



Technical Advisory Committee (TAC)



Project Team



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Expect More. Experience Better.



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Agenda

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Technical Advisory Committee (TAC) Role and Purpose

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TAC Members

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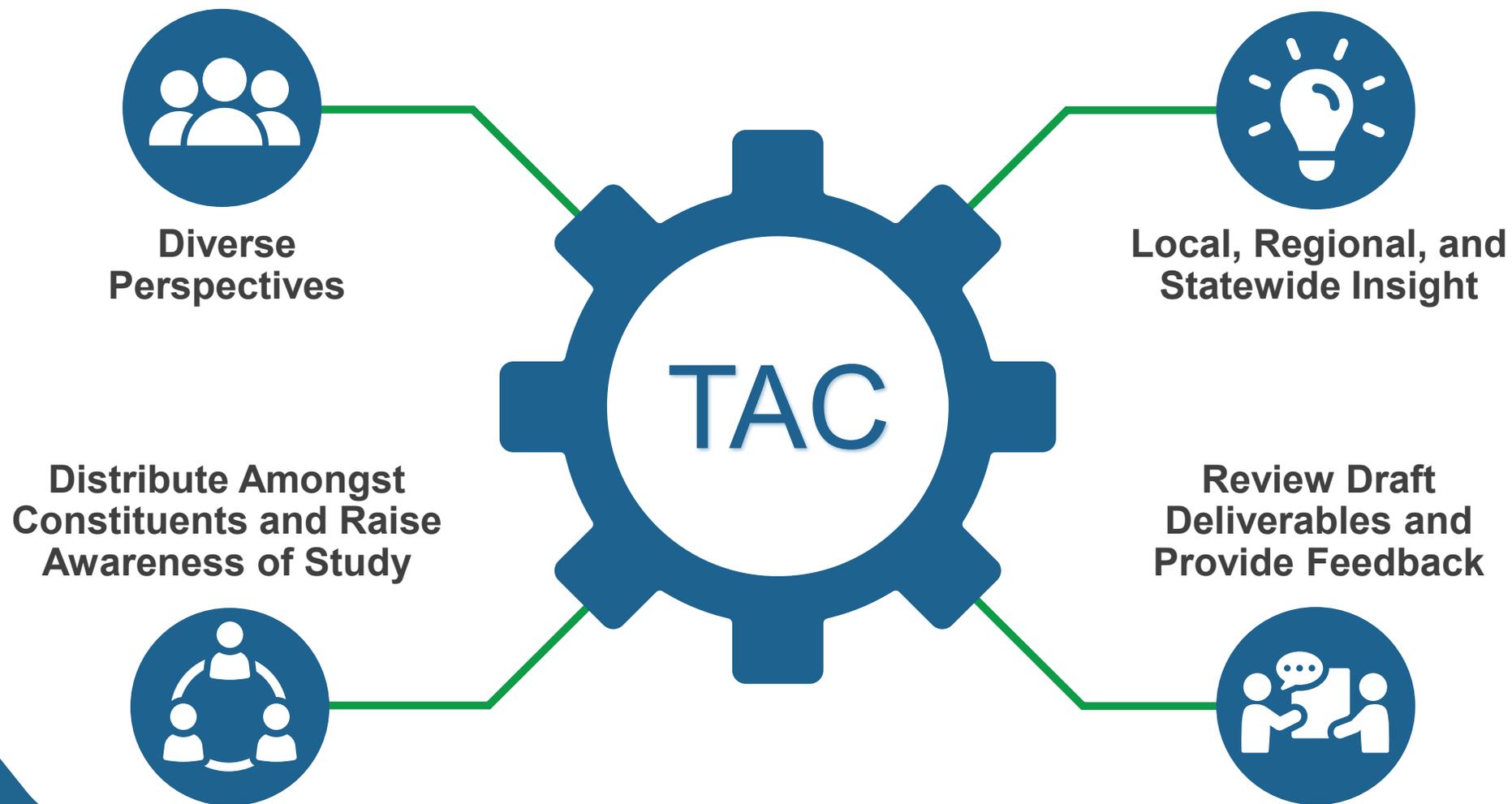
Dan Kasowski

Aerial Applicator

Matt Hovdenes



TAC Role and Purpose





Project Purpose



2025 North Dakota
State Aviation System Plan



2025 North Dakota
Aviation Economic Impact Study

Update to 2014 NDSASP

- Provides roadmap for long-term planning
- Guides future decision making
- Identifies system needs



Update to 2015 NDAEIS

- Documents contributions of public-use airports
- Justifies continued investment
- Helps communicate airport benefits and value



