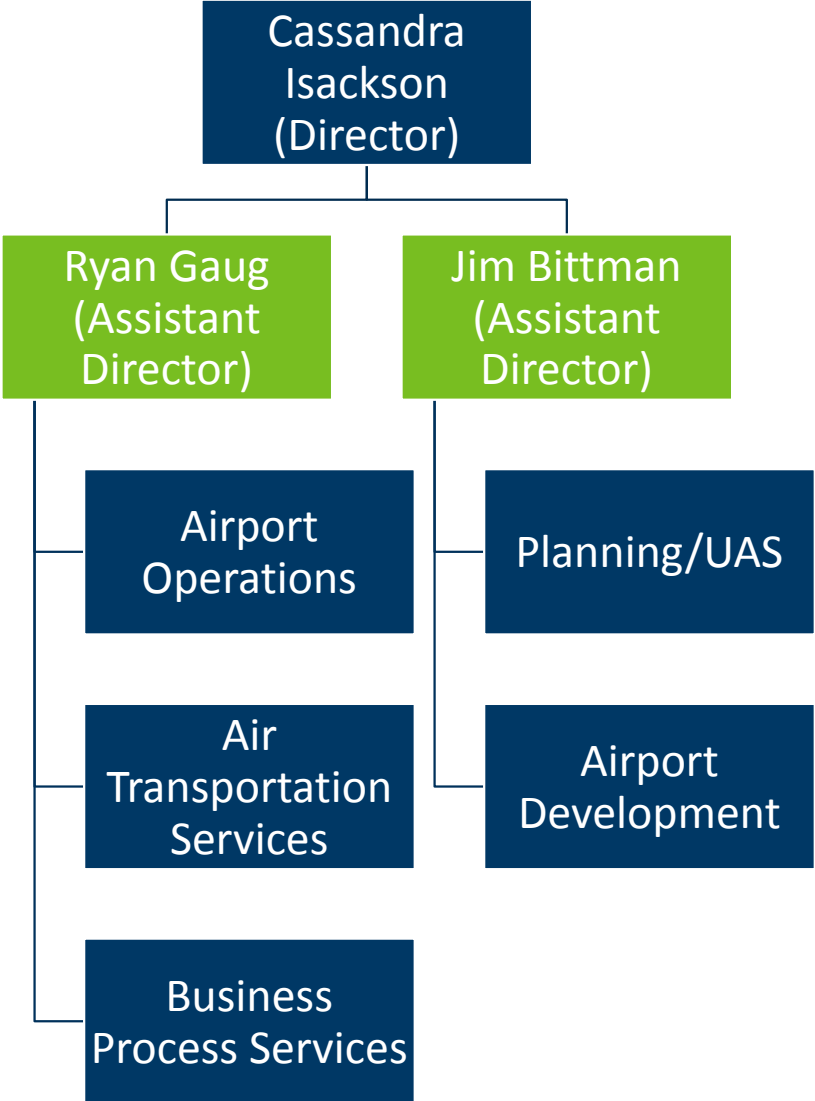
Legend

Green = Present,
please stand and
wave

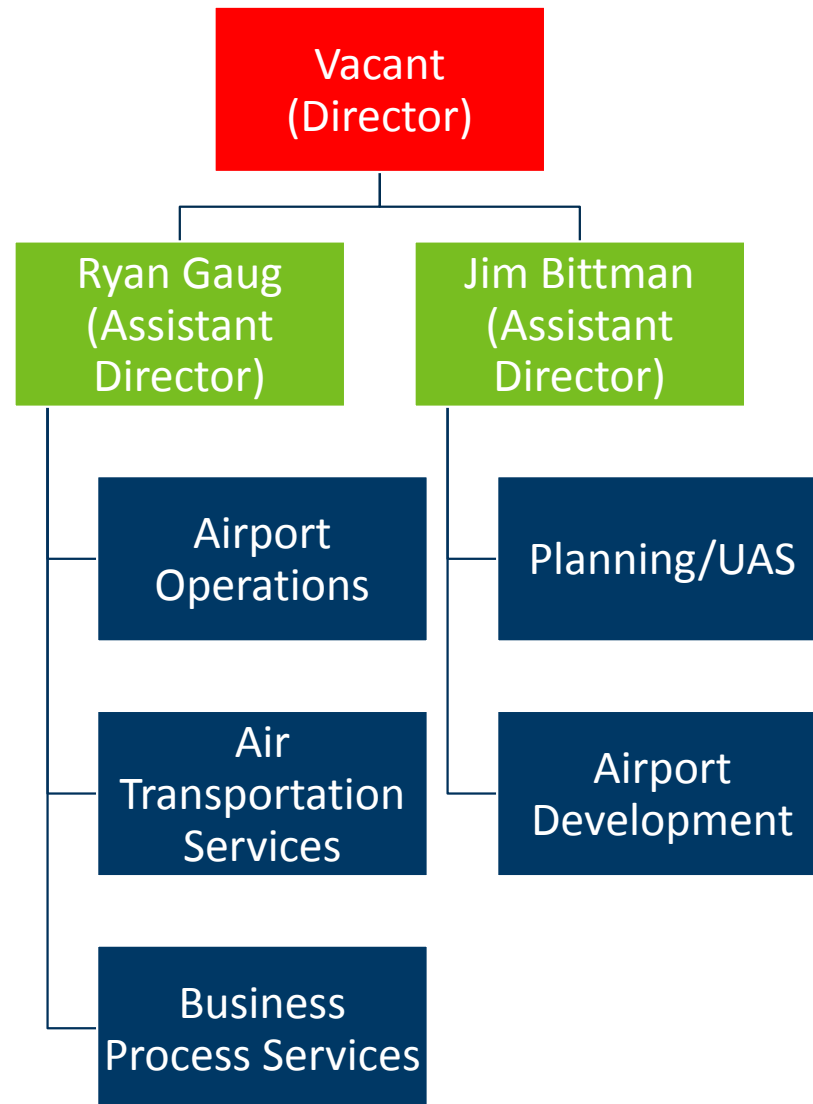
Blue = Valued
team member, but
not present today

