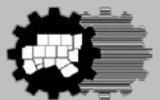


North Central Texas



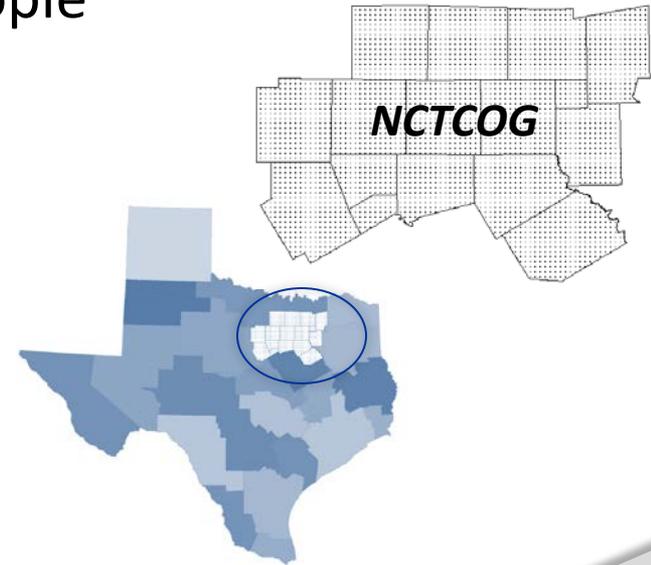
General Aviation and Heliport System Plan



Michael Mallonee
8th NASPS
Galveston, TX 2012

Dallas/Fort Worth Metropolitan Area

- 4th largest metropolitan area in the U.S.
- Ranked 2nd in population growth between 2000-2010 adding over 1.2 million people
- Larger than 35 states in population
- Larger than 5 states in land area
- 6.5 million people in year 2010
- Growing to 10 million people by the year 2035



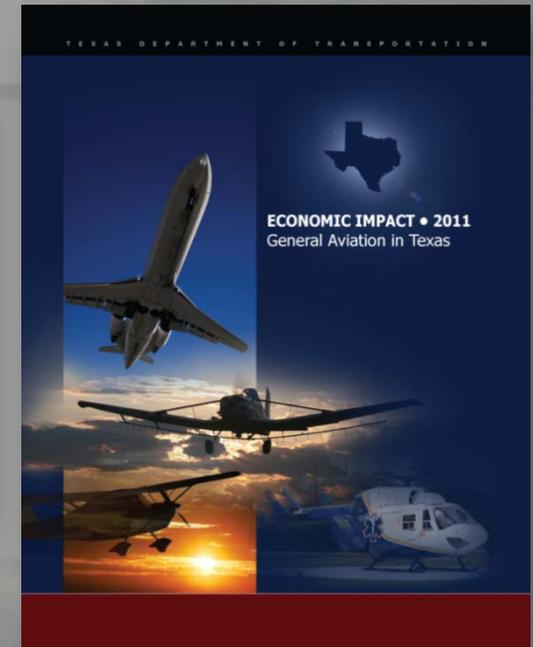
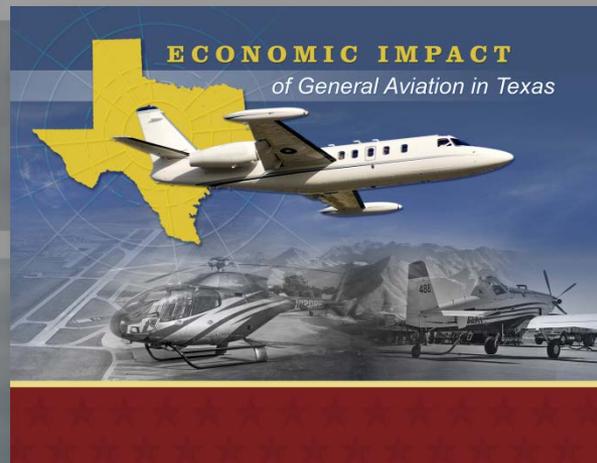
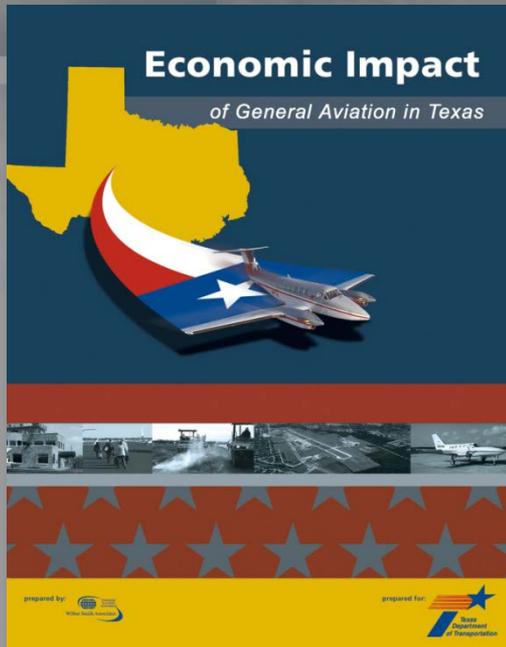
North Texas Airport System

- 2 Primary Commercial Facilities
- 11 Reliever Airports
- 56 General Aviation Facilities
- 1 Military Training Field
- 3 Public-Use Heliports
- Over 300 Private-Use Aviation Facilities

