



Collins Aerospace
An **RTX** Business

Digital Tower Technology

Presentation for the North Central Texas Council of Governments

August 2025

AGENDA

- Introduction
- Remote Tower Technology Brief
- Strategies for Texas
- Discussion

WHAT IS A DIGITAL TOWER?

MAIN COMPONENTS

Virtual Remote Tower Center/Remote Control Module

- 4K visual panorama main “out the window” camera views with digital information overlays
- Surface Movement Manager, Integrated Radios, Telecom, Workstations
- Closed system with dedicated fiber connectivity

Remote Control Airfield Primary Cameras

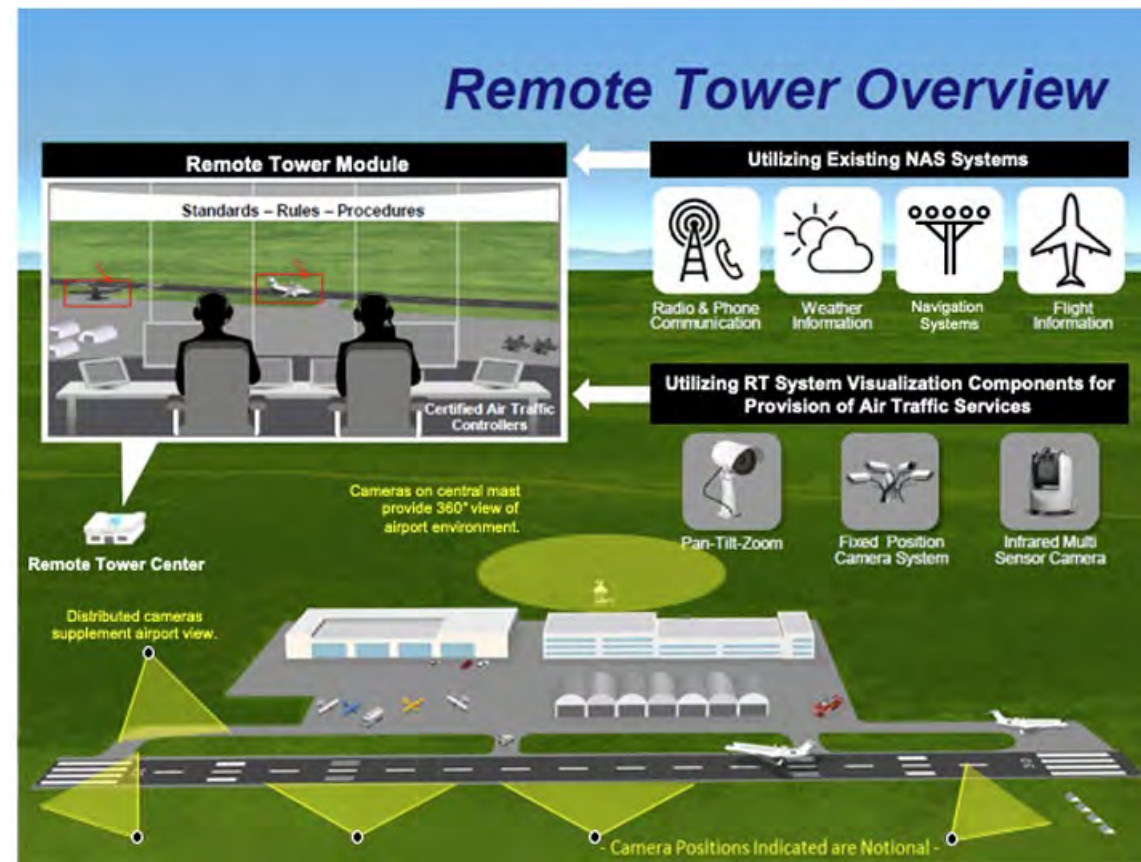
- Flexible deployment options using mast, building, or existing infrastructure
- High definition and 4K camera technology
- Dual redundant design for continuity
- Motion detection

Remote Control Airfield Secondary Cameras

- Approach Cameras
- Pan-Tilt-Zoom (PTZ)
- Thermal cameras and light gun

ATC Automation

- Surface Movement
- Flight Strips
- Terminal Traffic Displays
- Weather
- Airport Systems
- Connectivity to FAA TFDM



Source: Federal Aviation Administration

REMOTE TOWER GLOBAL IMPACT

- Adoption in Europe, Asia, Canada, Middle East
- 30+ towers operational globally
- Remote Tower Centers in Operation
 - RTCs managing multiple airports (e.g. Sweden, Norway, UK)
 - Expansion of RTCs planned in Italy and Belgium
- Staff and Cost Efficiencies
 - Centralized adoptions lead to approx. 30% staffing efficiencies*
 - Reduced training, overhead, and night operations staffing

TRADITIONAL TOWER VS REMOTE TOWER



Traditional Tower

- Aging infrastructure in need of replacement
- High replacement cost
- Facilities are fixed by function and may limit airport expansion
- Susceptible to natural disasters

Next generation airport ATC facilities

- High fidelity situational awareness with SOA sensors
- Reduces ATC implementation & operational costs
- Flexible configuration that can be easily changed as the airport expands
- Increases airport revenue opportunities by opening up space used for traditional towers

Remote Towers Offers a Flexible Cost Effective Solution

DIGITAL TOWER TECHNOLOGY – CERTIFICATION PROCESS

Certified by ICAO, FAA Certification In Process:

- FAA Reauthorization Act of 2024
 - Mandates clear approval process
- System Design Approval (SDA)
 - FAA's process for qualifying ATC systems
 - Consists of product / process testing, documentation, reviews and operational evaluation
 - Centralized testing and evaluation at KACY test bed
 - Reduces risk to FAA and airport sponsors in the case the vendor system cannot meet FAA standards
- SDA Roadmap
 - Standard Terminal Automation Replacement System(STARS) integration
 - Single Runway Certification (Anticipated in 2026)
 - Complex Runway Certification
 - Remote off-site consolidated ATCT operations
- Test Sites (Existing, Emerging, Former)
 - FAA William J Hughes Technical Center
 - 2013 NextGen Towers (SNT) DFW Study
 - Northern Colorado Regional Airport
 - Colorado Consortium
 - Florida Consortium

