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**REGIONAL AVIATION SYSTEM PLAN  
PHASE 1 REPORT**



**HOUSTON-GALVESTON AREA COUNCIL**



**QUADRANT CONSULTANTS INC.**

*in association with*



**URS CORPORATION**



**VESTA REA & ASSOCIATES, L.L.C.**



**TRANSOLUTIONS, L.L.C.**

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# CONTENTS

<b>Summary</b> .....	<b>vi</b>
<b>1 Introduction</b> .....	<b>1</b>
1.1 Purpose of Regional Aviation System Plan .....	1
1.1.1 Mission.....	2
1.1.2 Objectives .....	2
1.2 Regional Aviation Study Area .....	2
1.3 Aviation in the Houston Region .....	3
1.3.1 Air Carrier Airports.....	3
1.3.2 Military Airports.....	3
1.3.3 General Aviation Airports.....	3
1.4 Previous Regional Aviation Studies .....	3
1.5 Other Previous Studies .....	4
<b>2 Airport and Airspace Regulatory Framework</b> .....	<b>5</b>
2.1 The National Plan of Integrated Airport Systems.....	5
2.2 General Aviation Regional Airport System Plan .....	5
2.3 Texas Airport System Plan .....	6
2.4 Federal Aviation Design Standards .....	6
2.5 Airspace Obstruction Regulations.....	7
2.5.1 Approach Slope Airspace.....	7
2.5.2 Controlled Airspace .....	8
<b>3 Selection of Study Airports for Regional Plan</b> .....	<b>10</b>
<b>4 Regional Airport Inventory</b> .....	<b>13</b>
4.1 Airport Ownership and Service Levels .....	14
4.2 Airside Facilities.....	15
4.2.1 Runways and Taxiways .....	15
4.2.2 Navigational and Visual Approach Aids .....	18
4.2.3 Weather Stations .....	19
4.3 Landside Facilities.....	20
4.3.1 Terminals .....	20
4.3.2 Fixed Base Operators.....	22
4.3.3 Fueling Services.....	23
4.3.4 Repair and Avionics Services.....	23
4.3.5 Flight Schools and Aircraft Rental and Sales.....	23
4.3.6 Hangars and Tie-Downs .....	23
4.3.7 Automobile Parking .....	24
4.3.8 Other Landside Facilities .....	25
4.4 Roadway Network .....	25
4.5 Based Aircraft.....	25
4.6 Airspace Obstructions and Nearby Incompatible Land Use .....	26
4.7 Airport Security.....	29
4.8 Emergency Management .....	30
4.9 Non-Aviation Facilities on Airports .....	30
<b>5 Airport–Community Relations</b> .....	<b>32</b>
5.1 Perceived Importance of Airports in their Communities.....	32
5.1.1 Economic Development .....	32
5.1.2 Costs and Benefits of Airports .....	33

5.2 Community Awareness of Airports..... 33

5.3 Land Use around Airports ..... 34

5.4 Environmental Impact of Airports..... 35

**6 Conclusions..... 37**

6.1 Airport Preservation ..... 37

6.2 Regional Aviation Issues ..... 38

    6.2.1 Funding.....38

    6.2.2 Pavement Maintenance.....38

    6.2.3 Hangar Space .....39

    6.2.4 Sponsor Interest .....39

    6.2.5 Airport Services .....40

    6.2.6 The Economy .....40

    6.2.7 Community Awareness .....40

    6.2.8 Setting the Airport’s Purpose .....41

    6.2.9 More Land for Expansion .....41

    6.2.10 Private versus Public Airport Ownership.....41

    6.2.11 Security.....41

**7 Regional Aviation Goals ..... 43**

7.1 Preserve existing airports ..... 43

    7.1.1 Public ownership or public/private partnership for all airports in the National Plan of Integrated Airport Systems.....43

    7.1.2 Regional partnerships for small publicly owned airports where appropriate .....43

7.2 Improve safety and security ..... 43

    7.2.1 Bring airports to standards.....43

    7.2.2 Establish emergency airport system .....43

    7.2.3 Improve airport security .....44

7.3 Improve efficiency..... 44

    7.3.1 Build on each airport’s strengths for better system integration .....44

    7.3.2 Add hangars at airports with pent-up demand and sufficient aviation services .....44

    7.3.3 Eliminate capacity constraints and provide essential services at poorly performing airports .....44

7.4 Benefit communities..... 44

    7.4.1 Establish protective land use restrictions around airports .....44

    7.4.2 Add signs, gateway entrances and landscaping at airports.....44

    7.4.3 Encourage community events at airports.....45

**8 Performance Measures..... 46**

8.1 Annual Aircraft Operations ..... 46

8.2 Based Aircraft..... 46

8.3 Largest Aircraft Accommodated..... 46

8.4 Landing Minima under Instrument Flight Rules ..... 46

8.5 Population and Employment within 30 Minutes Driving Distance..... 47

8.6 Annual Operating Budget..... 47

8.7 Compatibility of Adjacent Land Uses ..... 47

8.8 Pavement Condition ..... 47

**9 Recommendation for Phase 2 ..... 48**

**References ..... 49**

**Glossary ..... 50**

**Appendices: Airport Questionnaires and Data**



## FIGURES

Figure 1: 13-County Houston-Galveston Region .....	3
Figure 2: Controlled Airspace Classes.....	9
Figure 3: Study Airports in the Houston-Galveston Region.....	12
Figure 4: Ownership of Public-Use Airports .....	14
Figure 5: Partial or No Parallel Taxiway for Main Runway .....	17
Figure 6: Study Airports with At Least One Instrument Approach .....	18
Figure 7: Airport Traffic Control Towers .....	20
Figure 8: Airports with Terminal Buildings .....	22
Figure 9: Availability of Fuel at Study Airports .....	23
Figure 10: Number of Aircraft Hangars at Study Airports .....	24
Figure 11: 30-Minute Drive Areas to Study Airports .....	25
Figure 12: Based Aircraft at Study Airports .....	27
Figure 13: Airports with Encroachments on Main Runway Approach .....	29
Figure 14: Airports for Emergency Response .....	31
Figure 15: Parks, Wildlife and Forest Preserves, Golf Courses and Greenways.....	35

## TABLES

Table 1: Recommended Reliever Airports in 1983 and 1991 Plans .....	4
Table 2: Texas Airport Classification System .....	6
Table 3: Texas Minimum Design Standards for Airports.....	7
Table 4: Study Airports in the Houston-Galveston Region.....	11
Table 5: Study Airport Ownership and Roles .....	15
Table 6: Runway at Study Airports .....	16
Table 7: Navigational Aids at Study Airports .....	18
Table 8: Landside Facilities and Services at Study Airports.....	21
Table 9: Based Aircraft, by Type.....	25
Table 10: Based Aircraft, by Airport and Type .....	26
Table 11: Obstructions and Noise-Sensitive Land Uses near Runways at Study Airports .....	28
Table 12: Economic Benefits of Study Airports (millions of \$) .....	34



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## SUMMARY

The Regional Aviation System Plan is a process that evaluates how airport facilities in the Houston-Galveston region are serving aviation needs and recommends measures to modify airport facilities to meet regional aviation needs better. The mission of the Regional Aviation System Plan is to establish a balanced system of general aviation, reliever and commercial airports for all aviation users in the 13-county Houston-Galveston region. The plan seeks to ensure that the airports in the region are preserved, that they have the facilities and capacity to operate safely and efficiently in their respective roles in the aviation system, and that they provide maximum economic benefits to their local communities and the region.

Phase 1 of this process comprises:

- An inventory of the 28 study airports in the Houston-Galveston region;
- Interviews with community and economic leaders of the communities in which the airports are located;
- Evaluation of the status of airport facilities and community relations;
- Identification of major issues affecting regional aviation; and
- Development of specific goals and performance measures to guide decisions on actions to improve the regional aviation system.

The airport inventory covers 28 study airports serving general aviation in the Houston-Galveston region. These study airports all are open to public use and typically have a paved or well-compacted turf runway, are owned by one person, entity or partnership, and have basic facilities for airport fueling, repair and storage. Ten of these are privately owned, while 18 are owned by public entities such as cities or counties. The airports have 2,799 based aircraft,\* 69 percent of which are single-engine propeller aircraft, 13 percent are multi-engine propeller aircraft, 12 percent are jet aircraft and four percent are helicopters.

Most of the study airports in the Houston-Galveston region are performing well and are benefiting their communities and the region:

- 27 of the 28 study airports have paved active runways, with lengths ranging from 2,480 feet to 12,001 feet, and 18 of these have paved taxiways paralleling the main runways;

\* Based aircraft count reflects data collected for this study in 2009 except for West Houston Airport, for which data were unavailable at the time of this study; Federal Aviation Administration Form 5010 for 2006 was used instead.

- 23 airports have navigational aids to assist pilots to land when visibility is poor;
- 22 airports have terminal buildings with services for pilots and passengers;
- 7 airports have airport traffic control towers;
- 23 airports have full-time managers at the airport;
- 26 airports offer aviation fuel for sale;
- 21 airports have at least some aircraft repair services available; and
- 14 airports are noted by the Federal Aviation Administration for emergency response.

In addition, the Houston-Galveston region has relatively complete coverage by its study airports, one of which is within a 30 minute drive of just about anywhere in the region.

Many communities have supported their airports so that they can provide transportation, commerce, recreation and emergency readiness. The communities around 22 of the 28 study airports perceive their airports as economic engines that can attract companies and support local businesses with national and international connections.

However, some of the airports in the Houston-Galveston region face serious issues that could affect their future continued operation and potential expansion. Following is a summary of these issues:

- Many airports are near capacity for based aircraft, and demand for hangar space is strong;
- The condition of pavement on runways and taxiways is fair to poor at 15 airports, and eight lack full or partial parallel taxiways for their main runways;
- Some airports lack one or more aviation services or navigational aids that, if provided, would improve these airports' functionality;
- Most airports have height hazard obstructions, and many have incompatible adjacent land use, complicating their use and potential expansion;
- Some airports would have better local support and funding if they were perceived more positively by their communities, or if there was more community awareness of their airports; and
- Some airports require more funding by their owners to maintain facilities and operations adequately.

This report presents specific goals and performance measures to guide analysis in Phase 2 towards an optimal system configuration and appropriate actions to realize it. The goals are:

- **Preserve existing airports** through public ownership or public/private partnership for all airports in the Federal Aviation Administration's National Plan of Integrated Airport Systems, and regional partnerships for small publicly owned airports where appropriate.
- **Improve safety and security** by bringing airports to the Federal Aviation Administration's standards, establishing an emergency airport system, and ensuring security perimeter fencing for all airports.
- **Improve efficiency** by building on each airport's strengths for better system integration, adding hangars at airports with pent-up demand and sufficient aviation services, and providing essential services, additional facilities or increasing capacity to eliminate bottlenecks.
- **Benefit communities** by establishing protective land use restrictions around airports, adding signs, gateway entrances and landscaping and encouraging community events at airports.



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**PHASE 1 REPORT**

**1 INTRODUCTION**

This report is an interim account of the Houston-Galveston Area Council’s 2040 Regional Aviation System Plan Update. It covers Phase 1 of the planning effort, in which the Houston-Galveston Area Council conducted an airport inventory, focus group meetings and three public involvement meetings; identified regional aviation issues; and set goals and performance measures. Phase 1 began in October 2008 and ends in September 2009. Phase 2 of the planning process will begin in October 2009 and will end in September 2010 with the publication of the Regional Aviation System Plan Update report. Phase 2 activities will include aviation forecasting, developing and evaluating system scenarios, determining priorities for airport actions, and recommending changes to the National Plan of Integrated Airport Systems to improve the regional aviation system.

**1.1 Purpose of Regional Aviation System Plan**

The Regional Aviation System Plan evaluates how airport facilities in the Houston-Galveston region are serving aviation needs in the region and recommends measures to modify airport facilities to meet aviation needs in the region better.

In this plan, the focus is on optimizing aviation services over the entire Houston-Galveston region rather than improving any specific airport. While the plan will recommend specific facilities at specific airports, the planning process takes a system approach to examine the various roles served by airports in the region. This includes how airplane owners, users and the public benefit from aviation facilities in the region and what aviation facilities may be needed to better meet the needs of the aviation community and the public. A system approach is needed because physical or operational changes at just one airport would affect operations at other airports in the region. For example, closure of a runway at a general aviation airport would decrease the capacity of that airport for airplane operations. The increased congestion to use the runway could cause some aircraft owners to move their aircraft to less busy airports. These airports may need to build additional hangar or apron space, or increase their fuel tank capacities, and so on. Similarly, airport policy changes on the federal, state or local level could reduce or increase aviation capacity at some or all airports in the region.

### 1.1.1 Mission

The mission of the Regional Aviation System Plan is to establish a balanced system of general aviation, reliever and commercial airports for all aviation users in the 13-county Houston-Galveston region. The plan should provide for:

- Air access to each of the region's counties;
- Preservation of the region's airports;
- A safe environment with safe airports;
- Capacity to meet current and future aviation demand;
- Opportunities for airside and landside development;
- Protection from incompatible land uses;
- Protection of the environment and sustainable development;
- Economic benefits for local communities; and
- Competitiveness with other Texas regional aviation systems.

### 1.1.2 Objectives

The Regional Aviation System Plan has these objectives:

- Determine the opportunities and constraints for aviation users at the study airports in the 13-county Houston-Galveston region.
- Assess the current capacity and demand for aviation facilities in the region's aviation system, forecast the likely future demand, and determine actions that would be needed in the system to meet this demand.
- Establish, with public input, needs, goals and performance measures for future general aviation development in the region.
- Assess alternative means to accomplish these goals and to find the most efficient, cost-effective combination of new facilities, reconstruction of existing facilities and new technology at airports in the region for future general aviation.
- Set priorities, with public input, for new facilities and reconstruction at general aviation and reliever airports in the region and convey these priorities to the Texas Department of Transportation Aviation Division and the Federal Aviation Administration as funding recommendations.

## 1.2 Regional Aviation Study Area

The study area for the Regional Aviation System Plan is the thirteen counties that are members of the Houston-Galveston Area Council, the regional planning agency of southeast Texas. The study area centers on Harris County, which is the most populous county in Texas. The other counties are Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Liberty, Matagorda, Montgomery, Waller, Walker and Wharton. Figure 1 is a map of Texas counties, showing the thirteen counties in the Houston-Galveston region.

There are 28 airports in this study. These study airports may be privately or publicly owned but are all open to public use. They typically have a paved or well-compacted turf runway, are owned by one person, entity or partnership, and have basic facilities for airport fueling, repair and storage. The planning horizon for this study is 2040 (30 years from 2010, when the Regional Aviation System Plan report will be issued).





these airports had been designated reliever airports for the City of Houston’s two air carrier airports by the Federal Aviation Administration by 1986. The 1986 plan examined growth of passenger service on air carriers at the City of Houston’s main airports. It also examined aviation needs west of Houston and concluded that development of a new West Side Airport and a new airport near Sealy in Austin County was desirable.

By the time the 1992 Regional Airport/Airspace System Plan Update<sup>2</sup> was issued, there were 25 existing system airports and two proposed new system airports, of which eight existing and two proposed airports were recommended as reliever airports for Bush Intercontinental and Hobby Airports. The two proposed airports were the West Side Airport, which was in the planning stage by the City of Houston, and the East Grand Parkway Airport, which had a proposed location in Baytown but was not in planning in 1992. Planning for the proposed Sealy airport had ended by 1992 and the airport was eliminated from the 1992 plan.

### 1.5 Other Previous Studies

Two other reports by the Houston-Galveston Area Council are relevant to this study. One recommends additional reliever airports in the Houston-Galveston region, and the other inventories and assesses land use near the airports in the region.

In 1991, the Houston-Galveston Area Council issued the Reliever Airport Study.<sup>3</sup> This study recommended airports in the region to be designated by the Federal Aviation Administration as reliever airports for George Bush Intercontinental Airport and Hobby Airport, to re-base and re-route general aviation activity to airports other than these two air carrier airports, so that they can use more of their capacity for air carrier service. This study is an update of a previous study that recommended five airports (Table 1) as relievers; the 1991 study recommended adding five other airports, totaling ten reliever airports, one of which was proposed to be built.

**Table 1: Recommended Reliever Airports in 1983 and 1991 Plans**

<i>1983 Plan</i>	<i>1991 Plan</i>
D.W. Hooks Memorial Airport	D.W. Hooks Memorial Airport
Ellington Field (now Ellington Airport)	Ellington Field (now Ellington Airport)
Houston Hull Airport (now Sugar Land Regional Airport)	Houston Hull Airport (now Sugar Land Regional Airport)
Montgomery County Airport (now Lone Star Executive Airport)	Montgomery County Airport (now Lone Star Executive Airport)
West Houston Airport	West Houston Airport
	Brazoria County Airport
	Clover Field (now Pearland Regional Airport)
	La Porte Municipal Airport
	Scholes Field (now Scholes International Airport)
	West Side Airport (proposed)

The 1995 Regional Airport Land Use Survey<sup>4</sup> determined and mapped land uses around 30 airports in the Houston-Galveston region. The study checked for noise-sensitive land uses, height hazards and landfills near the airports, and whether land uses near the airport were controlled by municipal zoning ordinances.

## 2 AIRPORT AND AIRSPACE REGULATORY FRAMEWORK

The Federal Aviation Administration ensures that aviation in the United States is as safe and efficient as possible. To this end, the agency issues airspace permits to all civilian airports in the nation. While older airports that already have airspace permits but do not meet current design standards are allowed to keep their airspace permits if they can still be operated safely, new airports are only issued airspace permits if they meet current federal guidelines for airport design. The design guidelines vary by how the airport is classified, which is based on its intended use. In addition, the Texas Department of Transportation administers federal grants to airports and develops its own aviation plan and classification system.

### 2.1 The National Plan of Integrated Airport Systems

The Federal Aviation Administration has developed its National Plan of Integrated Airport Systems<sup>5</sup> to plan for airports and heliports of national importance. The National Plan classifies airports by their service levels and the roles they play in the national airport system. The service level of an airport reflects the type of public service the airport provides to the community and the nation. The service level categories are:

- **Primary Service.** Public-use airports with scheduled air carrier service for at least 10,000 passengers per year.
- **Commercial Service.** Public-use airports with scheduled air carrier service for 2,500 to 10,000 passengers per year.
- **General Aviation.** Airports with no scheduled air carrier service or airports with scheduled air carrier service for less than 2,500 passengers per year.
- **Reliever.** General Aviation airports that relieve congestion at designated Primary Service airports by redirecting general aviation operations from the Primary Service airports.

Airports in the National Plan of Integrated Airport Systems are eligible to receive federal grants for airport planning and construction. All Primary Service, Commercial Service and Reliever airports are in the National Plan. General Aviation airports and heliports are eligible to be added to the National Plan if the following requirements are met:

- The airport is owned by an eligible public sponsor;
- The airport has at least 10 based aircraft;
- The airport is not within 20 miles of an airport in the National Plan; and
- The airport is part of a state or metropolitan airport system plan, or it is located on an adequate site to provide safe and efficient airport facilities.

Privately owned Reliever airports that are already in the National Plan and have received grants from the Federal Aviation Administration within the last ten years are eligible to remain in the National Plan. However, if there has been no such grant in the previous ten years, these airports can lose their Reliever status and can be removed from the National Plan if their ownership is not transferred to eligible public sponsors.

### 2.2 General Aviation Regional Airport System Plan

The Southwest Region of the Federal Aviation Administration has instituted a regional system<sup>6</sup> of classifying airports other than Primary Service airports, to supplement the national classification system. The regional system classifies airports by based aircraft, as follows:



- **Level I.** General Aviation airports with at least 100 based aircraft or at least five based jet aircraft, and Commercial Service and Reliever airports with at least 50 based aircraft or at least five based jet aircraft.
- **Level II.** General Aviation airports with at least 50 based aircraft or at least one based jet aircraft, and Commercial Service and Reliever airports with at least ten based aircraft or at least one based jet aircraft.
- **Level III.** General Aviation airports with at least 10 based aircraft.
- **Level IV.** General Aviation airports with less than 10 based aircraft.

### 2.3 Texas Airport System Plan

The Aviation Division of the Texas Department of Transportation developed the Texas Airport System Plan in 1970 to classify airports and heliports that are of statewide importance. The most recent update to the Plan was done in 2002.<sup>7</sup> A new Plan is expected in 2010, based on policies and standards issued in 2007. The Texas system sets four basic roles for airports (Table 2) and classifies airports on their design characteristics and the types of aircraft that are capable of operating there. The National Plan of Integrated Airport Systems and the General Aviation Regional Airport System Plan have elements in common with the Texas system.

The Texas Plan specifies minimum design standards (Table 3) for each airport class based on Federal Aviation Administration standards, including airfield size, instrument approach type, runway dimensions and strength, approach area and taxiway configuration.

### 2.4 Federal Aviation Design Standards

Airports listed in the National Plan of Integrated Airport Systems by the Federal Aviation Administration are expected to adhere to current federal aviation standards for the design of airports.<sup>8</sup> Furthermore, any grant by the Federal Aviation Administration to an airport in the National Plan of Integrated Airport Systems for new or improved airside facilities must adhere to current standards, except as approved by the Federal Aviation Administration.

The Federal Aviation Administration assigns each airport a design (critical) aircraft type and sets design standards for the airport based on this design aircraft. An index called the Airport Reference Code incorporates the design aircraft features in two components: a letter representing the design aircraft’s approach speed, and a Roman numeral representing the design aircraft’s

**Table 2: Texas Airport Classification System**

<i>Airport Role</i>	<i>Description</i>
Commercial Service	Supports scheduled passenger service by transport aircraft. Primary commercial service airports have more than 10,000 passengers per year; Non-primary commercial service airports have between 2,500 and 10,000 passengers per year.
Reliever	Relieves congestion at a Commercial Service airport by providing an alternative for general aviation; has at least 100 based aircraft or 25,000 annual itinerant operations.
Business/Corporate	Supports use of large twin-engine and jet aircraft, generally for business. Must be beyond 25 miles from a commercial service or business/corporate airport and either serve a concentration of users, have 500 jet operations per year or two based jet aircraft.
Community Service	Supports use of single-engine, light twin-engine and small jet aircraft, for business and personal use. Must be near a congested commercial service, reliever or business/corporate airport or serve a community at least 25 miles away from that airport, and must have at least 20 based aircraft or 6,000 operations per year.
Basic Service	Supports single-engine and twin-engine aircraft (but not turbine aircraft) less than 12,500 pounds generally for personal use, and has an established public investment.

**Table 3: Texas Minimum Design Standards for Airports**

<i>Category</i>	<i>Commercial Service</i>	<i>Reliever</i>	<i>Business/Corporate</i>	<i>Community Service B-II</i>	<i>Community Service B-I</i>	<i>Basic Service</i>
Design Aircraft	Medium to heavy transport	Business jet	Business jet; aircraft <60,000 lbs	Light twin; turbo-prop <30,000 lbs	Single-engine, light twin piston <12,500 lbs	Light twin and single piston
Runway Length	As required by critical aircraft	To handle 100% of small aircraft fleet	To handle 75% of large airplanes <60,000 lbs	To handle 100% of small aircraft fleet	To handle 95% of small aircraft fleet	To handle 95% of small aircraft fleet
Runway Width	100 feet	75 feet	75 feet	75 feet	60 feet	60 feet
Runway Strength	As required	30,000 lbs	30,000 lbs	30,000 lbs	12,500 lbs	12,500 lbs
Runway Lighting	High intensity	Medium intensity	Medium intensity	Medium intensity	Medium intensity	Medium intensity
Taxiway Type	Full parallel	Full parallel	Full parallel	Partial parallel	Stub to runway ends and tie-downs	Stub to runway ends and tie-downs
Approach Type	Precision	Precision	Precision	Non-precision	Non-precision	Visual
Approach Minima	½ mile	¾ mile	¾ mile	1 mile	1 mile	n/a
Services	Full	Terminal, AWOS, fuel	Terminal, AWOS, fuel	Terminal, AWOS, fuel	Terminal, AWOS, fuel	n/a

wingspan. The following list shows the categories for approach speed:

- **A:** Approach speed less than 91 knots
- **B:** Approach speed 91 knots or more, but less than 121 knots
- **C:** Approach speed 121 knots or more, but less than 141 knots
- **D:** Approach speed 141 knots or more, but less than 166 knots
- **E:** Approach speed 166 knots or more

Aircraft wingspan categories are as follows:

- **I:** Wingspan less than 49 feet
- **II:** Wingspan 49 feet or more but less than 79 feet
- **III:** Wingspan 79 feet or more but less than 118 feet
- **IV:** Wingspan 118 feet or more but less than 171 feet
- **V:** Wingspan 171 feet or more but less than 214 feet
- **VI:** Wingspan 214 feet or more but less than 262 feet

The design aircraft sets the airport’s design criteria. As approach speed increases, runway length must be longer, and taxiways must likewise be longer. As wingspan increases, taxiways must have greater separation. Similarly, the loaded weight of the design aircraft determines the criterion for runway strength.

## 2.5 Airspace Obstruction Regulations

### 2.5.1 Approach Slope Airspace

A safe airport controls not just the spacing of runways and taxiways to avoid aircraft collisions, but also the surrounding airspace to keep it clear of obstructions that aircraft could strike during approach and takeoff. The Federal Aviation Administration defines the planes (“surfaces”) in the

3-dimensional airspace around airports, through which any protruding object would obstruct an airplane on approach or takeoff. For safety's sake, the Federal Aviation Administration<sup>9</sup> requires airports in the National Plan of Integrated Airport Systems to control this airspace to eliminate obstructions.

The types of approach slope surfaces are as follows:

- **Primary surface.** A surface aligned with and centered on the runway, extending 200 feet beyond the threshold in each direction.
- **Approach surface.** An inclined slope extending outward and upward from the ends of the primary surfaces. The innermost part of the approach surface overlaps with the runway protection zone.
- **Horizontal surface.** A horizontal plane centered on and 150 feet above the airport. The limits of the horizontal surface are the approach surfaces on the inside and a set distance from the runways, depending on the type of airport, on the outside.
- **Transitional surface.** An inclined slope between the primary or approach surfaces and any other surface.
- **Conical surface.** An inclined slope extending upward and outward from the outside edge of the horizontal surface.

The Federal Aviation Administration publishes instrument approaches for runways at airports, defining the type of instrument approach and the dimensions of the approach surface (especially the length from the primary surface) for each published approach. Instrument approaches can use either ground-based signals (ILS, VOR) or satellite-based signals (RNAV, GPS, LPV), with the newer satellite-based systems gaining increasing favor as they can be used without expensive and delicate installations at airports.

## 2.5.2 Controlled Airspace

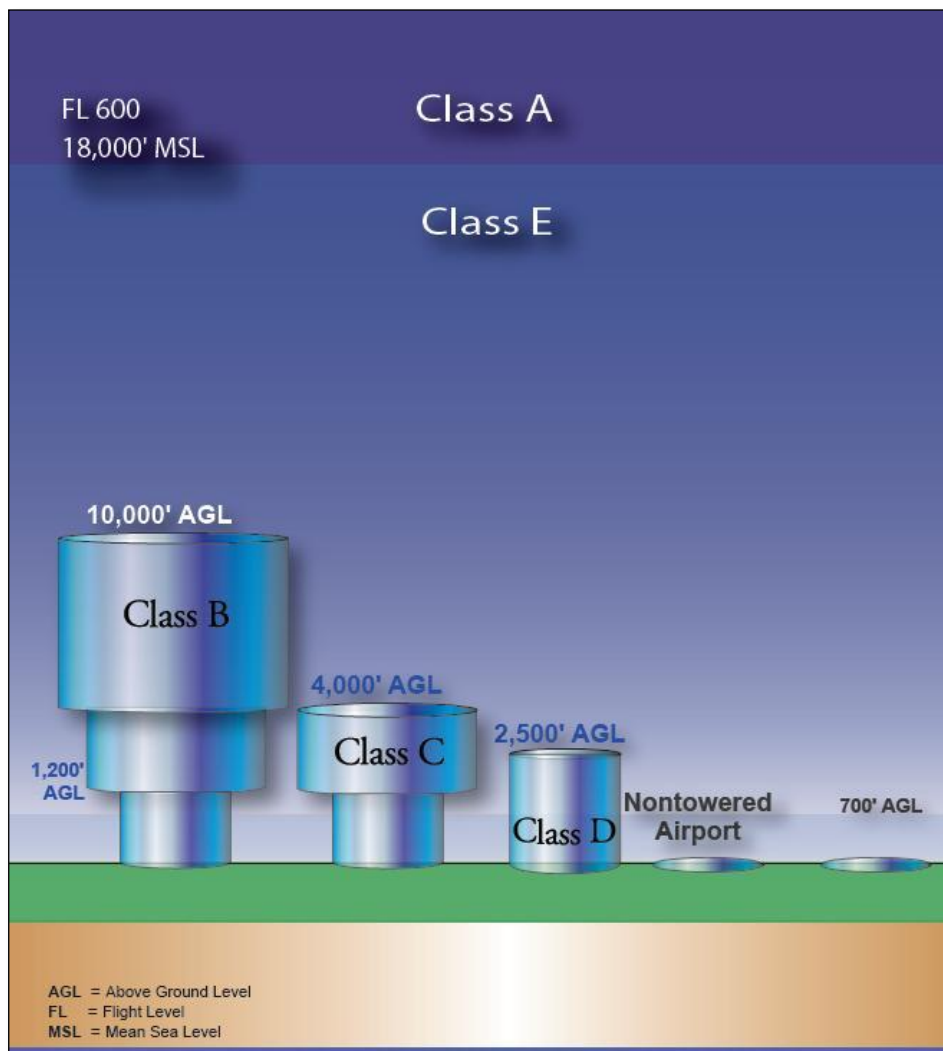
The Federal Aviation Administration and the Department of Defense control parts of the airspace over the United States according to a system of airspace classes. Controlled airspace is classified as follows:

- **Class A airspace** covers the United States and includes all airspace from 18,000 feet to 60,000 feet, where larger jet aircraft typically fly. Aircraft flying in Class A airspace must operate under instrument flight rules.
- **Class B airspace** is a circular airspace over and 30 nautical miles around the nation's busiest airports, within which all aircraft must receive clearance and follow instructions from the airport traffic control tower. Class B airspace grows in diameter with increasing steps in elevation, to include approaching aircraft. Bush Intercontinental, William P. Hobby and Ellington Airports are circled with overlying Class B airspace.
- **Class C airspace** is a circular airspace over some of the larger, more congested airports that accommodate instrument landings and have airport traffic control towers. All aircraft within Class C airspace must communicate with and follow instructions from Air Traffic Control. There is no Class C airspace over the Houston-Galveston region.
- **Class D airspace** is a circular airspace over smaller, less congested airports that have airport traffic control towers and accommodate instrument landings. All aircraft within Class D airspace must communicate with and follow instructions from the tower when it is operating. An example of Class D airspace is at D.W. Hooks Memorial Airport, which operates within a volume of Class D airspace that has been carved out of the Class B airspace around Bush Intercontinental Airport.

- **Class E airspace** is the space outside of other controlled airspace below 18,000 feet elevation and generally above 700 feet above the ground, within which aircraft may fly under visual flight rules without communicating with ground controllers, or under instrument flight rules while communicating with ground controllers. VOR or Victor airways, a system of air traffic routes radiating from very high-frequency omni-directional radar, are also Class E airspace. There are 13 Victor airways crossing the 13-county Houston-Galveston region. The Federal Aviation Administration can also designate Class E airways and approaches within Class B, C or D airspace to accommodate small airports that are close to larger airports.
- **Class G airspace** is the remaining uncontrolled airspace that is generally close to the ground, where aircraft may fly under visual flight rules with no restriction.
- Special use and other controlled airspace types also exist, for example, around military and aerospace installations.

Figure 2 is a diagram of airspace classes and their relative sizes and locations.

**Figure 2: Controlled Airspace Classes**



### 3 SELECTION OF STUDY AIRPORTS FOR REGIONAL PLAN

There are now over 100 airports in the Houston-Galveston region, but not all of them are available to the public. Some are private runways that are available only to a small group of members or landowners. This plan considers a subset of all the airports in the region that contribute significantly to public mobility for the region.

The Regional Aviation System Plan will ultimately recommend a list of system airports, which are significant public-use facilities that help meet the aviation needs of the region. System airports are available, provide needed aviation facilities and services to all and help to make the region a destination for aircraft nationwide. Just as a traveler coming to a new city needs to find suitable hotels near where he wants to visit that provide safe and comfortable accommodations, a pilot coming to the Houston-Galveston region needs to find a suitable airport near his or her destination that provides a safe facility to land the aircraft and convenient services for aircraft refueling, protection and repair. Similarly, just as a family relocating to the region needs to find a comfortable home in a convenient and safe neighborhood with nearby stores and services, an aircraft owner in the region needs to base his or her aircraft in a convenient and safe airport with aviation services available. The regional aviation system should have airports with varying locations, facilities and services to provide a range of options for the needs and desires of the aviation community.

This phase of the Regional Aviation System Plan begins with the 27 system airports listed in the 1992 Regional Airport/Airspace System Plan, removes two that have closed (Houston Gulf and Andrau Airports) and two that were never built (West Side and East Grand Parkway Airports), adds one new airport built since the previous plan (Houston Executive Airport) and adds four public-use airports (Grawunder, Palacios Municipal, Robert R. Wells and Winnie-Stowell Airports) that have sufficient facilities and activity to be potential system airports, and had been included in plans before 1992 but were not included in the 1992 plan. These study airports typically have a paved or well-compacted turf runway, are owned by one person, entity or partnership, and have at least one of the following: covered aircraft storage, aircraft fuel for sale, terminal facilities or repair services.

Study airports do not include private-use airports, airports without basic facilities and airports that are jointly owned by many landowners (“aviation communities”). While there are many such airports in the region, they are not likely to become system airports.

The 28 airports in the Houston-Galveston region that are studied in this Regional Plan are presented in Table 4 and Figure 3. The Houston-Galveston region has two air carrier airports (Bush Intercontinental and William P. Hobby), which are study airports, but these airports are special cases that are dedicated primarily to scheduled passenger air service, which is not the subject of this plan. However, air carrier airports are also used for general aviation, and they are considered in this plan along with other airports as appropriate. Ellington Airport is also a special case, as it is both a military airport and a general aviation airport.

The Federal Aviation Administration’s criteria for eligibility for inclusion in the National Plan of Integrated Airport Systems,<sup>10</sup> which were presented above, is more restrictive than the basis for selecting study airports presented above. Unlike the National Plan, study airports include:

- Privately owned, public-use airports that are not designated relievers;
- Smaller airports (less than 10 based aircraft); and
- Airports that are closer than 20 miles to airports in the National Plan.

**Table 4: Study Airports in the Houston-Galveston Region**

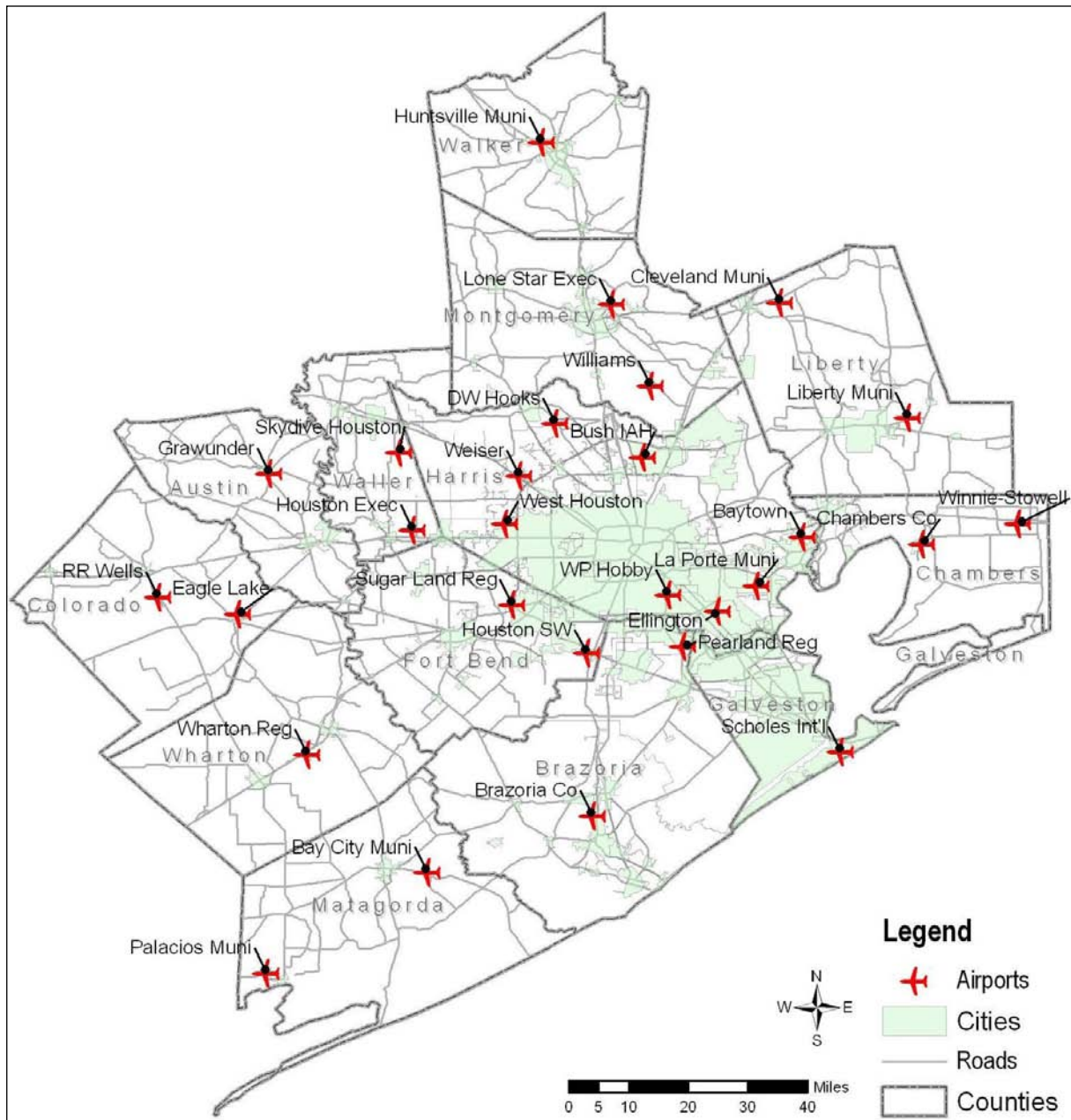
<i>Airport</i>	<i>Type</i>	<i>Cities Served</i>	<i>Owned By</i>	<i>Code</i>	<i>In NPIAS*</i>	<i>In TASP*</i>
<b><i>Air Carrier Airports</i></b>						
George Bush Intercontinental Airport	Carrier	Houston (north)	City of Houston	IAH	✓	✓
William P. Hobby Airport	Carrier	Houston (southeast)	City of Houston	HOU	✓	✓
<b><i>Reliever Airports</i></b>						
Brazoria County Airport	General	Angleton, Lake Jackson	Brazoria County	LBX	✓	✓
David Wayne Hooks Memorial Airport	General	Houston (north)	Jag Gill	DWH	✓	✓
Ellington Airport	General Military	Houston (southeast)	City of Houston	EFD	✓	✓
Houston Southwest Airport	General	Arcola	James Griffith, Jr.	AXH	✓	✓
La Porte Municipal Airport	General	La Porte	City of La Porte	T41	✓	✓
Lone Star Executive Airport	General	Conroe	Montgomery County	CXO	✓	✓
Pearland Regional Airport	General	Pearland	Clover Acquisition Corporation	LVJ	✓	✓
Scholes International Airport	General	Galveston	City of Galveston	GLS	✓	✓
Sugar Land Regional Airport	General	Sugar Land	City of Sugar Land	SGR	✓	✓
West Houston Airport	General	Houston (west)	West Houston Airport Corp.	IWS	✓	✓
<b><i>General Aviation Airports</i></b>						
Bay City Municipal Airport	General	Bay City	City of Bay City	BYY	✓	✓
Baytown Airport	General	Baytown	Raceco, Inc.	HPY		
Chambers County Airport	General	Anahuac	Chambers County	T00	✓	✓
Cleveland Municipal Airport	General	Cleveland	City of Cleveland	6R3	✓	✓
Eagle Lake Airport	General	Eagle Lake	City of Eagle Lake	ELA	✓	✓
Grawunder Field	General	Bellville	G. Grawunder, Jr.	06R		
Houston Executive Airport	General	Brookshire, Katy	WCF, LLP	TME		
Huntsville Municipal Airport	General	Huntsville	City of Huntsville	UTS	✓	✓
Liberty Municipal Airport	General	Liberty	City of Liberty	T78	✓	✓
Palacios Municipal Airport	General	Palacios	City of Palacios	PSX	✓	✓
Robert R. Wells, Jr. Airport	General	Columbus	Colorado County	66R		✓
Skydive Houston	General	Waller	Richard Davis LLP	37X		
Weiser Airpark	General	Cypress	Cecil & Robert Weiser	EYQ		
Wharton Regional Airport	General	Wharton	City of Wharton	ARM	✓	✓
Williams Airport	General	Porter	Herbert Jeffries	9X1		
Winnie-Stowell Airport	General	Winnie, Stowell	Chambers County	T90	✓	✓

\* NPIAS = National Plan of Integrated Airport Systems; TASP = Texas Airport System Plan

Table 4 shows that the Houston-Galveston region has 18 airports that are owned by public entities such as city or county governments and 10 that are privately owned by people or corporations and are open to the public. Twenty-one of these airports are in the National Plan of Integrated Airport Systems and 22 are in the Texas Airport System Plan.



Figure 3: Study Airports in the Houston-Galveston Region



## 4 REGIONAL AIRPORT INVENTORY

An inventory of the facilities and condition of the 28 study airports in the Houston-Galveston region was conducted from December 2008 to March 2009. The inventory describes the current state of each airport and is the basis for estimates of current capacity and forecasts of aviation demand. Each of the following items is evaluated at each airport:

- Airport management and ownership;
- Runway configuration, length, width, surface and condition;
- Taxiway configuration, width, surface and condition;
- Ramp configuration, area, surface and condition;
- Number, ownership and occupancy of hangars, by type;
- Navigational aids for the airport and for each runway, by type;
- Number of based aircraft, by type;
- Aircraft operations for an average day, by type;
- Fuel facilities and availability, by type of fuel;
- Terminal facilities and condition of terminal building;
- Aviation maintenance and repair services;
- Airport development plans, including approved airport layout plan; and
- Land use in the surrounding area;
- Land use controls for height hazard and noise incompatibility.

To gather this information, the airport manager was interviewed and the airport and vicinity were toured at each airport. Occasionally, the meetings were also attended by fixed base operators, tenants and airport users. West Houston Airport was not inventoried or toured because its manager was not available for interview during the inventory period. The three City of Houston airports (Bush Intercontinental, William P. Hobby and Ellington) were inventoried, and one interview was held with Houston Airport System planners, but these airports were not toured.

Interviewers provided airport managers with a questionnaire before the meeting and requested that the airport manager fill it out as much as possible in advance. Interviews were held to fill out the remaining questionnaire items, request copies of previous airport studies and airport layout plans, and hold a general discussion of airport facilities and activities. Airport managers then conducted a tour of the airport property to provide visual confirmation of airport facilities and a chance to observe the condition of these facilities.

Where information was not obtained in the interview questionnaire or by the airport visit, it was obtained from published reports by the Federal Aviation Administration (FAA), the Texas Department of Transportation (Aviation Division) and the Houston-Galveston Area Council:

- 2008-2025 Aerospace Forecasts, Federal Aviation Administration<sup>11</sup>
- 2020-2030 Long-Range Aerospace Forecasts, Federal Aviation Administration<sup>12</sup>
- 2008-2020 Terminal Area Forecast, System Federal Aviation Administration<sup>13</sup>
- Airport Master Record, Federal Aviation Administration Form 5010-1<sup>14</sup>
- 2009-2013 General Aviation Regional System Plan, Federal Aviation Administration, Southwest Region<sup>15</sup>
- 2009-2013 National Plan of Integrated Airport Systems, Federal Aviation Administration<sup>16</sup>
- 2002 Texas Airport System Plan Update, Texas Department of Transportation<sup>17</sup>
- 1992 Regional Airport/Airspace System Plan Update, Houston-Galveston Area Council<sup>18</sup>

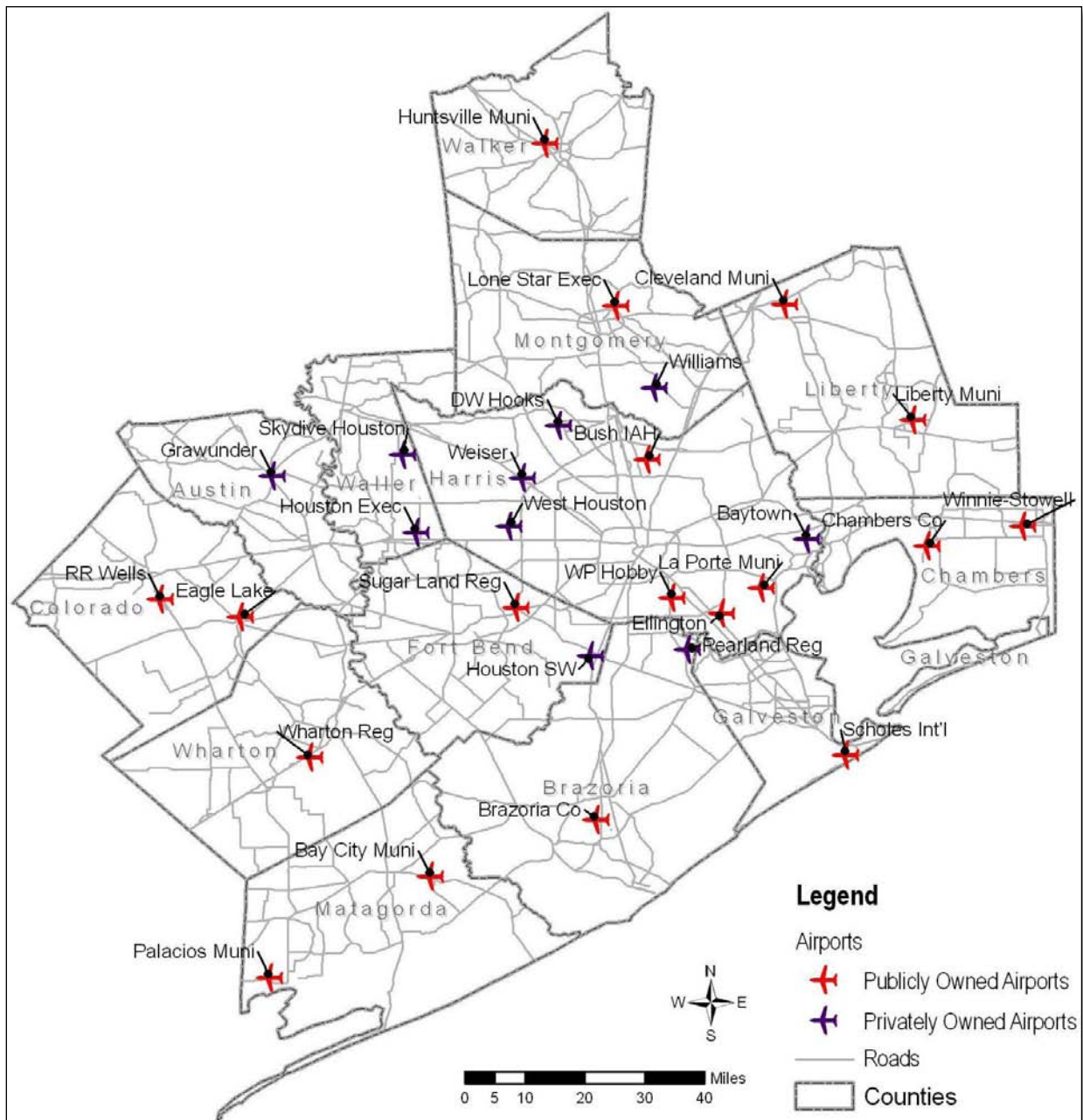


### 4.1 Airport Ownership and Service Levels

Figure 4 and Table 5 show whether the airport is in public or private ownership. Table 5 also shows the service levels of regional study airports if an airport is listed in the National Plan of Integrated Airport Systems or the Texas Airport System Plan, their service levels in these plans, the airports’ levels in the Federal Aviation Administration’s Southwest Region General Aviation Plan, and their Airport Reference Codes as assigned by the Federal Aviation Administration.

The Houston-Galveston region is unusual in that four of the 10 airports designated by the Federal Aviation Administration as reliever airports are privately owned. Under new classification rules by the Federal Aviation Administration, private reliever airports that are still under a 10-year grant condition to keep the airport open to the public are allowed to keep their reliever status and apply for new FAA grants until the 10-year period expires. After that, private reliever airports

**Figure 4: Ownership of Public-Use Airports**



**Table 5: Study Airport Ownership and Roles**

<i>Airport</i>	<i>Ownership</i>	<i>Federal Role</i>	<i>State Role</i>	<i>Regional Level</i>	<i>Airport Reference Code</i>
<b><i>Air Carrier Airports</i></b>					
George Bush Intercontinental	Public	Primary	Transport		D-V
William P. Hobby Airport	Public	Primary	Transport		C-IV
<b><i>Reliever Airports</i></b>					
Brazoria County Airport	Public	Reliever	Transport	I	C-III
D.W. Hooks Memorial Airport	Private	Reliever	Transport	I	C-II
Ellington Airport	Public	Reliever	Transport	I	D-IV
Houston Southwest Airport	Private	Reliever	Transport	I	B-II
La Porte Municipal Airport	Public	Reliever	General Utility	I	B-II
Lone Star Executive Airport	Public	Reliever	Transport	I	C-III
Pearland Regional Airport	Private	Reliever	General Utility	I	B-II
Scholes International Airport	Public	Reliever	Transport	I	C-III
Sugar Land Regional Airport	Public	Reliever	Transport	I	D-II
West Houston Airport	Private	Reliever	General Utility	I	B-II
<b><i>General Aviation Airports</i></b>					
Bay City Municipal Airport	Public	General Aviation	Transport	III	B-II
Baytown Airport	Private				B-II
Chambers County Airport	Public	General Aviation	General Utility	III	B-II
Cleveland Municipal Airport	Public	General Aviation	General Utility	III	B-II
Eagle Lake Airport	Public	General Aviation	General Utility	III	B-I
Grawunder Field	Private				
Houston Executive Airport	Private				
Huntsville Municipal Airport	Public	General Aviation	Transport	IV	C-II
Liberty Municipal Airport	Public	General Aviation	General Utility	III	B-II
Palacios Municipal Airport	Public	General Aviation	Transport	III	C-II
R.R. Wells, Jr. Airport	Public		General Utility		B-II
Skydive Houston	Private				
Weiser Airpark	Private				
Wharton Regional Airport	Public	General Aviation	Transport	III	B-II
Williams Airport	Private				
Winnie-Stowell Airport	Public	General Aviation	General Utility	IV	B-II

may be re-classified as general aviation airports and may be removed from the National Plan of Integrated Airport Systems, unless they can comply with the new classification rules and provide assurances that the airport will move to public ownership.<sup>19</sup> The region has 13 airports out of the 21 Texas airports that are designated by the Texas Department of Transportation as transport airports in the Texas Airport System Plan, which are suitable for use by jet aircraft.

## 4.2 Airside Facilities

Airside facilities are the parts of the airport that aircraft use to taxi, take off and land. These facilities include runways, taxiways, airfield lighting, and navigation and landing aids.

### 4.2.1 Runways and Taxiways

Runways are named by their magnetic compass bearing, rounded to the closest ten degrees and divided by 10. For example, a runway with a compass bearing of 174 degrees would be named Runway 17. The same runway in the other direction would have a bearing of 354 degrees and would be named Runway 35. Even though these two runways share the same pavement, they are distinct runways. The names indicate the direction in which aircraft take-off and land; an airplane taking off on Runway 17 would start on the north end and accelerate to the south. Where there

are two parallel runways, a letter is added to the name to indicate it is the left or the right runway, as seen from the pilot's vantage point. Thus, Runway 8L is left of Runway 8R.

The names, lengths, widths, surface types and lighting intensities of each runway at each airport are shown in Table 6. Taxiway configurations are also provided in Table 6. The 28 study airports have 46 active runways. Their lengths range from 2,480 feet at Grawunder Field to 12,001 feet at Houston Intercontinental Airport. Three runways have turf surfaces and one is water (for seaplanes). (Scholes International Airport can also accommodate seaplane operations on adjacent Offatts Bayou.) All but seven runways have runway lighting.

**Table 6: Runway at Study Airports**

<i>Airport</i>	<i>Runway</i>	<i>Runway Length</i>	<i>Runway Width</i>	<i>Runway Surface</i>	<i>Runway Condition</i>	<i>Runway Lighting</i>	<i>Taxiway</i>	<i>Taxiway Condition</i>
<b><i>Air Carrier Airports</i></b>								
George Bush Intercontinental Airport	08L/26R	9,000'	150'	Concrete	Good	High	Full	Good
	08R/26L	9,402'	150'	Concrete	Good	High	Full	Good
	09/27	10,000'	150'	Asphalt	Good	High	Full	Good
	15L/33R	12,001'	150'	Concrete	Good	High	Full	Good
	15R/33L	9,999'	150'	Concrete	Good	High	Full	Good
William P. Hobby Airport	04/22	7,602'	150'	Concrete	Good	High	Full	Good
	12L/30R	5,148'	100'	Concrete	Good	Medium	Partial	Good
	12R/30L	7,602'	150'	Asphalt	Good	High	Full	Good
	17/35	6,000'	150'	Asphalt, Concrete	Good	Medium	Full	Good
<b><i>Reliever Airports</i></b>								
Brazoria County Airport	17/35	7,000'	100'	Asphalt	Good	Medium	Full	Good
	17R/35L	7,000'	100'	Asphalt	Fair	Medium	Partial	Fair
D.W. Hooks Memorial Airport	17L/35R	3,987'	35'	Asphalt	Fair	-	Full	Fair
	17W/35W	2,530'	100'	Water	-	-	-	-
Ellington Airport	04/22	8,001'	150'	Concrete	Good	High	Partial	Good
	17L/35R	4,609'	75'	Concrete	Fair	-	Partial	Fair
	17R/35L	9,001'	150'	Concrete	Good	High	Full	Good
Houston Southwest Airport	09/27	5,000'	100'	Asphalt	Good	Medium	Full	Good
La Porte Municipal Airport	12/30	3,500'	75'	Asphalt	Good	Medium	Full	Good
	05/23	3,000'	75'	Asphalt	Good	Medium	Full	Good
Lone Star Executive Airport	01/19	5,000'	100'	Concrete	Good	Medium	Full	Fair
	14/32	6,000'	150'	Concrete	Good	Medium	Partial	Fair
Pearland Regional Airport	14/32	4,313'	75'	Concrete	Good	Medium	Full	Fair
Scholes International Airport	17/35	6,001'	150'	Concrete	Good	Medium	Partial	Good
	13/31	6,000'	150'	Asphalt, Concrete	Good	High	Partial	Good
Sugar Land Regional Airport	17/35	8,000'	100'	Concrete	Good	High	Full	Good
West Houston Airport	15/33	3,953'	75'	Asphalt	Good	High	Full	Good
<b><i>General Aviation Airports</i></b>								
Bay City Municipal Airport	13/31	5,107'	75'	Asphalt	Good	Medium	Full	Good
Baytown Airport	14/32	4,334'	50'	Asphalt	Fair	Non-Std	Partial	Fair
Chambers County Airport	12/30	3,005'	60'	Asphalt	Good	Medium	Full	Good
	17/35	1,900'	300'	Turf	Fair	-	-	-
Cleveland Municipal Airport	16/34	4,998'	75'	Asphalt	Good	Medium	Full	Fair
Eagle Lake Airport	17/35	3,801'	60'	Asphalt	Good	Medium	-	-

Airport	Runway	Runway Length	Runway Width	Runway Surface	Runway Condition	Runway Lighting	Taxiway	Taxiway Condition
Grawunder Field	15/33	2,480'	30'	Asphalt	Good	Non-Std	-	-
Houston Executive Airport	18/36	6,610'	100'	Asphalt	Good	Medium	Full	Good
Huntsville Municipal Airport	18/36	5,005'	100'	Asphalt	Good	Medium	Full	Fair
Liberty Municipal Airport	16/34	3,801'	75'	Asphalt	Good	Medium	Full	Good
Palacios Municipal Airport	08/26	5,001'	150'	Concrete	Fair	-	Partial	Fair
	13/31	5,001'	150'	Concrete	Fair	Medium	Full	Fair
	17/35	5,001'	150'	Concrete	Fair	-	-	Fair
R.R. Wells, Jr. Airport	15/33	3,800'	60'	Asphalt	Fair	Medium	Partial	Fair
Skydive Houston	17/35 <sup>a</sup>	4,190'	50'	Asphalt	Poor	-	-	-
	N/S	3,030	53'	Turf	Fair	Low	-	-
Weiser Airpark	09/27	3,455'	40'	Asphalt	Good	Non-Std	Partial	Fair
	16/34 <sup>b</sup>	2,000'	33'	Turf	Fair	-	-	-
Wharton Regional Airport	14/32	5,004'	75'	Asphalt	Good	Medium	Full	Good
Williams Airport	17/35	3,596'	46'	Asphalt	Fair	Low	Full	Fair
Winnie-Stowell Airport	17/35	3,600'	75'	Asphalt	Fair	Medium	Full	Fair

Sources: Federal Aviation Administration: 2009-2013 General Aviation Regional Aviation System Plan; and this study.

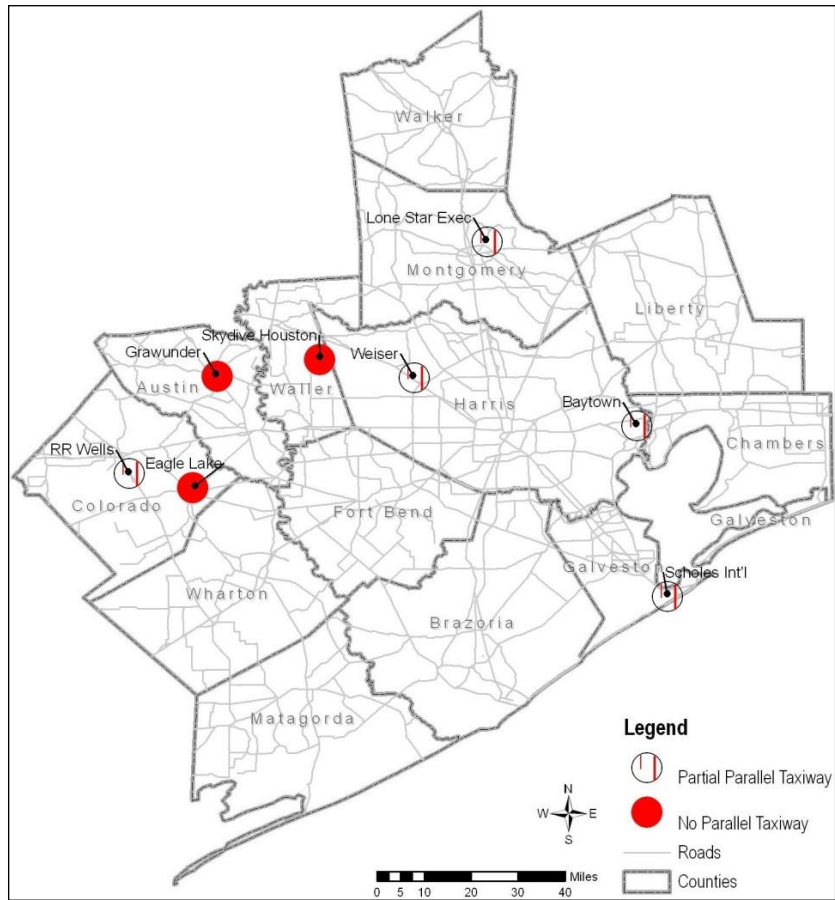
<sup>a</sup> Skydive Houston Runway 17/35 closed indefinitely by airport owner.

<sup>b</sup> Weiser Airport Runway 16/34 for emergency use only.

Runways and taxiways are in good condition at many study airports, but there are several airports with pavement in fair or poor condition. Table 6 presents an evaluation of the pavement condition of the main runways and associated taxiways at the study airports. Some of these runways also have obstructions due to tall objects in the approach planes; these obstructed runways are presented in Table 11 in Section 4.6 below.

Eight study airports in the Houston-Galveston region have partial or no parallel taxiway on their main runways (Figure 5). At these airports, aircraft must taxi down the main runway after they have landed, and may have to taxi down the main runway to reach takeoff position. The main runway is not available for takeoffs or landings while aircraft are taxiing on it, thus lowering the capacity of the airport for aircraft operations and presenting a potential safety hazard.

**Figure 5: Partial or No Parallel Taxiway for Main Runway**

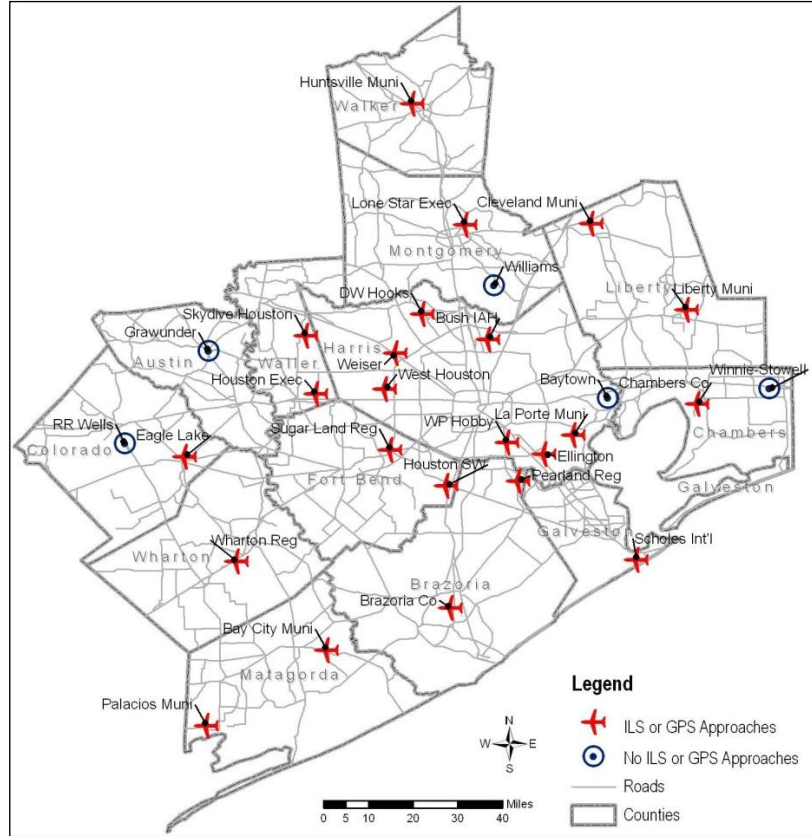




### 4.2.2 Navigational and Visual Approach Aids

Navigational aids refer to various types of electronic equipment that are installed at airports to provide guidance and position information to aircraft while in flight, and to assist with landings at night and during cloudy and foggy weather. Instrument runways (runways equipped with electronic approach aids) are classified as Precision or Non-Precision based on the type of instrument approach procedure and navigation equipment available to that runway. Precision instrument runways provide both horizontal and vertical position information, while non-precision instrument runways provide only horizontal position information. Airports with visual approaches require that pilots land their aircraft by sight, without any electronic guidance aid from the airport.

Figure 6: Study Airports with At Least One Instrument Approach



Air carrier airports and larger general aviation airports have precision runways, while most small general aviation airports have non-precision runways or visual approaches only.

Figure 6 shows the study airports that have at least one runway with an instrument approach. Table 7 lists the precision and non-precision navigational aids and other navigational facilities at each study airport. Seven airports have precision approaches, 22 have non-precision approaches and six have only visual approaches. Figure 7 and Table 7 also show the seven airports with airport traffic control towers in the Houston-Galveston region.

Figure 6 shows the study airports that have at least one runway with an instrument approach. Table 7 lists the precision and non-precision navigational aids and other navigational facilities at each study airport. Seven airports have precision approaches, 22 have non-precision approaches and six have only visual approaches. Figure 7 and Table 7 also show the seven airports with airport traffic control towers in the Houston-Galveston region.

Table 7: Navigational Aids at Study Airports

Airport	PAPI	ILS	DME	GPS	VASI	LOC	VOR	RNAV	NDB	REIL	ASOS	AWOS	Beacon	Windsock	Seg Circle	ATCT
<b>Air Carrier Airports</b>																
George Bush Intercontinental	✓	✓	✓	✓		✓		✓		✓	✓		✓	✓		✓
William P. Hobby Airport	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓		✓
<b>Reliever Airports</b>																
Brazoria County Airport	✓	✓		✓	✓	✓		✓			✓		✓	✓	✓	
D.W. Hooks Memorial Airport	✓		✓	✓		✓	✓	✓		✓	✓		✓	✓	✓	✓
Ellington Airport	✓	✓	✓	✓			✓	✓		✓			✓	✓	✓	✓
Houston Southwest Airport	✓		✓	✓		✓		✓		✓		✓	✓	✓		

Airport	PAPI	ILS	DME	GPS	VASI	LOC	VOR	RNAV	NDB	REIL	ASOS	AWOS	Beacon	Windsock	Seg Circle	ATCT
La Porte Municipal Airport	✓			✓			✓	✓	✓	✓			✓	✓	✓	
Lone Star Executive Airport	✓	✓	✓	✓		✓		✓	✓	✓	✓		✓	✓	✓	✓
Pearland Regional Airport				✓			✓	✓		✓	✓		✓	✓		
Scholes International Airport	✓	✓	✓	✓		✓	✓	✓		✓	✓		✓	✓	✓	✓
Sugar Land Regional Airport	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓	✓	✓
West Houston Airport	✓		✓	✓			✓	✓		✓			✓	✓	✓	
<b>General Aviation Airports</b>																
Bay City Municipal Airport	✓		✓	✓			✓		✓	✓		✓	✓	✓	✓	
Baytown Airport					✓								✓	✓		
Chambers County Airport	✓												✓	✓	✓	
Cleveland Municipal Airport	✓			✓			✓						✓	✓	✓	
Eagle Lake Airport	✓			✓			✓	✓					✓	✓	✓	
Grawunder Field														✓	✓	
Houston Executive Airport	✓			✓				✓				✓	✓	✓	✓	
Huntsville Municipal Airport	✓		✓	✓			✓		✓	✓	✓		✓	✓	✓	
Liberty Municipal Airport	✓		✓	✓			✓		✓	✓			✓	✓	✓	
Palacios Municipal Airport				✓			✓			✓	✓		✓	✓	✓	
R.R. Wells, Jr. Airport	✓									✓			✓	✓	✓	
Skydive Houston													✓	✓		
Weiser Airpark				✓				✓	✓				✓	✓		
Wharton Regional Airport	✓		✓	✓			✓		✓			✓	✓	✓	✓	
Williams Airport														✓	✓	
Winnie-Stowell Airport	✓												✓	✓	✓	

PAPI = Precision Approach Path Indicator; VASI = Visual Approach Slope Indicator; ILS = Instrument Landing System (published approach); LOC = Localizer; DME = Distance Measuring Equipment; VOR = VHF Omni-directional Range; RNAV = En-Route Area Navigation (published approach); GPS = Global Positioning System (published approach); NDB = Non-Directional Beacon; REIL = Runway End Identification Lights; ASOS = Automated Surface Observation System; AWOS = Automated Weather Observation System; Seg Circle = Segmented Circle; ATCT = Airport Traffic Control Tower

### 4.2.3 Weather Stations

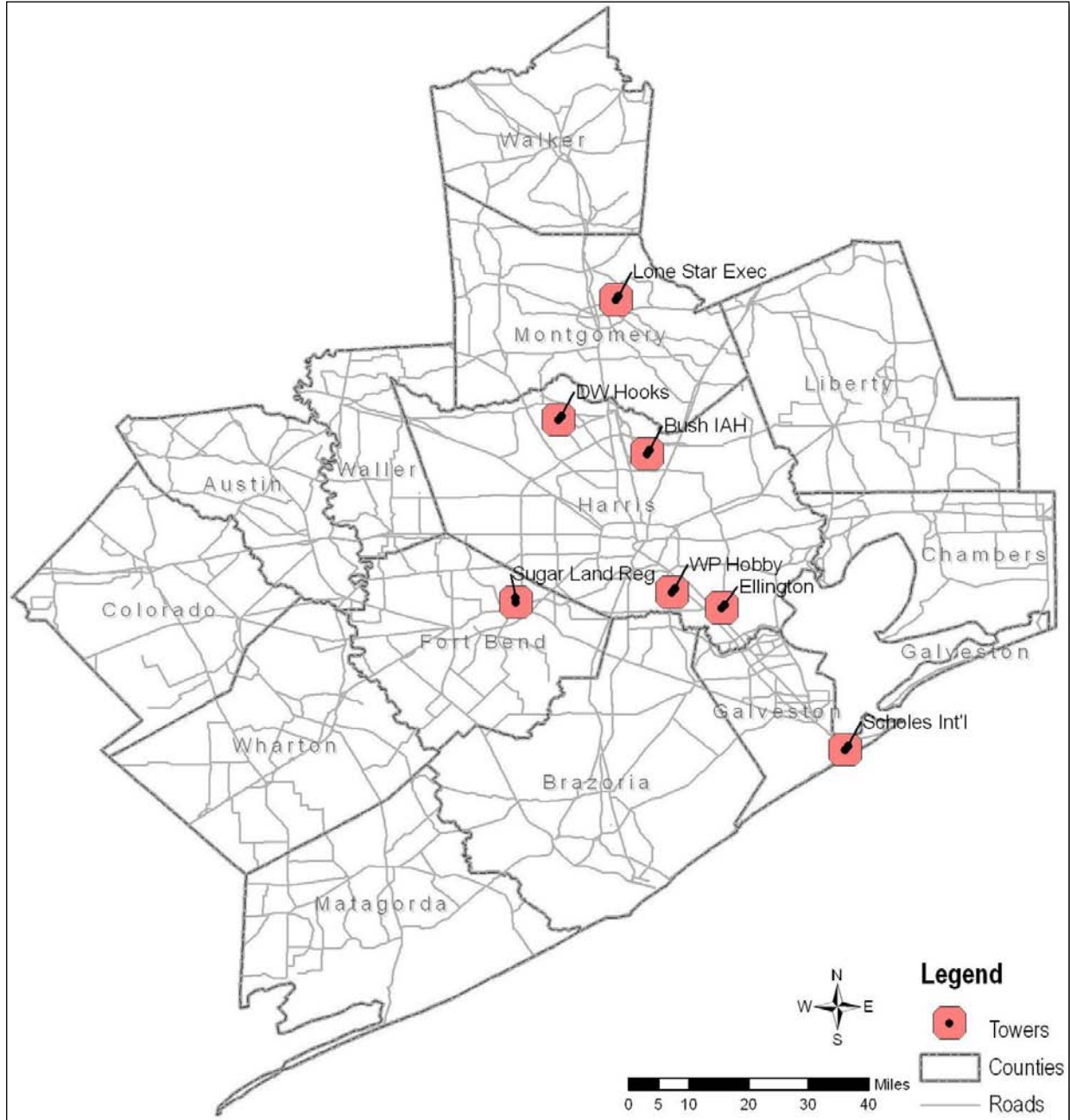
Weather is critically important to aviation, and well-equipped airports have weather stations and the means to transmit weather conditions to pilots. There are two automated systems for reporting weather conditions to pilots: the Automated Surface Observation System and the Automated Weather Observation System.

The Automated Surface Observation System, a joint effort between the National Weather Service, the Federal Aviation Administration and the Department of Defense, is the main system for providing pilots with surface weather observations in the United States. The system takes continuous observations of wind speed and direction, cloud cover and precipitation. The system has developed an extensive weather database that also supports meteorological research.

The Automated Weather Observation System automatically measures weather parameters and stores them in a computer database. The data are analyzed and then broadcast to aircraft up to 10,000 feet above ground level and within 25 nautical miles.

Ten of the 28 airports in the Houston-Galveston region have an Automated Surface Observation System station and three have an Automated Weather Observation System station. Table 7 lists the airports that have either type of weather station.

Figure 7: Airport Traffic Control Towers



### 4.3 Landside Facilities

Landside facilities at airports are the buildings, paved areas and all other facilities that are not airside facilities. The landside facilities at a typical general aviation airport are a terminal building, tenant buildings, hangars, storage and maintenance facilities, parking lots, and gates and fences. Table 8 shows the landside facilities at the study airports in the Houston-Galveston Region, and an explanation of the items in this table follows.

#### 4.3.1 Terminals

Most study airports have some kind of terminal building. Figure 8 shows the 20 airports that have permanent terminal buildings and the eight that do not. The simplest terminal is a building

**Table 8: Landside Facilities and Services at Study Airports**

Airport	Attended?	Pilot Room	Fit Png Weather	Office	Aviation Training	Aircraft Rental	Aircraft Sales	Avgas	Jet-A	Mogas	Credit Card	Major Repair	Minor Reppair	Avionics Repair
<b>Air Carrier Airports</b>														
George Bush Intercontinental	✓	✓	✓					✓AU	✓AU	✓AU		✓	✓	✓
William P. Hobby Airport	✓	✓	✓		✓	✓		✓AU	✓AU	✓AU			✓	✓
<b>Reliever Airports</b>														
Brazoria County Airport	✓	✓	✓		✓	✓	✓	✓U	✓U	✓A		✓	✓	✓
D.W. Hooks Memorial Airport	✓	✓	✓		✓	✓	✓	✓A	✓A		✓	✓	✓	✓
Ellington Airport	✓	✓	✓		✓	✓		✓A	✓A			✓	✓	✓
Houston Southwest Airport	✓	✓	✓		✓	✓		✓A	✓A			✓	✓	
La Porte Municipal Airport	✓	✓	✓		✓	✓	✓	✓ <sup>a</sup>	✓ <sup>a</sup>		✓	✓	✓	✓
Lone Star Executive Airport	✓	✓	✓		✓	✓	✓	✓A	✓A			✓	✓	✓
Pearland Regional Airport	✓				✓	✓		✓A	✓A		✓	✓	✓	✓
Scholes International Airport	✓	✓	✓		✓			✓A	✓A	✓A	✓	✓	✓	✓
Sugar Land Regional Airport	✓	✓	✓		✓	✓		✓A	✓A	✓A		✓	✓	✓
West Houston Airport	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
<b>General Aviation Airports</b>														
Bay City Municipal Airport	✓	✓	✓		✓	✓	✓	✓U	✓A		✓	✓	✓	
Baytown Airport	✓	✓	✓			✓		✓A	✓A		✓			
Chambers County Airport	✓			✓	✓	✓		✓A	✓A		✓	✓		
Cleveland Municipal Airport	✓	✓	✓		✓			✓U					✓	
Eagle Lake Airport	✓			✓	✓	✓		✓A	✓A	✓A		✓	✓	
Grawunder Field		✓		✓										
Houston Executive Airport	✓	✓	✓					✓A	✓A	✓A				
Huntsville Municipal Airport	✓	✓	✓		✓	✓		✓U	✓U			✓	✓	
Liberty Municipal Airport	On call							✓A			✓			
Palacios Municipal Airport	On Call			✓				✓A	✓A		✓			
R.R. Wells, Jr. Airport	✓	✓		✓				✓A	✓A		✓			
Skydive Houston								✓A <sup>b</sup>						✓
Weiser Airpark	✓			✓	✓	✓		✓A			✓	✓	✓	
Wharton Regional Airport	✓	✓	✓		✓	✓		✓A	✓A			✓	✓	
Williams Airport	✓							✓A						
Winnie-Stowell Airport								✓A	✓A		✓	✓	✓	

FBO = Fixed Base Operator; Fit Png Weather = Flight Planning and Weather Information; Avgas = Aviation gasoline; Jet-A = Jet-A fuel; Mogas = Automobile gasoline; A = aboveground tank; U = underground tank; Credit Card = Self-Serve Fueling by Credit Card

<sup>a</sup> Information not available.