Major Regional Aviation Employers



Economic Impact of General Aviation Activities in Texas



2003

Economic Output

\$5.9 billion

2005

Economic Output

\$8.7 billion

2010

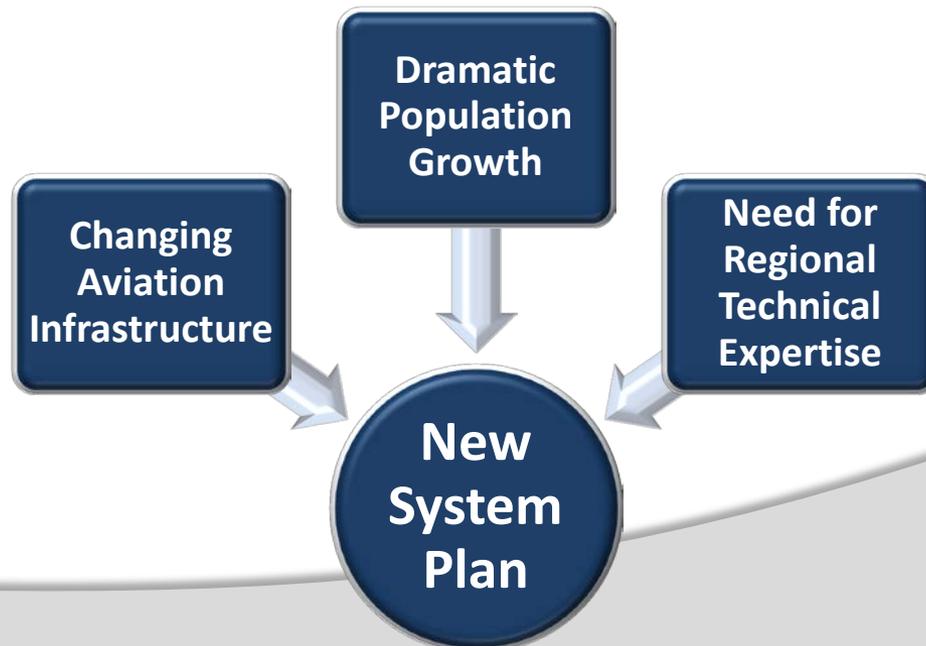
Economic Output

\$ 14.6 billion

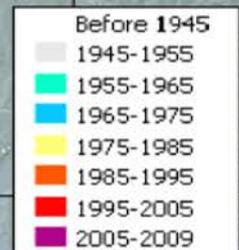
Study Background

2006 FAA partnered with NCTCOG to perform a multi-year study of general aviation and heliport assets in North Central Texas

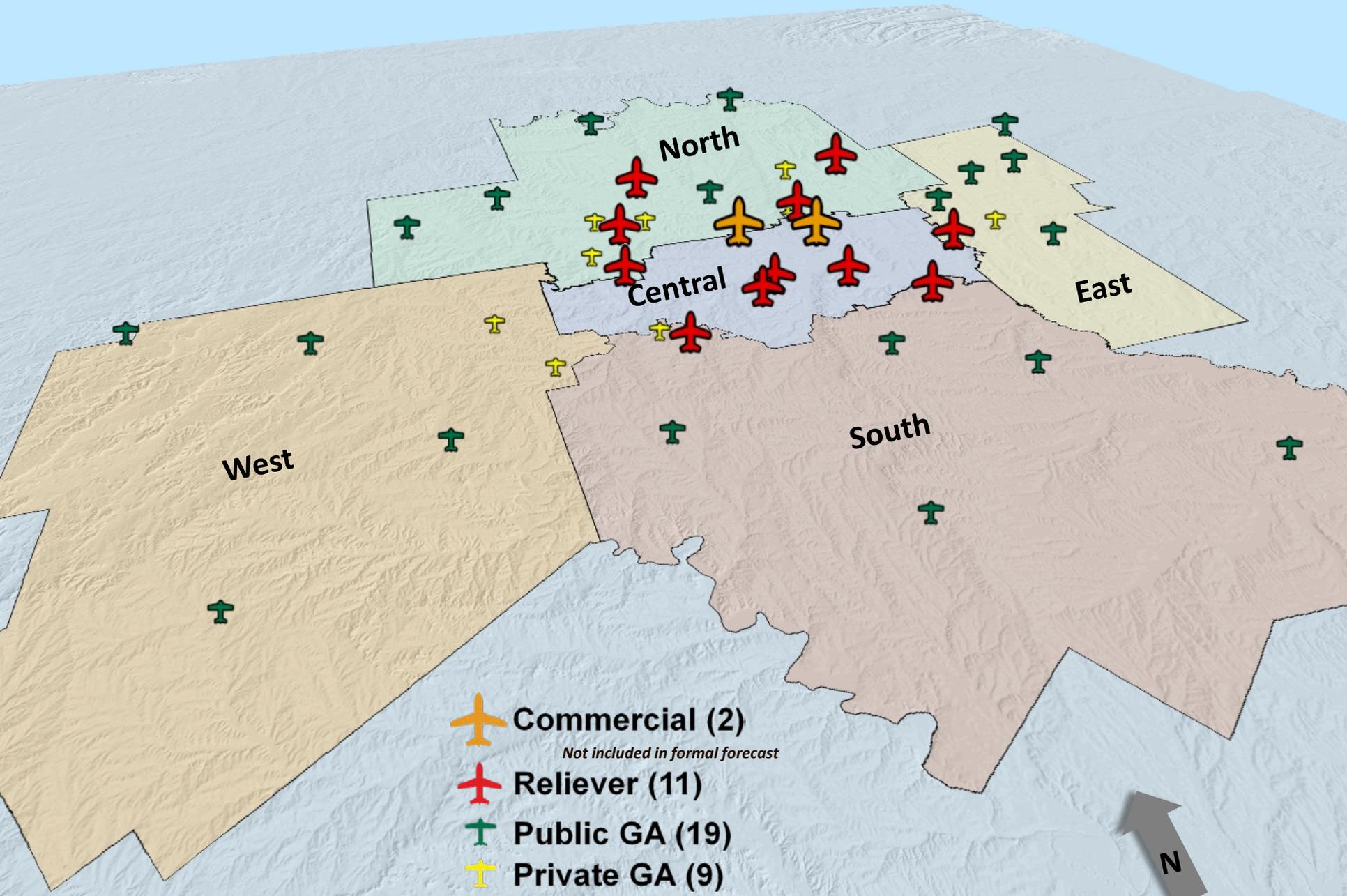
Goal Update older system plans (previous horizon year - 2010)
New system plan horizon year - 2035