Visit the Project Website: <https://2025ndsasp.com/>



- Virtual TAC Meeting
- Regional Presentations
- Fly ND Conference

Project Timeline

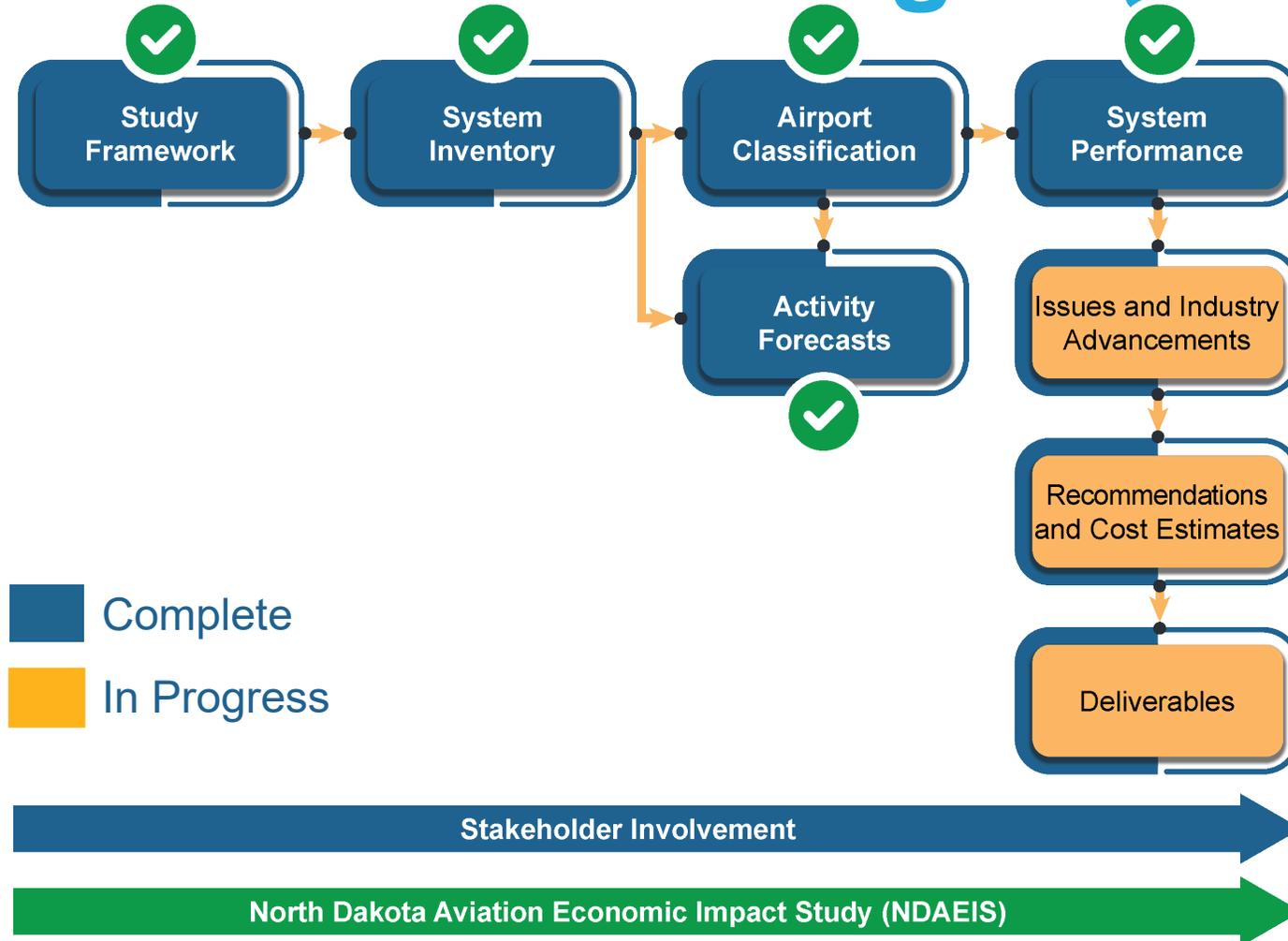
Task	Month	2024				2025												2026								
		S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	
Task 1	Study Design																									
Task 2	Project Management																									
Task 3	Stakeholder Engagement																									
Task 4	2025 NDSASP Framework (Goals, Performance Measures, Benchmarks)																									
Task 5	Airport Classification																									
Task 6	System Inventory																									
Task 7	Activity Forecasts																									
Task 8	System Performance																									
Task 9	Issues and Industry Advancements																									
Task 10	Recommendations and Cost Estimates based on Findings																									
Task 11	Economic Impact Study																									
Task 12	2025 NDSASP and NDAEIS Final Documents																									
Task 13	Website Story Maps and GIS Development																									

A small, light-colored airplane is parked on a grassy field. The image is overlaid with a semi-transparent orange gradient that covers most of the page. The text '2025 NDSASP Project Update' is centered over the image in white.

2025 NDSASP Project Update



Study Process and Ongoing Efforts





2025 NDSASP Issues and Industry Advancements



Issues and Industry Advancements – Purpose

- ➔ Identify key trends shaping aviation's future in North Dakota
- ➔ Highlight emerging opportunities and challenges
- ➔ Provide context for how national and global aviation advancements intersect with North Dakota's unique industry strengths, constraints, and priorities
- ➔ Set the foundation for later recommendations

List of topics and more details in upcoming slides!