Red = Vacant

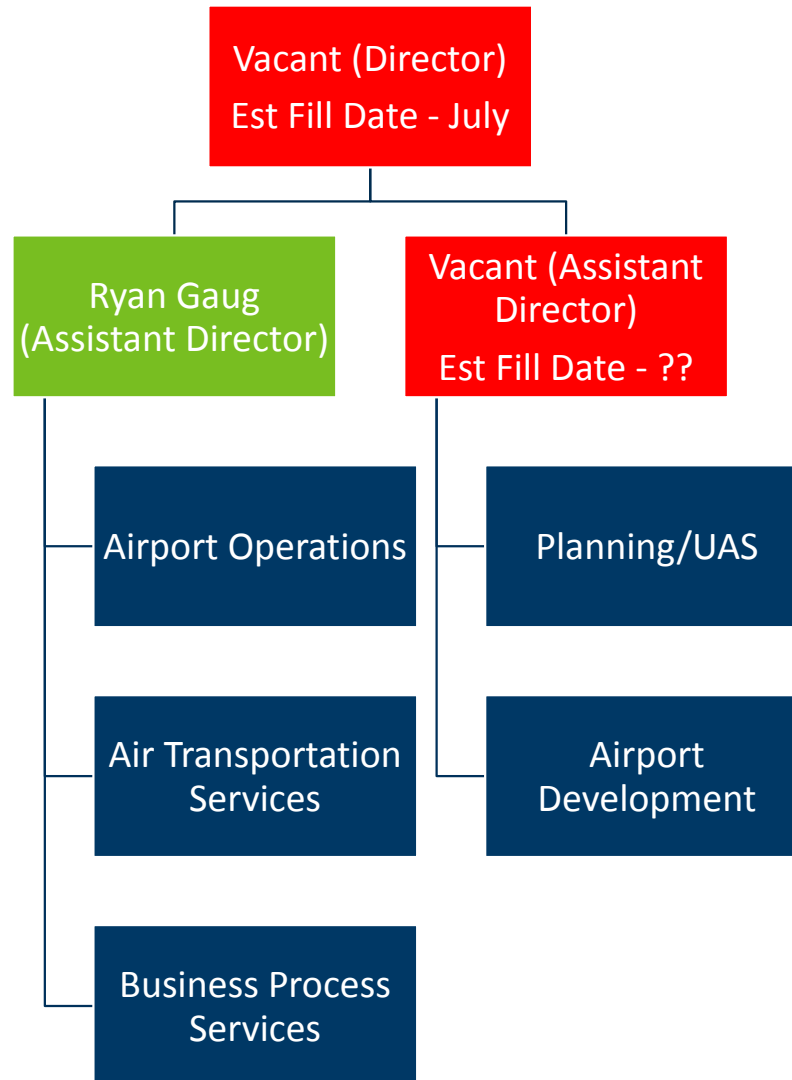
Management



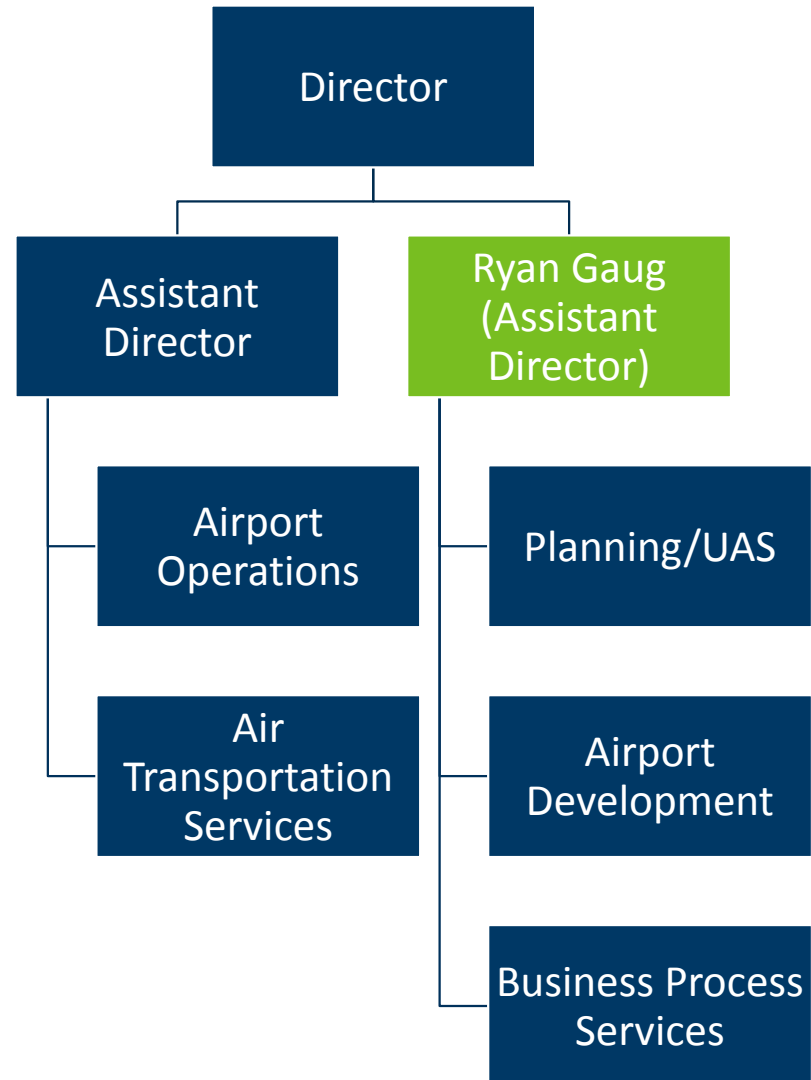
Management – April 22



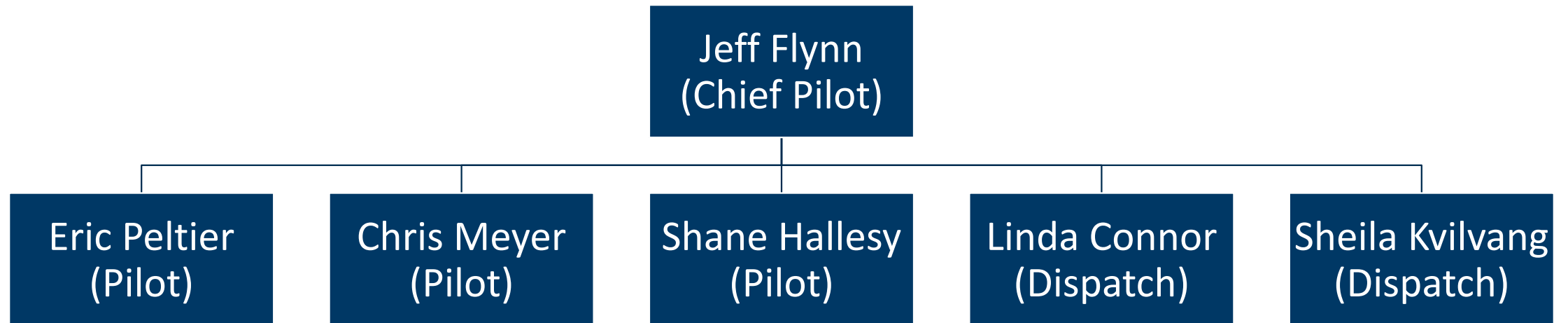
Management – May 25



Management – Eventually....?