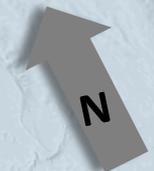
Development over the Last 70 Years



1940



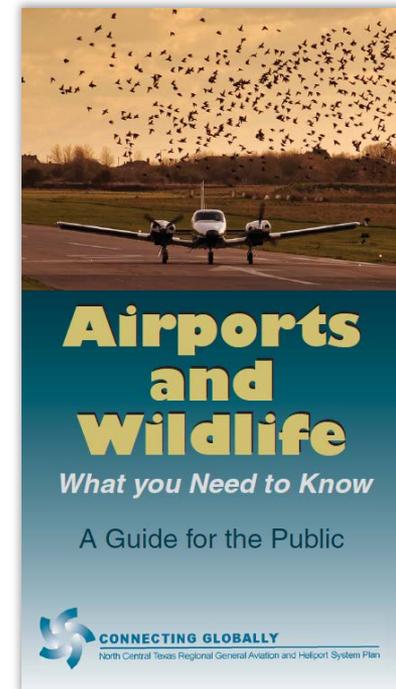
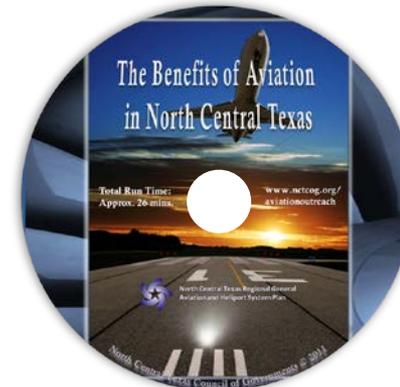
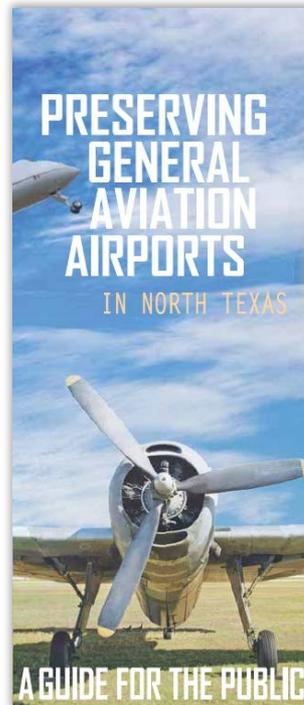
-  **Commercial (2)**
Not included in formal forecast
-  **Reliever (11)**
-  **Public GA (19)**
-  **Private GA (9)**



Planning Tools and Outreach Materials

System Plan Products

- General Aviation Air Cargo Analysis
- Forecasting Summary Report
- Unmanned Aircraft Systems Report
- Airspace Report
- Vertical Flight Report
- Aviation Industry Trends Report
- Ground Access Report
- Special Events Report
- Many more...



Change Demand



- Create multiple forecasts based on growth percentage
- System does not change, just reacts to demand
- Heliport system forecasted using this principle

VS

Scenario Planning

Change Capacity



- Utilize one demand forecast
- Change system based on capacity constraints
- Airport system forecasted using this principle

Regional System Users

- CareFlite, Air Evac
- Fort Worth and Dallas Police Departments
- TXU and Chesapeake Energy
- Local News Stations
- Bell Helicopter and Eurocopter

Vertical Flight Section

VF inventory process identified 138 facilities

*Rotorcraft operations forecast to grow **2.6% -3.2%** annually through 2030*

North Central Texas Vertical Flight Facility Categories		Total
Heliport (s)	(PS) Public Safety/Forest Service (Fire)	7
	(RX) EMS	52
	(CP) Corporate/Business	38
	(TR) Transport/Commuter	3
	(NW) News Media/Broadcast	4
	(UT) Utility/Pipeline Patrol	3
	(AG) Agricultural/Instructional/Personal Use	31
	Total Regional Vertical Flight Facilities	138