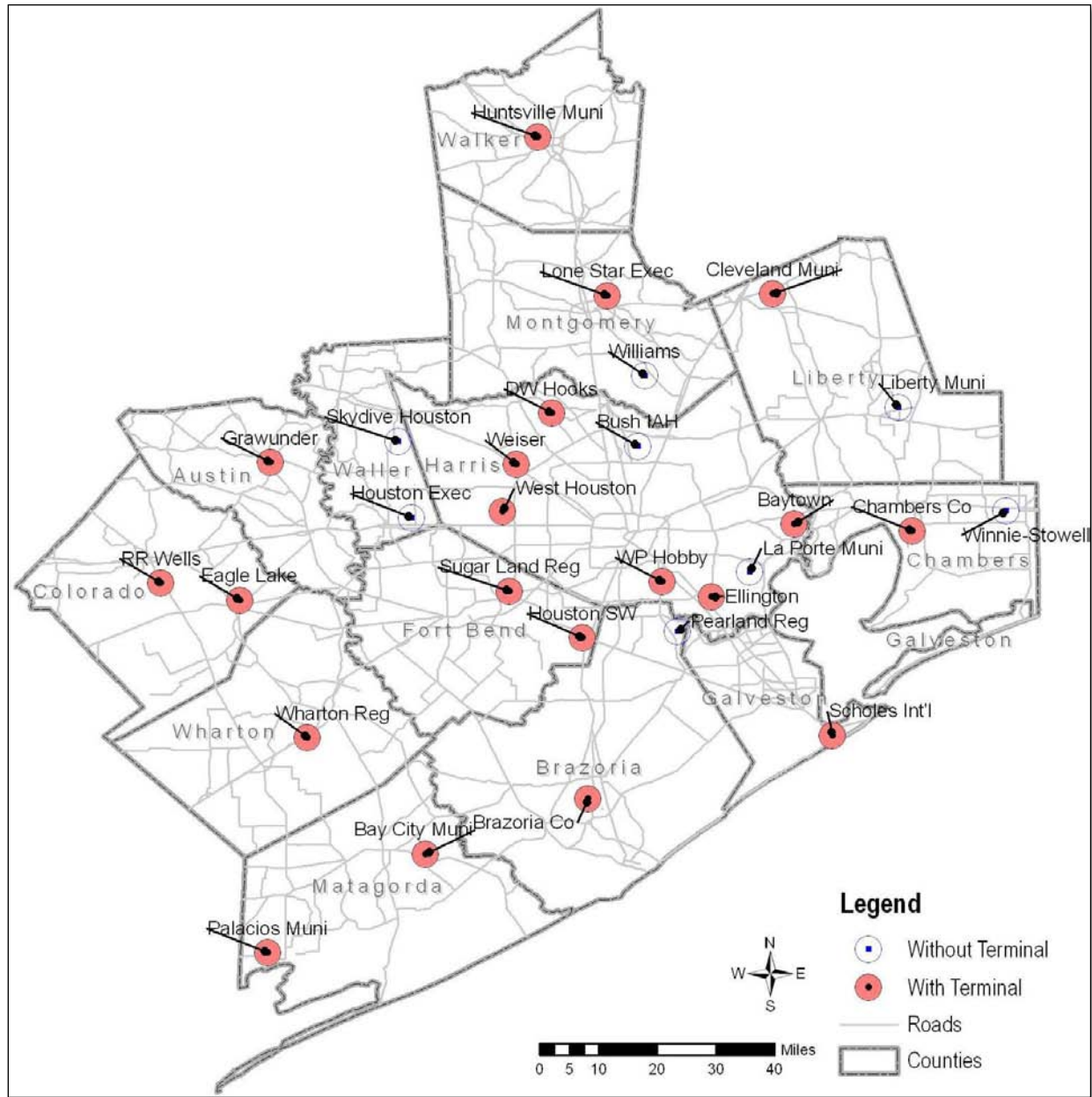
<sup>b</sup> Skydive Houston’s fuel supply is not available to the public except for emergencies.

with a single room with a few chairs, but most airports have at least the airport manager’s office in the terminal. More elaborate terminals have such amenities as a lobby with comfortable seating, a pilot lounge room (sometimes with a kitchen and showers), a desk for pilots to prepare flight plans, get weather reports and use a telephone and computer, and a rental car agency.

Most airports provide flight planning tools and access to weather data in their terminals, but some airports do not have weather stations and must rely on other airports for weather information. Pilots departing from these airports can obtain weather information from Bush Intercontinental Airport, Hobby Airport, Sugar Land Regional Airport, Huntsville Municipal Airport, Brazoria County Airport and Scholes International Airport on the Internet.



Figure 8: Airports with Terminal Buildings



### 4.3.2 Fixed Base Operators

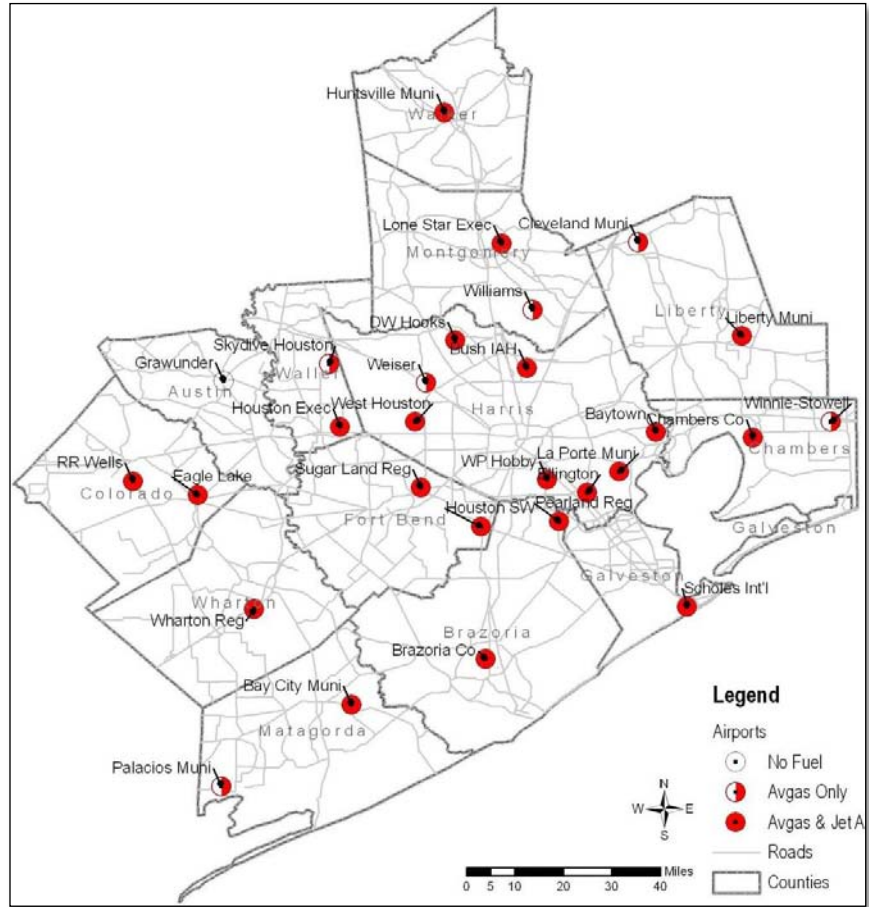
Fixed base operators, or FBOs, are generally private companies that lease space at airports to offer such aviation services as aircraft fueling (Jet-A and Avgas aviation fuels), bottled oxygen, aircraft tie-down parking, major and minor repairs to aircraft engines and airframes, avionics sales and repair, aircraft storage, flight training, aircraft rentals and sales, catering and charter services. While some airports have no fixed base operators at all, others use the FBOs for all airport activities instead of maintaining a terminal building and staff at the airport. More typically, the airport terminal handles pilot-oriented services and the FBOs handle aircraft-oriented services.

### 4.3.3 Fueling Services

Most of the study airports have fuel for sale to pilots. Avgas, or aviation gasoline, is a high-octane fuel for smaller piston-engine airplanes and helicopters. It is available at 27 study airports (Figure 9). Jet-A fuel is used by high-performance turbocharged piston-engine and jet-engine airplanes and helicopters. Jet-A fuel is available at 20 study airports. Five airports also sell Mogas, or automobile gasoline.

Twelve of the study airports offer self-service fueling, by which a pilot taxis his aircraft to the fueling location, swipes a credit card, and fuels his or her airplane. Other airports have fueling done by the FBO, either from a fixed location or from a fuel truck that is driven to the aircraft.

Figure 9: Availability of Fuel at Study Airports



### 4.3.4 Repair and Avionics Services

Most airports have an FBO that repairs aircraft engines, airframes or avionics. The inventory shows that 21 airports have facilities for at least minor aircraft repairs.

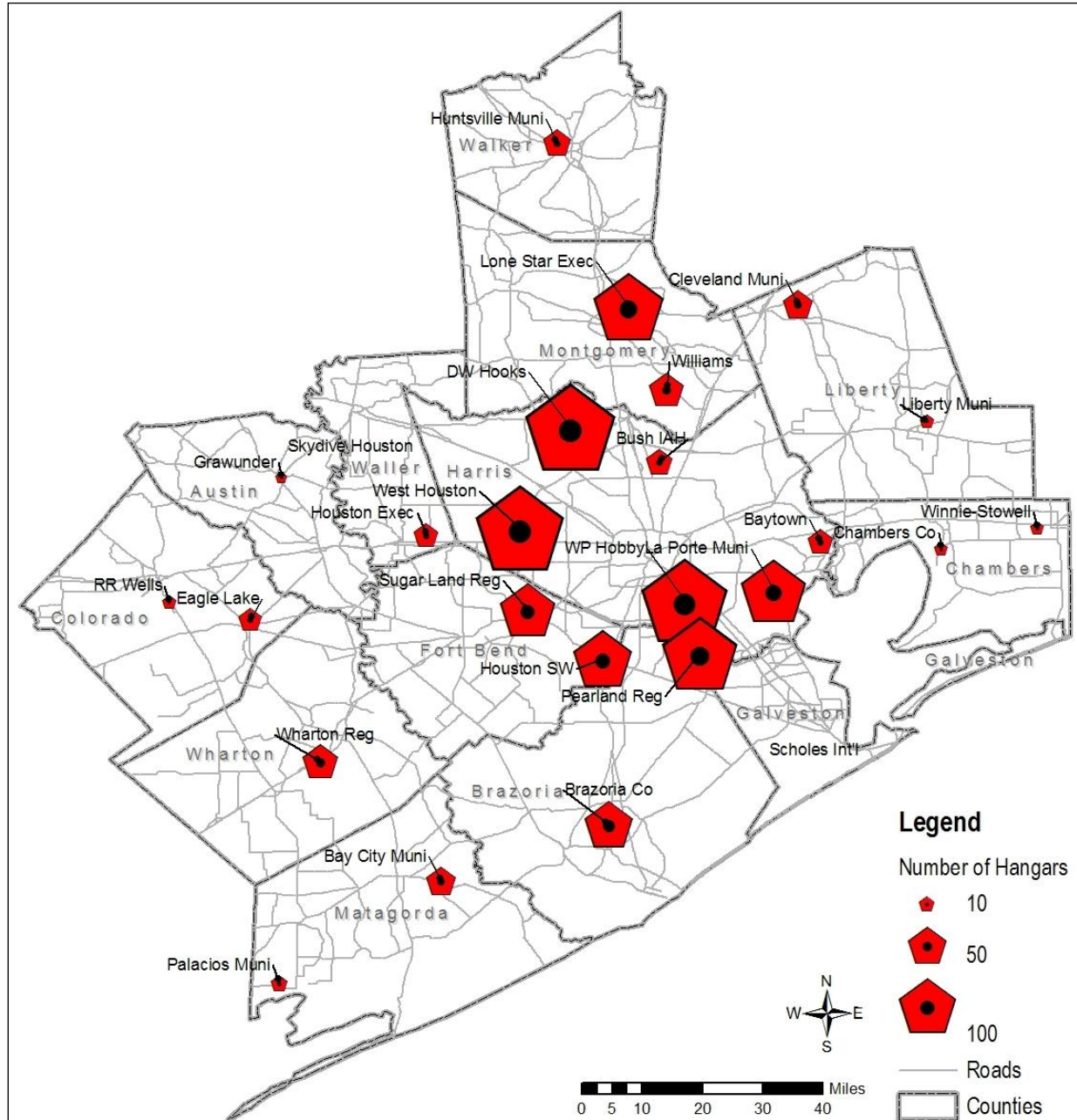
### 4.3.5 Flight Schools and Aircraft Rental and Sales

Seventeen study airports have an FBO that offers flight training, usually in connection with aircraft rental, so that customers can learn how to fly, gain supervised experience in flying, and eventually fly solo in rented aircraft, all from the same airport. Some FBOs are also agents for sales of various makes and models of aircraft.

### 4.3.6 Hangars and Tie-Downs

All study airports have hangars in which to store aircraft out of the weather, and tie-down sites to park aircraft temporarily. Hangars can be conventional enclosed spaces with multiple-panel doors that hold large jet aircraft or tens of smaller aircraft, T-hangars that each hold one airplane, or open shade hangars that provide a roof only. Figure 10 shows the number of hangars at each study airport, with the symbol sized in proportion to the number of hangars.

Figure 10: Number of Aircraft Hangars at Study Airports



Note: All numbers are 2009 counts except for West Houston Airport, which is estimated from based aircraft reported in 2006.

Almost every airport in the Houston-Galveston region has all its hangars filled with tenants and reports high demand for additional hangar space. The demand for hangar space increased substantially in September 2008, when Hurricane Ike damaged or destroyed many hangars at airports in the eastern part of the Houston-Galveston region. The airports that were most severely affected are Scholes International Airport, Liberty Municipal Airport, Baytown Airport, Chambers County Airport, Ellington Airport and William P. Hobby Airport. However, according to several airport managers, hangar space was very much in demand even before the hurricane.

#### 4.3.7 Automobile Parking

Most airports provide a small automobile parking area outside the terminal for visitors. If the airport has a car rental agent, there is a parking lot for cars available for rent.



### 4.3.8 Other Landside Facilities

David Wayne Hooks and Brazoria County Airports have restaurants on the premises that are open to the public as well as pilots and passengers.

### 4.4 Roadway Network

Each airport is linked to its vicinity by a network of freeways, thoroughfares and small roads. The roadway infrastructure is important to an airport because it determines how many people who live and work in the vicinity can conveniently get to the airport. In general, people prefer to drive no more than 30 minutes to get to an airport. If other factors like hangar rent and fuel costs are the same, an airport with a longer drive would tend to shift airport users away from that airport and toward a closer airport, if one is available. To be viable, an airport must be linked by roads to areas with sufficient densities of population and employment centers so that there is enough demand for aviation to keep the airport in business.

Airports in Harris County and suburban Houston generally have an adequate base of aviation users within a 30-minute drive (Figure 11). Airports in outlying counties often have to count on airport-based businesses such as crop dusters and pest control agencies to provide sufficient activity to maintain the airport.

Some airports benefit by easy access on a freeway or major thoroughfare, but others are located down country roads and are not easily accessible by people unfamiliar with the area. Signs can help people locate an airport off the beaten track, if they are large, clear and strategically positioned.

### 4.5 Based Aircraft

The study airports have about 2,799 based aircraft as of 2009 (Table 9, Table 10 and Figure 12; West Houston Airport data are from 2006). This is an increase of six percent over the based aircraft reported<sup>20</sup> in

Figure 11: 30-Minute Drive Areas to Study Airports

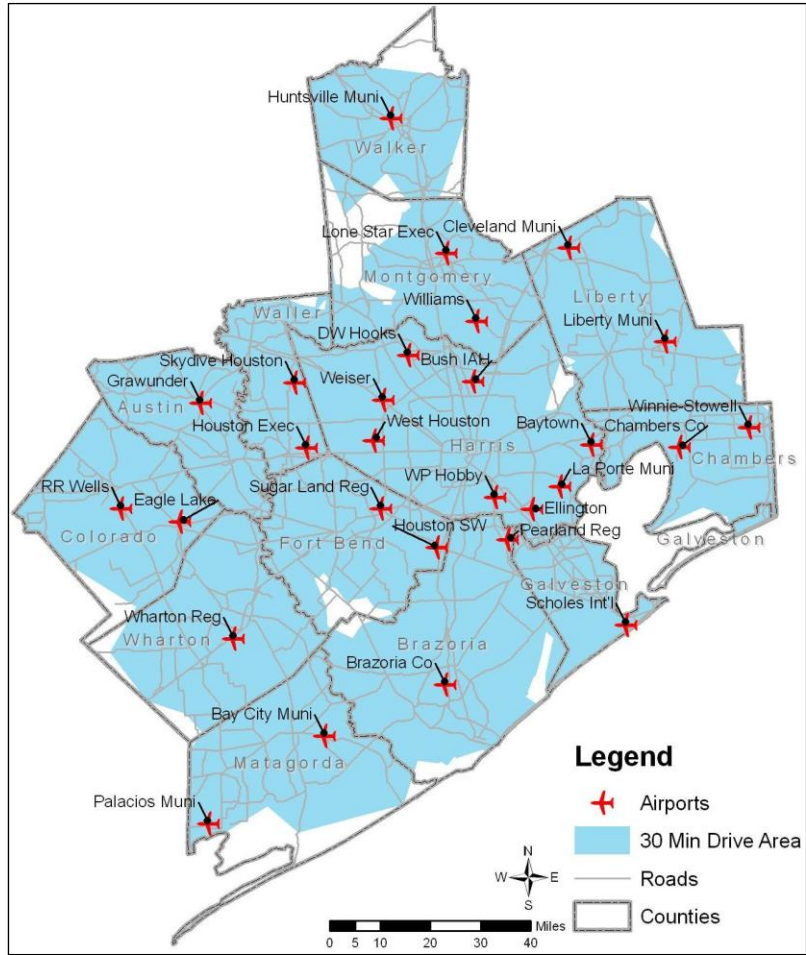


Table 9: Based Aircraft, by Type

Aircraft Type	Based Aircraft	Percent of Total	1992 Percent
Single-engine piston	1,947	70%	69%
Multi-engine piston	293	10%	19%
Multi-engine turboprop	43	2%	4%
Jet	323	12%	8%
Helicopter	106	4%	4%
Glider	14	0.5%	n/a
Ultralight	9	0.3%	n/a
Military	64	2%	n/a
<b>Total Based Aircraft</b>	<b>2,799</b>		

**Table 10: Based Aircraft, by Airport and Type**

<i>Airport</i>	<i>Single Engine</i>	<i>Multi-Engine</i>	<i>Turboprop</i>	<i>Jet</i>	<i>Helicopter</i>	<i>Other</i>	<i>Total</i>
<b><i>Air Carrier Airports</i></b>							
George Bush Intercontinental	4	0	0	32	2		38
William P. Hobby Airport	40	45	0	165	23		273
<b><i>Reliever Airports</i></b>							
Brazoria County Airport	71	15	1	2	10		99
D.W. Hooks Memorial Airport	255	30	7	17	17		326
Ellington Airport	101	25	0	56	3	2 gliders, 40 military	227
Houston Southwest Airport	114	24	0	0	2		140
La Porte Municipal Airport	150	12	2	0	3		167
Lone Star Executive Airport	174	21	0	12	2	24 military helicopters	235
Pearland Regional Airport	195	15	0	0	6		216
Scholes International Airport	91	21	0	2	24	1 glider, 2 ultralights	141
Sugar Land Regional Airport	65	20	15	25	2		127
West Houston Airport*	255	25	0	6	0		286
<b><i>General Aviation Airports</i></b>							
Bay City Municipal Airport	31	5	1	2	0	4 ultralights	43
Baytown Airport	26	2	1	1	1		31
Chambers County Airport	10	0	1	0	0		11
Cleveland Municipal Airport	40	3	0	0	0		43
Eagle Lake Airport	24	0	4	0	0		28
Grawunder Field	8	0	0	0	0		8
Houston Executive Airport	22	6	0	2	0		30
Huntsville Municipal Airport	34	2	1	0	1		38
Liberty Municipal Airport	10	2	0	0	0	1 ultralight	13
Palacios Municipal Airport	11	0	0	0	5		16
R.R. Wells, Jr. Airport	12	0	0	0	0		12
Skydive Houston	44	4	0	0	1	1 glider	50
Weiser Airpark	70	5	0	0	3		78
Wharton Regional Airport	37	7	2	0	0	10 gliders, 2 ultralights	58
Williams Airport	52	4	0	0	0		56
Winnie-Stowell Airport	1	0	8	1	1		11
<b>Total Based Aircraft</b>	<b>1,947</b>	<b>293</b>	<b>43</b>	<b>323</b>	<b>106</b>	<b>87</b>	<b>2,799</b>

\* Current data unavailable for West Houston Airport. Data from Federal Aviation Administration Form 5010 for 2006 used.

1992 (2,625), despite the loss of two airports. Within the overall total, however, there are a few trends: the proportions of based multi-engine piston and turboprop airplanes have declined, while the proportions of single-engine airplanes and helicopters has remained the same, and the proportion of based jets in the region has increased by 60 percent.

As shown in Table 10 and Figure 12, the number of based aircraft varies widely among airports. Grawunder Field, in Bellville, has eight based aircraft, while D.W. Hooks Memorial Airport in north Houston has at least 326. Ten airports have at least 100 based aircraft, while six have between 50 and 100, and 14 have less than 50 aircraft.

#### **4.6 Airspace Obstructions and Nearby Incompatible Land Use**

Twenty-five of the 28 study airports have some kind of airspace obstruction in their airspace (Table 11 and Figure 13). These obstructions are preventing the full potential use of the airport, by either mandating that the runway threshold be displaced to avoid the obstruction, or prevent-

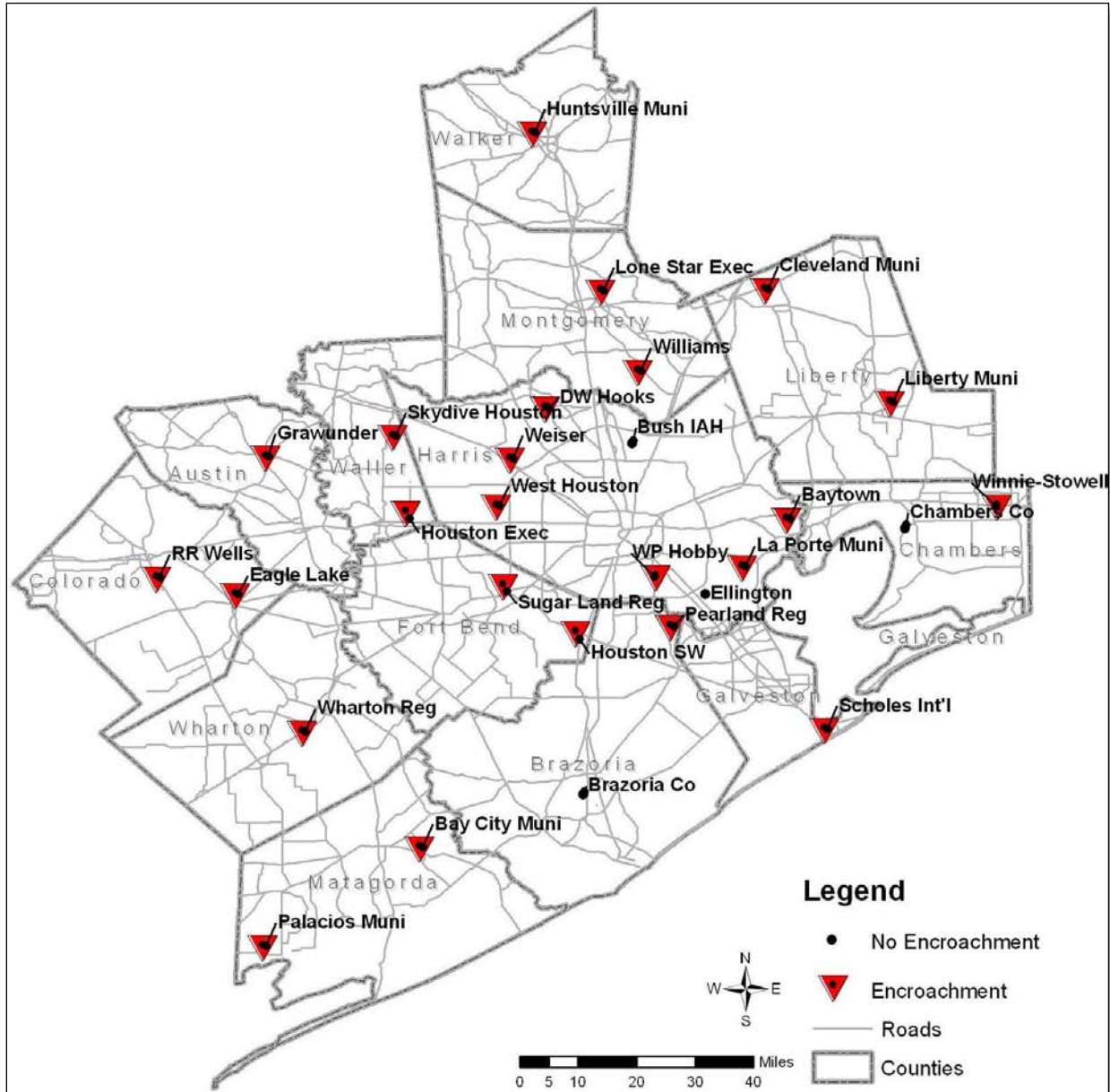


**Table 11: Obstructions and Noise-Sensitive Land Uses near Runways at Study Airports**

<i>Airport</i>	<i>Obstructions</i>	<i>Noise-Sensitive Land Uses</i>	<i>Height Hazard Zoning</i>	<i>Land Use Zoning</i>
<b><i>Air Carrier Airports</i></b>				
George Bush Intercontinental	None	✓	✓	✓
William P. Hobby Airport	Power line poles off the ends of Runways 22, 12R and 30L; an antenna tower off the end of Runway 17; a tall building off the end of Runway 35	✓	✓	✓
<b><i>Reliever Airports</i></b>				
Brazoria County Airport	None		✓	✓
D.W. Hooks Memorial Airport	Tall trees off the ends of Runways 35L and 35R; traffic on a road off the end of Runway 17R; berms at both ends of Runway 17W-35W	✓		
Ellington Airport	None	✓		✓
Houston Southwest Airport	Tall trees off the end of Runway 9; traffic on road off the end of Runway 27	✓	✓	
La Porte Municipal Airport	Tall trees off the ends of Runways 12 and 23; power line pole off the end of Runway 5; fence at end of Runway 30	✓		✓
Lone Star Executive Airport	Tall trees off the ends of Runways 1, 19 and 32; a hill off Runway 14		✓	✓
Pearland Regional Airport	Tall trees off both ends of Runway 14-32	✓		
Scholes International Airport	A crane off the end of Runway 13; a pole off the end of Runway 31; a tall building off the end of Runway 35		✓	✓
Sugar Land Regional Airport	Tall trees off the end of Runway 17; traffic on a road at the end of Runway 35	✓		✓
West Houston Airport	Tall trees off the end of Runway 15; traffic on road off the end of Runway 33			
<b><i>General Aviation Airports</i></b>				
Bay City Municipal Airport	Tall bushes off the end of Runway 13	✓	✓	
Baytown Airport	Tall trees off the end of Runway 14; a power pole off the end of Runway 32	✓		
Chambers County Airport	Tall trees off the ends of Runways 12 and 17; traffic on roads off the ends of Runways 30 and 35	✓	✓	✓
Cleveland Municipal Airport	Tall trees off the ends of Runways 16 and 34		✓	✓
Eagle Lake Airport	Tall trees at both ends of Runway 17-35		✓	✓
Grawunder Field	Tall trees off both ends of Runway 15-33			
Houston Executive Airport	Power line pole off the end of Runway 18	✓		
Huntsville Municipal Airport	Tall trees off the end of Runway 18; pole off the end of Runway 36		✓	
Liberty Municipal Airport	Tall trees off both ends of Runway 16-34		✓	
Palacios Municipal Airport	Tall trees off the ends of Runways 8 and 31; tower off the end of Runway 26	✓	✓	✓
R.R. Wells, Jr. Airport	A fence off the end of Runway 13; tall bushes off the end of Runway 33			✓
Skydive Houston	Tall trees off both ends of Runway 17-35			
Weiser Airpark	Tall trees off the ends of Runways 9, 16 and 34; a power line pole off the end of Runway 27	✓		
Wharton Regional Airport	A power line pole off the end of Runway 14	✓	✓	
Williams Airport	Tall trees off both ends of Runway 17-35	✓		
Winnie-Stowell Airport	Tall trees off both ends of Runway 17-35		✓	✓



Figure 13: Airports with Encroachments on Main Runway Approach



Sponsors of publicly owned airports can avoid incompatible land uses by enacting land use ordinances to control incompatible land uses near airports. Airport owners, whether public or private, can also control land use around their airports by purchasing land around the airport or acquiring land use easements through negotiation with landowners. Most of the publicly owned airports in the Houston-Galveston region have protective land use ordinances for land near the airport. Bay City Municipal, Huntsville Municipal and Wharton Regional Airports do not have land use ordinances to protect their airports.

### 4.7 Airport Security

Since 2001, security is an important component of the infrastructure of every airport. General aviation airports are not currently subject to the same security checkpoints and passenger screening measures as commercial airports, although the federal Transportation Security Administration has recently proposed a new regulation bringing the same level of security to



airports serving aircraft weighing more than 12,500 pounds, which includes most business aviation and many charter services. The outcome of this proposed regulation is unclear, as many airport operators and the major aircraft owners' associations oppose it, but if it becomes mandatory, many general aviation airports will need to either retrofit or rebuild their terminals to provide security checkpoints and add screening procedures.

A basic element of airport security is access control. Eleven airports have no perimeter fence or an incomplete perimeter fence (Cleveland Municipal, Liberty Municipal, Scholes International, Grawunder, Eagle Lake, La Porte Municipal, D.W. Hooks, Baytown, Huntsville Municipal and Williams). These airports are vulnerable to vandalism and aircraft tampering. Furthermore, without a sturdy perimeter fence, large animals such as deer can wander onto the airport and pose a threat to aircraft. Some of these airports report that vandalism has occurred, or that wildlife has been found on their runways.

#### **4.8 Emergency Management**

The Houston-Galveston region is on the Texas Gulf Coast and is susceptible to hurricanes. As demonstrated recently after Hurricanes Katrina and Rita in 2005 and Hurricane Ike in 2008, it is sometimes necessary to evacuate large numbers of people, especially people with medical conditions, and to bring rescue workers, emergency equipment and supplies in and out of the region. All airports can play important roles in supporting emergency evacuations and moving people, equipment and supplies, but larger airports are critical because they can handle the larger cargo aircraft that are needed for emergencies.

The Federal Aviation Administration has provided a list to the Houston-Galveston Area Council of 14 study airports that are suitable for emergency use during such an event. These airports have at least one runway that is 5,000 feet long, the minimum length required for the military aircraft that typically respond to emergencies. Figure 14 shows the study airports that the Federal Aviation Administration has listed for emergency use.

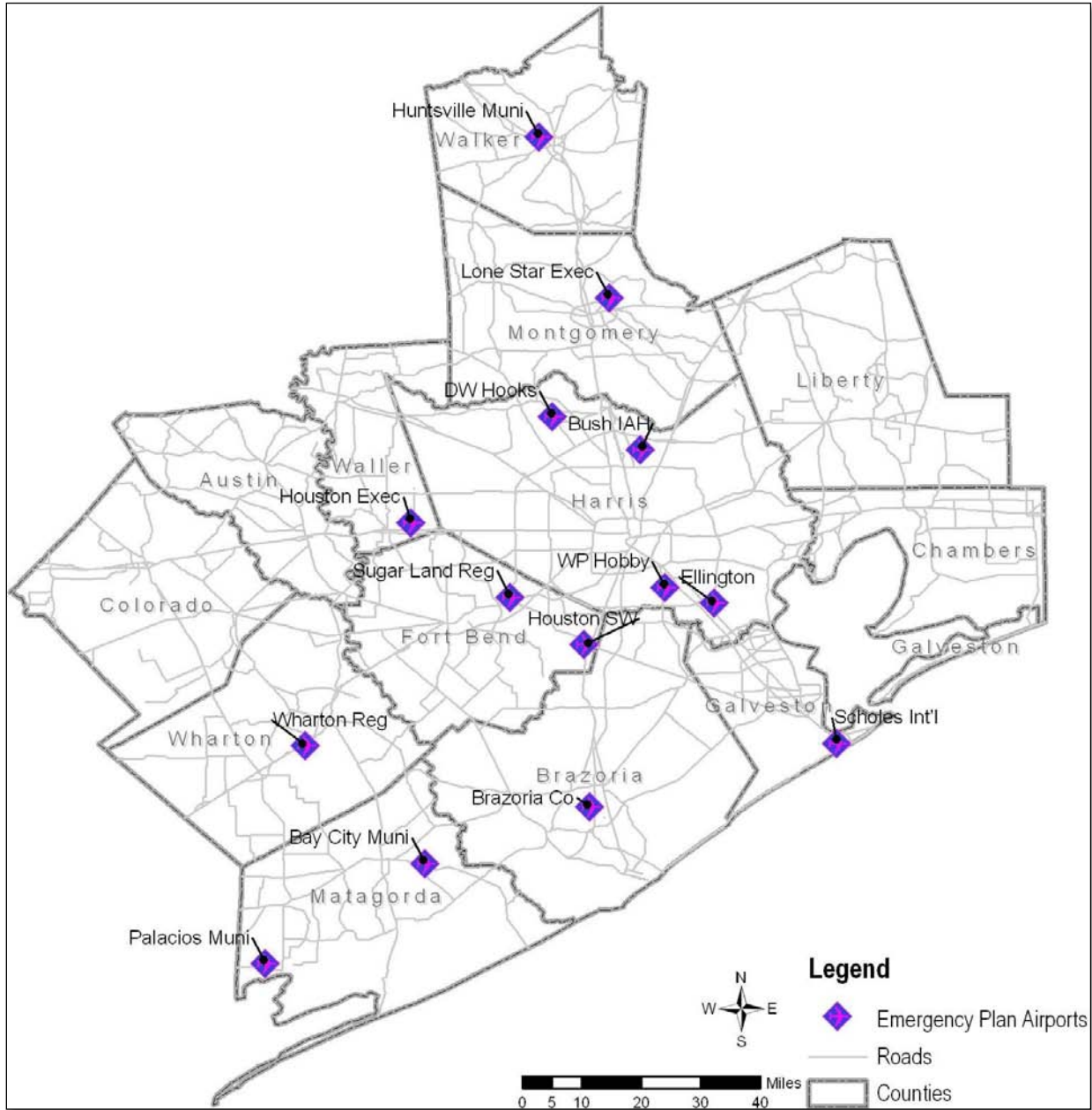
In addition, the U.S. Air Force provides emergency response with moving equipment, supplies and personnel on large C-130 cargo aircraft. In the Houston-Galveston region, Ellington, Bush Intercontinental, Hobby, Brazoria County, Sugar Land Regional, David Wayne Hooks and Lone Star Executive are the airports certified by the Air Force for C-130 cargo aircraft operations.

#### **4.9 Non-Aviation Facilities on Airports**

Airports that have non-aviation-related land uses on their property may have to contend with conflicting interests that interfere with effective management. Some private airports have leased or sold land to people who build a house over or alongside their hangar, or operate a business, or otherwise use the land for non-aviation purposes. This has occurred at Pearland Regional and David Wayne Hooks airports (residences on airport property), Bay City Municipal (hangars used for non-aviation storage) and Scholes International and Brazoria County Airports (non-aviation-related businesses operating on airport property).

Skydive Houston Airport's owner operates a sky-diving business and is the major user of the airport, but about 25 homes just west of the south end of the airport have a legal right to taxiway access to the airport, and many residents have hangars on their property and operate aircraft from the airport. The paved runway was closed in 1993 and aircraft operations are now conducted on a turf runway.

Figure 14: Airports for Emergency Response



## **5 AIRPORT-COMMUNITY RELATIONS**

Airports do not exist only for their owners, or only for the aircraft owners, pilots and passengers that use them. They are also substantial enterprises that contribute to the wealth of their communities, bringing commerce to and from the world over. Airports occupy large tracts of land and make their presence felt in many ways. A community may choose to promote the benefits of having the airport in its midst, or it may ignore it, but either way, the airport will affect its community.

The Regional Aviation System Plan considers both the beneficial aspects of airport-community relations, including economic growth, community prestige, business attraction, and the less tangible recreational and network-related benefits, as well as the adverse aspects, including the cost of operation for publicly owned airports, aircraft noise and air pollution emissions, traffic on access roads and environmental quality. This section discusses the attitudes of community leaders toward their airports and factors that affect airport-community relations in the Houston-Galveston region.

### **5.1 Perceived Importance of Airports in their Communities**

A major task in the Regional Aviation System Plan has been to interview leaders of the communities in which the 28 study airports are located. These stakeholders are chairs and presidents of local chambers of commerce and economic development committees, elected officials and leaders of major businesses in the communities. A structured questionnaire was the basis of discussion, but the meetings often covered a wide range of related topics.

The results of the interviews with community leaders are presented in the Appendix under the airport that is in the community. These interviews reveal the community leaders' attitudes toward the airports in their communities, and show that airports have varied levels of perceived importance, ranging from a major economic engine to a drain on the local economy.

Most stakeholders see the airports in their communities playing a role in attracting businesses to the area or growing the businesses that are currently there. A few community leaders do not see any role that their airports can play in economic development. This is not surprising where an airport serves mostly recreational pilots in a dense urban setting, but other airports could support business development if expanded and improved.

Several airports have taken steps to interact with their communities to boost public relations. Four sponsor annual events at the airport (Fourth of July, a festival and an air show). Three airports (Scholes International, Sugar Land Regional and William P. Hobby) have museums in or near their terminals.

#### **5.1.1 Economic Development**

Chamber of commerce and economic development leaders generally agree that a robust general aviation airport can stimulate economic development in their communities. They believe that some businesses will want to locate to communities in which they can take advantage of the airport for business personnel transportation and air cargo. Stakeholders described several situations involving a major corporation headquartered elsewhere in the United States that built a regional office in their community (invariably at the stakeholder's suggestion, and sometimes with tax incentives), so that the corporation's president or senior managers could fly into the airport and conveniently visit the office.

Two airports in the region demonstrate how economic initiatives can be good investments. Brazoria County Airport is developing a duty-free international business zone on land adjacent to the airport to attract air cargo businesses that import and export goods. Sugar Land Regional Airport has arranged with the Department of Homeland Security to place a federal Customs Office at the airport, encouraging international passenger service and air cargo trade through the airport.

### **5.1.2 Costs and Benefits of Airports**

The Texas Department of Transportation commissioned studies<sup>21</sup> in 2006, using 2005 data, of beneficial economic impacts for most of the airports in the Texas Airport System Plan, including 21 airports in the Houston-Galveston region. The direct annual economic impact of an airport is the airport's direct annual expenditures on salaries, maintenance and operations, added to the estimated expenditures by airport users. To that direct annual economic impact is added the estimated indirect impact of businesses supported by airport users, calculated by applying a multiplier factor, to estimate the total economic benefit of the airport to the community. Table 12 shows the estimated economic impact of the study airports for which analyses were done. Aside from air carrier airports, whose airlines produce enormously more economic impact than general aviation does, the estimates show economic impacts averaging \$55 million for reliever airports and \$2.7 million for other general aviation airports.

Most community leaders are aware of the maintenance costs of publicly owned airports, and most consider these costs worthwhile, as long as the money is spent on facilities that benefit business-related general aviation (longer runways, larger terminals, jet fuel services, large hangars), which are perceived as investments achieving the best returns. Conversely, few stakeholders are interested in encouraging recreational use of their airports, which are perceived as providing little return on the investment. The exceptions are communities with strong tourism industries, such as Galveston.

Community leaders perceive privately owned airports differently than publicly owned airports. The leaders generally appreciate the value of these resources but are concerned about private airports closing and converting to other land uses. The larger the private airport, the more the community leaders want to convert it to public ownership. Sugar Land Regional Airport, which was purchased from Dr. Don Hull about 20 years ago, is a success story.

## **5.2 Community Awareness of Airports**

A surprising result of the stakeholder meetings is that some residents in many of the communities are unaware that there is an airport nearby. Managers of some publicly owned airports reported that when airport funding has come up before City Council or the County Court, an elected official would ask where the airport is and why it needs to be funded.

Even if the community knows that there is an airport in the neighborhood, many may believe that it exists for the benefit of rich people who use it for their private jets, rather than for local and national commerce, recreation and tourism, transport of time-sensitive goods and emergency response. This misperception has also hindered the appropriate allocation of public funds for maintaining the airport or providing matching funds for state or federal grants, with elected officials preferring to fund other infrastructure projects.

**Table 12: Economic Benefits of Study Airports (millions of \$)**

<i>Airport</i>	<i>Airport Jobs (direct &amp; indirect)</i>	<i>Direct Airport Spending</i>	<i>Direct Visitor Spending</i>	<i>Total Direct Impact</i>	<i>Indirect Impact</i>	<i>Total Economic Impact</i>
<b><i>Air Carrier Airports</i></b>						
George Bush Intercontinental	200,000	\$1,600	\$4,400	\$6,000	\$4,900	\$10,900
William P. Hobby Airport	45,000	\$500	\$900	\$1,400	\$1,100	\$2,500
<b><i>Reliever Airports</i></b>						
Brazoria County Airport	240	\$14	\$2	\$16	\$15	\$30
D.W. Hooks Memorial Airport	650	\$37	\$7	\$44	\$40	\$84
Ellington Airport	2,700	\$175	\$5	\$180	\$165	\$345
Houston Southwest Airport	170	\$5	\$2	\$7	\$6	\$13
La Porte Municipal Airport	180	\$7	\$2	\$9	\$8	\$17
Lone Star Executive Airport	1,100	\$77	\$2	\$79	\$72	\$152
Pearland Regional Airport	200	\$15	\$2	\$17	\$16	\$33
Scholes International Airport	800	\$54	\$5	\$59	\$54	\$113
Sugar Land Regional Airport	430	\$46	\$4	\$50	\$45	\$95
West Houston Airport	190	\$6	\$3	\$9	\$8	\$17
<b><i>General Aviation Airports</i></b>						
Bay City Municipal Airport	24	\$3.3	\$0.1	\$3.4	\$3.2	\$6.6
Chambers County Airport	18	\$3.0	\$0.1	\$3.1	\$2.9	\$6.0
Cleveland Municipal Airport	11	\$0.3	\$0.2	\$0.5	\$0.4	\$0.9
Huntsville Municipal Airport	62	\$4.0	\$0.4	\$4.4	\$4.0	\$8.4
Liberty Municipal Airport	3	\$0.07	\$0.05	\$0.1	\$0.1	\$0.2
Palacios Municipal Airport	3	\$0.07	\$0.05	\$0.1	\$0.1	\$0.2
R.R. Wells, Jr. Airport	2	\$0.02	\$0.02	\$0.04	\$0.04	\$0.08
Wharton Regional Airport	22	\$0.9	\$0.2	\$1.1	\$1.1	\$2.2
Winnie-Stowell Airport	5	\$0.25	\$0.05	\$0.3	\$0.2	\$0.5

Source: Texas Department of Transportation, Aviation Division, based on 2005 data

### **5.3 Land Use around Airports**

Land use and its control is a major problem for many of the study airports in the Houston-Galveston region. Eleven of the 25 general-aviation airports already have incompatible land uses (generally homes) near their runways. In some cases, the airport has expanded toward these homes; in other cases, the homes were built close to the existing airport. Regardless of who moved where when, the presence of residences at the ends of airport runways makes it very difficult for airports to obtain state or federal grant funds to expand. The noise analysis required for these grants may require the airport owner to add noise insulation to homes with noise impacts, or to buy them out.

Three public airports (Bay City Municipal, Huntsville Municipal and Wharton Regional) are susceptible to future incompatible development of adjacent land (such as residential develop-







these areas.

The impacts of airports on wildlife (especially birds) is an enduring topic in the Houston-Galveston region, starting with the proposed West Side Airport in the Katy Prairie in Waller County, which had the potential to affect migratory geese, other waterfowl and migratory songbirds that winter there in large numbers. Similar concerns have been expressed by the environmental community for Houston Executive Airport, which is less than one mile from the West Side Airport site (which has since been developed as a mitigation wetland that attracts birds). Other habitats that are especially rich in wildlife include coastal marshes and bays, old-growth forests, riparian forests and freshwater wetlands. Brazoria County, Chambers County, Ellington, Houston Executive, Houston Southwest, Huntsville Municipal, Liberty Municipal, Palacios Municipal, Scholes International, Skydive Houston, Sugar Land Regional, West Houston and Williams Airports are all near substantial wildlife populations or habitat.

Noise impacts to nearby incompatible land uses has already been discussed in Section 4.6 above. Most general aviation airports do not generate enough noise to exceed Federal Aviation Administration thresholds, but occasional distinct noise events such as a business jet taking off over a residential community can be bothersome.

Air quality is a problem in the central eight counties of the Houston-Galveston region, as this area is not in attainment of the national air quality standard for ozone and violations occur about 40 days per year. However, even a substantial increase in operations at a general aviation airport in these eight counties (Harris, Liberty, Montgomery, Waller, Fort Bend, Brazoria, Galveston and Chambers) would be unlikely to trigger a conformity evaluation under the Texas State Implementation Plan.

## 6 CONCLUSIONS

Phase 1 of the Regional Aviation System Plan consists of data collection and evaluation. The airport inventory surveyed 28 airports and assessed the status of airside and landside facilities, aircraft operations and the airport environments. Interviews were conducted with community and economic leaders where the airports are located. The key findings of the data collection for Phase 1 are:

- Many airports are near capacity for based aircraft, and demand for hangar space is strong;
- The condition of pavement on runways and taxiways is fair to poor at many airports, and some lack full or parallel taxiways;
- The majority of airports provide most of the aviation services and navigational aids that are needed, but some lack one or a few services that would greatly improve their usefulness;
- The Houston-Galveston region has relatively complete coverage by its study airports, one of which is within a 30 minute drive of just about anywhere in the region;
- Most of the study airports have height hazard obstructions or incompatible adjacent land use, complicating their use and jeopardizing their expansion;
- Some airports would have better local support and funding if they were perceived more positively by their communities, or if there was more community awareness of their airports; and
- Some airports require more funding by their owners to maintain facilities and operations. adequately

This section discusses the last point first, and then presents the major issues that result from the Phase 1 study.

### 6.1 Airport Preservation

Airport preservation is a major goal of the Regional Aviation System Plan. Once an airport is taken out of aviation use and converted into another use, it is virtually impossible to bring it back into use as an airport. The configuration of open land for an airport runway and its clear zones is invariably lost. Replacing a closed airport – finding a large amount of available undeveloped land in a convenient location, obtaining air rights from the Federal Aviation Administration, ensuring minimum impacts to nearby residents and other sensitive land uses, clearing height hazards and attracting based aircraft – is a very difficult proposition, and few have succeeded in doing this in recent years.

A closed airport means reduced opportunities for airplanes to take off and land in the region, reduced economic benefits in the area of the airport, and perhaps hundreds of displaced aircraft that must relocate to other airports in the region. Many airports have no room for more based aircraft. It follows that the region benefits most when airports stay open.

While no one can predict if or when a specific airport may close, this report is concerned with those airports that appear to be in need of more robust support to stay open, the reasons the airports are in this situation, and some potential measures to preserve airports.

All privately owned public-use airports in the Houston-Galveston region that have not recently accepted Federal Aviation Administration or TxDOT grants (which have a 10-year required airport use clause) are vulnerable, because their owners are under no mandate to keep them open as airports. Baytown, David Wayne Hooks, Houston Executive, Houston Southwest, Pearland Regional, Skydive Houston, West Houston and Williams Airports operate at the discretion of

their private owners. The owners must be interested in continuing to operate their airports if they are to remain open. This is not to say that any of these airports is likely to close soon; the owners of these airports have many reasons to keep their airports open, including profit, ease of personal or corporate aviation use, investment potential and personal enjoyment. Profit is an especially major incentive to keep a private airport open, but profits can be elusive in the current market situation.

Development pressure can also work on publicly owned airports. La Porte Municipal Airport is surrounded by residential and commercial development, and it is possible that developers are considering ways to acquire and redevelop the airport. Nonetheless, La Porte intends to continue operating the airport.

Some publicly owned airports in the region (Scholes International, Liberty Municipal, Chambers County and Winnie-Stowell) were substantially damaged by Hurricane Ike and are in various stages of recovery from the storm. These airports' abilities to rebuild damaged buildings and facilities vary according to the amount of public support they receive.

## **6.2 Regional Aviation Issues**

The airport inventory and stakeholder interviews have pointed to eleven major issues that the Houston-Galveston region is facing regarding its study airports. These issues are listed below.

### **6.2.1 Funding**

Funding for capital projects for private airports is subject to the financial capabilities and interests of their owners. Funding for public airports depends on a combination of political success in obtaining grants, local capability to provide matching funds, and many intangible factors related to local support for the airport and keeping it high on the priority list of local issues.

Funding is the first issue that most stakeholders mention when discussing the problems with their airports. While many airports have sufficient funding to survive, capital investments are needed to bring the airports to full use.

Funding is subject to the economic conditions of airport sponsors, which must provide substantial matching funds for federal and state grants. For example, sponsors must provide 50 percent of funds for Texas Routine Airport Maintenance Program grants (see Section 6.2.2 below) and 10 percent of funds for federal Airport Improvement Program grants. In an economic downturn, as is currently happening, some sponsors may not be able to build enough funds to match the grants, and their airports must put off needed repairs or expansions.

Furthermore, public airports (and private reliever airports) must compete with each other for federal grants, where success may depend on how well a sponsor can show that their community is behind the project, and that the requested grant will really benefit to the community. Grant selection also reflects the policy decisions of the regional office of the granting agency, and successful grant recipients are skilled in working with policymakers and making their airport's needs known.

### **6.2.2 Pavement Maintenance**

Many airports have pavement in urgent need of repair. Some airports need runway extensions and additional paved taxiways to function better.

The amount of needed pavement maintenance is a function of the airport's age, original pavement strength and quality, as discussed in Section 4.2.1 above. Some airports were former military bases and their runways were made to withstand many years of hard use. Other airports, especially those that started as private facilities with turf runways, have runways and taxiways that have lower bearing strength and poorer endurance. Some managers have had to put off normal pavement maintenance to meet budget constraints, resulting in pavement damage and more expensive repair bills in a few years.

The Texas Department of Transportation offers annual grants up to \$100,000 to each publicly owned airport under its Routine Airport Maintenance Program (RAMP). The grants require that the airport provide 50 percent matching funds, and the money can be used for any reasonable airside or landside maintenance program, with preference given to airside maintenance. Examples of programs that can be funded with RAMP funds are repaving runways and taxiways, building airport entrance roads, building public parking lots, installing security fences and replacing the rotating beacon. In general, airports should participate in RAMP if they wish to receive airport improvement grants from the Texas Department of Transportation.

### 6.2.3 Hangar Space

Almost every airport manager indicates that there is strong demand for additional hangar space for more based aircraft. They report waiting lists for available hangars, and frequent calls from people looking to rent hangars. Although it is difficult to estimate true demand, the shortage of hangar space in the region appears to be real.

Stakeholder support for additional hangar space is presented in Section 5.1.1 above. Most of the airports have space to build additional hangars when demand is present. Building hangars requires long-term financing, because the initial costs of construction are recovered from tenants leasing hangar space over many years. Houston Southwest Airport is trying a possible alternative, allowing a developer to sell hangar condominiums to aircraft owners who are willing to purchase units before construction.

Many hangars in the Houston-Galveston area that Hurricane Ike damaged or destroyed in 2008 are currently being rebuilt. However, national trends in aircraft sales are dropping, reflecting the current economic downturn, so the demand for hangar space may abate somewhat over the next few years.

### 6.2.4 Sponsor Interest

Some airports need additional maintenance and capital improvements, both of which depend on consistent sponsor interest. Some public airports would benefit from a greater focus by their owners, as well as more resources allocated to manage the airport. Some airports need full-time managers to supervise and maintain their facilities, and plan for short-term needs and long-term development. Some elected officials question the value of their airports, which may be perceived as luxuries. Community interest, which would provide the political capital for supporting airports, is often absent. As a result, airport maintenance and planning are often postponed for other community needs.

Airports' specific needs for owner support are listed in Section 6.1 above, and the reasons why this support is not always available are presented. One reason, the perception that the airport is not important to the majority of citizens in the city or county that owns it, is discussed in Section 5.1 above. This perception especially undermines local support for airport funding and requires concerted effort to change.

### 6.2.5 Airport Services

Few airports have all the facilities that would let them operate optimally. Most need one or more facilities to expand their capabilities. Examples of services lacking at some airports include fuel sales (some have no fuel at all, others have just Avgas and no jet fuel), terminal buildings, hangar space, precision approaches and aircraft maintenance.

The services available at study airports are listed in Table 7 (Navigational Aids at Study Airports) and Table 8 (Landside Facilities and Services at Study Airports). Few airports have all needed services for optimum aviation use. Most of these services are expensive to acquire and maintain, but some pay for themselves (*e.g.*, fuel, hangar space) and others add value to the airport (*e.g.*, terminals, navigational aids).

Privately owned airports are often better at providing the fee-based services airport users want than publicly owned airports, because the profits from these services provide the incentive to make them available. However, services such as navigational aids and terminals, which do not provide direct profits and may require federal assistance, are more likely to be available in airports that are publicly owned or have reliever status.

### 6.2.6 The Economy

The current economic recession is affecting the region's airports in many ways. Global economic problems have caused increasing fuel costs (although these have declined recently), tighter municipal budgets and declining business jet use. Recreational aviation activity has not been affected as much, but may also decline as personal budgets feel the pinch. The general uneasiness about the future, and the tighter money supply, are leading airports to postpone expensive improvements. However, about \$18 million in federal stimulus funding to Texas airports, added to the expected \$46.6 million in federal block grants for Texas aviation in 2009, may lead to some capital projects sooner rather than later. This year, Galveston has received \$2 million in federal stimulus funds to rehabilitate its electrical and lighting systems that were damaged by Hurricane Ike.

The future for business travel is probably less robust than it has been recently, but business travel will not go away. The current trend in business is to use corporate airplanes less and use technology (Web meetings, remote login, database downloads) to replace business travel. However, not all business activities can be done remotely, and there will always be a need for face-to-face meetings and on-site inspections. Airports throughout the region will continue to be needed for commerce.

### 6.2.7 Community Awareness

In many communities, citizens are not aware of the airport in the neighborhood. In other communities, citizens know about the airport but do not perceive it as an essential element of the community's transportation infrastructure. This causes problems when local resources are needed for maintenance or growth of the airport. It also prevents the airport from being used well as an incentive for business or development.

Raising the profile of an airport can help citizens realize that the airport is an essential element of the community, which in turn could make it easier for the airport to obtain local funding for maintenance and matching funds for grants.

### 6.2.8 Setting the Airport's Purpose

Few policymakers have figured out how their airport can benefit their communities, and chambers of commerce and economic development organizations have not always conveyed the airport's purposes and capabilities effectively. Setting a clear direction for the airport that meets the community's goals is essential to establishing local support and political will.

One goal of the Regional Aviation System Plan is to define roles for the study airports in the Houston-Galveston region. This will be done in the second phase of the planning process.

### 6.2.9 More Land for Expansion

Many airports have land constraints and cannot make needed expansions unless they acquire more land, but they find that the land is either not available or too expensive. Land expansion plans can also lead airport neighbors to fear displacement and could trigger public opposition.

As shown in Section 4.6 above, some airports are surrounded by developed land and cannot expand while others do not control the land use around them. This limits the potential of the airports to grow and handle larger aircraft. In general, airports in urban areas (such as La Porte Municipal and Weiser Air Park) find themselves hemmed in by developments and cannot expand without major community impacts. Other airports (such as Sugar Land Regional and Pearland Regional) have roads or railroads at the ends of their runways, and it is at least costly and sometimes infeasible to relocate adjacent infrastructure to make room for a longer runway. Unlike privately owned airports, publicly owned airports can use eminent domain powers to take adjacent land, but this is often not an acceptable option to the community. The position of each airport in its land use context is unique for each airport and will be considered as appropriate expansion options are studied in the next phase of this study.

### 6.2.10 Private versus Public Airport Ownership

Private airports are considered by some economic development leaders to be unreliable because their owners can choose at will to invest in their airports or not. Ironically, most of the heavily used airports in the region are private, or were recently acquired by public entities from private owners.

The pros and cons of private airport ownership in a regional aviation system are presented in Section 6.1 above. While private ownership gives more flexibility in development of new airports, public ownership provides almost guaranteed continuity for essential study airports such as relievers.

### 6.2.11 Security

Many airport managers were concerned about a proposed regulation by the federal Transportation Security Administration of the Department of Homeland Security. The proposed rule (the Large Aircraft Security Program) would require security measures by all United States operators of aircraft exceeding 12,500 pounds, including verifying that passengers are not on the federal "No Fly" watch list. Most general aviation organizations oppose the proposed regulation because it would place an economic burden on most airport operators. The Transportation Security Administration received more than 7,000 comments opposing the proposed regulations and is currently revising them. Regardless of the outcome of the proposed rule, security requirements at general aviation airports will likely increase. In addition, adding security fencing and maintaining security surveillance to prevent vandalism and theft would be a major expense for many airports.



Security is discussed in Section 4.7 above. The issue is complex, ranging from airport access control to passenger screening and cargo inspection. While airport security will always be of more concern than it was before September 11, 2001, the best balance between strict security measures and ease of airport use has not yet been found.

The Aircraft Owners and Pilots Association has a program named “Airport Watch” to keep aircraft owners vigilant about potential security issues at the airports they use. The association is offering printed materials and a free security video to its members to educate them about airport security and encourage them to keep their aircraft locked, watch for suspicious behavior and call a toll-free association phone number to report a potential security issue. Most of the region’s airports participate in the program.

## **7 REGIONAL AVIATION GOALS**

From the eleven regional aviation issues in the previous section, one can logically determine what needs to be done to improve the regional aviation system. The plan's objectives presented in Section 1.1.2 above state what the Regional Aviation System Plan should accomplish. The goals in this section give these objectives more specificity, relating them to the regional issues and other findings of the airport inventory and stakeholder interviews. The eleven goals in four categories are presented below, along with references to the issues that they are meant to handle.

### **7.1 Preserve existing airports**

#### **7.1.1 Public ownership or public/private partnership for all airports in the National Plan of Integrated Airport Systems**

While all airports in the region are important and should be preserved, airports that serve the population centers of the Houston-Galveston region and are included in the National Plan of Integrated Airport Systems are specifically identified by the Federal Aviation Administration as infrastructure assets for which continued public use must be assured. Public ownership of these airports, whether by cities, counties, intergovernmental airport boards or authorities, or by innovative public-private partnerships with public guarantees on their continued use, should be realized to meet this goal. (Issue 6.2.10)

#### **7.1.2 Regional partnerships for small publicly owned airports where appropriate**

Airports owned by public entities that do not currently provide adequate facility management may benefit from restructuring as regional facilities. Joint sponsorship arrangements by several public entities (including public/private partnerships where appropriate) would spread the management responsibility for such airports among more users and communities. It would also give these airports a greater funding base for their maintenance and future development. (Issues 6.2.1, 6.2.4)

### **7.2 Improve safety and security**

#### **7.2.1 Bring airports to standards**

Several airports in the region have runways with encroachments by structures that are too tall or too close to the runway. Removal of the encroaching structures would protect instrument approaches and allow full use of the runway. Other airports require full parallel taxiways, adequate apron space, wider runways and taxiways, or smoother pavement to meet federal aviation standards. Airport runways that do not currently have published instrument approaches may be able to gain them for satellite navigation such as GPS and LPV. The Regional Aviation System Plan will recommend changes to airports to meet current federal aviation standards for safety and design. (Issue 6.2.2)

#### **7.2.2 Establish emergency airport system**

Strategically located airports with good landside access would be classified in the Regional Aviation System Plan as emergency airports and planned for sufficient runway width and strength, fuel capacity and emergency power generation to handle air evacuation and cargo flights in emergencies. (Issue 6.2.8)

### **7.2.3 Improve airport security**

Security measures that are cost-effective and appropriate to each airport's role should be done at all airports. All airports need security fencing around their perimeters (unless other barriers exist) to control access to one or a few main gates that can be supervised. (Issue 6.2.11)

## **7.3 Improve efficiency**

### **7.3.1 Build on each airport's strengths for better system integration**

The Regional Aviation System Plan will propose roles for each airport in the system and recommend measures to improve those roles. These measures would increase efficiency, add capacity where it is needed, and increase airport usefulness for all aviation users living in or visiting the Houston-Galveston region. (Issues 6.2.5, 6.2.8)

### **7.3.2 Add hangars at airports with pent-up demand and sufficient aviation services**

Hangar space is almost fully occupied at every airport, and most airport managers cited many unmet requests for hangar rentals. The Regional Aviation System Plan will identify opportunities to add hangar space where it is most needed to fill geographic and functional gaps at airports that can handle the additional based aircraft and operations. (Issue 6.2.3)

### **7.3.3 Eliminate capacity constraints and provide essential services at poorly performing airports**

The airport inventory has identified airports for which adding or improving just one feature would increase its capacity and efficiency. Examples are airports with partial or no parallel taxiways, no fuel available for sale, and a poorly equipped terminal. Measures to provide these features would not just improve system efficiency but also raise the competitiveness of Houston-Galveston area airports relative to other regions, and they will receive high priority in the Regional Aviation System Plan. (Issue 6.2.5)

## **7.4 Benefit communities**

### **7.4.1 Establish protective land use restrictions around airports**

The continued existence of airports often depends on the degree to which the community protects the ends of the runways from incompatible land uses such as height hazards and noise-sensitive receptors. Communities with zoning ordinances can set land use restrictions directly, while communities without such ordinances can make strategic land purchases to accomplish the same end. (Issue 6.2.9)

### **7.4.2 Add signs, gateway entrances and landscaping at airports**

Many airports are virtually invisible to the community and users. As part of an overall airport marketing program, a landmark gateway at the main entrance and attractive landscaping around the terminal building could be used to beautify the airport, instill community pride and build support by the community. (Issues 6.2.4, 6.2.7)

### **7.4.3 Encourage community events at airports**

Bringing the community to the airport for annual events (such as fly-ins, Fourth of July celebrations or folk art fairs) is a wonderful way to introduce the community to its airport and to build community support. (Issues 6.2.4, 6.2.7)

## **8 PERFORMANCE MEASURES**

Performance measures are quantitative indices that show how intensively or effectively an airport is being used. For example, the number of aircraft operations per year is a widely used performance measure of airports. Other such measures are how large an aircraft the airport can safely accommodate and how poor the visibility can be at the airport and still allow safe instrument landings.

The purpose of performance measures is to provide a means to compare airport activity among airports and for individual airports at different times. Thus, as airports get busier, their annual operations increase, and as airports expand, the maximum size of aircraft accommodated increases. Performance measures will be used in the analysis of airport capacity and planning scenarios in Phase 2 of the Regional Aviation System Plan.

Performance measures should not be expected to indicate everything about an airport, but only those aspects of the airport that are measurable and are important to an airport's function. For example, availability of a terminal building is important to many airport users and it affects the airport's usefulness, but it is not a measure of the airport's function.

The performance measures for the Regional Aviation System Plan for the Houston-Galveston region are listed and defined below.

### **8.1 Annual Aircraft Operations**

The total annual operations in the most recent reported year, grouped by general aviation propeller, general aviation jet, commercial fixed-wing, commercial helicopter, military fixed-wing and military helicopter, and by local and itinerant operation type. This measure, compared to the capacity of the airport by aircraft type, indicates how close an airport is to its capacity for aircraft operations.

### **8.2 Based Aircraft**

The total number of based aircraft in the most recent reported year, grouped by single engine, multi-engine, jet, helicopter, glider, military and ultralight. By comparing this measure to the forecast demand to base aircraft at that airport, this measure indicates how close an airport is to its potential to base aircraft. Furthermore, if the number of based aircraft reaches at least 100, the airport has met one eligibility criterion for a reliever airport.

### **8.3 Largest Aircraft Accommodated**

The largest aircraft type (by approach speed, wingspan or weight) that can be reasonably accommodated at the existing airport, based on length of primary runway, design runway strength rating, actual condition of primary runway, separation of runway and taxiway and size of apron. The types of aircraft that can be currently accommodated may not be the same types as would need to be accommodated under the airport's optimal role in the regional aviation system, and to that extent, the airport has not attained the capability to take its optimal role.

### **8.4 Landing Minima under Instrument Flight Rules**

The published minimum altitude and visibility distance for aircraft approaching the airport, for currently installed navigational aids at the airport or for GPS or LPV satellite receivers. This measure depends on the electronic equipment installed on the airport grounds that provides pilots



with additional guidance on where the aircraft is and where the runway is, allowing landings in poor visibility. It also depends on the steepness of the unobstructed glide slopes around the airport. The smaller the minimum allowable altitude and visibility distance, the more the airport can be used during inclement weather, and the more likely pilots will be to use the airport in general.

### ***8.5 Population and Employment within 30 Minutes Driving Distance***

The number of residents and employees living or working within the census blocks (or tracts, if block-level population data are not available) that are within 30 minutes' driving time of the airport, using the current roadway network. (This criterion applies to general aviation use of airports; commercial passengers on the air carrier airports, George Bush Intercontinental and William P. Hobby Airports, have a 60-minute drive time service area.) This number measures the size of the pool of potential users of the airport from the surrounding communities, and highlights airports near major employment centers.

### ***8.6 Annual Operating Budget***

The airport owner's average annual budget to operate the airport, based on a 5-year rolling average, grouped by airport revenue, public funds and private funds. This value, when compared to the estimated annual funding need for the airport, shows the level of financial support the airport is currently receiving.

### ***8.7 Compatibility of Adjacent Land Uses***

This measure has three parts: the proportion of land within one mile of the airport that is currently in agricultural use or is undeveloped, or is already owned by the airport's owner; the proportion of land within ½ mile of the primary runway ends that is in residential or park use; and the number of height hazard obstructions reported for the airport and the existence of a height hazard zoning ordinance. These three parts indicate different facets of the same issue: whether the airport can use its land effectively and expand as its needs grow.

### ***8.8 Pavement Condition***

The current condition of the runway, taxiway and apron operating surfaces, taking into account any currently programmed and funded projects to rehabilitate these surfaces. Poor pavement condition may mean the pavement is at the end of its working lifetime, that previous paving work or material was of poor quality, or that the pavement surface is not being adequately maintained. This measure, along with the operating budget, shows whether the airport is being sufficiently maintained. In addition, changes in pavement condition over time indicate how well the airport maintenance program is working.

## **9** RECOMMENDATION FOR PHASE 2

The recommendation from Phase 1 of the Regional Aviation System Plan is to proceed with Phase 2. The purpose of Phase 2 is to determine the best plan for further development of the Houston-Galveston regional aviation system upon study of several feasible future scenarios, and to develop recommendations for future airport actions to support this plan.

Phase 2 is primarily analytical and is based on the information gathered during Phase 1. Aviation system capacity will be estimated and future activity will be forecasted over the next 30 years. A set of future scenarios will be analyzed to determine the effects of different development objectives or events on future aviation. Out of this analysis will come an optimal airport system plan that will best handle likely future contingencies and bring aviation toward the goals established in this phase. The elements of the optimal plan will be used to construct priority lists of airport actions and recommended changes to the National Plan of Integrated Airport Systems and the Texas Airport System Plan.

At the end of Phase 2, a project report will be issued that recommends changes to the current airport system to bring it closer to an optimal general aviation system for the Houston-Galveston region, and means to carry them out.

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## GLOSSARY

Air Carrier .....	Aviation by a commercial public carrier on scheduled routes
ASOS .....	Automated Surface Observation System
Avgas.....	Aviation gasoline, the fuel for many reciprocating aircraft engines
AWOS.....	Automated Weather Observation System
DME.....	Distance Measuring Equipment, a navigational aid for landing
FAA.....	Federal Aviation Administration of the U.S. Department of Transportation
FBO.....	Fixed Base Operator, an airport tenant that provides fuel, storage or other aviation services
General Aviation .....	Aviation other than air carrier or military
Glider .....	Engineless fixed-wing aircraft that is towed up, and then flown
GPS .....	Global Positioning System, a satellite-based navigational aid for finding location
Helicopter.....	Powered rotor-wing aircraft
H-GAC.....	Houston-Galveston Area Council, the regional planning agency of the Houston-Galveston region
ILS.....	Instrument Landing System, electronic navigational aids for landing
Jet A .....	Jet Aviation fuel (kerosene), the fuel for most jet and turboprop aircraft and helicopters
LOC.....	Localizer, a navigational aid for direction finding
LPV .....	Lateral Precision performance with Vertical guidance, a more precise GPS satellite-based navigational aid
Mogas.....	Motor vehicle (automobile) gasoline
NDB .....	Non-Directional Beacon, a navigational aid for direction finding
NPIAS.....	National Plan of Integrated Airport Systems
PAPI .....	Precision Approach Path Indicator, a navigational aid for landing
RAMP .....	Routine Airport Maintenance Program, an airport grant program of the Texas Department of Transportation
RASP.....	Regional Aviation System Plan
REIL.....	Runway End Identification Lights, a navigational aid for landing
RNAV.....	En Route Area Navigation, a technique for navigation
SC.....	Segmented Circle, a navigational aid for direction finding
TASP .....	Texas Airport System Plan
T-hangar .....	Hangar divided into T-shaped units that fit one fixed-wing airplane each
TSA.....	Transportation Security Administration of the U.S. Department of Homeland Security
Turboprop.....	Piston aircraft engine with turbocharged air intake driving a propeller
TxDOT .....	Texas Department of Transportation
Ultralight.....	A small powered aircraft with empty weight under 254 pounds and top speed at most 55 knots (64 mph)
VASI.....	Visual Approach Slope Indicator, a navigational aid for landing
VHF.....	Very High Frequency (radio signal)
VOR .....	VHF Omni-directional Range, a navigational aid for direction finding

## APPENDICES

### AIRPORT QUESTIONNAIRES AND DATA

#### **Air Carrier Airports**

George Bush Intercontinental Airport, Houston, Harris County

William P. Hobby Airport, Houston, Harris County

#### **Reliever Airports**

Brazoria County Airport, Lake Jackson, Brazoria County

David Wayne Hooks Memorial Airport, Houston, Harris County

Ellington Airport, Houston, Harris County

Houston Southwest Airport, Arcola, Fort Bend County

La Porte Municipal Airport, La Porte, Harris County

Lone Star Executive Airport, Conroe, Montgomery County

Pearland Regional Airport, Pearland, Brazoria County

Scholes International Airport, Galveston, Galveston County

Sugar Land Regional Airport, Sugar Land, Fort Bend County

West Houston Airport, Houston, Harris County

#### **General Aviation Airports**

Bay City Municipal Airport, Bay City, Matagorda County

Baytown Airport, Baytown, Harris County

Chambers County Airport, Anahuac, Chambers County

Cleveland Municipal Airport, Cleveland, Liberty County

Eagle Lake Airport, Eagle Lake, Colorado County

Grawunder Field, Bellville, Austin County

Houston Executive Airport, Brookshire, Waller County

Huntsville Municipal Airport, Huntsville, Walker County

Liberty Municipal Airport, Liberty, Liberty County

Palacios Municipal Airport, Palacios, Matagorda County

Robert R. Wells, Jr. Airport, Columbus, Colorado County

Skydive Houston, Waller, Waller County

Weiser Airpark, Houston, Harris County

Wharton Regional Airport, Wharton, Wharton County

Williams Airport, Porter, Montgomery County

Winnie-Stowell Airport, Winnie, Chambers County





**Legend - Land Use**

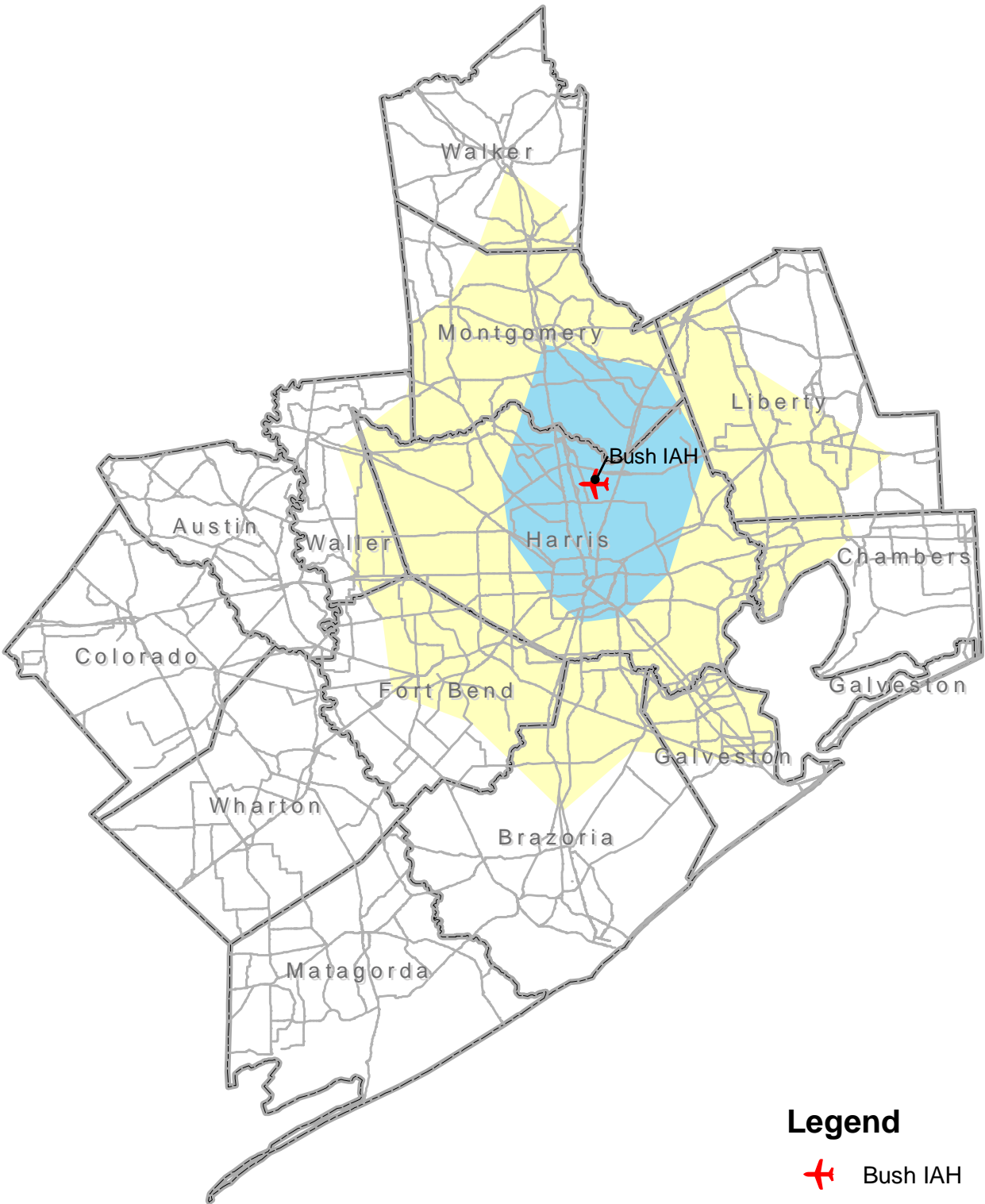
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant




# Bush Intercontinental Airport

2040 Regional Aviation System Plan Update

# Bush Intercontinental Airport 30 and 60 Min Service Areas in 2009



## Legend

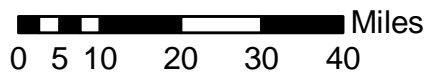
 Bush IAH

 Roads

 Counties

 30 Min Service Area

 60 Min Service Area





## George Bush Intercontinental/Houston Airport (IAH)

### Airport Summary

### Houston-Galveston Area Council

### Regional Aviation System Plan

George Bush Intercontinental/Houston Airport is publicly owned by the City of Houston and operated by the Houston Airport System.

#### **Airport Location**

George Bush Intercontinental/Houston Airport is located in Harris County, Texas approximately 22 miles north of Houston. The airfield is centered between I-45 and US Highway 59 and north of Beltway 8.

#### **Existing Airport Facilities**

George Bush Intercontinental/Houston Airport including the airfield, hangars, terminal, and safety areas, encompasses approximately 10,000 acres. The Airport Identifier is IAH. The facility is at an elevation of 97 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°59'03.9610"N (estimated) and longitude 095°20'29.1920"W.

#### Airfield Facilities

George Bush Intercontinental/Houston Airport currently has five (5) paved runways. Runway 15L/33R is 12,001 feet in length and 150 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 100,000 pounds or less. The runway is constructed of concrete and is in good condition. The runway is equipped with High Intensity Runway Lighting (HIRL) and a four-light Precision Approach Path Indicator (PAPI) on the right of the Runway 15L end. The runway is also equipped with Medium-Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) on the Runway 33R end.

Runway 15R/33L is constructed of concrete and is in good condition. The runway is 9,999 feet in length and 150 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 75,000 pounds or less. The runway is equipped with HIRL and four-light PAPIs on the left of the Runway 15R end and on the right of the Runway 33L end. The runway is also equipped with MALSR on the Runway 15R end.

