Aeronautics Division
Tennessee Department of Transportation

State of Aeronautics

TAA 2024 Conference

John-Paul Saalwaechter, PE | Aeronautics Director March 6, 2024

TN's Public Use Airport System

TOTAL ECONOMIC IMPACT $40 BILLION

AVIATION CONTRIBUTES 11% OF TENNESSEE'S GROSS DOMESTIC PRODUCT (GDP)

Fun Facts

3,086 Registered Based GA Aircraft

17,712 Licensed Pilots

98 Public-use Runways

Aeronautics Division Staffing Update

PICKWICK
LANDING

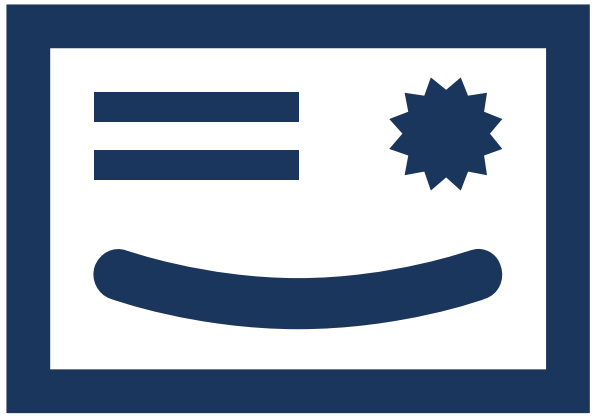
New Staff

- **Kinsley Williams**, Program Monitor, Planning/Environmental
- **Joseph Howes**, Project Manager
- **Joy Vaughn**, Project Manager
- **Chase Nolan**, Program Monitor, Planning/Environmental
- **Oliver Ruff**, Aviation Technical Specialist (BIL and Federal Programs)

Special Recognitions

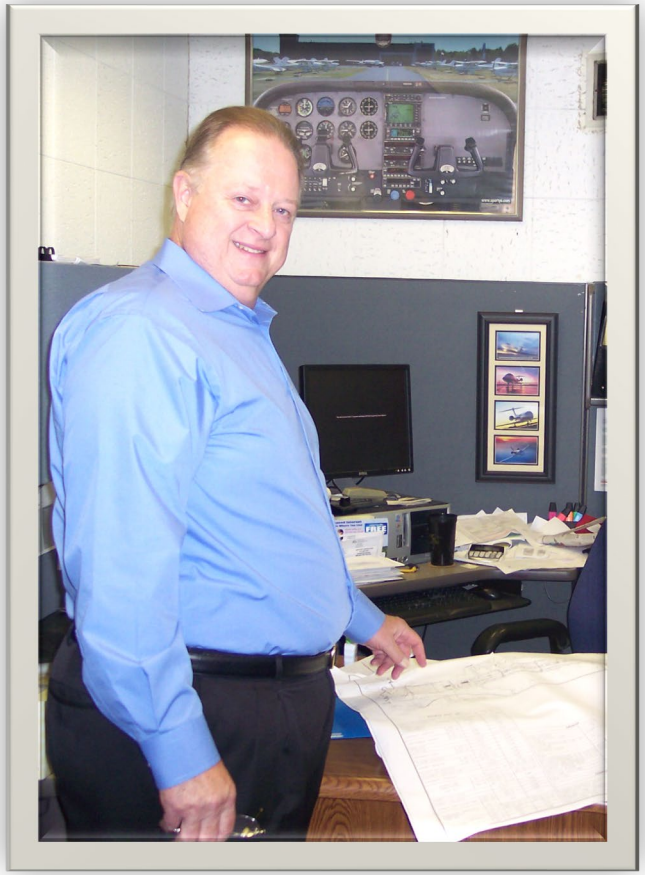
- **TDOT Service Awards**

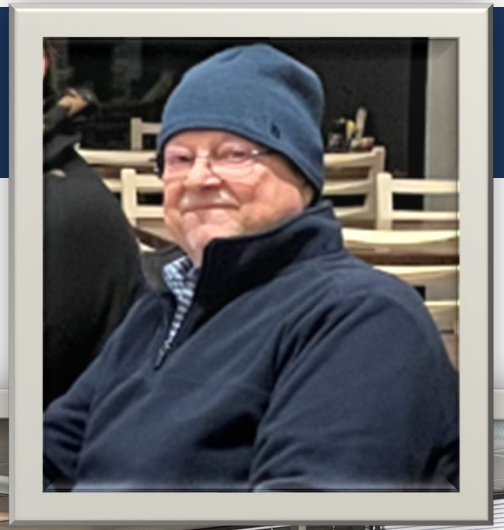
Employee Name	Years of Longevity
Abdililah “Delovan” Arif	5
Ryan Healey	5
Joe Clement	10
Bill Burney	10
Brian Fedders	10



Special Recognitions

- **Retirements**: Jim Currey
  - Almost 17 years!!! 05/08/2007 to 2/29/2024





Strategy and Priorities

Aeronautics Division
Tennessee Department of Transportation

Mission –

Provide a **safe & reliable aviation system** to **support economic growth and quality of life**.

Vision -

- Pursue Excellence
- Modernize & Manage Infrastructure
- Empower Workforce
- Strengthen Customer Trust

Values –

Empowering People through:

- Development
- Innovation
- Safety
- Collaboration

Development | Continually growing and sharing our knowledge, expertise, and experience.

Innovation | Looking for new and emerging ways to serve and communicate with our customers.

Safety | Proactively identifying and mitigating hazardous conditions for our employees, contractors, and the traveling public.

Collaboration | Working together internally and with our partners to share ideas, skills, and insights to get the best results.

Influencing Culture through:

- Family
- Integrity
- Stewardship
- Consistency

Family | Promoting a culture of caring, concern for others, and pride in what we do.

Integrity | Doing the right thing through being professional and honest.

Stewardship | Taking the best possible care of our assets.

Consistency | Being reliable and uniform in our actions and words.

Aeronautics Division
Tennessee Department of Transportation

Goals & Performance Measures

GOAL #1 Preserve Airport Infrastructure: Protect and preserve existing airport infrastructure by prioritizing airport system needs.

Performance Measures

- Percent of airports meeting the airport pavement management system (APMS) objective
- Percent of infrastructure within its useful life

GOAL #2 Transportation Options: Provide an airport system with available and cost-efficient transportation options for moving people and freight.

Performance Measures

- Percent of area and population within a 45-minute drive to any Tennessee commercial service airport
- Percent of area and population within a 30-minute drive to any Tennessee general aviation airport

GOAL #3 Safety and Security: Improve the safety and security of airport system users.

Performance Measures

- Percent of airports that have adopted an emergency response and/or security plan
- Percent of airports meeting federal design and safety criteria based on existing operations and current airport reference code (ARC)
- Percent of airports with approaches meeting state obstruction criteria

GOAL #4 Funding and Environment: Maximize federal, state, and local resources to meet airport system needs and minimize environmental impacts.