Source: NCTCOG and CHA Staff

Innovative Forecast Modeling

Regression Model Considered Multiple Independent Variables

Facility Amenities



**Runway Lengths and
Instrument Approaches**

**Nearby
Business Activity**

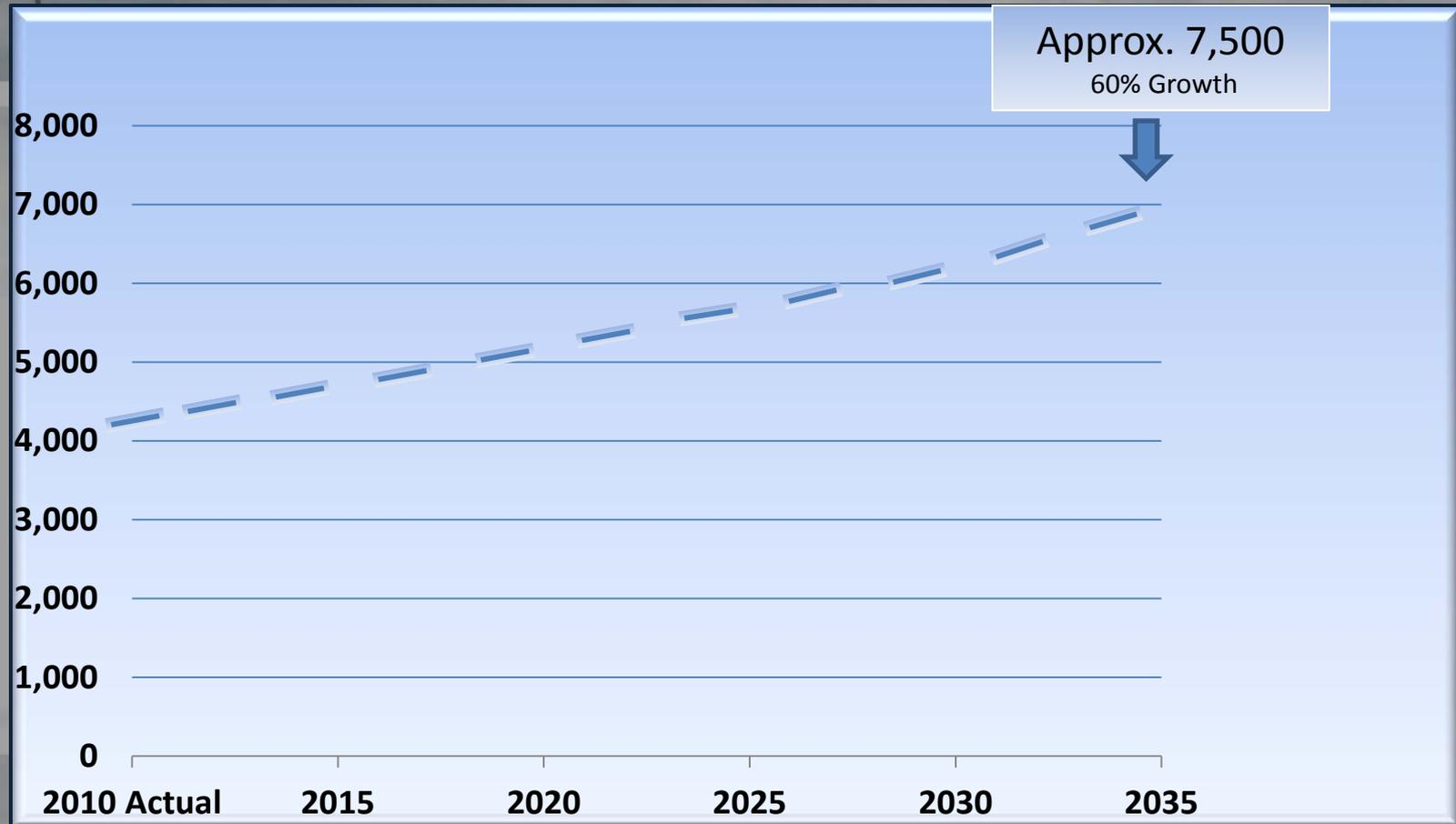


Variations from standard trend analysis:

- Variables easy to forecast and observe
- Variables tailored to forecast metric
- Combines variables to produce one trend line
- Utilized NCTCOG standard demo forecast