Issues and Industry Advancement – Topics

Advanced Air
Mobility

Emerging Aviation
Fuel Sources

Air Traffic Control
Modernization

Aging Fleet and Pilot
Population

Aviation
Professional
Shortage

Commercial Service
Access

Economic
Conditions and
Impact on Buying
Power

Revenue Producing
Projects



Advanced Air Mobility (AAM)

→ National UAS/AAM Leader:

- Grand Sky
- Northern Plains UAS Test Site
- VANTIS BVLOS

→ Strong Fit for AAM Implementation:

- Energy
- Precision Agriculture
- Emergency Response
- Inspections

→ Strong Industry Partnerships

- State, universities, OEMs

→ Benefits to North Dakota:

- Improved connections
- New jobs across many key industries
- Lower operating costs





Air Traffic Control Modernization

- **Modernizes ATC systems** by replacing aging radar with digital, data-driven infrastructure
- **Strengthens UAS, BVLOS, and AAM integration** through statewide assets like NPUASTS and Vantis
- **Improves service reliability** for rural communities through updated, resilient ATC systems
- **UND's AT-CTI program** directly supports ATC modernization by accelerating the controller pipeline needed to operate and sustain the nation's evolving, digital air traffic system.





Aviation Professional Shortage



- **Statewide workforce shortages** affecting mechanics, pilots, maintenance staff, and snow-removal crews
- **Retirements and aging workforce** shrinking the talent pipeline faster than training programs can replenish it
- **Largest gaps in aviation businesses** such as aerial applicators, FBOs, and maintenance shops, limiting operations and growth
- **Service reliability at risk** with delays and added strain on rural airports dependent on small, specialized teams

Economic Conditions and Impact on Buying Power



- **Constructing and material costs are surging** reducing what airports can build with the same funding
- **Federal and state funding isn't keeping pace with inflation** forcing airports, especially GA, to delay, scale back, or phase projects
- **Buying power has dropped significantly** with typical project costs nearly quadrupling since 2005, stretching NDAC grants
- **Higher costs demand tougher prioritization** pushing safety and preservation ahead of capacity or economic-growth projects



2025 NDSASP Recommendations and Cost Estimates



Recommendations and Cost Estimates - Purpose



- Provide a clear summary of recommended projects needed to support the statewide aviation system.
- Outline the planning-level cost estimates associated with each recommendation.
- Establish a transparent basis for comparing needs against anticipated funding.
- Help decision-makers understand the investments required to meet future system goals.



Estimating Needs over 10-Years (2026-2035)

NDAC's 10-year CIP

- Includes all estimated project needs at public-use airports
- Accounts for capital improvement and maintenance projects
- Prepared annually by NDAC



Additional NDSASP Projects

- Additional needs identified through the NDSASP analyses
- Costs developed based on similar projects identified in the CIP
- Estimates total needs to satisfy NDSASP goals



Estimated 10-year Needs

- Sum of CIP needs and additional NDSASP projects
- Duplicate projects removed to avoid double-counting
- Needs likely double when considering a 20-year timeframe