PLANNING FOR A REMOTE TOWER

Same General Process as Traditional

- Airport Master Plan and Airport Layout Plan documentation
- Include in Capital Improvement Plan
 - FAA Airport Improvement Program (AIP)
- Airports prepared for digital tower upon SDA

Specific Tasks to Enable Implementation

- System Siting (AFTIL Process)
- Concept of Operations (Single Site)
- FAA Non-Federal Acquisition Coordination
- Preliminary Requirements
- Development of Request for Proposal
- Request for Proposal and Vendor Selection
- Final System Design
- Construction/Implementation
- Test and Evaluation
- System Acceptance
- System Maintenance
- System Technology Refresh

STRATEGIES - PARTNERSHIPS

PARTNERSHIP

- FAA
- US Department of Transportation
- Texas Department of Transportation
- Texas Airports Council
- NASA/FAA North Texas Research Station

STRATEGIES

SINGLE AIRPORT

- FAA Contract Tower Airports
- AIP Eligible
- Deployment
 - Single Runway
 - Parallel and Complex Runway Airports

CONSOLIDATED FACILITY

- Multiple airports combined into a single facility
- State, Regional, or Metropolitan Approach
- AIP Eligible
 - Airports could share costs
- Consolidated staff offers efficiencies
 - e.g., Sweden consolidated facility
 - Four airports
 - Co-located staff
 - Reported 30% staff efficiency improvements*

DEPLOYMENT STRATEGIES IN TEXAS



Tower Owner	Airport ID	Airport	Owner	Manager	Phone	ARTCC	FCT Tower Age (2024)	RWYS
Sponsor	SGR	Sugar Land Rgnl	City Of Sugar Land	Elizabeth V. Rosenbaum	281-275-2100	ZHU	20	1
Sponsor	TKI	Mckinney Ntl	City Of Mc Kinney	Ken Carley	972-547-3401	ZFW	46	1
Sponsor	TME	Houston Exec	Wcf Llc	Andrew Perry	281-945-5000	ZHU	64	1
FAA	BRO	Brownsville/South Padre Island Intl	City Of Brownsville	Angel Ramos	956-459-1227	ZHU	34	2
Sponsor	CLL	Easterwood Fld	Texas A&M University System	Kevin Davis	979-775-9901	ZHU	46	2
Sponsor	EDC	Austin Exec	Travis County Field Llc	Andrew Perry	512-247-7678	ZHU	update data	2
Sponsor	GYI	North Texas Rgnl/Perrin Fld	Grayson County	Bill Magers	903-786-2904	ZFW	62	2
FAA	MFE	Mc Allen Intl	City Of Mc Allen	Jeremy Santoscoy	956-681-1500	ZHU	56	2
Sponsor	RBD	Dallas Exec	City Of Dallas	Rafael Garza Jr.	214-670-7612	ZFW	49	2
Sponsor	SSF	Stinson Muni	City Of San Antonio	Morris Martin	210-207-1800	ZHU	60	2
Sponsor	HRL	Valley Intl	City Of Harlingen	Marv Esterly	956-430-8605	ZHU	48	3
FAA	LRD	Laredo Intl	City Of Laredo	Gilberto Sanchez	956-795-2000	ZHU	45	3
Sponsor	SJT	San Angelo Rgnl/Mathis Fld	City Of San Angelo	Justin Fletcher	325-659-6409	ZFW	65	3
FAA	TYR	Tyler Pounds Rgnl	City Of Tyler	Steve M. Thompson	903-531-2343	ZFW	44	3

Source: FAA NASR, 2024

FCT Program Airports, 20+ Tower Age, All Runways

Phase by color and # of Runways ● 1 ● 2 ● 3

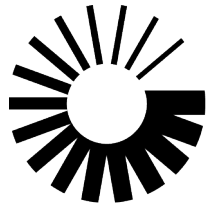


ADDITIONAL RESOURCES

- *Evans, Ginger, and Marc Scribner. 2025. *Advancing Remote Tower Deployment in the United States*. Reason Foundation. May. <https://reason.org>
- Van Beek, Stephen D. *Remote Air Traffic Control Towers: A Better Future for America's Small Airports*. Policy Brief No. 143. Los Angeles: Reason Foundation, July 2017. <https://reason.org>.

Discussion

- Questions and Comments?