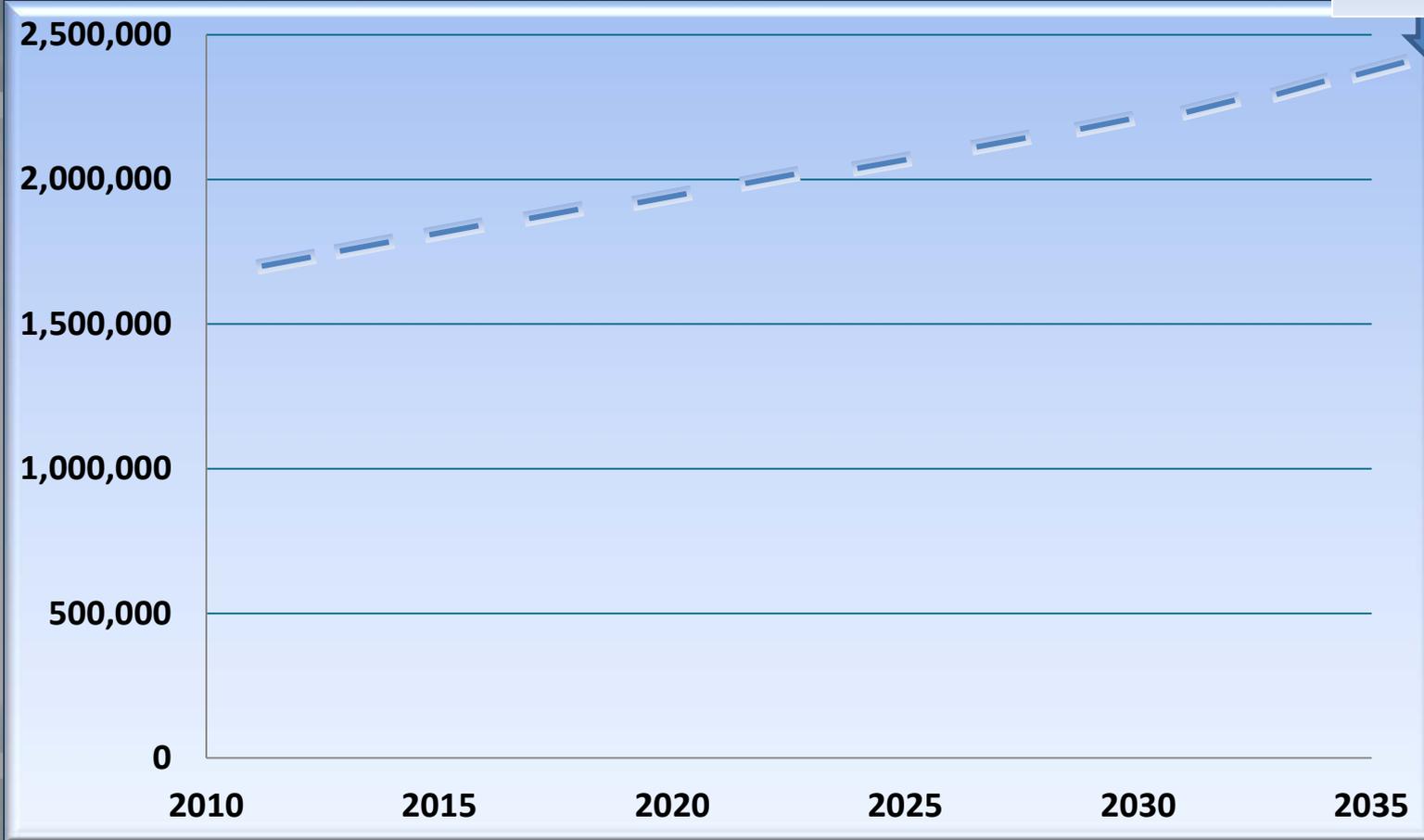


Total Regional Based Aircraft



Total Regional Operations

Approx. 2.3
Million
40% Growth



Change Capacity

Privately-Owned Airports

Capacity assessment looked at closure of these airports (9 total) in system

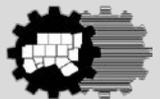
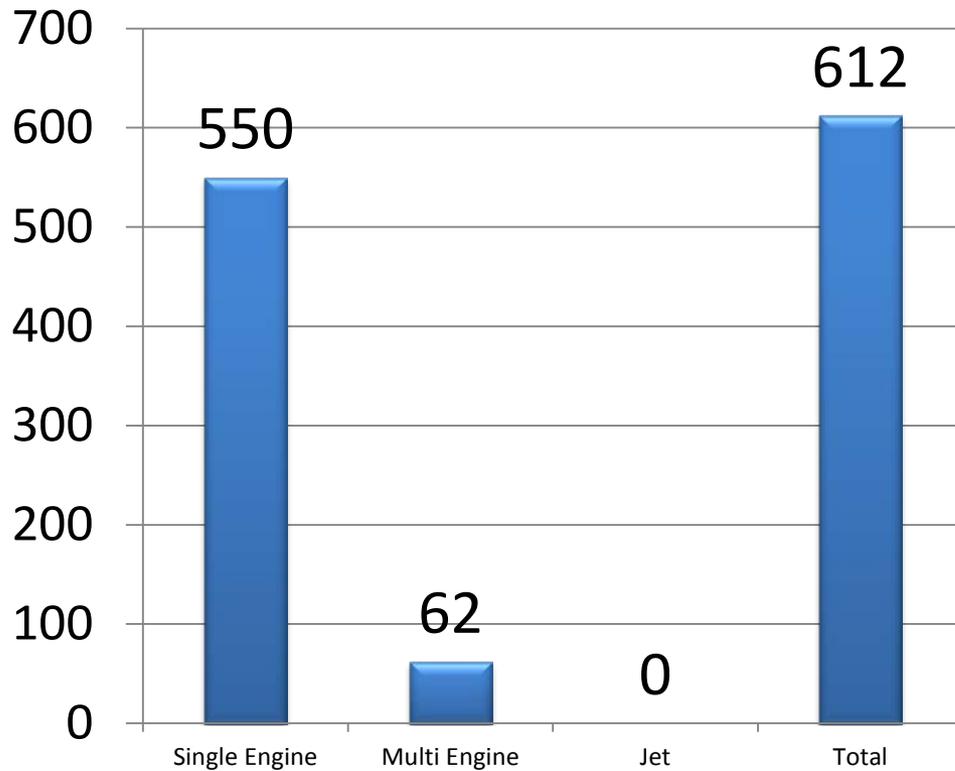
Factors for Closure

- No land-use controls
- No grant assurances
- Land values going up
- Aging pilot population
- Aging aircraft population



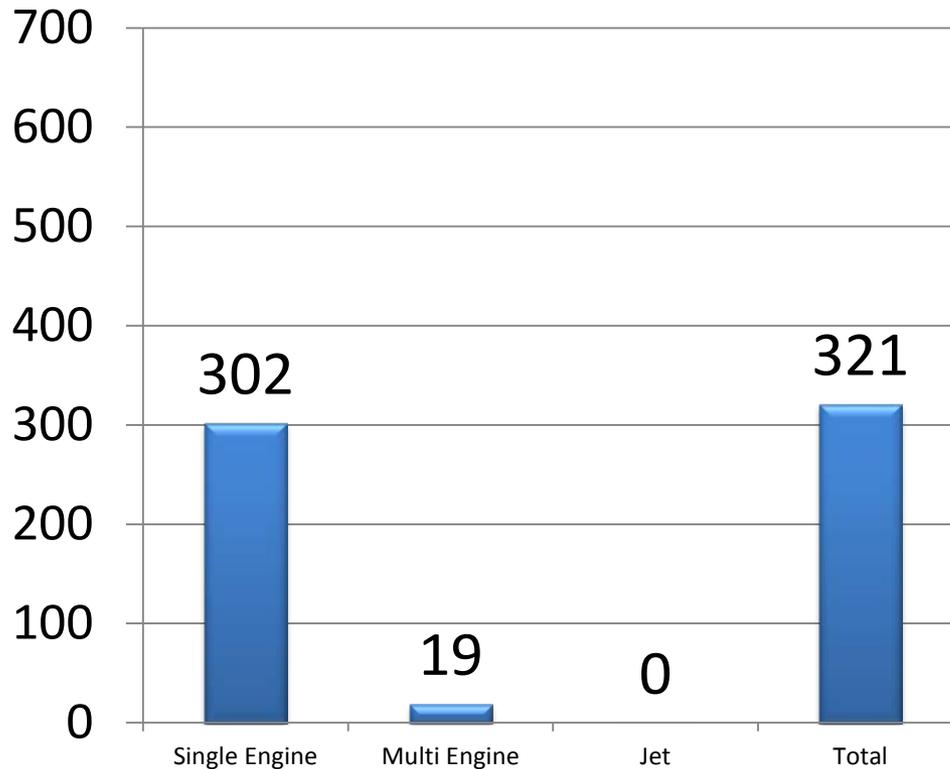
Northwest Regional Airport (Example)