Performance Measures

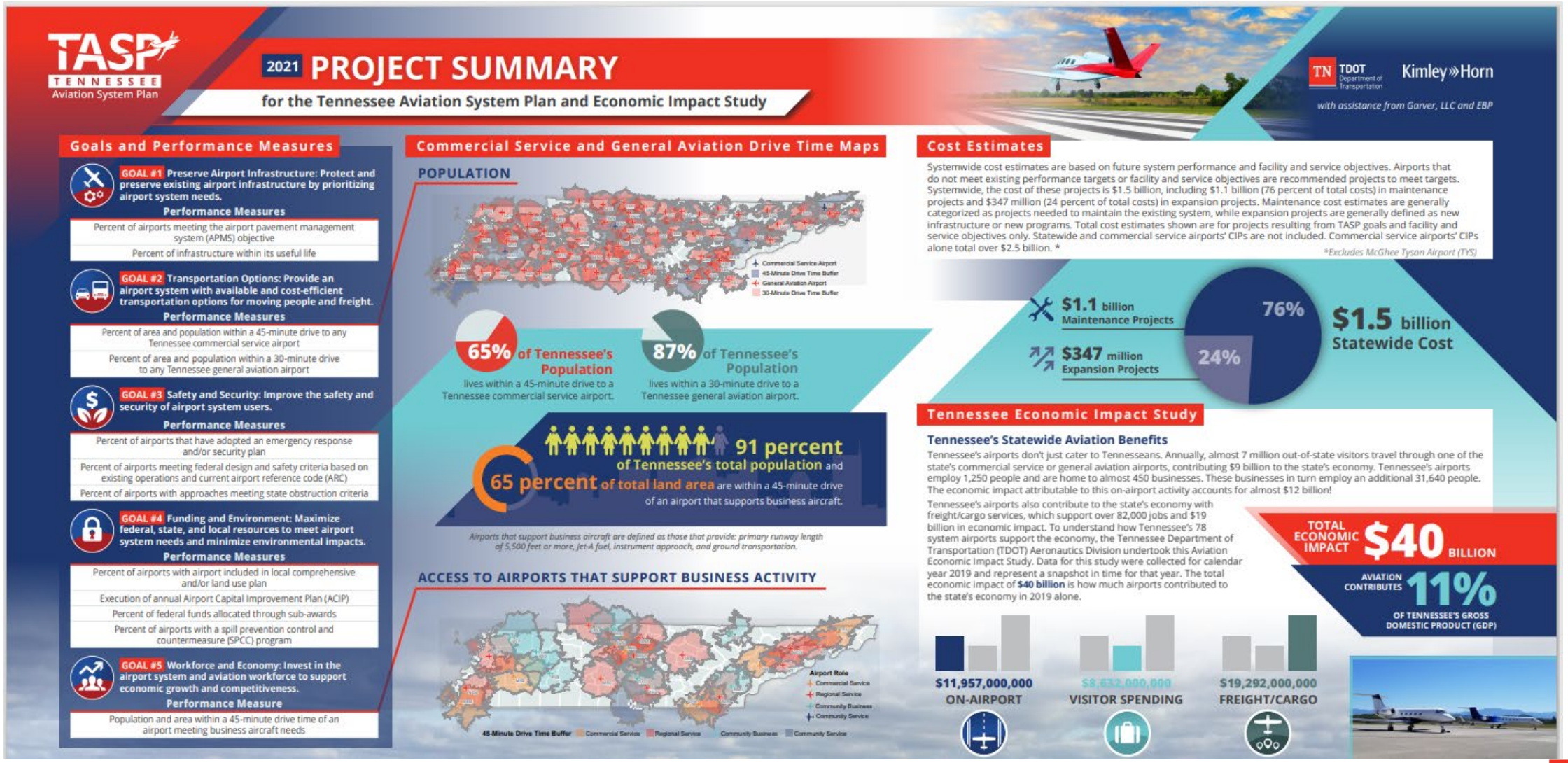
- Percent of airports with airport included in local comprehensive and/or land use plan
- Execution of annual Airport Capital Improvement Plan (ACIP)
- Percent of federal funds allocated through sub-awards
- Percent of airports with a spill prevention control and countermeasure (SPCC) program

GOAL #5 Workforce and Economy: Invest in the airport system and aviation workforce to support economic growth and competitiveness.

Performance Measure

- Population and area within a 45-minute drive time of an airport meeting business aircraft needs

TASP Update Report – *by April 2025*



Division Priorities

Aviation Safety and Compliance

Aviation Promotion, Workforce and Economic Development

Airport System Preservation and Investments

Aviation Safety and Compliance

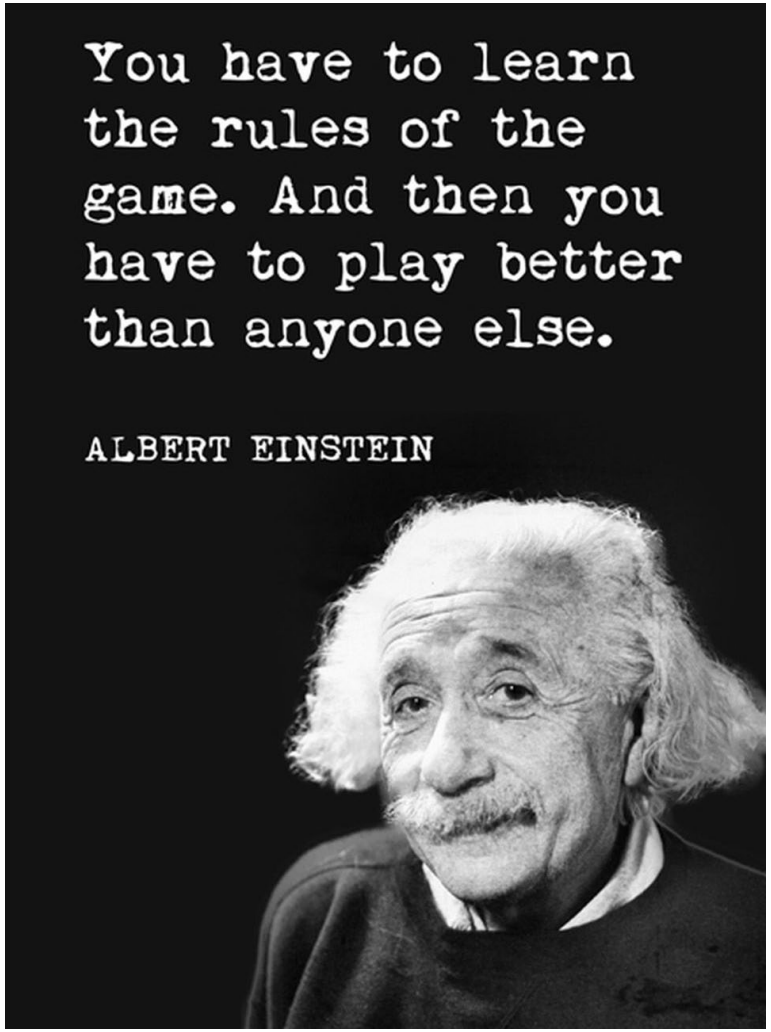
“Playing by the Rules of the Game”