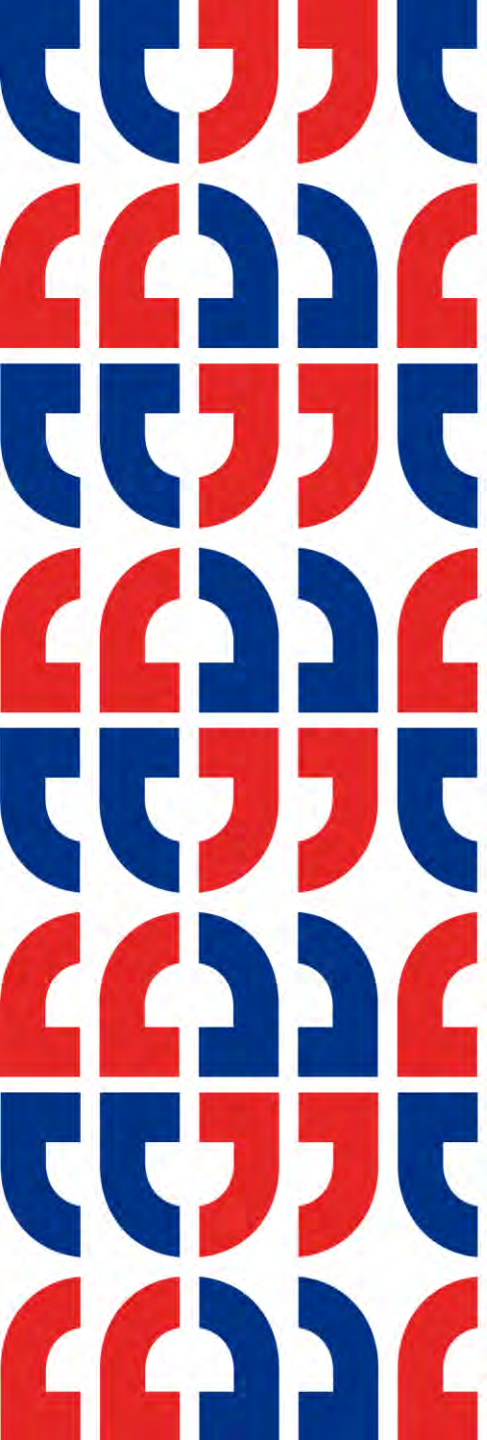


Collins Aerospace
An **RTX** Business

Thank you

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Aviation Maintenance Technology at Dallas College

August 2025

Airframe and Powerplant Program



Milestones:

- Complete hangar renovations (Starting soon)
- Set up hangar IT infrastructure (In-process)
- Receive and install equipment (In-process)
- Develop marketing strategy (In-process)
- Conduct FAA demonstration and hangar walkthrough (Starting soon)
- Conduct Ribbon Cutting Event (planning, tentative)

(At High Risk)
Operations

Milestones:

- Move into hangar (At High Risk)
- Complete hangar renovations (Starting soon)
- Set up hangar IT infrastructure (In-process)
- Receive and install equipment (In-process)
- Finalize course design (In-process)
- Conduct FAA precertification meeting (conducted)
- Develop marketing strategy (In-process)

Milestones:

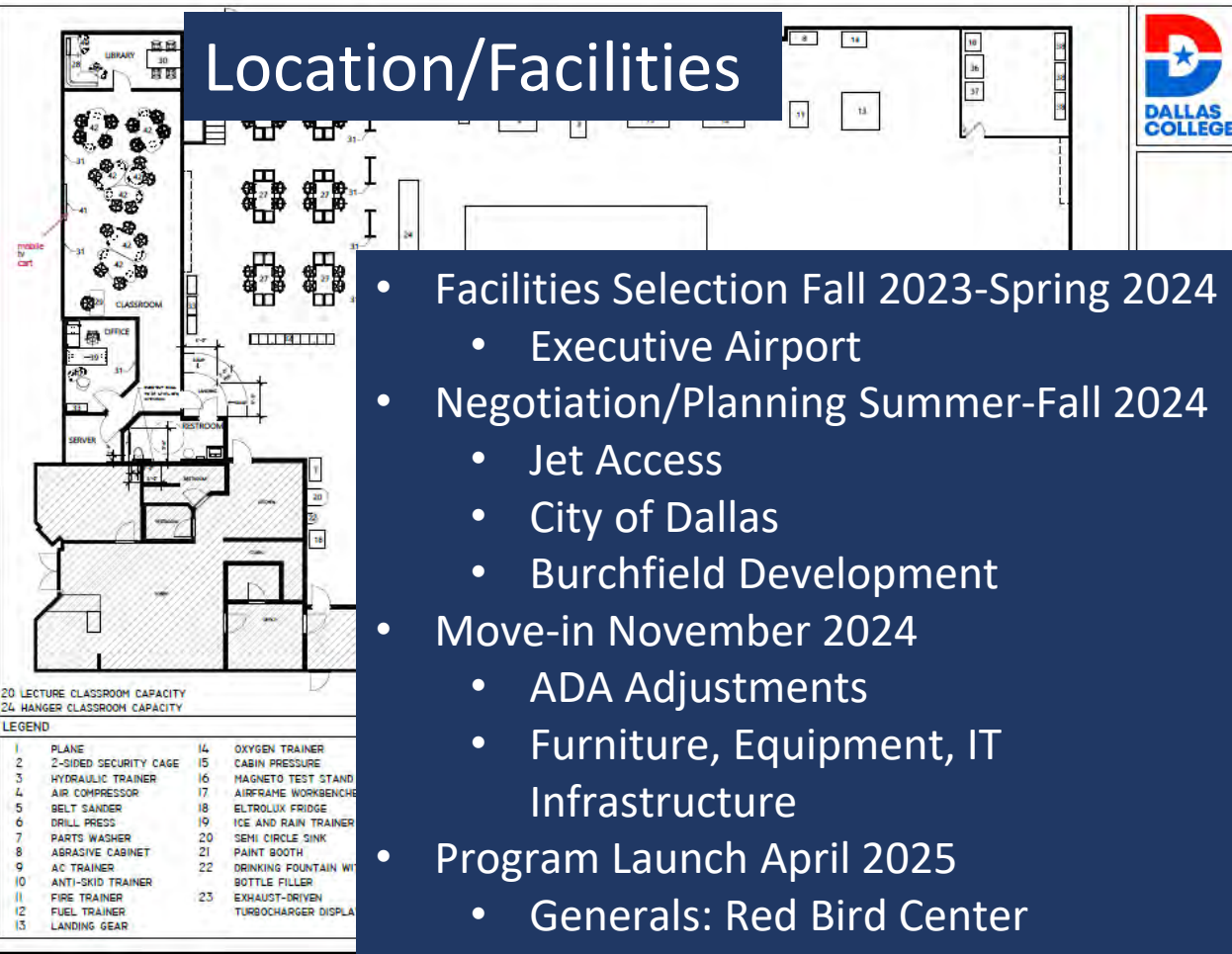
- Achieve (complete)
- Register (complete)
- Move into hangar (At High Risk)
- Complete hangar renovations (Starting soon)
- Set up hangar IT infrastructure (In-process)
- Receive and install equipment (In-process)
- Finalize course design (In-process)
- Conduct FAA precertification meeting (conducted)
- Visit SWA disassembly warehouse (In-process)
- Develop marketing strategy (In-process)

subject specialist (In-process)
Ribbon Cutting Event (planned)