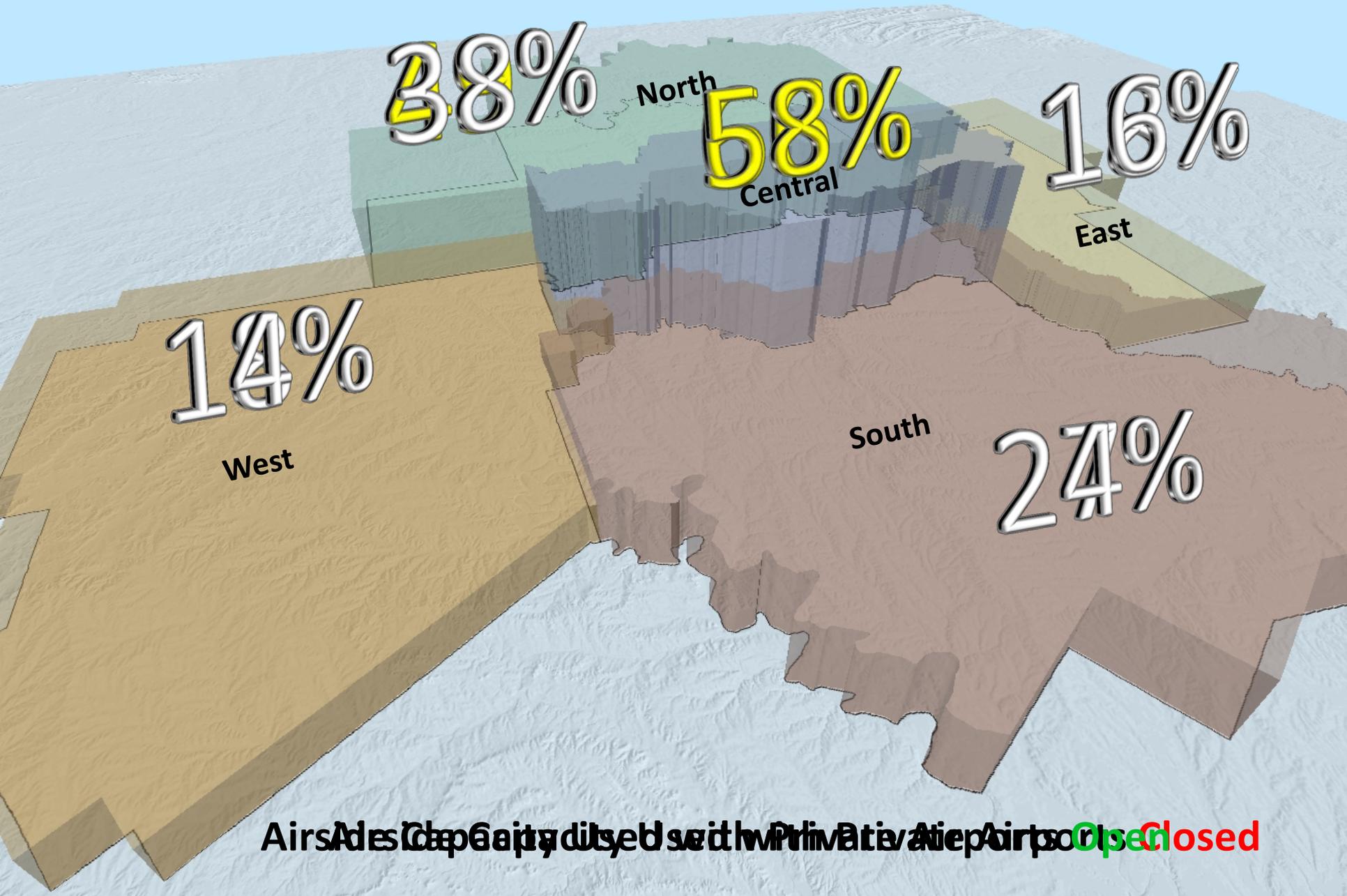
Based Aircraft



Hicks Airfield (Example)