Runway 9/27 is constructed of asphalt and is in good condition. The runway is 10,000 feet in length and 150 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 75,000 pounds or less. The runway is equipped with HIRL and four-light PAPIs on the right of the Runway 9 end and on the left of the Runway 27 end. This runway is also equipped with MALSR on the Runway 9 end and High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) on the Runway 27 end.

Runway 8R/26L is constructed of concrete and is in good condition. The runway is 9,402 feet in length and 150 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 75,000 pounds or less. The runway is equipped with HIRL and four-light PAPIs

on the left of the Runway 8R end and on the right of the Runway 26L end. The runway is also equipped with MALSR on the Runway 8R end and ALSF-2 on the Runway 26L end.

Runway 08L/26R is constructed of concrete and is in good condition. The runway is 9,000 feet in length and 150 feet wide with a pavement strength rate to accommodate aircraft with a single-wheel load of 75,000 pounds or less. The runway is equipped with HIRL and ALSF-2 on both runway ends.

Runways 33R, 15R, 9/27, 8R/26L, and 8L/26R are classified as Precision Instrument Runways and Runways 15L and 33L are classified as a Non-Precision Instrument Approach runways. The following published approaches were available as of April 9, 2009:

- ILS or LOC RWY 8L
- ILS or LOC RWY 8R
- ILS or LOC RWY 9
- ILS or LOC RWY 15R
- ILS or LOC RWY 26L
- ILS or LOC RWY 26R
- ILS or LOC RWY 27
- ILS or LOC RWY 33R
- ILS RWY 8L (CAT II)
- ILS RWY 26L(CAT II)
- ILS RWY 26R (CAT II)
- ILS RWY 27 (CAT II)
- ILS RWY 8L (CAT III)
- ILS RWY 26L (CAT III)
- ILS RWY 26R (CAT III)
- ILS RWY 27 (CAT III)
- RNAV (GPS) RWY 15
- RNAV (GPS) RWY 33R
- RNAV (GPS) Z RWY 8L
- RNAV (GPS) Z RWY 8R
- RNAV (GPS) Z RWY 9
- RNAV (GPS) Z RWY 26L
- RNAV (GPS) Z RWY 26R
- RNAV (GPS) Z RWY 27

#### *Landside Facilities*

The landside facilities at George Bush Intercontinental/Houston Airport include, but are not limited to, the terminal, FBO facilities, and conventional hangars.

#### *Fixed Base Operator Facilities*

There are two (2) full-service FBOs at George Bush Intercontinental/Houston Airport which include, Landmark Aviation and Atlantic Aviation.

#### *Aircraft Storage*

Aircraft storage at George Bush Intercontinental/Houston Airport includes conventional hangars.

#### *Aircraft Fueling Facilities*

The fuel farm, located on airport property, provides both aboveground and underground storage capacity of 208,000 gallons of Jet-A and 2,600 gallons of MOGAS.

#### *Based Aircraft*

In 2008, there were a total of 68 fixed wing aircraft based at George Bush Intercontinental/Houston Airport. This includes three (3) single-engine aircraft, one (1) multi-engine aircraft, 32 turbo-props and 32 business jets. Additionally, four (4) helicopters are based at the Airport.

### **Interviewer Conclusion**

George Bush Intercontinental/Houston Airport is a commercial service airport within the Houston Airport System that also has a general aviation (GA) community. The Airport acknowledges the presence of GA operations, but is not actively seeking out growing this type of operation. Houston Airport System staff expressed concern over the possibility of the closure of David Wayne Hooks Airport as it has a substantial number of based aircraft that would be displaced as a result of the closure. Both George Bush Intercontinental/Houston and William P. Hobby airports do not have the space available to accommodate an influx of GA aircraft and facilities.



**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: **Intercontinental Airport-Houston (IAH)**

Airport Manager: **Charles Wall**

Airport Owner: **The City of Houston**

Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>	<i>Glider</i>	<i>Ultra-Light</i>
Conventional (Bay) Hangars	3	1	32	32	4		
T-Hangars							
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
<b>Total</b>	<b>3</b>	<b>1</b>	<b>32</b>	<b>32</b>	<b>4</b>		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>
Conventional (Bay) Hangars				36	
Tie-Down (Paved)					
Tie-Down (Unpaved)					
<b>Total</b>					

3. Please indicate the amount of ramp space available for aircraft parking:

<i>Apron Type</i>	<i>Area (sq yds)</i>	<i>Number of Tie-Down Spaces</i>
Maintenance Apron Area	38,777	*
Based Aircraft Apron	80,144	
Transient Aircraft Apron	923,154	

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<i>Type of Fuel</i>	<i>Fuel Flowage (gallons/year)</i>
MOGAS (auto)	2000
AVGAS	
Jet-A	1,381,000
Total (GA only)	1,383,000

<i>Tank Size (gallons)</i>	<i>Type of Fuel (MOGAS, AVGAS, JET-A)</i>	<i>Aboveground / Under-ground</i>
208000	JET-A	Both
2600	MOGAS	Both

Type of Fuel	Fuel Flowage (gallons/year)

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)		1 (avg)	4 (avg)
Frequency of Fuel Drops	1 (avg)		5 (avg)
Average Gallons per Drop			33803

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings    \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? **08:00, 10:00, 17:00, 19:00** \_\_\_\_\_

8. What is the busiest day(s) of the week? **Fridays, Sundays** \_\_\_\_\_

9. For the above table, what are your off-peak and peak seasons? \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Total		
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11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
8R-26L	9401 feet	150 feet	0.026%	Concrete	PI
8L-26R	9000 feet	150 feet	0.076%	Concrete	PI
9-27	10000 feet	150 feet	0.066%	Concrete	PI
15L-33R	12001 feet	150 feet	0.083%	Concrete	PI
15R-33L	10000 feet	150 feet	0.068%	Concrete	NPI

Runway End	End Elevations	Visual	NP	P1/P2/ P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
8R	95.9 MSL	None		P3	None	High	MALSR	None	X
26L	93.4 MSL	None		P1	None	High	ALSF2	None	X
8L	91.6 MSL	None		P3	None	High	ALSF2	None	PAPI
26R	95.3 MSL	None		P3	None	High	ALSF2	None	PAPI
9	91.9 MSL	None		P1	None	High	MALSR	None	PAPI
27	85.3 MSL	None		P2	None	High	ALSF2	None	PAPI
15L	97.5 MSL	None		P1	None	High	X	None	PAPI
33R	87.5 MSL	None		P1	None	High	MALSR	None	X
15R	95.1 MSL	None		P1	None	High	MALSR	None	PAPI
33L	91.0 MSL	None		P1	None	High	X	None	PAPI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
FA		75 feet		Concrete	8L-26R
FB		75 feet		Concrete	8L-26R
FC		75 feet		Concrete	8L-26R
FD		75 feet		Concrete	8L-26R
FE		75 feet		Concrete	8L-26R
FG		75 feet		Concrete	8L-26R
FH		75 feet		Concrete	8L-26R
FJ		75 feet		Concrete	8L-26R
FK		75 feet		Concrete	8L-26R
NA		75 feet		Concrete	8R-26L/15L-33R/15R-33L
NB		75 feet		Concrete	8R-26L/15L-33R/15R-33L
NC		75 feet		Concrete	8R-26L/15L-33R/15R-33L
ND		75 feet		Concrete	8R-26L
NE		75 feet		Concrete	8L-26R/8R-26L

<b>Taxiway ID</b>	<b>Length</b>	<b>Width</b>	<b>Lighting</b>	<b>Surface Type</b>	<b>Access To</b>
NF		75 feet		Concrete	8R-26L
NG		75 feet		Concrete	8R-26L
NH		75 feet		Concrete	8R-26L
NJ		75 feet		Concrete	8R-26L
NK		75 feet		Concrete	8R-26L
NL		75 feet		Concrete	8R-26L
NN		75 feet		Concrete	8R-26L
NP		75 feet		Concrete	8R-26L/8L-26R
NR		75 feet		Concrete	8R-26L
CC		75 feet		Concrete	8R-26L
EA		75 feet		Concrete	8R-26L/8L-26R
EB		75 feet		Concrete	8R-26L/8L-26R
EC		75 feet		Concrete	8R-26L/8L-26R
ED		75 feet		Concrete	8R-26L/8L-26R
EE		75 feet		Concrete	8R-26L/8L-26R
WA		75 feet		Concrete	15L-33R
WB		75 feet		Concrete	15L-33R
WC		75 feet		Concrete/Asphalt	15R-33L
WE		75 feet		Concrete	15L-33R
WF		75 feet		Concrete	15L-33R
WG		75 feet		Concrete	15L-33R
WH		75 feet		Concrete	15L-33R
WJ		75 feet		Concrete	15L-33R
WK		75 feet		Concrete	15L-33R
WL		75 feet		Concrete	15L-33R/15R-33L
WM		75 feet		Concrete	15L-33R
WN		75 feet		Concrete	15L-33R
WP		75 feet		Concrete	15R-33L
WQ		75 feet		Concrete	15R-33L
WR		75 feet		Concrete	15R-33L
WS		75 feet		Concrete	15R-33L
WT		75 feet		Concrete	15R-33L
WU		75 feet		Concrete	15R-33L
WV		75 feet		Concrete	15L-33R



Taxiway ID	Length	Width	Lighting	Surface Type	Access To
WW		75 feet		Concrete	15L-33R/15R-33L
RA		75 feet		Concrete	9-27
RB		75 feet		Concrete	9-27
R2		75 feet		Concrete	9-27
SA		75 feet		Asphalt	9-27
SB		75 feet		Asphalt	9-27
SC		75 feet		Concrete	9-27
SF		75 feet		Concrete	9-27
SG		75 feet		Concrete	9-27
SH		75 feet		Concrete	9-27
SJ		75 feet		Concrete	9-27
SK		75 feet		Concrete	9-27

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

**Preliminary PER data being gathered for RWY 8C-26C, unknown date for construction.**

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

**Latest rehab was completed on RWY 9-27 from novaphalt to concrete in February of 2009.**

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

**Concrete rehab of existing Taxiways WA and WB and associated intersections and, SA and SB scheduled for reconstruction from asphalt to concrete in the next 5 years.**

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower	X		24 hours	Automatic Terminal Information Service	X		
Flight Service Station		X		Unicom	X		122.95
National Weather Service				Precision Approach Radar / MLS/ILS	X		
Civil Air Patrol				Segmented Circle		X	
Automatic Weather Observing System (A, I, II, III, IV)				Centerfield Wind Indicator		X	
Automated Surface Observing System				Supplemental Wind Cone	X		
Non-Directional Radio Beacon		X		Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)	X		116.6	Aircraft Rescue and Fire Fighting Facility	X		
Ground Communications Outlet				Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) **TRACON, Runway.** Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? **No.** \_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) **Terminal D, Terminal D Pier, Terminal D apron, Terminal B South, Terminal B apron, utility lines, access roads (Volta Road), Taxiway SG, airfield service complex, ARFF Station 92.** \_\_\_\_\_

16. What do you view as the long-range potential for the airport? **I view IAH as an increasingly vital commercial and cargo aviation hub both nationally and internationally. Although general aviation exists at IAH, it is not an aviation sector being sought for growth potential at IAH.** \_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? **No, I am not aware of broad public support, only support from certain organizations. Yes, there are people and groups opposed to public funding of the airport if it means expansion.** \_\_\_\_\_

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18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) **Yes. The Part 77 Height Hazard Review is a Houston Airport System-administered process protecting the imaginary surfaces relative to IAH. In addition, the Federal Aviation System (FAA) administers the Form 7460-1 process protecting the Terminal Instrument Procedures (TERPS) surfaces relative to IAH. Yes, there have been incompatible land uses both proposed and built near IAH.** \_\_\_\_\_

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19. Have nearby residents complained of aircraft noise? **Yes.** \_\_\_\_\_

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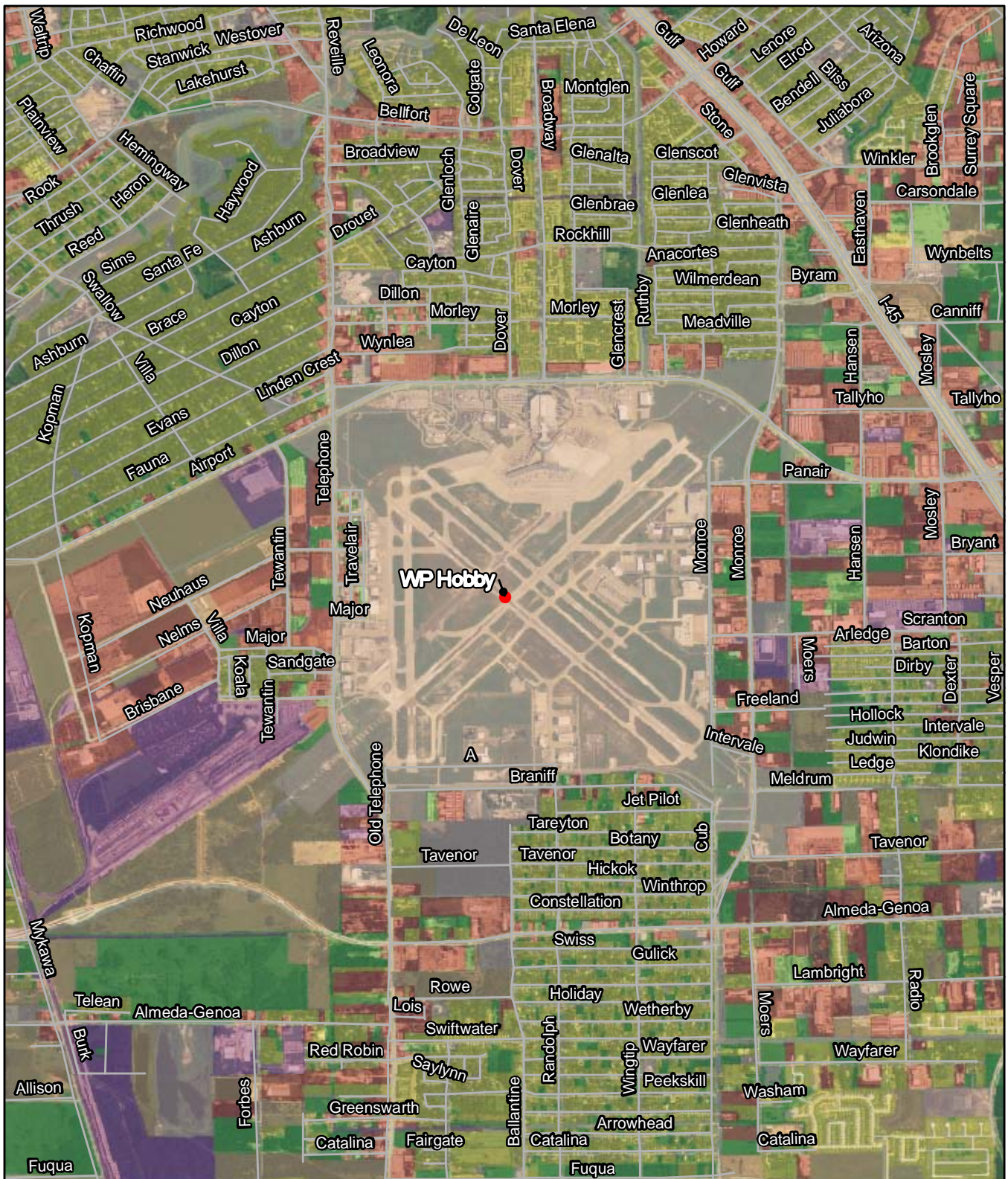
20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? **Yes. The City of Houston passed an Airport Compatible Land Use Regulation Ordinance (Ordinance Number #2008-1052) on December 3, 2008 to regulate land use around all three HAS facilities in response to an FAA request to protect federal aviation infrastructure investments.** \_\_\_\_\_

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**Legend - Land Use**

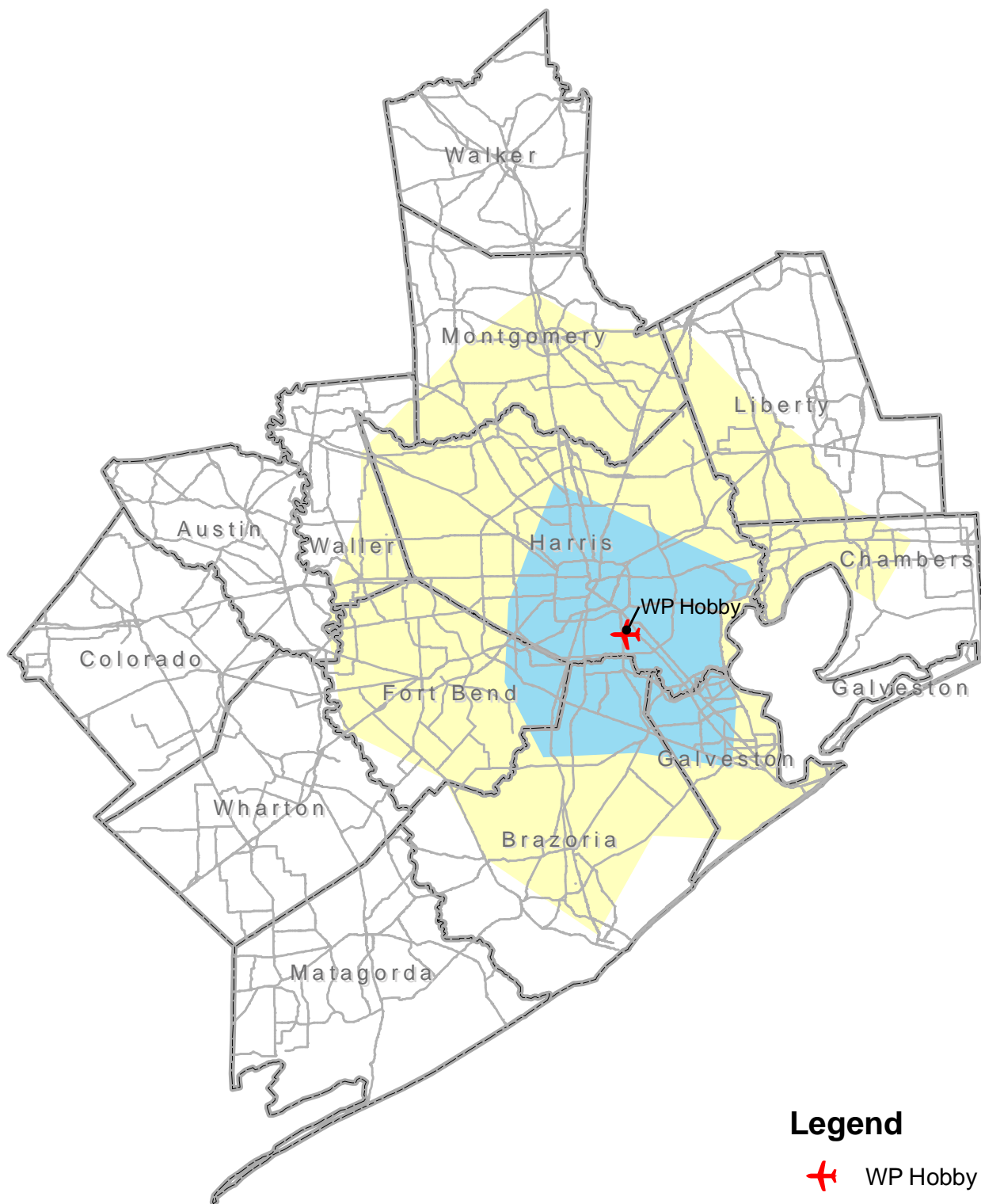
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# William P. Hobby Airport

2040 Regional Aviation System Plan Update

# Wm P Hobby Airport 30 and 60 Minute Service Areas in 2009



## Legend

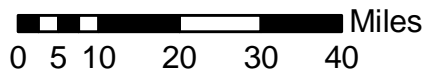
 WP Hobby

 Roads

 Counties

 30 Min Service Area

 60 Min Service Area





**William P. Hobby Airport (HOU)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

William P. Hobby Airport is publicly owned by the City of Houston and operated by the Houston Airport System.

**Airport Location**

William P. Hobby Airport is located in Harris County, Texas approximately 15 miles southeast of Houston. The airfield lies west of Interstate 45.

**Existing Airport Facilities**

William P. Hobby Airport including the airfield, hangars, terminal, and safety areas, encompasses approximately 1,304 acres. The Airport Identifier is HOU. The facility is at an elevation of 46 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°38'43.507"N (estimated) and longitude 095°16'44"W.

**Airfield Facilities**

William P. Hobby Airport currently has four (4) paved runways. Runway 12R/30L is 7,602 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 75,000 pounds or less. A displaced threshold of 1,034 feet is located on the Runway 12R end. The runway is constructed of concrete with an asphalt overlay and is in good condition. The runway is equipped with High Intensity Runway Lighting (HIRL) and a four-light Precision Approach Path Indicator (PAPI) on the right of the Runway 12R end and on the left of the Runway 30L end. The runway is also equipped with Medium-intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) on the Runway 12R end. The Runway 30L end has Runway End Identification Lights (REIL).

Runway 12L/30R is constructed of concrete and is in fair condition. The runway is 5,148 feet in length and 100 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 30,000 pounds or less. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and four-light PAPI on the left of the Runway 12L end.

Runway 4/22 is constructed of concrete and is in good condition. The runway is 7,602 feet in length and 150 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 75,000 pounds or less. The runway is equipped with HIRL and four-light PAPI on the right of the Runway 4 end and four-light Visual Approach Slope Indicator (VASI) on the left of the Runway 22 end. This runway is also equipped with High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) on the Runway 4 end and a Medium Intensity Approach Lighting System (MALS) on the Runway 22 end.

Runway 17/35 is constructed of concrete with an asphalt overlay and is in good condition. The runway is 6,000 feet in length and 150 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 75,000 pounds or less. The runway is equipped with MIRL

and four-light VASIs on both runway ends. The runway is also equipped with REIL on the Runway 35 end.

Runways 12R/30L and 4/22 are classified as Precision Instrument Runways and Runway 17/35 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- ILS or LOC RWY 4
- ILS or LOC RWY 12R
- ILS RWY 30L
- ILS RWY 4 (CAT II)
- ILS RWY 4 (CAT III)
- RNAV (GPS) RWY 4
- RNAV (GPS) RWY 12R
- RNAV (GPS) RWY 17
- RNAV (GPS) RWY 22
- RNAV (GPS) RWY 30L
- RNAV (GPS) RWY 35
- LOC RWY 22
- VOR/DME RWY 4
- VOR/DME RWY 30L
- VOR/DME RWY 35
- VOR/DME-E

#### Landside Facilities

The landside facilities at William P. Hobby Airport include, but are not limited to, the terminal, FBO facilities, and conventional hangars.

#### Fixed Base Operator Facilities

There are five (5) full-service FBOs at William P. Hobby Airport which include, Million Air, Wilson Air Center, Enterprise Jet Center, Signature Flight Support, and Atlantic Aviation.

#### Aircraft Storage

Aircraft storage at William P. Hobby Airport includes tie-down spaces and conventional hangars. A few hangars were damaged by Hurricane Ike and are in need of repair.

#### Aircraft Fueling Facilities

The fuel farm, located on airport property, provides both aboveground and underground storage. Tank capacity varies between 10,000 and 266,000 gallons of Jet-A; 12,000 and 15,000 gallons of AVGAS; and 500 and 12,000 gallons of MOGAS.

#### Based Aircraft

In 2008, there were a total of 250 fixed wing aircraft based at William P. Hobby Airport. This includes 40 single-engine aircraft, 45 multi-engine aircraft, 165 business jets. Additionally, 23 helicopters are based at the Airport.

#### **Interviewer Conclusion**

William P. Hobby Airport is a commercial service airport within the Houston Airport System that also has a significant general aviation (GA) community. The airport is located in an area where it is encroached on all sides and the existing GA facilities occupy space that could potentially be used for further development at the Airport that would benefit the commercial operations. While it was expressed by HAS that pushing a move of GA operations to Ellington Airport is likely, the Houston Airport System cannot force GA out of Hobby and there really is no incentive to do so. In short, HOU is saturated with GA and no space is available for additional GA facilities.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: **William P. Hobby Airport (HOU)**

Airport Manager: **Mary Case**

Airport Owner: **City of Houston**

Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>	<i>Glider</i>	<i>Ultra-Light</i>
Conventional (Bay) Hangars	40	42		165	23		
T-Hangars							
Portable Hangars							
Tie-Down (Paved)		3					
Tie-Down (Unpaved)							
Total	40	45		165	23		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored. **Not Available**

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<i>Apron Type</i>	<i>Area (sq yds)</i>	<i>Number of Tie-Down Spaces</i>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron	800,000 sq. yds.	

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<i>Type of Fuel</i>	<i>Fuel Flowage (gallons/year)</i>
MOGAS (auto) Not Available	Individual numbers not available. Total fuel flowage 84,451,530 gallons / yr
AVGAS	
Jet-A	

<i>Tank Size (gallons)</i>	<i>Type of Fuel (MOGAS, AVGAS, JET-A)</i>	<i>Aboveground / Under-ground</i>
20 tanks vary 10,000-266,000	Jet-A	Both
5 tanks vary 12,000-15,000 gal	AVGAS	Both
5 Tanks vary 500-12,000 gal	MOGAS	Both

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)	2 – 3000 gallon diesel	4 / 750, 1200, 1200, 3000	21 / 3000 – 5000
Frequency of Fuel Drops	Not Available		
Average Gallons per Drop	Not Available		

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Number of Daily Operations\*

Aircraft Type	Off-Peak		Peak		% Night**
	Weekday	Weekend Day	Weekday	Weekend Day	
Air Carrier			298	241	N/A
Air Taxi			87	73	N/A
General Aviation			202	147	N/A
Military			2	2	N/A
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Morning and afternoon

8. What is the busiest day(s) of the week? Monday

9. For the above table, what are your off-peak and peak seasons? \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	0	
Charter	0	
Air Taxi	0	
Student Training	0	
Crop Dusting	0	
Other	0	
Total	0	

1. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
4-22	7602 feet	150 feet	0.03%	Concrete	Centerline, designator, TDZ, threshold, aiming points, sidestripe
12L-30R	5148 feet	100 feet	0.10%	Concrete	Centerline, designator, aiming points
12R-30L	7602 feet	150 feet	0.04%	Concrete/Asphalt	Centerline, designator, TDZ, threshold, aiming points, sidestripe
17-35	6000 feet	150 feet	0.03%	Concrete/Asphalt	Centerline, designator, threshold, aiming points

Runway End	End Elevations	Visual	NP	P1/P2/ P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
4	42.2 MSL			P1		HIRL	ALSF-2		PAPI
22	38.9 MSL					HIRL	MALS		VASI
12L	44.4 MSL	X				MIRL			PAPI
30R	39.5 MSL	X				MIRL			
12R	44.5 MSL			P1	X	HIRL	MALSR		PAPI
30L	41.5 MSL			P1		HIRL		X	PAPI
17	44.5 MSL					MIRL			VASI
35	42.9 MSL					MIRL		X	VASI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
A	-	-	-	-	-
B	600 ft	75	Edge & CL	Concrete	Rwy 22
C	5080 ft	75	Edge	Concrete and asphalt	Rwy 4/22 & North Ramp
D	1680 ft	75	Edge	Concrete	Rwy 12L
E	1610 ft	75	Edge	Concrete	Rwy 12L
F	1075 ft	75	Edge	Concrete	Rwys 17/35 & 12R/30L
G	5650 ft	75	Edge	Concrete and asphalt	Rwys 12R/30L & 4/22
G1	428 ft	75	Edge	Concrete	Rwy 17/35
G2	305 ft	75	Edge	Concrete	Rwy 17/35
G3	305 ft	75	Edge	Asphalt	Rwy 17/35
H	5725 ft	75	Edge & CL	Concrete and asphalt	Rwy 4/22 & North Ramp
H1	220 ft	75	Edge & CL	Concrete	North Ramp
H2	980 ft	75	Edge & CL	Concrete	Rwy 4/22
J	1725 ft	75	Edge	Concrete	Rwy 4/22



Taxiway ID	Length	Width	Lighting	Surface Type	Access To
K	8940 ft	75	Edge & CL	Concrete	Rwys 17/35 & 4/22
K1	620 ft	75	Edge & CL	Concrete	Rwys 17/35 & 4/22
K2	830 ft	75	Edge	Concrete	Rwy 4/22
L	1827 ft	75	Edge	Concrete	Rwys 12R/30L & 12L/30R
M	7620 ft	75	Edge	Concrete and asphalt	Rwy 30L
M1	710 ft	75	Edge & CL	Asphalt	Rwy 12R
M3	765 ft	75	Edge & CL	Asphalt	Rwy 30L
N	3015 ft	75	Edge	Concrete	Rwy 30L
P	740 ft	75	Edge	Concrete	Rwy 30R
P1	-	-	-	-	-
Q	545 ft	75	Edge	Concrete	Rwy 30L
R	2175 ft	150	Edge	Concrete	Rwy 4/22
Y	4630 ft	75	Edge & CL	Concrete	Rwy 22
Z	4360 ft	75	Edge & CL	Concrete	North Ramp

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. **Partial rehabilitation of Rwy 4/22 next year**

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. **Rehabilitation of Twy C next year**

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_



Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower	X		118.7 Twr 121.9 Gnd	Automatic Terminal Information Service	X		124.6
Flight Service Station		X		Unicom	X		122.95
National Weather Service	X			Precision Approach Radar / MLS/ILS	X		111.3 Rwy 12R 109.9 Rwy 4
Civil Air Patrol	X			Segmented Circle		X	
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone	X		
Non-Directional Radio Beacon		X		Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)	X		117.1	Aircraft Rescue and Fire Fighting Facility	X		
Ground Communications Outlet				Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? No \_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) Continuing upgrade of terminal building. Rehabilitating and extending north and east service road. \_\_\_\_\_

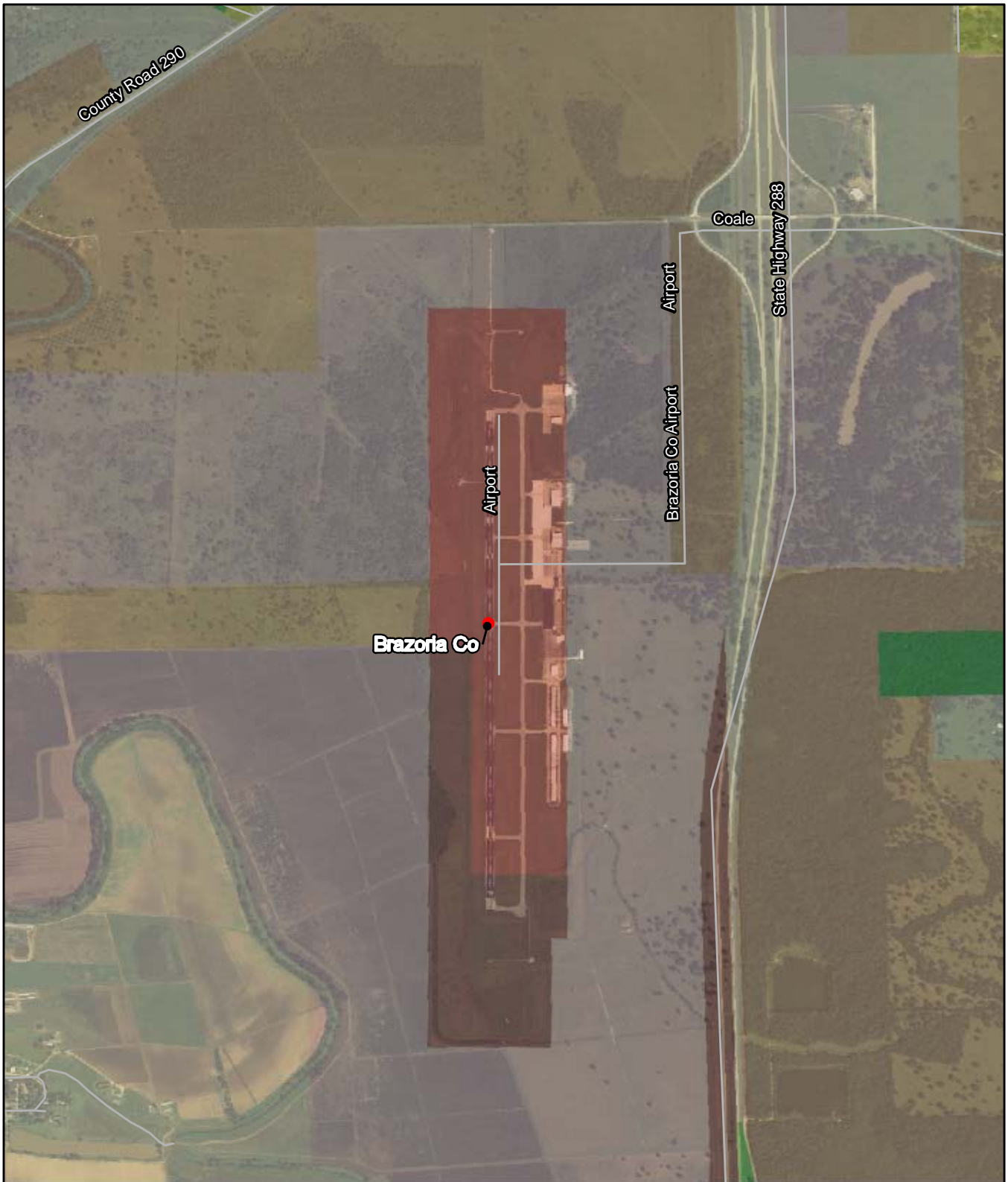
16. What do you view as the long-range potential for the airport? I view HOU as an increasingly vital commercial aviation hub nationally. Although HOU is also an important general aviation facility, it has reached the limit of general aviation accommodation. \_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? No, I am not aware of broad public support, only support from certain organizations. Yes, there are people and groups opposed to public funding of the airport if it means expansion. \_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) **Yes. The Part 77 Height Hazard Review is a Houston Airport System-administered process protecting the imaginary surfaces relative to IAH. In addition, the Federal Aviation System (FAA) administers the Form 7460-1 process protecting the Terminal Instrument Procedures (TERPS) surfaces relative to HOU. Yes, there have been incompatible land uses and obstructions both proposed and built near HOU.** \_\_\_\_\_

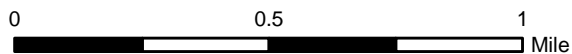
19. Have nearby residents complained of aircraft noise? **Yes.** \_\_\_\_\_

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? **Yes. The City of Houston passed an Airport Compatible Land Use Regulation Ordinance (Ordinance Number #2008-1052) on December 3, 2008 to regulate land use around all three HAS facilities in response to an FAA request to protect federal aviation infrastructure investments.** \_\_\_\_\_



**Legend - Land Use**

- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Brazoria County Airport

2040 Regional Aviation  
System Plan Update

# Brazoria County Airport 30 min Service Area in 2009



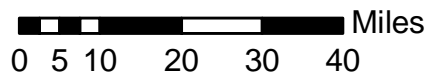
## Legend

 Brazoria Co

 Roads

 Counties

 30 Min Service Area



**Brazoria County Airport (LBX)**  
*Airport Summary*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Brazoria County Airport is publicly owned and operated by Brazoria County, Texas.

**Airport Location**

The Brazoria County Airport is located in Brazoria County, Texas approximately four (4) miles southwest of the Angleton central business district, approximately eight (8) miles north of the Lake Jackson central business district, and approximately 49 miles south of Houston. The airfield lies west of State Highway 288.

**Existing Airport Facilities**

Brazoria County Airport, including the airfield, hangars, terminal, and safety areas, encompasses approximately 674 acres. The Airport Identifier is LBX. The facility is located at an elevation of 25 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°06'31.1"N (estimated) and longitude 095°27'43.5"W.

*Airfield Facilities*

Brazoria County Airport has one (1) runway. Runway 17/35 is 7,000 feet in length and 100 feet wide with a pavement strength rated to accommodate aircraft with a dual-wheel load of 95,000 pounds or less. The runway is constructed of asphalt and is in poor condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and Medium-Intensity Approach Lighting System with Runway Alignment Indicator lights and two-light Precision Approach Path Indicator (PAPI) on the left of the Runway 17 end. Additionally, two-light Visual Approach Slope Indicators (VASI) are located on the left of the Runway 35 end.

Runway 17/35 is programmed for reconstruction in the Spring of 2010. According to airport management, the runway will be closed for the duration of the reconstruction and there are plans to use Taxiway A as the active runway during that time.

Runway 17 is classified as a Precision Instrument Approach runway and Runway 25 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- ILS or LOC RWY 17
- RNAV (GPS) RWY 17
- RNAV (GPS) RWY 35

Taxiway A is a full parallel taxiway serving Runway 17/35. The taxiway is 50 feet wide, constructed of asphalt, and has Medium Intensity Taxiway Lighting (MITL).

Airport management expressed the need for a new taxiway to be developed on the west side of the Airport to support future aviation development.



A clear and green rotating beacon is located to the south of the restaurant and provides visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone located west of Runway 17/35. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

### *Landside Facilities*

The landside facilities at LBX include the terminal building, a restaurant, the fuel farm, Dow Chemical hangar, conventional hangars, and T-hangars.

### *Fixed Base Operator Facilities*

Brazoria County owns and operates the only full-service FBO. A full range of services are offered at the FBO including fueling, aircraft parking and storage, aircraft rental, and car rental.

### *Aircraft Storage*

Aircraft storage at LBX includes 25 tie-down spaces, two 20-unit T-hangars, one 14-unit T-hangar, one 10-unit T-hangar, one six-unit T-hangar, and conventional hangars.

### *Aircraft Fueling Facilities*

The fuel farm, located on airport property, is operated by the FBO. Jet-A, aviation gasoline (AVGAS), and MOGAS and Diesel tanks are located south of the terminal building and adjacent to the apron. Jet-A is stored in two (2) 10,000 gallon underground tanks and two (2) 12,000 underground tanks. AVGAS is stored in a single 10,000 gallon underground tank. Additionally, there are 500-gallon MOGAS and 500-gallon diesel tanks. Aircraft requiring Jet-A fuel receive fuel by truck. AVGAS is self-serve and available 24 hours by credit card machine.

### *Based Aircraft*

In 2008, there were a total of 89 fixed wing aircraft based at LBX. These aircraft include 71 single-engine, 15 multi-engine, one (1) turbo prop, and two (2) jets. Additionally, there are 10 rotorcraft based at LBX.

### **Interviewer Conclusion**

Brazoria County Airport has a lot of potential. The Airport has one of the longest runways in the Houston-Galveston area. The Airport currently is in the process of developing a new Master Plan, which will identify some of the opportunities the Airport has for growth and development. The Airport has positioned itself to have a business/industrial park and is looking at various options for acquiring additional property. Additionally, a Federal Trade Zone has been identified for approximately 100 acres of airport property.

Airport management expressed the need for a new terminal building. Currently, they are not able to provide flight planning or restrooms after hours. The Airport understands the impact a terminal building can have on an airport. It is anticipated that a new terminal building would be located between the existing terminal and the Airport restaurant.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: BRAZORIA COUNTY AIRPORT  
 Airport Manager: JEFF BILYELL  
 Airport Owner: BRAZORIA COUNTY  
 Date: 1-28-09

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars	2	3	1	2	3		
T-Hangars	66	12					
Portable Hangars							
Tie-Down (Paved)	3						
Tie-Down (Unpaved)					7		
Total	71	15	1	2	10	0	0

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars	10	10			
Tie-Down (Paved)	70	30	10	10	5
Tie-Down (Unpaved)					
Total	80	40	10	10	5

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area		6
Based Aircraft Apron		15
Transient Aircraft Apron		4

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	0
AVGAS	118,000
Jet-A	646,000

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
10,000 X 2	JET-A	UG
12,000 X 2	JET-A	UG
10,000	AVGAS	UG
500 X 2	MOGAS/DIESEL	ABG

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)		(2) 750/650	1 - 3000
Frequency of Fuel Drops		4 WEEKS	2 per Week
Average Gallons per Drop		8500	8000

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Number of Daily Operations\*

Aircraft Type	Off-Peak		Peak		% Night**
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 6A-9p

8. What is the busiest day(s) of the week? Friday

9. For the above table, what are your off-peak and peak seasons? Summer-Peak

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	1	C-152
Charter		
Air Taxi	9	407; 206; Augusta; Eurocopter
Student Training		
Crop Dusting		
Other		
Total	10	

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
17	7000	100		ASPH / Grooved	PI
35	"	"		"	NPI

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
17				P1		MIRL	✓		✓
35			X			"			✓

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
A	7000	50'	MED	ASPH	

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. RUNWAY 17/35 IS IN POOR CONDITION + NEEDS COMPLETE RECONSTRUCTION. RECONSTRUCTION PROJECT IS PROGRAMED FOR SPRING 2010.

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. NEW TAXIWAY NEEDED TO OPEN + SERVE AVIATION DEVELOPMENT AREA ON EAST + WEST SIDES. SOME REHAB NEEDED ON TWY A NORTH END.

If no, when did taxiway reconstruction or rehabilitation last occur? LAST REHAB WAS 2005.

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		X		Automatic Terminal Information Service			
Flight Service Station		X		Unicom	X		
National Weather Service		X		Precision Approach Radar / MLS/ILS	X		
Civil Air Patrol		X		Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System	X		119.925	Supplemental Wind Cone	X		
Non-Directional Radio Beacon		X		Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility	X		
Ground Communications Outlet		X		Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? MALSR NEEDS MK OR REPLACEMENT; LOCALIZER NEEDS TO BE RELOCATED; SOME APRON REHAB; NEW TERMINAL BUILDING NEEDED

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) COUNTY BUILDINGS + HANGARS NEED MK + ROOF WORK + PAINT.

16. What do you view as the long-range potential for the airport? DOUBLE<sup>4</sup> ACTIVITY + BASED AIRCRAFT.

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? GOOD SUPPORT + NO GROUPS OPPOSED.



18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) ZONING - YES.

NO INCOMPATIBLE USES NEAR AIRPORT.

19. Have nearby residents complained of aircraft noise? No.

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? YES; ZONING ORDINANCE.

Anahuac Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective

**I Airport History/Environment**

Chambers County Airport (T00), also known as Oscar F. Nelson, Jr. Memorial Airport, is a county-owned general aviation airport located in unincorporated Chambers County, approximately 20 miles east of the City of Anahuac, the county seat.

It has a 3,005 x 60 foot asphalt runway and a GPS approach on Runway 12. There are approximately 12 based aircraft.

**II Goals/Objectives**

The primary goal of T00 is to recover from the September 2008 hurricane that swept across Chambers County causing considerable wind and surge damage. While airport hangars were damaged, they are in the process of being reconstructed.

**III Initiatives**

Storm recovery

**IV Recommended Airport Enhancements**

- Public outreach and promotional campaign
- Identify a local airport champion
- Educate Chambers County elected officials on the airport's benefits to future economic growth

**V Interviewers Conclusion**

Airport sponsor needs to establish some measureable long term goals and objectives to substantiate the airport as an asset, and support the Economic Development Corporation (EDC) in marketing the airport by developing incentives to attract business.

## Angleton Chamber of Commerce Interview

Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber Name:</u>	Angleton Chamber of Commerce
<u>Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Brazoria County Airport (LBX)
<u>Interview Date:</u>	January 30, 2009

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### Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** There will be a major increase in corporate activity based at the airport by y2020 generated by:

- a new corporate terminal
- improved customer service
- a longer runway
- Improved instrument landing technologies
- Better infrastructure (water, sewer, electricity, natural gas, telecommunications)
- the airport becoming an industrial recruiting tool within its 100-acre foreign trade zone
- an aircraft support industry located on or near the airport
- Beautification

This airport has the recruiters reaching out to the market. They have developed business prospects, but are unable to be secure because of a lack of adequate infrastructure.

The Focus Group commented that the county should consider funding the infrastructure improvements. However, many in the community do not see the economic benefits provided by the airport and do not wish to spend tax dollars to improve the facility's infrastructure.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** Brazoria County is working on a Native American Tribal Industrial Park near the airport. This will be the first of its type in Texas. The Alabama-Coushatta Native American Tribe has voted to move forward and develop a 200-400 acre area. At this time, the proposed park has companies lined up to build in the area.

The beauty of a Native American business park is that companies located there will not have to pay taxes. They will lease the land from the tribe. While the Coushatta's will

charge rent, it will be less than what the company would have to pay in county or school taxes. In turn, it will provide major economic stimulus to the region. The industrial park will act as a foreign trade zone for importing and exporting goods.

General Information:

- Timeline for development: 2 years
- Texas legislation is being introduced to release some state owned land just south of the airport for the park.
- If land is in the airport's immediate proximity, then a taxiway might be developed to connect the park and the airport.
- The proposed park will provide additional airport marketing opportunities.

### 3. Where and what do you expect for the area's future growth?

**Answer:** (See Question #2)

Other areas of future growth will be to the north of Brazoria County with large planned gated communities. Currently all this type of activity is at a stand still due to the downturn in the economy. The Focus Group envisions the temporary slowdown lasting approximately 18 months.

- The county recently assisted with funding a Pearland industrial park. This park will break ground in the midst of the recession.
- One business at the airport has sold out its production for 2009.
- Dow Chemical Plant (a local economic driver) is in the final process of acquiring Rohm & Haas. This will be a \$15 billion dollar transaction for this area.

### 4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** Like all general aviation, an increase in funding for improvements and expansions can solve a great many airport issues. Other concerns:

- Dow Chemical. The airport's prime customer is Dow Chemical. They are operating a shuttle service from the airport to Michigan and Louisiana with an Air Bus A319 (one time per day-five days a week) and a Beech 1900 (two flights per day four days a week and once on Friday). They anticipate taking delivery of two CRJ700 aircraft in 2010. It is expected that shuttle operations will increase with the upcoming acquisition of Rohm & Haas. This will result in additional air miles to serve Pennsylvania and other areas of the county.

Stakeholders are concerned over what would happen if Dow left the area and how that would affect the airport.

- Airport diversification is urgent.
- Additional Economic Development Corporation (EDC) funding is needed to aid in marketing the airport.
- North Brazoria County, because of its proximity to Houston Hobby, has minimal interest in the Brazoria County Airport and its future in the overall economic growth of the county.

There is a general lack of understanding by citizens of the importance of Brazoria County Airport, its reliever designation, and the role it plays in the system.

- There are concerns that the airport is not prepared to handle additional traffic. It will take a carefully orchestrated plan that will involve the following steps:
  - Update the master plan and establish a vision
  - Develop a marketing campaign while the runway is being improved
  - Market to the region's corporate flying community to base at the airport
  - Entice corporations that are relocating or expanding to consider Brazoria County Airport in their site selection

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- An updated airport master plan that will create a 5, 10, and 20 year vision for the airport. This master plan, which is currently in process, will also analyze and incorporate the "free trade zone" at the airport.
- Adding staff
- Infrastructure improvements; i.e., utilities and pavements
- Potential land development and land acquisition
- Possible rebranding of the airport with a name change that would reflect the airport's proximity to Houston. The current FAA approach planes to the airport do not identify it as being in the Houston system.

6. How could a better integrated airport system serve the community's needs?

**Answer:** The system encompasses many counties and the geographic area has a population of 5-6 million people that is very diverse both politically and economically. The stakeholders would like to see the plan carve out the Brazoria County Airport's niche for southwest Houston.

The airport manager explained the importance of the RASP to the other people in the Focus Group, and how it can impact their airport emphasizing that funding resources are finite. There are 26 airports that have needs so they (the FAA) are focusing on how to prioritize funds. "We stand to gain, or lose; based on where we are positioned after the RASP is completed. Our timing is perfect – this is our opportunity to shine."

**Brazoria County Airport Positives:**

- Angleton has grown from 35,000 to 95,000 in three years.
- Airport is situated near a major seaport--- Port of Freeport. The port is one of the fastest growing ports on the Gulf Coast, and currently ranked as the 14th largest port in the United States in terms of foreign tonnage.
- The airport has a Part 139 designation.
- Airport has a "Free Trade Zone."
- Air transportation hub for Dow Chemical
- Designated reliever airport to Houston Hobby



7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See Question #2

8. How can the airport support local business development?

**Answer:** The airport can become a major employment center which will add to the county's tax base. It is an economic engine for growth and development.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** Dow Chemical is a good example of the importance of moving people through corporate aircraft operations. The airport's proximity to major Gulf Coast operations provides an opportunity to be the "Southwest Gateway to the Gulf Coast Petrochemical Industry."

10. What types of community relationships does the airport have with its neighbors?

**Answer:** There are different levels of interest towards aviation throughout the county. North Brazoria County has indifference because of its convenience to Houston Hobby. Northwood subdivision has sporadic complaints about noise. There are many in the county that do not know where the airport is located or understand its economic importance. The airport needs to do a better job of educating its constituency. Developments around the airport need to be built according to the very comprehensive zoning.

11. Is there organized opposition to airport development and expansion?

**Answer:** None

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** There is some legislation being proposed that is associated with fire protection in terms of staffing and training that could affect the airport. The state legislation addresses the need for structural training. This will result in additional training, expanding staff, and increased funding. Representative Bonds is assisting the county with this proposed legislation.

13. What environmental issues may affect airport use and development?

**Answer:** We are fortunate that the airport property does not have any wetlands or serious noise issues. However, there still remain drainage issues that are currently being studied.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The last airport master plan was completed in 2002. Currently, Coffman & Associates is preparing a new master plan, as well as the airport layout plan.

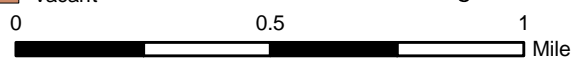
15. Do you know of other people or groups that we should contact?

**Answer:** No



**Legend - Land Use**

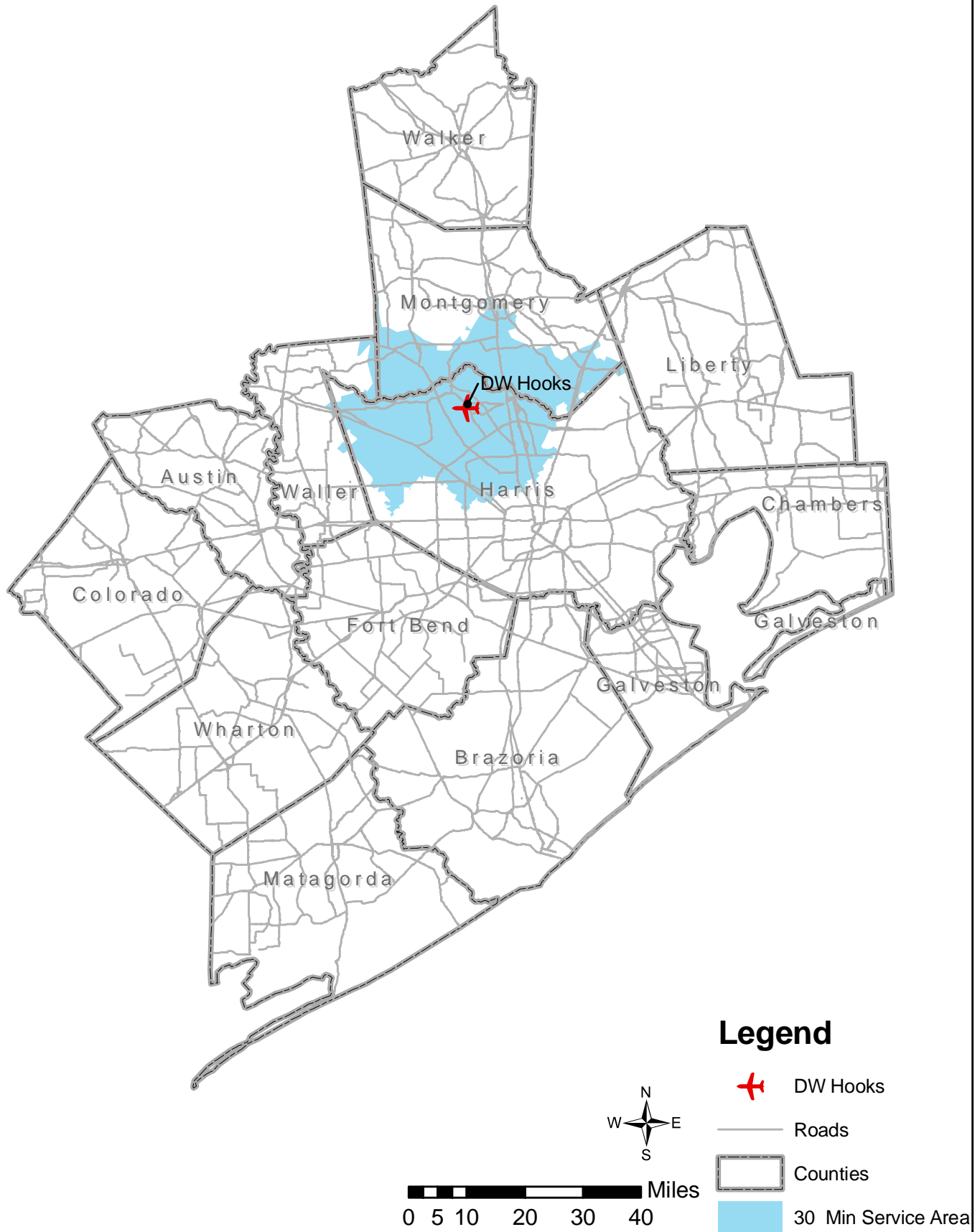
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# David Wayne Hooks Memorial Airport

2040 Regional Aviation System Plan Update

# D.W. Hooks Memorial Airport 30 min Service Area in 2009





**David Wayne Hooks Memorial Airport (DWH)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

David Wayne Hooks Memorial Airport is privately owned and operated by Jag Gill.

**Airport Location**

David Wayne Hooks Memorial Airport is located in Harris County, Texas approximately five (5) miles southeast from the Tomball central business district, 11 miles west of the Spring central business district, and 30 miles northwest of Houston. The airfield lies south of FM 2920 and west of Stuebner Airline Road.

**Existing Airport Facilities**

David Wayne Hooks Memorial Airport, including the airfield, hangars, terminal, and safety areas, encompasses approximately 480 acres. The Airport's Airport Identifier is DWH. The facility is located at an elevation of 152 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 30°03'42.6"N (estimated) and longitude 095°33'10.0"W.

**Airfield Facilities**

David Wayne Hooks Memorial Airport currently has two (2) paved runways. Runway 17R/35L is 7,009 feet in length and 100 feet wide with a pavement strength rated to accommodate aircraft with a dual-wheel load of 85,000 pounds or less. Currently, there is a displaced threshold of 1,007 feet on the Runway 17R end. The runway is constructed of asphalt and is in fair condition. The runway is equipped with High Intensity Runway Lighting (HIRL) and four-light Precision Approach Path Indicators (PAPI) on the right of the Runway 17R end and the left of the Runway 35L end. Runway 17R/35L is equipped with Runway End Identifier Lights (REIL).

Runway 17L/35R is 3,987 feet in length and 35 feet wide with pavement strength rated to accommodate aircraft with a single wheel load of 4,000 pounds or less. Currently, there is a displaced threshold of 208 feet on the Runway 35R end. The runway is constructed of asphalt and is in poor condition. The runway is not lighted.

DWH has a water runway. Runway 17W/35W is 2,530 feet in length and 100 feet wide. The runway is not lighted.

Runway 17R/35L is classified as a Non-Precision Instrument Approach runway. Runways 17L/35R and 17W/35W are classified as Visual Approach runways. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 17R
- RNAV (GPS) RWY 35L
- LOC RWY 17R
- VOR/DME

The taxiways at DWH are constructed of asphalt and are not lighted.

A clear and green rotating beacon is located at DWH providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone to the west of Runway 17R. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

An Airport Traffic Control Tower (ATCT) serves DWH. Hours of operation are seven (7) days a week, 8 AM to 11 PM.

### Landside Facilities

The landside facilities at DWH include the FBOs, T-hangars, and conventional hangars.

### Fixed Base Operator Facilities

Gill Aviation provides the following services at DWH: airport management; aviation fuel; aircraft parking (ramp or tie-down); passenger terminal and lounge; rental cars; courtesy cars; public telephone; pilot lounge / snooze room; and restrooms.

Tomball Jet Center provides the following the services at DWH: private crew lounge; complimentary crew vehicles; catering; rental cars; full service maintenance; ramp and tie-down parking; hotel reservations; limo service; and aviation fuel.

### Aircraft Storage

Aircraft storage at DWH includes 24 tie-down spaces, T-hangars, and conventional hangars. Several of these facilities were damaged by Hurricane Ike.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by DWH. It is located southwest of Gill Aviation and adjacent to the ramp. It provides aboveground storage capacity for 20,000 gallons of Aviation Gasoline (AVGAS), and 60,000 gallons of Jet-A. Aircraft receive fuel by truck. AVGAS is available self-serve 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 279 fixed wing aircraft based at DWH. This includes 225 single-engine aircraft, 30 multi-engine aircraft, seven (7) turbo-props, and 17 jets. Additionally, there are 17 helicopters based at the Airport.

### **Interviewer Conclusion**

David Wayne Hooks Memorial Airport is a very active facility. The Airport receives substantial traffic from both corporate and military aircraft. DWH also has several tenants who reside on the Airport.

Gill Aviation was refurbished approximately seven (7) years ago. The facility contains a very popular restaurant which is appreciated by the pilots and the local community alike. While Gill Aviation's terminal appears to be in good condition, airport management expressed that the parking needs to be expanded, the runways and several taxiways need to be resurfaced, the runway lighting needs to be updated, as well as new NAVAIDS.



**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: David Wayne Hooks

Airport Manager: Roger Schmidt

Airport Owner: Jag Gill

Date: 2-18-2009

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

(Estimated)

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	40	20	7	17	16	0	0
T-Hangars	160	10	0	0	0	0	0
Portable Hangars	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tie-Down (Paved)	25	0	0	0	1	0	0
Tie-Down (Unpaved)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	225	30	7	17	17	0	0

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars	0	0	0	0	0
Tie-Down (Paved)	20	4	2	2	1
Tie-Down (Unpaved)	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	20	4	2	2	1

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area	N/A	N/A
Based Aircraft Apron	N/A	N/A
Transient Aircraft Apron	18,460	24

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	N/A
AVGAS	531,487 (2008)
Jet-A	1,363,309 (2008)

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
20,000	AVGAS	Above ground
30,000	JET-A	Above ground
30,000	JET-A	Above ground

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)	N/A	3 1200 Each	3 2@5000, 1@ 3000
Frequency of Fuel Drops	N/A	60 / Day	30 / Day
Average Gallons per Drop	N/A	10 Gallons	300 Gallons

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine					
Multi-Engine Piston					
Turbo Prop	See Attached Airport Traffic Records				
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? \_\_\_\_\_

7 AM to 10 PM

8. What is the busiest day(s) of the week? Fridays

9. For the above table, what are your off-peak and peak seasons? \_\_\_\_\_

Off peak - winter, peak - summer

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	0	
Charter	0	
Air Taxi	0	FBO Does Not Own Any Aircraft
Student Training	0	
Crop Dusting	0	
Other	0	
Total	0	

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
17R - 35L	7009'	100'	0.1%	Asphalt	Standard
17L - 35R	3987'	35'	0.2%	Asphalt	Standard
17W - 35W	2530'	100'	N/A	Water	None

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
17R	150.5'	Yes	Yes	P1	1007'	HIRL	No	Yes	PAPI
35L	145.3'	Yes	Yes	P1	No	HIRL	No	Yes	PAPI
17L	149.9'	Yes	No	No	No	None	No	None	None
35R	143.7'	Yes	No	No	208'	None	No	None	None
17W	N/A	Yes	No	No	No	None	No	None	None
35W	N/A	Yes	No	No	No	None	No	None	None

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
A	350'	45'	None	Asphalt	17R - Customs
B	800'	45'	None	Asphalt	17R - A
C	1000'	55'	None	Asphalt	17R - N
D	1115'	25'	None	Asphalt	17R - E
E	3075'	50'	East of 17R	Asphalt	G - N
F	4245'	30'	None	Asphalt	E - M

\* Continues at bottom of last page

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

17L-35R needs to be re-surfaced, 17R-35L will also need to be re-surfaced

If no, when did runway reconstruction or rehabilitation last occur? N/A

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

Many taxiways need to be re-surfaced

If no, when did taxiway reconstruction or rehabilitation last occur? N/A

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower	X		118.4	Automatic Terminal Information Service	X		124.95
Flight Service Station	X		Phone	Unicom	X		122.95
National Weather Service	X		Phone	Precision Approach Radar / MLS/ILS		X	
Civil Air Patrol	X		Phone	Segmented Circle	X		N/A
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		N/A
Automated Surface Observing System	X		124.95	Supplemental Wind Cone	X		N/A
Non-Directional Radio Beacon	X		.521	Remote Transmitter Receiver		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility		X	
Ground Communications Outlet	X		119.45	Remote Communications Outlet	X		119.45

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? \_\_\_\_\_

Aprons, hangars, NAVAIDS, lighting,

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) \_\_\_\_\_

Access roads, auto parking, fencing/gates, terminal building

16. What do you view as the long-range potential for the airport? \_\_\_\_\_

Asset to the community, reliever to IAH

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

No

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) No

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19. Have nearby residents complained of aircraft noise? Yes

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? No

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\* Continued from 11 Above

G	6375'	30'	None	Asphalt	17L - West Side
H	925'	42'	None	Asphalt	17R - South End
J	1300'	40'	None	Asphalt	E - East End
K	2922'	30'	None	Asphalt	C - 17L
L	106'	30'	None	Asphalt	17R - F
M	4483'	35'	None	Asphalt	J - South End
N	1825'	20'	None	Asphalt	C - J
P	1670'	75'	None	Asphalt	C - E

*Tomball Chamber of Commerce*  
*Focus Group*

*Summary Report*

Stakeholders Perspective

I **Airport History/Environment**

David Wayne Hooks Airport (DWH) was built in 1963 by the Charles Hooks family on the family ranch. Later, it was named David Wayne Hooks Airport after Charles' son who, along with his instructor, was killed during flight training over the airport. In the 1990s it was sold, along with 600 acres, to the Northwest Airport Management LP.

Hooks Airport has the largest number of based planes in the Houston regional system --- approximately 400. The airport is a privately owned, public use reliever to Bush Intercontinental Airport. It sits on 600 acres of "prime" property with a 7,009' primary runway and the only amphibious runway (17/35) in the system. It has approximately 275,000 operations per year. The airport has a Class D Control Tower under Houston Class B airspace.

In 2003, the City of Tomball, located ten miles from the airport, began an effort to purchase the airport and turn it into a publicly owned facility. During the same period, the Northwest Airport Management LP undertook a \$750,000 master plan, paid for by a 90/10 grant from TxDOT Aviation.

In the Texas 80<sup>th</sup> Legislative Session (2007), the City of Tomball was given the authority to annex the airport but only if they took ownership. That stipulation was a major caveat that most people did not recognize. There is talk of pursuing an amendment to the legislation so the City could annex and exercise eminent domain. Determining the fair market value through the proper appraisal process has been the missing piece that has kept the City from moving forward with an acquisition offer to the owners. Currently acquisition efforts have ceased.

The convenience of Hooks from downtown Houston (45 minutes) and the excellent access that comes with the completion of the Grand Parkway, as well as the airport's proximity to I-45 and SH249, makes Hooks one of the prime airport locations in the system.



## II Goals/Objectives

The stakeholders, who represent the City of Tomball constituency and elected officials, have conveyed their desire to purchase Hooks Airport for several years. It has been one of their top priorities for the City.

## III Initiatives

An aggressive initiative to acquire Hooks Airport has been undertaken by the City for over five years with considerable support by its constituency, the Federal Aviation Administration, and TxDOT Aviation. Both the FAA and TxDOT have supported the City throughout with the FAA allocating discretionary dollars in the last few years to aid the City with the purchase. Currently, Northwest Airport Management LP has not contributed the 10% matching funds for the grant to allow the City/TxDOT to move forward with the airport appraisals. The price has not been determined.

## IV Recommended Airport Enhancements

The Focus Group considers the airport in dismal condition. All facilities on the airport are poorly maintained; i.e., runways, taxiways, the grounds, and the buildings. From their perspective, minimal revenues have been reinvested into the airport facility. The airport needs overall improvements to infrastructure and buildings.

## V Interviewers Conclusion

“You have to have a seller” to buy an airport and the City of Tomball believes there is no real seller; although the owner’s verbal message has been conveyed otherwise. This has been demonstrated by the private sponsor’s lack of responses to important decision making requests from all parties (City, FAA, TxDOT, consultants, etc.), and their inability to contribute the required 10% matching funds so the state’s grant can be activated to perform the appraisals. Without the completed appraisals, the airport’s value cannot be determined.

The majority of the community, as well as the elected officials, airport tenants and airport neighbors would like for the airport to become publically owned. There is a general consensus by airport tenants that the City will be a better landlord and can be more accountable to the constituency.

Hooks Airport has the potential to be one of the most promising general aviation airports in the Houston regional airport system due to its proximity to IAH, excellent ground transportation access, rail, abundance of based aircraft, and an established revenue stream.

## **Tomball Chamber of Commerce Interview**

*Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan*

<u><b>Chamber Name:</b></u>	Tomball Chamber of Commerce
<u><b>Chamber Representatives:</b></u>	See sign-in sheet
<u><b>Airport Name:</b></u>	David Wayne Hooks Airport (DWH)
<u><b>Interview Date:</b></u>	February 19, 2009

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### Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** The Focus Group sees expansion of corporate activity with light cargo becoming a major player at the airport once the economy recovers. Currently, recreational aviation is down but that too will return. In the near future if the airport should become publicly owned, the facility's image and services would be greatly enhanced and grow in the following areas:

- Expansion of corporate, recreational and cargo activities. There appears to be some light cargo operating out of Hooks now.
- Operations, including "through the fence", will change as the current operator(s) retire or lose interest in aviation.
- Support services will be enhanced. Currently, there are power plant, paint, avionics, etc. available at the airport.
- Increase in base aircraft. It has fallen off over the last 5-8 years.
- Improved customer service
- Additional flight training. American Flyers has a significant flight training operation at Hooks.
- Northwest Airport Management LP, the private airport owners, handles the majority of fueling aircraft but in the future it could transfer over to FBOs.
- Tomball Executive FBO will continue to grow and service aircraft. They currently pump some fuel and the private owner receives a flowage fee.
- Helicopter operations will increase but the amphibious training will cease.
- Military training at the airport will continue.
- A new terminal should be constructed that projects the corporate environment required to attract that specific type of business.
- Potentially, a new FAA tower would be constructed as airport activities increase.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The largest area around the airport is residential development, which is not compatible with aviation. The stakeholders feel it is important to initiate additional commercial development at this airport and protect the airport from further encroachment.

There is a concern by the City of Tomball that the airport's owner, Northwest Airport Management LP, might sell the land for future residential development and close the airport. The airport owners are not under any FAA compliance that would require it to remain as an airport.

This airport is unique because of the prime additional acreage that is available on airport property that is not being utilized; 600 acres with roughly only half for aviation activities. The stakeholders feel this would be ideal for additional commercial development considering the proximity to the Grand Parkway and the accessibility to rail. Creating tax free zones of different types could facilitate some additional manufacturing in that area.

Stakeholders key topics of discussion:

- Hooks has tremendous potential, but as far as immediate development, residential growth will continue to be the principal type of area development.
- Grand Parkway, when completed, will border the airport property.
- Suggested that an agreement with the county might make possible the creation of an "airport overlay district" that could protect the airport from encroachment.

Hook's, being a privately owned, public use airport, has control of how it develops in the future. There was general agreement that the Northwest Airport Management LP is not interested in selling the airport to a public entity.

There is community and airport tenant support for a public sponsor. Perhaps the public sponsor should be the Houston Airport System and not the City of Tomball.

The types of studies TxDOT Aviation has funded for the airport owner would lead one to believe that the owner's main objective is to sell the airport and property to a developer.

There is local, state and federal support to work diligently with either a public or private owner to keep the airport operating.

3. Where and what do you expect for the area's future growth?

**Answer:** In the immediate airport area, there is substantial infrastructure growth with improvements to SH249 and with the proposed construction of the Grand Parkway, a major artery circling the City of Houston. If the Grand Parkway crossed the BNSF, this would create capacity for logistics.

**Other areas of growth:**

- Light industrial
- Light manufacturing
- Oil and gas support services
- Medical
- Distribution centers

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** Complaints about noise will increase as traffic increases from airport neighbors. The Focus Group discussed the possible implementation of an Airport Compatible Land Use Ordinance similar to what Houston Airport System is attempting to obtain around IAH.

Other Issues:

- Increased traffic congestion
- Airport funding
- Security issue
- Closing down the amphibious runway because of possible bird strikes.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** The major need is for the airport to become a publicly owned airport so the facility has some accountability to its surrounding neighbors and the region. Currently, the City of Tomball would be willing to purchase; but Northwest Airport Management LP does not appear to be willing to sell.

The Focus Group considers the airport in dismal condition. All facilities on the airport are poorly maintained, i.e. runways, taxiways, the grounds, and the buildings. They consider Hooks an embarrassment to the area. The City receives complaints about the airport's poor condition and receives local encouragement and support to purchase the airport.

**Airport Area Needs:**

- Aircraft services support
- New corporate terminal
- Improved airport maintenance and upgrades; continued loss of business in area if airport continues to deteriorate
- Development of available airport land
- Improved security
- Runway maintenance
- ILS approaches
- Improved clear zone
- Encroachment issues

6. How could a better integrated airport system serve the community's needs?

**Answer:** The primary way this large general aviation, privately owned, public use reliever airport can be part of the Regional Airport System is to acquire a new public owner and improve its overall image. Based on current ownership, the stakeholders feel the airport is at risk of ceasing to exist.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:**

- Better access with the completion of the Grand Parkway.
- Airport could become a major employment base with the right businesses being attracted into the area.
- Hooks is the largest general aviation airport in the system and has the capabilities/facilities to accommodate more based planes.

8. How can the airport support local business development?

**Answer:** Hooks is currently a substantial employment center, but could become an even larger one in the future with its ideal physical location within the county, excellent transportation access, and its proximity to the City of Houston.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:**

- Changing the airport name to convey a new vision for growth
- Position Hooks to be a "Business Gateway for Northwest Houston and Montgomery County"
- Improve the airport's physical image through beautification and facility improvements

10. What types of community relationships does the airport have with its neighbors?

**Answer:**

- The "through the fence" tenants have a difficult relationship with the airport management
- Some noise opposition from the Glennloch Farms residential development

11. Is there organized opposition to airport development and expansion?

**Answer:** There is organized *support* for something happening with the airport's ownership and allowing it to become a publicly owned airport.

The property owners and leasers on and around the airport are very interested in developing an airport business association. The people showing such support would rather pay the ad valorem tax to a public owner than see the continued ownership by Northwest Airport Management LP who are letting the facility deteriorate.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** In the Texas 80<sup>th</sup> Legislative Session (2007), the City of Tomball was given the authority to annex the airport; but only if they took ownership. That stipulation was a major caveat that most people did not recognize. There is talk of pursuing an amendment so the City could annex and exercise eminent domain. This would allow the courts to decide the fair market value for the airport. Determining the fair market value through the proper appraisal process was the missing piece that kept the City from moving forward with an offer to acquire.

13. What environmental issues may affect airport use and development?

**Answer:** There has been an environmental study done on the airport but the results were not known except that there was a recommendation that the amphibious runway be removed to eliminate the possibility of any bird strikes.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** A major \$750,000 master plan was recently completed by Carter Burgess (Jacobs). It has been submitted to TxDOT Aviation for final review.

15. Do you know of other people or groups that we should contact?

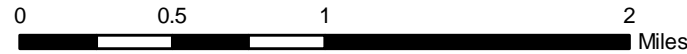
**Answer:** None





**Legend - Land Use**

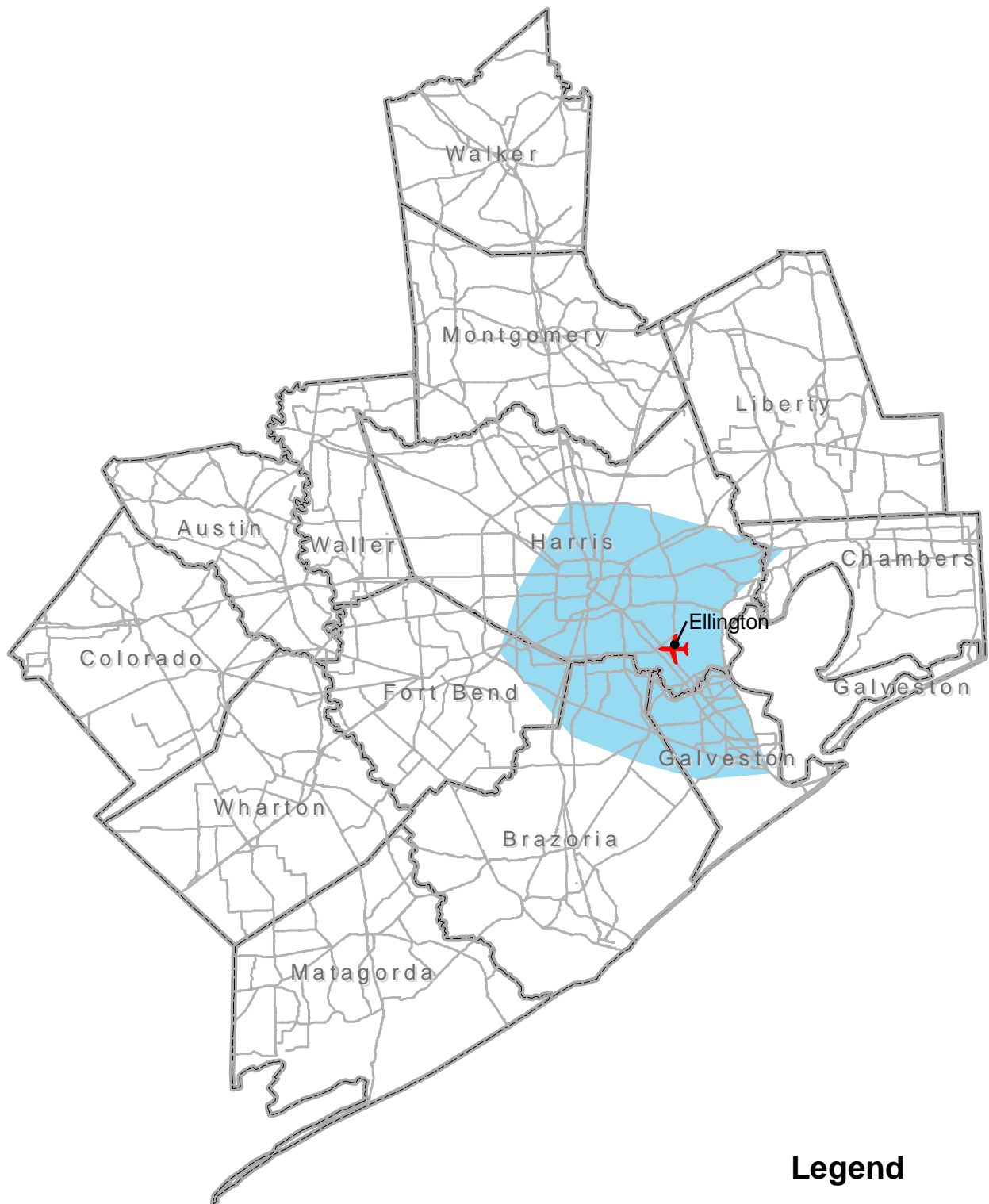
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Ellington Airport

**2040 Regional Aviation System Plan Update**

# Ellington Airport 30 min Service Area in 2009



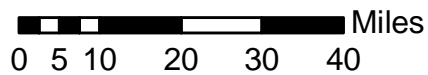
## Legend

 Ellington

 Roads

 Counties

 30 Min Service Area



**Ellington Airport (EFD)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Ellington Airport is publicly owned by the City of Houston and operated by the Houston Airport System.

**Airport Location**

Ellington Airport is located in Harris County, Texas approximately 20 miles southeast of Houston. The airfield lies east of Interstate 45 and south of Beltway 8.

**Existing Airport Facilities**

Ellington Airport including the airfield, hangars, terminal, and safety areas, encompasses approximately 2,362 acres. The Airport Identifier is EFD. The facility is at an elevation of 32 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°36'26.4"N (estimated) and longitude 095°09'31.5"W.

**Airfield Facilities**

Ellington Airport currently has three (3) paved runways. Runway 17R/35L is 9,001 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 100,000 pounds or less. The runway is constructed of concrete and is in good condition. The runway is equipped with High Intensity Runway Lighting (HIRL) and a four-light Precision Approach Path Indicator (PAPI) on the left of both runway ends. The runway is also equipped with Medium-intensity Approach Lighting System with Sequenced Flashers (MALSF) on both runway ends.