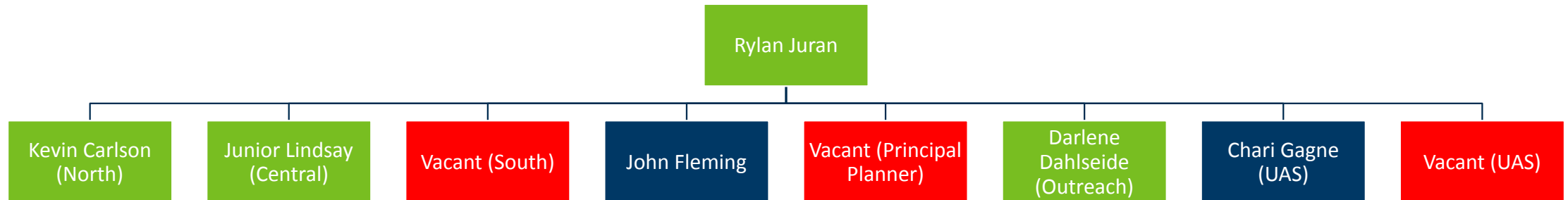
Air Transportation Services



ATS – Challenges, Opportunities, Updates



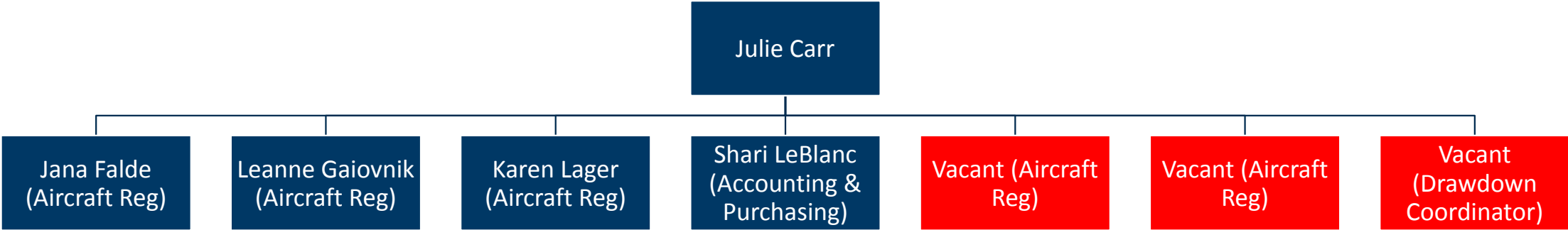
Planning / UAS



Planning/UAS - Challenges, Opportunities, Updates

- MnSASP – coming up next so, stick around!
- Zoning Rules Update - in Progress

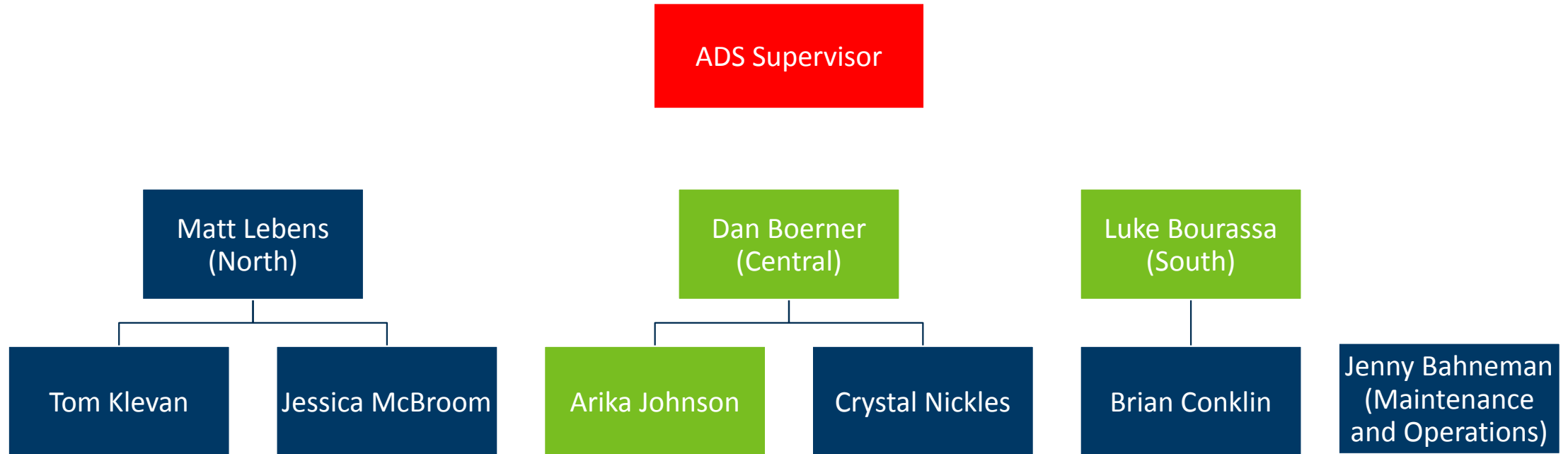
Business Process Services



BPS - Challenges, Opportunities, Updates

- New section
- New supervisor
- Vacancies
- Challenging IT project to replace the legacy Aircraft Registration system

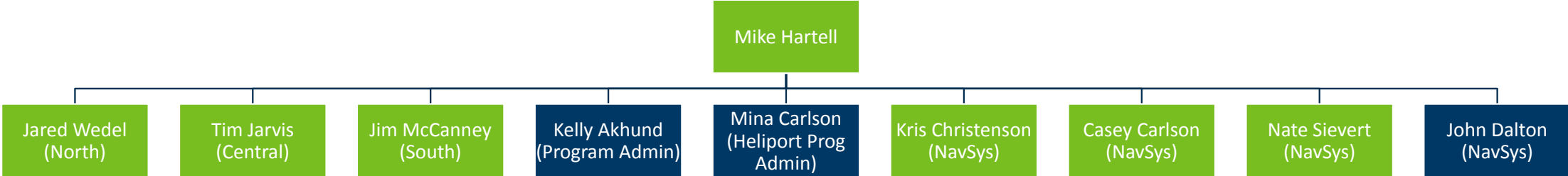
Airport Development Section



ADS - Challenges, Opportunities, Updates

- IJJA/BIL
 - Similar to ARPA, channeling will have to be opt-in
 - MnDOT does not yet have authority from the legislature to channel
 - The Governor's supplemental budget includes approx. \$7M/year to match IJJA/BIL
 - Until both approved, MnDOT cannot channel and cannot match
- Grants Cycle
- CARES/M&O Flex Program
- Join the session tomorrow where all of your grant questions will be answered!

Airport Operations



At the last Airports Conference MnDOT discussed the challenges due to a retiring contractor work force.