Based Aircraft





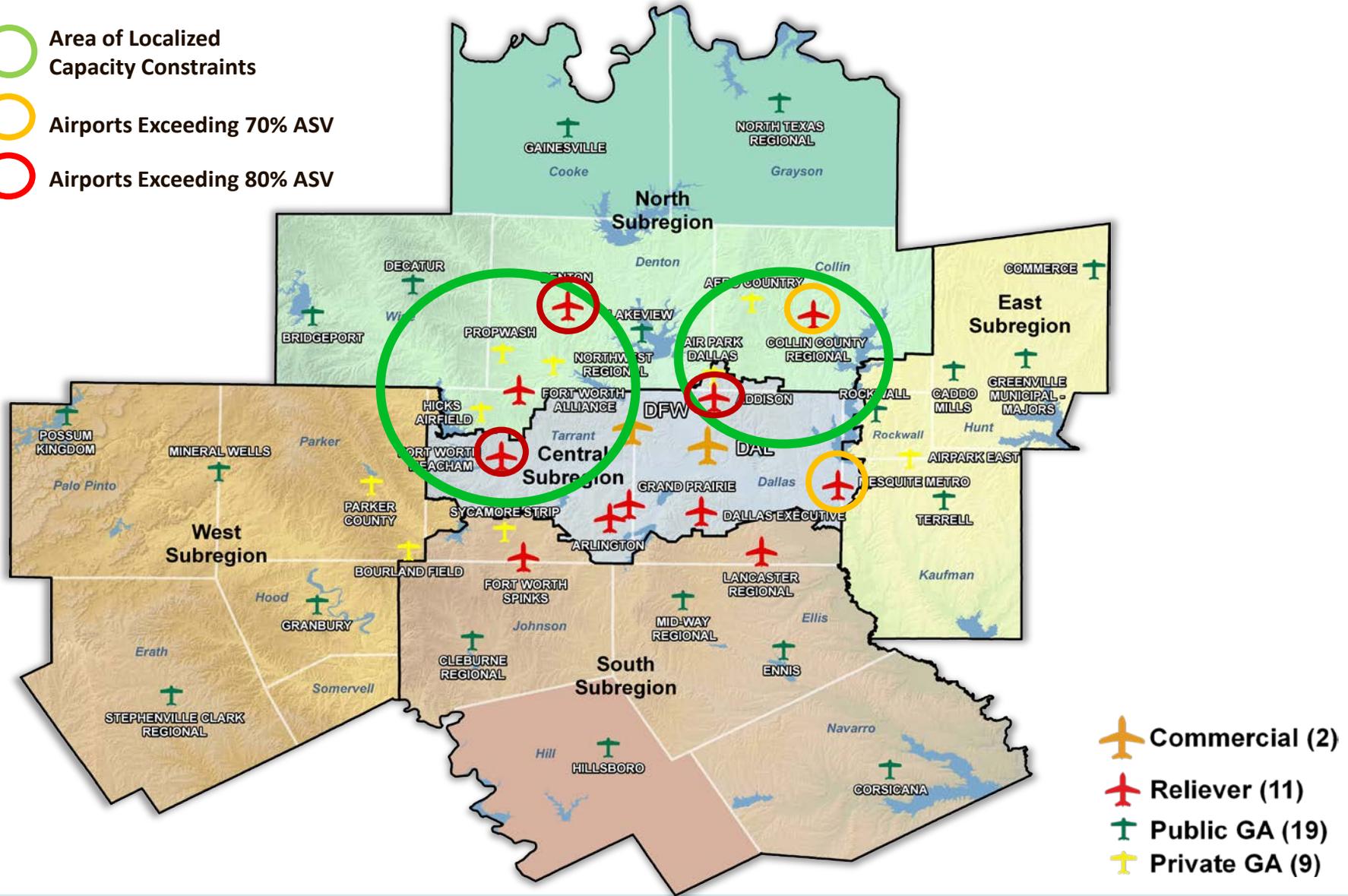
Airports used with Private Airports **Open** **Closed**

Airport System Capacity (Airside)

 Area of Localized Capacity Constraints

 Airports Exceeding 70% ASV

 Airports Exceeding 80% ASV



Public Airport System Costs

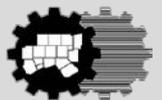
Landside Costs (in millions)

With Private Airports \$143

Without Private Airports \$239

Difference **\$ 96**

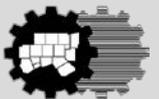
Majority of costs include improvements that may need financial accommodations outside traditional grant funding.



Recommended Plan Outcome

Airside **system capacity** will be **sufficient** in 2035, however:

- a. **Capacity improvements** planned at airports assumed to take place
- b. **Localized congestion** will exist, assuming some loss of private airport capacity
- c. **Geographic coverage** in the western part of the region, suggesting need for additional public-use aviation infrastructure



Major Outcome #2

Nearly **70%** of the anticipated aviation system costs(\approx \$211 million) are **landside development** and primarily for aircraft storage.

Note: In most cases, federal Airport Improvement Program (AIP) grants and State funding are not applicable to revenue generating projects.