Federal:

- Title 49, USC, Subtitle VII, Aviation Programs
- 2 CFR, Grants and Agreements
- 14 CFR, Aviation and Space
  - Part 13
  - Part 200
  - Part 48
  - Part 77
  - Part 89
  - Part 107
  - Part 156
- 49 CFR, Transportation:
  - Part 24,
  - Part 26,
- FAA Orders and Notices
- FAA Advisory Circulars
- FAA Policy and Guidance

State:

- T.C.A. Title 42, Aeronautics
- T.C.A. Title 5, Counties
- T.C.A. Title 5, Cities/Towns



Increase in Regulations

- Current ALPs
- Section 163 determinations
- Exhibit ‘A’ Updates and land ownership verification
- NEPA reviews
- Davis-Bacon Act and Copeland Act
- State and Federal contract provisions
- 7460s (Airspace Authorizations)
- Grant Assurances
- Design Criteria
- Wildlife Management
- DBE Program

Rules
Policies
Requirements
Regulations
Simple Solutions

Efforts to Lighten the Burden

Regulations/Requirements

- State shall maintain a current **ALP** for all airports, consistent with guidance found in FAA SOP 2 [dated 2013] and AC 150/5070-6 [dated 2015]. (49 U.S.C. § 47107)
- State should work with its sponsors to ensure that they update and maintain an **Exhibit "A"** in accordance with FAA SOP 3 [dated 2013] (49 U.S.C. § 47107(c)(2))

Simple Solutions

- ALP Project SOP for NPIAS Airports
  - Step by step guide
  - ALP Project Process Flowchart
  - ALP Review Checklists
  - ALP Work Authorization Template
  - Exhibit A Review Checklist
  - Exhibit A Process Flowchart
- Land ownership verification conducted by TDOT
- On-call services to complete Exhibit A updates

Efforts to Lighten the Burden

Regulations/Requirements

- State assumes responsibility for compliance with the **National Environmental Policy Act of 1969** (**NEPA**, 42 U.S.C. §§ 4331 – 4336)
  - Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500-1508), and
  - FAA Order 1050.1, *Environmental Impacts: Policies and Procedures [2015]* and
  - FAA Order 5050.4, *NEPA Implementing Instructions for Airport Actions [dated 2006]*

Simple Solutions

- TDOT Environmental SOP 2.0 – *Updated!*
  - Shortened and more concise
  - Streamlined process for Simple Written Records
  - Clear, published Environmental Submittal Schedule
- Webinar on March 12th at 10 AM CDT!
  - Contact Evan Lester

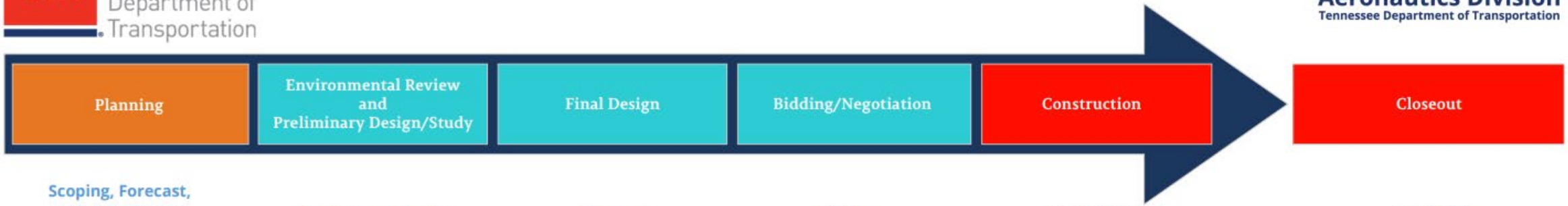
Efforts to Lighten the Burden

- **Davis-Bacon Act** (certified payrolls)
- **7460s** (Airspace Determinations)
- **Section 163** (*2018 FAA Reauthorization*)
- **Wildlife Management**
- Compliance with **Grant Assurances**

Aeronautics Development Phase Requirements Checklist

TN TDOT Department of Transportation

Aeronautics Division
Tennessee Department of Transportation



Scoping, Forecast, and 30% Plan Set

- ☐ Scoping Minutes
- ☐ AGIS SOW approved
- ☐ AGIS Survey
- ☐ Forecast, 30% Narrative
- ☐ Existing ALP drawing set
- ☐ RSAI/RSAD

STOP - Forecast Approval/ Notice to Proceed needed

60%

- ☐ Meeting Minutes
- ☐ 60% ALP drawing set
- ☐ Exhibit A draft *(50% payment)*
- ☐ Alternatives Discussion
- ☐ 60% Narrative Report
- ☐ AGIS verified

90%, & Final Submittal

- ☐ Final ALP *(with Ultimate)*
- ☐ ALP Checklist
- ☐ Narrative Report
- ☐ RSAD
- ☐ Exhibit A
- ☐ Exhibit A Checklist
- ☐ RPZ Alternatives Analysis *(If applicable)*

STOP/Request New Grant

Preliminary Study

- ☐ Pre-design meeting w/minutes
- ☐ Fee Proposal/s
- ☐ Work Authorization/s
- ☐ Geotechnical Investigation *(if applicable)*
- ☐ Site Survey/Inspection
- ☐ Wildlife Hazard Assessment/Site Visit *(if applicable)*
- ☐ Utility Mapping
- ☐ Alternatives Analysis
- ☐ 30% Design documents
- ☐ TDOT Environmental Determination Checklist
- ☐ Approved NEPA review *(Simple Written Records)*
- ☐ RSA Determination *(if triggering event)*
- ☐ Itemized EOPCC *(30%)*
- ☐ Preliminary Report
- ☐ Approach Procedure Impacts?