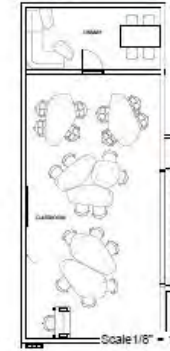
Location/Facilities



- Facilities Selection Fall 2023-Spring 2024
 - Executive Airport
- Negotiation/Planning Summer-Fall 2024
 - Jet Access
 - City of Dallas
 - Burchfield Development
- Move-in November 2024
 - ADA Adjustments
 - Furniture, Equipment, IT Infrastructure
- Program Launch April 2025
 - Generals: Red Bird Center
 - Airframe and Powerplant: Hangar at Executive Airport



Classroom & Library - Final



KI Strive Chair
Groupworks Flip Table



KI Strive Chair and Stool
Elbrook Tables - Mix of 30"H and 42"H

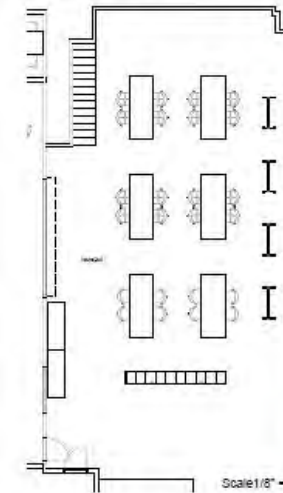


Cubo Barstools
B-free Table



Away from the Desk Banquette
Elbrook Personal Table

Hangar - Final

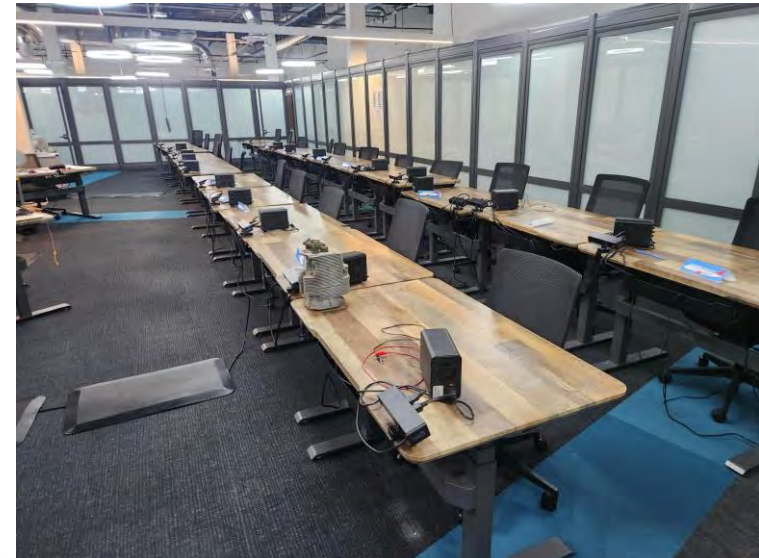


KI Strive Chair and Stool
Formaspace Table with Storage - Mix of Seated and Standing



Formaspace Open Shelving

Facilities Over Time - Red Bird Center



Facilities Over Time: Hangar



Equipment / Donations



DeSoto High School

Southwest Airlines

LH & RH main
landing gear
Nose landing gear



Wing
Reciprocating
engine frames
with cylinders
Sheet metal
hardware
Safety wire



Prime Turbine



Curriculum



8-week semesters

Developed in partnership with
Aviation Education Academy

Lessons developed by faculty

13-months total

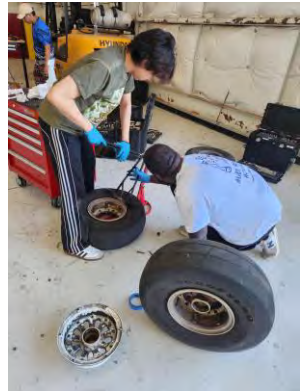
4 days full-time in person
instruction (8:30am-4:30pm)

Time for exams after
General, Airframe,
Powerplant

1 day hybrid instruction



On-Site Airport Experience



- ✓ FOD Walk
- ✓ Landing Gear Inspection
- ✓ Tubing Flaring
- ✓ Hose Fitting Assembly

CAF

Tour & Pre-Inspection
Wash on the L2



Boutique Air

Towing





Real-World Experience Through Job Shadowing

American
Airlines

CAF

Coast
Flight

JetsMRO

Just Plane
MX

Mike
Craig
Aviation

Texas
AOG

Interested in hosting
job shadowing
opportunities?

Practical Skills and Knowledge Gained

Aircraft Troubleshooting: Hands-on experience with a Citation XLS, Cessna 206, Citation 560, and Challenger 300

Key Learning Areas: Mastered weight and balance, FAR regulations, hydraulic systems, and skydrol use.

Practice Experience: Involved in component replacements, NVM fault downloads, and troubleshooting with Honeywell and Bombardier.

Troubleshooting Challenges: Gained insights into human factors, stress, and environmental impact on maintenance.