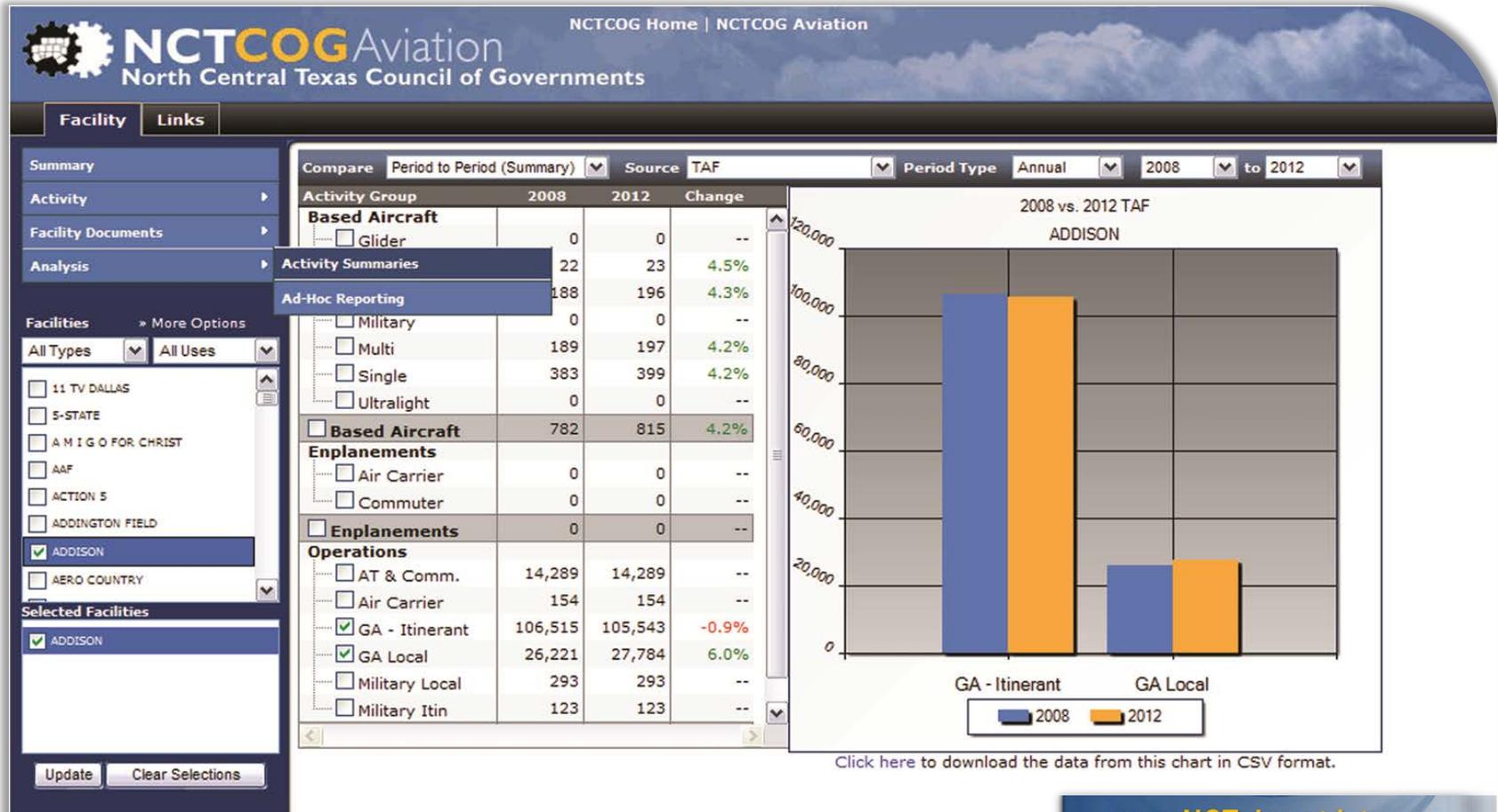
Continuous System Planning Efforts

- Monitor capital improvement and other performance measures
- Coordinate adequate regional planning
- Form partnerships with communities and airport stakeholders
- Initiate policy discussions as necessary
- Work closely with TxDOT and FAA on strategic investment



Utilizing System Plan Tools...

Online Data Management System



Communication Tools

Results communicated via standalone web site and executive summary.



North Central Texas
General Aviation and Heliport System Plan

Study Information
Airport Recommendations
Regional Characteristics
Mapping
NCTairportdata.com
Tools
Vertical Flight
Airport Community Value

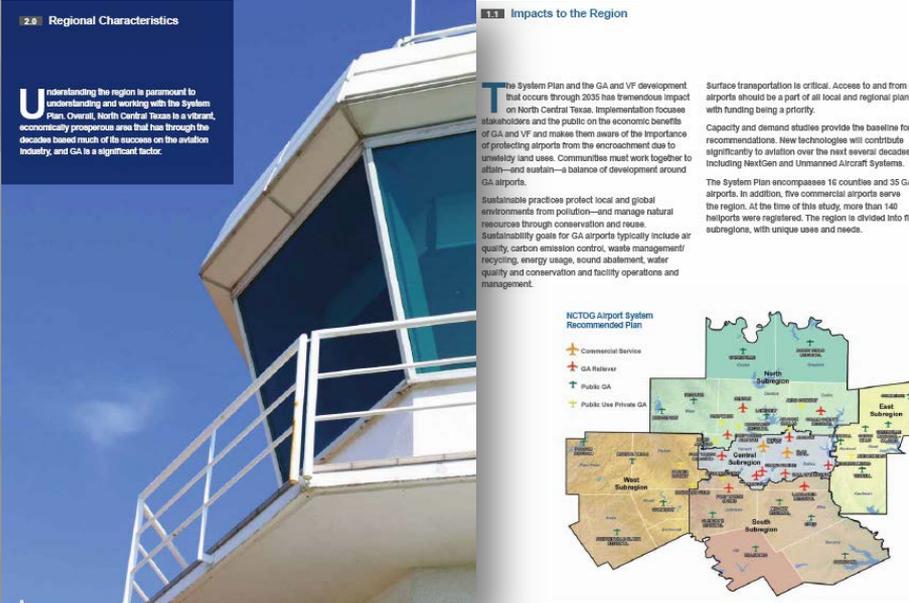
Overview

Mapping

Features

NCTCOG Aviation Website
NCTCOG is involved in more than just the North Central Texas General Aviation and Heliport System Plan. Check out their website to look at the other studies that are currently underway, their public outreach efforts, upcoming meetings, and the many tools available for your facility.

MAP | LEGAL
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2.0 Regional Characteristics

Understanding the region is paramount to understanding and working with the System Plan. Overall, North Central Texas is a vibrant, economically prosperous area that has through the decades based much of its success on the aviation industry, and GA is a significant factor.

3.1 Impacts to the Region

The System Plan and the GA and VF development that occurs through 2035 has tremendous impact on North Central Texas. Implementation focuses stakeholders and the public on the economic benefits of GA and VF and make them aware of the importance of protecting airports from the encroachment due to unwise land uses. Communities must work together to attain—and sustain—a balance of development around GA airports.

Sustainable practices protect local and global environments from pollution—and manage natural resources through conservation and reuse. Sustainability goals for GA airports typically include air quality, carbon emission control, waste management/recycling, energy usage, sound abatement, water quality and conservation and facility operations and management.

Surface transportation is critical. Access to and from airports should be a part of all local and regional plans, with funding being a priority.

Capacity and demand studies provide the baseline for recommendations. New technologies will contribute significantly to aviation over the next several decades including NextGen and Unmanned Aircraft Systems.

The System Plan encompasses 16 counties and 35 GA airports. In addition, the commercial airports serve the region. At the time of this study, more than 140 heliports were registered. The region is divided into five subregions, with unique uses and needs.

NCTOG Airport System Recommended Plan

- Commercial Service
- GA Retiever
- Public GA
- Public Use Private GA

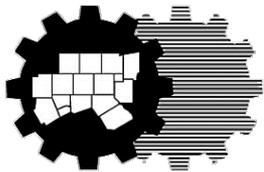
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NCTaviationplan.com

Project Team

Many thanks to staff and our consultant team.



North Central Texas
Council of Governments



8th NASPS
Galveston, TX 2012

QUESTIONS/COMMENTS

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