Runway 17L/35R is constructed of concrete and is in fair condition. The runway is 4,609 feet in length and 75 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 24,000 pounds or less. The runway is not lighted.

Runway 4/22 is constructed of concrete and is in good condition. The runway is 8,001 feet in length and 150 feet wide with pavement strength rated to accommodate aircraft with a single-wheel load of 100,000 pounds or less. The runway is equipped with HIRL and four-light PAPI on the left of both runway ends. This runway is also equipped Medium Intensity Approach Lighting System with Runway Alignment Indicator (MALSR) on the Runway 22 end.

Runways 22 and 17R/35L are classified as Precision Instrument Runways and Runway 4 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- ILS RWY 17R
- ILS RWY 22
- ILS RWY 35L
- RNAV (GPS) RWY 4
- RNAV (GPS) RWY 17R
- RNAV (GPS) RWY 22
- RNAV (GPS) RWY 35L
- TACAN RWY 4
- TACAN RWY 17R
- TACAN RWY 22
- TACAN RWY 35L



### Landside Facilities

The landside facilities at Ellington Airport include, but are not limited to, FBO facilities, T-hangars, paved tie-downs, and conventional hangars.

### Fixed Base Operator Facilities

There are two (2) full-service FBOs at Ellington Airport which include, Volo Aviation and Southwest Airport Services.

### Aircraft Storage

Aircraft storage at Ellington Airport includes 32 tie-down spaces, 90 city-owned T-hangars, and seven (7) non-military conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, provides aboveground storage capacity of 54,000 gallons of Jet-A and 30,000 gallons of AVGAS.

### Based Aircraft

In 2008, there were a total of 182 fixed wing aircraft based at Ellington Airport. This includes 101 single-engine aircraft, 25 multi-engine aircraft, and 56 business jets. Additionally, three (3) helicopters, two (2) gliders, and 40 military aircraft are based at the Airport.

### **Interviewer Conclusion**

Ellington Airport is a joint use civil/military airport within the Houston Airport System that has significant opportunities for growth for general aviation (GA) despite the large presence of the military and NASA at the Airport.

Ellington Airport is currently underutilized in the GA community and the Houston Airport system would like to see more of the GA traffic from George Bush Intercontinental/Houston and William P. Hobby airports relocate to Ellington largely due to the fact that the GA operations would not be mixing with commercial traffic at Ellington as it does at the other Houston airports within the Houston Airport System.

Houston Airport System subsidizes Ellington in order to keep it running, which Southwest Airlines and Continental have questioned. Houston Airport System has indicated that it is in the best interest of the airlines to keep Ellington operating as there have been concerns of airports within the Houston-Galveston Regional Aviation System that have the potential to close. These airports would displace a substantial number of aircraft that currently George Bush Intercontinental/Houston and William P. Hobby airports cannot accommodate. By keeping Ellington Airport, any displaced aircraft in the future will have an opportunity to relocate to Ellington Airport.

Currently, the Airport has project for an airport traffic control tower in the initial stages and also has plans to conduct runway improvements.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: Ellington Field (EFD)

Airport Manager: Brian Rinehart

Airport Owner: City of Houston

Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>	<i>Glider</i>	<i>Ultra-Light</i>
Conventional (Bay) Hangars (7 non-military)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T-Hangars (90 City owned)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Portable Hangars (0)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tie-Down (Paved) (32)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tie-Down (Unpaved) (0)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A

We do not calculate our aircraft this way. This is current based aircraft counts.

Single Engine      101  
Multi Engine        25  
Jet                    56  
**Total Fixed Wing** 182  
Helicopter            3  
Glider                2  
Military               40  
Ultralight            0

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>
Conventional (Bay) Hangars	N/A	N/A	N/A	N/A	N/A
Tie-Down (Paved)	N/A	N/A	N/A	N/A	N/A
Tie-Down (Unpaved)	N/A	N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A	N/A	N/A

3. Please indicate the amount of ramp space available for aircraft parking:

<i>Apron Type</i>	<i>Area (sq yds)</i>	<i>Number of Tie-Down Spaces</i>
Maintenance Apron Area	N/A	N/A
Based Aircraft Apron	1797	32
Transient Aircraft Apron	13737	N/A

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	N/A
AVGAS	Unknown
Jet-A	Unknown
<b>TOTAL</b>	<b>4,161,259</b>

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
30000	Jet A	Above
12000	Jet A	Above
12000	Jet A	Above
18000	Avgas	Above
12000	Avgas	Above

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)	N/A	3/2950	3/ 15000
Frequency of Fuel Drops	N/A	1 Month average	1 every 2 weeks
Average Gallons per Drop	N/A	8500	8000

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine	See Below				
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

Air Carrier	Air Taxi	Itinerant GA	Lcl GA	Itinerant Mil.	Lcl Mil
1359	5792	59963	32288	22050	14097

7. During what hours does most of the activity occur at this airport? 7am -7 pm \_\_\_\_\_

8. What is the busiest day(s) of the week? Usually Thursday, Alternates between Thursday and Fridays. \_\_\_\_\_



9. For the above table, what are your off-peak and peak seasons? N/A \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>	<i>Aircraft Types</i>
Rental	N/A	N/A
Charter	N/A	N/A
Air Taxi	N/A	N/A
Student Training	N/A	N/A
Crop Dusting	N/A	N/A
Other	N/A	N/A
Total		

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
17R-35L	9001 feet	150 feet	0.049%	Concrete	P
4-22	8001 feet	150 feet	0.053%	Concrete	NP-4, P-22
17L-35R	4609 feet	75 feet	0.025%	Concrete	V

Runway End	End Elevations	Visual	NP	P1/P2/ P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
17R	31.4 MSL	x	x	P1	X	YES			
35L	27.3 MSL								
4	26.1 MSL								
22	30.3 MSL								
17L	31.2 MSL								
35R	30.0 MSL								

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
A	775 feet	75 feet	Edge	Concrete	17R/35L & 17L/35R
B	890 feet	75 feet	Edge	Concrete	17R/35L & 17L/35R
C	3457 feet	75 feet	Edge	Concrete	17R/35L & 4/22
D	2250 feet	85 feet	Edge	Concrete	17R/35L & 4/22
E	1200 feet	75 feet	Edge	Concrete	17R/35L & 4/22
G	3350 feet	75 feet	Edge	Concrete	17R/35L & 4/22
H	8970 feet	75 feet	Edge	Concrete	A,B,C,D,E,F,J, K
J	Taxilane				
K	Taxilane				

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. No \_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? 4/22 - 2007, 17R/35L -2004

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. Rehabilitation for \_\_\_\_\_

**TWY A, D, and F. Project 655 will remove and replace each TWY and run-up area associated with the TWY. Approximately 1527 sq.ft on A, 1541 sq.ft. on D and 1749 sq.ft on F.** \_\_\_\_\_

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**If no, when did taxiway reconstruction or rehabilitation last occur? TWY H was completely rehabilitated with the project ending 2/2009** \_\_\_\_\_

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not aware of broad public support, only support from certain organizations. Yes, there are people and groups opposed to public funding of the airport if it means expansion. \_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) Yes. The Part 77 Height Hazard Review is a Houston Airport System-administered process protecting the imaginary surfaces relative to IAH. In addition, the Federal Aviation System (FAA) administers the Form 7460-1 process protecting the Terminal Instrument Procedures (TERPS) surfaces relative to EFD. Yes, there have been incompatible land uses and obstructions both proposed and built near EFD. \_\_\_\_\_

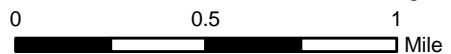
19. Have nearby residents complained of aircraft noise? Yes. \_\_\_\_\_

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? Yes. The City of Houston passed an Airport Compatible Land Use Regulation Ordinance (Ordinance Number #2008-1052) on December 3, 2008 to regulate land use around all three HAS facilities in response to an FAA request to protect federal aviation infrastructure investments. \_\_\_\_\_



**Legend - Land Use**

- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant

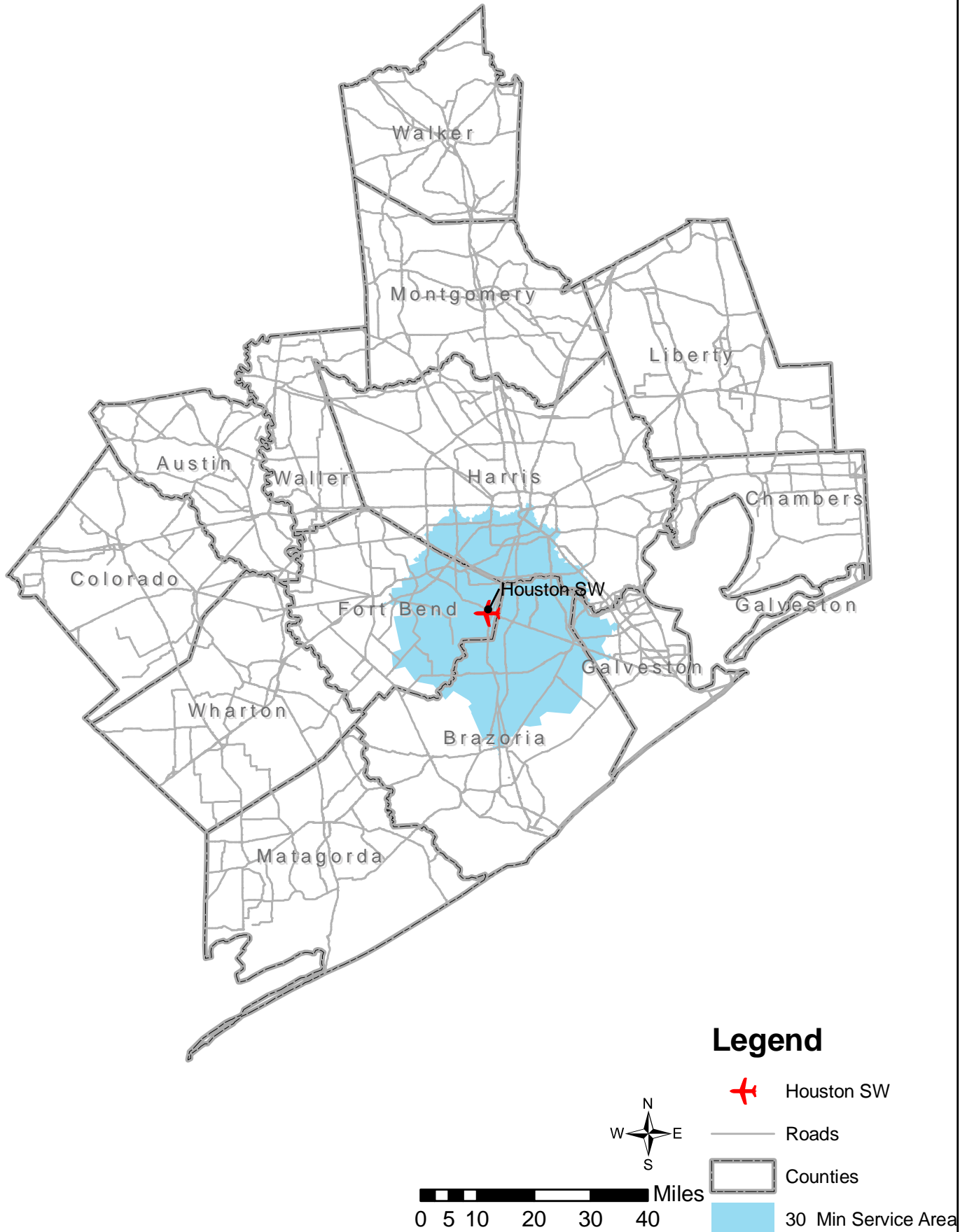


# Houston Southwest Airport

**2040 Regional Aviation  
System Plan Update**



# Houston Southwest Airport 30 min Service Area in 2009



**Houston Southwest Airport (AXH)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Houston Southwest Airport is privately owned and operated by James Griffith, Jr.

**Airport Location**

Houston Southwest Airport is located in Fort Bend County, Texas approximately one (1) mile west from the Arcola central business district and 26 miles southwest of Houston. The airfield lies south of SH 6 and west of FM 521.

**Existing Airport Facilities**

Houston Southwest Airport, including the airfield, hangars, terminal, and safety areas, encompasses approximately 165 acres. The Airport's Airport Identifier is AXH. The facility is located at an elevation of 68 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°30'22.1"N (estimated) and longitude 095°28'36.9"W.

**Airfield Facilities**

Houston Southwest Airport currently has one (1) runway. Runway 9/27 is 5,003 feet in length and 100 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 13,000 pounds or less. The runway is constructed of asphalt and is in fair condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and two-light Precision Approach Path Indicators (PAPI) on the left of both runway ends. Runway 9/27 is equipped with Runway End Identifier Lights (REIL).

Runway 9/27 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 9
- RNAV (GPS) RWY 27
- LOC/DME RWY 9

The taxiways at Houston Southwest Airport are constructed of concrete and are not lighted.

A clear and green rotating beacon is located at the Airport on top of the FBO hangar providing visual guidance to the Airport for pilots. The Airport does not have a segmented circle. A lighted wind cone is located on the southwest side of Runway 9/27. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at the Airport include the FBO, T-hangars, and conventional hangars.

**Fixed Base Operator Facilities**

Houston Southwest Airport operates the only full-service FBO. Services include the following: airport management; aviation fuel; aircraft parking (ramp and tie-down); hangars; passenger

terminal and lounge; flight training; aircraft rental; aircraft charters; aircraft maintenance; and avionics sales and service.

### Aircraft Storage

Aircraft storage at the Airport includes six (6) tie-down spaces, three (3) T-hangars, and several conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by the FBO. It is located on the west side of the Airport and north of Taxiway A. It provides aboveground storage capacity for 15,000 gallons of Aviation Gasoline (AVGAS), and 15,000 gallons of Jet-A. Aircraft receive fuel by truck.

### Based Aircraft

In 2008, there were a total of 138 fixed wing aircraft based at Houston Southwest Airport. This includes 114 single-engine aircraft and 24 multi-engine aircraft. Additionally, there are two (2) helicopters based at the Airport.

### **Interviewer Conclusion**

Houston Southwest Airport has several definitive goals for the growth and development of the Airport. The Airport has acquired land for a runway extension; however, they do not own enough property for an extension of another 996 feet on the Runway 27 end. The parallel taxiway also is in need of repair. At this time the taxiways are not lighted, but the Airport has made requests for lighting.

Airport management also stated the need to increase the ramp size because the area is so small. The Airport is also looking at ways to provide additional access to the south side of the facility. Currently, traffic from either the north or south must cross Runway 9/27 to gain access to the other side of the Airport. This is a safety concern. Houston Southwest Airport is also interested in developing an additional corporate hangar development. The entrance to the Airport is also an issue.

Airport management expressed that the Airport in many ways has been neglected. All of the facilities are structurally sound, but not necessarily aesthetically pleasing. The general impression is that the runway is deterring interest in basing aircraft at the Airport; however, airport management did state that there has been some interest from other competing airports due to rising costs to base aircraft at those facilities. Additional hangar space is a need at Houston Southwest Airport in order to accommodate any serious requests to base aircraft at the Airport.

Recent improvements at the Airport include new runway lighting and a new localizer. An Automated Weather Observation System has been installed, but is not yet operational. The FBO has been refurbished.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Houston Southwest Airport \_\_\_\_\_

Airport Manager: Len Franklin \_\_\_\_\_

Date: 12-29-08 \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	78	19			1		
T-Hangars	31	4					
Portable Hangars							
Tie-Down (Paved)	4	1			1		
Tie-Down (Unpaved)	1						
<b>Total</b>	<b>114</b>	<b>24</b>			<b>2</b>		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
<b>Total</b>					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area	1778	
Based Aircraft Apron	3200	
Transient Aircraft Apron		6

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	
AVGAS	112,553
Jet-A	86,368

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
15,000	AVGAS	Aboveground
15,000	Jet-A	Aboveground

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)		1/1000	1/2500
Frequency of Fuel Drops		15/day	3/day
Average Gallons per Drop		19.5/drop	78/drop

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine	12	36	48	144	
Multi-Engine Piston	1	3	3	10	
Turbo Prop			1	2	
Business Jet					
Rotorcraft	1	3	5	11	
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. At what time of day does most of the activity occur at this airport? Between 9:00am and 7:00pm \_

8. What are the busiest days of the week? Fri after 3pm Sat 9:00am till 4:00pm and Sun 1:00pm till 4:00pm

*Depends on season*

*Before church no*

*Football season no*

9. For the above table, what are your off-peak and peak seasons? Off Peak Dec Jan and Aug Sept.

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total	N/A	

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
09/270	5000	100		Asphalt	Nonprecision

Runway End	End Elevations	Visual	NP	P1/P2*	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
09	68				NO	MIRL		Yes	Yes
27	67				NO	MIRL		Yes	Yes

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Yes runway in need of overlay and extension. Extension would be 450' to the west with displaced threshold \_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower				Automatic Terminal Landing System			
Flight Service Station				Unicom	Yes		123.00
National Weather Service				Precision Approach Radar / MLS/ILS			
Civil Air Patrol				Segmented Circle			
Automatic Weather Observing System (A, I, II, III, IV)	Yes			Centerfield Wind Indicator	Yes		
Automated Surface Observing System				Supplemental Wind Cone			
Non-Directional Radio Beacon				Remote Transmitter Receiver / Communications Facility	Yes		120.8
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)				Aircraft Rescue and Fire Fighting Facility			



14. Does the airport need new facilities in the next five years? (e.g., taxiways, aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? Yes we have a CIP in place. Projects Runway Over Lay, New Beacon, New Security Fencing New Access Road. Improve Runway Safety Areas. Rehabilitate Taxiway Increase the Ramp Size. \_\_\_\_\_  
\_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) \_\_\_\_\_  
\_\_\_\_\_

16. What do you view as the long-range potential for the airport? I see Houston Southwest Airport increasing it's role in the general aviation community however we are seeing a increase in medical helicopter traffic. With the future airport improvements our proximity to down town Houston should provide an increase in corporate traffic. \_\_\_\_\_  
\_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? Being a private airport we do not receive public funds other than FAA funds. \_\_\_\_\_  
\_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) Homes near the airport are increasing in number and do present a problem \_\_\_\_\_  
\_\_\_\_\_

19. Have nearby residents complained of aircraft noise? Yes we do have home owners complain from time to time. \_\_\_\_\_  
\_\_\_\_\_

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? The airport is currently purchasing land and has purchased land in the past to protect aviation easements. \_\_\_\_\_  
\_\_\_\_\_

Fort Bend Economic Development Council & City of Arcola  
Focus Group

Summary Report

Stakeholders Perspective

I Airport History/Environment

The airport was built some three decades ago by James Griffith; and today, is operated by Griffith Interest, James P.S. Griffith, Jr. Currently, the airport has over 140 based aircraft, extensive helicopter activity, and a variety of aircraft support services.

As a privately owned, public use reliever airport to Houston Hobby, it is eligible for federal funds and has been receiving funds for planning studies, land acquisition, and general airport improvements since 2004.

II Goals/Objectives

- Lengthen the runway to 5,400 feet
- Continue to acquire additional land
- Community outreach and education
- Support the City of Arcola in economic development

III Initiatives

The airport owners and management have made a concentrated effort to educate the community and elected officials on the benefits of an established airport in the area. They have reached out to the community by holding several public relations events. As the result, Houston Southwest has reduced opposition and achieved city support.

The owners hired a professional airport management staff that has set goals and objectives to guide the facility towards a variety of airport improvements. The airport continues to pursue federal funding and has received the go-ahead for these improvements.

IV Recommended Airport Enhancements

- Runway extension
- Land acquisition for clear zones

- Further beautification to the property
- Improved taxiway

#### V Interviewers Conclusion

Fort Bend Economic Council has been a long time supporter of both airports located in the county, Houston Southwest Airport (Arcola) and Sugar Land Regional Airport, Houston Southwest Airport is positioned closer to the city of Arcola than Sugar Land Regional; however, the city has had some difficulty recognizing the opportunities Houston Southwest offers as an economic engine. A new outlook giving credit to the airport's value has been noticed recently.

Several elected officials in Fort Bend County have considered Houston Southwest Airport a direct competitor with Sugar Land Regional Airport, for attracting based aircraft and securing federal funding for improvements. Sugar Land has the county's largest voter constituency base.

The focus group recognized the need for the City of Arcola, City of Sugar Land, Fort Bend County and the airport owner to nurture a vision to grow both Sugar Land Regional Airport and Houston Southwest Airport as sister airports. Until that vision has been realized, the regional system will not enjoy the maximum benefit that each of these two economic resources can provide.

Houston Southwest's improved community image and reduced opposition in the area is a strong testimony to what public outreach, good public relations and professional airport management can do for a small general aviation airport whether it is privately or publicly owned.

The airport's continued growth is influenced by excellent access to Houston. Houston Southwest has the best overall access to ground transportation than any other airport in the entire system with its proximity to the Fort Bend Toll Road, South Post Oak Road, SH6, SH521, Spur 288, and its location within 16 miles of US59.

With medical aircraft activity increasing at this airport, it is becoming the region's general aviation "Gateway to the Houston Medical Center," the largest medical center in the world.

Greater Fort Bend Economic Development Council Interview  
City of Arcola  
Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber/EDC Name:</u>	Fort Bend EDC/City of Arcola
<u>Chamber/EDC Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Houston Southwest Airport (AXH)
<u>Interview Date:</u>	January 30, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** The primary stakeholders in the room were representatives from the City of Arcola, Greater Fort Bend Economic Development Council, Fort Bend Chamber of Commerce and the airport manager.

Houston Southwest Airport (AXH) is a major economic engine for the City of Arcola and east Fort Bend County. A strong partnership with the City of Arcola is essential if the airport is going to achieve strong community support and become an employment center for the area. For over two decades, the airport has been privately owned. Some discussion about the City of Arcola acquiring the facility in the future has taken place; therefore, the next ten years could bring:

- Public ownership
- Current growth patterns and development around the airport may restrict certain development of the airport and create limitations.
- The Focus Group feels AXH can have several uses that thrive at Sugar Land Regional Airport.
- General and business aviation will grow over the next decade within the county. Houston Southwest will be underpinning growth in the east county area.
- Additional land is available around the airport for expansion that can be acquired.
- The airport has the potential to become a multi-model facility with the adjunct rail line.
- A foreign trade zone may be attainable, which would increase property value in the area and offset operation costs, if the city acquires the airport.
- Potential for warehouse and distribution centers developing in the City of Arcola could serve as an incentive to attract ancillary businesses unrelated to aviation.
- Public integration of the airport facility into city services
- Improved relationship with the City of Sugar Land and Sugar Land Regional Airport.

- Houston Southwest will become a premier gateway to the Medical Center with its increased medical helicopter operations and other medical support aircraft.
- The types of businesses that operate on the airport today will be much different in ten years
- Major runway extension. Property has currently been acquired to lengthen the runway to 5,400' and in the future another 1,000'. Clear Zone issues have been a problem with this proposed extension.
- Land adjacent to the extended runway will be available for light commercial or aviation support businesses. The city is working to provide water and sewer to support future development.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The City of Arcola and Houston Southwest Airport are positioned well on Fort Bend County's "arc of development" based on capacity for retail, hotel, and other commercial applications. The east county area has been overlooked and under developed throughout the county's history, but this is changing.

- Master planned community and residential housing is being developed near the airport. There is a premiere residential project orchestrated by Johnson Development and Hillwood Development Corporation (Ross Perot, Jr.)
- Highway 6 has been upgraded, which intersects with the Fort Bend Toll Road.
- Several commercial opportunities have occurred, For instance, Kroger and HEB have opened new stores in the area.
- The airport and land along the highways surrounding the airport are probably the most valuable locations in the county. The development of this land will depend on the capital markets and the economy in general.

Fort Bend Toll Road has been the catalyst that changed the dynamics in East Fort Bend County. This became evident when Johnson Development established a town square in a public-private partnership with Hillwood Development Corporation.

There are plenty of opportunities if an alignment of interest can be developed between the City of Arcola, county officials, and the private airport owner. A common vision between the entities needs to be established.

3. Where and what do you expect for the area's future growth?

**Answer:** Opportunity exist throughout Fort Bend County, but concern has been voiced about the region's economic situation in general. During an economy downturn, the Houston region is often viewed in terms of FIFO (first in, first out). One stakeholder commented, "Our regional markets are last into the recession and will be the first out of the recession because our three core industries: trade, health sciences and energy. These are four growing industries world-wide and we are at the forefront of almost every one of them."

East Fort Bend County general economic conditions will dictate the pace at which growth can happen within the entire county. There are opportunities that will be completed along the Highway 6 frontage. Once the city, the county and the airport's

vision comes together, it will accelerate the opportunity to sell that vision to capital markets and developers.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** The largest issue facing Houston Southwest Airport and the City of Arcola is educating the surrounding community about the economic benefits of the airport. The constituency has problems relating to how the airport can improve their quality of life.

**Issues:**

- New Point Estates located near the airport has often been a negative voice against the airport. Current opposition is associated with the improvements of South Post Oak Road and the road alignment near the airport's property line.
- Airport management is reaching out to aid a local church by offering space to store the churches mobile service trailers in hope of minimizing opposition in other areas.
- The Arcola City Manager and Mayor have concerns about the proximity of the airport to the energy plant.
- A major issue relates to the perception that the airport is at a major marketing disadvantage to the flying community, as well as with the county's elected officials, because it is a one runway airport and that runway was built as a crosswind runway.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** The Focus Group was in agreement in the following areas:

- Airport has never been marketed properly; although the word "properly" was not defined.
- Beautification of the airport
- Education related to public awareness; e.g., area schools, neighborhoods, elected officials, development of an annual report of the "State of the Airport".
- Better transportation integrated into the three main economic engines; e.g.: trade, health and energy.
- Aid in the development of inter-local agreements



6. How could a better integrated airport system serve the community's needs?

**Answer:** "If there was a more integrated airport system, just within Fort Bend County, some positive things would happen. Those that have taken advantage of the Houston Southwest Airport benefits have reaped the economic benefits, and this is also true (many times over) with the Sugar Land Regional Airport.

The City of Sugar Land receives increased federal dollars, employment growth, and property tax and sales tax benefits. There is a common message and vision about the opportunities in the region when airports within a county/regional system can work together."

The stakeholders translate this to mean that, "the airspace in the area is at capacity and it is important for them to leverage what they currently have." From Arcola's perspective, growing Houston Southwest Airport will allow them to have economic advantages, just as the City of Sugar Land has economic advantages from their regional airport. The City of Arcola and Houston Southwest need to deliver a strong message that, "we're open for business and we are not competing against our neighboring airports!"

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See Question #2

8. How can the airport support local business development?

**Answer:**

- Current helicopter service is flying exclusively out of the airport for Texas Women's Hospital.
- Aircraft support services at the airport provide employment opportunities for planes as large as King Airliners; i.e.; refurbishment, maintenance, and avionics. There are five aircraft mechanics on the field servicing airplanes. About six aircraft come in from Mexico each month for refurbishment.
- Approximately 25 acres on the airport are available for immediate development.
- Additional hangars are being planned
- Currently, 150 to 200 jobs are provided by the airport.
- When the runway is extended, there will be a new taxiway added to utilize more of the airport property.
- Management is looking for ways to promote certain underutilized airport property for the citizens of Arcola to create jobs and increase the tax benefit.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** Houston Southwest is becoming the medical gateway with their close proximity to the Houston Medical Center. The airport and the City of Arcola have an industrial opportunity with Burlington Northern Santa Fe railroad (BNSF). There is also potential for a foreign trade zone and rail spur.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** Over the past decade, the relationship between the airport and the City of Arcola neighborhoods has softened as they work towards developing a mutually beneficial partnership.

11. Is there organized opposition to airport development and expansion?

**Answer:** In previous times, organized opposition was very strong. Recently, the situation has improved due to the airport owner reaching out to the community. In turn, the airport has picked up business momentum with 140 based aircraft, and the hangars that are full.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None

13. What environmental issues may affect airport use and development?

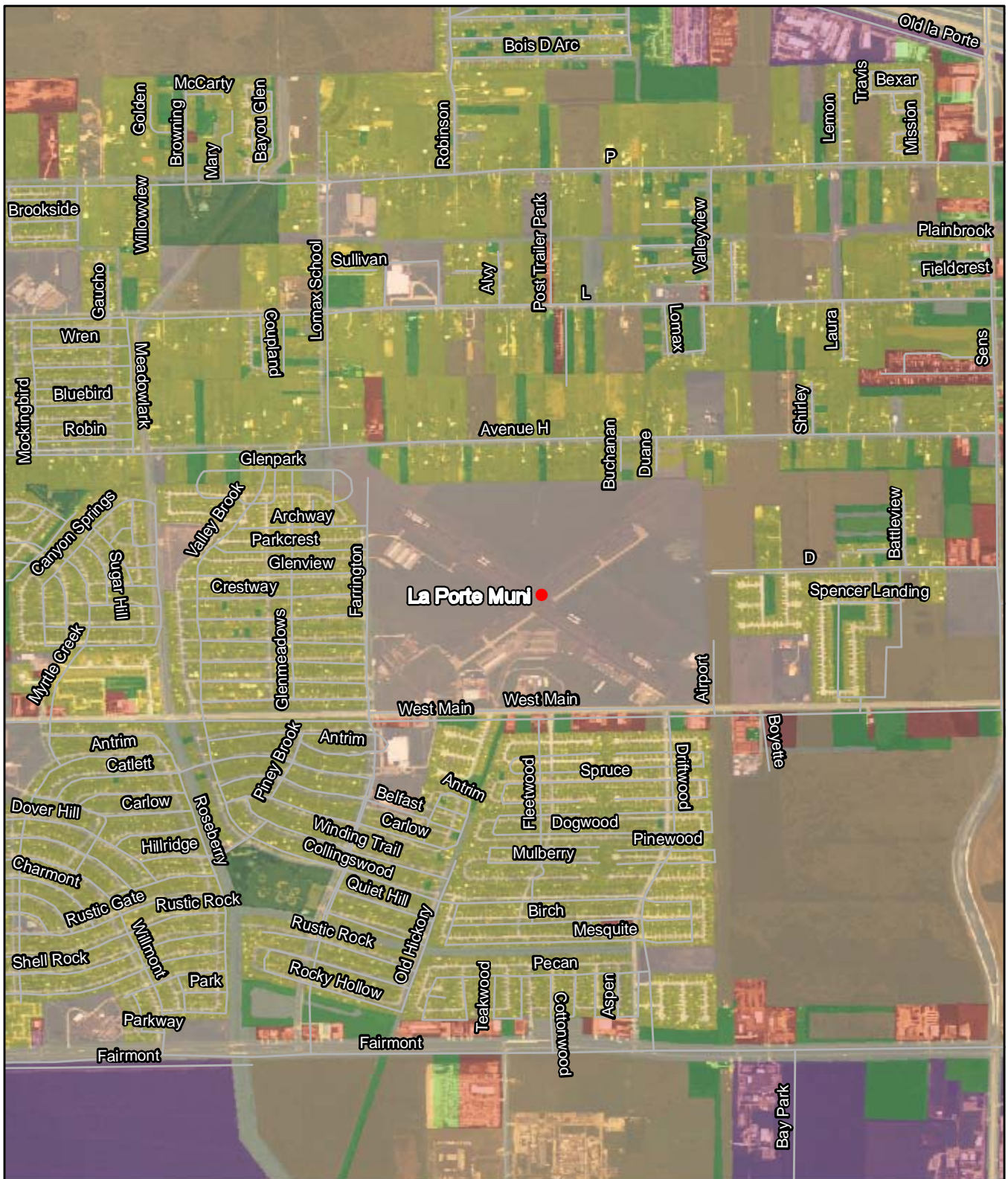
**Answer:** There have been airport noise issues that have impacted East Plantation Oaks that is located near the end of the runway. Currently, there are no mandatory noise abatement practices in place. Out of consideration, the airport has changed some flight patterns. Complaints have subsided. The airport has height hazard zoning.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The airport had a master plan done several years ago but they are in the process of acquiring federal funding to update their ALP (airport layout plan).

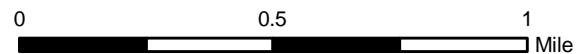
15. Do you know of other people or groups that we should contact?

**Answer:** None



Legend - Land Use

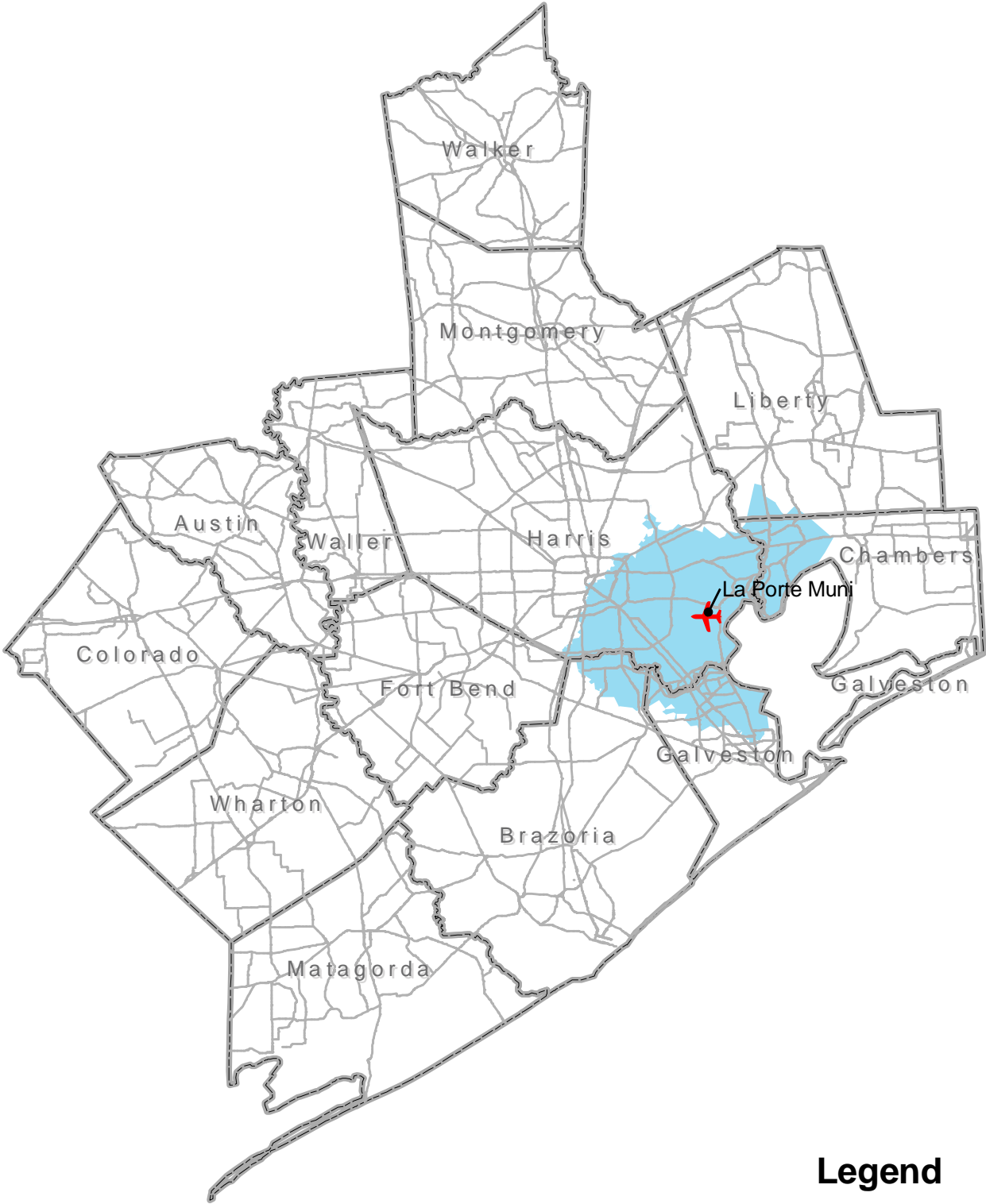
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# La Porte Municipal Airport

2040 Regional Aviation  
System Plan Update

# La Porte Municipal Airport 30 min Service Area in 2009



## Legend

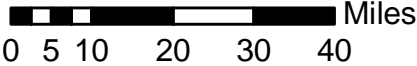


 La Porte Muni

 Roads

 Counties

 30 Min Service Area





**La Porte Municipal Airport (T41)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

La Porte Municipal Airport is publicly owned and operated by the City of La Porte.

**Airport Location**

La Porte Municipal Airport is located in Harris County, Texas approximately two (2) miles west of the La Porte central business district and 25 miles southeast of Houston. The airfield lies north of Spencer Highway.

**Existing Airport Facilities**

La Porte Municipal Airport, including the airfield, FBOs, hangars, and safety areas, encompasses approximately 300 acres. The Airport's Airport Identifier is T41. The facility is located at an elevation of 25 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°40'09.3"N (estimated) and longitude 095°03'51.1"W.

**Airfield Facilities**

La Porte Municipal Airport currently has two (2) runways. Runway 12/30 is 4,165 feet in length and 75 feet wide with pavement strength rated to accommodate aircraft with a single wheel load of 23,000 pounds or less. Currently, the runway has a displaced threshold of 190 feet on the Runway 12 end and 402 feet on the Runway 30 end. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and a four-light Precision Approach Path Indicator (PAPI) on the left of the Runway 12 end. Runway 12/30 is equipped with Runway End Identifier Lights (REIL) on the Runway 12 end.

Runway 05/23 is 2,998 feet in length and 75 feet wide with a pavement strength rated to accommodate aircraft with a single wheel load of 25,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with MIRL.

Runway 12/30 is classified as a Non-Precision Instrument Approach runway. Runway 05/23 is a Visual Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 30
- VOR-A
- NDB RWY 30

A clear and green rotating beacon is located at La Porte Municipal Airport providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

### Landside Facilities

The landside facilities at the Airport include the FBOs, T-hangars, and conventional hangars.

### Fixed Base Operator Facilities

La Porte Municipal Airport has three (3) full-service FBOs that operate at the airfield: Harvey & Rihn Aviation, Tri-Star Aviation, and Ascent Aviation.

Harvey and Rihn Aviation offer the following services: aviation fuel; aircraft parking (ramp or tie-down); flight training; aircraft rental; aircraft maintenance; aircraft painting; aircraft parts; pilot supplies; public telephone; and pilot lounge / snooze room.

Tri-Star Aviation offers the following services: aviation fuel; aircraft parking (ramp or tie-down); hangars; passenger terminal and lounge; flight training; aircraft rental; aerial tours / aerial sightseeing; aircraft charters; aircraft maintenance; and avionics sales and services.

Ascent Aviation offers the following services: aviation fuel; aircraft rental, aerial tours / aerial sightseeing; aerial photography; pilot supplies; public telephone; internet access; and restrooms.

### Aircraft Storage

Aircraft storage at the Airport includes 100 tie-downs, T-hangars, and conventional hangars.

### Aircraft Fueling Facilities

Airport management elected not to provide any fueling information. This information is considered confidential.

### Based Aircraft

In 2008, there were a total of 164 fixed wing aircraft based at La Porte Municipal Airport. This includes 150 single-engine aircraft, 12 multi-engine aircraft, and two (2) turbo-props. Additionally, there are three (3) helicopters based at the Airport.

### **Interviewer Conclusion**

La Porte Municipal Airport recently finished grants for fencing and lighting.

The Airport is known for flight instruction. The majority of its operations are touch and gos. La Porte Municipal's operations are mostly local and related to flight training, but the Airport does receive traffic from all over.

All hangars at the Airport are owned and leased by the FBOs. While the La Porte has an airport manager, many of the the day to day operations of the Airport are taken care of by the FBOs.

PHI operates as an air ambulance service and has three helicopters based at the Airport.

The long-term goal for the Airport is to remain a community airport.



**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: La Porte Municipal Airport \_\_\_\_\_

Airport Manager: Steve Gillett \_\_\_\_\_

Airport Owner: City of La Porte \_\_\_\_\_

Date: 1-15-09 \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	50	6	2		2		
T-Hangars	47	2					
Portable Hangars							
Tie-Down (Paved)	41	3					
Tie-Down (Unpaved)	12	1			1		
Total	150	12	2		3		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron		100
Transient Aircraft Apron		SAME

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	
AVGAS	
Jet-A	

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>

5. Please provide the following information about your fueling operation.

<i>Item</i>	<i>MOGAS</i>	<i>AVGAS</i>	<i>JET-A</i>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops			
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<i>Aircraft Type</i>	<i>Number of Daily Operations*</i>				<i>% Night**</i>
	<i>Off-Peak</i>		<i>Peak</i>		
	<i>Weekday</i>	<i>Weekend Day</i>	<i>Weekday</i>	<i>Weekend Day</i>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings    \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Daylight to Dark \_\_\_\_\_

8. What is the busiest day(s) of the week? Weekends \_\_\_\_\_

9. For the above table, what are your off-peak and peak seasons? \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>	<i>Aircraft Types</i>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total		

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
12-30	3,500	75		Asphalt	
05-23	3,000	75		Asphalt	

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
30	23.86		X		450	MIRL			
12	24		X		200	MIRL		X	X
05	24	X				MIRL			
23	24	X				MIRL			

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
A	4,200	40	MITL	ASPHALT	RW 12-30
B	3,000	40	MITL	ASPHALT	RW 5-23
C	900	35	MITL	ASPHALT	FBO
D	220	35	MITL	ASPHALT	FBO

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. NO \_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? 2007 \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. NO \_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? 2007 \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		X		Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom	X		122.7
National Weather Service		X		Precision Approach Radar / MLS/ILS		X	
Civil Air Patrol		X		Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon	X			Remote Transmitter Receiver		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility	X		
Ground Communications Outlet		X		Remote Communications Outlet		X	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? GPS APPROACH \_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) REPLACE FENCING \_\_\_\_\_

16. What do you view as the long-range potential for the airport? COMMUNITY AIRPORT \_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? NO \_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) YES \_\_\_\_\_

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19. Have nearby residents complained of aircraft noise? INFREQUENTLY \_\_\_\_\_

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? YES - ZONING \_\_\_\_\_

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*La Porte Chamber of Commerce*  
*Focus Group*

*Summary Report*

Stakeholders Perspective

**I Airport History/Environment**

La Porte Municipal Airport (T41) has been in existence for several decades; and currently, has approximately 100 based general aviation planes on site. The airport is a publicly owned, public use reliever airport to Houston Hobby. It is operated by the City of La Porte.

The airport is due east of Houston and situated in the heart of the petrochemical/refinery industry and is a neighbor to the Port of Houston. Major freight, trucking, and product distribution businesses surround the City of La Porte and its airport. The Port of Houston is the 10<sup>th</sup> largest port in the world and a chief economic engine.

The airport, being in such a geographically prime location, should have endless opportunity for growth; however, this is not the case. Growth is difficult, if not impossible, due to the neighborhood encroachment around the airport, leaving no room to grow, runway obstructions, and inadequate clear zones. The Focus Group indicated that the general community is oblivious to the airport's existence and does not see its benefits.

It was referred to by the stakeholders as “**the invisible airport.**”

**II Goals/Objectives**

- There was some talk that perhaps the City should open discussions with other public entities about studying the possibility to develop a new general aviation airport on the east side of Houston as a joint effort between public and private interests.
- Investigate the potential opportunities to utilize the current airport/land for other uses that can benefit the City's tax base.
- Identify a potential candidate to provide the airport on-site airport management. It is currently managed by the City's Public Works Department.



### III Initiatives

The stakeholder's initiative is to aid in positioning the airport to grow and find ways to be more visible within the community and work with Hobby and Ellington to be a viable reliever within the system.

### IV Recommended Airport Enhancements

Enhancing the airport at its current location is difficult when there is no place to grow the facility and no strong commitment from the airport sponsor to market the existing airport.

### V Interviewers Conclusion

With the stakeholders viewing the airport as an "invisible" facility, one would assume that there is no community interest in the airport. This is not the case from the local "grass roots" leadership. The stakeholders have a desire to have a complete, multi-model infrastructure system in the area. They have the industry and cargo movement to support such. There is general agreement that aviation should be part of that system. To achieve this goal they are open to ideas of how to attract general/business aircraft and become a more intricate part of this system. If that means looking at a way to participate in building a new airport facility on the east side of the City, in conjunction with other parties, they are willing to investigate that possibility.

## La Porte Chamber of Commerce Interview

Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber Name:</u>	La Porte Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	La Porte Municipal Airport (T41)
<u>Interview Date:</u>	February 3, 2009

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### Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** La Porte, the City itself, is very limited in terms of available land to develop the airport in the future. The City is surrounded by refineries, the Port of Houston, warehouses, distribution centers, etc. These are the economic drivers.

The airport has severe neighborhood encroachment on all four sides. In order for the airport to expand it must acquire land which means purchasing homes and surrounding businesses. The future of the airport over the next ten years does not look bright.

Some of the focus group felt there were potential services the airport could provide that supported activities that are developing at the Bayport Container and Cruise Terminals at the Port of Houston. (These were not named.)

La Porte Airport would be an excellent alternative to Hobby's general aviation community, but it would require extending the primary runway to 5,000 feet while still attempting to be a good neighbor to the encroaching homes.

The future for this airport is challenging.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The greatest economic drivers for La Porte are the Port of Houston and the petrochemical industry. These are also the heartbeat of the entire Houston region. In the past four years there have been three prospective companies that looked at La Porte for relocation but they placed great emphasis on having an airport that could handle business aircraft close by. La Porte Municipal did not meet their needs.

Another economic catalyst is Cedar Crossing, a warehousing center offering thousands of square feet of storage space for Chambers County, a neighboring county to Harris and only a few miles from the airport.

There is a finite amount of land around the ship channel and La Porte for development, and the City is challenged to meet the infrastructure needs for the surrounding industry.

3. Where and what do you expect for the area's future growth?

**Answer:** All future growth in this area is expected to be east into Chambers County, which is seven miles east of the La Porte airport. La Porte's future can be seen as filling in the few vacant areas. Any future potential growth would be in the following areas:

- Grow their influence over the currently overburdened transportation system and freight development through management of their transportation system. The stakeholders realize if they don't shape the freight management systems, somebody else will.
- Investigate the potential of developing a cargo airport in conjunction with other private entities or some type of public/private partnership.
- Stakeholders are working with H-GAC on the new sub-regional transportation planning process (2040 RTP). The La Porte area is a sub-regional priority because of the amount of freight traffic. The stakeholders have concerns that this study is too focused on just rail or roads and not looking at all modes of transportation, i.e. air freight systems.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- Homeland security issues are at the forefront given the number of refineries and the port activities in this area.
- Lack of enthusiasm by the airport sponsor to aggressively market the airport
- Serious encroachment by sub-divisions and numerous obstacles off the runway, i.e. poles, roads, towers, etc.
- Lack of strategic planning for the airports future

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** See response to question #1. Airport improvements at the current location are limited.

6. How could a better integrated airport system serve the community's needs?

**Answer:** Each airport in the region could become more focused, specializing in a specific activity and build around that. Each airport could develop its own niche be it corporate, freight, businesses, etc. The geographic lines of location would be better defined whereby each airport would have a set of achievable goals to be accomplished over a given number of years.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** In the areas of manufacturing and logistics, the airport could support the Port of Houston as it grows. As the port grows, La Porte grows. All transportation modes are interconnected in this area.

8. How can the airport support local business development?

**Answer:** Currently, the airport is only viewed by the stakeholders as being a minor contributor to local business. The airport has two FBOs and an ambulance service, with only a limited number of aircraft based at the facility. The Texas Air National Guard is based and trains at La Porte.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The stakeholders agree this airport could easily be a general aviation/business aircraft gateway to the Port of Houston, international trade and the petrochemical industry. The real question is should the gateway be the current airport or should everyone be considering a new reliever airport on the east side of Houston.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** There are no organized events or community relationships between the general public and the airport and its sponsor.

11. Is there organized opposition to airport development and expansion?

**Answer:** There are a few minor complaints along the fence line from the neighbors on noise, but past that there is really no relationship between the airport and the people that don't fly. The stakeholders refer to the airport as ***invisible***.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

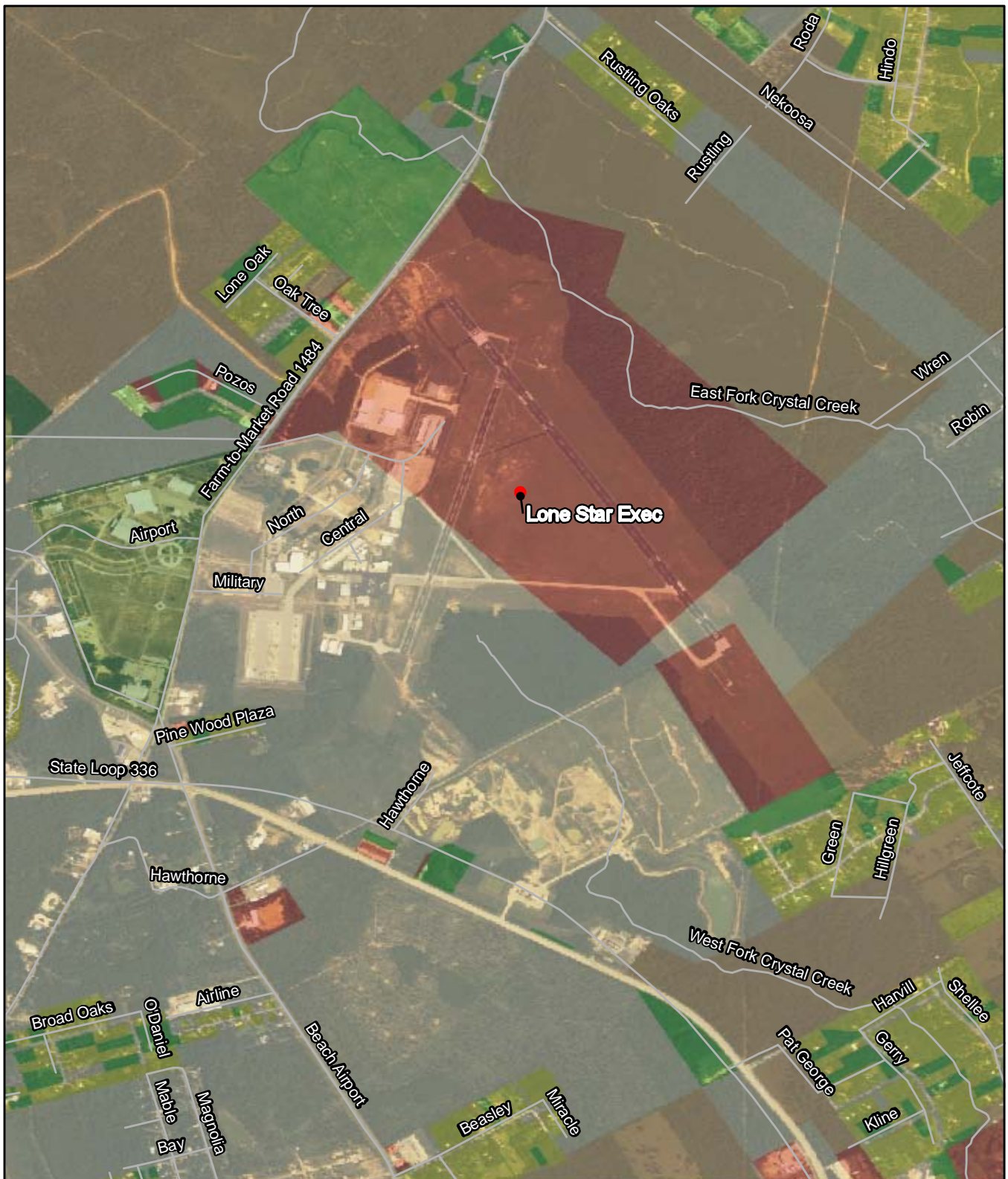
**Answer:** None that would impact the airport.

13. What environmental issues may affect airport use and development?

**Answer:** The airport is the highest place in La Porte, approximately 25 feet above sea level. Except for noise issues there are no other environmental concerns. Because of its location it is considered in all emergency management planning.

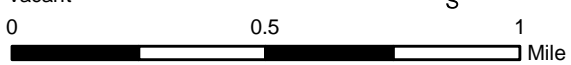
14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** Stakeholders are not aware of the airport having a master plan.



**Legend - Land Use**

- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant

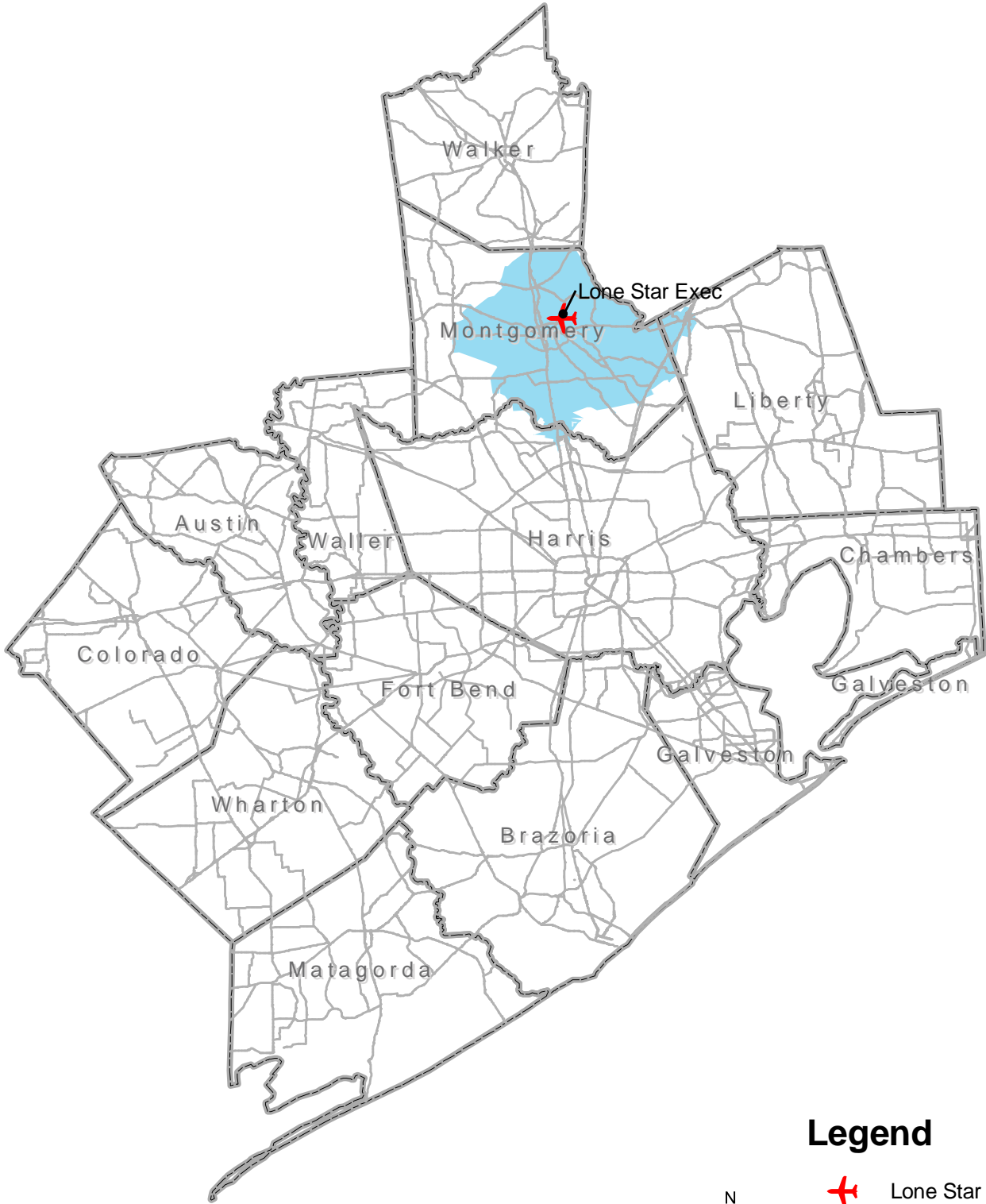


# Lone Star Executive Airport





2040 Regional Aviation System Plan Update

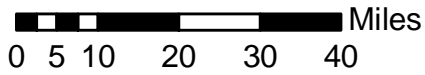


# Lone Star Executive Airport 30 min Service Area in 2009



## Legend

-  Lone Star Exec
-  Roads
-  Counties
-  30 Min Service Area





**Lone Star Executive Airport**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Lone Star Executive Airport is publicly owned and operated by Montgomery County.

**Airport Location**

Lone Star Executive Airport is located in Montgomery County, Texas approximately five (5) miles northeast of the Conroe central business district and 25 miles north of Houston. The airfield lies east of Interstate 45 and north of Loop 336.

**Existing Airport Facilities**

Lone Star Executive Airport, including the airfield, hangars, terminal, and safety areas, encompasses approximately 1,277 acres. The Airport's Airport Identifier is CXO. The facility is located at an elevation of 245 feet above Mean Sea Level (MSL) and the of the Airport Reference Point (ARP) coordinates are latitude 30°21'08.5135"N (estimated) and longitude 095°24'52.3406"W.

**Airfield Facilities**

Lone Star Executive Airport currently has two (2) runways. Runway 14/32 is 6,000 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 140,000 pounds or less. Currently, Runway 14/32 has a displaced threshold of 591 feet on the Runway 14 end. According to airport management, there are plans for a runway extension of 1,500 feet on the Runway 14 end. The runway is constructed of concrete and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) as well as Medium-Intensity Approach Lighting System with Runway Alignment Indicator on the Runway 14 end and Runway End Identifier Lights (REIL) on the Runway 32 end. Additionally, the runway is equipped with a two-light Precision Approach Path Indicator (PAPI) on the left of the Runway 14 end.

Runway 1/19 is 5,000 feet in length and 100 feet wide with pavement strength rated to accommodate aircraft with single-wheel load of 140,000 pounds or less. The runway is constructed of concrete and is in good condition. The runway is equipped with MIRL and two-light PAPIs on the left of both runway ends.

Runway 14 is classified as a Precision Instrument Approach runway and Runways 32 and 1/19 are classified as Non-Precision Approach runways. The following published approaches were available as of April 9, 2009:

- ILS OR LOC Runway 14
- RNAV (GPS) Runway 32
- NDB Runway 14

Taxiway A and D are partial parallel taxiways serving Runway 1/19. A portion of Taxiway A is also parallel to Runway 14/32. Taxiway B, C, E, and F are connector taxiways. All taxiways are between 50 and 70 feet wide, constructed of asphalt, and have Medium Intensity Taxiway Lighting (MITL).

A clear and green rotating beacon is located adjacent to the south side of the General Aviation Services FBO and provides visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone that is located east of Taxiway A and north of Taxiway B. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

There is over 775,000 square feet of ramp space available for aircraft parking.

### *Landside Facilities*

The landside facilities at Lone Star Executive include the terminal, the three (3) FBOs, T-hangars, and conventional hangars.

The Airport's terminal building is centered along the terminal apron.

### *Fixed Base Operator Facilities*

There are three (3) full-service FBOs at the Airport which include: General Aviation Services, Galaxy, and Wing Aviation.

Services provided at General Aviation Services include the following: aviation fuel; aircraft parking (ramp or tiedown); hangars; passenger terminal and lounge; flight training; aircraft rental; aircraft maintenance; aircraft modifications; aircraft parts; aviation accessories; aircraft sales, leasing, and brokerage; pilot supplies; rental cars; courtesy transportation; courtesy cars (free for pilots to use in the local area); public telephone; pilots lounge / snooze room; and restrooms.

Services provided at Galaxy include the following: airport management; aviation fuel; oxygen service; flight training; aircraft maintenance; aircraft cleaning, washing, and detailing; aircraft parts; aircraft management; pilot supplies; courtesy transportation; pilots lounge / snooze room; public telephone; computerized weather; internet access; and restrooms.

Services provided at Wing Aviation include the following: volume fuel discount; pilot lounge; WSI weather station; GPU; courtesy crew car; on-site rental cars; limo service; catering; conference facilities; hangar space; pre-cooling aircraft; A/C service; and Military/Government fuel provider.

### *Aircraft Storage*

Aircraft storage at Lone Star Executive includes approximately 22 tie-down spaces, 130 T-hangars, 10 conventional hangars and 17 executive hangars.

### *Aircraft Fueling Facilities*

The fuel farm, located on airport property, is operated by the Airport's three (3) FBOs. It is located south of the Airport's maintenance building. It provides aboveground storage capacity

for 44,000 gallons of Aviation Gasoline (AVGAS) and 66,000 gallons of Jet-A fuel. Aircraft receive fuel by truck.

### Based Aircraft

In 2008, there were a total of 207 fixed wing aircraft based at Lone Star Executive Airport. This included 174 single-engine aircraft, 21 multi-engine aircraft, and 12 jets. Additionally, there are 13 military aircraft stationed at the Airport.

### **Interviewer Conclusion**

Lone Star Executive Airport is a large reliever airport with plans to expand. Specifically, the Airport anticipates extending Runway 14/32 to 7,500' on the Runway 14 end and extending Taxiway A to a full parallel taxiway serving Runway 14/32. This effort will require relocating the FM 1484. Lone Star Executive Airport plans to develop the south terminal area for aviation use. This parcel of land is composed of approximately 160 acres. Airport management also cited the need to improve vehicle parking, perimeter fencing, and the access road. The Army Reserve also has plans to expand on the Airport.

Several agencies have expressed interest in basing their aircraft at the Airport. These agencies include the U.S. Marshal Service, U.S. Immigration and Customs Enforcement, and a new federal prison. These agencies operate aircraft that would need a minimum of 8,000 feet in runway length. Therefore, a lot is driving the need to make a case for extending Runway 14/32 another 500 feet.

The Airport currently has several corporate tenants and Lone Star Executive has a tremendous amount of property for additional corporate development. Airport management has vision and acknowledges the real potential the Airport has as Houston continues to grow along Interstate 45.

Airport management indicated that there was a need for additional hangar space. The T-hangars were at capacity. Lone Star Executive remains uncertain of the exact need for hangar space and is focusing on other improvement projects at this time. The Airport also anticipates the need to accommodate more jets once the Airport Traffic Control Tower (ATCT) is active and the Airport has Instrument Landing Systems (ILS) available.

The ATCT began active Class D Airspace Control in May of 2009.

Airport Name: Lone Star Executive Airport

Airport Manager: Scott Smith

Airport Owner: Montgomery County

Date: December 17, 2008

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars							
T-Hangars							
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
Total	174	21	2	12	26		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars	5				
Tie-Down (Paved)	6				
Tie-Down (Unpaved)					
Total	11				

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		18
Based Aircraft Apron		49
Transient Aircraft Apron		14

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	N/A
AVGAS	260,000
Jet-A	550,000

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
(2) 12,000, (2) 10,000,	Av Gas	Above
(4) 10,000, (6) 1,000, (1) 20,000	Jet A	Above

5. Please provide the following information about your fueling operation.

<i>Item</i>	<i>MOGAS</i>	<i>AVGAS</i>	<i>JET-A</i>
Number of Fuel Trucks / Capacity of each (gallons)		3 - 750	4 - 1,500
Frequency of Fuel Drops		3/mo.	6/mo
Average Gallons per Drop		7,200	7,200

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<i>Aircraft Type</i>	<i>Number of Daily Operations*</i>				<i>% Night**</i>
	<i>Off-Peak</i>		<i>Peak</i>		
	<i>Weekday</i>	<i>Weekend Day</i>	<i>Weekday</i>	<i>Weekend Day</i>	
Single Engine	170	170	170	170	(Less than
Multi-Engine Piston	20	20	20	20	5%)
Turbo Prop	15	15	15	15	
Business Jet	20	20	20	20	
Rotorcraft	20	20	20	20	
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 7 am – 10 am; 4 pm - Midnight

8. What is the busiest day(s) of the week? Very even 7 days a week

9. For the above table, what are your off-peak and peak seasons? Nov – Feb; Mar – Oct

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>	<i>Aircraft Types</i>
Rental	9	7 single engine, 2 multi-engine
Charter	3	1 Embraer Legacy, 1 Astra, 1 Gulfstream II
Air Taxi	1	Rotorcraft
Student Training	9	7 single engine, 1 multi-engine, 1 rotorcraft
Crop Dusting	0	
Other		
Total	22	

11. Please provide the following airfield data:

<i>Runway ID</i>	<i>Length</i>	<i>Width</i>	<i>Gradient</i>	<i>Surface Type</i>	<i>Marking</i>
1/19	5,000	100'		Concrete	NPI
14/32	6,000	150'		Concrete	PI

<i>Runway End</i>	<i>End Elevations</i>	<i>Visual</i>	<i>NP</i>	<i>P1/P2/P3</i>	<i>Displaced Threshold</i>	<i>Lighting</i>	<i>ALS</i>	<i>REILS</i>	<i>PAPI/VASI</i>
32	241.4								
14	230.0		P1		591'				PAPI
1	229.3								PAPI
19	231.0								PAPI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<i>Taxiway ID</i>	<i>Length</i>	<i>Width</i>	<i>Lighting</i>	<i>Surface Type</i>	<i>Access To</i>
A/D	5,000	50'	MITL	Asphalt	RWY 14 & 19
F/G	4,500	50'	MITL	Asphalt	RWY 32
J	1,200	50'	MITL	Asphalt	RWY 19
B	1,400	50'	MITL	Asphalt	RWY 1/19 & 14/32
C	1,400	50'	MITL	Asphalt	RWY 32

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

Runway 14/32 – Extension to 7,500' at 14 approach end

If no, when did runway reconstruction or rehabilitation last occur? Reconstructions: RWY 1/19 – 2007; 14/32 – 2008

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. 3,500' Extension to TWY A, between taxiway A and G. TWY Rehabilitations A and F, 7,500'.

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_



13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower (operational 5/09)	x		124.125	Automatic Terminal Information Service	x		118.325
Flight Service Station		x		Unicom	x		122.95
National Weather Service		x		Precision Approach Radar / MLS/ILS	x		108.7
Civil Air Patrol	x			Segmented Circle	x		
Automatic Weather Observing System (A, I, II, III, IV)		x		Centerfield Wind Indicator	x		
Automated Surface Observing System	x		118.325	Supplemental Wind Cone	x		
Non-Directional Radio Beacon (outer marker)	x		281	Remote Transmitter Receiver		x	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		x		Aircraft Rescue and Fire Fighting Facility		x	
Ground Communications Outlet		x		Remote Communications Outlet		x	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? TxDOT has programmed RWY 14/32 Extension and TWY rehabilitation. Other capital needs include: water and sewer installation; road construction for the South Terminal Area – 160 acres for aviation development; TWY A extension

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) Access Road at North West area

16. What do you view as the long-range potential for the airport? Will be the primary General Aviation airport for north Houston/The Woodlands/Lake Conroe Area.

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? Yes, broad support, no opposition.

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) Height Hazard Zoning Ordinance in place. No obstructions.

19. Have nearby residents complained of aircraft noise? No

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? Yes – considers airport compatibility in land use primary discussions and decisions.

Conroe Area Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective

I Airport History/Environment

In the 1950's the Montgomery County Airport, later named Lone Star Executive Airport (CXO) in the early 2000's, was leased by West Aviation where Mr. West based an old DC3. The facility sits on 1,277 acres and it had the potential to be an enormous economic engine to the region. The local government and their constituency had not yet discovered it.

It wasn't until the early 1960's that there was an effort by members of the community to encourage Montgomery County to take back control of the airport. However, the County still did not realize its economic value that was yet to come.

When Mickey Deison was elected County Judge in 1977, he pushed his commissioners to hire an airport manager. The County began to recognize the value of the facility in the early 80's. However, the airport languished for several more years.

In the early 1990's, with the growth of "The Woodlands" in the southern part of the County, elected officials began to appreciate the County's airport potential. They pursued sizeable state/federal funding for improvements and rehabilitation of runways. Later, to improve its public image and create an enhanced market identity, the airport's name was changed to Lone Star Executive Airport so it would no longer be perceived as a small rural airport.

II Goals/Objectives

The key objectives being pursued today are:

- A runway extension to 7,500 feet (possibly 8,000 feet)
- Provide better access to the airport from a major highway
- Develop the land around the airport into a thriving industrial park
- Design and construct a new corporate terminal

### III Initiatives

There are two initiatives that are driving the County to grow the airport:

1. The County has built a new jail facility and the prisoners are being transported by air. The County would like to be able to accommodate the air transport of those prisoners which requires additional runway length.

The current prisoner transport contract utilizes an MD 80; therefore, the runway must be extended to 7,500 feet. If the runway was developed to 8,000 feet, according to the focus group, "it would seal the deal." The County has a strategy to set up infrastructure to make this happen; probably by adding onto the current jail facility. The demand is that great!

2. Develop the air cargo market supported by the expanding opportunities in The Woodlands.

### IV Recommended Airport Enhancements

The focus group is working with TxDOT DOA to find funding to further extend the runway to the full 8,000 feet. An additional study is underway to investigate how there might be better access to the airport from a major highway. The development of a Class A corporate terminal, while not high on their immediate priority list, is recognized as a major enhancement if the County is going to attract light business jets and be recognized as a serious participant in the regional airport system.

### V Interviewers Conclusion

An energized and motivated team has been created between Montgomery County, City of Conroe and airport management to build Lone Star Executive airport into all it can possibly be. The team is extremely visionary and creative about how the airport can contribute to the economy, and they are aggressive in their marketing to outside businesses and corporate aviation companies. The group has developed incentive packages to attract business. Montgomery County has consistently hired the brightest individuals that have knowledge in all aspects of aviation to manage the airport.

Conroe Chamber of Commerce Interview  
Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber Name:</u>	Conroe Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Lone Star Executive Airport (CXO)
<u>Interview Date:</u>	December 17, 2008

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** With the extension and reconstruction of the primary runway from 14/32 to 7,500 feet, and the possibility of an additional extension of 500 feet taking the total runway length to 8,000 feet, the stakeholders expect the airport to be in a position to attract more business clients and larger aircraft. In addition, an FAA contract tower has been constructed and will open in 2009 providing more safety for the facility with controlled airspace. This tower will be a Class D in the federal contract tower program.

Additional positive activities helping to grow the airport:

- Improved instrumentation with a GPS approach for runway 32; the sponsor has applied for LPV for a secondary runway.
- The City of Conroe has created an industrial development corporation and has annexed all the area around the airport. They have hired a consultant to complete a six month transportation study to find better ways to access the airport with the focus on a direct connect between I-45 and the airport.
- The County is looking to acquire more land near the airport for through-the-fence operations. Construction of taxiways into private land that will house corporate relocations is being considered. In turn, this will increase the region's employment base. The objective is to attract corporate relocations from the larger Houston airports.
- The future may hold scheduled air service. Regional air service out of Conroe may evolve with a 7,500 foot runway but would be even more attractive with an 8,000 foot runway.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:**

- Texas Department of Criminal Justice (TDCJ) air transport into and out of the region.
- Air cargo operators
- Expansion of the industrial park with the headquarters of Reed Roller Bit relocation.
- The Bauer Company has just moved to the area and has built a \$300 million facility and employs 300 people. Their employment base is expected to increase to 700. They have acquired 375 more acres of land.

3. Where and what do you expect for the area's future growth?

**Answer:** The growth in Montgomery County is explosive, particularly in the Woodlands and Lake Conroe areas. The growth has been triggered by the economic climate, the abundance of trees and quality of life. The projected population by 2030 is one million, up 50 percent from the current population of 500,000.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- Efficient access from CXO to the interstate highway system
- Competing effectively against other general aviation airports, specifically Hooks Airport near Tomball (DWH)
- Compatibility with land around the airport
- Airport security

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** Refer to Question #1.

6. How could a better integrated airport system serve the community's needs?

**Answer:** The stakeholders indicated that in order to have the most efficient integrated airport system, control over the types of aircraft that go into different size airports should be considered. The large commercial passenger/cargo carriers should utilize the larger airports. The small, corporate/business aircraft should be restricted to the smaller general aviation airports. By not mixing the traffic, there would be added safety in flying, and better utilization of air space and the region's airport facilities.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** Expansion of the runway to 8,000 feet. Refer to Questions #1 and #2.

8. How can the airport support local business development?

**Answer:** Refer to Question #4.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** A new terminal would attract the corporate/business community as well as being a key element in successfully marketing the airport. With additional corporate activity, the airport should be perceived as a "gateway," not just to Montgomery County, but to the entire region. There should be an effort by the County to incorporate the current fixed base operation into a new terminal design.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** The airport has an excellent relationship with the community and its surrounding neighbors.

11. Is there organized opposition to airport development and expansion?

**Answer:** There has never been any organized or unorganized opposition to the airport.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** There is no upcoming legislation that would impact Lone Star Executive.

13. What environmental issues may affect airport use and development?

**Answer:** The airport director, Scott Smith, indicated that there were some wetlands issues.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

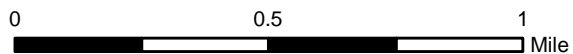
**Answer:** The airport has a current master plan.





**Legend - Land Use**

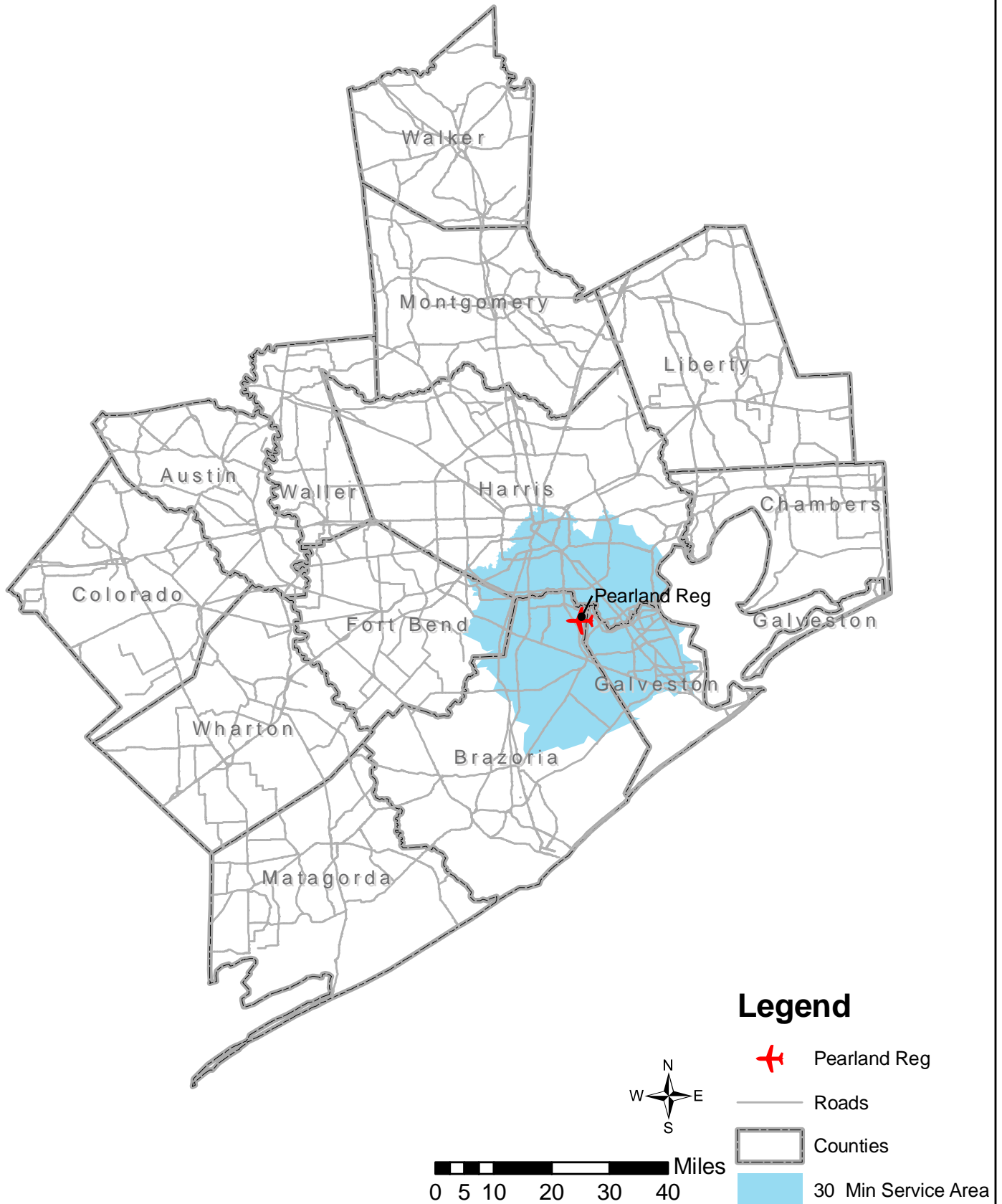
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Pearland Regional Airport

**2040 Regional Aviation  
System Plan Update**

# Pearland Regional Airport 30 min Service Area in 2009



**Pearland Regional Airport (LVJ)**  
*Airport Summary*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Pearland Regional Airport is privately owned and operated by Clover Acquisition Corporation.