Cohort Milestones

General Courses Completed



1st 8-weeks
April 1 – May 23

Shop Practices
Basic Electricity
Aviation Science

2nd 8-weeks
May 27 – July 18

Ground Operations
Aviation Inspection & Human Factors
Federal Aviation Regulations
Weight & Balance

July 21 – July 25

FAA General Written Exam





Student Journey Ahead

Airframe

1st 8-weeks

July 28 – September 19

2nd 8-weeks

September 22 – November 14

3rd 8-weeks

November 17 – January 16

Powerplant

1st 8-weeks

January 26 – March 27

2nd 8-weeks

March 30 – May 22



AMT Academic Leadership



School of Manufacturing and Industrial Technology (MIT) Advanced Transportation Technology



Dr. Veronique Tran
Vice Provost



Carlos Ojeda
Department Chair



Questions



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NCTCOG PRESENTATION

89th TEXAS LEGISLATURE FINAL ACTIONS

JACKIE NOLASCO

AIR TRANSPORTATION ADVISORY COMMITTEE

COMMITTEE MEETING | AUGUST 7, 2025

89th TEXAS LEGISLATURE OVERVIEW

- January 14, 2025 – First day of Session
- June 2, 2025 – Last day of Session
- June 22, 2025 – Last day Governor could veto bills or line-item veto the budget

89th Regular Session - 2025

Status	HB	HCR	HJR	HR	SB	SCR	SJR	SR	Total HB & SB	Total
Introduced	5644	168	208	1540	3075	58	87	723	8719	11503
Passed	607	96	8	1490	579	28	10	717	1186	3535
Vetoed	12	0	n/a	n/a	14	0	n/a	n/a	26	26



PRIORITIES IN THE 89TH SESSION

GOVERNOR'S 7 PRIORITIES

- Property tax relief
- Invest in state water infrastructure
- Increase teacher pay
- Expand career training
- School choice
- Bail reform
- Establish a cybersecurity hub in San Antonio

LT. GOVERNOR'S PRIORITIES (TOP 7 OF 40)

- Texas budget
- Provide school choice
- Banning THC in Texas
- Increase homestead exemption
- Establish the Dementia Prevention & Research Institute of Texas
- Improve electric grid
- Invest in water supply



STATE BUDGET

TOTAL FUNDING

Senate Bill 1

Statewide Total for FY26-27: **\$338.02** billion in All Funds, All Articles

- All Funds 5% increase over FY24-25; \$16.68 billion increase

House Bill 500

Supplemental Appropriations for current fiscal year

- \$25 billion in All Funds
- \$504.1 million to TxDOT

SB 1 AND HB 500 DFW REGION RIDERS

Texas Department of Transportation must allocate **\$106.8M** from the General Revenue Fund (HB 500, Sec. 7.03) to specific aviation projects, including:

- \$14.8 million for McKinney National Airport



AVIATION

HB 2898 (Frank)

Requires entities to notify TxDOT at least 30 days before constructing a meteorological evaluation tower through a TxDOT-approved online form. Must include owner info, location, height, elevation, and construction start date.

Expands regulation to towers with bases up to 12 feet (previously 6 feet). TxDOT must notify federal radar/military aviation facilities within 50 nautical miles and nearby county judges within 25 miles.

Effective 9/1/25.



AVIATION

SB 1841 (Johnson)

Expands confidentiality protections for personal identifying information collected by local governments and airport governing boards. Shields data related to airport parking facility uses, travel details, on-site purchases, and financial transactions from public disclosure under the Government Code. Applies to information that can identify individuals, collected through systems like license plate readers, payment platforms, or reservation systems. Effective 9/1/25.



AVIATION

HB 5246 (Bonnen)

Expands the authority of the Texas Space Commission and the Texas Aerospace Research and Space Economy Consortium (TARSEC). It grants the Commission rulemaking powers, allows it to manage up to \$300 million in grants for space-related infrastructure and research, and establishes confidentiality protections for grant applicants. It authorizes the Commission to close highways, roads, and beaches during spaceflight activities to ensure public safety during spaceflight activities. It also clarifies the roles of TARSEC in supporting aerospace and spaceport development and abolishes the Spaceport Trust Fund. Effective 9/1/25.



AIRPORT FUNDING

HB 4520 (Martinez)

Lowers local match requirement for aviation facility grants/loans in economically disadvantaged counties from 10% to 5% of total project cost (non-state funds). Applies to funding provided by the Texas Transportation Commission under Section 21.105(b), Transportation Code.

Repeals Section 21.114(b) to align state law with TxDOT's agreement with the FAA under the State Block Grant Program.
Effective 9/1/25.



UNMANNED AIRCRAFTS

SB 1197 (Birdwell)

Amends Penal Code Section 42.15 to include spaceports in the list of protected critical infrastructure alongside airports and military installations. Prohibits the knowing or intentional operation of an unmanned aircraft over, in contact with, or causing interference to a spaceport without proper authorization or a valid legal defense.

Effective 9/1/25.



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World Cup 2026

AVIATION SUBCOMMITTEE

World Cup Aviation Subcommittee Meeting Agenda

- 1** Airport Capacity Map Update
- 2** Survey Results
- 3** Large Event Plans
- 4** Customs Facilities
- 5** Human Trafficking Workshop