- When the contractors retired, there remained no MALSR/F verification authority technicians
- DBT Transportation became our only certified technician for all our Navaids

Internal Work Force Update

Casey Carlson, Airport Lighting/Electrical specialist:

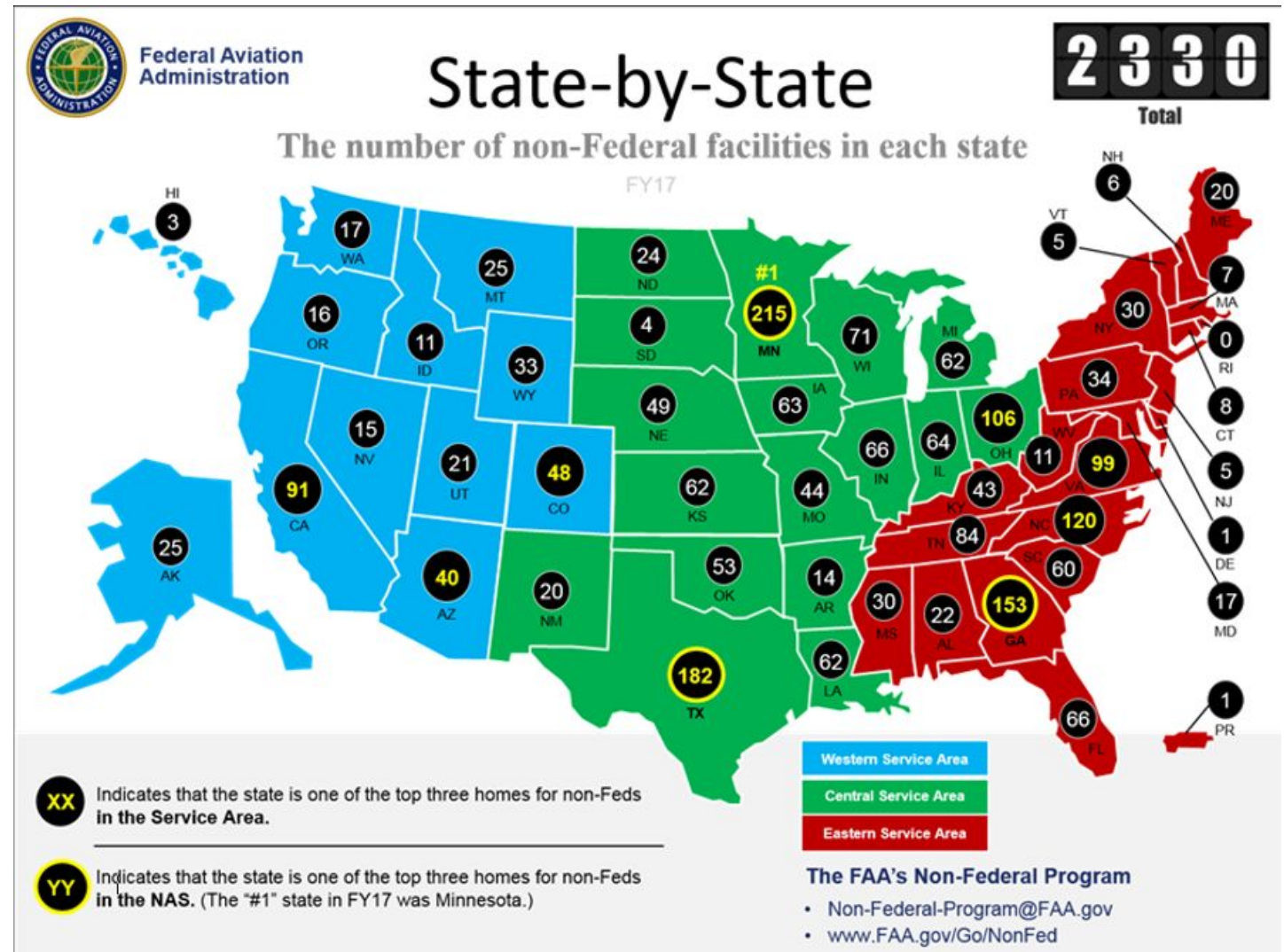
- Has become FAA Verification Authority certified on MALSR/MALSF
- Continuing to work on statewide electrical contractor program to certify electricians to work on the airports
- Delivered new steady burn lamps to all 21 airports with MALSR/MALSF systems (non-Fed)
- Continuing to work with manufactures for quality lamp replacements

Kris Christenson, MnDOT's Navigation System Radio Engineer, recently completed the following:

- VOR/DME Verification authority certification
- Fully Certified with Verification Authority on state-owned AWOS systems
- Field training underway on ILS systems

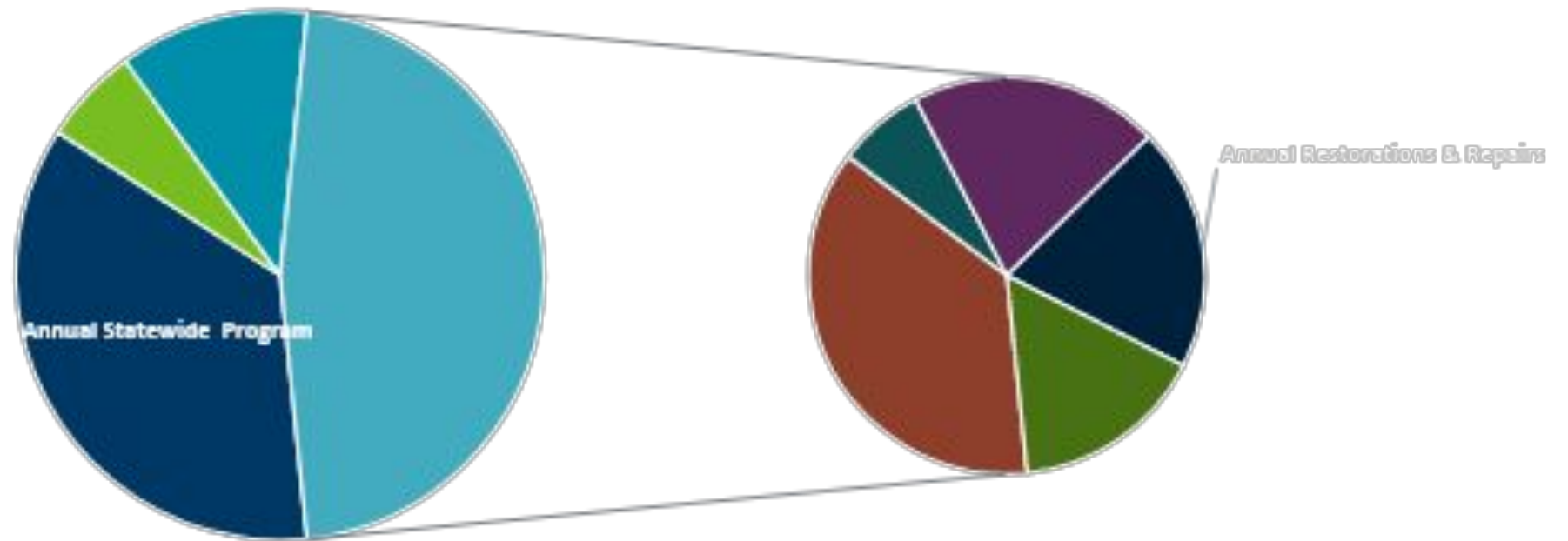
Non-Fed Nav Systems

- MnDOT continues to lead the country with having the largest Non-Fed AWOS network in the Country
- The most Non-Fed State owned precision approach ILS facilities
- Minnesota currently has precision ILS service within 75 NM of any MN airport (*Arrowhead Region only exception*)