**Airport Location**

Pearland Regional Airport is located in Brazoria County, Texas approximately 10 miles southwest from the Pearland central business district and 26 miles southwest of Houston. The airfield lies east of SH 35 and north of County Road 130.

**Existing Airport Facilities**

Pearland Regional Airport, including the airfield, hangars, and safety areas, encompasses approximately 450 acres. The Airport's Airport Identifier is LVJ. The facility is located at an elevation of 44 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°31'16.6"N (estimated) and longitude 095°14'31.7"W.

*Airfield Facilities*

Pearland Regional Airport currently has one (1) runway. Runway 14/32 is 4,313 feet in length and 75 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 8,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL). Runway 14/32 is equipped with Runway End Identifier Lights (REIL).

Runway 14/32 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 32
- VOR-B

A clear and green rotating beacon is located at the Airport providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone located midfield to the north of Runway 14/32. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

*Landside Facilities*

The landside facilities at Pearland Regional Airport include the FBO, T-hangars, and conventional hangars.

*Fixed Base Operator Facilities*

Pearland Regional Airport operates the only full-service FBO. Services include the following: airport management; aviation fuel; aircraft parking (ramp and tie-down); hangars; flight training; and aircraft rental.

*Aircraft Storage*



Aircraft storage at the Airport includes 40 tie-down spaces, T-hangars, and conventional hangars. Several T-hangars were damaged as a result of Hurricane Ike.

#### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Pearland Regional Airport. It is located across from the airport administration offices. It provides aboveground storage capacity for 12,000 gallons of Aviation Gasoline (AVGAS) and 12,000 gallons of Jet-A. Aircraft receive fuel by truck. AVGAS is available self-serve 24 hours by credit card machine.

#### Based Aircraft

In 2008, there were a total of 215 fixed wing aircraft based at Pearland Regional Airport. This includes 195 single-engine aircraft and 15 multi-engine aircraft. Additionally, there are six (6) helicopters based at the Airport.

#### **Interviewer Conclusion**

Airport management expressed that the need for additional hangar development especially as Houston Hobby continues to grow; it is displacing more general aviation users. The Airport has land to develop and is also looking to extend the runway. In the future, Pearland anticipates instrument approach procedures, an Airport Traffic Control Tower, and a new terminal with access from Pearland Parkway.

Pearland Regional Airport is a designated reliever.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: PRA

Airport Manager: A. M. RIVERA

Date: 12-17-08

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars	74	5			4		
T-Hangars	83	4					
Portable Hangars	8	0					
Tie-Down (Paved)	29	5					
Tie-Down (Unpaved)	1	1			2		
Total	195	15			6		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars					
Tie-Down (Paved)	2				
Tie-Down (Unpaved)					
Total	2				

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area		3
Based Aircraft Apron		31
Transient Aircraft Apron		6

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	N/A
AVGAS	80,000 GAL. / YR.
Jet-A	4,500 GAL. / YR.

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
12,000	AVGAS	ABOVE GROUND
12,000	JET A	ABOVE GROUND

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)	N/A	1 - 1500 GAL.	N/A
Frequency of Fuel Drops	"	1 / MONTH	"
Average Gallons per Drop	"	6,500 GAL.	"

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

**Number of Daily Operations\***

Aircraft Type	Off-Peak		Peak		% Night**
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine	20	50	80	100	LESS THAN 5%
Multi-Engine Piston	2	2	10	10	—
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. At what time of day does most of the activity occur at this airport? 4:00 PM UNTIL SUNSET

8. What are the busiest days of the week? SATURDAY + SUNDAY

9. For the above table, what are your off-peak and peak seasons? PEAK - SUMMER  
OFF PEAK - WINTER

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	11	10 SINGLE ENGINE LAND 1-MULTI ENGINE LAND
Charter	0	
Air Taxi	0	
Student Training	13	11 SINGLE ENGINE LAND 1-MULTI ENGINE LAND 1-ROTORCRAFT
Crop Dusting	0	
Other	0	
Total	24	



11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
14-32	4313	75'		CONCRETE	N.P.

Runway End	End Elevations	Visual	NP	P1/P2*	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
			✓	NONE	NONE	✓			NONE

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. RUNWAY 14-32, EXTEND

NORTH 300' AND SOUTH 400' TO BRING LENGTH TO 5,000'.

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		✓		Automatic Terminal Landing System			
Flight Service Station		✓		Unicom	✓		122.8
National Weather Service		✓		Precision Approach Radar / MLS/ILS		✓	
Civil Air Patrol		✓		Segmented Circle	✓		
Automatic Weather Observing System (A, I, II, III, IV)		✓		Centerfield Wind Indicator	✓		
Automated Surface Observing System	✓		118.525	Supplemental Wind Cone	✓		
Non-Directional Radio Beacon		✓		Remote Transmitter Receiver / Communications Facility	✓		124.0
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		✓		Aircraft Rescue and Fire Fighting Facility		✓	

14. Does the airport need new facilities in the next five years? (e.g., taxiways, aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? TAXIWAY BRAVO TO BE PUT IN

CONCRETE IN 2009.

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) TERMINAL BUILDING NEEDS TO BE

REPLACED.

16. What do you view as the long-range potential for the airport? THIS WILL BE THE  
PRIMARY G.A. AIRPORT ON THE SOUTH SIDE OF HOUSTON.

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) \_\_\_\_\_

19. Have nearby residents complained of aircraft noise? NO NOISE COMPLAINTS HAVE  
BEEN RECEIVED FOR OPERATIONS OFF THIS AIRPORT IN THE PAST YEAR.  
COMPLAINTS HAVE BEEN RECEIVED FOR COUNTY MOSQUITO SPRAYING FLIGHTS  
FOR LOW FLYING AIRCRAFT, BUT THOSE FLIGHT WERE NOT FROM THIS AIRPORT.

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? \_\_\_\_\_

**Pearland Economic Development Corporation**  
**Focus Group**  
**Summary Report**

Stakeholders Perspective

**I Airport History/Environment**

The airport, four decades ago, started out as a 400+ acre “fig farm” and was owned by the Perry Brown family. The airport was named Clover Field, but in 2006 became Pearland Regional Airport (LVJ). It is now privately owned by the Clover Acquisition Corporation. Clover Acquisition Corporation is funded by a trust set up by the Walter Hall estate. The president of the corporation is Charles Hall.

Pearland Regional Airport (LVJ) is a privately owned, public-use, reliever airport to Houston Hobby. It is in unincorporated Brazoria County, ten miles from Houston Hobby, south of the city limits of Pearland and 17 miles south of the central business district of Houston.

The airport is currently up for sale. In 2008, the Clover Acquisition Corporation had an appraisal done by the firm of Airport Business Solutions. It was **appraised at \$19.4 million.** Federal funding will be available for portions of the airport that are eligible for such if acquired by a public sponsor. The airport director has indicated that LVJ will be marketed at \$15 million.

There is an organization that is considering placing a manufacturing facility at the airport that will produce “flying cars.” If they move forward, they have discussed investing significant amounts of money in the airport infrastructure; and perhaps, purchasing the airport. There has been approximately \$12 million of federal funds invested for airport improvements over the past decade and a half.

**II Goals/Objectives**

Major goals of private owners are:

- Extend the runway
- Annexation of the airport property by the City of Pearland
- Undertake an airport master plan update
- Sell the airport to a public entity leveraging federal dollars

### III Initiatives

LVJ has been positioned for over 10 years to receive AIP federal funding for airport improvements. Currently, over that period they have received approximately \$12 million. LVJ receives 95/5 matching funds from TxDOT Aviation. They also received state non-entitlement money which requires a 90/10 match.

### IV Recommended Airport Enhancements

The Focus Group would like to see the runway expanded to make the airport more marketable. Additional land acquisition will be required. There are serious access issues with no direct route off of SH35 to reach the airport. It is difficult to find.

### V Interviewer's Observations

There is a certain amount of reservation within the constituency about the airport becoming a public entity and owned by the City of Pearland.

There is a need for a clear “plan of action” on how the City should proceed. The Focus Group supports the airport undertaking an updated master plan that would provide direction for airport development; however, they do not support an overindulgent study of how Pearland should acquire the airport.

The stakeholders support the concept of an integrated airport system within the region but tie the area’s aviation economic impact more with Houston Hobby and Ellington Airport. There was no mention of the Brazoria County Airport, or how it aids the county economically; although Pearland resides in the north part of Brazoria County.

**Pearland Economic Development Corporation Interview**  
*Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan*

<u>Economic Development Corp:</u>	Pearland EDC
<u>Economic Development Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Pearland Regional Airport (LVJ)
<u>Interview Date:</u>	January 14, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** It is unlikely that Pearland Regional Airport (LVJ) would change from a general aviation facility with a few light jets flying in to pick up passengers. The airport is limited by runway length and opportunities to expand runway length; therefore, it will probably stay a general aviation airport. The airport master plan identifies the potential to lengthen the runway to over 5,000 ft., but this will require additional land. The Focus Group looked into the future and saw:

- Basing light jets at LVJ
- Hobby's encroachment may promote growth at LVJ.
- Ellington and LVJ should work together to enhance general aviation business at both facilities.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** Discussions have occurred between the City of Pearland and the Clover Acquisition Corporation (owners) regarding the City acquiring Pearland Regional Airport, a privately owned, public use reliever airport to Houston Hobby.

- LVJ could attract business related to aviation and relieve Hobby general aviation traffic.
- Airport is located on over 300 acres and there are opportunities for light business development. Additional land is available adjacent to the airport.
- Pearland Parkway is expected to be expanded near the airport providing better ground access. There is no direct access to the airport from SH35.
- The railroad, on the opposite side of SH35, is somewhat operational and might create some intermodal opportunities.

EDC's current marketing efforts have dealt with companies that do not need access to an aviation facility. They have not focused on aviation related companies that service aircraft or have an airport need; i.e, airframe, power plants, avionics, aircraft mechanics and aviation maintenance.

LVJ business potential could be an aviation educational facility that teaches an array of aviation skills such as an extension of Emily Riddle University. Perhaps educational training, as it relates to offshore safety training, could base a school at the airport.

### 3. Where and what do you expect for the area's future growth?

**Answer:** Growth is happening throughout Pearland, but is concentrated on the west side of town due to larger tracts of undeveloped land still available. (Improvements to the Pearland Parkway will provide some growth on the east side of the City.). There will be a combination of residential, commercial and industrial growth. Other areas of growth:

- Industrial land off SH35 near the airport. This is a long term growth area.
- A small industrial park off SH35 and one north of Mykawa Road, with the concentration of industry down Mykawa towards Beltway 8.
- Industry closest to LVJ would be the Industrial Road area.
- EDC is attempting to attract Class A offices, corporate, medical related research, and technology.

If the City acquired the airport and turned it into an enterprise, the EDC could market it as an asset base. The economic timing is not right for such a venture.

### 4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** The citizen's perception of the airport creates a problem for the City to consider acquisition. The Pearland constituents are not aware of LVJ economic importance to the area. The "less than enthusiastic" perception has to be addressed before the City can move forward. Other actions need to happen:

- City should consider annexation of the airport.
- City needs a clear vision about how they intend to develop the airport. (Tools needed to aid in that decision are an updated master plan showing future airport improvements and a strategic marketing action plan.)
- Height hazard zoning has not been put in place. (Note: Clover Acquisition Corporation's position is that the City should be responsible for the zoning.) Owners do not have condemnation capabilities where as the public sponsor would have. However, owners are negotiating with neighbors in order to create needed runway clear zones.

### 5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** Airport improvements would add a significant amount to the industrial and commercial tax base. These increased revenues could be reinvested into other programs to improve the rest of the City. The Focus Group feels that residential development is the best growth area to expand the tax base. The EDC is pursuing commercial and industrial opportunities.

### 6. How could a better integrated airport system serve the community's needs?

**Answer:** The stakeholders are very supportive of having a more integrated airport system where all facilities work and support each other. The City's position is to strongly support Houston's commercial airports (IAH and HOU), and not focus on competing against them in the area of general aviation. Pearland Regional could assist in relieving some of Hobby's general aviation traffic pressures. A



collaborative effort would benefit all involved, and possibly help LVJ become more than even they can envision. Picking up the” leftovers” from other airports, or providing services nearby that other airports do not have, would be beneficial. “Sometimes a piece of the cake is better than trying to get the whole cake”.

Pearland, before it acquires an airport, needs to make sure any changes to that facility will fit into the community fabric.

It would be beneficial to the entire region if all three near airports (LVJ, Hobby, and Ellington) discuss how they could become more integrated with some type of memorandum of understanding. Retaining aircraft is important to enhancing tax dollars. Researching other airports and cities that have made a transition from being privately owned to being purchased by a public entity would be helpful to the City of Pearland before serious acquisition is considered.

The Focus Group does not support studying a long term process of how to acquire Pearland Regional Airport. The City is already been close to having adequate due diligence to make a final decision.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** There major focus in Pearland is improved streets and roads. Good roads will bring more development and stimulate the local economy. The Pearland Parkway was a central topic of discussion during the interview. The Parkway will extend to Dixie Farm Road, then on past the airport. Right-of-way is in the process of being secured. Dixie Farm Road is undergoing improvements and also SH35 north of FM518.

8. How can the airport support local business development?

**Answer:** The Focus Group does not believe the airport does anything substantial to support local business other than provide a facility to base aircraft and have flight training.

**Note: Andy Rivera, Airport Director joins the Focus Group at this time.**

- The airport has 3 - 5 million sq. ft. of land available for lease; some of that can be used for non-aviation purposes.
- Airport is working with a group interested in leasing 20 acres. This prospect is going to manufacture flying cars. That will create 500 – 2,000 jobs. The concept still has to be approved by the FAA.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer: (Rivera)** With the economy in turmoil, this is a hard prediction. The airport does have the capabilities to become a light jet port, which they have been pursuing. LVJ is strategically located within the region, close to Hobby, Ellington and NASA.

Hobby will grow as a commercial service airport, and is obligated by the federal government to support general aviation, but as they develop their facilities, they will displace general aviation. The general aviation aircraft will either go to Ellington Airport or LVJ.

With LVJ's development of a 5,000 foot runway, the facility will be more attractive to aircraft owners looking for another home. The new runway will have pavement designed for 30,000 lbs, single wheel, which allows almost all the general aviation aircraft to take off and land with 5,000 feet of runway. There are current improvements going on with the existing runway that will add 302 feet expanding the runway to 4,615 feet. This is due to be completed by October 2009.

Pearland Regional Airport as a gateway:

- The airport's name change from Clover Field to Pearland Regional Airport in July 2003 was to aid in changing the image whereby it would be perceived as a gateway.
- The owners have received funding from the FAA for Taxiway B extension to CR127. Approval has also been received from the Corps of Engineers to fill in the pond at the north end of the runway. They will do that as part of this project by taking the fill out and putting it in the pond.
- The airport manager thinks there is a possibility to extend the runway to 6,500 ft. and still have the clearances necessary to CR127.

10. What types of community relationships does the airport have with its neighbors?

**Answer: (Rivera)** Relations are better than they were ten years ago, but there are still some reservations about the airport and how it fits into the economic development of the area. The airport owners have worked with the surrounding neighborhoods to keep them informed on what improvements are taking place. Most of the people around the airport now are "airport friendly." There still needs to be an open discussion defining what the future of the airport is going to be. Currently, the airport has a good relationship with the community. Neighbors convey they are comfortable with the airport, but certain concerns still remain.

Local concerns:

- Afraid of airport growth and increased activity
- Development of a longer runway and increased noise with larger aircraft
- Uncomfortable about what will happen in the future
- The helicopters based at the airport do create noise complaints.
- Certain lack of awareness among several of the surrounding neighborhoods that the airport exists.

11. Is there organized opposition to airport development and expansion?

**Answer: (Rivera)** There is no organized opposition to the airport improvements, but it would be naive to believe they could not develop if the airport continues to expand with more traffic. Airport management does have a consistent message about airport growth: "If LVJ becomes a light jet airport, the area will have either equal or slightly higher activity level, but the noise will actually be reduced, because of the improved technology of the light jets produce today."

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer: (Rivera)** There are discussions about how federal dollars should be administered to the reliever airports. In the past, the State of Texas was able to act as an agent for a reliever airport. TxDOT – DOA would contract out the funded airport projects. TxDOT would accept the grants from the FAA for the airports.

This arrangement is now being challenged. As a result, the airport manager would like language in common legislation changed to allow the state to continue to be the airport's agent, whereby TxDOT would continue to handle the administration of the grants and the contracting of the services.

13. What environmental issues may affect airport use and development?

**Answer: (Rivera)** The airport does not have issues in this area. Airport management has been working closely with the drainage district in an effort to complete a Phase 2 environmental assessment for the 22 acres across CR130. This is required for the runway to be extended.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The last airport master plan was done in 1992 and there have been no updates since that time because of the cost, which is estimated at \$300-350,000. There have been regular updates to the "airport layout plan (ALP)" which is the end product of a master plan process. FAA in-house has been handling the revisions to the ALP for the past three years.

A new updated master plan will be required in the near future because of the amount of changes that have taken place with the footprint of the airport.

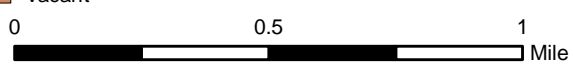
15. Do you know of other people or groups that we should contact?

**Answer:** Involvement by the City of Pearland and the local EDC should provide the RASP team adequate information on how the area perceives the airport for the future.



**Legend - Land Use**

- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant

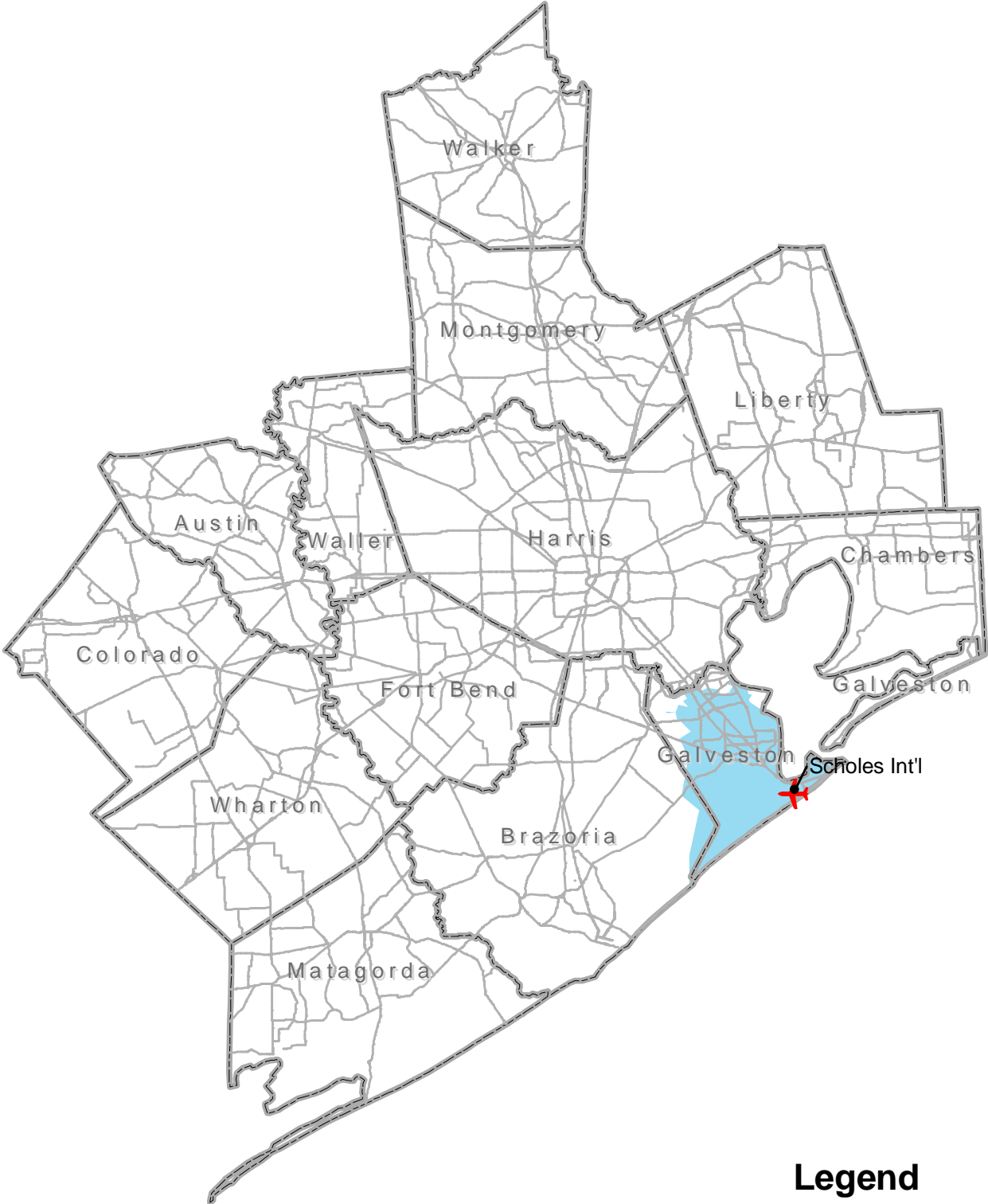


# Scholes International Airport


**2040 Regional Aviation System Plan Update**



# Scholes International Airport 30 min Service Area in 2009



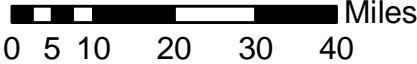
### Legend

 Scholes Int'l

 Roads

 Counties

 30 Min Service Area



## **Scholes International at Galveston (GLS)**

### *Airport Summary*

### *Houston-Galveston Area Council*

### *Regional Aviation System Plan*

Scholes International at Galveston is publicly owned and operated by the City of Galveston.

#### **Airport Location**

Scholes International at Galveston is located in Galveston County, Texas approximately four (4) miles southwest of the Galveston central business district and 50 miles southeast of Houston. The airfield lies south of Interstate 45 and west of Hope Boulevard.

#### **Existing Airport Facilities**

Scholes International at Galveston, including the airfield, hangars, terminal, and safety areas, encompasses approximately 1,200 acres. The Airport's Airport Identifier is GLS. The facility is located at an elevation of 6 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°15'55.2"N (estimated) and longitude 094°51'37.5"W.

#### *Airfield Facilities*

Scholes International at Galveston currently has two (2) runways. Runway 13/31 is 6,000 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a dual tandem wheel load of 90,000 pounds or less. The runway is constructed of asphalt over concrete and is in good condition. The runway is equipped with High Intensity Runway Lighting (HIRL) and four-light Precision Approach Path Indicators (PAPI) on the left of both runway ends. The Runway 13 end is also equipped with Medium-Intensity Approach Lighting System with Runway Alignment Indicator. The Runway 31 end is equipped with Runway End Identifier Lights (REIL).

Runway 17/35 is 6,001 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a dual tandem wheel load of 90,000 pounds or less. The runway is constructed of concrete and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL), four-light Precision Approach Path Indicators (PAPI) on the left of both runway ends, and Runway End Identifier Lights (REIL) on both runway ends.

Runway 13/31 is classified as a Precision Instrument Approach runway. Runway 17/35 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- ILS or LOC RWY 13
- RNAV (GPS) RWY 13
- RNAV (GPS) RWY 17
- RNAV (GPS) RWY 31
- RNAV (GPS) RWY 35
- VOR RWY 13



Taxiway A is a connector taxiway serving the ends of Runways 31 and 35. Taxiway B connects the terminal apron with Runway 31. Taxiway C connects Runway 17-35 with Taxiway B. Taxiway D provides access from Runway 13/31 with the ramp on the east side of the field and intersects with Runway 17/35. Taxiways A, B, C, and D are 75 feet wide, constructed of concrete, and have medium intensity taxiway lighting (MITL).

Taxiway E connects the Runway 17 end with the aviation facilities to north of the airfield. Taxiway G is a parallel runway to the closed runway and extends from Taxiway E to Taxiway H. Taxiway H connects the Runway 13 end to Taxiway G. Taxiways E, G, and H are 100 feet wide, constructed of concrete, and have medium intensity taxiway lighting (MITL).

A clear and green rotating beacon is located on top of the terminal building providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

An Airport Traffic Control Tower (ATCT) serves GLS. Hours of operation are seven (7) days a week, 6 AM to 6 PM.

### *Landside Facilities*

The landside facilities at GLS include the terminal, FBO, T-hangars, Port-a-Port hangars, executive and conventional hangars. The terminal was severely damaged by Hurricane Ike.

### *Fixed Base Operator Facilities*

Galveston Aviation Services operates the only FBO. The FBO offers the following services: aviation fuel; GPU / power cart; aircraft charters; aerial photography; catering; rental cars; pilot lounge / snooze room; public telephone; computerized weather; internet access; and restrooms.

### *Aircraft Storage*

Aircraft storage at GLS includes tie-down spaces, T-hangars, Port-A-Port hangars, executive and conventional hangars. Several of these facilities were damaged by Hurricane Ike.

### *Aircraft Fueling Facilities*

The fuel farm, located on airport property, is operated by GLS. It is located adjacent to the Aircraft Rescue and Firefighting Facility (ARFF). It provides aboveground storage capacity for Aviation Gasoline (AVGAS), Jet-A, and Motor Gasoline (MOGAS). Aircraft receive fuel by truck. AVGAS is available self-serve 24 hours by credit card machine.

### *Based Aircraft*

In 2008, there were a total of 114 fixed wing aircraft based at GLS. This includes 91 single-engine aircraft, 21 multi-engine aircraft, and two (2) jets. Additionally, there are 24 helicopters, one (1) glider, and two (2) ultra-lights based at the Airport.

### **Interviewer Conclusion**

Scholes International at Galveston was severely impacted by Hurricane Ike. The Airport had approximately nine (9) feet of water on it. The lower portion of the Terminal was flooded, several other structures destroyed, and approximately 25 aircraft were damaged during the

storm. The ILS, glide slope, VOR were also damaged and FAA is currently working to restore these critical NAVAIDS. Additionally, Enterprise Car Rental lost 12 rental cars.

The pavement at GLS was not impacted. Many improvements from runway rehabilitation, taxiway concrete replacement, and restriping had been completed before the storm occurred.

The Airport is making steps to install new lighting and refurbish the lower level of the terminal. There are no plans for a restaurant, but an internet cafe is planned for the terminal.

The Airport's long-term goals include providing good service to the corporate and fractional ownership clients. Additionally, GLS intends to market towards off-shore drilling.

According to airport management, GLS is self-sustaining. The Airport has good support from the City and very little opposition from the public. It has been noted that the Airport generates as much revenue as the Port. The Airport owns land that is leased by a golf course, a water park, and Moody Gardens.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Scholes International at Galveston

Airport Manager: Hud Hopkins

Airport Owner: City of Galveston

Date: February 4, 2009

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars							
T-Hangars							
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
<b>Total</b>	91	21		2	24	1	2

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
<b>Total</b>					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	CONFIDENTIAL
AVGAS	CONFIDENTIAL
Jet-A	CONFIDENTIAL

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
CONFIDENTIAL	AVGAS	ABOVEGROUND
CONFIDENTIAL	JET-A	ABOVEGROUND
CONFIDENTIAL		

5. Please provide the following information about your fueling operation.

<b>Item</b>	<b>MOGAS</b>	<b>AVGAS</b>	<b>JET-A</b>
Number of Fuel Trucks / Capacity of each (gallons)	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
Frequency of Fuel Drops	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
Average Gallons per Drop	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<b>Aircraft Type</b>	<b>Number of Daily Operations*</b>				<b>% Night**</b>
	<b>Off-Peak</b>		<b>Peak</b>		
	<b>Weekday</b>	<b>Weekend Day</b>	<b>Weekday</b>	<b>Weekend Day</b>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 6AM – 1PM

Helicopter traffic ends by 1PM

8. What is the busiest day(s) of the week? Consistently busy 7 days a week

9. For the above table, what are your off-peak and peak seasons? Summer

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<b>Primary Use</b>	<b>Number</b>	<b>Aircraft Types</b>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
<b>Total</b>		

11. Please provide the following airfield data:

<b>Runway ID</b>	<b>Length</b>	<b>Width</b>	<b>Gradient</b>	<b>Surface Type</b>	<b>Marking</b>
17-35	6001'	150'	.1%	CONCRETE	BASIC
13-31	6000'	150'	.1%	ASPHALT	PRECISION

<b>Runway End</b>	<b>End Elevations</b>	<b>Visual</b>	<b>NP</b>	<b>P1/P2/P3</b>	<b>Displaced Threshold</b>	<b>Lighting</b>	<b>ALS</b>	<b>REILS</b>	<b>PAPI/VASI</b>
17	5.5'		X			MIRL		Y	P4L
35	4.6'		X			MIRL		Y	P4L
13	5.4'		X	X		HIRL	MALS R		P4L
31	4.6'		X	X		HIRL		Y	P4L

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<b>Taxiway ID</b>	<b>Length</b>	<b>Width</b>	<b>Lighting</b>	<b>Surface Type</b>	<b>Access To</b>

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

\_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

\_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower	X			Automatic Terminal Information Service			
Flight Service Station				Unicom			
National Weather Service				Precision Approach Radar / MLS/ILS	X		
Civil Air Patrol				Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)				Centerfield Wind Indicator	X		
Automated Surface Observing System				Supplemental Wind Cone			
Non-Directional Radio Beacon				Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)				Aircraft Rescue and Fire Fighting Facility	X		
Ground Communications Outlet				Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16. What do you view as the long-range potential for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport)\_\_\_\_\_

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19. Have nearby residents complained of aircraft noise?\_\_\_\_\_

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport?\_\_\_\_\_

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Galveston Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective

I Airport History/Environment

Galveston-Scholes International Airport (GLS) was seriously damage by Hurricane Ike on September 13, 2008.

The airport is a former military field that has served the Galveston Island community for several decades. It is currently owned by the City of Galveston and the only publicly owned airport in Galveston County. Scholes has two 6,000 foot runways that can accommodate almost any aircraft, but it is a primary base for numerous helicopter operations that serve the off-shore drilling petrochemical industry located in the Gulf of Mexico. It has recently opened an FAA contract control tower that has enhanced safety at the airport.

Scholes sits on 1,200 acres and is surrounded by three major entertainment/tourism venues which attract aircraft to the area:

- Moody Gardens Hotel and Convention Center
- Schlitterbahn Water Park
- Lone Star Flight Museum

II Goals/Objectives

The airport's current major objective is recovery from the 2008 hurricane.

In the next decade, stakeholders would like to see commercial and charter air service established at the airport. Other objectives mentioned:

- Medical (fixed or rotor) operation to be based at the airport
- Develop facilities to become an even stronger emergency response airport.
- Rebrand the airport as the "Gulf Coast Recreation Gateway" or "Gateway to Central and South America."
- Secure Customs and Immigrations.
- Provide ground transportation between the airport and the Galveston Strand, as well as to area beaches.

- Stronger public outreach and education about the airport as an area asset
- Increase its priority of importance with the City's elected officials.

### III Initiatives

At this time, the major initiative is focused on hurricane recovery.

### IV Recommended Airport Enhancements

One enhancement, or service, that needs to be improved is ground transportation for the airport's customers to the city, downtown and beach areas.

### V Interviewers Conclusion

Scholes Airport is a major emergency access airport when disaster strikes in the Gulf of Mexico. It is a strong hub operation for helicopters serving off-shore drilling in the Gulf. All of this is recognized by the stakeholders, but they believe the City's airport can contribute more. The airport needs to develop a comprehensive marketing action plan.

The focus group was very enthusiastic about sharing the issues associated with the airport with equally strong opinions about resolution. It was a general consensus that the airport needs an additional FBO operation that would be more aggressive about marketing to the general aviation community. The loss of so many based aircraft, along with the facilities damage after the storm, has had an immediate economic impact on the airport. This impact at the airport should have been softened some with off-shore drilling restarting operations, and aviation providing support to government agencies serving the storm area in its recovery.

Since Scholes is so close to Houston Hobby Airport, it is not expected that the community can attract a legacy and/or a commuter carrier to provide commercial air service.

**Galveston Chamber of Commerce Interview**  
*Stakeholders Focus Group*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

<u>Chamber Name:</u>	Galveston Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Scholes International Airport (GLS)
<u>Interview Date:</u>	February 4, 2009

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**Stakeholders Perspective**

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:**

The stakeholders desire to see Scholes International Airport (GLS) have scheduled air service (Part 121) and charter operations (Part 135), which are both very high on the 10-year expectation list.

Changes in the next ten years should be in these areas:

- Rotor wing and/or fixed wing medical operation based at airport
- Better airport promotions/marketing that is focused around the four major areas of recreation attractions that are airport neighbors:
  - Schlitterbahn Water Park
  - Moody Gardens
  - Lone Star Flight Museum
  - New Golf Course
- Promotionally brand the airport in one or a multitude of areas. Some suggested brands are:
  - Gateway to the City of Galveston,
  - Gateway to the Gulf of Mexico and South/Central America,
  - Gateway to the Texas Coast Medical Center.
- Improved/Replace the FBO.
- Secure Customs and Immigration at the airport as an entry point for Latin American traffic.

- Better ground transportation for the airport's customers to surrounding areas. There is currently no link between the airport and downtown Galveston or the beach areas.
  - Become an even stronger emergency response airport.
2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The area, including the airport, is in post-hurricane recovery so economic development is presently slow everywhere. The storm has provided an opportunity for old airport structures to be eliminated or improved. There is a tax incremental reinvestment zone around the airport, which includes 1800 acres and is referred to as "the airport zone." The first big enterprise was the residential development just west of the airport that has been very successful. The reinvestment zone has been in place for 30 years, but became active in 2005. Before the storm, it was accelerating rapidly.

The Focus Group agreed that general aviation plays an important role in the future of the island. The large offshore petrochemical helicopter traffic, and the fuel required for these operations, is currently the major revenue stream for the airport.

There are a number of studies in Galveston underway after Hurricane Ike which has a peripheral impact on this airport. The airport is not being addressed in these studies. This is a concern by many of the stakeholders. Studies mentioned were:

- Transportation study to link Houston to Galveston with high speed rail – 79 mph trains.
- Bus service to a terminal in downtown Galveston that would link all the attractions
- Pelican Island Container Site Study

The area is spending \$20 million to put sand on the 26 miles of beaches that were destroyed by Hurricane Ike. This is a 5-year effort.

Some economic growth is coming from two new hotels under construction giving Galveston 5,000 available rooms.

3. Where and what do you expect for the area's future growth?

**Answer:** As stated above, Hurricane Ike has disrupted everything. The stakeholders were not sure which real estate development will survive. The general outlook is that it may not be better than before the storm. The far east and west ends of the island have room for future growth. The storm destruction in the Strand downtown area is being addressed in part with a \$22 million contribution from George Mitchell. FEMA has announced that it will pump \$99 million into the area in storm recovery.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- Space availability for future airport growth
- Lack of a champion for the airport within the community or among the City's elected officials
- Lack of public appreciation. The general population does not understand what an asset the airport is to the Region. Lack of outreach to the community to educate them about the airport.
- Noise - There are some complaints about helicopters flying over houses. One stakeholder said during the meeting, "They (airplanes/helicopters) are flying the pattern that has been designated by the FAA. How much does it really bother you? It's the sound of money, listen to it."

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** This airport lost 37 based aircraft during Hurricane Ike. More base planes are needed to improve airport revenues.

Currently 70% of the movement at the airport comes from helicopters. The off-shore petrochemical drilling operations in the Gulf of Mexico are pushing further and further out into the Gulf. Air transportation is required to get the crews and equipment to the rigs. Scholes Airport is the hub for the regions helicopter transportation activity. The helicopter traffic out of the airport was the justification behind the FAA contract tower that was recently constructed.

6. How could a better integrated airport system serve the community's needs?

**Answer:** An integrated airport system is key to overall aviation development in the Houston-Galveston region. Scholes is a major asset in supporting the medical transportation needs of the state and off-shore operations. Every avenue possible, from Austin to Washington, is being taken to restore the medical community on the island after Hurricane Ike that destroyed the UTMB medical complex.

The stakeholders feel they need a bridge with Shiner's Hospital. It was an important part of the UTMB complex and a huge employment center for the island. Scientists are back and working. It is projected that it will take approximately five years to restore this facility to its prior state before the storm.

UTMB is an infrastructure owned by the State of Texas . It had a specific purpose within the state's medical community, and was the island's largest employer.

The Focus Group encouraged the development of a Galveston hospital district, which means an expansion of the tax base that is needed to aid with recovery after the storm. Galveston is the only place in the State of Texas with a major hospital complex that does



not have a medical district with taxation; therefore, there is no local financial support for the hospital.

As part of the integrated airport system Scholes would be the air support for the medical complex with medical charters based at the airport facility.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See Question 1 on tourism and major attractions and Question 6, relating to medical support.

8. How can the airport support local business development?

**Answer:** It is not only how the airport can support local business development, but it is also how the businesses can support the local airport.

- Business in Galveston should include the airport as part of their advertising and promotions budget
- Scholes is an employment center. As it grows, more jobs will be created.
- Scholes is a Gulf Coast emergency access airport.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** Currently, the airport could be defined as an "Off Shore Petrochemical Gateway" from the business perspective and a "Gulf Coast Recreational Gateway" for tourism. There was also discussion about Galveston being the "Gateway to Central and South America."

10. What types of community relationships does the airport have with its neighbors?

**Answer:** Currently, the relationship between the airport and its neighbors is good. The community is focusing on storm recovery, not aircraft noise issues. There has been some re-routing of helicopter traffic to reduce noise around the schools.

11. Is there organized opposition to airport development and expansion?

**Answer:** None at this time.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** The largest impact on the airport from a legislative standpoint is the security requirements that have been put in place since 9/11 by the TSA.

13. What environmental issues may affect airport use and development?

**Answer:**

- Wetlands and drainage
- The airport's official height is 6ft above sea level.
- Minor noise issues, which is more a matter of discipline with pilots.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The Airport Master Plan was last updated in 2003 by Coffman & Associates

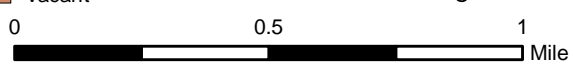
15. Do you know of other people or groups that we should contact?

**Answer:** It was suggested that Galveston County might wish to discuss the airport utilization and better integration of the facility into the entire system. The county judge has been very supportive of the airport. In the tax incremental reinvestment zone mentioned in Question #2; the county has contributed more money to the airport than the airport sponsor.



**Legend - Land Use**

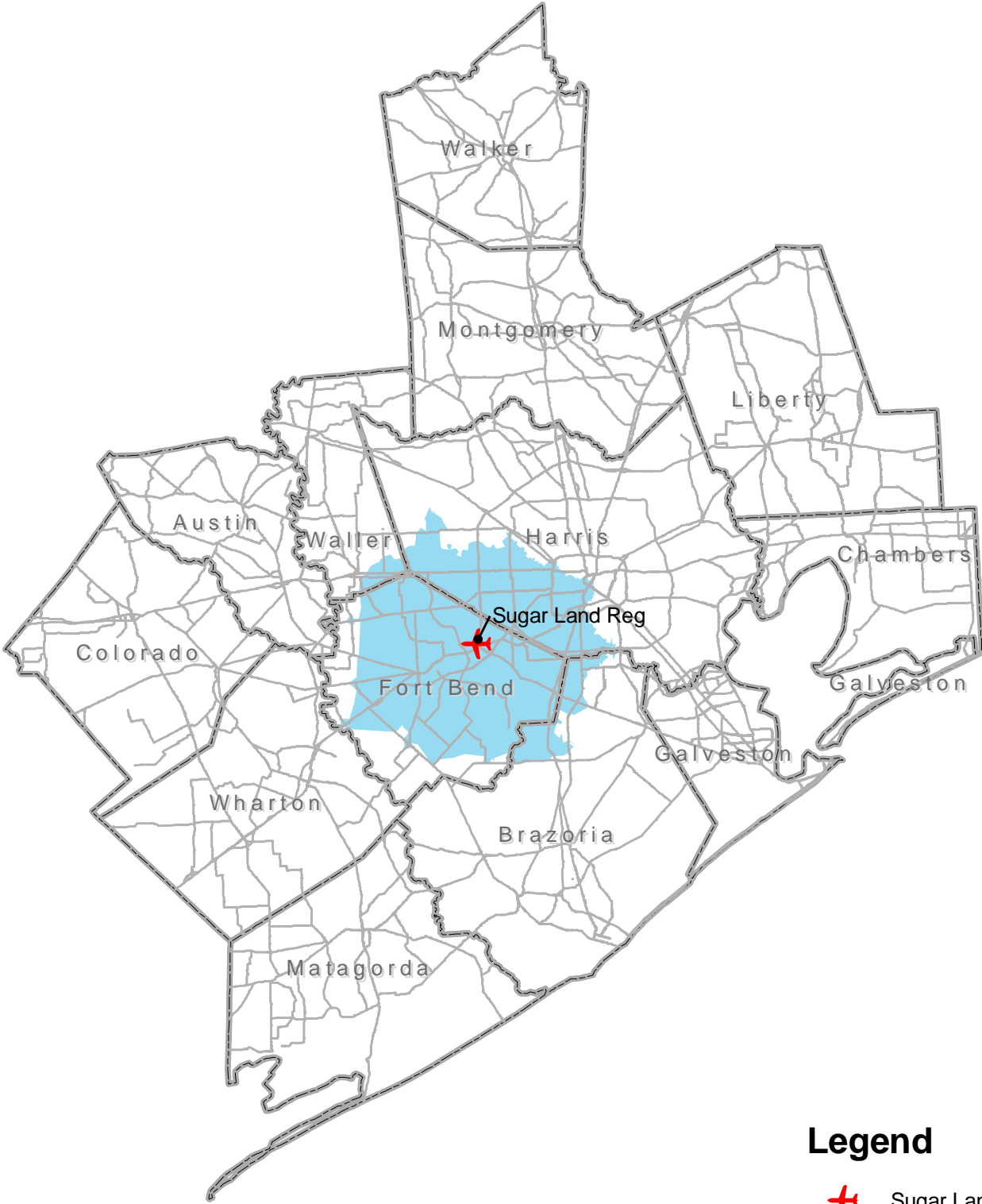
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant




# Sugar Land Regional Airport

**2040 Regional Aviation  
System Plan Update**

# Sugar Land Regional Airport 30 min Service Area in 2009



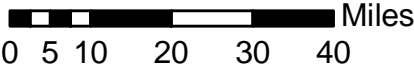
## Legend

 Sugar Land Reg

 Roads

 Counties

 30 Min Service Area



**Sugar Land Regional Airport (SGR)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Sugar Land Regional Airport is publicly owned and operated by the City of Sugar Land.

**Airport Location**

Sugar Land Regional Airport is located in Fort Bend County, Texas approximately four (4) miles northwest from the Sugar Land central business district and 26 miles southwest of Houston. The airfield lies west of SH 6 and north of US 90.

**Existing Airport Facilities**

Sugar Land Regional Airport, including the airfield, terminal, hangars, and safety areas, encompasses approximately 426 acres. The Airport's Airport Identifier is SGR. The facility is located at an elevation of 82 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°37'20.1"N (estimated) and longitude 095°39'23.5"W.

**Airfield Facilities**

Sugar Land Regional Airport currently has one (1) runway. Runway 17/35 is 8,000 feet in length and 100 feet wide with pavement strength rated to accommodate aircraft with a double dual tandem wheel load of 600,000 pounds or less. Currently, there is a displaced threshold of 380 feet on the Runway 17 end and 1,984 feet on the Runway 35 end. The runway is constructed of concrete and is in good condition. The runway is equipped with High Intensity Runway Lighting (HIRL) and a two-light Precision Approach Path Indicator (PAPI) on the right of the Runway 17 end and a four-light PAPI on the left of the Runway 35 end. Runway 17/35 is equipped with Runway End Identifier Lights (REIL).

Runway 17/35 is classified as a Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- ILS RWY 35
- RNAV (GPS) RWY 17
- RNAV (GPS) RWY 35
- VOR/DME-A
- NDB RWY 17

A clear and green rotating beacon is located at SGR providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone located midfield and west of Runway 17/35. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

An Airport Traffic Control Tower (ATCT) serves SGR. Hours of operation are seven (7) days a week, 6 AM to 10 PM.



### Landside Facilities

The landside facilities at SGR include the Terminal, U.S. Customs facility, T-hangars, and conventional hangars.

### Fixed Base Operator Facilities

Sugar Land Regional Airport operates the only full-service FBO. Services include the following: airport management; aviation fuel; aircraft parking (ramp); hangars; passenger terminal; pilot lounge / snooze room; car rental; flight training; and aircraft rental.

### Aircraft Storage

Aircraft storage at SGR includes tie-downs, T-hangars, and conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by SGR. It is located on the western edge of the airfield. It provides aboveground storage capacity for 15,000 gallons of Aviation Gasoline (AVGAS), 70,000 gallons of Jet-A, 2,000 gallons of Motor Gasoline (MOGAS), and 2,000 gallons of diesel. Aircraft receive fuel by truck. In the future, SGR plans to have 12,000 gallons of AVGAS available by self-serve 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 125 fixed wing aircraft based at SGR. This includes 65 single-engine aircraft, 20 multi-engine aircraft, 15 turbo-props, and 25 jets. Additionally, there are two (2) helicopters based at the Airport.

### **Interviewer Conclusion**

Sugar Land Regional Airport is a designated reliever. It is a very dynamic airport with leadership that has maintained a strong vision for the Airport. It is an "airport of choice," marketing to corporate and wealthy clientele. SGR has very high standards. The terminal is incredibly beautiful and the Airport itself is aesthetically pleasing. People know they are in Texas when they arrive at SGR.

The Airport has plans to acquire prison property, which will open the west side of the Airport up for further development. This development includes a taxiway, offices, and hangar facilities.

The Airport has a substantial amount of support from the City. Airport management indicated that the City Council and the Mayor are behind the Airport 100 percent.



Airport Name: Sugar Land Regional Airport

Airport Manager: Phillip W. Savko

Airport Owner: City of Sugar Land

Date: January 13, 2009

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	11	3	15	25	2	0	0
T-Hangars	43	16	0	0	0	0	0
Portable Hangars	0	0	0	0	0	0	0
Tie-Down (Paved)	11	1	0	0	0	0	0
Tie-Down (Unpaved)	0	0	0	0	0	0	0
Total	65	20	15	25	2	0	0

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored. **Note: We average 2/day and house in our gang hangar – could be any size aircraft, but more than likely corporate jet.**

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars	See note above.				
Tie-Down (Paved)	0	0	0	0	0
Tie-Down (Unpaved)	0	0	0	0	0
Total					

3. Please indicate the amount of ramp space available for aircraft parking: (No T-hangar complex included)

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area (SOLAPP & Houston Aviation & All Around)	4,300	0
Based Aircraft Apron (BPC)	10,000	0
Transient Aircraft Apron (Terminal)	57,000 SY	0

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	N/A
AVGAS	192,000 gallons per year
Jet-A	2,208,000 gallons per year

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
Mogas-2,000 / Diesel-2,000	Mogas – Diesel	Above ground
15,000 & future 12,000 self serve	AvGas	Above ground
70,000: 2 - 20,000, 1 – 30,000	Jet-A	Above ground

5. Please provide the following information about your fueling operation.

<i>Item</i>	<i>MOGAS</i>	<i>AVGAS</i>	<i>JET-A</i>
Number of Fuel Trucks / Capacity of each (gallons)	0	2 trucks Capacity: 1 - 750 gal., 1 - 1,000 gal.	2 / Capacity - 1 - 3,000 gal. & 1 - 5,000 gal.
Frequency of Fuel Drops	0	Once every 2 weeks	Once day
Average Gallons per Drop	0	8,000	8,000

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<i>Aircraft Type</i>	<i>Number of Daily Operations*</i>				<i>% Night**</i>
	<i>Off-Peak</i>		<i>Peak</i>		
	<i>Weekday</i>	<i>Weekend Day</i>	<i>Weekday</i>	<i>Weekend Day</i>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

*See Operations Summary Sheet as of 12-31-08 (attached)*

\*Takeoffs and landings    \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Various

8. What is the busiest day(s) of the week? Varies

9. For the above table, what are your off-peak and peak seasons? Varies

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>		<i>Aircraft Types</i>
Rental	0	0	
Charter	0	0	
Air Taxi	0	0	
Student Training	0	0	
Crop Dusting	0	0	
Other	0	0	
Total	0	0	

11. Please provide the following airfield data:

<i>Runway ID</i>	<i>Length</i>	<i>Width</i>	<i>Gradient</i>	<i>Surface Type</i>	<i>Marking</i>
17	8,000	100	.001	Concrete	NPI/P
35	8,000	100	.001	Concrete	NPI/P

<i>Runway End</i>	<i>End Elevations</i>	<i>Visual</i>	<i>NP</i>	<i>P1/P2/P3</i>	<i>Displaced Threshold</i>	<i>Lighting</i>	<i>ALS</i>	<i>REILS</i>	<i>PAPI/VASI</i>
17	82.0	1 mile	NP		LDA7620	HIRL		REILS	PAPI
35	74.3	¾ mile		P1	LDA6016	HIRL		REILS	PAPI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<i>Taxiway ID</i>	<i>Length</i>	<i>Width</i>	<i>Lighting</i>	<i>Surface Type</i>	<i>Access To</i>
F	8000'	50'	MITL	Concrete	17/35
H	1450'	50'	MITL	Concrete	Taxiway I
Taxiway Stubs:					
A	100'	75'	MITL	Concrete	F to Runway
B	100'	125'	MITL	Concrete	F to Runway
C	100'	125'	MITL	Concrete	F to Runway
C-1	750'	75'	MITL	Concrete	F to T-Hangars
C-2	850'	75'	MITL	Concrete	T-Hangars to F
D	100'	125'	MITL	Concrete	F to Runway
E	100'	175'	MITL	Concrete	F to Runway

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Rehab – 8000' 17/35

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. New Taxiway F 8000' 17/35 (relocated to maintain runway/taxiway separation)

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower	X		118.65	Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom	X		122.95
National Weather Service		X		Precision Approach Radar / MLS/ILS	X		ILS 110.7
Civil Air Patrol	X			Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System	X		118.125	Supplemental Wind Cone	X		
Non-Directional Radio Beacon	X		388	Remote Transmitter Receiver		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)	X		Hobby 117.10 Humble 116.60 Eagle Lake 116.40	Aircraft Rescue and Fire Fighting Facility		X	
Ground Communications Outlet	X		121.4	Remote Communications Outlet		X	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? Yes – See attached CIP Projects with TxDOT

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15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) See attached CIP with TxDOT

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16. What do you view as the long-range potential for the airport? Continue as large reliever airport

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17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? Yes. – continued support by the community and businesses, City management and City Council. Not aware of any people or groups that are opposed to public funding for the airport.

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18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport?

(e.g., water tank, tower, antenna, homes near airport) Yes. / Yes – protected through aviation easements.

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19. Have nearby residents complained of aircraft noise? Yes.

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? Yes.

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**FAA CONTRACT TOWER - AIRPORT OPERATIONS COUNT RECORD**

Facility Name: Sugar Land Regional FCT      Location: Sugar Land, Texas      Mo. 1 | 2 | O | 8      Yr.      Location Ident. S | G | R

Airport Operations Count      Facility Operating Hours → 1 | 6 | 0

Day	ITINERANT					VFR					LOCAL			Total Airport Operations
	AC	AT	GA	MI	Total IFR Itinerant Ops	AC	AT	GA	MI	Total VFR Itinerant Ops	Civil	Military	Total Local Ops	
01			4	60	64		1	53		54	42		42	160
02			3	83	86		2	74		76	100		100	282
03			6	43	49			15		15				64
04			6	93	99			41	1	42	84		84	230
05			10	91	101			50		50	48		48	200
06			2	47	49		2	93		95	76		76	220
07			12	61	73			95		95	70		70	243
08			1	63	64		3	50		53	72		72	191
09			4	38	42			11		11	10		10	63
10			11	44	55		1	4		5				60
11			4	82	86		2	74		76	44		44	206
12			4	85	89		3	97		100	84		84	273
13			6	45	51			53		53	90		90	194
14			6	56	62		7	32		39	34		34	135
15			7	65	72			7		7	6		6	85
16			11	43	54									54
17			9	95	104									104
18			4	62	66		2	2		4				70
19			11	87	98			38		38	78		78	214
20			7	75	82			53		53	120		120	255
21			9	42	51			33		33	48		48	132
22			9	53	62		1	46		47	44		44	153
23			6	62	68			21		21	44		44	133
24			8	32	40		3	4		7	4		4	51
25			5	17	22			2		2				24
26			7	51	58			21		21	10		10	89
27			8	28	36			11		11	2		2	49
28			10	38	48			53		53	160		160	261
29			8	46	54			98		98	128		128	280
30			7	43	50			76		76	80		80	266
31			3	30	33			43		43	62		62	138
Total			208	1760	1968		27	1250		1277	1540		1540	4799

**FAA CONTRACT TOWER OVERFLIGHT SUMMARY RECORD**

Facility Name: Sugar Land Regional FCT      Location: Sugar Land, Texas      Mo. 1 | 2 | O | 8      Yr.      Loc Ident. S | G | R

OVERFLIGHT COUNT

Day	IFR OVERFLIGHTS					Total	VFR OVERFLIGHTS					Total Overflights
	AC	AT	GA	MI	Total		AC	AT	GA	MI	Total	
01								8	6		14	14
02								8	22		30	30
03								6	6		12	12
04								10	10		20	20
05								4	8		12	12
06								16	18		34	34
07								6	4		10	10
08								20	8		28	28
09								8	6		14	14
10												
11								8	6		14	14
12								12	22		34	34
13								2	22		24	24
14								2	10		12	12
15								10			10	10
16												
17												
18								12	2		14	14
19								6	4	2	12	12
20								4	2		6	6
21								10	6		16	16
22								10	4		14	14
23								10			10	10
24								8	4		12	12
25									2		2	2
26								6	4	2	12	12
27								2	4		6	6
28								12	6		18	18
29								7	24		31	31
30								10	20		30	30
31									12		12	12
Total								217	242	4	463	463



Questions #14 & 15:

<u>Priority/ Description</u>	<u>Estimated Total Grant</u>	<u>Fiscal Year</u>
1/ Standby Power Hurricane Ike (and our west side, including runway lighting, being out of power for a week) has really brought to the forefront how critical generators are to our operations. We would like to move this project and associated CIP funding amount of \$1,009,136 up from 2011 (shift Txy J construction and associated funding to FY 2010).	\$1,073,000	2009
2/ Drainage @ Txy H We have drainage issues at the east end of Txy H that cause substantial ponding of water on Txy H . We have already paid for the engineering and received a preliminary engineering letter report from KSA Engineers. We are requesting that the engineering and construction for this project be funded at 90/10.	\$150,000	2009 (not identified in CIP)
3/ Drainage Master Plan Update We need to have this update completed before we acquire prison property to the east and west of the airfield. There is the possibility of a flood way on the property that we could not build upon, and would strongly affect the value of the property. Update is also needed before we continue with any new development on the airport.	\$150,000	2009
4/ Pavement Evaluation with Recommendations The runway needs attention as soon as possible. In addition, we would like to evaluate the parallel taxiway (F), and also Txy H at the same time.	\$150,000	2009
5/ Txy J Construction Ph 1	\$5,100,000	2010 (moved from 2009)
6/ Txy J Construction Ph 2	\$5,100,000	2010
7/ Design for Rwy/Txy Rehab and Design for Rwy Lighting Runway, existing parallel taxiway, and taxiway "H" rehab. We would like to make this a single design project, so that we can construct all the improvements at one time (and only have to close the runway for a single period). Replace existing HIRL with new HIRL Rwy 17-35. Medium Intensity Approach lighting System (MALSR)	\$500,000 \$200,000	2010 (both)
8/ Rwy/Txy Rehab Construction and Rwy Lighting Depending upon pavement rehabilitation method (spall repair vs white topping, for instance) recommended in Pavement Evaluation, the construction cost could vary greatly. (Txy rehab construction may or may not occur at the same time.)	\$3,000,000 + \$2,000,000	2011 (both)
9/ Relocate Existing Parallel Txy Ph 1 Engineering (exist. Property)	\$1,250,000	2012
10/ Relocate Existing Parallel Txy Ph 1 Construction (exist. Property)	\$8,500,000	2012
11/ Perimeter Security Fencing	\$125,000 eng'g \$1,500,000 constr	2013
12/ Land Acquisition for Parallel Txy	??	??
13/ Relocate Existing Parallel Txy Ph 2 Engineering (new Property)	\$1,500,000	2013
14/ Relocate Existing Parallel Txy Ph 2 Construction (new Property)	\$8,500,000	2014

Greater Fort Bend County Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective

I Airport History/Environment

Over two decades ago, the Sugar Land Regional Airport (SGR) was privately owned by Don Hull, and was known as Hull Airport. The City of Sugar Land, with the aid of Congressman Tom DeLay and his ability to get adequate FAA funding, purchased the airport and transformed it into one of the premier general aviation airports in the county, as a publically owned, reliever airport to Houston Bush Intercontinental Airport. Aviation International News recently ranked Sugar Land Regional Airport's Fixed Base Operation (FBO) the fifth best in the nation, the only city-owned FBO to make the prestigious list.

II Goals/Objectives

SGR's primarily goal is to be the number one general/business aviation airport in the region. It has some of the finest facilities in the entire area, with their new multimillion dollar corporate terminals.

III Initiatives

SGR continues to increase revenues by being a full service airport facility for both general aviation, as well as corporate aviation. This initiative has achieved an efficient and professional Fixed Base Operations and a first class corporate terminal, in addition to securing U.S. Customs Federal Inspection Service to the airport's customers.

IV Recommended Airport Enhancements

The stakeholders would like to see the following enhancements:

- Removal of the pastel metal sheds on the airport
- Aesthetic improvements to exterior buildings

V Interviewer's Conclusion

The City of Sugar Land has done an exceptional job of taking an established general aviation airport and converting it into a "crown jewel" for the region. The airport has public and political support and appears to have good relations with the community. This airport is an excellent case of efficient utilization of federal and public dollars.

Greater Fort Bend County Chamber of Commerce Interview  
*Stakeholders Focus Group*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Chamber Name: Greater Fort Bend Chamber of Commerce  
Chamber Representative: Louis Garvin – President  
Airport Name: Sugar Land Regional Airport (SGR)  
Interview Date: January 14, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** Sugar Land, as well as all of Fort Bend County, will continue to grow with corporate business. Having a general/business airport as nice as Sugar Land Regional Airport (SGR) has contributed greatly in attracting new businesses and relocations.

The Richmond and Rosenberg areas still have large tracts of land in this area that can be developed in the next ten years.

There are still business opportunities in the Sugar Land Business Park near the airport. As businesses continue to be attracted to Fort Bend County, the value and usage of the airport will grow proportionately. SGR is a very positive asset to the community.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:**

- The newest development (which is about fifty percent complete) is Lake Point, a Fluor Daniels site with hotels, restaurants, grocery stores, businesses, banks, and a St. Luke's hospital.
- Off SH90 and on SH6 near the airport, Weavers and Jacobs (both developers) have a large tract which so far only has one business, a Hilton Garden Inn that opened December 2008.
- This same development group plans to build a business strip in front of the hotel, with approximately 10 or 12 businesses; i.e., State Farm Insurance, Eye to Eye Optical, etc.
- The infrastructure around the airport is built out; however across from the airport, Southern Land Development of Nashville owns several acres. They plan to start development of the property between 2010 and 2017, which will be a large mixed use community.

3. Where and what do you expect for the area's future growth?

**Answer:** Sugar Land is developing rapidly in the following areas:

- Along SH6 there is a huge master planned community, Riverstone. This development has thousands of homes, plus a commercial district and a town center. It is doing very well.
- Sugar Land is nearly totally built out west and north. Future growth will be in the south.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** To stakeholder's knowledge, there are no pressing issues related to aviation in the area. The aviation community is very supportive of SGR. The non-aviation population is mostly unaware of the airport. There are some real positives with having such an attractive, functional airport:

- The community takes pride in their local general aviation airport.
- The airport's primary source of revenue is fuel sales.
- The key corporate customers (tenants) value the airport; however, the majority of the population has no involvement or awareness of the airport.
- The airport's focus is serving corporate/business. There is no enthusiasm by the City to pursue commercial air service since Conquest Airlines ceased to operate some years ago. There has been a City decision to develop the airport as a corporate facility and fill that niche within the system.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** There are two areas that need improvement at the airport:

- There have been complaints for years about the pastel blue metal sheds on the airport. They need to be removed and/or replaced.
- Other existing buildings need some exterior aesthetic improvements that reflect the new terminal design. The older buildings look dated and detract from the ambiance of the airport.

6. How could a better integrated airport system serve the community's needs?

**Answer:** I'm not clear what an integrated airport system is to look like, however this is how I envision the benefits from the system plan:

*"From the Regional Aviation System Plan some positive things might happen. Perhaps it will bring about an integrated airport system just within Fort Bend County's two airports. Those that have taken advantage of Houston Southwest Airport have reaped the economic benefits and this is true (many times over) with the Sugar Land Regional Airport. An entire integration of all of Houston's airports will bring strong recognition by the FAA that this is a system that is making every attempt to work together."*

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** The development and build out of Sugar Land Business Park, with the new Fingers Furniture warehouse distribution center, will be contributing substantially to the airport's use. However, even with very large facilities coming to this park, there is still land available to build other facilities. Suppliers that market to these companies will be utilizing the airport.

8. How can the airport support local business development?

**Answer:** The airport is used as a marketing tool by both the City and the Chamber. The Chamber features Sugar Land Regional Airport in their promotional literature.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The management of the airport does not appear to see the airport as a regional gateway but more of a business gateway. The management's focus is to operate the airport efficiently and serve the aircraft that are based there or planes that fly in for service.

Sugar Land Regional Airport is marketed by Sugar Land's Economic Development Public Relations Department. Regina Morales is budgeted to perform this function. The airport is one of the tools in their tool box. The City takes an aggressive approach in marketing the airport.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** One of the airports community/public relations efforts is that the Sugar Land Airport Academy invites eligible candidates to participate in a program that provides a history of the airport and a comprehensive overview of aviation operations, as well as the facility's important role in the regional economy.

11. Is there organized opposition to airport development and expansion?

**Answer:** There is no current opposition to the airport. In the past, there have been some issues with the New Territory neighborhood relating to noise. The improvement to the airport through the "upscale" image that has been created with its new terminal has quieted the neighbors. Airport improvements have increased property values in the area.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** There is no legislation that we are aware.

13. What environmental issues may affect airport use and development?

Answer: To our knowledge there are no environmental issues associated with any of the airports.

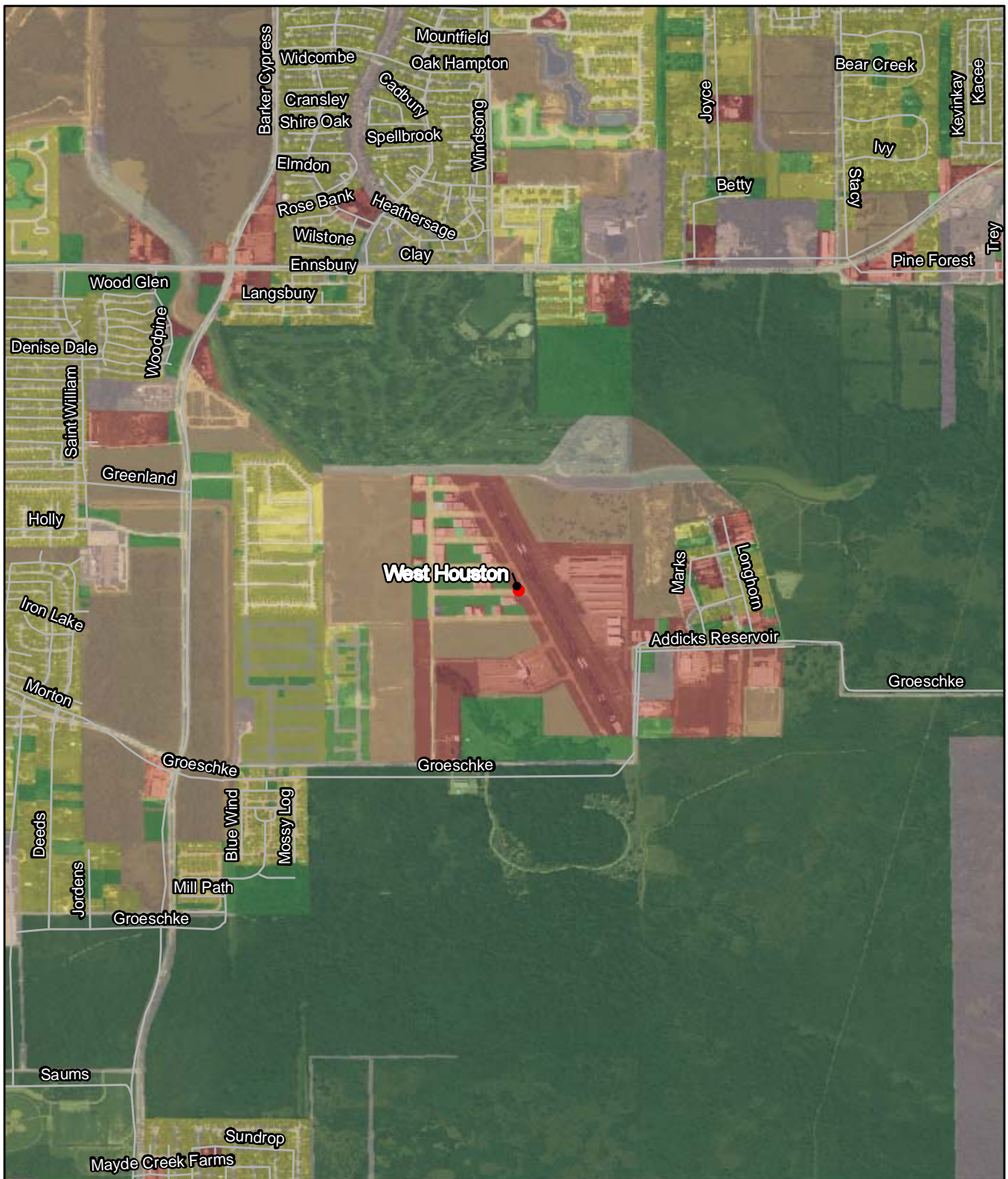
14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

Answer: Yes

15. Do you know of other people or groups that we should contact?

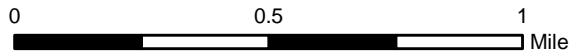
Answer: A good source for the other airport in Fort Bend County, Houston Southwest, would come from the County's EDC, Jeff Wiley, and the City of Arcola.





**Legend - Land Use**

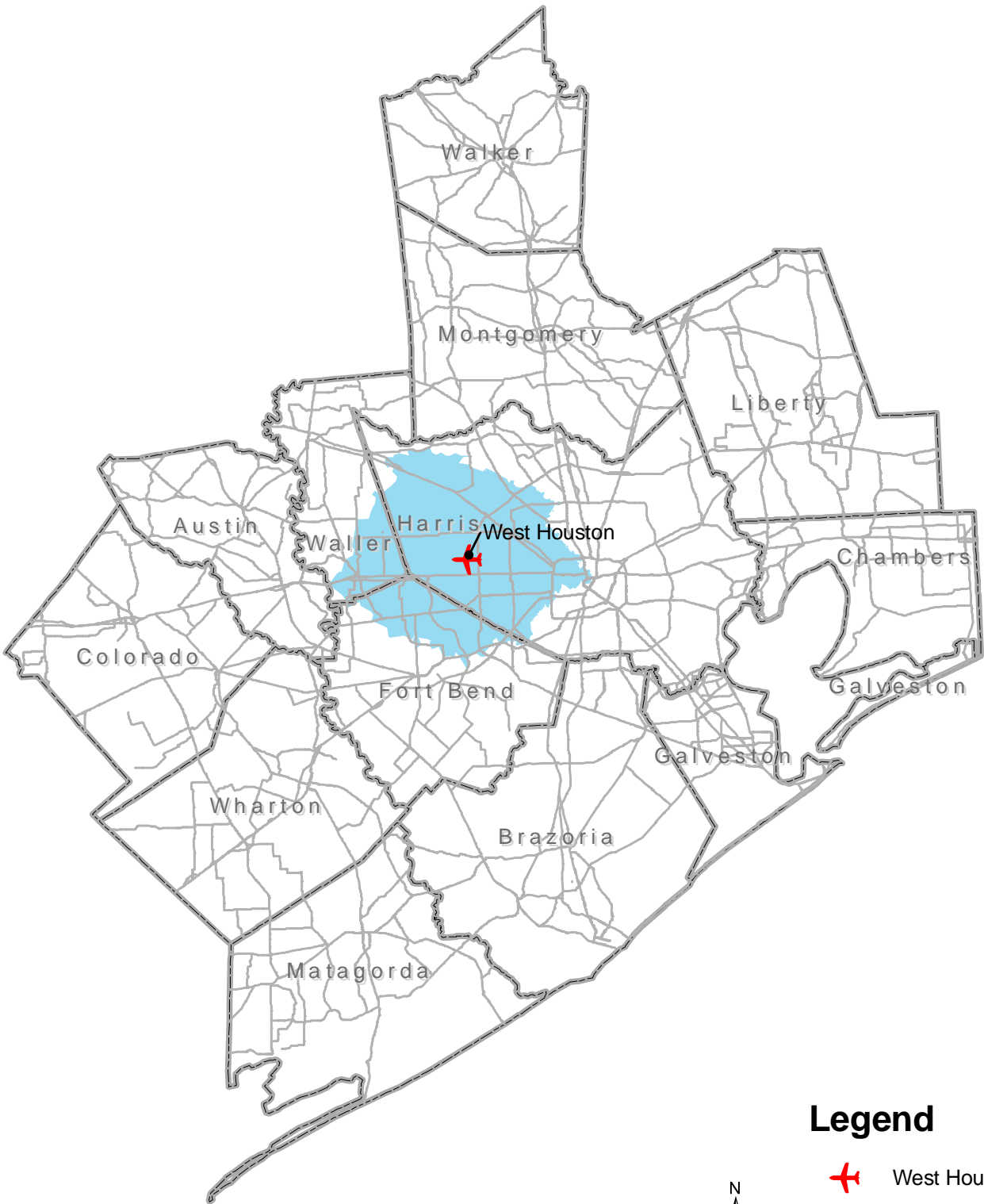
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# West Houston Airport

## 2040 Regional Aviation System Plan Update

# West Houston Airport 30 min Service Area in 2009



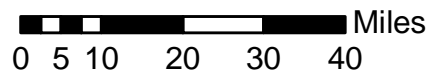
## Legend

 West Houston

 Roads

 Counties

 30 Min Service Area



**West Houston Airport (IWS)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

West Houston Airport is privately owned and operated since 1967 by the West Houston Airport Corporation.

**Airport Location**

West Houston Airport is located in Harris County, Texas approximately 26 miles northwest of Houston. The airfield lies north of Interstate 10 and east of Barker-Cypress Road.

**Existing Airport Facilities**

West Houston Airport, including the airfield, terminal, hangars, and safety areas, encompasses approximately 200 acres. The Airport's Airport Identifier is IWS. The facility is located at an elevation of 111 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°49'05.5"N (estimated) and longitude 095°40'21.4"W.

**Airfield Facilities**

West Houston Airport currently has one (1) runway. Runway 15/33 is 3,953 feet in length and 75 feet wide with pavement strength rated to accommodate aircraft with a dual wheel load of 44,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with High Intensity Runway Lighting (HIRL) and a two-light Precision Approach Path Indicator (PAPI) on the right of the Runway 15 end and a two-light PAPI on the left of the Runway 33 end. Runway 15/33 is equipped with Runway End Identifier Lights (REIL).

Runway 15/33 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 15
- RNAV (GPS) Y RWY 33
- RNAV (GPS) Z RWY 33
- VOR/DME RNAV RWY 33
- VOR/DME RNAV RWY 15
- VOR-D

A clear and green rotating beacon is located at IWS providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The 2-story terminal building is open 24 hours a day, 365 days a year. West Houston Airport has a full-service FBO with Jet A and AvGas, parking, aircraft storage, rental car facility, flight school and aircraft rental, catering, crew car, pilot lounge, weather and flight planning room.

There are two maintenance facilities on the field as well as an avionics shop and aircraft upholstery shop.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: West Houston Airport (Public Use, Privately Owned)

Airport Manager: Woody Lesikar

Airport Owner: West Houston Airport Corporation

Date: July 15, 2009

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars							
T-Hangars							
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
Total							

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds) (Acres)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area	3 acres	
Based Aircraft Apron	4 acres	100 total
Transient Aircraft Apron	2 acres	

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	
AVGAS	
Jet-A	

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops	CONFIDENTIAL	CONFIDENTIAL	
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet	UNAVAILABLE		UNAVAILABLE		
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Daylight hours

8. What is the busiest day(s) of the week? N/A

9. For the above table, what are your off-peak and peak seasons? Daylight Savings  
 Time Best Season

10. Please indicate the number and types of aircraft owned/by the FBO, according to the following uses: or operated

Primary Use	Number	Aircraft Types
Rental		
Charter		
Air Taxi		
Student Training		8 total - Rental and Student Training
Crop Dusting		
Other		
Total	8	



11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
15	4,000	75	0	Asphalt	Non-standard
33	4,000	75	0	Asphalt	Non-standard

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
15	112	yes	yes	yes	no	HIRL	no	yes	PAPI
33	110	yes	yes	yes	no	HIRL	no	yes	PAPI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
15	3,800	40	yes	concrete	
	3,800	22	reflectors	asphalt	
33	3,800	40	yes	concrete	
	3,800	22	reflectors	asphalt	

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. N/A

If no, when did runway reconstruction or rehabilitation last occur? 2005

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? 2005

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		X		Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom	X		
National Weather Service		X		Precision Approach Radar / MLS/ILS		X	
Civil Air Patrol	X			Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon		X		Remote Transmitter Receiver	X		
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility		X	
Ground Communications Outlet	X			Remote Communications Outlet	X		

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? ARST X  
Yes and yes: AWOS, Engineering, overlays, ramp extension, road relocation.

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) intersection, auto parking, etc.

16. What do you view as the long-range potential for the airport? excellent

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_



18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) no

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19. Have nearby residents complained of aircraft noise? occasionally

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? no

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West Houston Association (WHA)  
Focus Group

Summary Report

Stakeholders Perspective

I Airport(s) History/Environment

(WHA aviation focus: Houston Executive & Sugar Land)

Ron Henriksen personally built the Houston Executive Airport (TME) in the last five years with his own funds on 1,300 acres of land. This multi-million dollar facility has a 7,500' runway with support facilities, and in the near future will have a first class corporate terminal. The airport is positioned to market the flying business fleet community, and compete against Houston Hobby and Sugar Land Regional Airport for that market. It has excellent roadway access that is continuing to improve, in addition to the possibility of a further rail spur.

The airport resides in the heart of West Houston's I-10 energy corridor which is the 5<sup>th</sup> largest concentration of office employment in Houston.

Sugar Land Regional Airport (SGR) is a publicly owned (City of Sugar Land) reliever airport facility that is well developed with its \$5 million corporate terminal, a U.S. Customs and Border Protection FIS facility operation, adequate runway length, approach and hangar capability. It is rated as the 4<sup>th</sup> best general aviation airport in the nation by corporate pilots.

II Goals/Objectives

WHA, a business/developer area association, is not in a position to set the goals/objectives for Houston Executive, a privately owned public use airport. However, there are multiple potential opportunities in the surrounding airport property for physical growth. For example:

- East and west along I-10 is well situated for distribution and light manufacturing, office, and retail.
- KBR currently has in development a 900,000 sq. foot building at Grand Parkway and I-10 where they will eventually centralize their entire operation. KBR's offices will be 4-5 miles from Houston Executive.

### III Initiatives

Houston Executive needs to take the initiative to work with TxDOT to institute height hazard zoning. This would protect the airport from towers or tall buildings being built around the facility that could resist its approaches. The airport also needs to be designated in the FAA NPIAS.

The Sugar Land Regional Airport is extremely accessible with great access on Highway 6. In addition, it is in a high growth, economically stable area of the region.

Sugar Land has freight rail currently, but the community wants it moved out away from the City. The City of Sugar Land would like to see the tracks near the airport to be converted into commuter rail which would benefit the Sugar Land airports.

The Gulf Coast Regional Rail District has just awarded a contract to look at the feasibility of relocating the freight rail and convert the tracks for commuter rail use. The freight rail cargo would be moved farther south, which is potentially a billion dollar relocation.

### IV Recommended Airport Enhancements

Houston Executive needs to build out the planned corporate terminal to attract the type of business that will grow the airport and provide a good tool for marketing.