Stop - Request Amendment

Design

- ☐ Scoping Meeting Minutes
- ☐ Fee Proposal/s
- ☐ Work Authorization/s
- ☐ Approved NEPA review *(other than SWRs)*
- ☐ FONSI/ROD *(if applicable)*
- ☐ Plans and Specifications
- ☐ CSPP
- ☐ SWPPP *(per NPDES Permit)*
- ☐ MOS *(if needed)*
- ☐ Engineer's Report *(Per Table 3-20, Order 5100.38D)*
- ☐ FAARFIELD design report
- ☐ Approved 7460 (Letter of Determination)
- ☐ EOPCC (final)
- ☐ DBE/MBE/WBE Contract Goal (if applicable)
- ☐ Construction Management Plan (paving >$500k)

Obtain approval from TDOT before proceeding with Bidding

Bidding

- ☐ Copy of Advertisement
- ☐ Pre-bid Meeting w/ Minutes
- ☐ Complete set of Addenda *(if applicable)*
- ☐ Bid Opening
- ☐ Certified Bid Tabulations
- ☐ Construction Contract
- ☐ Approved Permits *(if applicable)*
- ☐ DBE Award Information or GFE Documentation (LOI & Utilization Statements)
- ☐ Letter of Recommendation to Award
- ☐ Executed Contract Documents
- ☐ IFC plans & specs

Stop/Request New Grant

Construction

- ☐ Fee Proposal/s
- ☐ Work Authorization/s
- ☐ Pre-Construction Meeting (Agenda, Attendance List and Meeting Minutes)
- ☐ Timely Certified Payroll Submittal Attestations
- ☐ Schedules
- ☐ Notice to Proceed (signed by Sponsor)
- ☐ Materials Submittal approvals
- ☐ Contractor Quality Control Program (CQCP)
- ☐ Inspection Records and Photos
- ☐ Progress Meeting Minutes
- ☐ Change orders and Supplemental Agreements
- ☐ Federal Labor Provisions (Davis-Bacon, CWHSSA, OHSA, Copeland "Anti-kickback" Act):
- ☐ Payrolls (wh347), Interviews (SF1445)
- ☐ Buy American Waivers (as needed)
- ☐ MOS (if needed)
- ☐ Notice of Substantial Completion
- ☐ Contract Commitments/ Awards and Payments Reports

Closeout

- ☐ Final Inspection/Punch-list documentation
- ☐ Final Construction Report
- ☐ As-built/Revised/Updated ALP
- ☐ Summary of material testing report
- ☐ Final change order/s
- ☐ Construction Meeting Minutes *(complete set)*
- ☐ Warranty Letter
- ☐ Final project reports including financial summary
- ☐ AGIS *(per AC 150/5300-18B)*
- ☐ 5010 Updates (Sponsor responsibility)
- ☐ Flight Check *(if required)*

Contractor Final Project Documentation *(AC 150/5370-10H paragraph 90-11)*

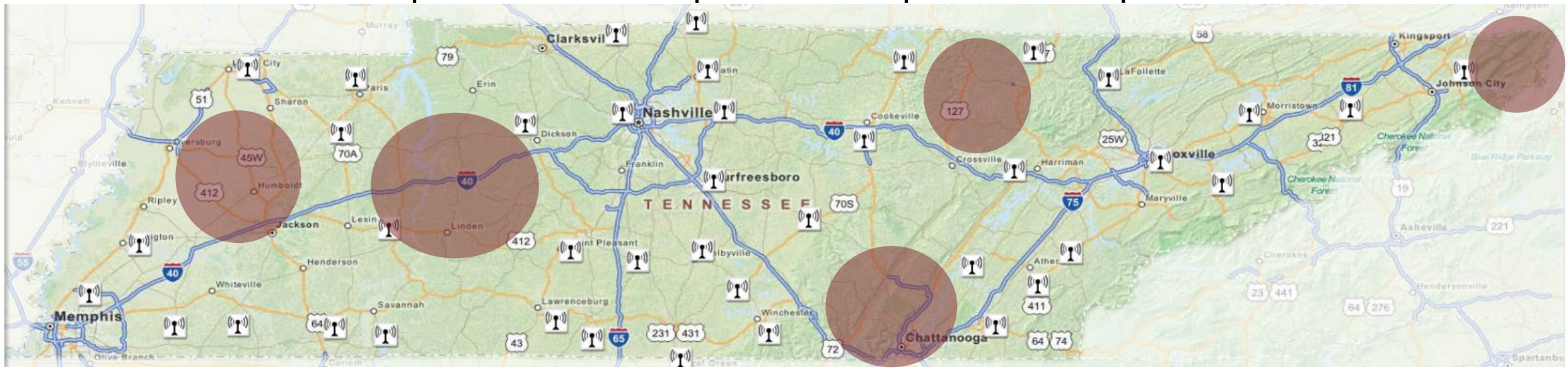
- ☐ Manufacturers warranties
- ☐ Release of Liens, all claims for labor and material
- ☐ Record drawings or as-built drawings
- ☐ Certified statements of amounts paid to DBEs *(if applicable. TDOT CC-3 form)*
- ☐ Manufacturer's certifications FAA/TDOT Forms
- ☐ Update Work History for Pavements
- ☐ TDOT Project Closure Letter *(Sponsor responsibility)*
- ☐ As-built RSAD (if applicable)

Disclaimer: This checklist is intended as a tool to identify potential tasks and deliverables in respect to each phase of development. It is not comprehensive. Additional requirements may be necessary, or some requirements may not be applicable, based on each individual project. Please consult the respective TDOT Aeronautics Project Manager with any questions.

Revision Date: 7/5/22

Safety

- AWOS network expansion and replacement plan development (March 2025)

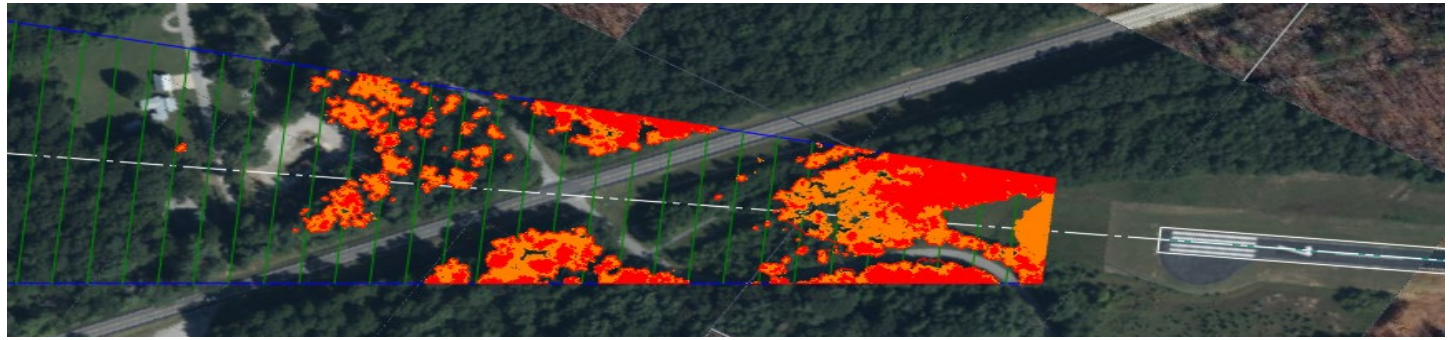


http://www.tdotawos.com/main

- Statewide Operations Data Counter Program

Safety

- Airport Licensing
  - Conditional Licenses
    - Statewide obstruction survey and data collection for approaches



    - Delegated Authority (DA) to contract tree clearing/trimming in select cases
  - Rules of Aeronautics Update (*in draft*)
    - Improving terminology and better organizing the content. Last revised in 1987.
    - Clarifying Minimum Airport Standards for:
      - paved runways,
      - unpaved runways, and
      - heliports

Aviation Promotion, Workforce and Economic Development

High School Aviation Promotion & Education

- Partnership with AOPA Foundation: **YOU CAN FLY**
  - Designed to rebuild pilot population and aviation industry

- Four-year STEM program with two tracks:
  1. Pilot
  2. unmanned aircraft systems or drones
- Leads to a certification or industry-accepted test:
  - FAA Private Pilot knowledge test, or
  - Part 107 drone pilot certification

- Help connect us with educators in your communities!