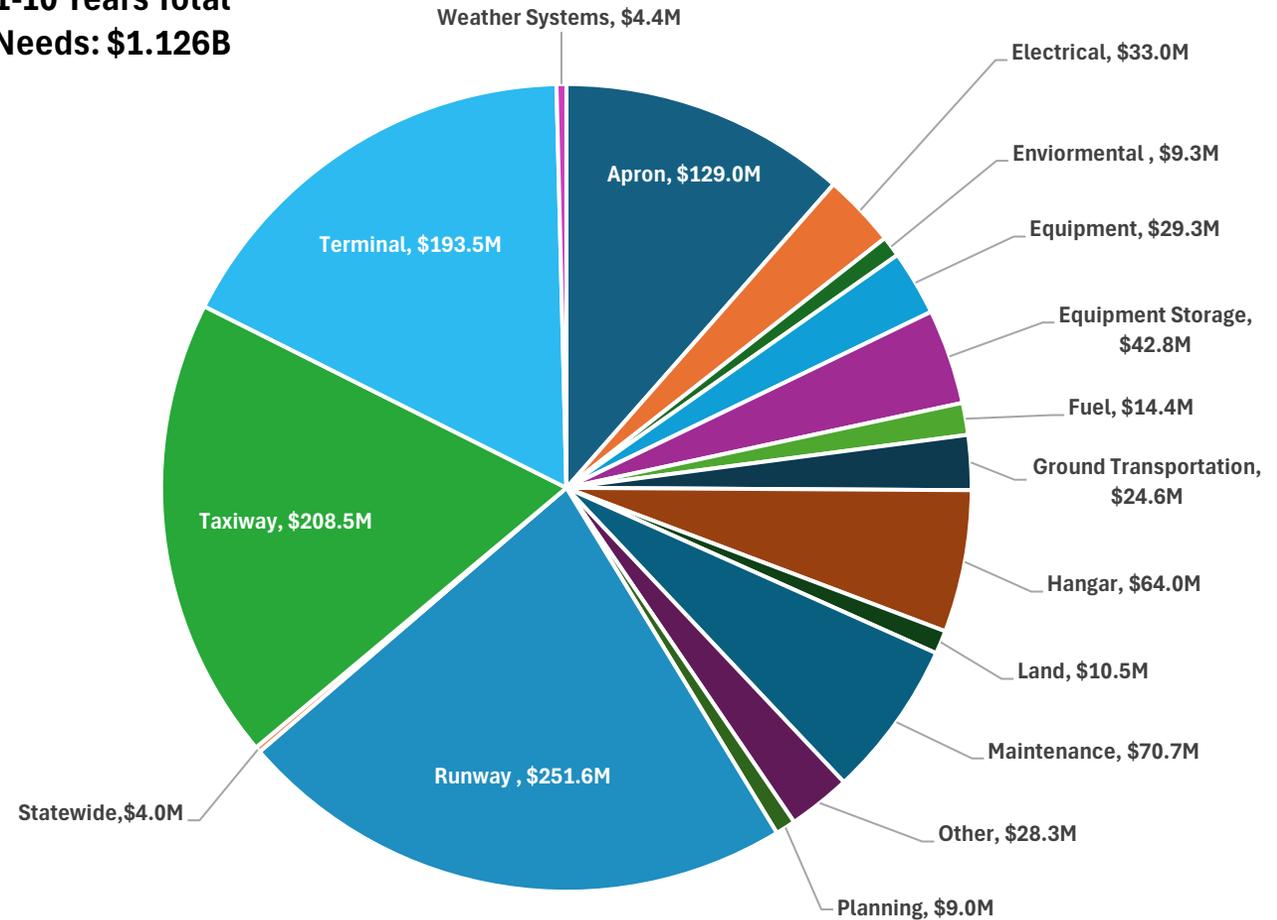


North Dakota CIP Totals (2026-2035)

1-10 Years Total
Needs: \$1.126B

GA vs. CS 1-10 Year Total		
CS	\$697,000,000	62%
GA	\$425,780,000	38%
Statewide	\$4,000,000	<1%
Total	\$1,126,780,000	100%

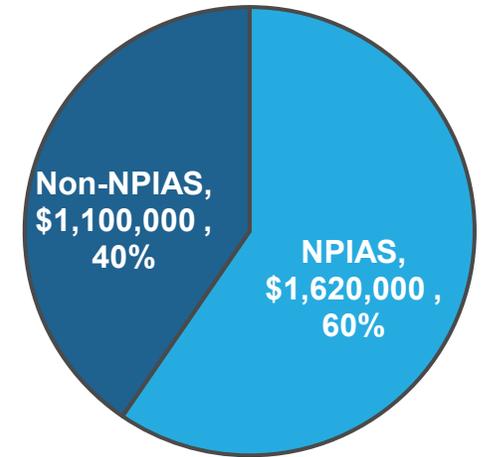
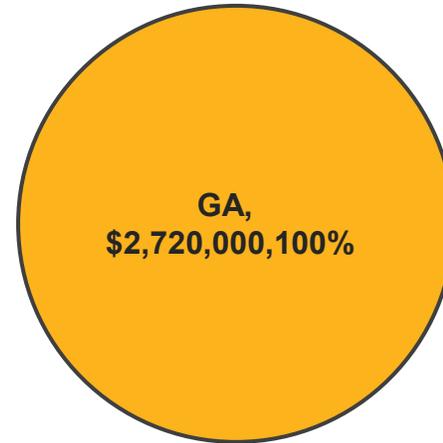
NPIAS vs. Non-NPIAS 1-10 Year Total		
NPIAS	\$1,093,130,000	97%
Non-NPIAS	\$29,650,000	3%
Statewide	\$4,000,000	<1%
Total	\$1,126,780,000	100%





Goal - Maintain a Safe Aviation System Total Cost

Goal - Maintain a Safe Aviation System SASP and CIP Cost	
SASP	\$1,200,000
SASP-related CIP Projects	\$1,520,000
Total	\$2,720,000

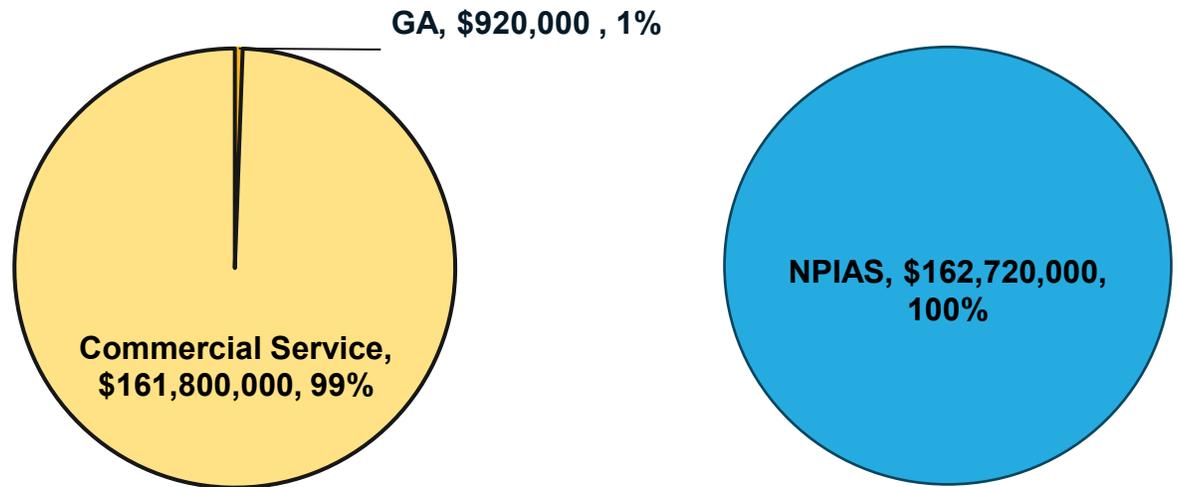


Example projects: Tree trimming; tree removal



Goal - Provide Air Access to Airports

Goal - Provide Air Access to Airports SASP and CIP Cost	
SASP	\$4,300,000
SASP-related CIP Projects	\$158,420,000
Total	\$162,720,000