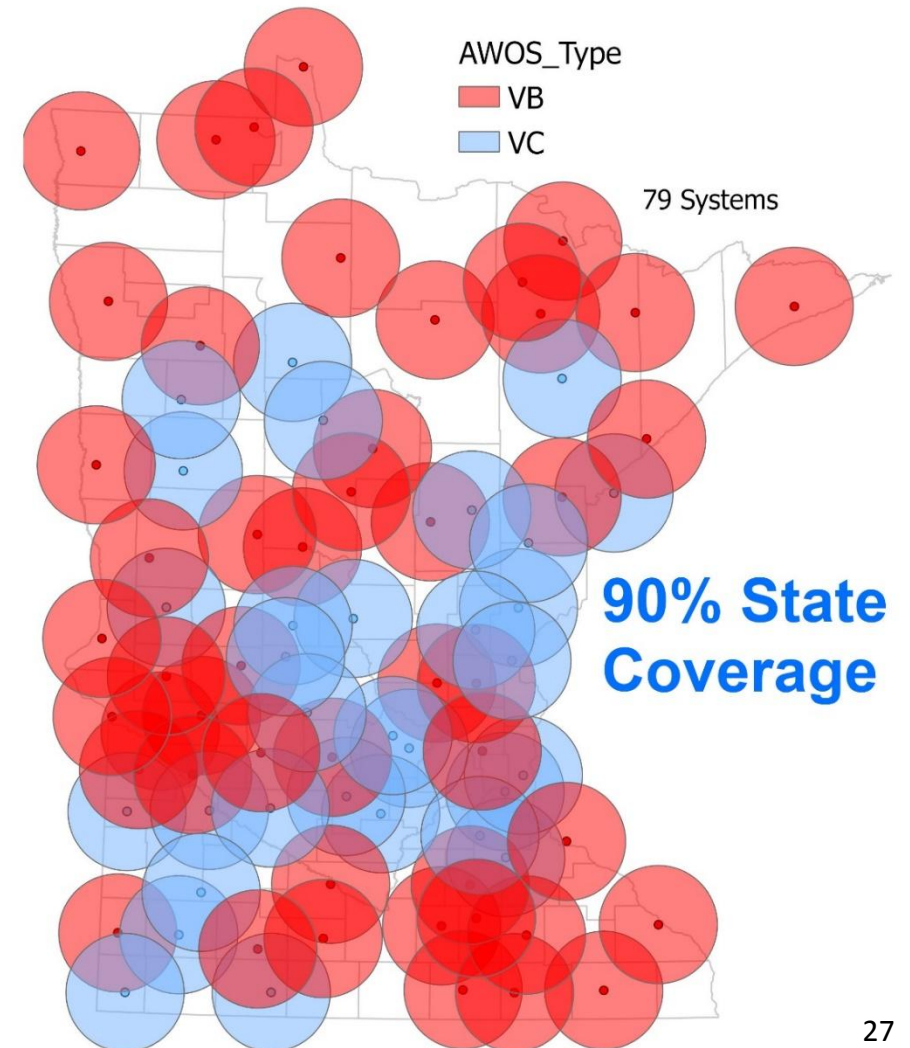
NAVAIDs Program Budget, SFY2021

Current Spend \$2.7M



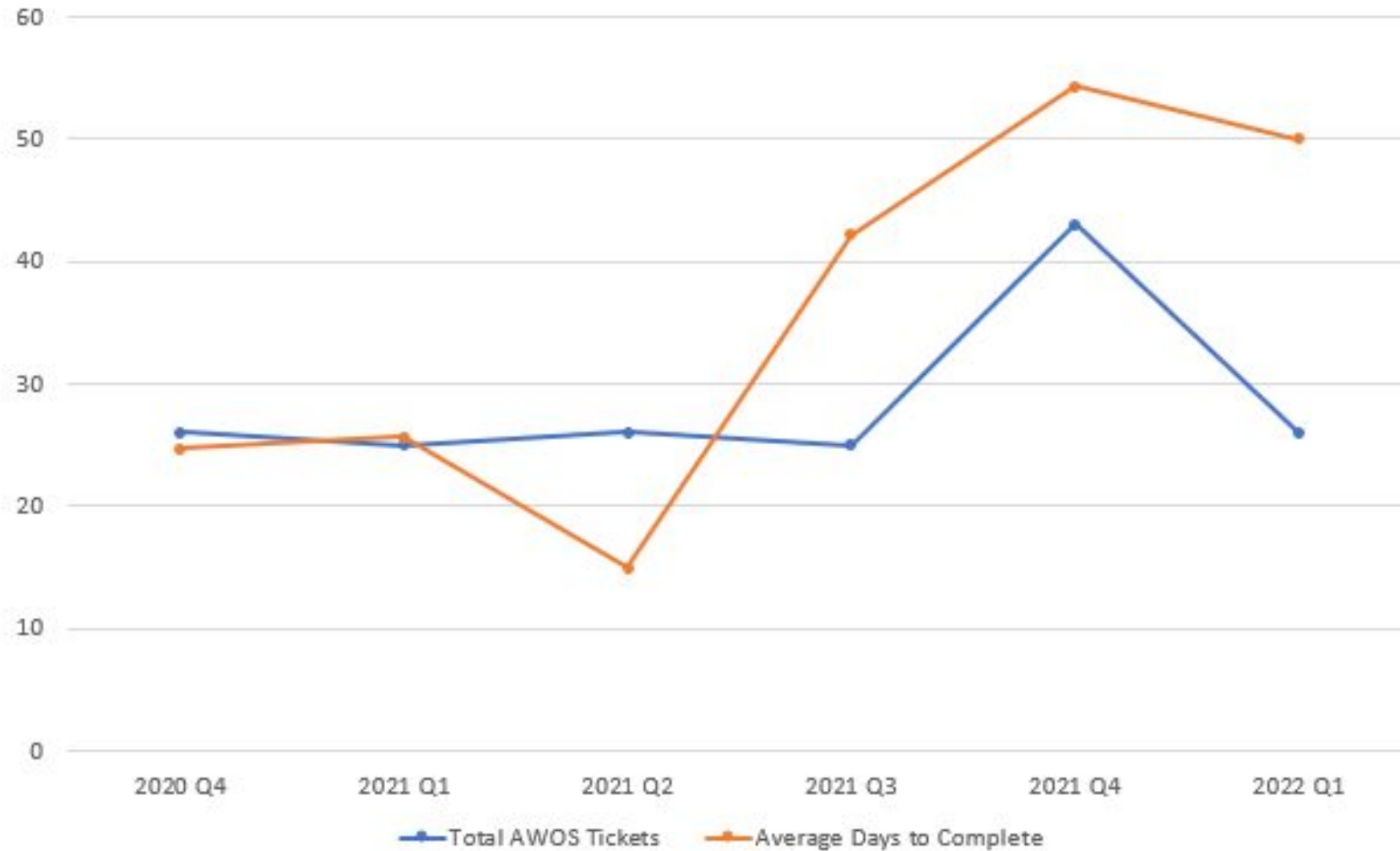
79 AWOS Weather Stations

If it is in RED it is Nearly Dead!!