What can best be handled by the airport's improvements are:

- Multimodal integration
- Accessibility to the extent the stakeholders would like to see growth along the I-10 and US290 corridors. Access to general aviation facilities is an extremely important feature.
- Sugar Land meets the need; and with its access from the I-10 corridor, it is a much more developed competitor at this point.

### V Interviewers Conclusion

**Houston Executive:** Like all privately owned airports, no accountability to the constituency surrounding the airport is present. However, the upside is that the airport's owner can do whatever he pleases. The stakeholders around Houston Executive feel very fortunate that Ron Henriksen, who is known to be a very conscientious person, is building the airport and developing the land.

**Sugar Land Regional Airport:** The airport is a first-class, established general aviation airport with professional management. To continue its success and growth, it needs to acquire the adjunct prison property guaranteeing the right type of land use is put in place. If this does not happen, the airport's greatest potential may not be reachable. In addition, Fort Bend County should consider compatible land use zoning similar to what Houston Bush Intercontinental Airport is attempting to initiate.

West Houston Association Interview  
Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber/EDC Name:</u>	West Houston Association
<u>Chamber/EDC Representative:</u>	See sign-in sheet
<u>Airports:</u>	Houston Executive Airport (TME) Sugarland Regional Airport (SGR)
<u>Interview Date:</u>	February 4, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** Based on data accumulated by the West Houston Association (WHA), strong westward growth in Houston has developed from unencumbered land that is available. Northwest Houston, south of US290, will not attract much more growth than what it has experienced. There may still be some growth to the south and north but very little. The areas west of Houston will experience the greatest growth from the affect of the airports in that vicinity. For example:

- Along I-10 east of Katy and going west, a great deal of land is available. The business community is interested in continuing its development. Good transportation (highways, rail, and airports) in this area is the backbone for the future of West Houston.
- The WHA stakeholders envision Houston Executive Airport becoming the airport of choice for corporate aviation. They see this airport attracting some of the corporate business overflowing at Hobby, particularly with the surge of activity in the energy corridor.
- The market for Houston Executive is attracting companies along the energy corridor that have corporate fleets.
- Houston Executive has 1,300 acres of unencumbered land with only a small amount of residential area to the east, and so it is positioned for growth.
- WHA is moving to assist the area around the Houston Executive Airport to develop a multimodal capability. There is an old rail line that could be used to bring a spur up to I-10 adjacent to the airport itself.
- Adding rail to the mix brings future value to the airport. A regional rail or inner-city rail that can serve the airport area would mean a great deal to the energy corridor. If inter-modal activity is ever going to work for a local airport, Houston Executive would be a necessary ingredient. Eventually, the regional planning effort to decentralize with town squares would fit into this concept.
- Further improvements to Houston Executive Airport access are being planned along Perry Parkway. The plans are to extend the alignment south through Ft. Bend County, ultimately connecting to a more southern locale; i.e., Freeport.

The concept is to bring cargo out of the port vicinity up to I-10 where it will be dispersed.

- Resources and investment opportunities are limited for private airports compared to publicly owned airports. In the future, consideration should be given for Houston Executive Airport to have a public sponsor.
- The Sugar Land Regional Airport has great access to Highway 6 and is in a growing area.
- Sugar Land currently has freight rail, but the community wants it moved away from the city. The City of Sugar Land would like to see the tracks near the airport to be converted to a commuter rail, which would benefit the Sugar Land Regional Airport.
- The Gulf Coast Regional Rail District has just awarded a contract to look at the feasibility of relocating the freight rail and converting the tracks for commuter rail use. The freight rail cargo would be moved farther south. That is potentially a billion dollar relocation.

2. What kinds of economic development are now occurring around the airports? What additional near airports development do you expect over the next five years?

**Answer:** Development directly around the airport is not a concern for organizations like WHA. The airport is a privately owned facility and the adjacent business will be developed by the owner. However, there are multiple potential opportunities for the surrounding land. Some examples of these are:

- East and west along I-10 is well situated for distribution and light manufacturing, office, and retail.
- KBR currently has in development a 900,000 sq. foot building at Grand Parkway and I-10 where they will eventually relocate their entire operation. KBR's offices will be 4-5 miles from Houston Executive.

The I-10 Energy Corridor is the 5<sup>th</sup> largest concentration of office employment in Houston. The area between Eldridge and Barker Cypress, with 17 million square feet of office space, is primarily made up of energy companies. With the improved I-10 access, these companies are within 10-15 minutes from Houston Executive Airport. Most of these companies have corporate fleets that are currently based at Hobby. While they have facility (hangar) investment at IAH or Hobby, it would be far more convenient to base their aircraft at Houston Executive.

3. Where and what do you expect for the area's future growth?

**Answer:** (See Question #2)

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- The ability to control the right type of growth at the area's airports. The stakeholders would like to see zones to protect Houston Executive Airport.

- There is no accountability with a privately owned airport; however, the upside is that the airport's owner can do whatever he pleases. The stakeholders feel fortunate in that they have a very conscientious man, Ron Henriksen, building the airport and developing the land.

5. What do you believe are the area's needs that can best be handled by airport's improvement?

**Answer:**

- Multimodal integration
- Accessibility
- Growth along I-10 and US290 corridors makes the access to the general aviation facilities extremely important.
- Sugar Land meets the need, and with its access from the I-10 corridor, it is a much more developed competitor at this point.

6. How could a better integrated airport system serve the community's needs?

**Answer:** There is a need to research how these airport facilities can fit into the bigger Houston aviation picture...into the economy, current road network, as well as possible intermodal facilities. Other areas that an integrated system would help:

- In the interest of airport safety, possibly separating the airports as it relates to pleasure/corporate, passenger and cargo usage. The smaller general aviation airports are the ones that intermingle. This is where the relievers come in. If they are well situated, they have increased value. These airports take the pressure off the larger airports when it comes to general aviation traffic.
- There is a push to abandon the hub and spoke system the airlines currently use; it is inefficient. Having a better integrated system may provide more opportunities for the smaller markets.
- An integrated system may allow those shorter abandoned routes to be filled with commuter air service or rail.

7. What kinds of new development in the area would most contribute to airports use and development?

**Answer:** (See Question #2)



8. How can the airports support local business development?

**Answer:**

- An airport is an integral part of the equation when attracting companies and light industry. Airports are strong economic stimuli for an area's economy.
- Easy access to the airports supports local business and provides employment opportunities.
- The energy corridor companies produce products that will be shipped via aircraft.
- The medical community has immediate aviation transport needs; i.e., organs.
- There is a market for on-time inventory that is filled through air service.

9. How can the airports be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The original concept, as understood by the association, was that Houston Executive Airport would become like Ft. Worth Alliance Airport --- a hub for all transportation activities.

The growth of West Houston is not under debate. The need for an airport facility that is intermodal to support that growth continues to develop. The Houston Executive facility is in the right spot to capitalize and support the region's growth.

10. What types of community relationships do the airports have with its neighbors?

**Answer:** Houston Executive has good relationships with the business community, as well as the residential community. The airports are well integrated into the EDCs in Waller and Katy. The lines of communications are kept open. With the growth pattern in the west, incompatible uses may develop that encroach around the airports. The stakeholders would like to see the airports protected for aviation use.

11. Is there organized opposition to airports development and expansion?

**Answer:** None

12. Do you know of any current or proposed legislation or ordinance that might affect the airports?

**Answer:** In regards to Sugar Land Regional Airport, the prison property adjacent to the airport needs to have the right type of land use put in place. If this does not happen, it could restrict the airport's potential.

The stakeholders believe that Fort Bend County should consider compatible land use zoning similar to what Houston Bush Intercontinental Airport is attempting to implement.

There is a need to be proactive and protect areas around Houston Executive Airport; given the fact that currently it is all undeveloped land. It should be done in an acceptable way that encourages and does not hinder potential development.

The association is impressed with the excellent integrity Houston Executive's owner, Ron Henriksen's has demonstrated by his focus on being a good neighbor.

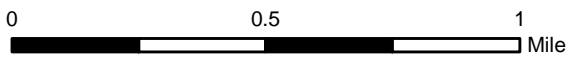
13. What environmental issues may affect airports use and development?

**Answer:**

- Sugar Land Regional Airport needs to look at compatible uses.
- Houston Executive Airport has all the Katy prairie issues; i.e., wetlands, bird flyway, etc.

14. Does the airport have a master plan for the airport? When it was last updated? How we can get a copy?

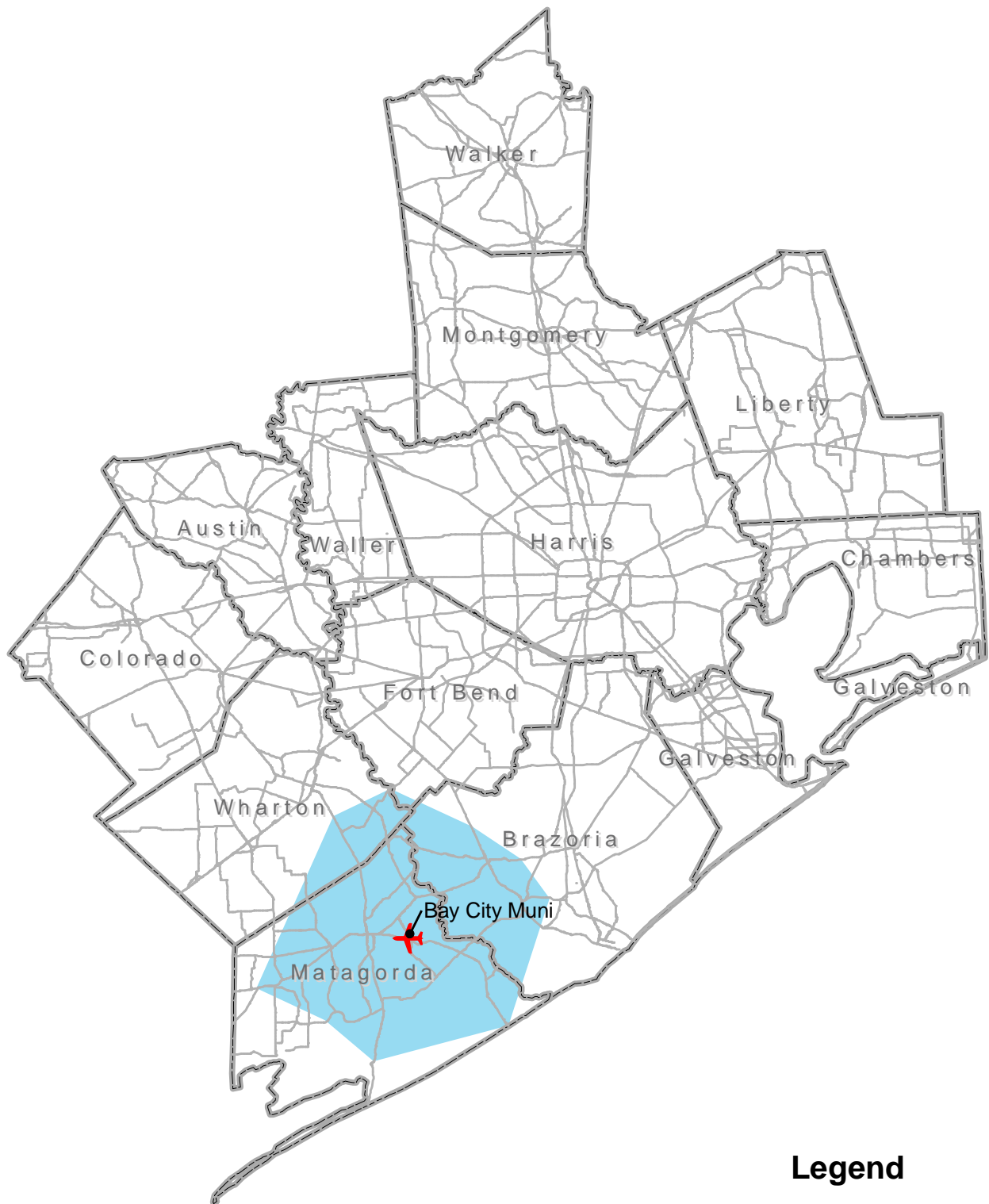
**Answer:** The airport has a current master plan.



# Bay City Municipal Airport

2040 Regional Aviation  
System Plan Update

# Bay City Municipal Airport 30 min Service Area in 2009



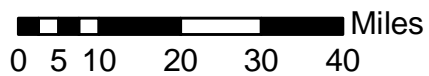
## Legend

 Bay City Muni

 Roads

 Counties

 30 Min Service Area



**Bay City Municipal Airport (BYY)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Bay City Municipal Airport is publicly owned and operated by the City of Bay City.

**Airport Location**

The Bay City Municipal Airport is located in Matagorda County, Texas approximately five (5) miles east of the Bay City central business district and 80 miles southwest of Houston. The airfield lies north of State Highway 457 and south of State Highway 35.

**Existing Airport Facilities**

Bay City Municipal, including the airfield, hangars, FBO, and safety areas, encompasses approximately 140 acres. The Airport's Airport Identifier is BYY. The facility is located at an elevation of 45 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 28°58'23.7"N (estimated) and longitude 095°51'48.4"W.

**Airfield Facilities**

Bay City Municipal has one (1) runway. Runway 13/31 is 5,107 feet in length and 75 feet wide with a pavement strength rated to accommodate aircraft with a dual-wheel load of 51,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL), Runway End Identifier Lights (REIL) on the Runway 13 end, and a two-light Precision Approach Path Indicator (PAPI) on the left of the Runway 13 end.

Runway 13/31 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- GPS Runway 13
- GPS Runway 31
- VOR/DME-A
- NDB Runway 13

Taxiway A is a full parallel taxiway serving Runway 13/31. The taxiway is 50 feet wide, constructed of asphalt, is not lighted, but has taxiway reflectors.

A clear and green rotating beacon is located to the north of the FBO and provides visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone located north of Taxiway A and adjacent to the apron. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

The terminal apron area encompasses approximately 13,627 square yards.

### Landside Facilities

The landside facilities at Bay City Municipal Airport include the FBO, RKJ Enterprises, and T-hangars.

### Fixed Base Operator Facilities

The City of Bay City owns and operates the only full-service FBO. A full range of services are offered including fueling, aircraft parking and storage, aircraft rental, flight training, and aircraft maintenance.

### Aircraft Storage

Aircraft storage at Bay City Municipal Airport includes tie-down spaces, T-Hangars, and a conventional hangar. The FBO leases space in one conventional hangar. The FBO maintains tie-down spaces and four 11-unit T-hangars also provide storage for private aircraft.

### Aircraft Fueling Facilities

The FBO operates the fuel farm, which is located on airport property. The Jet-A tank is located southeast of the Airport terminal building and adjacent to the apron. It provides aboveground storage capacity for 12,000 gallons of Jet-A. AVGAS is stored in a 10,000 gallon tank located at the southwest corner of the FBO. During business hours, aircraft receive fuel by truck. Both Jet-A and AVGAS are self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 39 fixed wing aircraft based at Bay City Municipal Airport. These aircraft include 31 single-engine, five (5) multi-engine, one (1) turbo prop, and two (2) jets. Additionally, there are four (4) ultra-lights based at BYY.

### **Interviewer Conclusion**

During the past 10 years, Bay City Municipal Airport has resurfaced the runway and taxiway, expanded the apron, installed new lighting, a new beacon, and new Jet-A fuel system, among other improvements. Bay City Municipal Airport has also made improvements to the existing terminal facility, but the pilot community expressed desires for additional services. Airport management expressed a need for additional hangar space as they are currently at capacity. In the long-term, airport management has expressed an interest in another runway.

Bay City Municipal Airport has very strong community support. The City government recognizes that the Airport is instrumental to the local economy and is an asset not only in generating revenue, but in bringing the community together. The Airport has identified the need to expose the general public to aviation. Bay City Municipal Airport hosts an annual Fourth of July event that includes fireworks and a static aircraft display. The Airport also opens its doors to area schools for class field trips in an effort to share aviation with the public.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: BAY City Municipal Airport  
 Airport Manager: RORY HAFERNICK  
 Airport Owner: CITY of BAY City  
 Date: 1/28/09

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars (Main)			1	1			
T-Hangars	30	5		1			4
Portable Hangars							
Tie-Down (Paved)	1						
Tie-Down (Unpaved)							
Total	31	5	1	2			4

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars					
Tie-Down (Paved)	1	1		1	
Tie-Down (Unpaved)					
Total	1	1		1	

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area	330 sq yds	
Based Aircraft Apron	13,627 sq yds	
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	
AVGAS	20,000 gallons/yr
Jet-A	10,000 gallons/yr

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
10,000	AVGAS	underground
12,000	JET-A	aboveground



5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)	0	0	2,500
Frequency of Fuel Drops		0	one per wk
Average Gallons per Drop			150 gallons

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine	2	5	10	20	
Multi-Engine Piston		3	3	5	
Turbo Prop		1			
Business Jet		1	5	6	
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 10 AM

8. What is the busiest day(s) of the week? Friday's

9. For the above table, what are your off-peak and peak seasons? winter - off peak  
late spring/early summer - peak

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	1	C172
Charter	0	
Air Taxi	0	
Student Training	1	C172
Crop Dusting	0	
Other <u>training</u>	1	BAFON
Total	3	

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
BYY	5107'	75'	FLAT	ASphalt	PAINT

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
45'	45'	V			yes	yes	yes	yes	yes

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
BYY	5107'	50'	NO	ASphalt	RUNWAY BYY

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Resurfacing will be needed in the near future

If no, when did runway reconstruction or rehabilitation last occur? 10 year ago

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. resurfacing within the next 5 years

If no, when did taxiway reconstruction or rehabilitation last occur? 10 years ago

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		✓		Automatic Terminal Information Service		✓	
Flight Service Station		✓		Unicom	✓		
National Weather Service	✓			Precision Approach Radar / MLS/ILS		✓	
Civil Air Patrol	✓			Segmented Circle		✓	
Automatic Weather Observing System (A, I, II, III, IV)	✓			Centerfield Wind Indicator	✓		
Automated Surface Observing System	✓			Supplemental Wind Cone	✓		
Non-Directional Radio Beacon	✓			Remote Transmitter Receiver	✓		
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		✓		Aircraft Rescue and Fire Fighting Facility		✓	
Ground Communications Outlet	✓		1228	Remote Communications Outlet		✓	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program?

*Additional T hangars for single engine aircraft and one for small jets, twins*

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental)

*Main Hangar needs roof repair and general repair on T hangars*

16. What do you view as the long-range potential for the airport?

*An additional runway (east-west) & additional T hangars*

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport?

*Who have great support both public & govt.*

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) FAA regulations only. This covers obstruction for landing approach.

19. Have nearby residents complained of aircraft noise? NO

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? NO

**Bay City Chamber of Commerce**  
**Focus Group**

**Summary Report**

**Stakeholders Perspective**

**I Airport History/Environment**

In 2002, this airport was named the “Best Airport in Texas” by the Texas Department of Transportation. With its 5,107 foot runway and its position in the heart of what is referred to as the “Center of Texas Energy,” it has a bright future. The airport is the gateway to a large nuclear power plant that is in the process of expanding along with other energy producers looking at a coal power plant and ethanol production.

In addition to the energy activity in the immediate area, there is an influx of tourism associated with the Intercoastal Waterway and the wildlife it attracts...hunting, fishing and birding.

**II Goals/Objectives**

The stakeholders are enthusiastic about the airport’s future and have a goal of developing it into an attractive business facility to support the increased energy industry in the area. A vision for the airport needs to be established and conveyed to the constituency.

**III Initiatives**

There is a strong cohesive team of airport supporters made up of the Chamber, Economic Development Corporation (EDC), Community Development, the City of Bay City and Matagorda County. They recognize the potential for the airport to further improve and attract an expanded business market. A vision for the airport needs to be established; and then, conveyed to the community.

**IV Recommended Airport Enhancements**

- Construction of new terminal
- Lengthen runway to 6,000’ associated with land acquisition
- Improved instrument approach with new ILS system
- On-site, full-time airport management team

## V Interviewers Conclusion

The focus group discussed Bay City Municipal Airport as a gateway developed around the City slogan of “Gateway to the Outdoors.” The airport could also consider branding itself as the “Gateway to Texas Energy.”

Increased revenues and improvements to the airport come from attracting the business aircraft owners that are supporting the expansion of the energy industry.

The City lacks a strategic marketing action plan of how to establish new airport business opportunities. The focus group would like to see that as a major objective. They realize that there is a need for knowledgeable aviation marketing support in order to bring the market to them.

**Bay City Chamber of Commerce Interview**  
*Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan*

<u>Chamber Name:</u>	Bay City Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Bay City Municipal Airport (BYY)
<u>Interview Date:</u>	January 28, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** The airport has several limitations as it relates to land availability. In the next ten years, there is the possibility of expanding the airport through land acquisition although this would be very expensive. Much of the area around the airport is privately owned with large parcels used for agriculture. If land can be acquired, the future looks bright for growth in the following areas:

- General aviation for pleasure and business pilots
- A small charter operations start-up in next decade
- FBO or aviation support companies may locate at airport (avionics, paint shops, aircraft refurbishing) due to its proximity to Houston.
- Improvement to the terminal building, additional hangars, and tie downs
- Added general amenities on airport; i.e., a restaurant
- Increased employment opportunities as the result
- Line service personnel for business aircraft are needed

2. What kinds of economic development are now occurring around the airport? What additional near-airport development do you expect over the next five years?

**Answer:** Matagorda County is carving out a niche in the energy industry with the expansion of the nuclear power plant. This expansion will take approximately five to six years, and bring in over 100 Japanese personnel. The Nuclear Regulatory Commission is halfway through the process of issuing construction and operating license permits for South Texas Plant (STP) Unit #3 and #4 of the nuclear power plant. In addition to the infusion of the Japanese personnel, there will be approximately 4,000 construction workers arriving from all over the country.



Other economic enhancements:

- A Kentucky corporation is pursuing permits to construct a coal power plant. The permitting is expected to be completed by November 2009 and construction will take approximately four years.
- Energy producing companies are acquiring leases from local landowners for ethanol production.
- Offshore helicopter operations base and training at the airport.
- The airport has a self-service jet fuel kiosk.

All the above mentioned support extensive general aviation air travel in and out of the Bay City area. The Bay City focus group would like to see the airport sponsor be very competitive with other airports with fuel pricing.

Matagorda County's location on the Intercoastal Waterway, along with excellent highway and rail infrastructure, enhances the potential growth and opportunities for the local airport commercially and for tourism. The community envisions the airport as another type of "port" that must be developed along with the rest of their infrastructure.

3. Where and what do you expect for the area's future growth?

**Answer:** (See question #2)

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** Bay City has a cohesive team of players (Economic Development Corporation, Community Development Director, Mayor, County Judge and City Council) that have one vision and speak in one voice as it relates to the growth of the airport. With that said, there are issues that need to be addressed to achieve their vision:

- Lack of funding to complete required improvements
- Lack of knowledge of how to grow aviation.
  - Professional guidance is needed to pursue market opportunities.
- Aviation training for the local high school students about airports and how they operate should be initiated.
  - A civil air patrol squadron has been recently chartered in Bay City with 20+ members.
- A full-service FBO

5. What do you believe are the area's needs that can best be handled by airport improvements?

**Answer:** Top priority for the airport is the construction of a new terminal and additional IFR approach capabilities. A runway extension is needed. To accomplish this, new property will need to be acquired and a nearby road will need to be relocated. Currently, there is a PCL (pilot controlled lighting) with an ADF and DME approach from Palacios, and 2 GPS approaches. A full-time airport manager is at the top of the priority list. The Parks and Recreation Director is currently acting as a part-time airport manager.

6. How could a better integrated airport system serve the community's needs?

**Answer:** Defining an integrated system is difficult. Focusing the airport to grow in a certain direction within the entire system may serve this community's needs better. There are areas where the airport could have a stronger presence, and other areas that may not be beneficial to pursue:

- Stakeholders do not envision the airport servicing cargo/freight.
- Airport might serve as a "relief value" to the aviation system for companies that are looking for better access to rail, major highways, and ground transportation.
- Bay City has two separate rail companies competing: Burlington Northern Santa Fe (BNSF) and Union Pacific (UP). Bay City Airport is three miles from Hwy. 35, which is a four-lane highway.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** (See questions #2)

8. How can the airport support local business development?

**Answer:** This airport can support local business by providing the aviation facilities to meet the area's aviation requirements for the energy industry. As the airport grows, it will employ more local citizens and develop as an economic hub for the community.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The airport needs to build its image around Bay City's logo, "**The Gateway to the Great Outdoors**".

To be a gateway requires a gateway image, which will require a strong full-time, professional aviation management team.

10. What types of community relationships does the airport have with its neighbors?

**Answer:**

- Community relations are excellent. Events are held at the airport that is not aviation related as an attempt to build local support; e.g., the annual Fourth of July celebration that is open to the public.
- The City would like to have an "open house" for the public at the airport. This has also been recommended by AOPA.

11. Is there organized opposition to airport development and expansion?

**Answer:** No.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

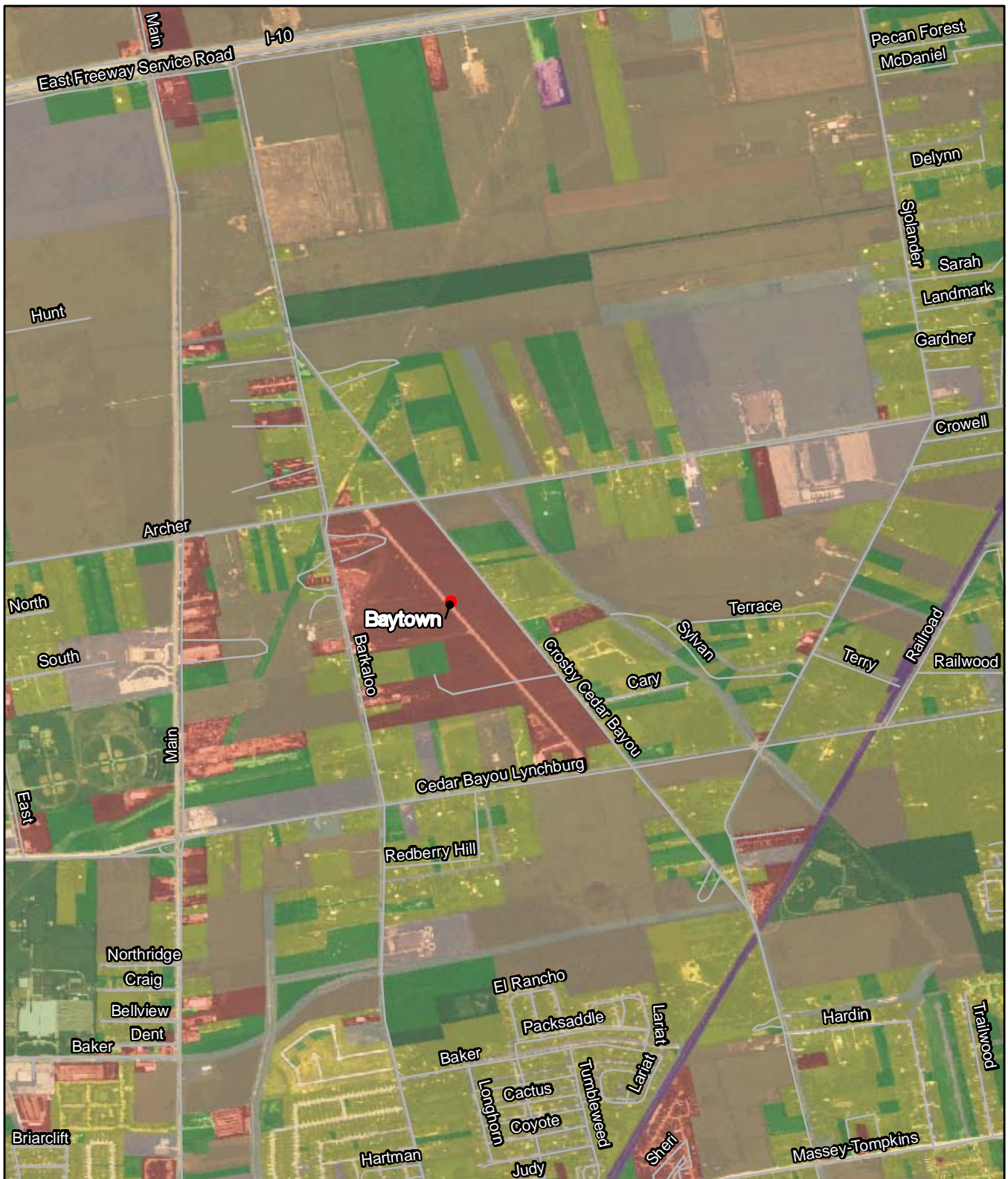
**Answer:** No.

13. What environmental issues may affect airport use and development?

**Answer:** The area is devoid of any environmental issues.

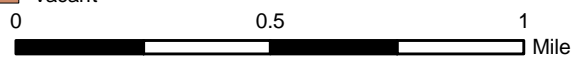
14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** Stakeholders are not aware of such; and if there is one, it has not been shared with the community.



**Legend - Land Use**

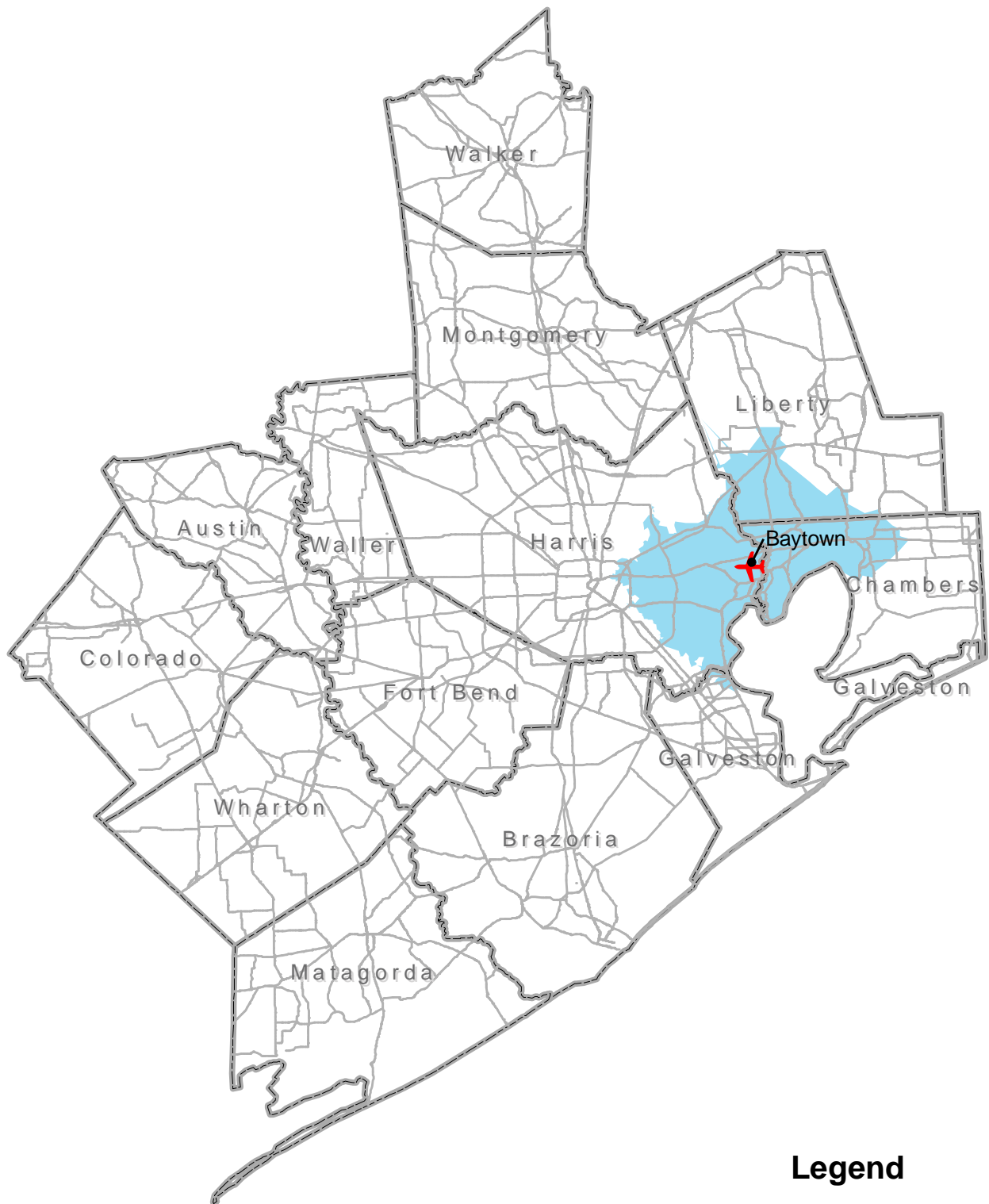
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Baytown Airport

2040 Regional Aviation System Plan Update

# Baytown Airport 30 min Service Area in 2009



## Legend

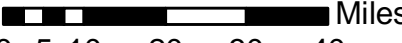
 Baytown

 Roads

 Counties

 30 Min Service Area



 Miles  
0 5 10 20 30 40



**Baytown Airport (HPY)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Baytown Airport is privately owned and operated by Raceco, Inc.

**Airport Location**

The Baytown Airport is located in Harris County, Texas approximately five (5) miles northeast of the Baytown central business district and 27 miles east of Houston. The airfield lies south of Interstate 10.

**Existing Airport Facilities**

Baytown Airport, including the airfield, hangars, airport administration offices, and safety areas, encompasses approximately 125 acres. The Airport's Airport Identifier is HPY. The facility is located at an elevation of 34 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°47'09.9"N (estimated) and longitude 094°57'09.6"W.

**Airfield Facilities**

Baytown Airport has one (1) runway. Runway 14/32 is 4,334 feet in length and 50 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 8,000 pounds or less. Currently, Runway 14/32 has a displaced threshold of 317 feet on the Runway 14 end and 330 feet on the Runway 32 end. The runway is constructed of asphalt and is in fair condition. The runway is equipped with non-standard low intensity runway lighting and two-light Visual Approach Slope Indicators (VASI) on the left of the Runway 32 end.

Runway 14/32 is classified as a Visual Approach runway. Therefore, there are no published approaches for HPY.

Taxiway A serves Runway 14/32 providing access from the apron edge to the Runway 14 end as well as to the center of Runway 14/32. The taxiway is lighted with Medium Intensity Taxiway Lighting (MITL).

A clear and green rotating beacon is located to the north of the terminal and provides visual guidance to the Airport. The Airport has a lighted wind cone that is located midfield and west of Runway 14/32. HPY does not have a segmented circle. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at Baytown Airport include the current airport administration offices, FBO, conventional hangars and T-hangars. The current airport administration offices and FBO are centered along the west edge of the terminal apron.

### Fixed Base Operator Facilities

Raceco Inc. owns and operates the FBO which offers a full range of services including aircraft fueling (Jet-A and AVGAS), parking, and aircraft storage. Other services include maintenance.

### Aircraft Storage

Aircraft storage at Baytown Airport includes 12 tie-down spaces, one (1) 10-unit T-Hangar, and conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Raceco, Inc. It is located northwest of the Airport's terminal building and adjacent to the apron and taxiway. It provides aboveground storage capacity for 10,000 gallons of Aviation Gasoline (AVGAS) and 10,000 gallons of Jet-A fuel. Aircraft fueling is self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 30 fixed wing aircraft based at Baytown Airport. This included 26 single-engine aircraft, two (2) multi-engine aircraft, one (1) turbo-prop and one (1) jet. Additionally, there is one (1) helicopter based at the airport.

### **Interviewer Conclusion**

Baytown Airport is small, encroached with little room for expansion on the north and south sides of the Airport. Baytown Airport has expressed interest in acquiring land to the south-southeast of the Runway 32 end, which is currently occupied by a residence. The Airport had an Airport Layout Plan (ALP) approved by FAA in 2008. The ALP presents future aviation development on the east side of the Airport. An area north of the terminal depicts T-hangar development. Airport management indicated that parcel of land showing the future T-hangar development had been used for RV storage previously. The land was being prepared for the T-hangar development at the time of the site visit.

Several facilities at Baytown Airport were damaged during Hurricane Ike. The Airport plans to improve these facilities. Recently, the terminal was updated and the finishes appeared new during the site visit. At the time of the site visit, Baytown Airport was also completing an addition to a conventional hangar that includes office space and living quarters for Life Flight crews. A new helipad was also prepared at Baytown Airport for Life Flight.

Baytown Airport desires to be a designated reliever airport.



**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: BAYTOWN AIRPORT

Airport Manager: CHARLES DANLEY

Date: 12/18/08

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars	12	2	1	1	1		
T-Hangars	10						
Portable Hangars							
Tie-Down (Paved)	3						
Tie-Down (Unpaved)	1						
Total							

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars					
Tie-Down (Paved)	2				
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area		
Based Aircraft Apron		4
Transient Aircraft Apron		8

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	
AVGAS	35,000
Jet-A	100,000

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
10,000	JET-A	ABOVEGROUND
10,000	AVGAS	ABOVEGROUND

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)	N/A	N/A	N/A
Frequency of Fuel Drops	N/A	2-3 MONTHS	1-2 MONTHS
Average Gallons per Drop	N/A	6000	8000

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

**Number of Daily Operations\***

Aircraft Type	Off-Peak		Peak		% Night**
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine	6	10	8	12	1%
Multi-Engine Piston	1	1	2	2	1%
Turbo Prop	1	1	3	3	1%
Business Jet	1	2	3	2	1%
Rotorcraft	2	2	5	2	5%
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. At what time of day does most of the activity occur at this airport? 9AM - 3 PM

8. What are the busiest days of the week? EVERY DAY IS ABOUT THE SAME

9. For the above table, what are your off-peak and peak seasons? JAN. FEB - OFF PEAK  
MARCH -> OCT = PEAK TIMES

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	0	
Charter	0	
Air Taxi	0	
Student Training	0	
Crop Dusting	0	
Other	0	
Total		

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
14-32	4334	50'	0.5%	ASPHALT HARD	NAVAIS STD.

Runway End	End Elevations	Visual	NP	P1/P2*	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
14	33.5'	N/A	-	-	317'	NASTD LIRL	-	-	-
32	27.3'		-	-	330'	" "	-	-	VASI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. RUNWAY 14 & 32 NEED TO BE WIDENED TO 60' & BEARING CAPACITY INCREASED.

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		X		Automatic Terminal Landing System		X	
Flight Service Station		X		Unicom	X		
National Weather Service		X		Precision Approach Radar / MLS/ILS		X	
Civil Air Patrol		X		Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon		X		Remote Transmitter Receiver / Communications Facility		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility		X	

14. Does the airport need new facilities in the next five years? (e.g., taxiways, aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? THERE IS A MASTER PLAN FOR THE AIRPORT THAT ADDRESSES THE ABOVE ISSUES.

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) PARKING, FENCING

16. What do you view as the long-range potential for the airport? BECOMING A RELIEVER AIRPORT FOR THE EAST SIDE OF HOUSTON

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? AIRPORT IS PRIVATE BUT WE HAVE THE SUPPORT OF CITY, STATE, (TXDOT) & FAA TO DEVELOP THIS AIRPORT INTO A NICE GA FACILITY.

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) NO PROTECTIVE ZONING I AM AWARE OF. THERE ARE HOMES NEAR THE AIRPORT, SOME CELL TOWERS.

19. Have nearby residents complained of aircraft noise? NOT THAT I AM AWARE OF.

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? NOT THAT I AM AWARE OF.

**Baytown Chamber of Commerce**  
**Focus Group**

**Summary Report**

**Stakeholders Perspective**

**I Airport History/Environment**

The Baytown Airport (HPY) is a privately owned, public use airport owned by Angel Brothers Construction Group, (Raceco, Inc). It is 5.7 nm from another privately owned facility, RWJ Airpark that has a 5,035 x 40 foot runway, and is also in Bayport. RWJ has not been identified as part of the RASP.

Baytown Airport covers an area of 125 acres which contains one runway designated 14/32 that is a 4,334 x 50 ft with an asphalt surface. The airport has approximately 50 based general aviation aircraft and a based LifeFlight helicopter operation. About 95% of the aircraft activity is single-engine and 5% multi-engine.

The airport benefits from the two major economic drivers --- the petrochemical industry (Exxon Mobil, Chevron Phillips and Bayer) and the Port of Houston.

**II Goals/Objectives**

- Pursue a federal reliever designation

**III Initiatives**

- A new hangar is in design phase that will include a corporate terminal with aviation support services.
- Main office of airport is being in process of being rebuilt.
- A new hangar is under construction that will accommodate approximately 20-30 aircraft.
- Other new additions include:
  - 12 new T-Hangars
  - Runway widening from 50 to 60 feet
  - New instrument approaches
  - Additional asphalt tie-downs in new ramp areas

- Discussions with the FAA are in progress on the development of aircraft repair services at the airport.

#### IV Recommended Airport Enhancements

- Widen runway
- Revamp taxiway
- Replace lighting system
- Improve clear zones
- Restripe runway
- Beautification

#### V Interviewers Conclusion

The focus group was large (10) and all were enthusiastic about ways to improve and grow the airport. It was mentioned that the owners may seek a federal reliever designation so the airport would be eligible for federal funding. For a privately owned airport, the bar is very high to achieve such a designation. Based aircraft and number of operations will need to be increased.

There was no discussion about the city or county having an interest in becoming a public sponsor (purchasing the airport) which would make a reliever designation easier to obtain.

The current owners are actively investing money into the facility and providing additional hangar space and better corporate amenities. Lengthening the runway is restricted unless additional land is acquired.

**Baytown Chamber of Commerce Interview**  
*Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan*

<u>Chamber Name:</u>	Baytown Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Baytown Airport (HPY)
<u>Interview Date:</u>	February 17, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** The Baytown Airport (HPY) is a privately owned, public use facility owned by Angel Brothers Construction Group. It is 5.7 nm from the RWJ Airpark; another privately owned local facility that is not being studied in the RASP.

HPY's growth will be determined by the owners. However current developments indicate that in the next three years, the following may come about because of the airport's strategic location relative to the City of Houston and to the Port of Houston:

- Instrument approaches established.
  - The 4,334 foot runway extended if additional land can be acquired.
  - The runway widened from its current 50 feet, and resurfaced (in process)
  - Taxiways revamped.
  - Lighting systems replaced.
  - Major improvements to existing buildings made.
  - A first-class corporate terminal developed
  - Beautification
  - Number of based aircraft increased.
  - Trees removed restricting clear zones.
  - Runway restriped as per displaced thresholds.
  - Emergency disaster support established.
    - The airport currently provides transportation support for supplies and emergency management people when disaster strikes --- refinery explosions, hurricanes, floods, etc.
2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** HPY is currently building a new hangar that can accept turbine aircraft as well as piston aircraft. This should attract more based planes.



Other improvements include:

- Airport's main office is being completely rebuilt
- New hangar in construction that will accommodate approximately 20-30 aircraft
- 12 new T-hangars
- Runway widening from 50 to 60 feet
- New instrument approaches
- Additional asphalt tie-downs in new ramp areas

Baytown's economic driver is the Port of Houston and the industries (distribution centers and logistics) that are tied to the port. The improvements at the airport will support these industries.

3. **Where and what do you expect for the area's future growth?**

**Answer:** There is a large industrial complex south and east of Baytown. The focus group also expressed growth on the east side of Houston as it pushes towards Chambers County with development that includes subdivisions, retail, distribution centers, warehousing, and industrial parks. The major economic contributors to Baytown proper are Exxon Mobil, Chevron Phillips, and Bayer.

4. **What do you think are the local issues facing your area as it relates to aviation?**

**Answer:**

- Drainage is always a major problem in this area. A study has just been completed and a plan is in place to reduce this issue.
- Being in the heart of the petrochemical industry, security is always a major concern. The airport lacks complete fencing; and therefore, animals and people often frequent the property without intervention.
- Noise is an issue for local homeowners in the area.

5. **What do you believe are the area's needs that can best be handled by airport improvement?**

**Answer:**

- LifeFlight is based at Baytown Airport (HPY). Plans are to increase activity by expanding staff hours from 12-hour shifts to 24-hour shifts.
- A new main hangar is in the design stage with construction to be completed before the end of the year.
- The demand for aircraft space is high. A contract has been signed for construction of a new 12 unit T-hangar.
- A longer and wider runway is needed.

6. How could a better integrated airport system serve the community's needs?

**Answer:** To have a better integrated airport system, each airport needs to set a primary goal for its development and plan how they are going to market the facility. The focus group suggested the airport owners might wish to work with Lee College and/or some aviation school to train airframe mechanics, avionics, and other aircraft support skills.

The airport manager is investigating ways to develop an aircraft repair facility with the FAA.

During hurricanes (disasters) the airport becomes a staging area. The base Life Flight supports East Houston, Lake Charles, Beaumont, and areas north/east of Baytown and Houston.

More public outreach is needed to educate the community about the benefits of the airport.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** The area is in need of a based air charter operation. Hotel accommodations are also needed near the airport.

8. How can the airport support local business development?

**Answer:** It can support a sizeable employment base with proper marketing efforts.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The airport is in close proximity to the Port of Houston, the Bayport Container and Cruise Terminal, and numerous refineries. It has an established niche as "The Gateway to the Houston Port & Petrochemical Industry."

10. What types of community relationships does the airport have with its neighbors?

**Answer:** The majority of the community is not aware of the airport, but this has changed some since LifeFlight has started operating. Its image as transportation asset is improving.

11. Is there organized opposition to airport development and expansion?

**Answer:** No organized opposition is evident.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None

13. What environmental issues may affect airport use and development?

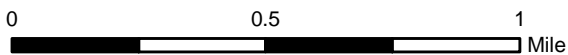
**Answer:** Drainage and minimal noise concerns.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The airport has just completed a master plan (2008) to aid in directing its future.

15. Do you know of other people or groups that we should contact?

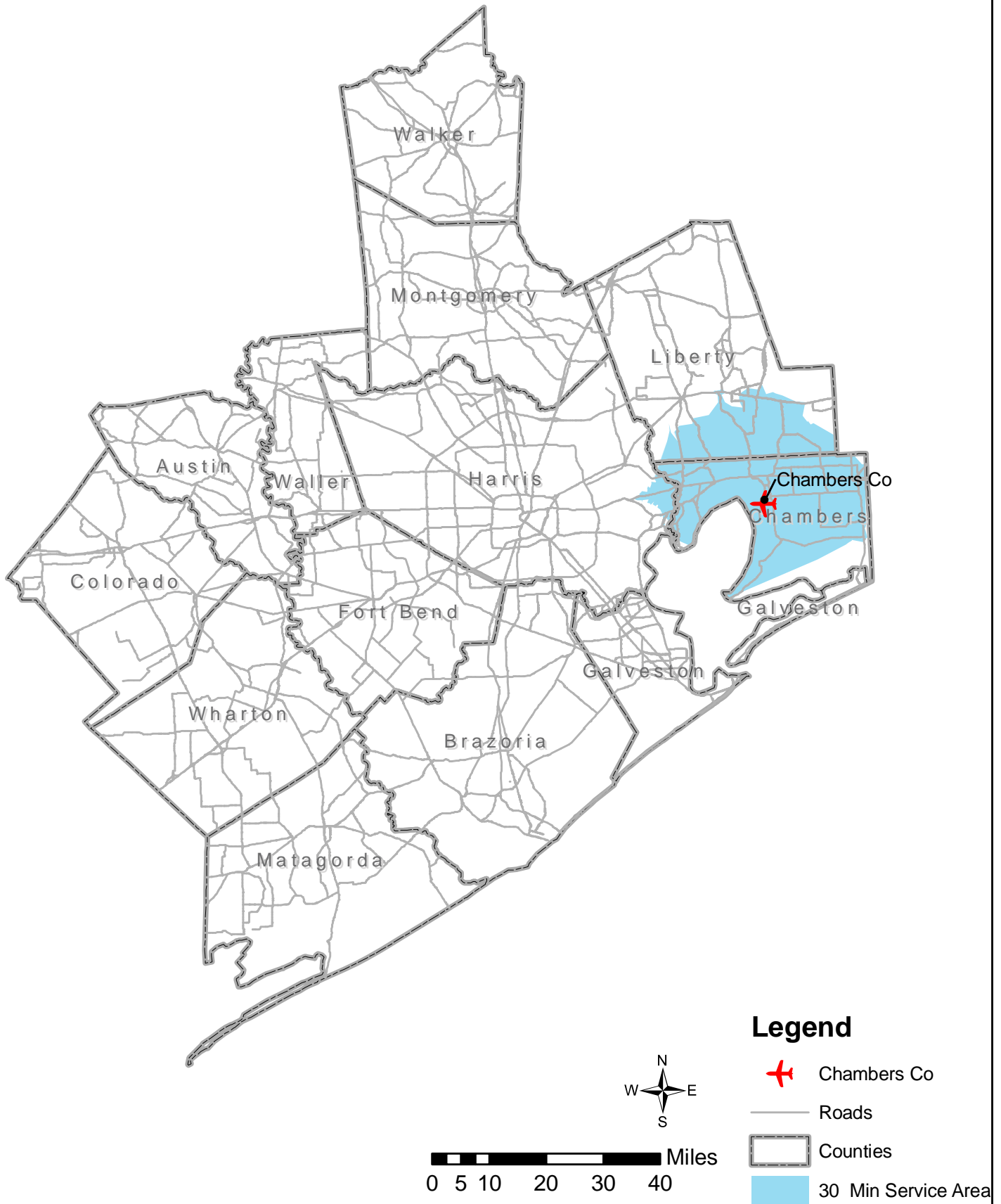
**Answer:** No



# Chambers County Airport

2040 Regional Aviation System Plan Update

# Chambers County Airport 30 min Service Area in 2009



**Chambers County Airport – Anahuac (T00)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Chambers County Airport is publicly owned and operated by Chambers County, Texas.

**Airport Location**

The Chambers County Airport is located in Chambers County, Texas approximately two (2) miles east of the Anahuac central business district and approximately 50 miles east of Houston. The airfield lies south of State Highway 61.

**Existing Airport Facilities**

Chambers County Airport including the airfield, hangars, airport administration offices, and safety areas, encompasses approximately 216 acres. The Airport Identifier is T00, a unique three letter designator given to each airport by the FAA. The facility is at an elevation of 21 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°46'11.3332"N (estimated) and longitude 094°39'48.5535"W.

**Airfield Facilities**

Chambers County Airport currently has one (1) paved and one (1) turf runway. Runway 12/30 is 3,005 feet in length and 60 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 13,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and a two-light Precision Approach Path Indicator (PAPI) on the left of the Runway 12 end.

Runway 17/35 is composed of turf. The runway is 1,900 feet in length and 300 feet wide.

Runway 12/30 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 12

Taxiway A is a full parallel taxiway serving Runway 12/30. The taxiway is 60 feet wide, constructed partially of asphalt. From the apron to the Runway 30 end, the taxiway consists of turf. The taxiway is not lighted. The Airport expressed plans to complete paving of Taxiway A.

The clear and green rotating beacon, which provides visual guidance to the Airport for pilots, was not in operation at the time of the site visit. It had been damaged due to severe weather. The Airport has a segmented circle and lighted wind cone that is located south of Runway 12/30 and east of Runway 17/35. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

### Landside Facilities

The landside facilities at Chambers County Airport include the airport administration office and conventional hangars. There is not a terminal building located at Chambers County Airport. The Airport stated that constructing a terminal building is a desire; however, there is not much support for it. Additionally, the Airport has plans to begin a fencing project.

### Fixed Base Operator Facilities

While there is not a full-service FBO located at Chambers County, the County owns and operates the Airport and provides the following services: fueling, aircraft parking and storage.

### Aircraft Storage

Aircraft storage at Chamber County Airport includes a total of eight (8) tie-down spaces and conventional hangars. At the time the site visit was conducted, several hangars had been damaged by tornadoes and the T-hangars had been destroyed. The Airport intends to replace the T-hangars and refurbish other hangars that were damaged. The Airport also indicated that they anticipate the potential for expansion of aircraft storage.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by the County. The fuel farm is located west of the Airport's administration offices and adjacent to the apron. It provides aboveground storage capacity for 10,000 gallons of Jet-A and 10,000 gallons of AVGAS. Both tanks are self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 11 fixed wing aircraft based at Chambers County Airport. This includes 10 single-engine aircraft and one (1) turbo prop.

### **Interviewer Conclusion**

Chambers County Airport is a small, but active airport. The fuel prices attract a large amount of transient aircraft. As stated previously, the Airport suffered damage to several hangars and is planning to refurbish/reconstruct those facilities. Airport management expressed the need for a terminal building in addition to hangar space. While there is a great deal of support from the pilot community, there is not a large amount of support for the Airport by the community at large.



**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: **Chambers County Airport – T00**

Airport Manager: **Don Brandon**

Airport Owner: **Chambers County**

Date: **09 January 2009**

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>	<i>Glider</i>	<i>Ultra-Light</i>
Conventional (Bay) Hangars	8		1				
T-Hangars	2						
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
Total	10		1				

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<i>Apron Type</i>	<i>Area (sq yds)</i>	<i>Number of Tie-Down Spaces</i>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron		8 – 5/marked – 3/unmarked

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<i>Type of Fuel</i>	<i>Fuel Flowage (gallons/year)</i>
MOGAS (auto)	
AVGAS	34,387.6
Jet-A	33,902.2

<i>Tank Size (gallons)</i>	<i>Type of Fuel (MOGAS, AVGAS, JET-A)</i>	<i>Aboveground / Under-ground</i>
10,000	100/LL AvGas	Aboveground
10,000	Jet A AvFuel	Aboveground

5. Please provide the following information about your fueling operation.

<i>Item</i>	<i>MOGAS</i>	<i>AVGAS</i>	<i>JET-A</i>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops		6 weeks	Bi-monthly
Average Gallons per Drop		8,000	8,000

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<i>Aircraft Type</i>	<i>Number of Daily Operations*</i>				<i>% Night**</i>
	<i>Off-Peak</i>		<i>Peak</i>		
	<i>Weekday</i>	<i>Weekend Day</i>	<i>Weekday</i>	<i>Weekend Day</i>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings    \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? **Early afternoon** \_\_\_\_\_

8. What is the busiest day(s) of the week? **Monday & Friday** \_\_\_\_\_

9. For the above table, what are your off-peak and peak seasons? **Peak - Fall & Spring – Off-peak Winter**

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>	<i>Aircraft Types</i>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other	1	Ag Wagon for mosquito abatement
Total		

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
17 – 35	2300	300	0	Sod	Runway edge
12 – 30	3003	60	0	Paved Asphalt	Center-lined striping - Medium intensity runway lighting – pilot controlled

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
Yes		Instrument	GPS	None	None	Yes	None	None	PAPI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
Yes	3003	60	None	Sod/Paved Asphalt	Asphalt

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. **Yes** \_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. **Yes** \_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower		X		Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom	X		122.90
National Weather Service		X		Precision Approach Radar / MLS/ILS			
Civil Air Patrol		X		Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon	X			Remote Transmitter Receiver		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility		X	
Ground Communications Outlet	X			Remote Communications Outlet		X	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? **Yes** \_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) **Fencing – Terminal building** \_\_\_\_\_

16. What do you view as the long-range potential for the airport? **Recreational** \_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

**Pilot support – No public opposition** \_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) **Yes** \_\_\_\_\_

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19. Have nearby residents complained of aircraft noise? **No** \_\_\_\_\_

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? **No** \_\_\_\_\_

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Anahuac Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective

I Airport History/Environment

Chambers County Airport (T00), also known as Oscar F. Nelson, Jr. Memorial Airport, is a county-owned general aviation airport located in unincorporated Chambers County, approximately 20 miles east of the City of Anahuac, the county seat.

It has a 3,005 x 60 foot asphalt runway and a GPS approach on Runway 12. There are approximately 12 based aircraft.

II Goals/Objectives

The primary goal of T00 is to recover from the September 2008 hurricane that swept across Chambers County causing considerable wind and surge damage. While airport hangars were damaged, they are in the process of being reconstructed.

III Initiatives

Storm recovery

IV Recommended Airport Enhancements

- Public outreach and promotional campaign
- Identify a local airport champion
- Educate Chambers County elected officials on the airport's benefits to future economic growth

V Interviewers Conclusion

Airport sponsor needs to establish some measureable long term goals and objectives to substantiate the airport as an asset, and support the Economic Development Corporation (EDC) in marketing the airport by developing incentives to attract business.

Anahauc Chamber of Commerce Interview  
*Stakeholders Focus Group*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

<u>Chamber Name:</u>	Anahauc Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Chambers County Airport (T00)
<u>Interview Date:</u>	March 26, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** The airport, now and in the future, will continue to be a general aviation airport. The stakeholders see the airport as a key element in building their community by striving towards future corporate and business aviation and attracting industry.

T00 in the next decade should have a full time on-site airport manager that will enhance its ability to grow.

- This area was hit hard by Hurricane Ike. The hangars were damaged, but not destroyed.
- Improved infrastructure

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The area's primary focus is post hurricane recovery as it was hit very hard by the storm. There is an economic development corporation (EDC) within the County that is pursuing new industry. Chambers County is limited in the type of businesses they can attract because of the areas extensive wetlands. No industrial business is allowed.

- Major economic drivers are:
  - the medical community and the schools
    - Medical:
      - Bayside Community Hospital
      - Winnie Community Hospital
      - Baycoast Medical Center
  - Warehousing is a possibility.
  - Strong fishing industry
  - Wholesale market/cleaning establishment



- Economic development will accelerate with the completion of the construction of I-10
- North of Turtle Bayou is a 250 home community and sewer treatment plant.
- A new marina with a lodge and restaurant is proposed on Trinity Bay called Oak Island that is located 6 miles south of Anahuac. Additional development is being discussed including:
  - A fish market
  - Tourism attractions, and a
  - Potential nightclub

In summary: Many people do not want to come past the Trinity River Bridge heading east from Houston to develop in the area while I-10 is under construction and being widened.

- The bridge improvements need to be completed
- Hurricane debris needs to be cleaned up
- Resort area needs beautification
- Major infrastructure improvements
- Aggressive marketing to attract light industry

3. Where and what do you expect for the area's future growth?

**Answer:** See Question #2

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- Anahuac as a community lacks identity; and therefore, the airport lacks identity
- Wetlands, with environmentalists who want to protect them
- I-10 is under construction and goes directly through Chambers County

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** Promotion and recognition of the economic benefits of having an airport

6. How could a better integrated airport system serve the community's needs?

**Answer:** The Chambers County Airport would be an excellent location for flight training and aircraft services. A good aviation technical college, along with working with the local school system, could advance airport development.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See question #2 - tourism, light industry, more aviation visibility.

8. How can the airport support local business development?

**Answer:** Employment base

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The Chambers County Airport could become the "Gateway to East Texas Fishing and Wildlife." The Alligator Festival, held each year, brings in 30,000 tourists.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** Community relations are good overall. No negative issues are associated with the airport.

11. Is there organized opposition to airport development and expansion?

**Answer:** None.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None.

13. What environmental issues may affect airport use and development?

**Answer:** With the amount of water covering the county (over 30% of the County's mass), there will always be wetland issues.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** Focus group was not aware of an airport master plan.

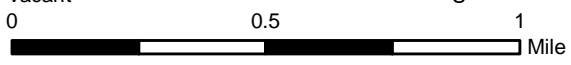
15. Do you know of other people or groups that we should contact?

**Answer:** No.



**Legend - Land Use**

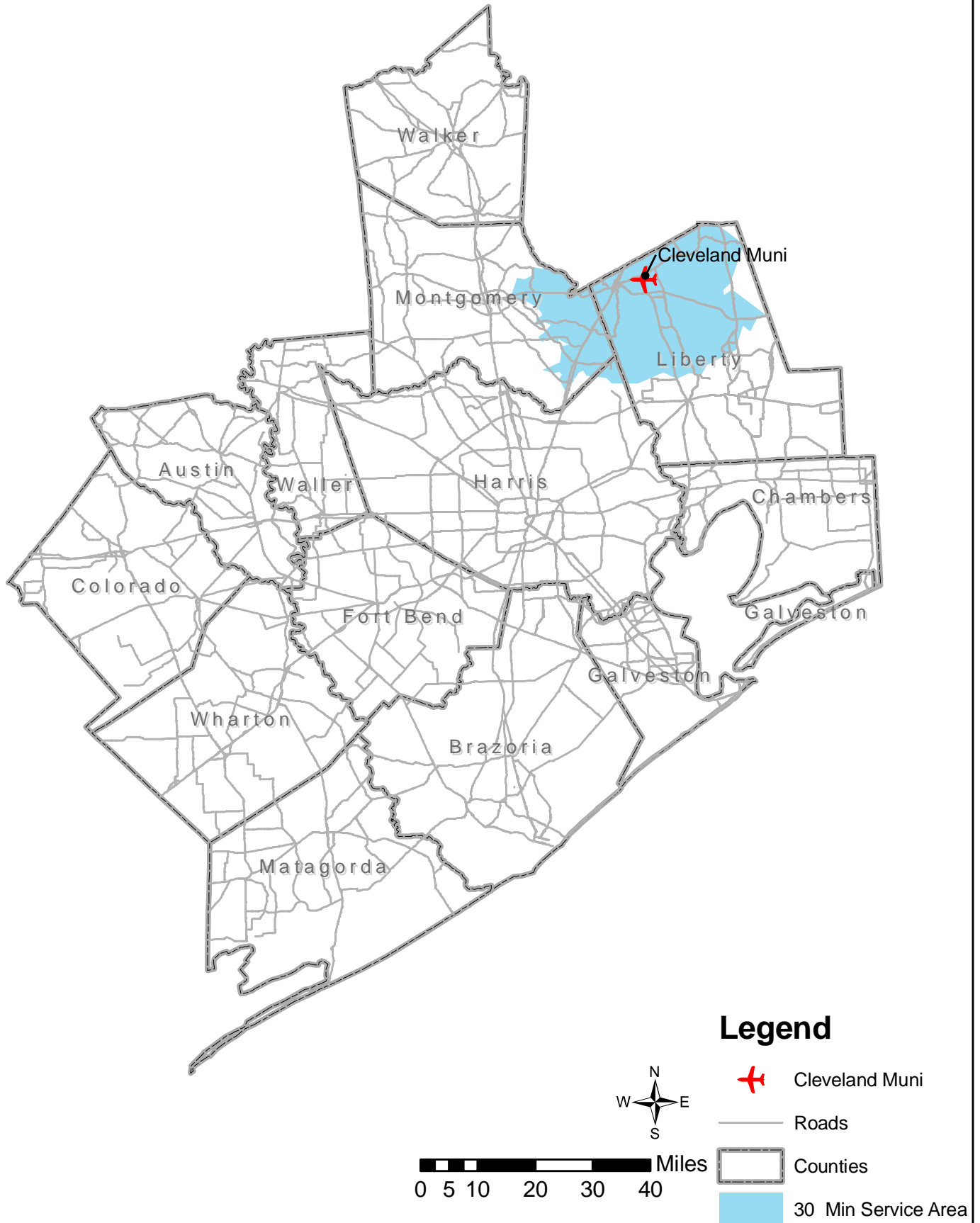
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Cleveland Municipal Airport

**2040 Regional Aviation  
System Plan Update**

# Cleveland Municipal Airport 30 min Service Area in 2009



**Cleveland Municipal Airport (6R3)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Cleveland Municipal Airport is publicly owned and operated by the City of Cleveland.

**Airport Location**

Cleveland Municipal Airport is located in Liberty County, Texas approximately five (5) miles northeast of the Cleveland central business district and 50 miles northeast of Houston. The airfield lies south of FM 787 and east of US 59.

**Existing Airport Facilities**

Cleveland Municipal, including the airfield, hangars, terminal, and safety areas, encompasses approximately 200 acres. The Airport's Airport Identifier is 6R3. The facility is located at an elevation of 150 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 30°21'23.2"N (estimated) and longitude 095°00'28.9"W.

**Airfield Facilities**

Cleveland Municipal Airport has one (1) runway. Runway 16/34 is 4,998 feet in length and 75 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 30,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and four-light Precision Approach Path Indicators (PAPIs) on the left of both runway ends.

Runway 16/34 is classified as a Non-Precision Instrument runway. The following published approaches were available as of April 9, 2009:

- GPS Runway 16
- VOR-A

Taxiway A is a full parallel taxiway serving Runway 16/34. The taxiway is 35 feet wide, constructed of asphalt, and has Medium Intensity Taxiway Lighting (MITL). Taxiway B and C are connector taxiways.

A clear and green rotating beacon is located to the northwest of the terminal building and provides visual guidance to the Airport. The Airport has two segmented circles and lighted wind cones, one located on the southern edge of the terminal apron and one northwest of the intersection of Taxiway Bravo and Runway 16/34. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at Cleveland Municipal Airport include the terminal, a conventional hangar, and T-hangars. The terminal is adjacent to the northeast corner of the terminal apron.

### Fixed Base Operator Facilities

The City of Cleveland owns and operates the only full-service FBO. Services offered at the FBO include fueling, pilot room, flight planning, aircraft parking and storage.

### Aircraft Storage

Aircraft storage at Cleveland Municipal Airport includes 35 tie-down spaces, four (4) T-Hangar units, and one (1) conventional hangar.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by the FBO. Aviation Gasoline (AVGAS) provides underground storage capacity for 10,000 gallons of AVGAS. Currently, Cleveland Municipal Airport does not offer Jet-A fuel. The Airport has determined that it is best to wait until the demand for Jet-A presents itself to provide Jet-A fuel.

### Based Aircraft

In 2008, there were a total of 43 fixed wing aircraft based at Cleveland Municipal Airport. This included 40 single-engine and three (3) multi-engine aircraft.

### **Interviewer Conclusion**

Cleveland Municipal Airport is a very clean airport with a beautiful terminal. The Airport anticipates substantial growth in the coming years. Land is being purchased to develop into an industrial park. Interest has been expressed in the construction of a residential community on the Airport. An Automated Weather Observation System (AWOS) is scheduled to be installed on the Airport by November 2009.

The Airport stated that it needs a new self-serve fuel farm and would prefer that the underground storage tank be moved above. Cleveland Municipal Airport is also interested in covering tie-downs with open shade hangars to park transient aircraft under. The Airport Layout Plan has also identified parcels of land for future T-hangar development to the southeast of the terminal apron.

The Airport's entrance is an issue as well as security. Some vandalism has occurred at Cleveland Municipal Airport. Additionally, Cleveland Municipal Airport has experienced issues with deer, skunks, hogs and starlings.

The FBO used to provide a Part 61 flight school, however, it became costly. The FBO found it was competing with Part 141 flight schools and as the number of students diminished, the FBO elected to end the flight school.

The Airport has both business and recreational flying. Additionally, the Army Reserve flies helicopters in for transition training.

The City of Cleveland and the majority of the community appear to support the Airport. Airport management is very enthusiastic about aviation and positioning the Airport for future expansion.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: CLEVELAND MUNICIPAL (GR3)  
 Airport Manager: ALF VIER  
 Airport Owner: CITY OF CLEVELAND  
 Date: 1-28-09

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars							
T-Hangars	37	3	—	—	—	—	—
Portable Hangars							
Tie-Down (Paved)	3						
Tie-Down (Unpaved)							
Total	40	3					

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	NIL
AVGAS	18,000 +/-
Jet-A	NIL

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
10,000	AVGAS	UNDERGROUND



5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops		MONTHLY	
Average Gallons per Drop		1500 GALS	

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine	5	6	15-20	20-30	01%
Multi-Engine Piston	1	1	1	1	1
Turbo Prop	1	1	1	1	
Business Jet	1	1	1	1	
Rotorcraft	3	3	6	7-10	30%
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? AM & EVENINGS

8. What is the busiest day(s) of the week? SAURDAY AM

9. For the above table, what are your off-peak and peak seasons? JAN - FEB - MAR  
FEB "slime time" off peak

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	/	NONE AT PRESENT
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total		

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
16-34	1997	70		ASPHALT	STRIPS @ 1000 FT

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
A.A.B.C	1997	40'	YES	ASPHALT	16-34

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. MAY NEED SEAL COAT AND STRIPING

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. MAY NEED SEAL COAT AND STRIPING ALSO

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower				Automatic Terminal Information Service		/	
Flight Service Station	/		122.2	Unicom	/		123.0
National Weather Service	/		ADDs	Precision Approach Radar / MLS/ILS		/	
Civil Air Patrol				Segmented Circle	/		
Automatic Weather Observing System (A, I, II, III, IV)			NOV 2009	Centerfield Wind Indicator	/		
Automated Surface Observing System		/		Supplemental Wind Cone	/		
Non-Directional Radio Beacon		/		Remote Transmitter Receiver		/	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)	/		116.9	Aircraft Rescue and Fire Fighting Facility		/	
Ground Communications Outlet	/		123.0	Remote Communications Outlet		/	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? YES, COVERED TIE-DOWNS SPACE, HANGARS  
NEW FUEL FARM IN TALKS WITH TxDOT NOW.  
OLD HANGARS NEED REPAIR TO THEIR ROOFS

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) ENTRANCE TO THE AIRPORT NEEDS  
DRABRIC IMPROVEMENT MORE FENCING - DEER PROOF  
TYPE

16. What do you view as the long-range potential for the airport? EXTENSIVE GA TRAFFIC  
TO SUPPORT LOCAL BUSINESS

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? THE MAJORITY OF OUR COMMUNITY SUPPORT THE AIRPORT,  
BUT THERE ARE SMALL GROUPS THAT FEEL MONEY  
EARMARKED FOR AIRPORT IMPROVEMENTS COULD BE BETTER  
USED WITHIN THE COMMUNITY.

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) WE HAVE CLEAR ZONES - RUNWAY PROTECTED ZONES - THE CITY OWNS LARGE SECTIONS OF LAND AT BOTH ENDS OF THE AIRPORT.

19. Have nearby residents complained of aircraft noise? NO

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? YES

NO - cattle

80'

dial is made

westside - limbo mill to acquire cost would be prohibitive

**Cleveland Chamber of Commerce**  
**Focus Group**

**Summary Report**

**Stakeholders Perspective**

**I Airport History/Environment**

Cleveland Municipal Airport (6R3) has been a public facility since 1969. It was originally developed by the Cleveland Junior Chamber of Commerce. The airport was purchased by the City of Cleveland, TX in 1967. For the past 23 years, the FBO operation has been handled by Alf Vien, a private operator. The primary runway is 4,995 feet long. Approximately 46 aircraft are based at the facility.

**II Goals/Objectives**

The stakeholder's main goal is to develop the airport into a viable operation; one that can make a profit for the City and not run at a deficit. Another goal is to promote the airport to the community to become aware of the economic benefits it can bring.

**III Initiatives**

The City/airport is in initial conversations with TxDOT– Aviation to find ways to establish a fuel farm that will provide Jet A fuel. There is also focus on expanding hangar and tie down space for the growing list of pilots looking for a home base.

**IV Recommended Airport Enhancements**

- Improved terminal/FBO facilities
- Fuel farm
- Additional tie downs and hangars
- Improved support services for aircraft
- Land acquisition for growth

**V Interviewers Conclusion**

The airport and the City need to work closely together to promote the facility to the local community. The airport needs a strong leader and promoter. The airport's 2002 Master Plan update will provide direction and set priorities for airport improvement. There is no driving force to market the airport outside of its current clients. Airport management has considerable concern about the proposed TSA amendment that could adversely affect general aviation airports and the customers they serve.

## Cleveland Chamber of Commerce Interview

Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber/EDC Name:</u>	Cleveland Chamber of Commerce
<u>Chamber/EDC Representative:</u>	See sign-in sheet
<u>Airport Name:</u>	Cleveland Municipal Airport (6R3)
<u>Interview Date:</u>	February 18, 2009

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### Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** Like many general aviation airports in the region, there is a long waiting list of pilots looking for hangar or tie down space at Cleveland Municipal Airport. The number one objective the airport would hope to accomplish is to add additional tie-downs and hangars to meet the demand and become a profitable operation.

Further growth is expected in the following areas:

- With the popularity of timeshare and fractional ownership in the industry, there is a need for more air taxi operations at the airport.
  - Establishment of a small terminal for light cargo operations.
  - A new fuel farm is in the works through talks with TxDOT, Jet A fuel.
  - Marketing will be focused to capitalize on general aviation opportunities currently in place.
  - Stakeholders want to attract the corporate jet community when appropriate support services are developed.
  - Airport should strive to partner with the city to stimulate growth.
  - Better community education is needed to show what the airport provides in way of economic benefits.
  - Commercial development awareness
  - Work closely with the chamber and EDC to promote the airport.
  - Extend the size of airport through land acquisition.
2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** Cleveland has had very little growth in the region compared to areas around Conroe and the Woodlands. While the city is on a major artery (US59), growth has been limited. In the future, despite minimal growth in the area, the east end of the airport will expand. Looking at the positive side, the following is in place or in process.

- Liberty Motorsports Park, a race park, is due to break ground and opens in 2010. This will change the atmosphere in the area overnight. The airport anticipates increased air traffic from this project.
- There has been some growth in manufacturing.
- Union Tank is directly across the highway from the airport.
- Western Forge came from California and started an operation.
- Major retail is expected to take place in the area.
- Southeast Bio-Medical Research Institute will be flying in medical specimens.
- The stakeholders feel the airport could be in the hunt for the medical support industry.
- EarthQuest Adventures will create jobs so new residents will be relocating to this area. The theme park is scheduled to open in 2012.
- There is 174 acres of free trade zone in the area.

If the above growth develops, the stakeholders expect it to have a large impact on the airport's future.

3. Where and what do you expect for the area's future growth?

**Answer:** See Question #2. In addition, there was discussion regarding the development of a structured marketing plan to advertise the facility.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- Community's lack of knowledge that an airport exists. Efforts to plan future events at facility are experiencing issues associated with crowd safety.
- Lack of long range planning to take advantage of opportunities
- Property acquisition to expand airport (Certain obstacles may block this from happening.)
- Drainage study is being considered.
- Airport Layout Plan needs to be updated. The stakeholders are starting to work with TXDOT – Department of Aviation
- Transportation Security Administration (TSA) proposed ruling could stifle the future of the airport involving restrictions associated with 12,500 pounds or more landing at a facility like Cleveland Municipal Airport. (See Question 12 on TSA proposed amendment.)

One stakeholder likened his feelings toward the airport as that of a "penniless child in a candy store"; there is a great deal they need to improve but lack of money is an obstacle. They do have an EDC with some avenues to help financially.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- Nice terminal with incorporated FBO
- More hangars and tie downs
- Jet A fuel capabilities
- Structured marketing plan and more public visibility



6. How could a better integrated airport system serve the community's needs?

**Answer:**

- Integrated airport system has the ability to bring commerce and employment to all airports
- Each general aviation airport can provide support for the entire system
- Integrated system would provide each airport within the system an identity that indicates how it should grow
- Development of aviation support businesses could result from a more integrated system

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See Question #2

8. How can the airport support local business development?

**Answer:** Employment opportunities with airport growth and the expansion of the area's commerce

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The most obvious brand is for the airport to be promoted as the "Gateway to East Texas." However, the Focus Group has the impression that the individuals that make decisions for the airport's future are the same people that do not recognize its contributions and value. Airport needs more visibility through good marketing.

10. What types of community relationships does the airport have with its neighbors?

**Answer:**

- The airport holds a Fourth of July celebration with a fireworks display. This past year they had 5,500 people in attendance.
- 

11. Is there organized opposition to airport development and expansion?

**Answer:** None

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** Issues associated with TSA amendments to 49 CRFA Parts 1515, 1520, 1522, 1540, 1542, 1544 and 1550 involving aircraft of 12,500 pounds or more land General Aviation airports.

**SUMMARY:** The Transportation Security Administration (TSA) proposes to amend current aviation transportation security regulations to enhance the security of general aviation by expanding the scope of current requirements and by adding new requirements for certain large aircraft operators and airports serving those aircraft. TSA is proposing to require that all aircraft operations, including corporate and private operations, with aircraft with a maximum certified takeoff weight (MTOW) above 12,500 pounds ("large aircraft") adopt a large aircraft security program (LASP). This security program would be based on the current security program that applies to operators providing scheduled or charter services.