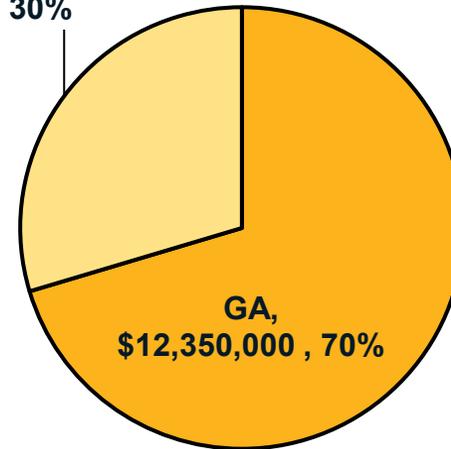
Example projects: Install RNAV/GPS (i.e. LPV); Terminal improvements or replacements, Construct hangars



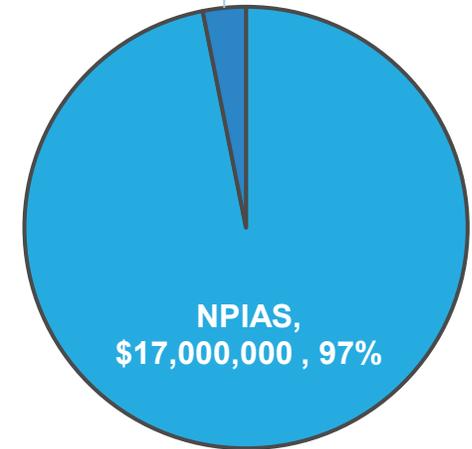
Goal - Preserve Airport Infrastructure

Goal - Preserve Airport Infrastructure SASP and CIP Costs	
SASP	\$0
SASP-related CIP Projects	\$17,550,000
Total	\$17,550,000

Commercial Service,
\$5,200,000 , 30%



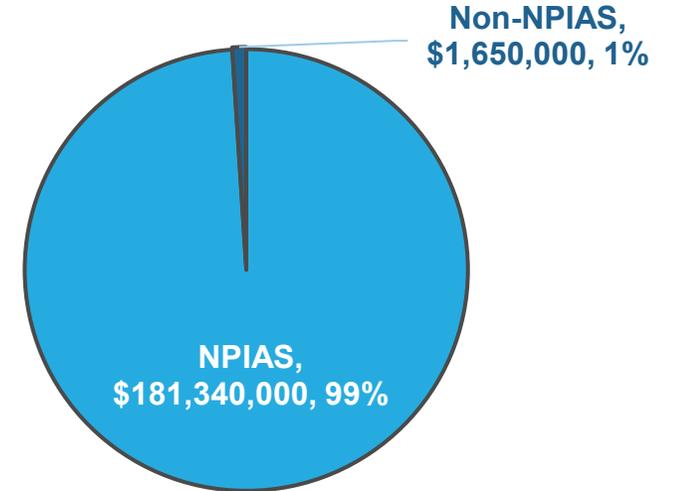
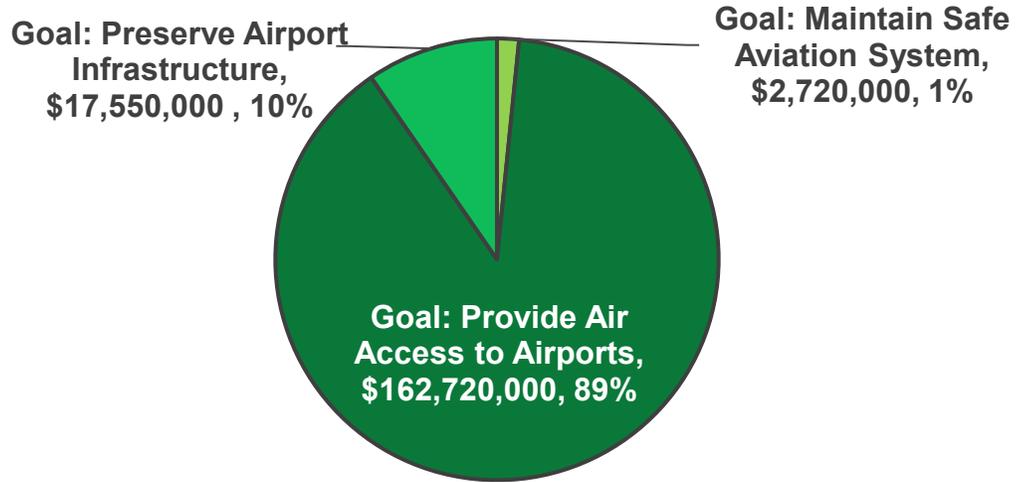
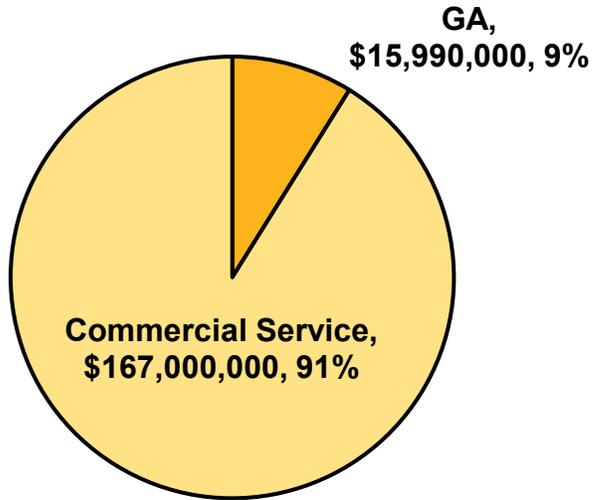
Non-NPIAS,
\$550,000 , 3%