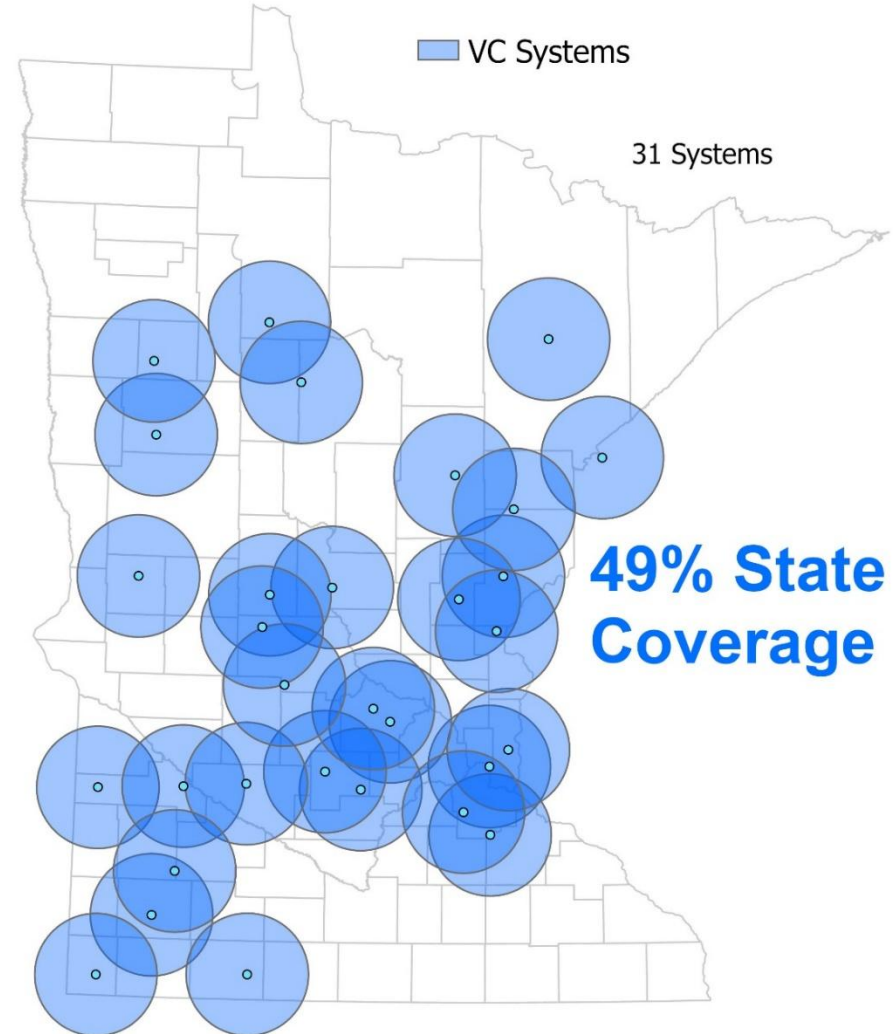


System Health

Archibus – AWOS Tickets

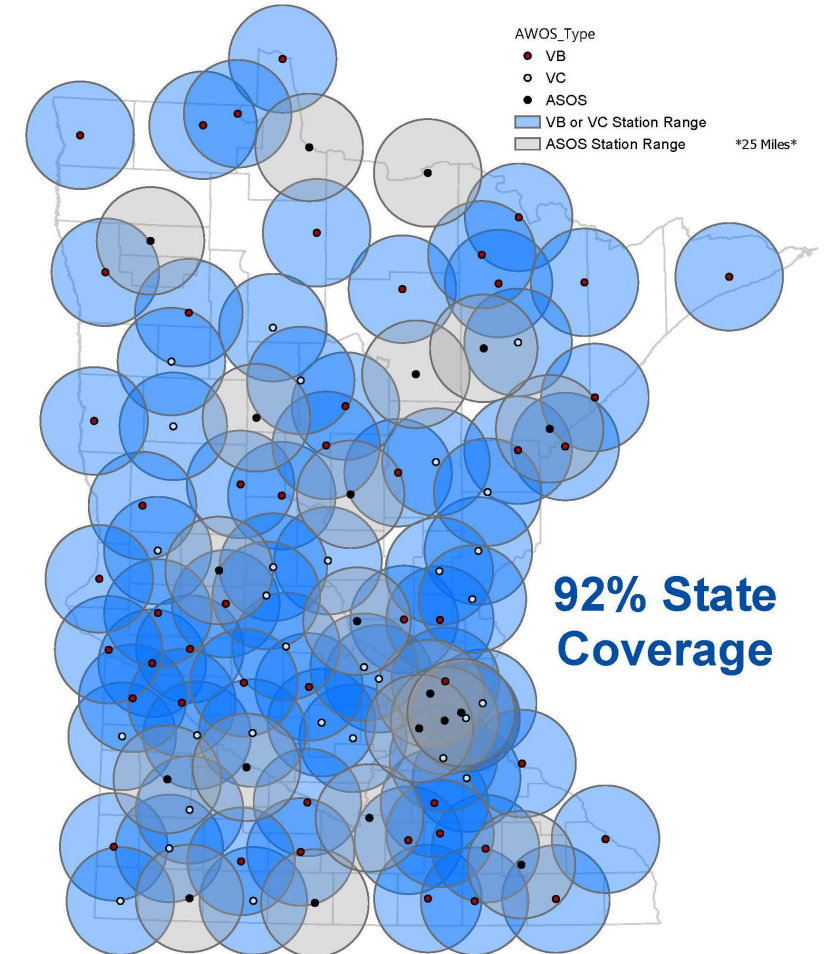


Future AWOS State



Capital/Supplemental Budget - Requests

- MnDOT for several years has requested a recurring bonding program.
- Most recently requested \$30M in bond funding to maintain state-owned NAVAIDs.
- Effort not successful for 2022.



AWOS Status/Action Required Letter

- Will outline all Nav aids located on the airport
 - Including the age of the system
 - Expected years of service expressed in 1 day to 5 years depending on parts and manufacture support.
 - Anything under 20 years will give an estimate of remaining life, and planned replacement year based on the 20-year life expectancy.
 - If we do not have a date of commissioning or a date of manufacture, it will be noted