13. What environmental issues may affect airport use and development?

**Answer:**

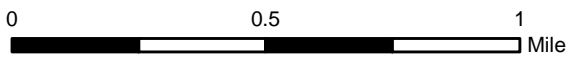
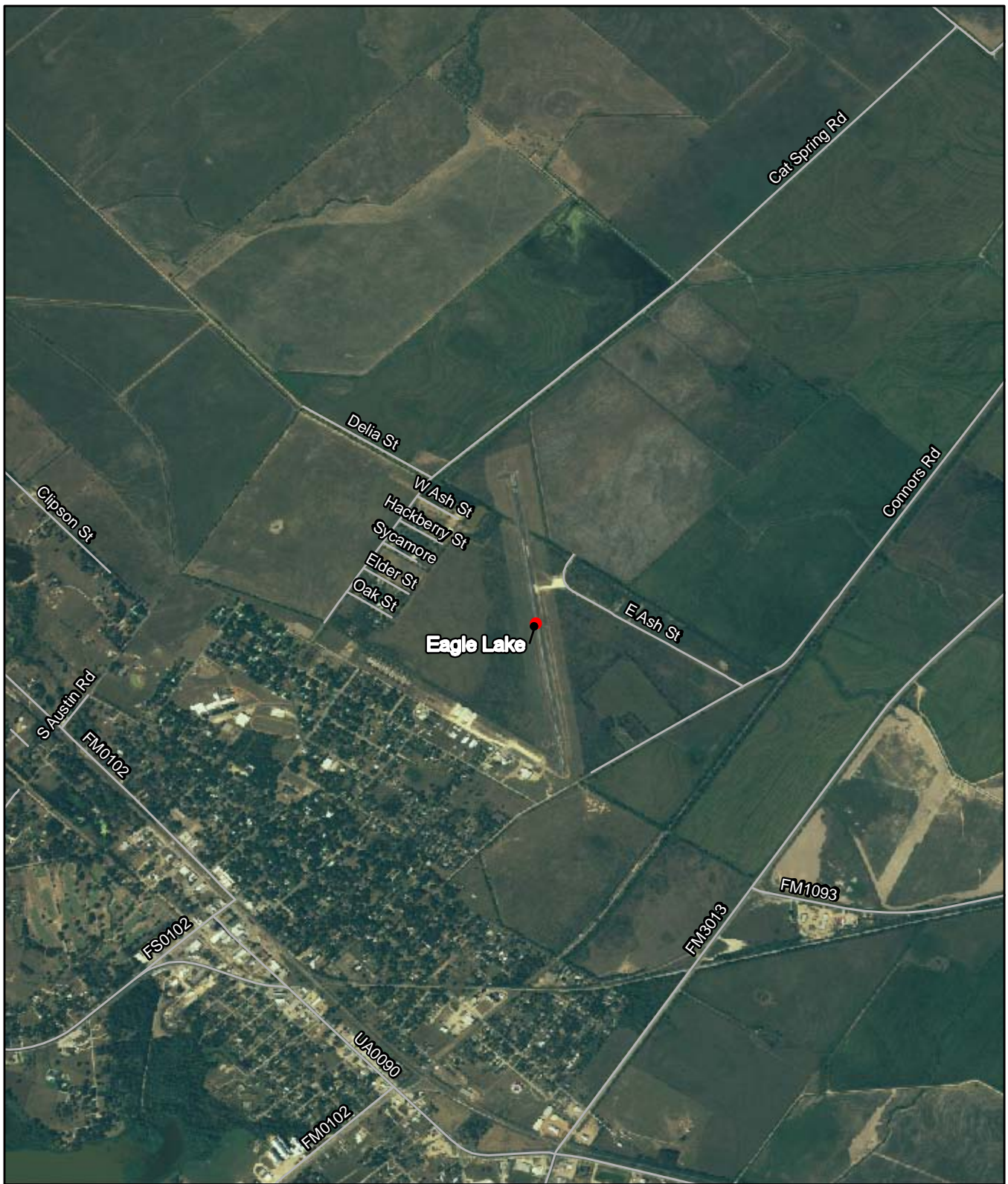
- Drainage. The surrounding farms (agricultural area) may not allow for growth of the airport in the future because of drainage issues.
- There is a 10" pipeline, 20" underground, pumping something close to lighter fluid through it.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** Master plan exists but needs updating.

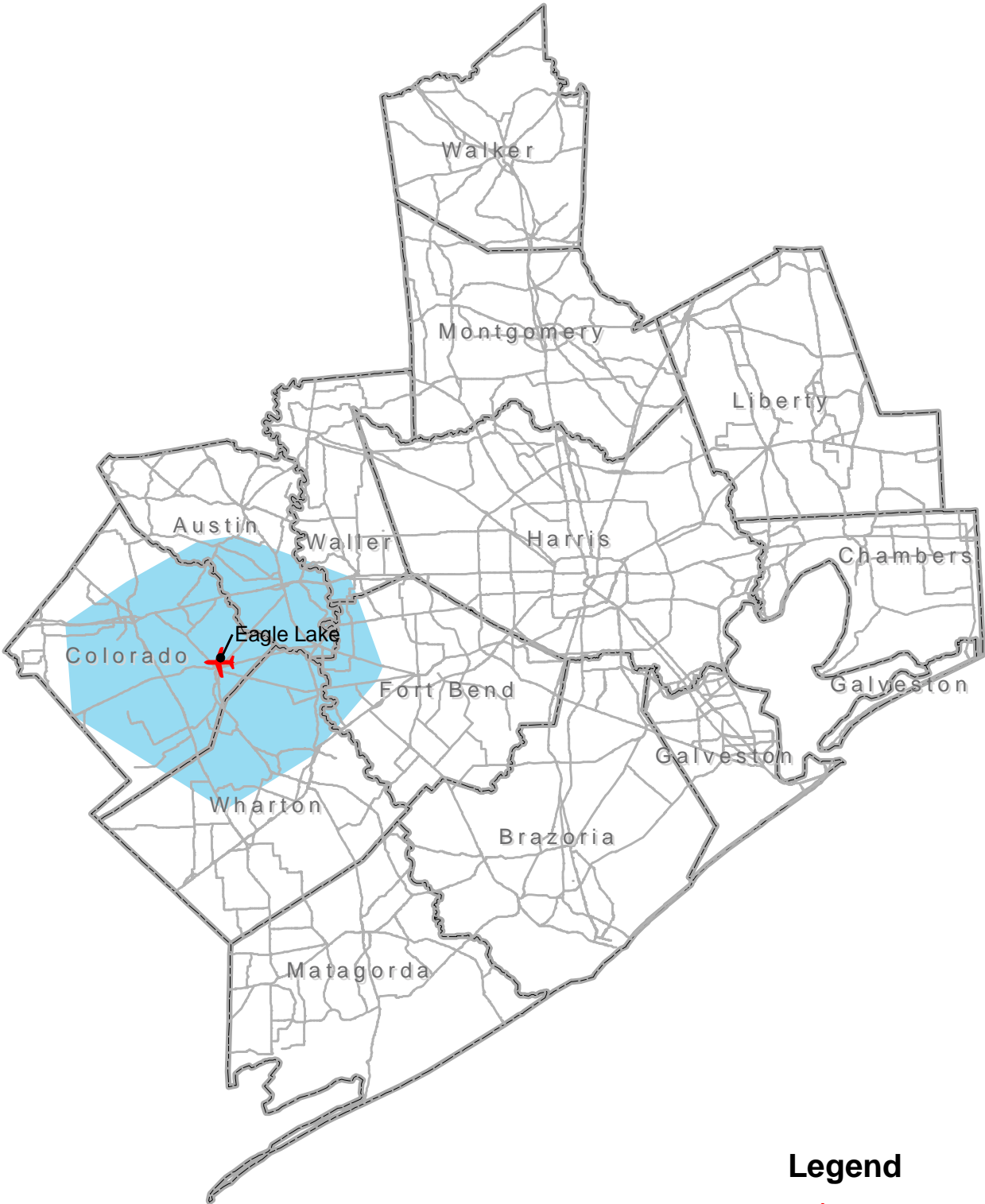
15. Do you know of other people or groups that should be contacted?

**Answer:** Recommend speaking with the TSA about the rules on aircraft weight going into general aviation airports.



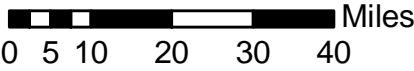
**Eagle Lake  
Airport**  
2040 Regional Aviation  
System Plan Update

# Eagle Lake Airport 30 min Service Area in 2009



### Legend

-  Eagle Lake
-  Roads
-  Counties
-  30 Min Service Area



**Eagle Lake Airport (ELA)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Eagle Lake Airport is publicly owned and operated by the City of Eagle Lake.

**Airport Location**

Eagle Lake Airport is located in Colorado County, Texas approximately one (1) miles north of the Eagle Lake central business district and 70 miles west of Houston. The airfield lies north of Highway 90 and west of SH 3013.

**Existing Airport Facilities**

Eagle Lake Airport, including the airfield, hangars, terminal, and safety areas, encompasses approximately 215 acres. The Airport's Airport Identifier is EYQ. The facility is located at an elevation of 184 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°36'02"N (estimated) and longitude 096°19'19"W.

**Airfield Facilities**

Eagle Lake Airport currently has one (1) runway. Runway 17/35 is 3,801 feet in length and 60 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 12,500 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and two-light Precision Approach Path Indicators (PAPI) on the left of both runway ends.

Runway 17/35 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 17
- RNAV (GPS) RWY 35
- VOR RWY 17

Taxiway A is a partial taxiway serving Runway 17/35. The taxiway provides access from the apron edge to the Runway 35 end. Taxiway A is 470 feet in length, 60 feet wide, and constructed of asphalt. The taxiway is not lighted.

A clear and green rotating beacon is located at the Airport providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone located adjacent to and north of Taxiway A and west of Runway 17/35. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at Eagle Lake Airport include the terminal, T-hangars, and conventional hangars.



### Fixed Base Operator Facilities

Eagle Lake Airport operates the only FBO. The FBO offers the following services: fuel; hangar rental; maintenance; parts and hardware; pre-purchase inspection services; custom restorations; agricultural flying services; and pilot training.

### Aircraft Storage

Aircraft storage at the Airport include eight (8) tie-down spaces, 12 T-hangars, and conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Eagle Lake Airport. It is located east the terminal building and adjacent to the apron. It provides aboveground storage capacity for 1,500 gallons of Aviation Gasoline (AVGAS), 500 gallons of Jet-A, and 280 gallons of Motor Gasoline (MOGAS). Aircraft receive fuel by the pump.

### Based Aircraft

In 2008, there were a total of 28 fixed wing aircraft based at the Airport. This includes 24 single-engine aircraft and four (4) turbo-props.

### **Interviewer Conclusion**

Eagle Lake Airport is situated in a key location. As Houston continues to grow westward, airport management has expressed that it is the goal of the Airport to be ahead of the curve by being prepared to meet the demands of future aviation and to develop Eagle Lake Airport into a first class general aviation facility.

The Airport currently has two 70 x 60 foot light hangars that are completed and ready for occupancy. The Airport would like to attract and has already identified a few corporations and government entities it would like to bring to the community and lease the available hangar space to.

In addition to the recent hangar development, airport management indicated the desire for a new terminal, self-serve fuel with 24-hour access by credit card, to build additional hangars as determined by the market, and to install an Automated Weather Observation System (AWOS).

The Airport also stated that there has been discussion of acquiring land to the south of the Runway 35 end. This land acquisition would allow for a runway extension to 5,200 feet or more, in order to accommodate corporate aircraft. This proposed project would also include widening the runway. It should also be mentioned that currently, the Airport does not have a parallel taxiway. Constructing a parallel taxiway to Runway 17/35 will provide for a safer airport and will support any future increase in operations.

Eagle Lake has a clear vision for the Airport. They have strong support from the City and the community. The Airport has also initiated contact with the City of Sealy to garner support and suggest the potential for a true regional airport.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: Eagle Lake Regional Airport

Airport Manager: City Manager

Airport Owner: City of Eagle Lake

Date: 01-29-09

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	12						
T-Hangars							
Portable Hangars							
Tie-Down (Paved)	4		4				
Tie-Down (Unpaved)							
<b>Total</b>	16 + 8 24		4				

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved) per month/year	2/mo.	1/mo.	6/yr.	2/yr.	2/yr.
Tie-Down (Unpaved)					
<b>Total</b>	2/mo.	1/mo.	6/yr.	2/yr.	2/yr.

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron	8,000	8
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	0
AVGAS	6,000 - 8,000
Jet-A	1,000 - 3,000

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
280	Mogas	Above
1,500	Avgas, 100 LL	Above
500	Jet-A	Above



5. Please provide the following information about your fueling operation.

<i>Item</i>	<i>MOGAS</i>	<i>AVGAS</i>	<i>JET-A</i>
Number of Fuel Trucks / Capacity of each (gallons)	None	None	None
Frequency of Fuel Drops	0	2 months	4 months
Average Gallons per Drop	0	1,500 gals.	500 gals.

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<i>Aircraft Type</i>	<i>Number of Daily Operations*</i>				<i>% Night**</i>
	<i>Off-Peak</i>		<i>Peak</i>		
	<i>Weekday</i>	<i>Weekend Day</i>	<i>Weekday</i>	<i>Weekend Day</i>	
Single Engine	10	15	10	20	5
Multi-Engine Piston	2	10	5	15	5
Turbo Prop	4	1	25	2	
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 8:00 a.m. - 5:00 p.m.

8. What is the busiest day(s) of the week? Saturdays and Sundays

9. For the above table, what are your off-peak and peak seasons? Spring - Fall (peak);  
Winter - Summer (off peak)

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>	<i>Aircraft Types</i>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total		NONE

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
17	3,801	60	0	Asphalt	Non precision
35	3,801	60	0	Asphalt	Non precision

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
17	183.5		X			MIRL			VASI PAPI
35	183.8		X		400'	MIRL			VASI PAPI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
17	470'	60'	None	Asphalt	None

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Runway needs to be extended to at least 5,500' x 75' wide from the end of 35 (RW) South.

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. The Airport needs a taxiway the length of the runway 17/35.

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		X		Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom	X		122.9
National Weather Service		X		<del>Precision Approach Radar / MLS / ILS</del>	X		WAAS APP. 17/35
Civil Air Patrol		X		Segmented Circle	X		No Traffic Pattern
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		Wind indicator @ South end of Runway
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon		X		Remote Transmitter Receiver	X		
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)	X		116.4	Aircraft Rescue and Fire Fighting Facility	X		City of Eagle Lake
Ground Communications Outlet		X		Remote Communications Outlet		X	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? The Airport needs a bigger apron with more aircraft tie-downs, new hangers, WAAS approach, and terminal building.

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) The Airport needs all the above.

16. What do you view as the long-range potential for the airport? The Airport will be a great corporate airport with lots of business potential. Houston is moving this direction and it is a matter of time before it gets to Eagle Lake. We need to be prepared.

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? There is no real opposition to the Airport, but we need better public relations.

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) The City Council of the City of Eagle Lake adopted a Zoning Ordinance in 2002, and building permits are required for all construction in the City. Permits are approved by the City. There are no incompatible uses at this time.

19. Have nearby residents complained of aircraft noise? No.

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? This would be covered by zoning and building permits.  
The City Council of the City of Eagle Lake also adopted an ordinance creating a Joint Airport Zoning Board to operate under the provisions of the Airport Zoning Act, Texas Local Gov. Code.

**Eagle Lake Chamber of Commerce**  
**Focus Group**

**Summary Report**

**Stakeholders Perspective**

**I Airport History/Environment**

Eagle Lake Regional Airport (ELA) is located in southeast Colorado County with a population of approximately 3,700 people. It is near the largest, private lake in Texas, and is in a major Canadian geese flyway. It is known as the “Goose Hunting Capitol of the World.” Adding to this migratory bird attraction is large rice farms. Historically, the area is an agricultural community and the aircraft at ELA are small piston planes or crop dusters.

**II Goals/Objectives**

The major goal is to market to aircraft owners who reside in west and northwest of Houston to encourage them to base at the two newly-constructed 4,200 square foot hangars.

**III Initiatives**

The airport sponsor appears to be very supportive of a private group that operates the FBO and provides aircraft maintenance. Noles & Associates, the FBO operator, pays no “fuel flowage” fee to the City nor do they have a contract with the City. The focus group indicated that the arrangement is a “hand shake” deal. The City is appreciative that there is someone in the area that takes an interest in the airport and is attempting to market space in the new hangars.

**IV Recommended Airport Enhancements**

- Additional T-Hangars
- Self service fuel AV and jet fuel

**V Interviewers Conclusion**

Generally, the focus group was not well informed on the airport and its future. There needs to be a major public outreach effort made. TxDOT must envision long range potential for the airport since it has invested significant public funds in the new hangars for an airport that has 10,000 operations and approximately 25 based planes.

**Eagle Lake Chamber of Commerce Interview**  
*Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan*

<b><u>Chamber Name:</u></b>	Eagle Lake Chamber of Commerce
<b><u>Representatives:</u></b>	See sign-in sheet
<b><u>Airport Name:</u></b>	Eagle Lake Regional Airport (ELA)
<b><u>Interview Date:</u></b>	March 4, 2009

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**Stakeholders Perspective**

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** Eagle Lake Regional Airport (ELA) will continue to grow as a general aviation airport. In a decade, it will evolve into having more corporate based aircraft. Currently, there are 25 based piston aircraft and some turbo prop agricultural planes. The City handles fuel sales through a verbal lease agreement with Bill Noles, Noles & Associates (FBO.) This party has had this agreement for three or four years. The City made a conscious decision to help Noles & Associates by not charging a fuel flowage fee. Expected improvements to the facility may include:

- Longer runway. Land will be required to extend the runway.
- New terminal
- Additional T-Hangars
- Self service fuel for both AV and Jet fuel

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** There is no development immediately around the airport. The airport resides on approximately 100 city-owned acres with a 3,800' runway.

TxDOT recently funded the design and construction of two new corporate hangars that are each 4,200 square feet. In addition, there are six new T-hangars.

**Other developments in the area are:**

- Houston Transit Authority's planned eastern portion of rail line will terminate near Eagle Lake
- Sealy, northeast of Eagle Lake, is experiencing an increase of corporate growth and military activity.

The stakeholders feel there is no funding available to do much with the airport. The City does not have an EDC. The community's future is at a crossroads on how to grow and prosper.

3. Where and what do you expect for the area's future growth?

**Answer:** The stakeholders do not see Eagle Lake, specifically, as a market area for aviation. The neighboring communities, Sealy and East Bernard, are where all economic development and future growth is taking place that will benefit Eagle Lake.

Currently, the employment base in Sealy relies on Wal-Mart, BSI, BAE Systems, military, and Toyota, which are all within 20 minutes of Eagle Lake.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** There are no local issues relating to the airport because the airport is an unknown facility to the community. What drives the economy is:

- Agriculture
- Headwater, a large concrete block plant and employment center.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** The stakeholders would like to see a variety of aircraft services located at the airport. They envision the airport as more of a business park with light industry. This type of activity and growth would enhance the community. A facility that can handle and serve more business aircraft would create significant economic benefits for the area.

6. How could a better integrated airport system serve the community's needs?

**Answer:** The stakeholders are not sure how this would work.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See question #5

8. How can the airport support local business development?

**Answer:** The stakeholders feel if the airport services were built up, it could boost employment opportunities for the area. Recreationally, there are many sports (duck) hunters that come to the area that would use the airport.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The stakeholders do not see ELA as a gateway.



10. What types of community relationships does the airport have with its neighbors?

**Answer:** There is no relationship between the area's constituency and the airport. The local population is uninformed of the existence of the airport to the point where they do not know where it is located. The stakeholders are constantly being told that land around Houston is more valuable for development than for aviation, and certain people support the airport going away.

11. Is there organized opposition to airport development and expansion?

**Answer:** No

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None

13. What environmental issues may affect airport use and development?

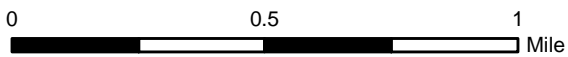
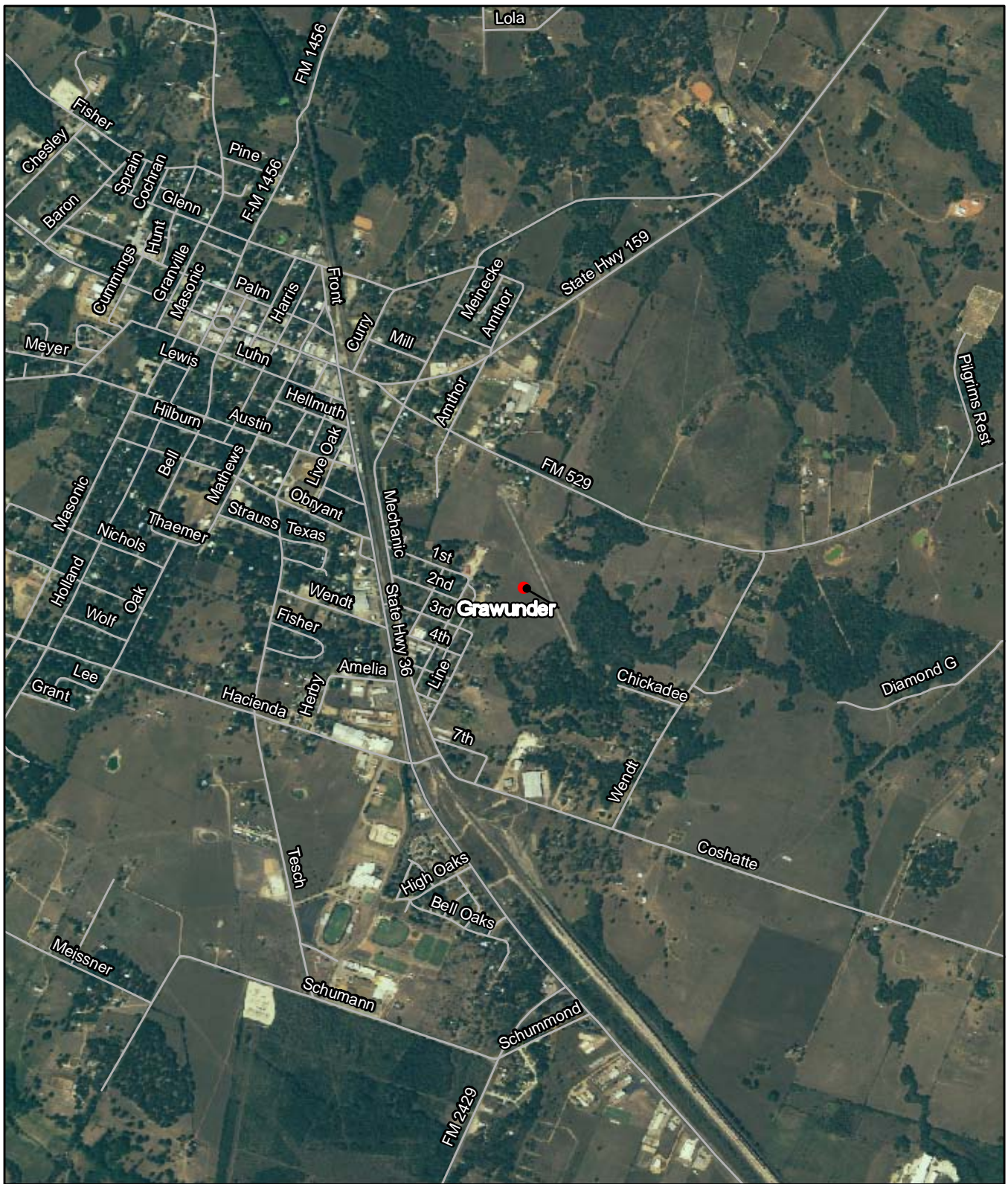
**Answer:** The Eagle Lake area is a major bird flyway.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The last master plan update was performed in 1999. The stakeholders are interested in updating the master plan/ALP.

15. Do you know of other people or groups that we should contact?

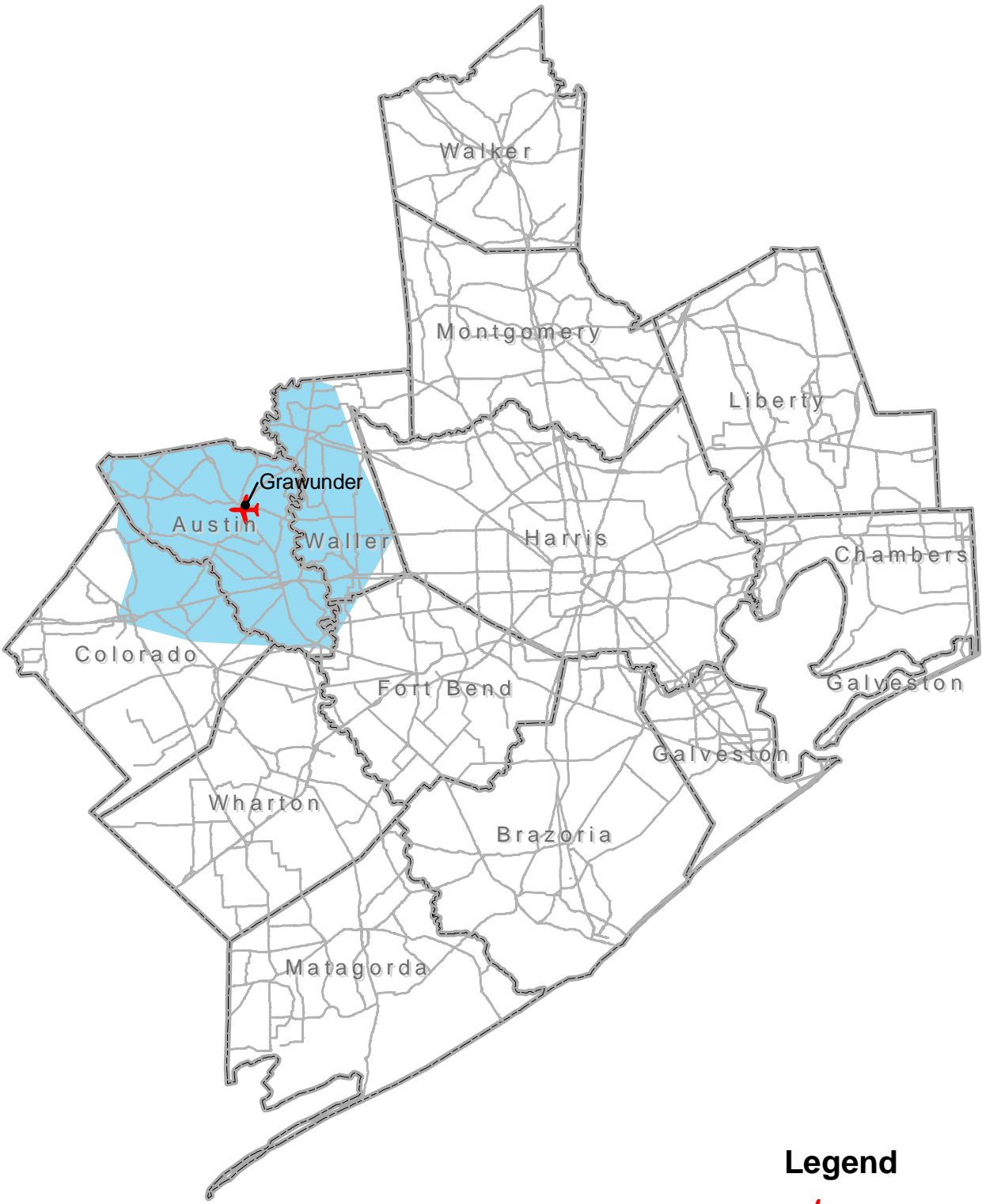
**Answer:** No







# Grawunder Field

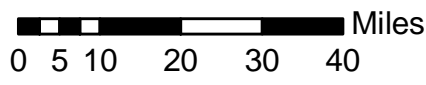
2040 Regional Aviation System Plan Update

# Grawunder Field 30 min Service Area in 2009



### Legend

-  Grawunder
-  Roads
-  Counties
-  30 Min Service Area





**Grawunder Field (06R)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Grawunder Field is privately owned by H. Grawunder, Jr. and is leased to the City of Bellville for operation.

**Airport Location**

Grawunder Field is located in Austin County, Texas approximately one (1) miles southeast of the Bellville central business district and 64 miles west of Houston. The airfield lies northwest of Interstate 10.

**Existing Airport Facilities**

Grawunder Field, including the airfield, hangars, terminal, and safety areas, encompasses approximately 20 acres. The Airport's Airport Identifier is 06R. The facility is located at an elevation of 289 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°56'30.8120"N (estimated) and longitude 096°14'45.8680"W.

**Airfield Facilities**

Grawunder Field has one (1) runway. Runway 15/33 is 2,480 feet in length and 30 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 4,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with non-standard low intensity runway lighting.

Runway 15/33 is classified as a Visual Approach runway. Therefore, there are no published approaches for Grawunder Field.

Taxiway A serves Runway 15/33 providing access from the apron edge to the Runway 15 end. The taxiway is not lighted.

The Airport does not have a clear and green rotating beacon. The Airport has a lighted wind cone and segmented circle that is located midfield and west of Runway 15/33. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at Grawunder Field include the terminal and T-hangars. The terminal is centered along the northeast edge of the terminal apron.

**Fixed Base Operator Facilities**

Grawunder Field does not have a FBO.

**Aircraft Storage**

Aircraft storage at Grawunder Field includes one (1) tie-down space, one (1) large hangar that houses three (3) aircraft, one single-unit T-hangar, and one six-unit T-Hangar.

### Aircraft Fueling Facilities

Grawunder Field does not have any fueling facilities.

### Based Aircraft

In 2008, there were a total of eight (8) fixed wing aircraft based at Grawunder Field. This included eight (8) single-engine aircraft.

### **Interviewer Conclusion**

Grawunder Field has a unique history. The Airport was started by the Owner's father and grandfather. At one time there were two runways, a paved runway and turf runway. The turf runway was closed in the 1960s. Grawunder Field is the only airport with a paved runway in Austin County. Currently, the Airport is owned by the Grawunder Family; however, the Airport is leased to the City of Bellville. At the time of the site visit, the Owner indicated that a new lease for 10 years would be negotiated with the City.

The City of Bellville has made investments in the Airport. Specifically, the City is responsible for all maintenance on the Airport as well as covering the cost of the utilities. Bellville also sponsored runway resurfacing a few years ago. The impression is that the City of Bellville has a significant interest in the Airport and will work to keep it going.

Several of the hangars had been destroyed by the storm. The intent is to repair the hangars although there has been some discussion of constructing new hangars; however, the Owner did express that due to the economy, many of the aircraft are not currently being flown. The Airport does receive some business traffic, but primarily the flying is recreational. Additionally, the terminal is used by the Civil Air Patrol for meetings.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: Grawunder Field \_\_\_\_\_

Airport Manager: H. Grawunder, Jr. \_\_\_\_\_

Airport Owner: H. Grawunder, Jr. – City of Bellville leases Airport \_\_\_\_\_

Date: February 19, 2009 \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars							
T-Hangars	7						
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)	1						
Total	8						

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		4
Based Aircraft Apron		
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	N/A
AVGAS	N/A
Jet-A	N/A

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

5. Please provide the following information about your fueling operation.

<b>Item</b>	<b>MOGAS</b>	<b>AVGAS</b>	<b>JET-A</b>
Number of Fuel Trucks / Capacity of each (gallons)	N/A	N/A	N/A
Frequency of Fuel Drops	N/A	N/A	N/A
Average Gallons per Drop	N/A	N/A	N/A

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<b>Aircraft Type</b>	<b>Number of Daily Operations*</b>				<b>% Night**</b>
	<b>Off-Peak</b>		<b>Peak</b>		
	<b>Weekday</b>	<b>Weekend Day</b>	<b>Weekday</b>	<b>Weekend Day</b>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings      \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Evening \_\_\_\_\_

8. What is the busiest day(s) of the week? Weekends \_\_\_\_\_

9. For the above table, what are your off-peak and peak seasons? Summer – peak season \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<b>Primary Use</b>	<b>Number</b>	<b>Aircraft Types</b>
Rental	N/A	N/A
Charter	N/A	N/A
Air Taxi	N/A	N/A
Student Training	N/A	N/A
Crop Dusting	N/A	N/A
Other	N/A	N/A
<b>Total</b>	<b>N/A</b>	<b>N/A</b>



11. Please provide the following airfield data:

<b>Runway ID</b>	<b>Length</b>	<b>Width</b>	<b>Gradient</b>	<b>Surface Type</b>	<b>Marking</b>
15/33	2480'	30'	2%	Asphalt	

<b>Runway End</b>	<b>End Elevations</b>	<b>Visual</b>	<b>NP</b>	<b>P1/P2/P3</b>	<b>Displaced Threshold</b>	<b>Lighting</b>	<b>ALS</b>	<b>REILS</b>	<b>PAPI/VASI</b>
15		X				NSTD			
33		X				NSTD			

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<b>Taxiway ID</b>	<b>Length</b>	<b>Width</b>	<b>Lighting</b>	<b>Surface Type</b>	<b>Access To</b>

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

\_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower		X		Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom/CTAF	X		123.00
National Weather Service		X		Precision Approach Radar / MLS/ILS		X	
Civil Air Patrol		X		Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X	121.125	Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon		X		Remote Transmitter Receiver		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility		X	
Ground Communications Outlet		X		Remote Communications Outlet		X	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? Renovation for terminal building, heliport for Life Flight, taxiways repaved, repair existing hangars, and construct new hangars

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15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) access road, electric fence around runway

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16. What do you view as the long-range potential for the airport? Sell airport to City – hard issue determining cost of Airport

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17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? City supports Airport, feels if it isn't here the community will be negatively impacted

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18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) FAA \_\_\_\_\_

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19. Have nearby residents complained of aircraft noise? Very little in the way of noise complaints  
Someone recently bought home adjacent to Airport – acts as watchman

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? No

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Bellville Chamber of Commerce  
Stakeholders Interview/Summary  
Houston-Galveston Area Council  
Regional Aviation System Plan

Chamber/EDC Name:

Bellville Chamber of Commerce

Chamber/EDC Representative:

See sign-in sheet

Airport Name:

Grawunder Field (06R)

Interview Date:

January 29, 2009

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Stakeholders Perspectives

After several minutes of conversation with Grawunder Field's (06R) four stakeholders, it was determined that the focus group would be unable to answer the RASP questionnaire in any detail.

Below is a synopsis of the information obtained:

I Airport History/Environment

Grawunder Field (06R) has been owned by the Grawunder family since 1960. The patriarch of the family, Henry Grawunder, recently passed away. His widow, the beneficiary, turned the airport over to their son to operate. The City of Bellville has no involvement with the facility; although the airport is leased to the city according to the URS Airport Summary.

Physically, the airport has a 3,000 foot paved, lighted runway. The airport is open to the public; however, there is no fuel for sale and because of this, pilots are forced to continue to Brenham Municipal Airport (not included in RASP) to land their aircraft, where they usually stay.

For the past 20 years, the City has leased the airport from the Grawunder family for \$500 per month and maintains the runway. The City leases it to keep it open for the few aircraft that regularly operate out of it. These people are individuals that fly in from ranches to go to the bakery in the area and get other groceries. The local doctors, also, utilize Grawunder Field.

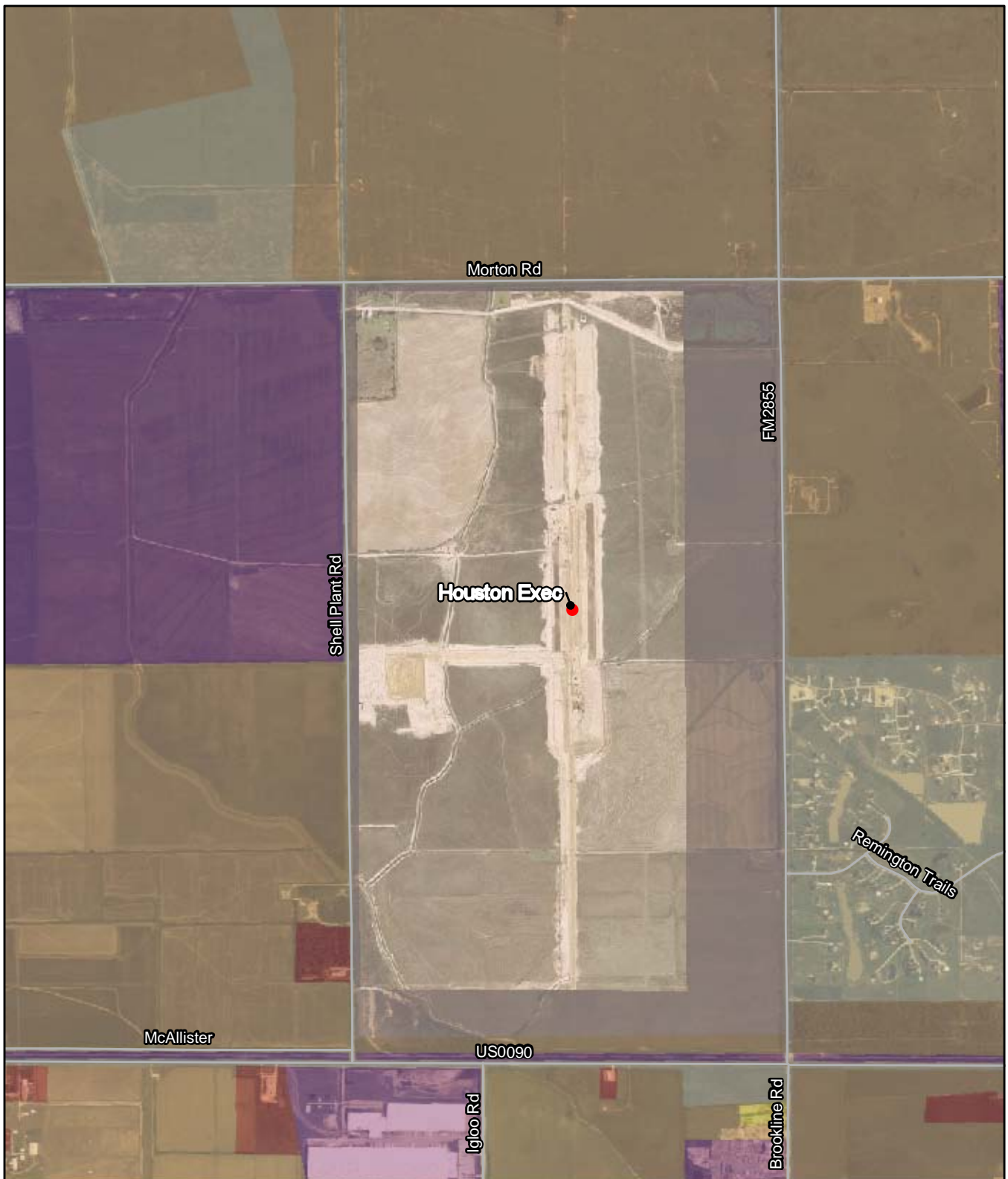
There are no aircraft hangars and the two planes that are based there belong to the Grawunder family. The 2,360 foot runway limits operations. No plans are in the works to develop the airport into more than it is right now.

The airport is not annexed by the City because the City charter has a Type A general law, meaning they are unable to annex unless they are asked to do so by the Grawunder family. The request has not been made. The City does not pursue funding for improvements. There are no revenues being produced from this airport.

The local community, according to the stakeholders present, does not want industry and has a "no growth" attitude. The surrounding area is agriculture and ranching. On the other hand, Bellville just appointed a new EDC board and are in the process of organizing. The board is funded with a .5 cent sales tax that will provide approximately \$200,000 per year to promote the area.

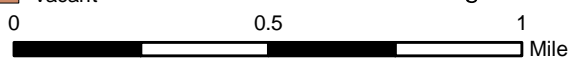
## II Interviewers Conclusion

Based on the information provided by the focus group, Grawunder Field may not have a role in the overall Regional Airport System Study.



**Legend - Land Use**

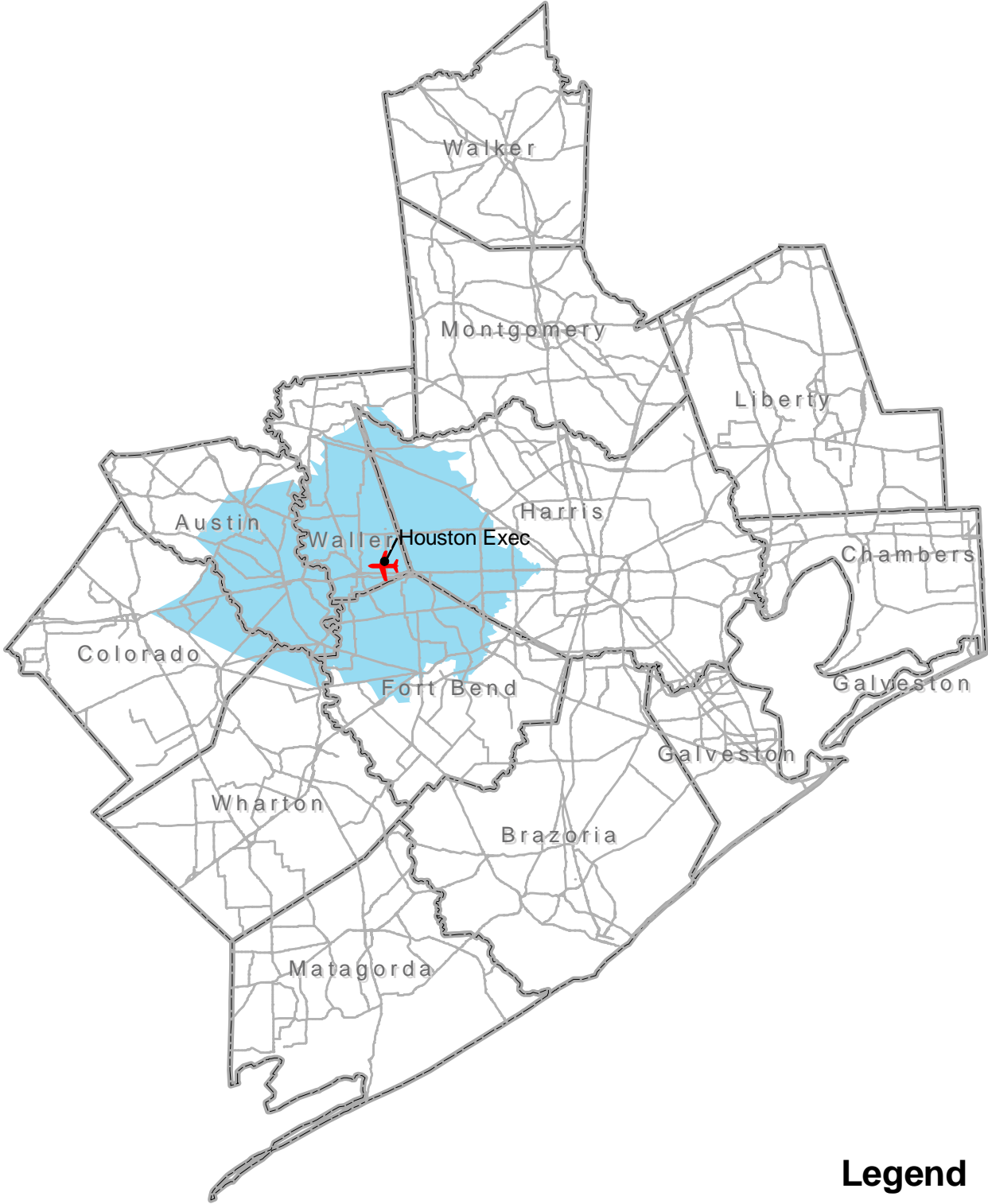
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Houston Executive Airport


## 2040 Regional Aviation System Plan Update

# Houston Executive Airport 30 min Service Area in 2009



## Legend

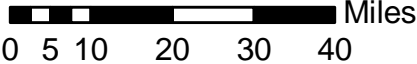


 Houston Exec

 Roads

 Counties

 30 Min Service Area





**Houston Executive Airport (TME)**  
*Airport Summary*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Houston Executive Airport is privately owned and operated by WCF, LLC.

**Airport Location**

The Houston Executive Airport is located in Waller County, Texas approximately seven (7) miles west of the Katy central business district, approximately four (4) miles east of the Brookshire central business district, and 35 miles northwest of Houston. The airfield lies north of Interstate 10 and Highway 90.

**Existing Airport Facilities**

Houston Executive Airport, including the airfield, hangars, airport administration offices, and safety areas, encompasses approximately 1,980 acres. The Airport's Airport Identifier is TME. The facility is located at an elevation of 166 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°48'18.1"N (estimated) and longitude 095°53'52.4"W.

*Airfield Facilities*

Houston Executive Airport currently has one (1) runway. Runway 18/36 is 6,610 feet in length and 100 feet wide with a pavement strength rated to accommodate aircraft with a dual-wheel load of 50,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) as well as Runway End Identifier Lights (REIL) and four-light Precision Approach Path Indicators (PAPI) on the left of both runway ends.

Runway 18/36 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) Runway 18
- RNAV (GPS) Runway 36

Taxiway A is a parallel taxiway serving Runway 18/36. Taxiway B, C, and T are connector taxiways. All taxiways are 50 feet wide, constructed of asphalt, and have medium-intensity taxiway lighting.

A clear and green rotating beacon is located to the northeast of the T-hangars and provides visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone that is located west of Taxiway A and adjacent to the T-hangars. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

The terminal apron area encompasses approximately 29,040 square yards.

### Landside Facilities

The landside facilities at TME include the current airport administration offices, Henriksen Jet Center, and T-hangars.

The Airport does not currently have a terminal building, but a terminal is planned for future development. The proposed 28,000 square foot, two story building will include an operations area and corporate offices. Presently, airport administration is housed in a temporary facility adjacent to the Henriksen Jet Center.

### Fixed Base Operator Facilities

Henriksen Jet Center is the only full-service FBO offering a full range of services including aircraft fueling (Jet-A and AVGAS), parking, and aircraft storage. Other services include concierge services, catering, a crew lounge, and rental cars.

### Aircraft Storage

Aircraft storage at the Airport includes tie-down spaces, T-Hangars, and a conventional hangar. Henriksen Jet Center leases one conventional hangar. Additionally, Henriksen Jet Center maintains tie-down spaces for transient aircraft only. Two 10-unit T-hangars also provide storage for private aircraft.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Henriksen Jet Center. It is located southeast of the Airport's terminal building and adjacent to the apron. It provides aboveground storage capacity for 26,000 gallons of Aviation Gasoline (AVGAS) and 32,000 gallons of Jet-A fuel. Additionally, 1,000 gallons of Motor Gasoline (MOGAS) and 1,000 gallons of diesel are available. Aircraft receive fuel by truck.

### Based Aircraft

In 2009, there were a total of 37 fixed wing aircraft based at the Airport. These aircraft include 25 single-engine, 6 multi-engine, and 6 jets.

### **Interviewer Conclusion**

Houston Executive Airport is a modern airport that has been built to standards. The Airport has 600 acres available for airside development. They do not want to exclude private general aviation traffic, but the Airport was built primarily for business. Houston Executive Airport does not offer flight training and does not allow touch and go operations.

The Airport expressed that the goal is to extend Runway 18/36 to 7,604 feet. Airport management envisions more corporate development. Eventually, the Airport will construct a first-class terminal facility. At this time, however, the Owner is concentrating on a new airport development project outside of Austin.

In the three (3) years, since its inception, the Airport has received a lot of good support from the community. Houston Executive Airport is making every effort to be a good neighbor by instituting the Quiet Flight Program.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Houston Executive Airport

Airport Manager: Andrew Perry

Airport Owner: WCF, LLC

Date: December 16, 2008

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	4	2		6			
T-Hangars	18						
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
Total	25	6		6			

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron	29,040	
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	CONFIDENTIAL
AVGAS	CONFIDENTIAL
Jet-A	CONFIDENTIAL

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
1,000 / 1,000	MOGAS/DIESEL	ABOVEGROUND
32,000	JET-A	ABOVEGROUND
26,000	AVGAS	ABOVEGROUND

5. Please provide the following information about your fueling operation.

<b>Item</b>	<b>MOGAS</b>	<b>AVGAS</b>	<b>JET-A</b>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops			
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<b>Aircraft Type</b>	<b>Number of Daily Operations*</b>				<b>% Night**</b>
	<b>Off-Peak</b>		<b>Peak</b>		
	<b>Weekday</b>	<b>Weekend Day</b>	<b>Weekday</b>	<b>Weekend Day</b>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings      \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? MORNING, LATE AFTERNOON

8. What is the busiest day(s) of the week? FRIDAY

CORPORATE = SUNDAY –FRIDAY

GA / PRIVATE = WEEKEND

9. For the above table, what are your off-peak and peak seasons? \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<b>Primary Use</b>	<b>Number</b>	<b>Aircraft Types</b>
Rental	N/A	N/A
Charter	N/A	N/A
Air Taxi	N/A	N/A
Student Training	N/A	N/A
Crop Dusting	N/A	N/A
Other	N/A	N/A
<b>Total</b>	<b>N/A</b>	<b>N/A</b>

11. Please provide the following airfield data:

<b>Runway ID</b>	<b>Length</b>	<b>Width</b>	<b>Gradient</b>	<b>Surface Type</b>	<b>Marking</b>
18-36	6,610'	100'		ASPHALT	NPI

<b>Runway End</b>	<b>End Elevations</b>	<b>Visual</b>	<b>NP</b>	<b>P1/P2/P3</b>	<b>Displaced Threshold</b>	<b>Lighting</b>	<b>ALS</b>	<b>REILS</b>	<b>PAPI/VASI</b>
18						MIRL		Y	P4L
36'						MIRL		Y	P4L

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<b>Taxiway ID</b>	<b>Length</b>	<b>Width</b>	<b>Lighting</b>	<b>Surface Type</b>	<b>Access To</b>
			Y		
			Y		
			Y		
			Y		
			Y		
			Y		

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. GOAL IS 7,604' ULTIMATE GOAL IS 7,780'

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If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

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12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

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If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

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13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower		X		Automatic Terminal Information Service			
Flight Service Station				Unicom	X		122.975
National Weather Service				Precision Approach Radar / MLS/ILS			
Civil Air Patrol				Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)	X		122.975	Centerfield Wind Indicator	X		
Automated Surface Observing System				Supplemental Wind Cone			
Non-Directional Radio Beacon				Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)				Aircraft Rescue and Fire Fighting Facility			
Ground Communications Outlet	X			Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? NEW HANGARS ARE NEEDED. NO TxDOT CIPs. \_\_\_\_\_

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15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) \_\_\_\_\_

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16. What do you view as the long-range potential for the airport? \_\_\_\_\_

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17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

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18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport)\_\_\_\_\_

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19. Have nearby residents complained of aircraft noise? NOISE SENSITIVE AREA TO EAST OF AIRPORT, NO TOUCH AND GO OPERATIONS AT ALL

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? \_\_\_\_\_

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Katy Area Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective - The Katy Area Chamber of Commerce represents three airports in their immediate region. The stakeholders that participated in the focus group addresses all three airports during their discussion and their comments are reflected in the following:

I Area Airport(s) Impact

Three airports are located in the Katy area:

- Houston Executive Airport (TME). The economic impact of the newest airport in the Houston Region, just off I-10 near Katy and Brookshire, TX, is in its infancy. It is in the process of defining itself and its position within the system as a privately owned, public use general aviation corporation facility. The stakeholders believe it will have a huge impact on how the Katy/Brookshire area develops. It will become a key player in the regional system.
- West Houston Airport (IWS). The airport, a privately owned, public use reliever to IAH, has been in existence for over three decades. It provides area aircraft owners a "close in" to the City location to base their planes with excellent highway access. Over 250 aircraft are based at IWS. Because of constraints resulting from neighborhood encroachment and limited land availability, expansion of the airport is restricted.
- Covey Trails Airport (not in RASP study.) The airport's impacts are primarily to the air space and traffic patterns.

II Goals/Objectives

During the RASP questionnaire interview, the stakeholders' discussion focused on TME's economic potential. They could specifically see TME's ability to attract light manufacturing; and perhaps, long range commuter carriers. There were discussions of attracting a "low cost" carrier to fly into either IAH or DFW.

Because of the extensive amount of undeveloped land surrounding the airport, the stakeholders envision non-government businesses, manufacturing, and perhaps, a distribution center. Charter air service opportunities and non-governmental related companies might be marketed.

To make the above happen, improvements will be needed for Perry Parkway, which are in the planning stages. Better access to the airport will stimulate more growth. The airport has other infrastructure restraints in the areas of water and sewer.

The stakeholders were unclear as to what the airport owner's long term goals were for the airport's growth.

### III Initiatives

The City of Katy is attempting to market TME as part of their economic package. Recently, the city submitted a proposal for a \$400 million aerospace manufacturing project that would be located near the airport. They competed against other communities that had better incentives and infrastructure. They are aggressively looking for new economic opportunities.

### IV Recommended Airport Enhancements

The stakeholders have many airport improvements in mind that could enhance the utilization of the facility:

- Access to commercial travel through low cost carriers
  - a good charter operation
- Development of a maintenance services facility
- Domestic pilot training; however, they would not support a school that solicited potential students from outside the US to trained as pilots.
- A corporate terminal at Houston Executive is important as a marketing tool.
- A marketing and public relations plan would aid in growing the airports.
- There was a limited discussion about the possibility of the airport pursuing a "user fee" designation from US Customs & Border Protection. The user fee designation would position the airport to receive and clear international corporate traffic.

### V Interviewers Observations

The stakeholders enthusiastically support the development of Houston Executive Airport. They are willing to work with the private owner in ways to bring about additional business and economic growth.

Katy Area Chamber of Commerce Interview  
*Stakeholders Focus Group*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

<u>Chamber Name:</u>	Katy Area Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Houston Executive Airport (TME)
<u>Interview Date:</u>	December 16, 2008

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Stakeholders Perspective:

1. How do you envision the airports in your area growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** Houston Executive Airport (TME) will impact the immediate area in the following manner:

- West Houston Airport (Harris County) – West Houston Airport, formerly named Lakeside Airport, is one of the oldest airports in the system and is a privately owned, public use airport to IAH.

It was referred to by the focus group as a “convenience airport” because of its close proximity to downtown Houston and its decades of service to the general aviation community within the region. It has a definite impact on Park Ten which is a major hub for the West Houston energy corridor. Most corporate aircraft cannot take off and land at West Houston due to encroachment issues from the neighborhoods surrounding it that restrain its growth.

- Houston Executive Airport (Waller County) – This is the newest airport in the regional system. It is in the process of defining itself as a general aviation corporate airport.

Houston Executive has the potential with over 1,000 acres of available land and long runway to support:

- Manufacturing
- Air cargo operations, and/or

- Commuter operations

As Katy continues to grow and develop, the stakeholders feel, when given the option, corporate pilots will use Houston Executive as the airport of choice rather than Houston Hobby.

- Covey Trails Airport (Ft. Bend County) – privately owned, public use airport. This airport primarily impacts traffic patterns and airspace in the region.

2. What kinds of economic development are now occurring around the airport? What additional near-airport developments do you expect over the next five years?

**Answer:** Industrial-related projects, mainly in light manufacturing and distribution operations, are beginning to develop around Houston Executive due to abundant availability of land near the airport.

- Houston Executive Airport could be an intermodal transportation hub, as it is located near rail; however, it's questionable whether Houston Executive could emulate the Ft. Worth Alliance Airport due to infrastructure restraints; i.e., water and sewer.
- Improvements to the Perry Parkway are in the planning stages which will aid the airport by providing better access.
- The City of Katy supports the airport owner in whatever marketing direction he wishes to take Houston Executive. The city submitted a proposal on a \$400 million aerospace manufacturing project to be located near the airport. They did not make the first cut in selection because of inadequate water and sewer infrastructure. They were competing against other communities with better incentives and infrastructure.
- The stakeholders see limited residential growth around Houston Executive. They are predicting that I-10 north to the airport is more likely to be commercial.

3. Where and what do you expect for the area's future growth?

**Answer:**

- Current general population is 220,000 using the KISD as boundaries, which touches the edge of Houston Executive. With improved highways and other infrastructure more growth is anticipated particularly in the Waller County area.
- Amount of growth in this area would have significant impact on air traffic
- Residential will continue to push to the east, north and west

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- During the planning and construction of Houston Executive, there was originally some strong opposition to the airport from Remington Trails subdivision relating to anticipated increased noise and decreased property values. However, the opposition dissipated because Ron Henriksen (the airport owner) has been a good neighbor. The neighbors have appreciated the integrity Henriksen as displayed by keeping his promises. The airport did not reduce their property values.
- The stakeholders believe that as the area grows, the airport will become more of an attraction than a deterrent.
- The airport is also drawing clientele from Austin County, Sealy, Brookshire, and Columbus.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- Access to commercial travel through low cost carriers,
  - a good charter operation
- Maintenance services facility developed
- Domestic pilot training; there is none at this time. The focus group would not support a school that solicited students from foreign countries to train as pilots.
- An attractive terminal needs to be constructed. A terminal has been designed, but postponed for a year, pending the completion of another of Henriksen's projects, Birds Nest Airport near Austin. A terminal at Houston Executive will be an essential marketing tool.
- The airport needs to implement a good marketing and public relations plan.
- There was a limited discussion about the possibility of the airport pursuing a US Customs "user fee" designation. The user fee designation would position Houston Executive to receive and clear international corporate traffic.
- The stakeholders were unclear as to what the airport owner's long-term intentions were for the airport's growth.

6. How could a better integrated airport system serve the community's needs?

**Answer:** As the City of Katy grows, the stakeholders believe there will be a need for another commercial facility in the region. The question is "Where will it be?" They can see that their area might be the logical choice because of their growth.

There was discussion about how close a "feeder airport" is allowed to be to the hub, Bush Intercontinental Airport, in order to be considered by an airline. This line of thought went right

along with the possibility of attracting a Continental Airlines feeder into Houston Executive for IAH or a commuter into DFW.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:**

- Charter air services
- Maintenance repair and overhaul services for aircraft
- Non-government related companies
- A potential business park planned off-site to Houston Executive
- *Domestic* flight training
- Focus group opposed any type of cargo operation at Houston Executive. The owner has indicated to the Katy Chamber that it will be marketed as a corporate airport, not a cargo facility.

8. How can the airport support local business development?

**Answer:**

- It is supporting business now just by being located in their area. The chambers of commerce and economic development corporations work closely with Houston Executive and market the airport as a team.
- Recent team-marketing efforts included having a display at the NBAA National Conference in 2008.
- Kellogg Brown & Root (KBR) is investigating the Katy area to relocate the firm's fleet of aircraft.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** To be a gateway, the airport must have excellent road access and a nice corporate terminal. It is lacking in these areas. The owner has not indicated that he wishes to brand the airport as a "gateway." It will be up to Henriksen to determine how to position the airport. The chamber and economic development corporation honor the owner's decision.

**Land Access:**

- There are plans to improve access to the airport in a way that conveys more of a "gateway" image. The potential is there, with I-10 to the south and FM529 (future Lone Star Parkway.) The county is planning to upgrade Cardiff Road; FM2855 could be expanded to major access points; and the Perry Parkway is in the planning stages.
- The bridge near the airport has weight limitations.
- The Igloo Road situation is good; however the airport needs a good transition from Igloo and Cardiff Road.

10. What types of community relationships does the airport have with its neighbors?

Answer: The relationship has improved considerably from when the project began, which was discussed in Question 4. The airport sponsor has had several public events to keep the community informed about airport improvements including attractions such as:

- Displays from the Galveston Flight Museum
- Bar-B-Q
- B17 tours and passenger flights

11. Is there organized opposition to airport development and expansion?

Answer: The relationship between the airport and its neighbors is described as "comfortable;" but the neighbors are always "watching."

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

Answer: The stakeholders have not heard of any.

13. What environmental issues may affect airport use and development?

Answer:

- Wetlands
- Water fowl issues (bird strikes). The airport owner has a staff member devoted to controlling water fowl on his property.
- Drainage is an important issue. During the design of Houston Executive, the sponsor planned for significant drainage on the property.

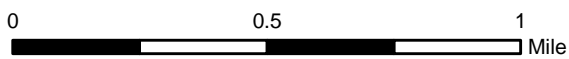
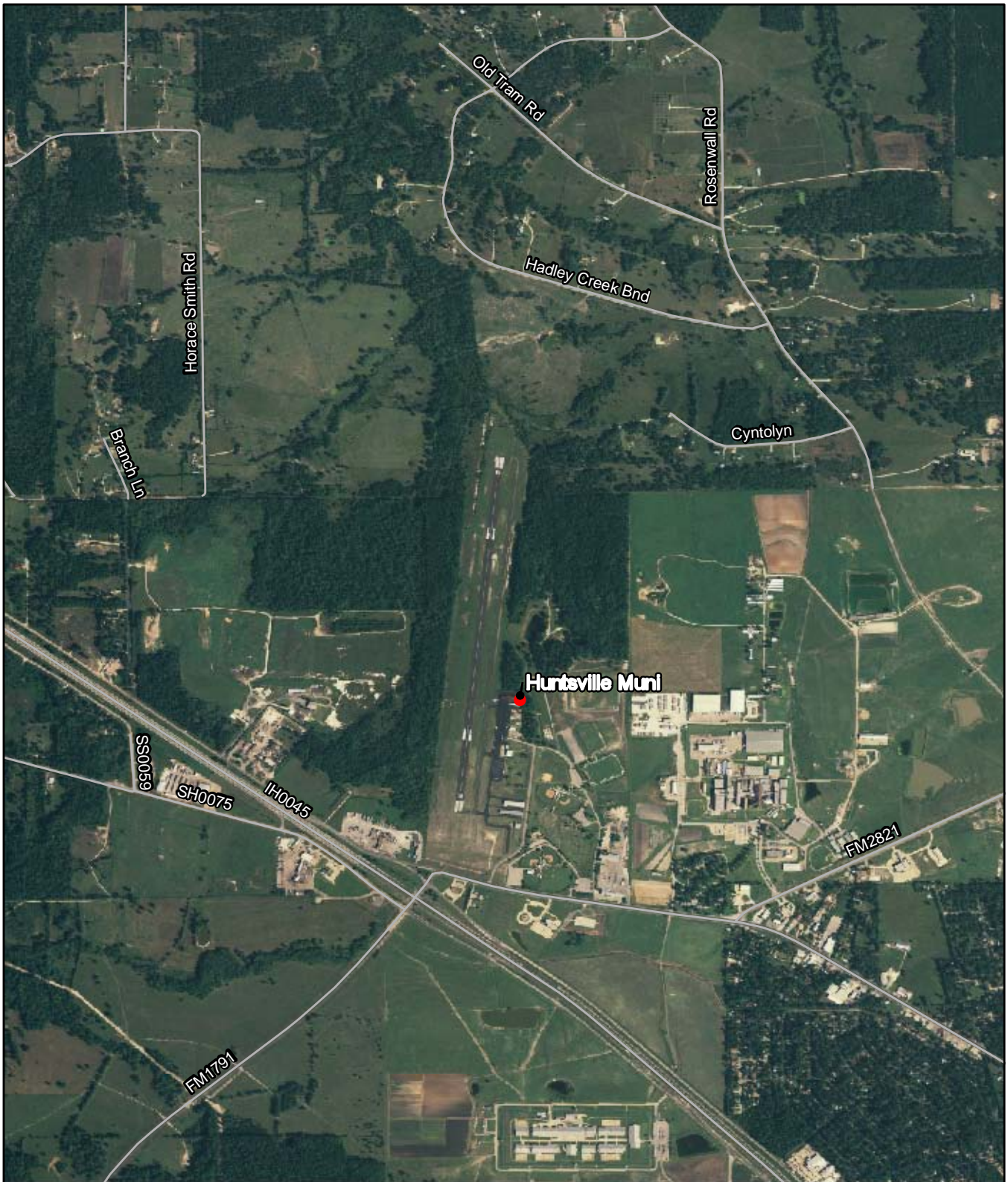
14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

Answer: The stakeholders have not seen a master plan for the facility but they assume there is one.

15. Do you know of other people or groups that we should contact?

Answer: West I-10 Chamber of Commerce

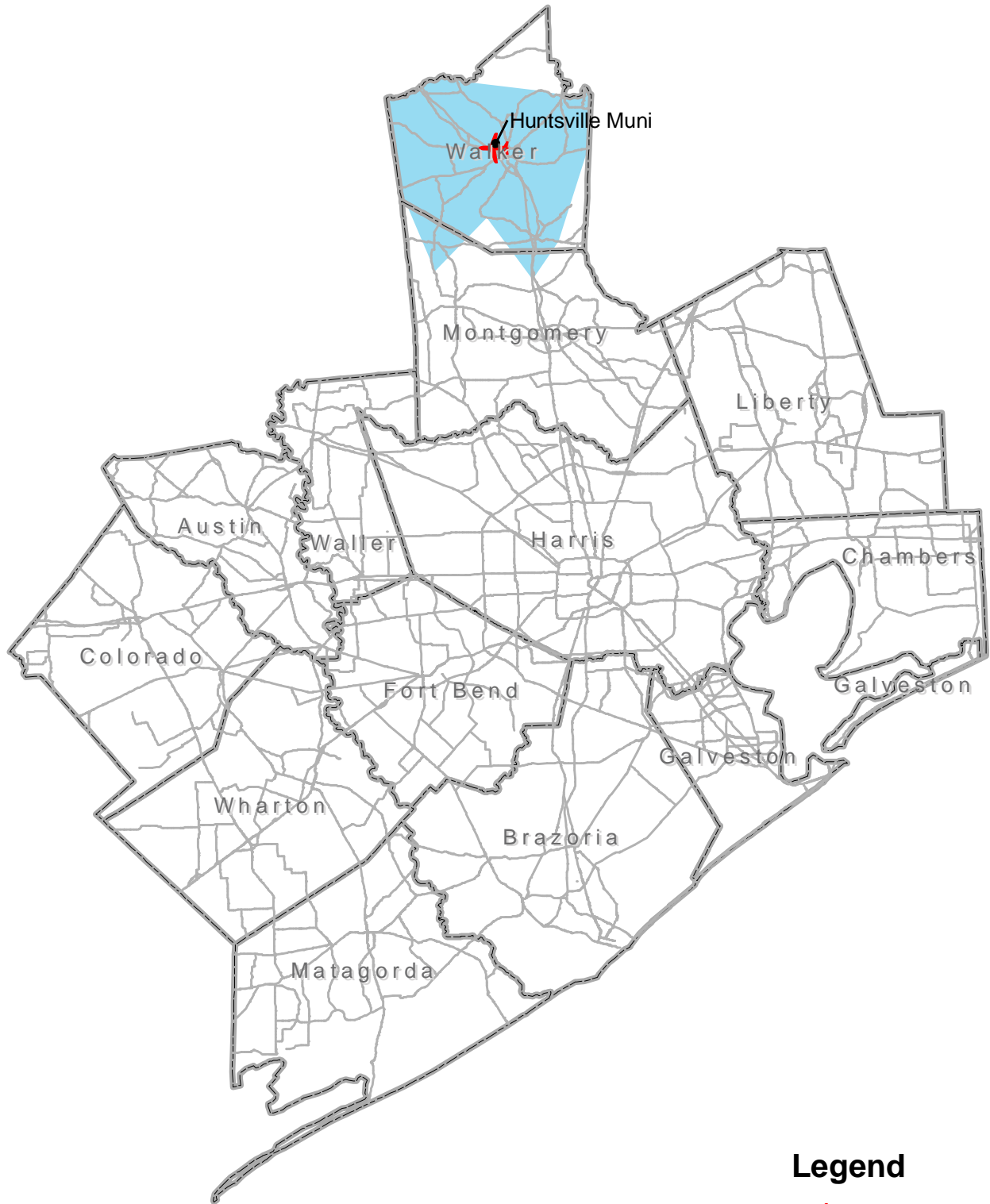




# Huntsville Municipal Airport

2040 Regional Aviation  
System Plan Update

# Huntsville Municipal Airport 30 min Service Area in 2009



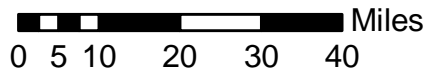
## Legend

 Huntsville Muni

 Roads

 Counties

 30 Min Service Area



**Huntsville Municipal Airport (UTS)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Huntsville Municipal Airport is publicly owned and operated by the City of Huntsville.

**Airport Location**

Huntsville Municipal Airport is located in Walker County, Texas approximately four (4) miles northwest from the Huntsville central business district and 72 miles north of Houston. The airfield lies west of Interstate 45 and north of SH 75.

**Existing Airport Facilities**

Huntsville Municipal Airport, including the airfield, terminal, hangars, and safety areas, encompasses approximately 180 acres. The Airport's Airport Identifier is UTS. The facility is located at an elevation of 363 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 30°44'48.8"N (estimated) and longitude 095°35'13.8"W.

**Airfield Facilities**

Huntsville Municipal Airport currently has one (1) runway. Runway 18/36 is 5,005 feet in length and 100 feet wide with pavement strength rated to accommodate aircraft with a single wheel load of 27,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and a four-light Precision Approach Path Indicator (PAPI) on the left of both runway ends. Runway 18/36 is equipped with Runway End Identifier Lights (REIL).

Runway 18/36 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) RWY 18
- VOR/DME-A
- NDB RWY 18

A clear and green rotating beacon is located north of the terminal building providing visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone located midfield and west of Runway 18/36. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at the Airport include the terminal, T-hangars, and conventional hangars.

**Fixed Base Operator Facilities**

Huntsville Municipal Airport operates the only full-service FBO, Huntsville Aviation. Services include the following: airport management; aviation fuel; aircraft parking (ramp); hangars; passenger terminal; pilot lounge / snooze room; flight training; and aircraft rental.



### Aircraft Storage

Aircraft storage at the Airport includes 22 tie-downs, T-hangars, and conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Huntsville Aviation. It is located adjacent to the terminal building. It provides underground storage capacity for 10,000 gallons of Aviation Gasoline (AVGAS) and 10,000 gallons of Jet-A. Aircraft receive fuel by truck.

### Based Aircraft

In 2008, there were a total of 36 fixed wing aircraft based at Huntsville Municipal Airport. This includes 34 single-engine aircraft, two (2) multi-engine aircraft, and one (1) turbo-props. Additionally, there is one (1) helicopters based at the Airport.

### **Interviewer Conclusion**

Airport management identified the need for the following improvements: parking apron rehabilitation; fencing; and renovate the terminal building.

A long-term goal is to extend the runway to the north to an ultimate length of 7,000 feet. This goal is in an effort to accommodate business jets.

Airport management indicated that the Airport was in the process of obtaining a WAAS LPV approach, which will provide lower minimums for flying into Huntsville Municipal Airport.

Additional hangar space is needed. The hangars are at capacity and the Airport has a waiting list.

The Airport is instrumental in emergency management. FEMA set up a staging area adjacent to the Airport. C-130s have flown into the Airport and helicopters were stationed at Huntsville during Hurricane Ike. Additionally, Exxon Mobile staged fuel.

Huntsville Municipal Airport has several key tenants. The prison system bases an aircraft at the Airport. It is used primarily to transport executives. Additionally, the US Forest Service is based out of Huntsville for various parts of the year for fire management at Sam Houston National Forest; however, the crews can be called to any location.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Huntsville Muni. Airport  
 Airport Manager: Wade Gillaspie  
 Airport Owner: City of Huntsville  
 Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars	8	2	1				
T-Hangars	24						
Portable Hangars							
Tie-Down (Paved)	2				1		
Tie-Down (Unpaved)							
Total	34	2	1		1		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars					
Tie-Down (Paved)	4	1	1	1	1
Tie-Down (Unpaved)					
Total	4	1	1	1	1

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area	1500	
Based Aircraft Apron	5000	
Transient Aircraft Apron	10000	

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	N/A
AVGAS	21500
Jet-A	111600

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Underground
10,000	AvGas	underground
10,000	Jet A	underground

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)	N/A	1 / 750	1 / 750 1 / 2000
Frequency of Fuel Drops	N/A	3 / Day	3 / Day
Average Gallons per Drop		20.0 Gal	155.0 Gal

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Number of Daily Operations\*

Aircraft Type	Off-Peak		Peak		% Night**
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 7:00 AM Thru 8:PM

8. What is the busiest day(s) of the week? Thursday

9. For the above table, what are your off-peak and peak seasons? Off Peak Winter  
Peak Summer

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental	4	Cessna 172, Piper Warrior, Rockwell 114, Cessna 140
Charter		
Air Taxi		
Student Training	6	Cessna 172, Piper Warriors, Rockwell 114, Cessna 140, Cessna 195, Globe 1B
Crop Dusting	—	
Other		
Total	6	

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
18-36	5000	100			

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
18	300				No	MIRL		Yes	Yes
36	363				No	MIRL		Yes	Yes

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
A	5000'	40'		Asphalt	Runway
B	130'	40'		Asphalt	Runway
C	<del>260'</del> 1275'	40'	No	Asphalt	Runway
	1200'	45'	No	Asphalt	Hangars

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Yes Runway needs to be longer 7000' Extend to the North.

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. Rehab / Reconstruction

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_



13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		✓		Automatic Terminal Information Service			
Flight Service Station	✓		122.3	Unicom	✓		122.8
National Weather Service	✓			Precision Approach Radar / MLS/ILS		✓	
Civil Air Patrol	✓			Segmented Circle	✓		
Automatic Weather Observing System (A, I, II, III, IV)		✓		Centerfield Wind Indicator	✓		
Automated Surface Observing System	✓		119.425	Supplemental Wind Cone		✓	
Non-Directional Radio Beacon	✓		308 mhz	Remote Transmitter Receiver		✓	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)	✓		110.8 LOA	Aircraft Rescue and Fire Fighting Facility	✓		
Ground Communications Outlet				Remote Communications Outlet	✓		122.3

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? Yes, Complete Aprons Reconstruction

More hangars

Letter of Interest w/ TxDot

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental)

Need fencing (Perimeter)

Need Terminal Bldg Replacement or Rehab + Expansion.

16. What do you view as the long-range potential for the airport?

Massive Growth & Increased Usage. Driven by Huntsville's Role in Disaster Relief, Emergency Management, Sam Houston State University Rapid Growth, and Texas Dept. of Criminal Justice Statewide Headquarters

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport?

As far as I am aware there is no significant opposition to Public Funding.

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) No Protective Measures in Place.  
Yes Antenna Obstructions, Park and Residences.

19. Have nearby residents complained of aircraft noise? Yes.

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? No.

*Huntsville Chamber of Commerce*  
*Focus Group*

*Summary Report*

Stakeholders Perspective

**I Airport History/Environment**

The Focus Group discussed Huntsville Municipal Airport (UTS) encroaching somewhat on the environment; but this did not seem to be recognized as a serious issue. Generally, land for development around Huntsville is limited because large tracts belong to the State of Texas (TDCJ), federal government (U.S. Forest Service) and large ranchers.

One of the most frequent users of the airport is the Trinity River Authority of Texas (TRA), which operates an A-100 aircraft to support the authority's travel requirements. Huntsville Municipal Airport is an integral part of their operation. From December 2005 to November 2008, TRA conducted 267 aircraft operations at the airport. Their three year average is 90 operations per year.

Sam Scott, Executive Service Manager for TRA, states in a letter "We are pleased with the condition and length of the runway, the airport lighting, and the automated weather reporting system currently in place at the airport."

**II Goals/Objectives**

The focus group spoke of extending the runway 1,000 feet to the north, which would make the facility more attractive for corporate aircraft. Better approach minimum altitudes and improvements to the ramp pavement are also needed.

**III Initiatives**

Better community education about the airport's benefits to its constituency and a marketing action plan to promote the airport were being considered.

#### IV Recommended Airport Enhancements (utilization)

- Improve airport approach. Existing instrument approach procedures provide for very low approach minimum altitudes.
- Improve the condition of the airport ramp pavement
- Need of high-speed internet based weather access and information at the airport
- Leverage TDCJ and Sam Houston State University to build aviation opportunities at the airport through special aviation training programs.

#### V Interviewers Conclusion

There was an unusually large group (11) that participated in the stakeholder focus group. The group included representatives from the City, Chamber, TDCJ, business, and Walker County. There was positive support for the airport and its future. The key issues still remain that there is a lack of vision for the airports growth, or an enthusiastic champion for aviation in the community.

Huntsville Chamber of Commerce Interview  
Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber Name:</u>	Huntsville Chamber of Commerce
<u>Representative:</u>	See sign-in sheet
<u>Airport Name:</u>	Huntsville Municipal Airport (UTS)
<u>Interview Date:</u>	February 19, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** The Focus Group envisions many things will improve at Huntsville Municipal Airport (UTS) in the next ten years.

- Runway will be extended north by 1,000 ft.
- Improvement in clear zones
- Better approach minimums
- Ramp surface improvements
- Cargo and general aviation growth
- Improvements to accommodate the growth at Weatherford International
- Emergency logistical distribution system
- Increase community awareness; educate the region on aviation economic benefits.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The technology growth that is taking place in Weatherford International is the only economic stimulus Huntsville sees in the immediate future. Weatherford has attracted the technology industry is expanding as an international training facility. As a result, people are flying into the area from all over the world to take advantage of this training.

The presence of Sam Houston State University and the Texas Department of Criminal Justice (TDCJ) centered in Huntsville creates the atmosphere of a large city environment. The chamber and EDC lean toward marketing retail rather than attracting industry because of the population demands.