Example projects: Runway reconstruction and rehabilitation, runway maintenance (ex. crack seal, seal coat, etc.)



Combined NDSASP Needs



Combined SASP and CIP Totals	
SASP	\$5,500,000
SASP-related CIP Projects	\$177,490,000
Total	\$182,990,000



Total Needs over 10-Years (2026-2035)

NDAC's 10-year CIP

Additional NDSASP Projects

Estimated 10-year Needs

$$\text{\$1.126 Billion} + \text{\$5.5 million} = \text{\$1.132 billion}$$

Next Step: Identify the gap between estimated total need and anticipated funding from federal and state sources.



NDSASP Next Steps

- **Finalize Issues and Industry Advancements effort**
- **Finalize Recommendations and Cost Estimates effort**
- **Finalize NDSASP documentation**
- **FlyND Conference presentation**
- **Initiate Final Project Deliverables**

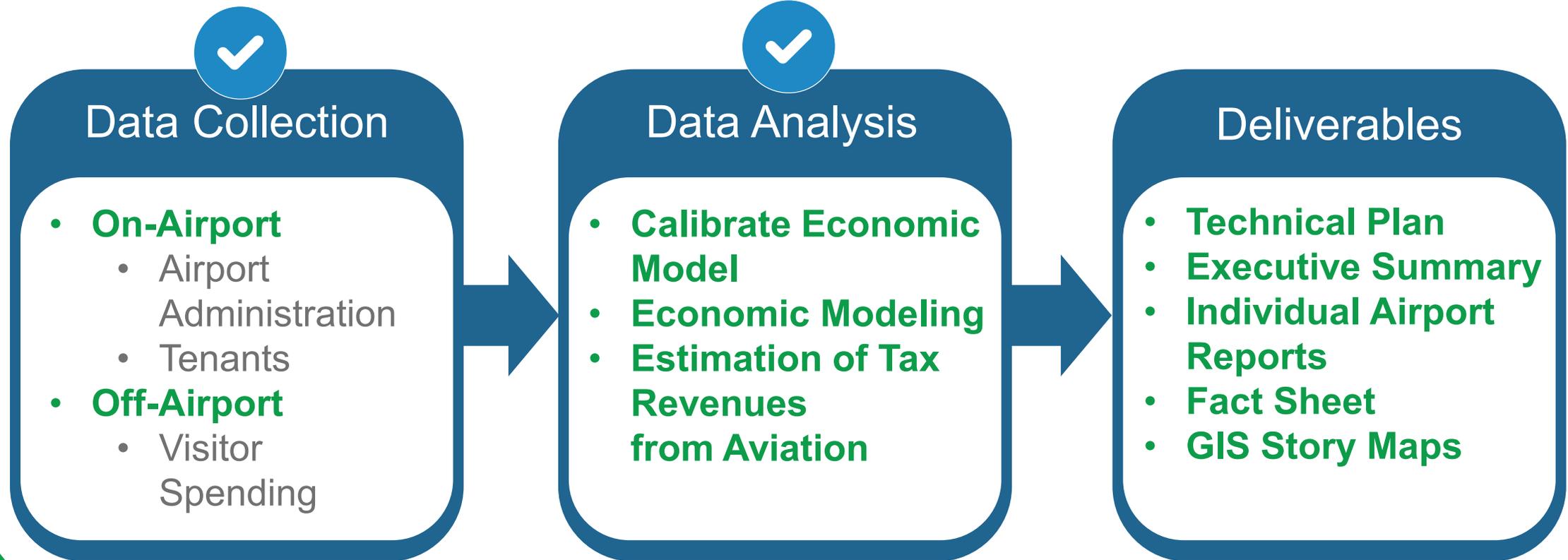




2025 NDAEIS Update



NDAEIS Process





Measures of Economic Impact



Jobs

Total number of people employed, both full-time and part-time because of aviation



Payroll

Total employment compensation, including wages and benefits, of those employed



Value Added

Dollar value of final goods and services produced locally because of economic activity, not including the value of intermediate goods and services used to produce the final goods and services



Output

Total expenditures associated with airport administration, capital projects, tenant sales of goods and services, as well as visitor spending in North Dakota's hospitality-related sectors



Categories of Economic Impact

Direct Impacts

The initial impacts occurring both on- and off-airports, involving the payroll, expenditures, and capital improvements of airports and tenants are considered direct impacts. This also includes the spending by commercial and general aviation visitors.