21 ILS Systems

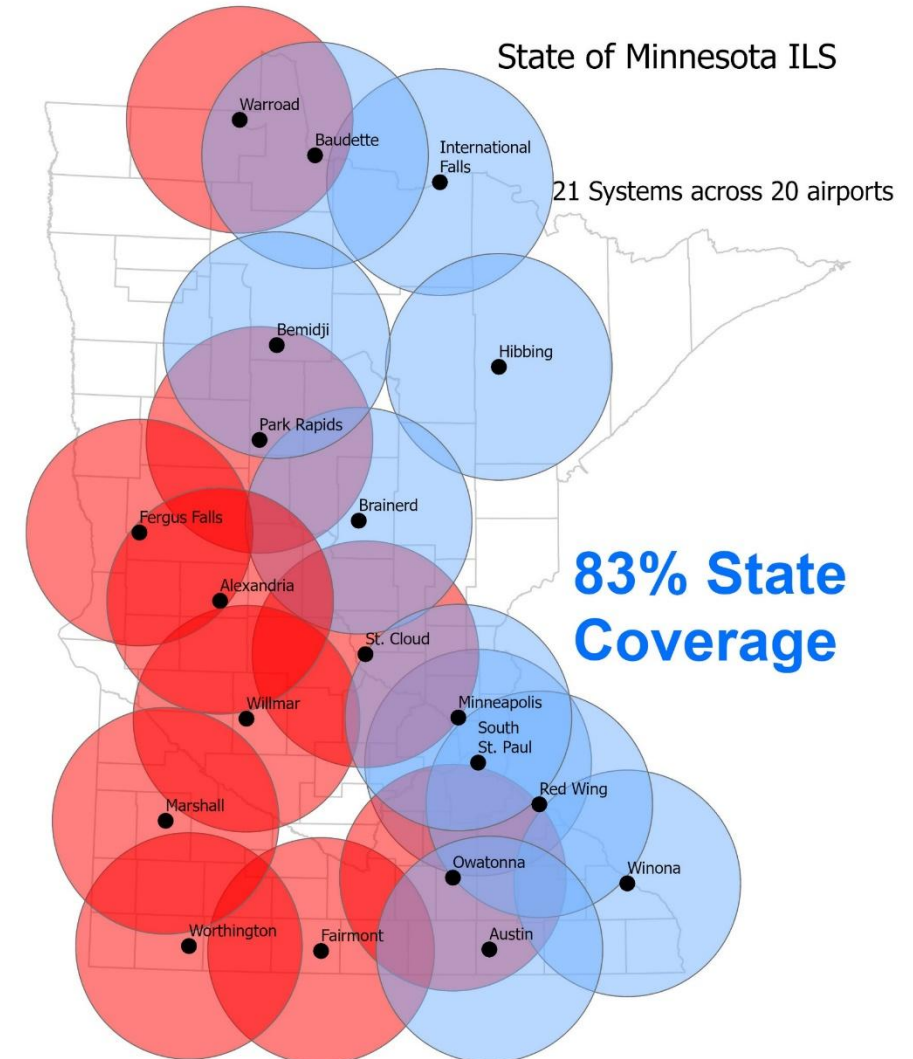
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21 ILS systems

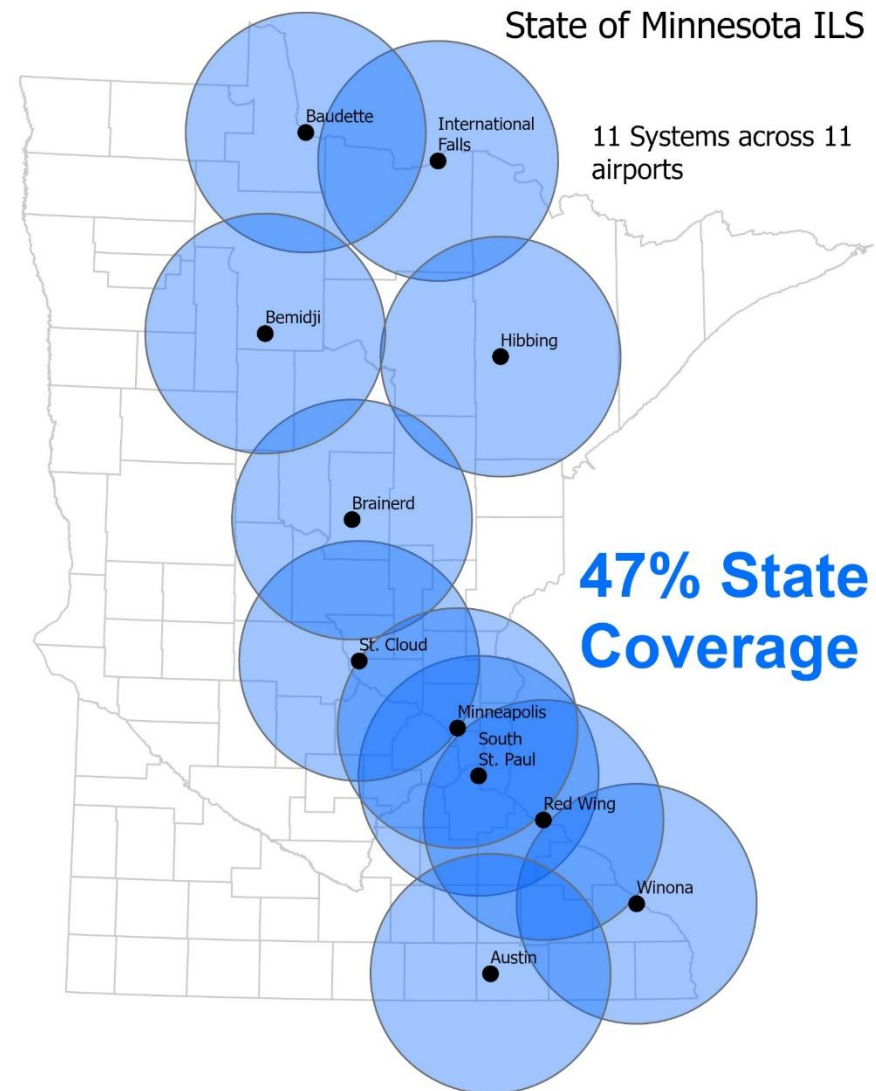
21 MALSR/MALSF Instrument Lighting Systems

9 of which are MK10 models (in red) No More Parts or factory support.

May be facing extended shutdowns!



After MK10s are Shutdown



Coming Fall/Winter2022 - ILS Future State Workshop

- Discuss a replacement strategy of these old systems with airports that have a non-fed ILS
- Part of this workshop will be to develop a 20-year strategy for ILS at airports