More info coming soon!

AOPA | YOU CAN FLY

Karla Smith
Manager
High School Initiative

o. 301.695.2161 | m. 931.581.5558
karla.smith@aopa.org
807 William Northern Boulevard
Tullahoma, TN 37388

AirTAP

- **TAP** = Technical Assistance Program
  - Recognize the need for more in-person training
  - Tasked Kimley-Horn with:
    - Mission/content development,
    - Program graphic design, &
    - Pilot course implementation
- Pilot Course will launch in February 2025
- Other states with demonstrated success:

NC AirTAP

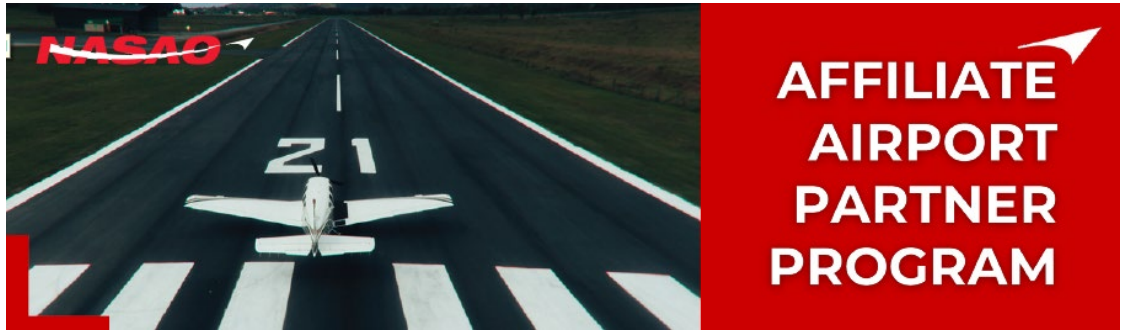
Division of Aviation
North Carolina Department of Transportation

FAPA
Florida Aviation Professionals Academy

University of Minnesota
Driven to Discover®
AirTAP
Airport Technical Assistance Program

NASAO Affiliate Airport Partner Program

- Resources
  - NASAO Aviation Data Report
  - Membership Directory
  - Webinar Participation
  - **Aviation Online Training Program**
    - Program offers 30 courses across 7 modules
    - Modules:
      - 1.Airport Setting
      - 2.Partners
      - 3.Planning
      - 4. Environmental Planning
      - 5. Engineering
      - 6. Funding – Coming soon!
      - 7.Public Outreach – Coming soon!



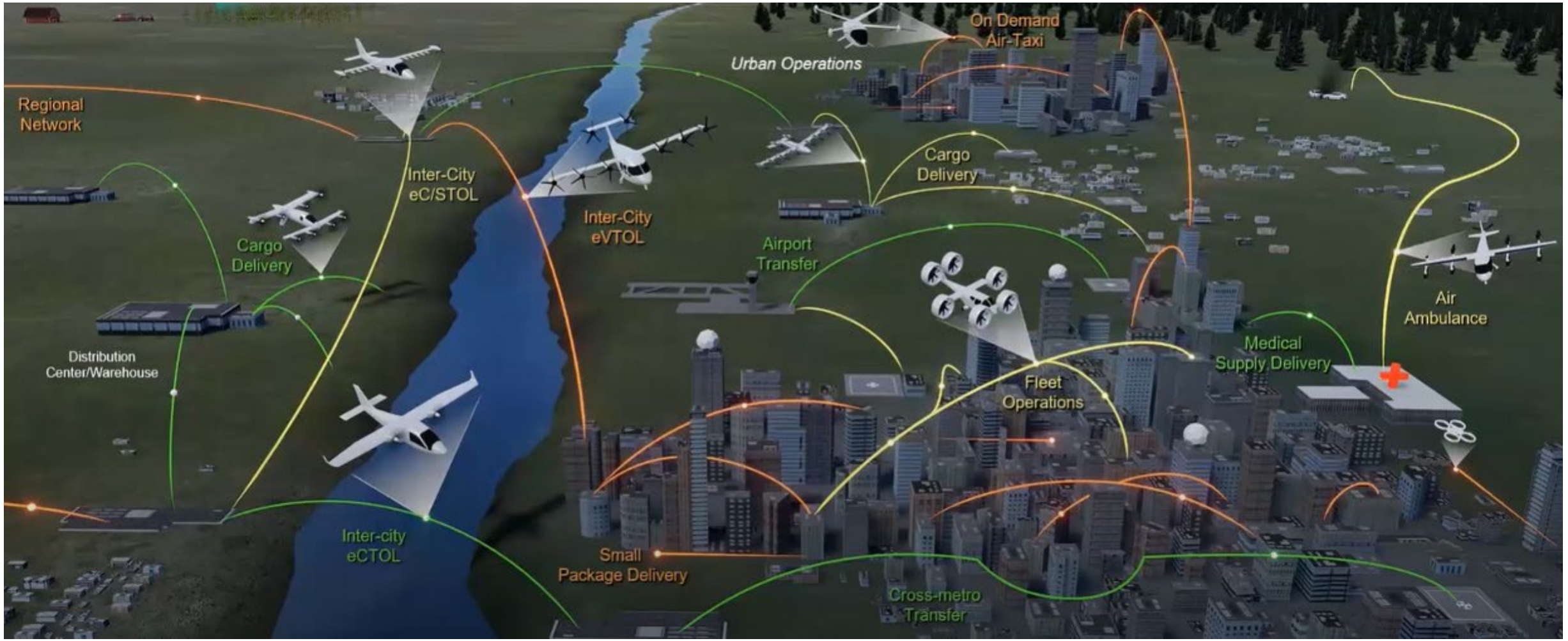
New or seasoned aviation professionals looking for an introduction to or refresher on the airport environment

- **<u>State funded membership</u>** for airports wanting to opt-in
- Look for a survey in the coming weeks!