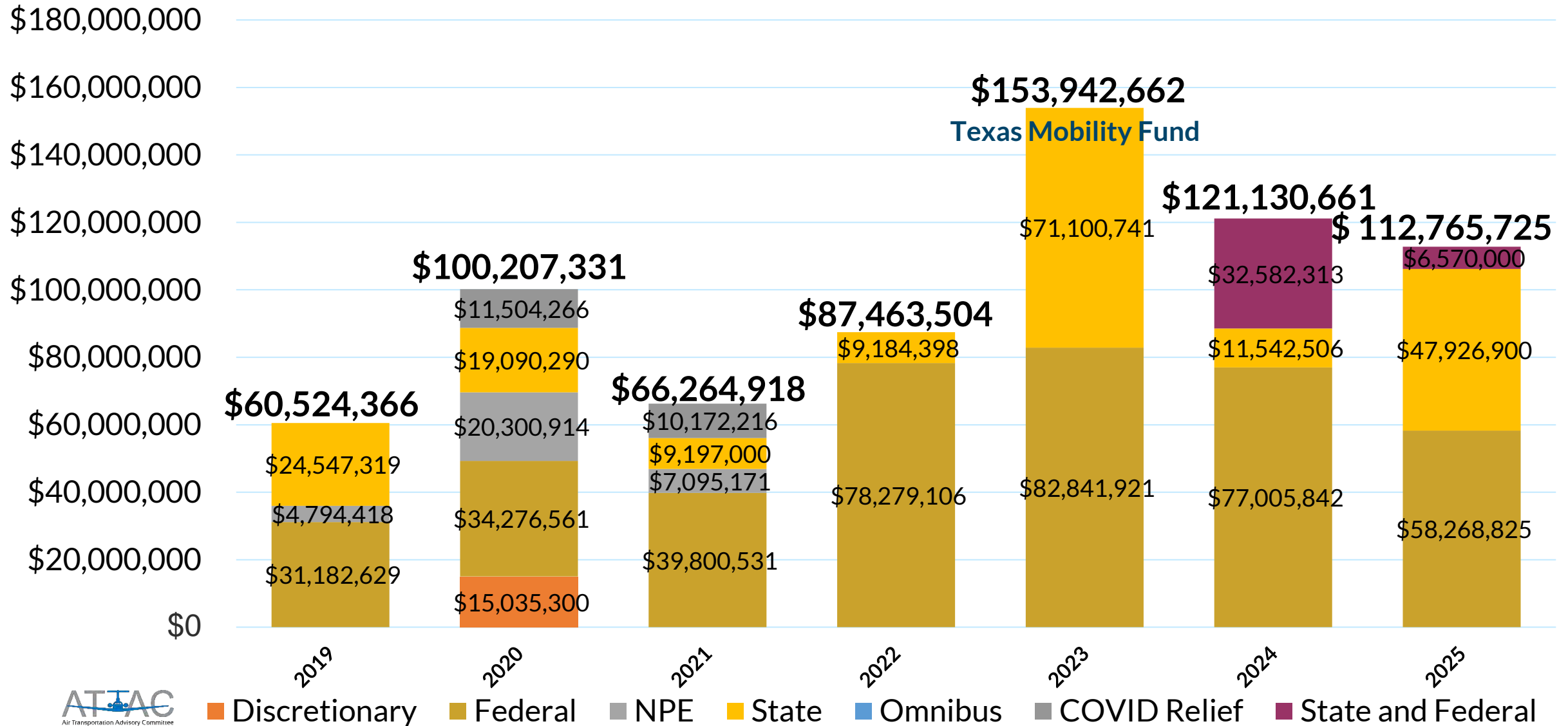


NCTCOG PRESENTATION

AVIATION PROGRAM AREA UPDATE

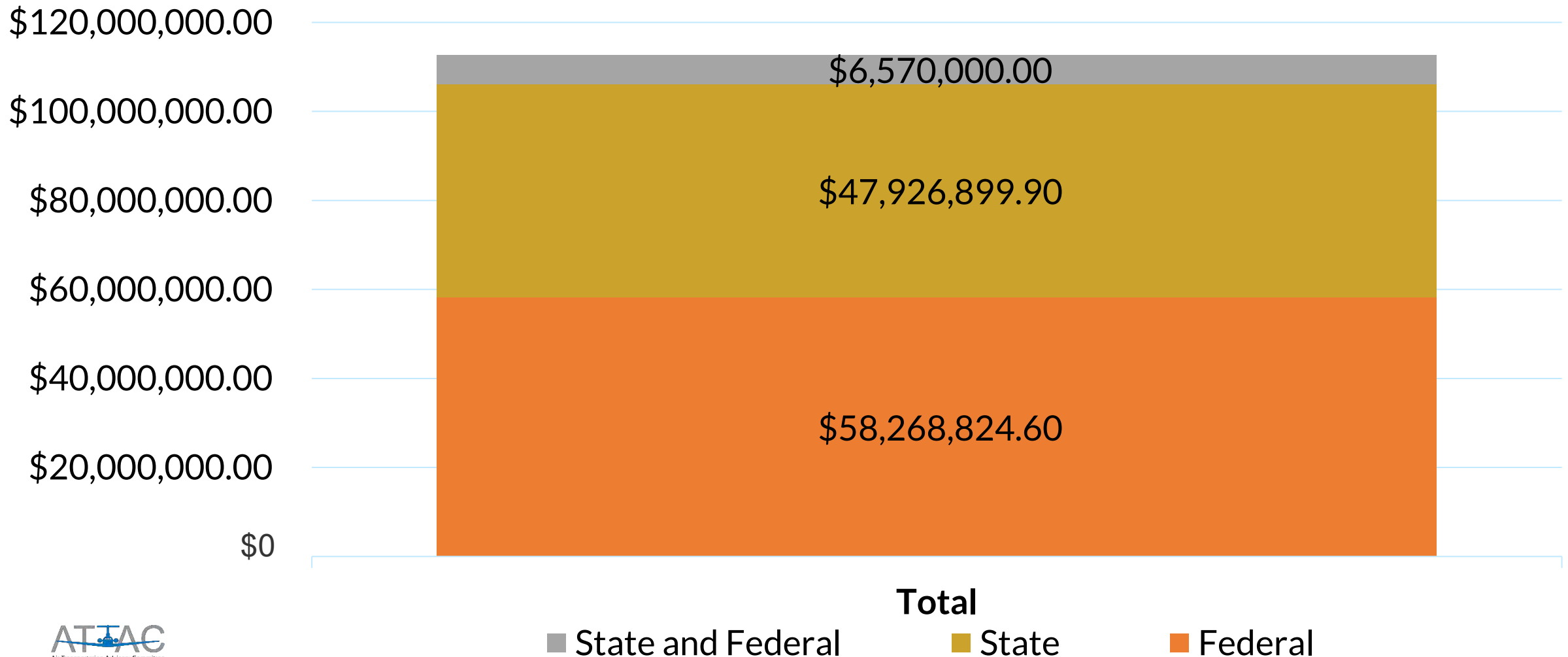
ERNEST HUFFMAN | AIR TRANSPORTATION ADVISORY COMMITTEE
08.07.2025

Texas Annual Funding Comparison



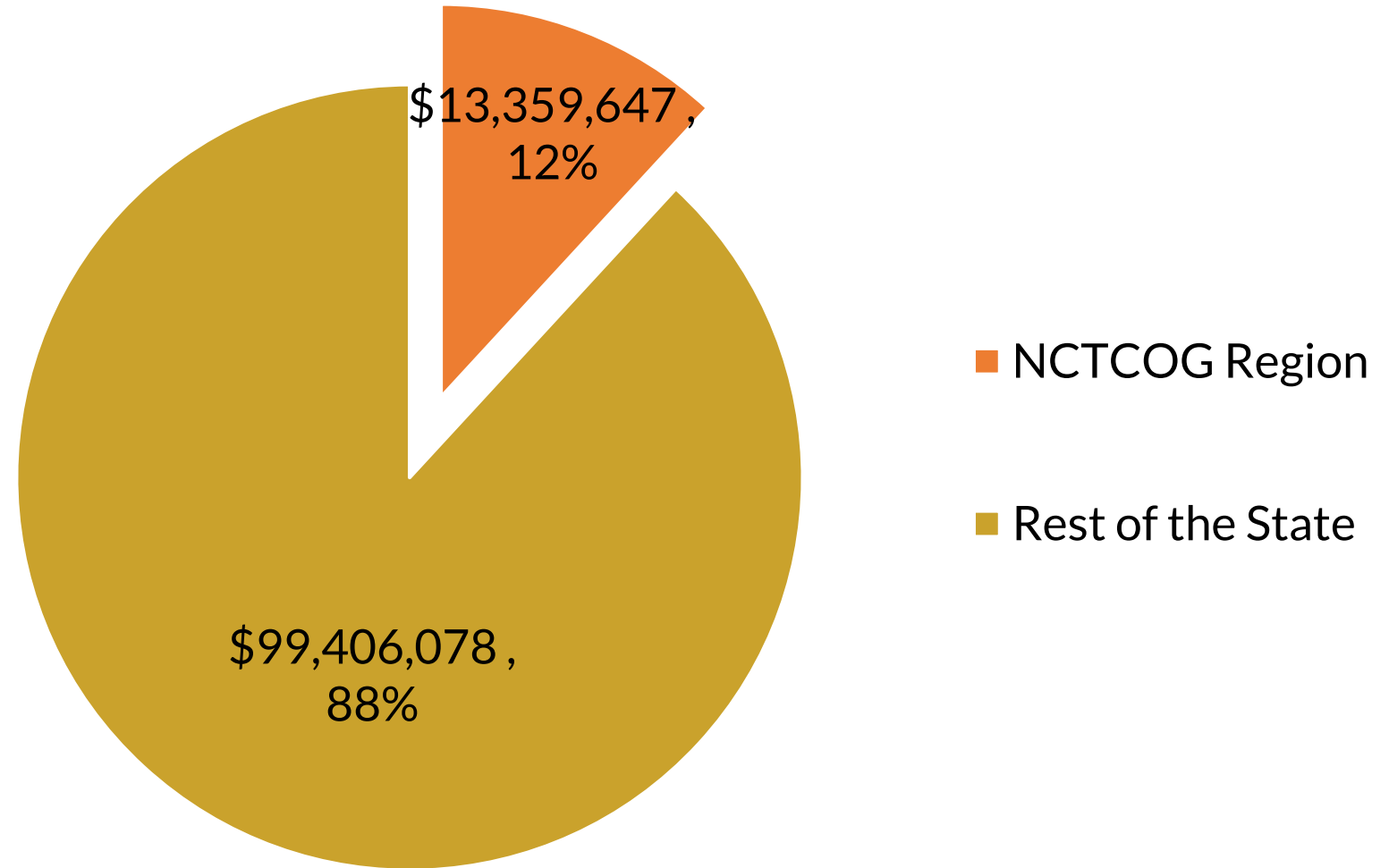
Texas Grants by Funding Source 2025

\$112,765,725