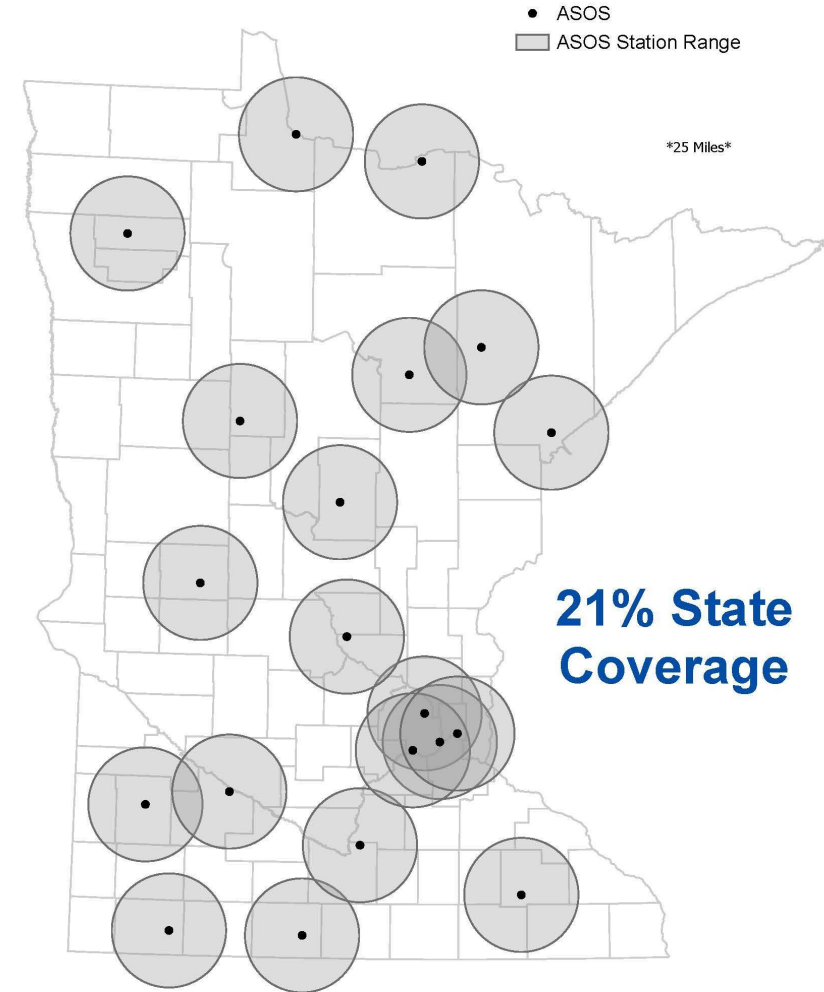
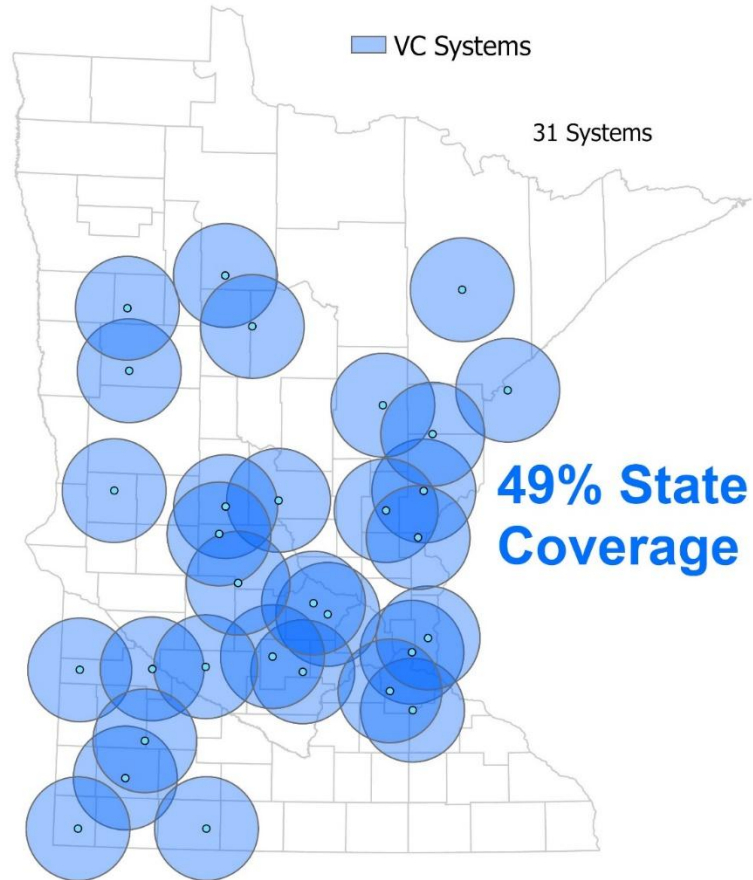
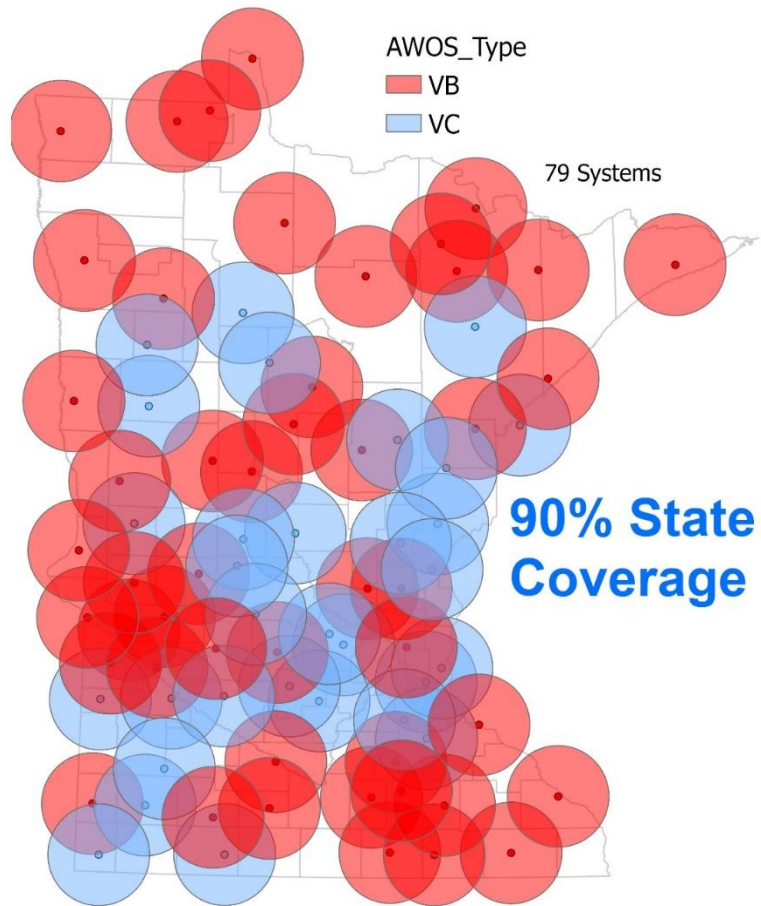
Accomplishments

- November 2021 Commissioned Halfway VOR/DME
- Replaced 3 AWOS stations DYT, DTL, CFE airports.
- 14 more AWOS replacements in pipeline
- MML VOR/DME replacements underway
- 3 ILS replacements in the pipeline FFM, FRM, RRT.

Key Takeaway: Partnership

- With so many financial and challenges ahead, we'll need to work together
- Airports will need to take a proactive role in replacing the aging stations
- Any Navaid more than 20 years old should be planned for replacement within the next 5 years (if you want to continue with the system)
 - Need all replacement systems on CIP ASAP!
 - MnDOT is likely to assume if not on CIP Airport is no longer interested in the Navaid
 - Airport should plan to participate financially in the replacement
 - Airports should maximize all funding sources to available
- MnDOT hopes to continue fully funding the ongoing maintenance of Navaids that are deemed essential to the State Aviation System.

Difficult Choices Ahead



Thank you!

State Airports Fund Appropriations (\$1,000s), 1996 - 2021 State Fiscal Years