Airport Self-Sustainability

- Financial
  - Hangar FMV Fees, Rates, and Charges
  - Guidance and resources coming this June!
- Power/Energy
  - Solar
    - Reduced dependence on electrical grid
- Sustainable Aviation Fuels (SAF)
  - Electric Aircraft Charging Stations
    - Reduced emissions
  - Unleaded Avgas (100UL)
    - Cleaner aircraft emissions

UAS & AAM



TN TDOT Department of Transportation

UAS - Uncrewed Aircraft Systems

AAM – Advanced Air Mobility

UAS & AAM

- Infrastructure
- Develop AAM framework
- Outreach/Advocacy/Recruitment
- Funding
- Education/learning
- Collaboration/partnerships
- Community Engagement
- Policy

Focused on Early Wins

Source: https://dronexl.co/2024/02/11/drone-delivered-popeyes-chicken-wings-super-bowl/

Airport System Preservation and Investments

Submitting Funding Requests

- NEPA is critical step for Preliminary and Final Project Formulation
  - EDC due one month before Preliminary Request
  - Environmental Review document due one month before Final Design

- Changes in estimated costs over the life of the project must be communicated
  - “living estimates”
  - Changes have potential to impact the entire program
  - Communicate each time cost estimate are adjusted/updated

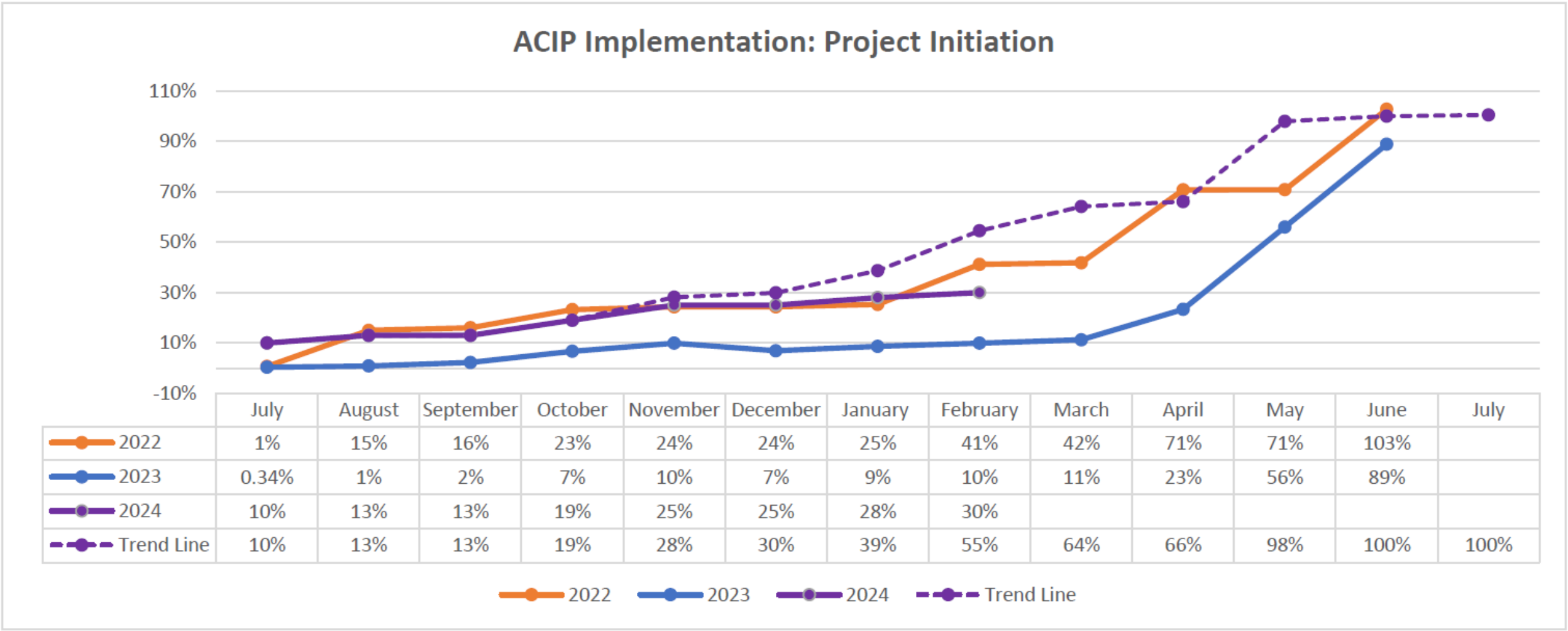
- Coordinate early and often with your respective Aeronautics staff!

Project Prioritization

- State Priority Rating (SPR) Takeaways
  - Nearly all funded projects were for rehabilitation, replacement, or obstruction removal
  - Runway related projects and underground storage tank (UST) removal also scored high

Environmental-Preliminary Studies	13
Construction	7
Obstruction-Clearing/Trimming	4
Land-Acquisition	3
Design-Final Design and Bidding	2
Obstruction-Survey/Design	1
Planning	1
Land-Study	1

ACIP Execution



	July	August	September	October	November	December	January	February	March	April	May	June	July
2022	1%	15%	16%	23%	24%	24%	25%	41%	42%	71%	71%	103%	
2023	0.34%	1%	2%	7%	10%	7%	9%	10%	11%	23%	56%	89%	
2024	10%	13%	13%	19%	25%	25%	28%	30%					
Trend Line	10%	13%	13%	19%	28%	30%	39%	55%	64%	66%	98%	100%	100%

ACIP Development Process Improvements

- TAA Working Group Feedback
  - Application choices will be simplified starting July 1, 2024
    - Development, Equipment, and Land
    - Planning
- ACIP's historically have been a heavy lift for airport and consultants
  - New solution will benefit everyone
  - Will lay out new plan at GARMs (General Aviation Regional Meetings)

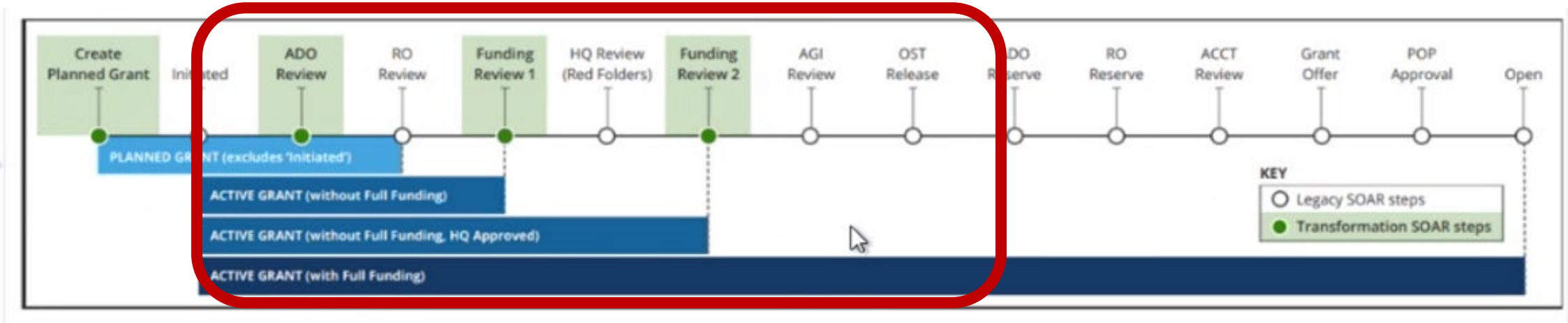
New Strategies: Procurement

- Cooperative Purchasing Agreements (Sourcewell)
  - Airfield Pavement and Marking Maintenance (Hi-Lite Airfield Services)
  - Airport Runway Materials with Related Supplies and Services (ADB Safegate Americas, LLC)

- Airport Maintenance Grant amendments
  - Ability to add up to $5,000 by showing proof of expense or proof of need.
    - Prefer for 75% or more to be expended.
  - Amendment applications accepted through May 31, 2024.
    - “State” application type in BlackCat

New Strategies: Expediting the BIL AIG Process

- Construction Grants
  - Once Environmental Finding is complete, application initiated based on estimates.
  - Must have firm bid date that occurs before OST release.
  - After HQ approval and OST release, bids are needed to complete the process.