Multiplier Impacts

There are two distinct impacts that occur within the broader “multiplier impacts” term. The first is “indirect impacts” which occur when a portion of direct revenues is used to purchase goods and services from other businesses within a defined region. These impacts are sometimes referred to as “supplier sales.” The second is “induced impacts,” which are sometimes referred to as “income re-spending” and occur when employees re-spend their income earned in the defined region as a part of direct and indirect impacts.

Total Impacts

Total impacts are simply the sum of the direct and multiplier impacts (induced and indirect).



Methodology Difference for Tenant Impacts

	2025 Business Tenants	2015 Business Tenants
Employment	✓	✓
Payroll	✗	✓
Output	✗	✓



Using IMPLAN



1. Fills in Gaps in Dataset

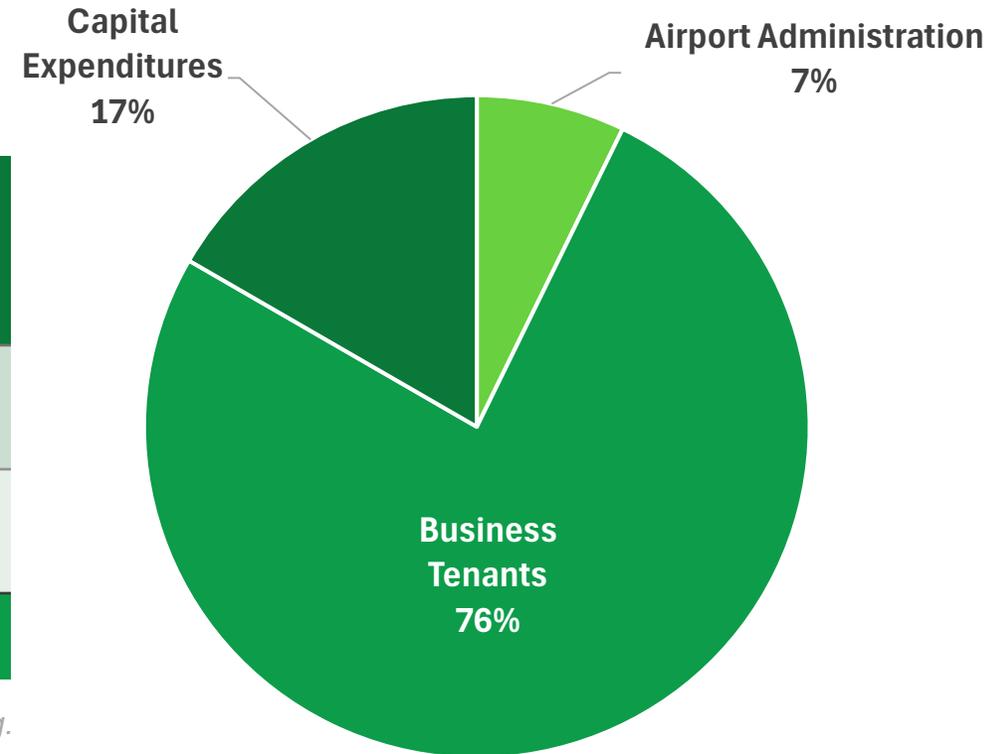
2. Derives Multiplier Impacts



Core Impacts – 2025 On-Airport Impacts

Category	 Jobs	 Payroll	 Value Added	 Output
Direct	5,312	\$372,439,000	\$465,117,000	\$658,989,000
Multiplier	2,353	\$145,510,000	\$236,328,000	\$437,479,000
Total	7,665	\$517,948,000	\$701,445,000	\$1,096,467,000

Notes: Dollar values were rounded to the nearest 1,000. Totals may not sum due to rounding.

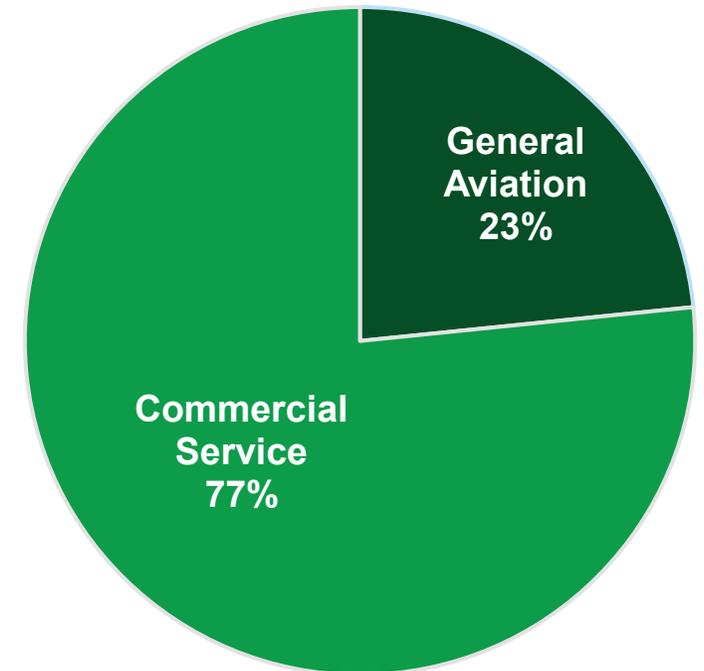




Core Impacts – Off-Airport Impacts

Category	 Jobs	 Payroll	 Value Added	 Output
Direct	4,518	\$150,182,000	\$242,494,000	\$435,926,000
Multiplier	1,454	\$82,682,000	\$133,187,000	\$258,492,000
Total	5,972	\$232,864,000	\$375,681,000	\$694,418,000

Notes: Dollar values were rounded to the nearest 1,000. Totals may not sum due to rounding.