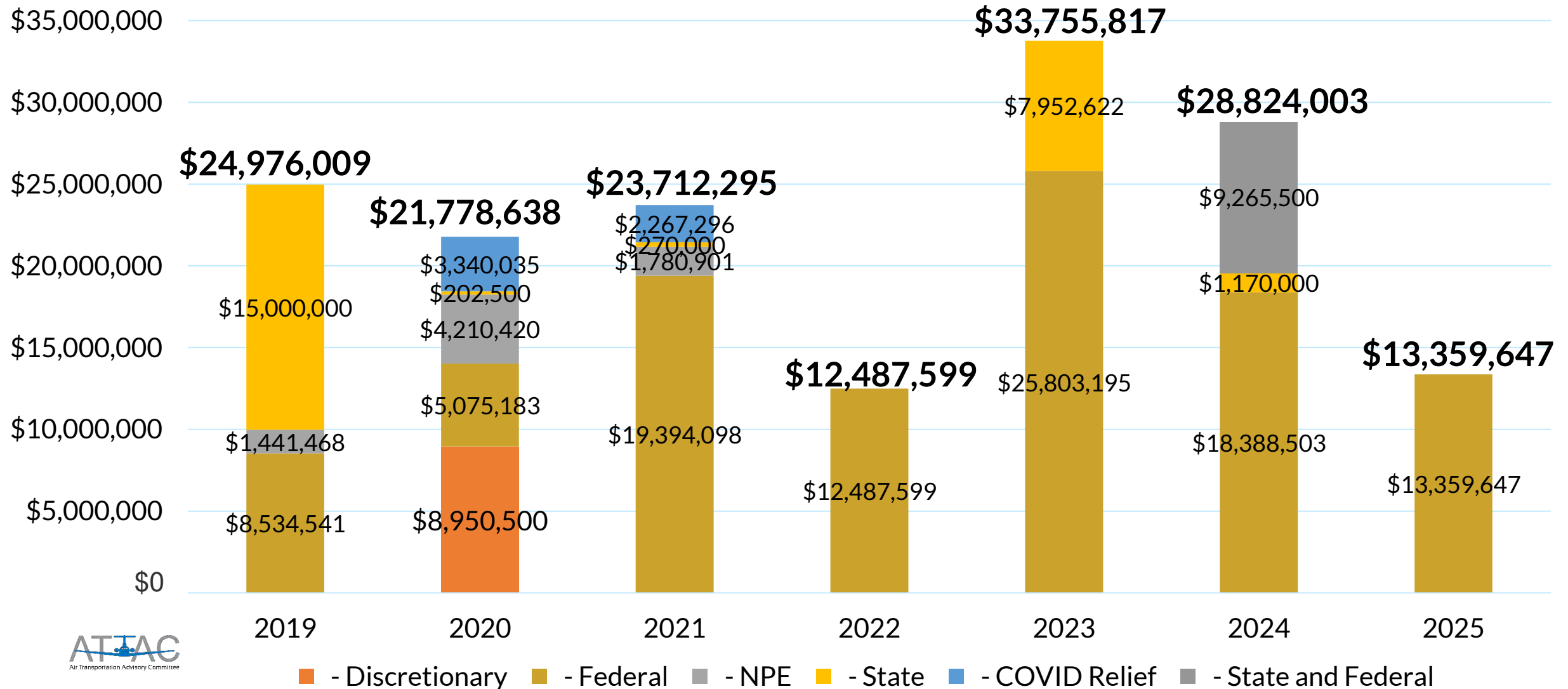


NCTCOG Region vs. Non-Region Funding 2025

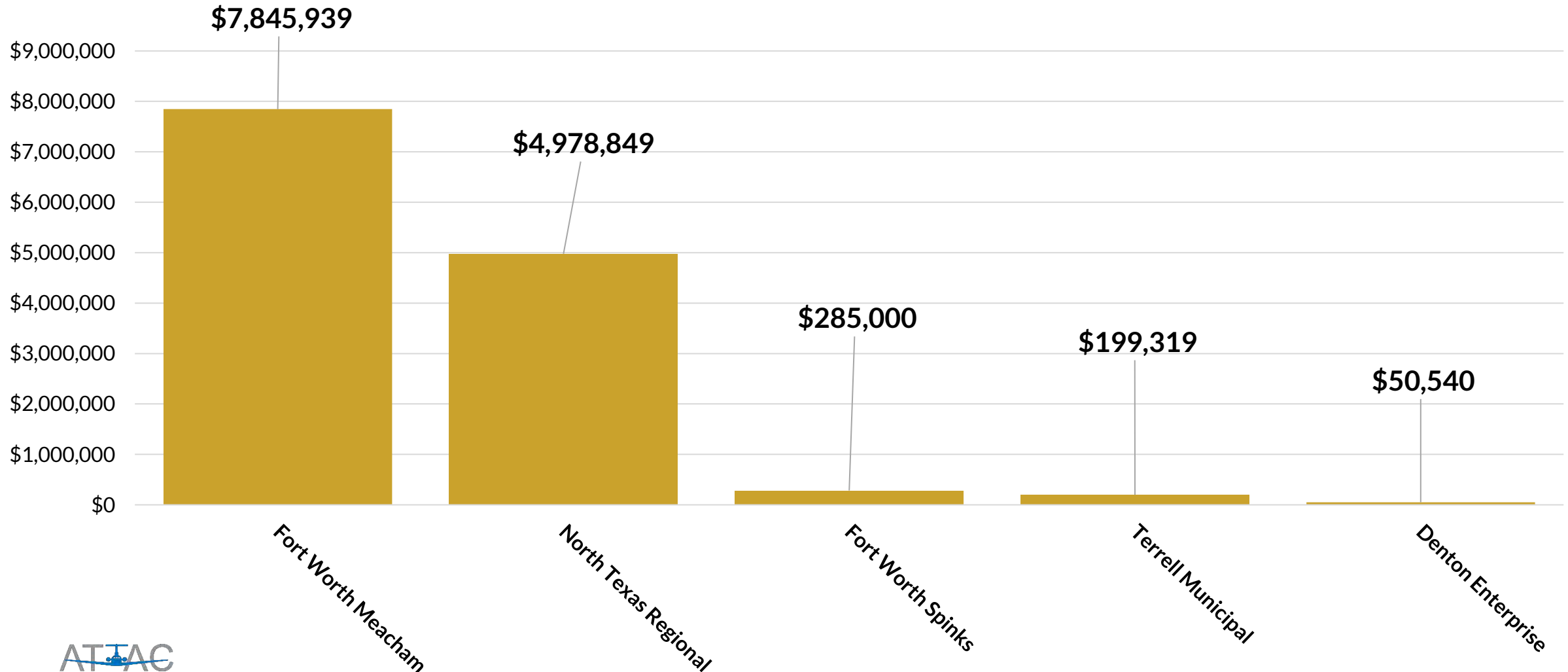
\$112,765,725



NCTCOG Region Annual Funding Comparison 2025



NCTCOG Region Airport Grant Amount 2025



Other Updates



North Texas Airspace Awareness Pilot

[Airspace Dashboards](#)



Center for Advanced Aviation Technologies



DOE Arlington Multimodal Drone Delivery Pilot Program



Fort Worth Intelligent Weather Infrastructure Pilot Program



Aviation Conferences in the Region

AAAE General Aviation Conference Arlington (August 2025)

Questions?



Ernest Huffman

Aviation Planning & Education Program Manager

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