- End of Federal year considerations
  - Bid dates must occur by end of June. July or later will be postponed to October.

Recap

Aviation Safety and Compliance

- “Rules of the Game”
- Safety
- Licensing

Aviation Promotion, Workforce and Economic Development

- AOPA High School Curriculum
- AirTAP
- NASAO Affiliate Airport Partner Program
- Airport Self-Sustainability
- UAS & AAM

Airport System Preservation and Investments

- Submitting Funding Requests
- Project Prioritization – SPR takeaways
- ACIP Execution
- ACIP Development Process Improvements
- New strategies

2024

March
- NASAO Affiliate Airport Partner Program

May
- GARMs

June
- Rates and Charges

August
- ACIP submittal deadline

October
- Ops Data Counter Installation begins

2025

February
- AirTAP Pilot Course

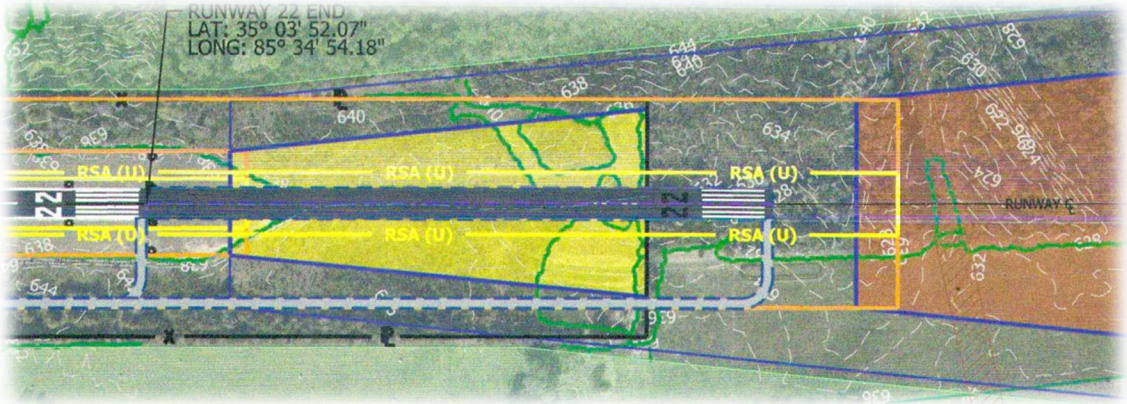
March
- AWOS Expansion Plan

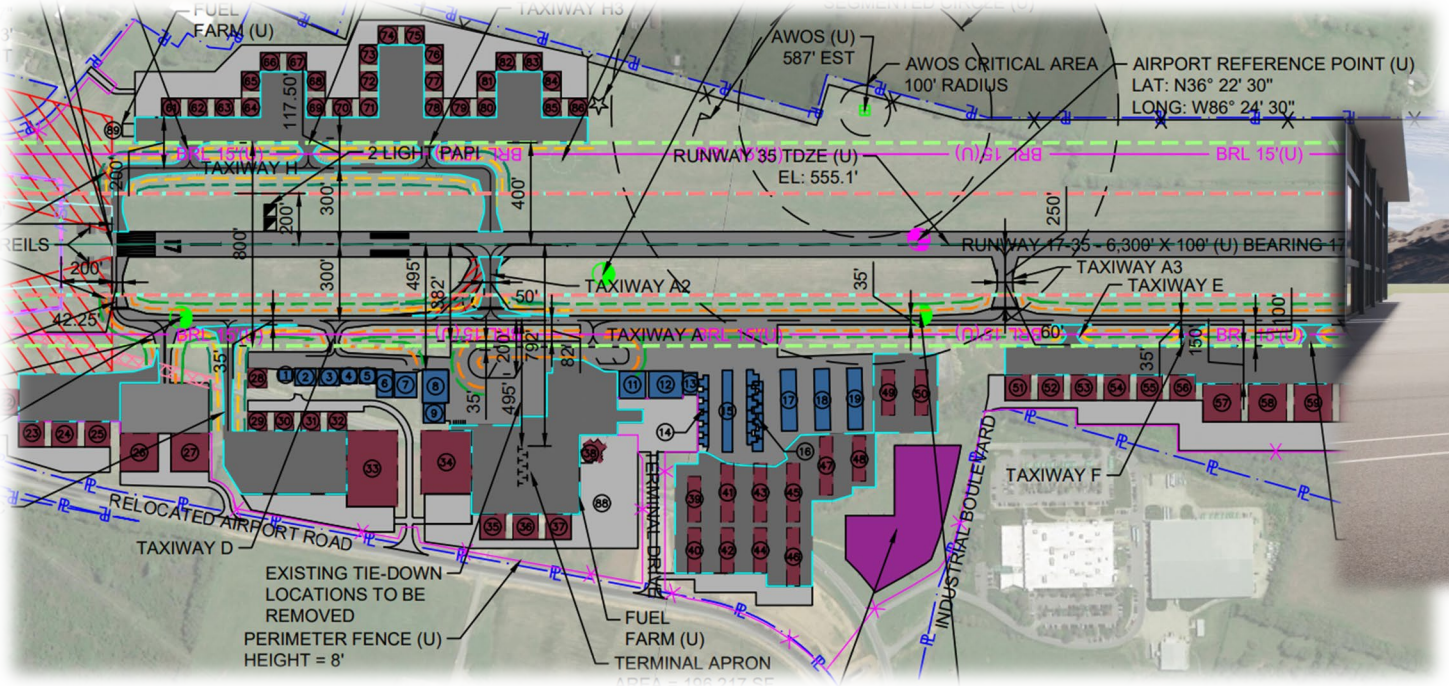
April
- TASP Update Report

TDOT Department of Transportation

What's your vision for the future?