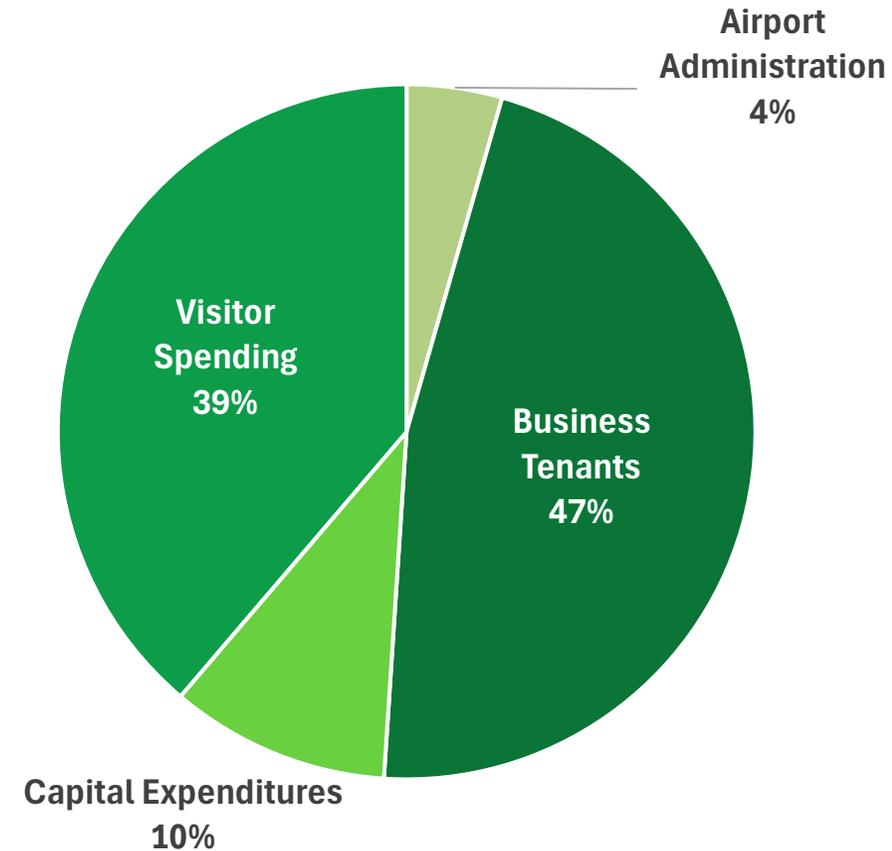




Core Impacts – Statewide Totals

Category	 Jobs	 Payroll	 Value Added	 Output
Direct	9,831	\$522,620,000	\$707,611,000	\$1,094,915,000
Multiplier	3,807	\$228,192,000	\$369,515,000	\$695,970,000
Total	13,637	\$750,812,000	\$1,077,126,000	\$1,790,885,000

Notes: Dollar values were rounded to the nearest 1,000. Totals may not sum due to rounding.





Core Impacts – Comparison

	 Jobs	 Payroll	 Value Added	 Output
2025	13,637	\$750,812,123	\$1,077,125,537	\$1,790,885,070
2015	12,217	\$505,247,509	N/A	\$1,564,352,371
% Change	12%	49%		14%



Air Force Base Impacts

Economic Impact Category	Grand Forks AFB (2023)	Minot AFB (2024)	Total
Total Jobs (direct + indirect)	2,611	8,494	11,105
Total Payroll (annual payroll + estimated annual dollar value of jobs created)	\$161,689,834	\$570,979,529	\$732,669,363
Total Expenditures	\$35,877,187	\$80,629,944	\$116,507,131
Total	\$197,567,021	\$651,609,473	\$849,176,494

Source: Grand Forks Air Force Base – Fiscal Year 2023 Economic Impact Statement; Minot Air Force Base, North Dakota – Economic Impact Analysis, Edition FY24, 2025.



Aircraft/Aerospace Manufacturing Impacts

	 Jobs	 Payroll	 Value Added	 Output
Direct	1,598	\$145,987,000	\$267,442,000	\$526,009,000
Multiplier	1,025	\$67,432,000	\$110,087,000	\$205,637,000
Total	2,623	\$213,419,000	\$377,529,000	\$731,646,000

Notes: Dollar values were rounded to the nearest 1,000. Totals may not sum due to rounding.



UAS Businesses Impacts

	 Jobs	 Payroll	 Value Added	 Output
Direct	380	\$32,767,000	\$40,403,000	\$72,581,000
Multiplier	232	\$14,378,000	\$22,695,000	\$41,722,000
Total	612	\$47,145,000	\$63,097,000	\$114,304,000

Notes: Dollar values were rounded to the nearest 1,000. Totals may not sum due to rounding.



NDAEIS Next Steps

- **Finalize Off-Airport UND Impacts**
- **Finalize Workforce Development Issue Impacts**
- **Compile Final NDAEIS Impacts**
- **Finalize NDAEIS Documentation**





Questions?

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