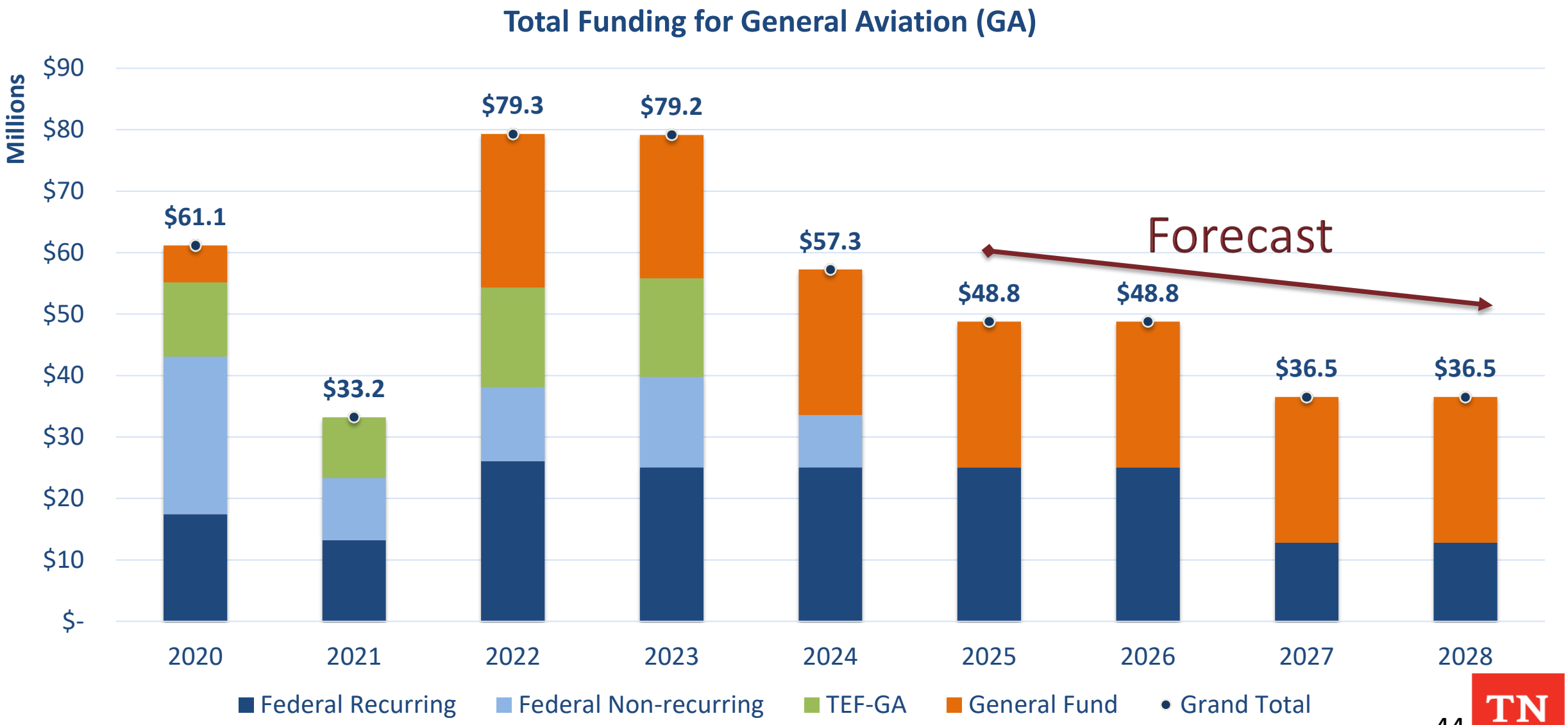
Source: https://kittyhawk.farm





Source: https://www.whisper.aero/

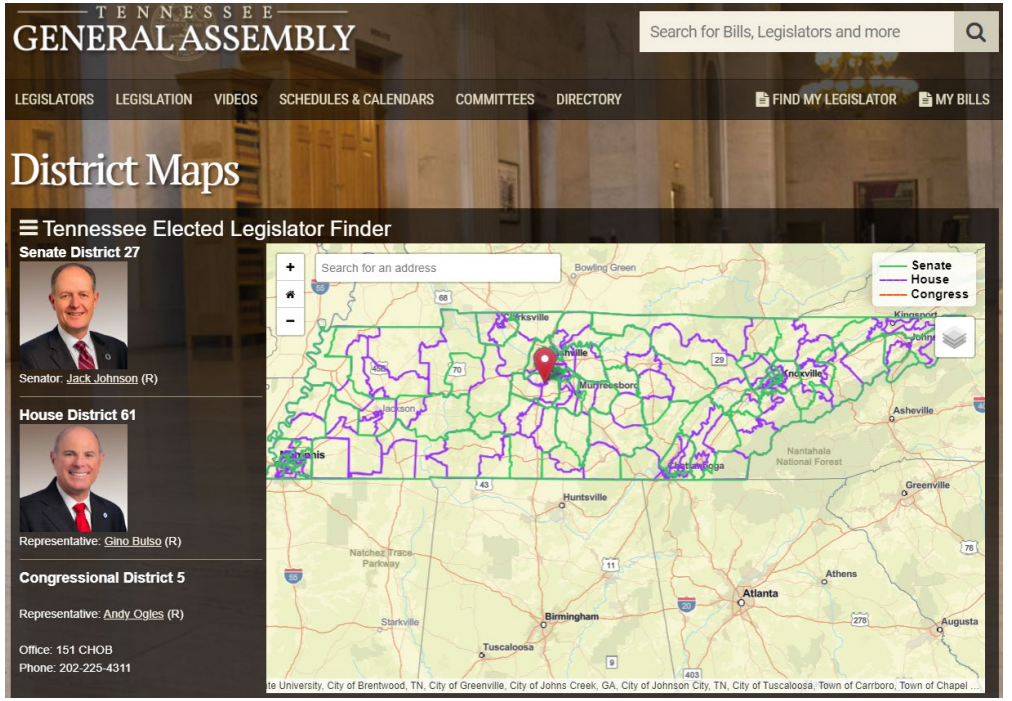
Funding


Total Funding for General Aviation (GA)
Millions
$90
$80
$70
$60
$50
$40
$30
$20
$10
$-
$61.1
$33.2
$79.3
$79.2
$57.3
$48.8
$48.8
$36.5
$36.5
Forecast
2020
2021
2022
2023
2024
2025
2026
2027
2028
Federal Recurring
Federal Non-recurring
TEF-GA
General Fund
Grand Total

We need your help!

- **Funding Advocacy from Airports**
  - TN General Assembly: Find Your Legislator tool https://wapp.capitol.tn.gov/Apps/fml2022/search.aspx
  - Write letters, schedule visits/meetings, tell them about the value of your airport and need for additional funding above current amounts!

- Register for the General Aviation Regional Meetings (**GARMs**)!
  - Knoxville TYS 510 Center — Tues. May 14th
  - MBT Conference Room — Thurs. May 16th
  - Jackson Region 4 Auditorium — Mon. May 20th
  - *Communications sent out on 2/29/24. Registration ends 4/12/24!!*



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Q&A