3. Where and what do you expect for the area's future growth?

**Answer:** See Question #2

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** Huntsville's issues associated with aviation are:

- Existing instrument approach procedures provide for very low approach minimum altitudes
- Poor condition of the airport ramp pavement
- Lack of any high-speed internet based weather access and information at the airport
- Limited available land to attract business and industry. Most of the land in the area is owned by large land owners, the State of Texas, or the federal government.
- Water/wastewater is a major obstacle.
- The majority of employees at Sam Houston State University, a key employer and economic engine, live south of Huntsville due to lack of employment opportunities for spouses. This decreases the city's tax base.
- While a minimum problem, the area north of the airport is somewhat encroached by housing. Currently, this has not been a problem; however as the airport expands with a runway extension, this could become an issue.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- Reorientation of the runway would allow for safer operations.
- Improved customer parking
- The community has a low economic base and the improvement of the airport would generate tax dollars that could be reinvested in the area.
- Leverage TDCJ and Sam Houston State University in building aviation opportunities at the airport through special training programs.
- Act as reliever general aviation airport to Montgomery County's Lone Star Executive Airport as it grows and expands.

6. How could a better integrated airport system serve the community's needs?

**Answer:** Huntsville's aviation niche lies with TDCJ and Sam Houston State University. TDCJ is the headquarters for the state criminal justice operation that has several general aviation aircraft coming to the area. The airport, during Hurricane Ike, became a relief value for air traffic moving in and out of the Gulf Coast area supplying emergency support.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** TDCJ and the university continue to grow and contribute but in addition, attracting light industry would also be a benefit. The issue with light industry is the areas inability to accommodate them because of lack of available land.

8. How can the airport support local business development?

**Answer:** If it could provide more services and attract aircraft support companies. The airport has potential to become an employment center.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The stakeholders see the airport as a “Gateway for Government Agencies.” In addition to TDCJ, the U.S. Forest Service – Sam Houston National Forest and the Trinity River Authority of Texas also have a strong presence in the area.

One of Huntsville’s best marketing tools is the area’s excellent ground transportation access. The City sits at the junction of SH19 running north and south, I-45 also running north and south, and SH190 which runs east and west.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** Neighbor relationships are not in place because of the lack of education about the airport and its economic benefits. Most people in the area do not know the City has an airport, or how to find it.

11. Is there organized opposition to airport development and expansion?

**Answer:** None

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None that will affect the airport.

13. What environmental issues may affect airport use and development?

**Answer:** The major issue is the lack of security with the fence. The fencing is designed to keep livestock out, not people; some drainage problems.

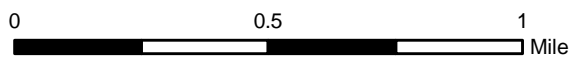
14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The airport’s master plan is five years old and the airport layout plan (ALP) needs to be updated.

15. Do you know of other people or groups that we should contact?

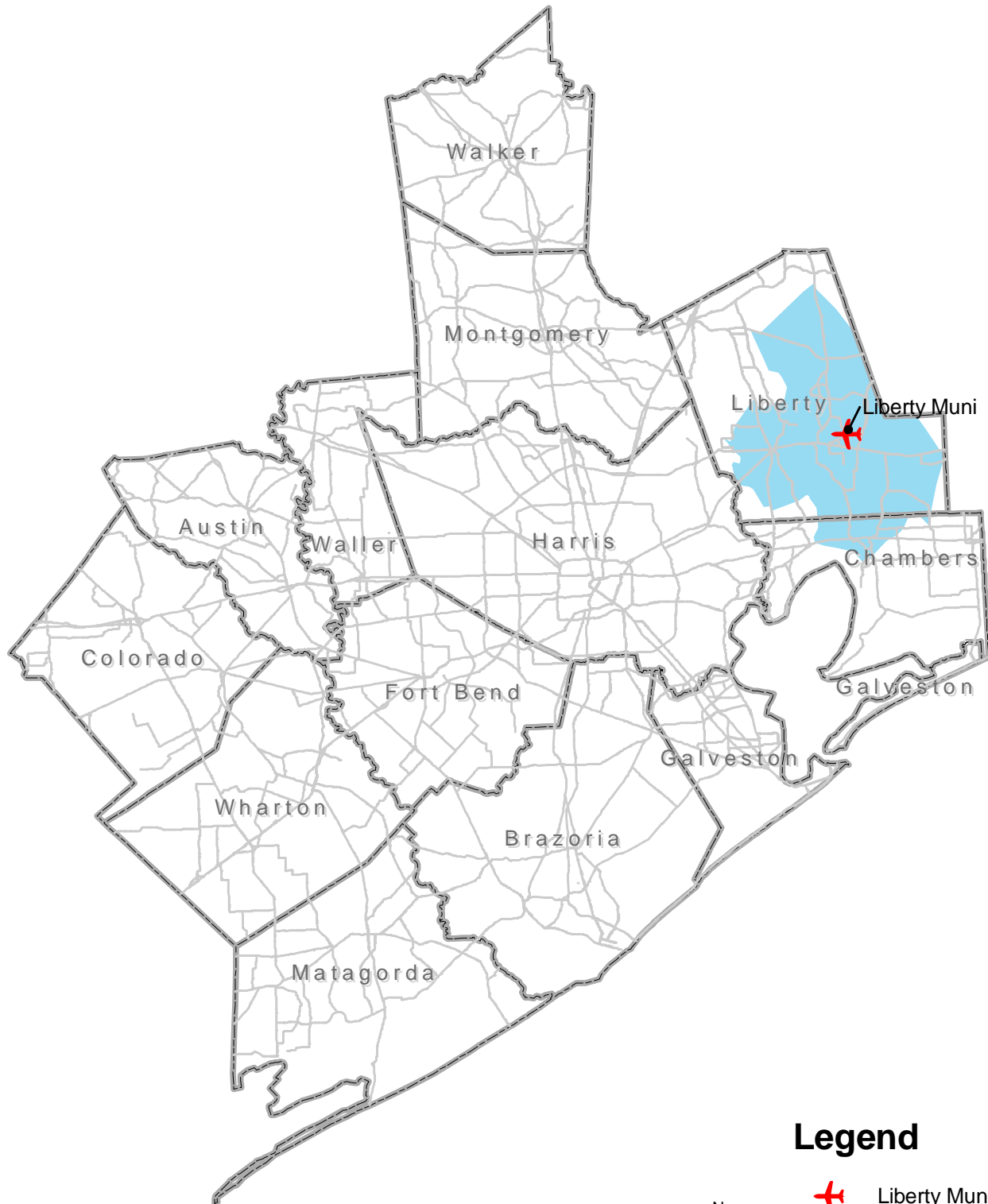
**Answer:** None





**Liberty  
Municipal Airport**  
2040 Regional Aviation  
System Plan Update

# Liberty Municipal Airport 30 min Service Area in 2009



## Legend



Liberty Municipal Airport



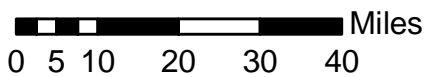
Roads



Counties



30 Min Service Area



**Liberty Municipal Airport (T78)**  
*Airport Summary*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Liberty Municipal Airport is publicly owned and operated by the City of Liberty.

**Airport Location**

The Liberty Municipal Airport is located in Liberty County, Texas approximately six (6) miles northeast of the Liberty central business district and 56 miles northeast of Houston. The airfield lies north of State Highway 90.

**Existing Airport Facilities**

Liberty Municipal Airport, including the airfield, hangars, and safety areas, encompasses approximately 127 acres. The Airport's Airport Identifier is T78. The facility is located at an elevation of 70 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 30°04'40.1"N (estimated) and longitude 094°41'54.8"W.

*Airfield Facilities*

Liberty Municipal Airport currently has one (1) runway. Runway 16/34 is 3,801 feet in length and 75 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 10,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) as well as a two light Precision Approach Path Indicators (PAPI) on the left of the Runway 16 end.

Runway 16/34 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- RNAV (GPS) Runway 16
- VOR-A

Taxiway A is a full parallel taxiway serving Runway 16/34. The taxiway is 35 feet wide, constructed of asphalt, and is not lighted.

A clear and green rotating beacon is located east of the east-side apron and provides visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone that is located midfield and west of Runway 16/34. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

*Landside Facilities*

The landside facilities at Liberty Municipal Airport include tie-downs and conventional hangars. Many of the landside facilities were destroyed during Hurricane Ike.

### Fixed Base Operator Facilities

Liberty Municipal Airport operates the only FBO. Services include aircraft fueling, aircraft parking (ramp or tie-down), and restrooms. The Airport is not attended regularly. Airport management is on-call.

### Aircraft Storage

Aircraft storage at the Airport includes three (3) tie-down spaces, and conventional hangars. Several hangars were destroyed during Hurricane Ike.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by City the Liberty. It is located north of and adjacent to the west terminal apron. It provides aboveground storage capacity for 10,000 gallons of Aviation Gasoline (AVGAS). Aircraft fueling is self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 12 fixed wing aircraft based at Liberty Municipal Airport. These aircraft include 10 single-engines, and two (2) multi-engines. Additionally, there is one (1) ultra-light based at the Airport.

### **Interviewer Conclusion**

Liberty Municipal Airport suffered substantial damage from Hurricane Ike and is need of a lot of work.

In discussions with airport management, it is evident there is vision for the Airport. Achieving the vision and goals for the Airport is what may be challenging. At the time of the site visit, the City Council had plans to tour other vicinity airports to learn about aviation and obtain ideas on what can be done for Liberty Municipal Airport.

The Airport has land that can be developed and expressed interest in acquiring land for a potential runway extension. Most of the traffic the Airport receives is recreational, but there is some business traffic. The Airport sees mostly single-engine aircraft, however, operations will occasionally include multi-engine aircraft. Airport management indicated the desire for pavement strength to accommodate heavier loads.

Liberty Municipal Airport has a new security fence on the west side, but the east side has a gate that provides easy access. The Airport has experienced issues with vandalism.

Airport management stated that a new terminal on the east side of the Airport is ideal. A long-term goal is for the Airport to become self-sufficient. Additional hangars are also a need the Airport expressed.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: Liberty Municipal Airport \_\_\_\_\_

Airport Manager: Avon Moore \_\_\_\_\_

Airport Owner: City of Liberty \_\_\_\_\_

Date: 02-03-2009 \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	7	2					1
T-Hangars							
Portable Hangars							
Tie-Down (Paved)	3						
Tie-Down (Unpaved)							
<b>Total</b>	10	2					1

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
<b>Total</b>					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	
AVGAS	31,000 gallons
Jet-A	

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
10,000 gallon	Avgas 100LL	aboveground

5. Please provide the following information about your fueling operation.

<i>Item</i>	<i>MOGAS</i>	<i>AVGAS</i>	<i>JET-A</i>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops		Bi-monthly	
Average Gallons per Drop		6000	

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<i>Aircraft Type</i>	<i>Number of Daily Operations*</i>				<i>% Night**</i>
	<i>Off-Peak</i>		<i>Peak</i>		
	<i>Weekday</i>	<i>Weekend Day</i>	<i>Weekday</i>	<i>Weekend Day</i>	
Single Engine	2	2	5	5	
Multi-Engine Piston	1	1	2		
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 11:00 am to 3:00 pm \_\_\_\_\_

8. What is the busiest day(s) of the week? Thursday thru Sunday \_\_\_\_\_

9. For the above table, what are your off-peak and peak seasons? **Off peak** (Oct, Nov, Dec) **peak** (Mar, Apr, May) \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>	<i>Aircraft Types</i>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total		



11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
T78	3,801	75'		Asphalt	

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
16	70.0					mirl			papi
34	64.4								

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
	3,801	35.1'	NA	Asphalt	

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Scheduled for rehabilitation and drainage improvements 2010 cip through txdot \_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_



13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower				Automatic Terminal Information Service			
Flight Service Station				Unicom			
National Weather Service				Precision Approach Radar / MLS/ILS	x		
Civil Air Patrol				Segmented Circle	x		
Automatic Weather Observing System (A, I, II, III, IV)				Centerfield Wind Indicator	x		
Automated Surface Observing System				Supplemental Wind Cone			
Non-Directional Radio Beacon				Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)				Aircraft Rescue and Fire Fighting Facility			
Ground Communications Outlet				Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? CIP FOR 2009-2010, NPE TO BREAK GROUND IN MARCH \_\_\_

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15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) EAST SIDE ACCESS ENTRANCE, OFFICE / PILOTS LOUNGE, MORE DIRT WORK, ELECTRICAL, WATER, SEWER ETC.... \_\_\_

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16. What do you view as the long-range potential for the airport? WOULD LIKE TO BUILD MORE HANGARS AND EXTEND THE RUNWAY GROW THIS AIRPORT IT IS IN A GREAT LOCATION \_\_\_

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17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_

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18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) WE ARE IN THE EARLY STAGES OF DEVELOPING THE HEIGHT HAZARD ZONING ORDINANCE A COMMITTEE HAS BEEN SELECTED \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

19. Have nearby residents complained of aircraft noise? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Liberty Chamber of Commerce*  
*Focus Group*

*Summary Report*

Stakeholders Perspective

**I Airport History/Environment**

From the stakeholder's perspective, the environment at Liberty Municipal Airport (T78) is still post-storm. Cleaning up the debris and restoring the airport to a functioning City facility has been slow.

**II Goals/Objectives**

- FBO/new office/pilot lounge
- Major drainage improvements
- Runway improvements
- Community awareness campaign

**III Initiatives**

Through a Non Primary Entitlement Grant, the airport is moving forward with a new runway lighting system, beacon tower replacement, a new voltage regulator and drainage improvements.

Liberty has obtained significant TxDOT grants (\$1.050 million) to make the following improvements, assuming matching funds are available by the City. The projects will be implemented in two phases.

- Rehabilitate and mark parallel and cross taxiway
- Rehabilitate aprons
- Rehabilitate runway 16/34
- Mark runway 16/34
- Repair base failure on north end of runway
- Additional drainage improvements

#### IV Recommended Airport Enhancements

- New runway lighting system
- Drainage improvements between the taxiway and runway
- A new beacon tower
- A new electrical vault
- Runway/taxiway improvement
- Develop a community public relations and business marketing action plan and implement the plan

#### V Interviewers Conclusion

The stakeholders could not really identify any long term goal except to recover from the hurricane. The airport director is committed to bringing the airport into a better condition than it was prior to Hurricane Ike. Damage from the hurricane was severe.

The TxDOT grants that are in process will go a long way to make major improvements. During the week of the Focus Group meeting, the City had a company removing all the debris from the storm.

The lack of strong support from the City of Liberty's elected officials (even before the storm) could be a determinant in the area seeing the full economic benefits from the airport. The airport needs a local champion and a "Friend of the Airport" group that is made up of people that "don't fly" but who can recognize the airport's economic benefits.

**Liberty Chamber of Commerce Interview**  
*Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan*

<b><u>Chamber Name:</u></b>	Liberty Chamber of Commerce
<b><u>Chamber Representatives:</u></b>	See sign-in sheet
<b><u>Airport Name:</u></b>	Liberty Municipal Airport (T78)
<b><u>Interview Date:</u></b>	March 5, 2009

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**Stakeholders Perspective**

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** For the airport to really expand in the next ten years, land acquisition and strong support from the City sponsor will be required. The land acquisition is very doubtful since the airport is surrounded by large, long term land owners who would not be inclined to sell. Looking more optimistically for the next decade, the following things could happen:

- Runway extension; currently the only direction would be to the north, potentially another 1,000 feet
- WASP system
- Height Hazard Zoning
- Fix Base Operation (FBO) that would attract business to the airport.
- Increase community awareness
- Develop additional T-hangars and put lease agreements in place that would increase the revenues at the airport.

A \$716,090 grant from TxDOT, with the city's matching funds of \$71,609 (90/10 grant), will fund a new runway lighting system, drainage improvements between the taxiway and runway, a new beacon tower, as well as a new electrical vault, will all be included in that construction.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The airport is in a post-hurricane recovery. A capital improvement grant in the amount of \$1,050 million will accomplish the following:

- Rehabilitate and mark parallel and cross taxiway
- Rehabilitate aprons
- Rehabilitate runway 16/34

- Mark runway 16/34
- Repair base failure on north end of runway
- Additional drainage improvements

These airport improvements may create some employment opportunities.

The surrounding airport area is heavy agricultural and petrochemical. Currently, everything is on hold because of the economic downturn. A number of light industries that support the petrochemical activity are located here.

Boomerang II, an oil field related service, is coming to the area but has delayed the move due to the economy. The company will employ 250 people.

The biggest employers are the City, the school district, and prison system.

3. Where and what do you expect for the area's future growth?

**Answer:** The airport is located between Houston and Beaumont, and the majority of the growth is primarily residential.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** The area around Liberty, and certainly the airport, had major destruction after Hurricane Ike on September 13, 2008. The airport facility is still in the clean up mode.

There is minimal airport support from the City's elected officials. They do not recognize the airport's value to the community; therefore, obtaining local matching funds for improvement grants have been difficult.

The community is neutral towards the airport and limited efforts have been made to develop community support. The vast majority of the community does not know the airport exists; and those who are aware, do not recognize its value.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** Through airport improvements there will be area economic improvements. A public awareness of the airport's economic value needs to be developed. The airport needs a good aviation champion.

6. How could a better integrated airport system serve the community's needs?

**Answer:** When an area is attempting to recover from a major disaster such as Hurricane Ike, the priority is not a "better integrated airport system." The stakeholder's focus was to save the airport so it could contribute to the community.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** As Houston continues to move Liberty's direction, and as corporate offices develop, there will be an influx of people that will be moving into area residential developments. There will be more utilization and need for an upgraded airport. Liberty would like to fill the needs of these people with residential housing and better infrastructure and transportation. There will be more employment demands as the petrochemical industry recovers.

8. How can the airport support local business development?

**Answer:** Attract businesses into the area and create employment opportunities.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** First, the airport must recover from the hurricane damage. In its current condition, it is difficult to imagine the airport as a gateway. With time, this concept can be developed.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** The airport neighbors, for the most part, consist of agricultural land owned by long time farmers whose structures do not encroach upon the airport. As stated in Question #4, the general community is neutral towards the airport. The vast majority of the community does not know the airport exists. There was an attempt in 2008 to bring the airport's visibility up with a fly-in, which brought in over 100 planes. There has not been anything organized to attract the non-flying community. The stakeholders recognize the need to involve the community and create events that would attract those that "do not" fly as well as those who do.

11. Is there organized opposition to airport development and expansion?

**Answer:** There is no organized opposition to the airport.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None.

13. What environmental issues may affect airport use and development?

**Answer:** The airport has wetland/drainage issues, which will be addressed with the TxDOT Grant mentioned in Question #2. There has been an environmental study that may have revealed some bird issues.

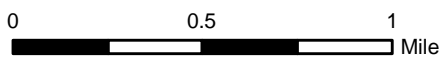
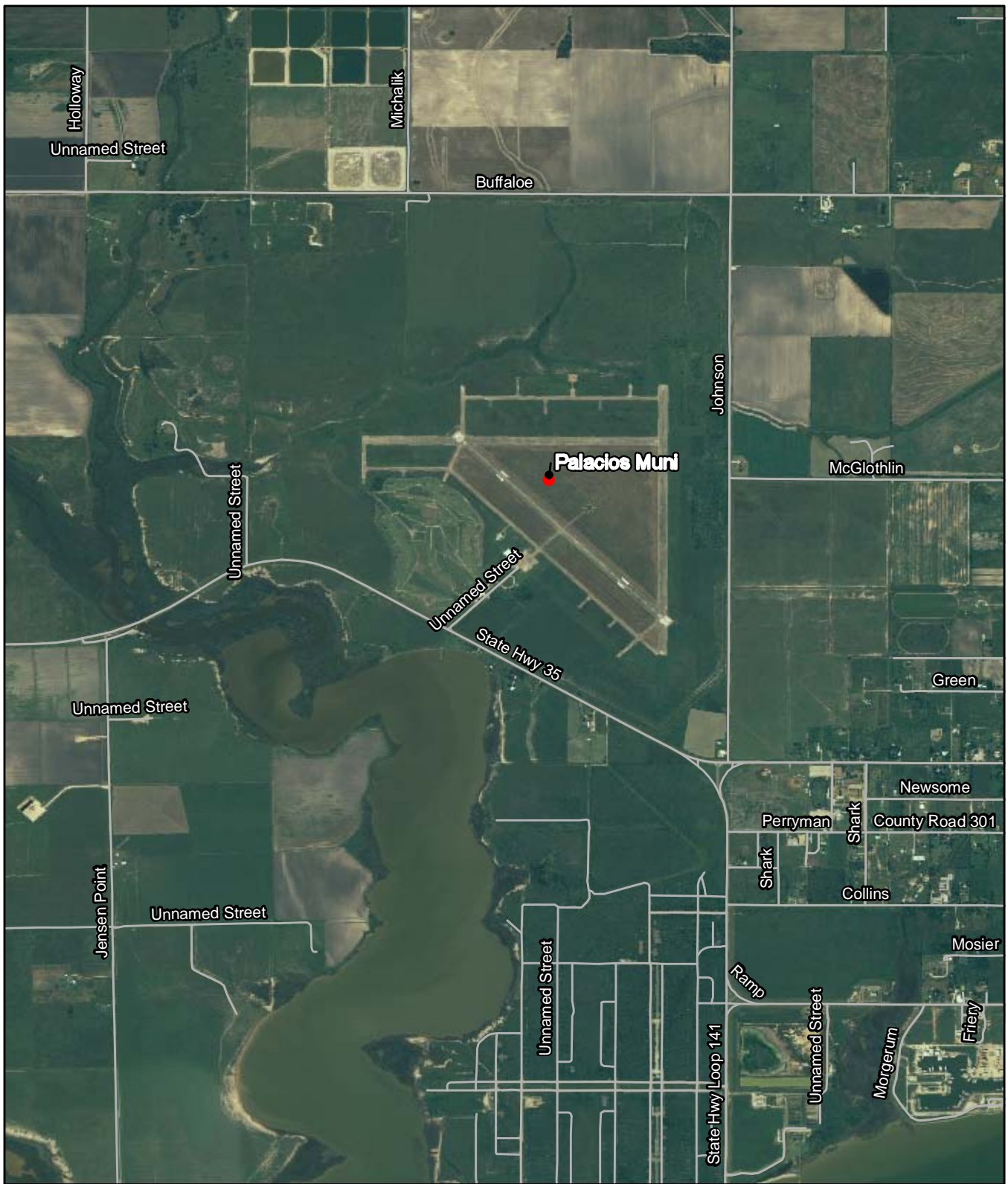


14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** None that the stakeholders are aware.

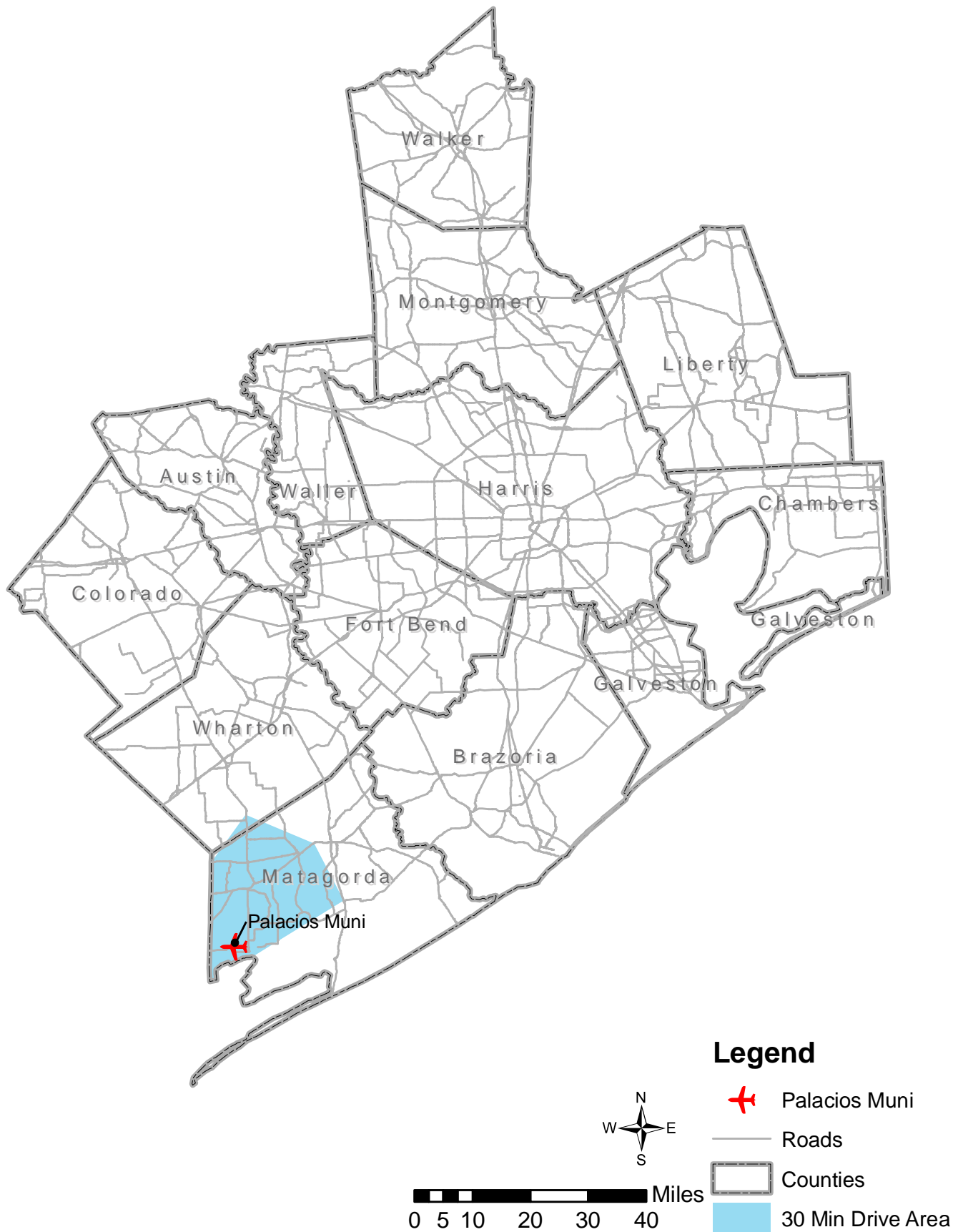
15. Do you know of other people or groups that we should contact?

**Answer:** None



**Palacios  
Municipal Airport**  
2040 Regional Aviation  
System Plan Update

# Palacios Municipal Airport 30 min Service Area in 2009



**Palacios Municipal Airport (PSX)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Palacios Municipal Airport is publicly owned and operated by the City of Palacios.

**Airport Location**

The Palacios Municipal Airport is located in Matagorda County, Texas approximately three (3) miles northwest of the Palacios central business district and 111 miles southwest of Houston. The airfield lies north of SH 35.

**Existing Airport Facilities**

Palacios Municipal Airport, including the airfield, hangars, terminal, and safety areas, encompasses approximately 1,538 acres. The Airport's Airport Identifier is PSX. The facility is located at an elevation of 14 feet above Mean Sea Level (MSL) and the of the Airport Reference Point (ARP) coordinates are latitude 28°43'39.0"N (estimated) and longitude 096°15'03.4"W.

**Airfield Facilities**

Palacios currently has three (3) runways. Runway 13/31 is the primary runway and is 5,001 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a dual tandem wheel load of 105,000 pounds or less. The runway is constructed of concrete and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) as well as Runway End Identifier Lights (REIL).

Runway 17/35 is 5,001 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a dual tandem wheel load of 105,000 pounds or less. The runway is constructed of concrete and is in fair condition. The runway is not lighted and currently has basic markings. TxDOT has a project planned to reduce the width of the runway from 150 feet to 75 feet as well as mark the runway.

Runway 8/26 is 5,001 feet in length and 150 feet wide with a pavement strength rated to accommodate aircraft with a dual tandem wheel load of 105,000 pounds or less. The runway is constructed of concrete and is in fair condition. Currently, the runway needs the spawls repaired and the cracks seal coated. According to airport management, this runway does not receive much attention from TxDOT.

Runway 13/31 is classified as a Non-Precision Instrument Approach runway. Runways 17/35 and 8/26 are classified as Visual Approach runways. The following published approaches were available as of April 9, 2009:

- GPS Runway 13
- VOR Runway 13

Taxiway A is a parallel taxiway serving Runway 13/31.

A clear and green rotating beacon is located directly southeast of the terminal building and provides visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone that is located adjacent to and northeast of Runway 13/31. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

### Landside Facilities

The landside facilities at the Airport include the terminal, a conventional hangar, and a 4-unit T-hangar.

The Airport is unattended, but a terminal facility is available.

### Fixed Base Operator Facilities

There is not a Fixed Base Operator at Palacios Municipal Airport. The City of Palacios serves as a fuel provider.

### Aircraft Storage

Aircraft storage at Palacios Municipal Airport includes tie-down spaces, T-Hangars, and a conventional hangar. The City leases one conventional hangar. Additionally, the City maintains tie-down spaces. One 4-unit T-hangar also provides storage for private aircraft.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by the City of Palacios. It is located directly northeast of the Airport's terminal building and adjacent to the apron. It provides aboveground storage capacity for 11,000 gallons of Aviation Gasoline (AVGAS) and 11,000 gallons of Jet-A fuel; however, the Jet-A tank remains empty. Helicopters on the field utilize Jet-A from their own tank. Aircraft fueling is self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 11 fixed wing aircraft based at Palacios Municipal Airport. These aircraft include 11 single-engines. Additionally, five (5) helicopters are based at the Airport.

### **Interviewer Conclusion**

Once a former military installation, Palacios Municipal Airport boasts over 1,500 acres which includes three runways. Runway 13/31 is the primary runway. According to airport management, TxDOT plans to reduce the width of Runway 17/35 to 75 feet and Runway 8/26 does receive a lot of attention.

Future plans for the Airport include, building new T-hangars, updating the terminal building, improving access roads, and taxiways. Airport management indicated there have been inquiries about hangar space.

Based on discussions with airport management, it appears the City does recognize the value of the Airport and preserving it, but improving the Airport is not a high priority. Airport management expressed that the Airport does not receive a lot of activity, but there is interest in the aviation community.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: PALACIOS MUNICIPAL AIRPORT

Airport Manager: PEGGY GEORGI

Airport Owner: CITY OF PALACIOS

Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars	7						
T-Hangars	4						
Portable Hangars							
Tie-Down (Paved)					5		
Tie-Down (Unpaved)							
Total	11				5		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars					
Tie-Down (Paved)	3				
Tie-Down (Unpaved)					
Total	3				

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area	Empty	1
Based Aircraft Apron		5
Transient Aircraft Apron		3

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	
AVGAS	7,000 GALS YEARLY
Jet-A	

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
11,000	JET-A (Empty)	Above Ground
10,000	AV-GAS	Above Ground



5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)		1 - 10,000	
Frequency of Fuel Drops		1 YEARLY	
Average Gallons per Drop		7,000	

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? mid morning, through EARLY EVENING

8. What is the busiest day(s) of the week? TUESDAYS & THURSDAY for ROTORCRAFT SATURDAYS during WARM WEATHER

9. For the above table, what are your off-peak and peak seasons? OFF-PEAK WINTER PEAK - SUMMER

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total		



11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
13-31	5,000'	150'		CONCRETE	YES
17-35	5,000'	150' down to 75'		CONCRETE	WILL BE
8-26	5,000'	150'		CONCRETE	FADED

Runway End	End Elevations	Visual	NP	P1/P2/ P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. 8-26 NEEDS THE SPAWLS REPAIRED AND SEAL COATING OF THE CRACKS. TXDOT ONLY WORKS WITH THE TWO MAIN RUNWAYS.

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. SOME OF THE DRAINAGE PROBLEMS WE HAVE THROUGHOUT THE AIRPORT RUN UNDER THE TAXIWAYS.

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		/		Automatic Terminal Information Service		/	
Flight Service Station		/		Unicom	/		122.800
National Weather Service	/			Precision Approach Radar / MLS/ILS			
Civil Air Patrol		/		Segmented Circle	/		
Automatic Weather Observing System (A, I, II, III, IV)	/			Centerfield Wind Indicator	/		
Automated Surface Observing System		/		Supplemental Wind Cone			
Non-Directional Radio Beacon				Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		/		Aircraft Rescue and Fire Fighting Facility		/	
Ground Communications Outlet		/		Remote Communications Outlet		/	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? PROJECT W/TXDOT FOR DRAINAGE, REPAIR AND SEAL/COAT RUNWAY 17-35 #0713 PALLS -NPE  
WE NEED NEW T-HANGERS W/ACCESS ROADS

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) ACCESS ROAD TO EXISTING T-HANGER, TERMINAL BUILDING

16. What do you view as the long-range potential for the airport? ATTRACTING MORE AIRCRAFT AND TRAFFIC

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) YES, WE HAD A COMPANY THAT WANTED TO BUILD A CONCRETE PLANT @ JOHNSON RD. OR HWY 35

19. Have nearby residents complained of aircraft noise? \_\_\_\_\_

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? ND

**Palacios Chamber of Commerce**  
**Focus Group**

**Summary Report**

Stakeholders Perspective

**I Airport History/Environment**

Palacios is a small remote resort area on the Intercoastal Waterway. Its economy is driven by seasonal tourism. The main function of Palacios Municipal Airport (PSX) is to provide support to the offshore drilling operations through transporting crews via helicopters. The airport has five based piston aircraft and five helicopters for offshore oil production support. There is very limited hangar space available.

The City of Palacios took over the military field in 1943 which provided them three 5,000' runways; however, little has been accomplished in the way of marketing the airport to the outside and developing the airport into a viable general aviation airport. Funding for any improvements comes through TxDOT.

**II Goals/Objectives**

- Develop the airport into a strong economic engine for the City
- Strive to have a full time airport manager

**III Initiatives**

- Airport has been designated as an industrial park
- Work with TxDOT to correct the drainage issues on the airport
- Look at creative ways to market the airport to attract tourism and business

**IV Recommended Airport Enhancements**

- Drainage improvements
- New hangar for additional airplanes
- New corporate terminal to attract business

## V Interviewers Conclusion

There is a desire by the stakeholders to undertake improvements which will attract additional aircraft activity. They are optimistic that the Bay Shore Properties' Beachside Development will bring more aviation activities. The airport manager's duties are performed by the director of the City's recycling operation on a part time basis. There is a need for an action plan that can give them some direction in marketing the airport.

Generally, the City is happy with this airport being a "sleepy" laid back airport. The Focus Group felt that they live in a paradox; they can't get the people without the hotels, but they can't get the hotels without the people. Palacios makes up for their lack of hotels with bed and breakfasts. There are no new hotel facilities to attract tourists.

## Palacios Chamber of Commerce Interview

*Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan*

<u>Chamber Name:</u>	Palacios Chamber of Commerce
<u>Chamber Representative:</u>	See sign-in sheet
<u>Airport Name:</u>	Palacios Regional Airport (PSX)
<u>Interview Date:</u>	January 28, 2009

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### Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

#### Answer:

- A stimulus for Palacios Regional Airport (PSX) should be the Bay Shore Properties' Beachside developments currently underway along the Intercoastal waterway. It is a new shoreline 1,000 acre development, with high income level tenants; lots are ranging from 250K to 275K. This new community will bring aircraft owners.
  - Envision more "winter" Texans coming down to the area from the mid-west states, and attracting more activities to the airport.
  - There are 3-6 other developments; 150 acre tracts on the bay, river and creeks.
  - Continued growth from offshore petrochemical helicopters supplying crews to the rigs
  - The navigation district is attracting ship building and repair which is providing employment opportunities
  - The airport has three, 5,000 foot runways, however the city plans to maintain only two of these and develop the facilities around those. TxDOT is proposing narrowing one of the runways.
  - Airport pumps approximately 7,000 gallons of AV gas per year, and it is expected be an increase in the next few years because of the new developments.
  - Additional hangars, more based planes and support services for aircraft
  - New airport terminal
2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

Answer: The Focus Group did not believe there was any economic activity directly neighboring the airport because of lack of adequate infrastructure.

Not far from the airport is the 1,000-acre Beachside gated community development. This second-home and retiree resort community will eventually have 3,000 houses. The income profile of the persons to whom the development is being marketed would

indicate that some of the future residents will be aircraft owners who will use the Palacios Airport.

3. Where and what do you expect for the area's future growth?

**Answer:** Businesses have moved to the north part of old downtown Hwy. 35, past the high school towards the airport. The movement has been the result of the city installing sewer and water in the area. There is no potential growth anticipated other than what has been mentioned in Question #1. The airport has been designated as an industrial park.

Based on current general industrial prospects, there is expected to be approximately \$13 million of industrial investment with over 1,200 plus new jobs created in Matagorda County over the next eight years. Most of this industrial interest is energy-sector related ---either energy generation or energy product production.

The industry site interest is primarily in the rural areas of the County where there are large tracks of land and support infrastructure. All the growth is predicated on the national economic markets returning to normal where loans for construction and permanent financing are more readily available.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** There is a serious drainage issue. No one had looked at the problem since the city took over in 1943. Years of "hay" building up over the drainage grates have caused erosion which has obstructed airport drainage.

There is a lack of city initiative to market the airport.

The lack of hotels in Palacios reduces tourist coming to the area. The Focus Group feels they are in a paradox... they can't get the people without the hotels, but they can't get the hotels without the people. Palacios does have some old hotels with bed and breakfasts. While some visitors like the old lodging with character, many want the sterile, modern, "new" look, and Palacios don't have any "new."

The areas major local issue is the distance the community is from a commercial airport. Houston's Hobby Airport is 60 miles away and the traffic is a major hindrance in attracting more industries to consider Matagorda County. If Victoria Municipal Airport regains commercial connections to IAH that shortens driving time, but the Victoria shuttle adds to the overall air travel costs.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- An airport marketing plan needs to be developed and implemented. There is a need to bring people into the area and increase the tax base. The airport can help in that area.
- If funding was available the sponsor would construct two new T-hangars and these would fill immediately.



- This airport, with its three 5,000 foot runways, can handle business jets.
- Airport can serve tourism that comes to the coastal area.
- Better drainage on airport property is being considered. Currently, there is \$200,000 is the airport fund from an oil lease contract but the drilling never materialized. This money has been committed as matching funds (90/10) for the drainage improvements, but TxDOT has not come up their matching 90%.

6. How could a better integrated airport system serve the community's needs?

**Answer:** By attracting more business through strong marketing. Owen Bludau, Executive Director of the Matagorda County EDC states, "I do not see how regional airport system integration will particularly benefit the Palacios Airport. It would not bring commercial service here, which is our county's biggest air system hindrance in attracting more industry."

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See Question #2. There is a barge builder expanding in the area and this might contribute to more activity at the airport with vendors, etc. coming to the area.

Successful build-out of the Beachside community, with its second-home and retiree resident growth, will generate more pilots into the population.

8. How can the airport support local business development?

**Answer:** The airport can contribute through these efforts:

- The airport must be well run and maintained in order to attract business.
- The EDC must have the airport at its forefront.
- More aircraft support services needs to be attracted to the facility
- Facilities need to be built for aircraft wanting to base at the airport

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** By providing ways to give the airport more exposure.

- About three years ago, they held a bar-b-que and skydiving give away for the hospital. The organizers opted not to do it again.
- A well equipped terminal would benefit the airport.
- The airport is located between Houston and San Antonio. It is very convenient for the pleasure pilot to be reached from either city as a coastal retreat. However, the facility needs a new terminal, rental cars and other ancillary businesses to support this image of a "Coastal Vacation Gateway." More airport visibility by including it in the City's website

10. What types of community relationships does the airport have with its neighbors?

**Answer:** Satisfactory. There have not been any negative comments about the airport operation.

11. Is there organized opposition to airport development and expansion?

**Answer:** Not at this time.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

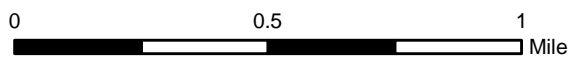
**Answer:** No

13. What environmental issues may affect airport use and development?

**Answer:** Besides the drainage issues mentioned in Question #4, Palacios other environmental issues is that it lies directly in a flyway for Canadian migratory birds.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

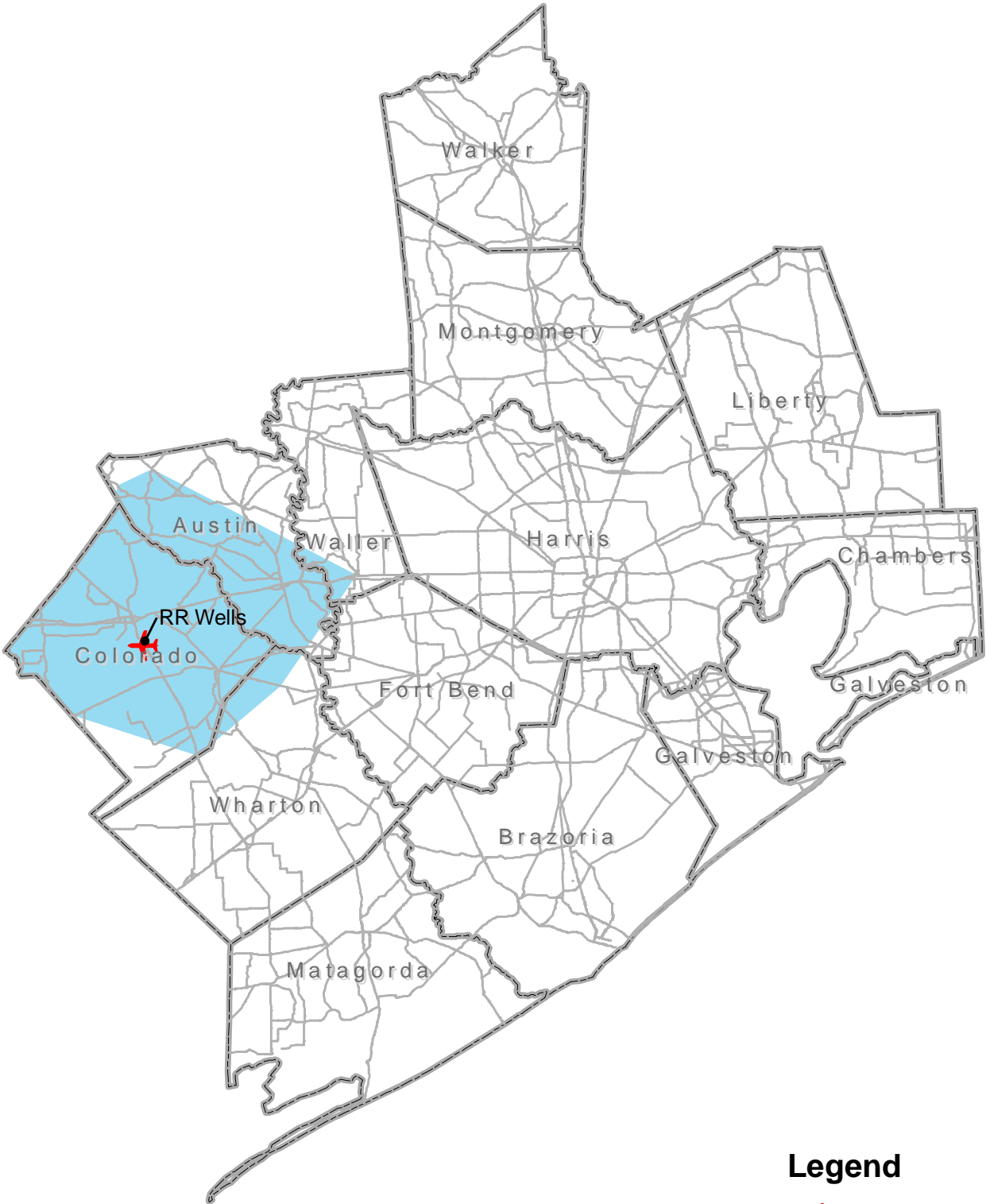
**Answer:** The airport manager indicated that she had recently found a master plan dated 1984 but other stakeholders indicated that there was one done six years ago. Recently TxDOT has recommended that the agency would do a mini-master plan and provide an airport layout plan. Hiring an outside consultant to do a master plan was not an option.







# Robert R. Wells Airport

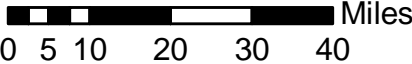
2040 Regional Aviation  
System Plan Update

# Robert R. Wells Airport 30 min Service Area in 2009



### Legend

-  RR Wells
-  Roads
-  Counties
-  30 Min Service Area





**Robert R. Wells, Jr. Airport (66R)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Robert R. Wells, Jr. is publicly owned and operated by Colorado County, Texas.

**Airport Location**

Robert R. Wells, Jr. Airport is located in Colorado County, Texas approximately five (5) miles southeast of the Columbus central business district and 78 miles west of Houston. The airfield lies south of Interstate 10 and west of SH 71.

**Existing Airport Facilities**

Robert R. Wells, Jr. Airport, including the airfield, hangars, terminal, and safety areas, encompasses approximately 42 acres. The Airport's Airport Identifier is 66R. The facility is located at an elevation of 242 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°38'27.8510"N (estimated) and longitude 096°30'56.8930"W.

**Airfield Facilities**

Robert R. Wells, Jr. Airport has one (1) runway. Runway 15/33 is 3,800 feet in length and 60 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 12,500 pounds or less. Currently, Runway 15/33 has a displaced threshold of 305 feet on the Runway 15 end and 177 feet on the Runway 33 end. The runway is constructed of asphalt and is in fair condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL), Runway End Identifier Lights (REIL), and two-light Precision Approach Path Indicators (PAPIs) on the left of both runway ends.

Runway 15/33 is classified as a Visual Approach runway. There are no published approaches for Robert R. Wells, Jr. Airport.

Taxiway A is a partial parallel taxiway serving Runway 15/33 from both the northwest and southeast edge of the terminal apron. The taxiway is not lighted.

A clear and green rotating beacon is located to the southeast of the fuel farm and provides visual guidance to the Airport. The Airport has a segmented circle and lighted wind cone, located in the northwest corner of the terminal apron. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at the Airport include the terminal, Civil Air Patrol facility, conventional hangars, and T-hangars. The terminal is located within walking distance of the southeast corner of the terminal apron.

### Fixed Base Operator Facilities

Colorado County owns and operates the only FBO. Services offered at the FBO include fueling, aircraft parking and storage.

### Aircraft Storage

Aircraft storage at the Airport include three (3) tie-down spaces, two single-unit T-hangars, and eight (8) conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by the FBO. The fuel farm is located northwest of the Airport's FBO and adjacent to the apron. It provides aboveground storage capacity for 8,000 gallons of Jet-A and 10,000 gallons of AVGAS. Both tanks are self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 12 fixed wing aircraft based at Robert R. Wells, Jr. Airport. This included 12 single-engine aircraft.

### **Interviewer Conclusion**

Robert R. Wells, Jr. Airport is a small, community airport that has a strong desire to improve the current facilities. Airport management expressed the desire to have instrument approaches to the Airport; however there is currently an Exxon pump station located at the end of the Runway 15 end and the runway is positioned too close to the taxiway for instrument procedures. At one time, the Airport did have instrument procedures. Airport management stated that a new terminal building is needed badly as well as the need to expand the apron which would require relocating the airport beacon to the top of a hangar. At the time the site visit was conducted, the Civil Air Patrol was in the beginning stages of having a hangar designed and constructed.

Additional future improvements include, the need to acquire land; the desire for a 5,000 foot runway with the instrument approach procedures to attract corporate traffic; to reroute the road and improve the entrance to 66R; attract industrial airpark development; and a full-service FBO providing adequate services for pilots.

The Airport installed Jet-A and AVGAS self-serve fuel, which contributed to an increase in traffic. For many years, Robert R. Wells, Jr. did not have fuel. This addition to the Airport as well as the location and proximity to Interstate 10 proved to be very instrumental during Hurricane Ike as the Airport was used heavily for refueling of helicopters flown by Medevac and as a staging area for emergency management for the Guard.

Colorado County recently acquired 66R and appears to be very supportive of the Airport as does the City of Columbus. Funding, however, remains an issue as it is in many small communities.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Robert R. Wells Jr \_\_\_\_\_

Airport Manager: Bob Cowart \_\_\_\_\_

Airport Owner: Colorado County \_\_\_\_\_

Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars	9						
T-Hangars							
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)	3						
Total							

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron	2500	3
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	
AVGAS	12,000
Jet-A	8,000

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
10,000	100LL	Above
8000	J et-A	Above



5. Please provide the following information about your fueling operation.

<b>Item</b>	<b>MOGAS</b>	<b>AVGAS</b>	<b>JET-A</b>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops			
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<b>Aircraft Type</b>	<b>Number of Daily Operations*</b>				<b>% Night**</b>
	<b>Off-Peak</b>		<b>Peak</b>		
	<b>Weekday</b>	<b>Weekend Day</b>	<b>Weekday</b>	<b>Weekend Day</b>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings      \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? \_\_\_\_\_

8. What is the busiest day(s) of the week? \_\_\_\_\_

9. For the above table, what are your off-peak and peak seasons? \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<b>Primary Use</b>	<b>Number</b>	<b>Aircraft Types</b>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
<b>Total</b>		

11. Please provide the following airfield data:

<b>Runway ID</b>	<b>Length</b>	<b>Width</b>	<b>Gradient</b>	<b>Surface Type</b>	<b>Marking</b>

<b>Runway End</b>	<b>End Elevations</b>	<b>Visual</b>	<b>NP</b>	<b>P1/P2/P3</b>	<b>Displaced Threshold</b>	<b>Lighting</b>	<b>ALS</b>	<b>REILS</b>	<b>PAPI/VASI</b>

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<b>Taxiway ID</b>	<b>Length</b>	<b>Width</b>	<b>Lighting</b>	<b>Surface Type</b>	<b>Access To</b>

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

\_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower				Automatic Terminal Information Service			
Flight Service Station				Unicom			
National Weather Service				Precision Approach Radar / MLS/ILS			
Civil Air Patrol				Segmented Circle			
Automatic Weather Observing System (A, I, II, III, IV)				Centerfield Wind Indicator			
Automated Surface Observing System				Supplemental Wind Cone			
Non-Directional Radio Beacon				Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)				Aircraft Rescue and Fire Fighting Facility			
Ground Communications Outlet				Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16. What do you view as the long-range potential for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport)\_\_\_\_\_

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19. Have nearby residents complained of aircraft noise?\_\_\_\_\_

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport?\_\_\_\_\_

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Columbus Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective

I Airport History/Environment

Robert R. Wells, Jr. Airport (66R) was privately built in 1979. In later years, the Thomas Airport Foundation managed the airport and secured a lease to pump fuel. The County actually leased the airport property from the owner. In 1993, the owner offered the airport to Colorado County so it could expand and grow.

The County Commissioners were placed into a difficult position by the seller. They had to buy the airport, or see it close and the aircraft displaced. The Commissioners were concerned that the lease would expire and the airport would cease to exist. The County paid a small price for the fuel concession. The facility was generously contributed to the County with little or no money exchanged.

II Goals/Objectives

Primary goals:

- Runway extension
- Some type of instrument approach
- On-site full time airport management

III Initiatives

- TxDOT is looking into an ILS/GPS approach. The cost of surveying the surrounding acreage for an approach is a problem for the County.
- Public outreach
  - The airport has partnered with the Eagle Scout Chapter from LaGrange and has hosted three events with the Young Eagles Program. Over 100 scouts received their first flight.
- Discussion on partnering with their local hospital and promoting some educational effort at the airport.

IV Recommended Airport Enhancements

- Need for a full time airport manager
- Runway extension
- Instrument approach

## V Interviewers Conclusion

Focus group understands the issues associated with growing the airport but they do not believe there is any support, or champion, from the County to move forward with either airport growth or aviation community outreach. The public sponsor's attitude is "While this is a County airport, if it does not reside in my precinct, why should I back it?"

Lack of the public sponsor setting goals and objectives may be overcome if TxDOT does a mini-master plan and an ALP for the County. This will allow them some direction to move forward.

Columbus Chamber of Commerce Interview  
*Stakeholders Focus Group*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Chamber Name: Columbus Chamber of Commerce  
Chamber Representatives: See sign-in sheet  
Airport Name: Robert Wells, Jr. Airport (66R)  
Interview Date: January 29, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

Answer: In the next decade, the stakeholders would like to see Robert Wells, Jr. Airport (66R), operate as a for-profit business. They envision the following things happening:

- Runway extension
- New terminal with restaurant
- Full time, dedicated airport manager
- Over 100 based planes
- Flight instruction and a flight school
- Weather reporting station
- Control tower
- Instrument approach
  - TxDOT is looking into an ILS/GPS approach. A survey of over 80,000 acres adjacent to the airport is required.

There was considerable discussion about the fixed base operation (FBO). Some stakeholders would like to see a county owned and operated FBO, while others prefer a facility that is independently owned and operated. Currently, the FBO is under contract management.

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

Answer: Economic opportunities are coming from unique new avenues. For example, the County has become a target for an experimental process industry that produces oilfield waste products.

There are four permitted sites operating off Highway 90A, ten miles south of the airfield. The experimental process takes surface petrochemical waste materials, mixes the materials with cement and the end product is being used for very durable roadway



paving. The environment in that area is very toxic, smelly and upsetting to neighbors near and around the airport.

Other economic stimulus:

- A significant new business off Highway 90A and Highway 71 has been established that refurbishes mobile home units into office spaces.
- Development of the County's pit mines. They are shipping 100 rail cars at a time with 250K lbs. per rail car.
- Medical companies basing in the area
- Area is the biggest developer of natural gas in the country; located just 12 miles from the airport.
- The petrochemical industry, along with the 3<sup>rd</sup> largest nuclear power plant, has drawn interest from others.
- Emergency evacuations support

3. Where and what do you expect for the area's future growth?

Answer: Most of the growth in the area is to the north of I-10.

4. What do you think are the local issues facing your area as it relates to aviation?

Answer:

- Airport has an identity/awareness problem.
- There are low pressure pipelines on and around the airport.

5. What do you believe are the area's needs that can best be handled by airport improvement?

Answer: The airport could be one of the foundations for the area's economic development if the runway was expanded and adequate land is maintained for future business and industry.

6. How could a better integrated airport system serve the community's needs?

Answer: As part of an integrated system, R.R. Wells, Jr. Airport could be utilized as a major product distribution center with its location equally between Houston, San Antonio and Austin. Other areas that could support the aviation system would be:

- Emergency disaster relief along the Gulf Coast.
- Land available for industrial growth
- Employment hub
- Possible location of MedEvac because of airport's central location.

7. What kinds of new development in the area would most contribute to airport use and development?

Answer: See Question #2 - #6

8. How can the airport support local business development?

**Answer:** Create employment opportunities and strive for additional based planes from the corporate community, if improved.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The airport is not developed to the point of being a gateway. It lacks identity and community support. The stakeholders support a presentation being created that is presented to the community to make them aware of the asset in their back yard.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** The airport has no neighbors, no noise issues. With the potential for an extended runway noise issues could possibly develop.

11. Is there organized opposition to airport development and expansion?

**Answer:** There has not been any organized opposition.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None

13. What environmental issues may affect airport use and development?

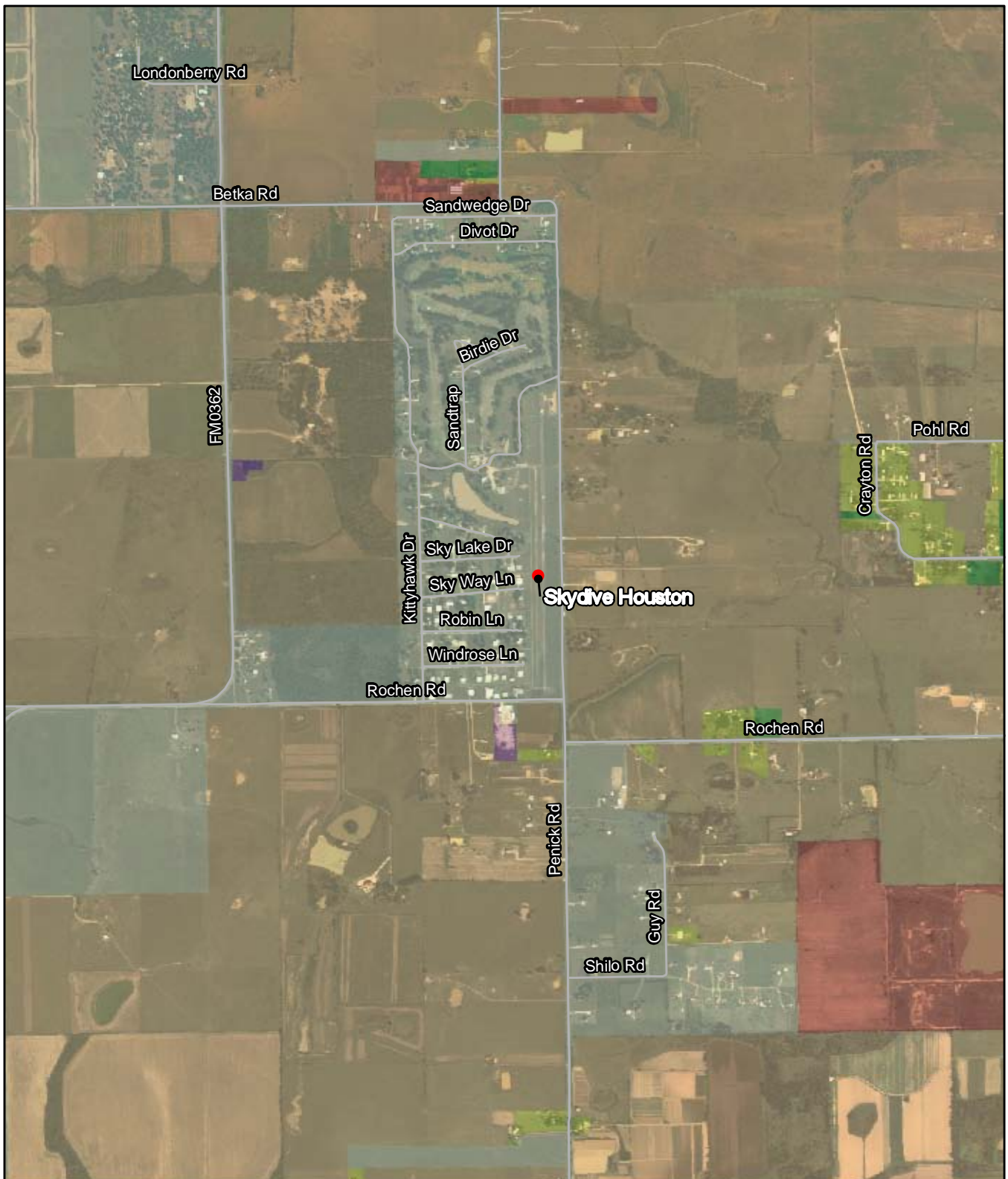
**Answer:** The stakeholders indicated there were no wetlands on the airport but there is a creek on airport property. If there is a runway extension an environmental assessment will be required.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** There is no known master plan although TxDOT has recently offered to provide a mini-master plan and an ALP for the airport.

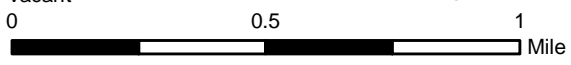
15. Do you know of other people or groups that we should contact?

**Answer:** No



**Legend - Land Use**

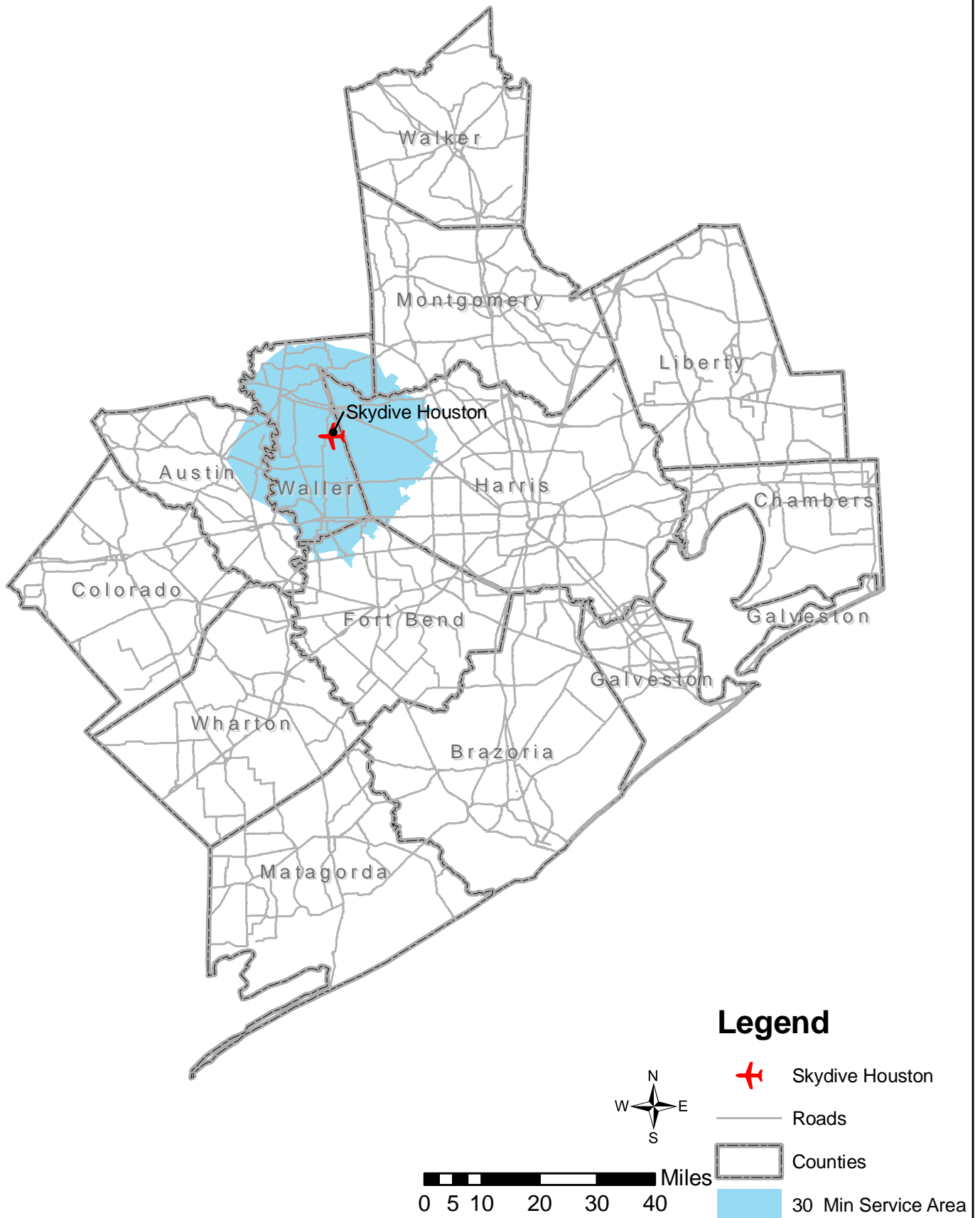
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Skydive Houston Airport

**2040 Regional Aviation  
System Plan Update**

# Skydive Houston Airport 30 min Service Area in 2009



**Skydive Houston (37X)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Skydive Houston is privately owned and operated by Richard D. Davis, LLP.

**Airport Location**

Skydive Houston is located in Waller County, Texas approximately seven (7) miles south of the Waller central business district and 50 miles northwest of Houston. The airfield lies east of FM 362.

**Existing Airport Facilities**

Skydive Houston, including the airfield, hangars, skydive training facility, residences, and safety areas, encompasses approximately 55 acres. The Airport's Airport Identifier is 37X. The facility is located at an elevation of 235 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°59'36.2"N (estimated) and longitude 095°55'49.235"W.

**Airfield Facilities**

Skydive Houston currently has one (1) active runway. Runway N/S is 3,030 feet in length and 53 feet wide. The runway is composed of turf and is in good condition. The runway is equipped with Low Intensity Runway Lighting (LIRL).

Runway 17/35 is a paved runway that is severely encroached by grass. The Owner has closed the runway. It is 4,190 feet in length and 50 feet wide. The runway is constructed of asphalt and considered to be in poor condition.

Taxiway A is a full parallel taxiway serving Runway N/S. The turf taxiway is not lighted.

Skydive Houston has a clear and green rotating beacon providing visual guidance to the Airport for pilots. The Airport also does not have a segmented circle, but a lighted wind cone is located east of Runway 17/35 and adjacent to the fencing along Penick Road. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at the Airport include the skydive training facility, a conventional hangar, RV park, and residences.

**Fixed Base Operator Facilities**

There are no FBO operations at Skydive Houston.

**Aircraft Storage**

Aircraft storage at Skydive Houston includes tie-down spaces, a conventional hangar, and private hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Skydive Houston.. It is located in the north of and adjacent to the apron. It provides aboveground storage capacity of Aviation Gasoline (AVGAS). Aircraft fueling is limited to the skydive operation or in emergency situations.

### Based Aircraft

In 2008, there were a total of 48 fixed wing aircraft based at Skydive Houston. These aircraft include 44 single-engine aircraft and four (4) multi-engine aircraft. Additionally, there is one (1) helicopter and one (1) glider based at the Airport.

### **Interviewer Conclusion**

Skydive Houston is part of a live-in aviation community; however, the Airport is used primarily for skydiving operations. Skydiving is very busy with approximately 40 loads with 23 jumps a day. The majority of the business comes from experienced skydivers, but they do have a substantial amount of tandem skydives.

Airport management indicated most activity occurs between 4PM and sunset. The skydive operation garners a lot of interest around Valentine's Day, but March through October are generally the busiest times of the year.

Skydive Houston's paved runway is in very poor condition. Due to a lack of funding, the Owner elected to close the runway. A turf runway serves as the active runway currently.

Airport management stated that future goals for Skydive Houston include a full-service FBO and hangars. Airport management sees great potential for the skydiving operation.

The City of Waller and the greater local community have been very supportive of the Airport and skydiving operation. The revenue from skydiving contributes to the local economy.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Skydive Houston

Airport Manager: Todd Bell

Airport Owner: Richard Davis, LLP

Date: February 19, 2009

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars							
T-Hangars							
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
Total	44	4			1	1	

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>	
MOGAS (auto)		
AVGAS	FUEL IS FOR SKYDIVE OPERATION ONLY OR IN EMERGENCY SITUATIONS	
Jet-A		
<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
CONFIDENTIAL	CONFIDENTIAL	ABOVEGROUND



5. Please provide the following information about your fueling operation.

<b>Item</b>	<b>MOGAS</b>	<b>AVGAS</b>	<b>JET-A</b>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops			
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<b>Aircraft Type</b>	<b>Number of Daily Operations*</b>				<b>% Night**</b>
	<b>Off-Peak</b>		<b>Peak</b>		
	<b>Weekday</b>	<b>Weekend Day</b>	<b>Weekday</b>	<b>Weekend Day</b>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings      \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? 4PM to Sunset

8. What is the busiest day(s) of the week? Skydiving is very busy – 40 loads/23 jumps

9. For the above table, what are your off-peak and peak seasons? March through October  
Valentine's Day –very busy

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<b>Primary Use</b>	<b>Number</b>	<b>Aircraft Types</b>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
<b>Total</b>		

11. Please provide the following airfield data:

<b>Runway ID</b>	<b>Length</b>	<b>Width</b>	<b>Gradient</b>	<b>Surface Type</b>	<b>Marking</b>
17/35	4190'	50'		ASPHALT	CLOSED
N/S	3,030'	53"		TURF	

<b>Runway End</b>	<b>End Elevations</b>	<b>Visual</b>	<b>NP</b>	<b>P1/P2/P3</b>	<b>Displaced Threshold</b>	<b>Lighting</b>	<b>ALS</b>	<b>REILS</b>	<b>PAPI/VASI</b>
N						LIRL			
S						LIRL			

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<b>Taxiway ID</b>	<b>Length</b>	<b>Width</b>	<b>Lighting</b>	<b>Surface Type</b>	<b>Access To</b>

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

\_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		X		Automatic Terminal Information Service			
Flight Service Station				Unicom/CTAF	X		122.9
National Weather Service				Precision Approach Radar / MLS/ILS			
Civil Air Patrol				Segmented Circle		X	
Automatic Weather Observing System (A, I, II, III, IV)				Centerfield Wind Indicator	X		
Automated Surface Observing System				Supplemental Wind Cone			
Non-Directional Radio Beacon				Remote Transmitter Receiver			
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)				Aircraft Rescue and Fire Fighting Facility			
Ground Communications Outlet				Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? Dreams of hangars, full-service FBO, growth of skydive venture

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15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) new training facility, repair paved runway, build hangars

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16. What do you view as the long-range potential for the airport? \_\_\_\_\_

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17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

The community is supportive of the Airport – generated \$2M in revenue last year

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18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) no known issues

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19. Have nearby residents complained of aircraft noise? \_\_\_\_\_

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? \_\_\_\_\_

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Waller County Chamber of Commerce  
Focus Group

Summary Report

Stakeholders Perspective

I Airport History/Environment

Over two decades ago, Skydive Houston Airport (37X) was originally developed as a fly-in fly-out facility serving the private pilots that lived in the Sky Lakes subdivision. Approximately 15 years ago, it was sold to Richard Davis and Kim Suarez and evolved into a skydiving training and activity center. The skydive portion of the business was sold in 2008 to Todd Bell. Mr. Davis and Ms. Suarez continue to own and operate the airport.

II Goals/Objectives

- Improve access to airport for the business owners and the Sky Lakes subdivision
- Increase the commercial use of the airport
- Develop the airport with additional services
- Improve runway conditions

III Initiatives

All stakeholders indicated they wish to establish a better dialog with the airport/concession owners to improve the airport and the area's relationship with the airport. The major initiative is to attempt to start working as a team. The chamber is willing to facilitate that effort.

IV Recommended Airport Enhancements

- Improve the condition of the airport runway
- Better upkeep of the airport property
- Develop additional sources of revenue
- Height hazard zoning should be established

V Interviewers Conclusion

The airport in the past has attempted to operate an FBO, but currently will not sell fuel to the pleasure pilots that fly from the neighborhood because of the lack of cooperation between the two parties. Skydive Houston Airport is open to looking at new ways to expand the operation in order to bring in additional funds necessary to make improvements.

It is assumed by the airport owners that the Sky Lakes subdivision is opposed to commercial business development at the facility; although this thinking may need to be explored further. Sky Lakes is concerned that the airport owners will start charging a fee for them to have "through the fence" access to the airport runway.

When the subdivision was created some two decades ago, the purpose was for the homeowners to hangar their small aircraft at their homes and utilize the runway as part of the Sky Lakes' development master plan. Recently, a number of family homes have been constructed near the airport causing airport encroachment by new homeowners who are not pilots and will not utilize the runway amenity.

Over the past ten years, the airport has become a major skydiving training facility. When small general aviation pilots or business aircraft wish to utilize this facility during the weekends, they are required to share the air space with skydivers. Most are reluctant to fly because of the safety issue.

Waller County Chamber Interview  
Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber Name:</u>	Waller Chamber of Commerce
<u>Chamber Representative:</u>	See sign-in sheet
<u>Airport Name:</u>	Skydive Houston Airport (37X)
<u>Interview Date:</u>	January 13, 2009

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Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** Richard Davis and his partner, Kim Suarez, who represent the ownership of Skydive Houston Airport (37X), were present during the focus group meeting. They took the position that the future plans for the airport are proprietary and would not share with others at the meeting.

The remainder of the focus group saw the airport developing in the next ten years in the following ways:

- **Homeowner:** Would like to see the airport returned to what it was originally intended at the time they purchased their property and built their homes which was a fly-in, fly-out, "through the fence" operation for the enjoyment of the pleasure pilots who live in the Sky Lakes subdivision and hangar their planes at their homes.

Sky Lakes homeowners feel restricted in the development of their community in terms of airport usage because they are unable to attract more pilots to live in the area or utilize the airport in the way it was intended when they purchased property. The development was originally created based on home ownership by general aviation pilots. Some pilot-homeowners feel intimidated by the skydiving operation and considered it unsafe to fly on weekends when it is necessary to share the airspace with sky divers.

- **Skydive Houston Airport:** While the current airport owners are not the group that originally developed the airport, they do support the airport for public use as well as for some type of commercial development. The only commercial development at the airport is a sky diving training and activities concession.
- **Chamber of Commerce:** The Chamber's impression is that the airport is extremely one-dimensional with its focus solely on sky diving. Ideally, the



chamber members would like to see the airport become more of an asset to the community to bring business to the area. The Chamber would like to see a better relationship between the airport and its surrounding neighbors. (Currently, a law suit has been filed by a neighborhood group against the airport to restrict the skydiving operation.)

- **Waller Economic Development Corporation (EDC):** The opinion of the EDC is that the surrounding homeowners (Sky Lakes) may be unaware of the airport's usage and the owner's property rights. EDC believes general aviation would be ideal for future development of the airport, but is not sure it would be feasible since the facility is encroached by the neighborhood with limited space for expansion.

2. What kinds of economic development are now occurring around the airport? What additional, near airport development do you expect over the next five years?

**Answer:**

- In a 15 mile radius of the airport, growth and development is happening north and south along the US 290 corridor.
- A Waller small business park is home to six companies.
- Old Business US290 has about three to five new small companies.
- In the next five years, the focus group would like to see the trend of attracting light industry and business continues in the area. There is land available for use as a potential distribution center.
- The EDC and COC are working together to make Waller County more attractive for economic growth.
- The EDC has developed a workforce training program in Waller County to entice larger companies.
- EDC is talking to a light manufacturing company who is considering relocating their headquarters. Several business opportunities are possible. All potential companies mentioned require airport availability within one hour of their location.

3. Where and what do you expect for the area's future growth?

**Answer:**

- Airport owners would welcome commercial activity, but they are under the assumption that the surrounding homeowners are opposed to the idea.
- Runway length of 3,600 (usable) feet is a major restriction to future growth. Funding for improvements or upkeep of property is limited.
- The airport is in proximity to the growth happening along US 290. The highway is extending to Waller from downtown Houston. The Hempstead Toll Road being proposed between Grand Parkway and US 290 will bring more economic opportunity to the area. The airport would require better access from these arteries to maximize the potential. Present access to the airport is a hard-surface two lane rural road.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** The relationship between the airport and the surrounding neighborhood is adversarial as evidenced by the pending lawsuit. There is a concern by the adjunct subdivision property owners that the airport will start charging a "through the fence" fee for them to gain access to the runway. Another Sky Lakes issues is the poor maintenance of the airport property.

The most obvious concern by the local pilots is that skydiving training during the weekends is restricting the ability of the pleasure pilot to safely utilize the air space. There have been some minor noise and traffic issues.

**Background Information:** Todd Bell is the owner and operator of the "Skydive Houston" training concession. Bell's operation has seven fulltime staff and on weekends over 40 part-time people. Mr. Bell purchased the skydiving operation from the airport owners (Richard Davis and Kim Suarez) in March 2008. Davis and Suarez have owned the airport for 15 years. The concession has been given incentives by the airport owner to be a long-term tenant and has no plans to relocate the business to another airport.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- **EDC:** The community needs an airport that can stimulate the economy.
- **Skydive Houston:** Funds are limited for an expansion as well as maintenance of the airport.
- **Homeowners:** The Sky Lake Subdivision is pleased that Houston Executive Airport has opened in Waller County. They feel it will fill the role of a public use, general aviation airport for the County and provide an aviation economic stimulus.

The homeowner representative at the focus group meeting sees the opening of Houston Executive as an opportunity for Sky Lakes to regain control of Skydive Houston. (Note: Often the airport was referred to as "their airport" although it is owned by others.) Bill Green, the homeowner's representative, had several concerns about "others" controlling the neighborhood airport. Richard Davis (airport owner) was open to suggestions on how to grow the airport so that it is functional for all.

6. How could a better integrated airport system serve the community's needs?

**Answer:** The focus group could not relate to the concept of an "integrated airport system" or how Skydive Houston Airport would benefit from it. The focus group facilitator attempted to provide examples of the benefits. The participants did not feel that the airport really fit into the overall integrated system.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:**

- Some years back, Prairie View A&M University wanted to work with the area's chamber and EDC to develop a flight training program, but needed access to an airport. Now with Houston Executive open, the college might consider an aviation program again.
- To attract new development the Airport/Chamber/EDC need to consider coming together with a common goal. The chamber offered to facilitate this type of meeting. All focus group participants wanted to establish some type of dialogue to improve the airport/area relationship.

8. How can the airport support local business development?

**Answer:** The Chamber/EDC would like to work with the airport to attract new business and create an employment center. However, in order to do so considerable airport improvements to the runway, grounds and facilities will be required.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** Skydive Houston is not perceived by the focus group as ever becoming a gateway regionally or locally.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** Relationships are poor with its direct neighbors, the Sky Lakes homeowners. As stated earlier a lawsuit is pending by Sky Lakes Flyers Foundation against Skydive Houston.

11. Is there organized opposition to airport development and expansion?

**Answer:** The homeowners are organized under the name "Sky Lakes Flyers Foundation."

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** Nothing is known that would affect those involved with this airport.

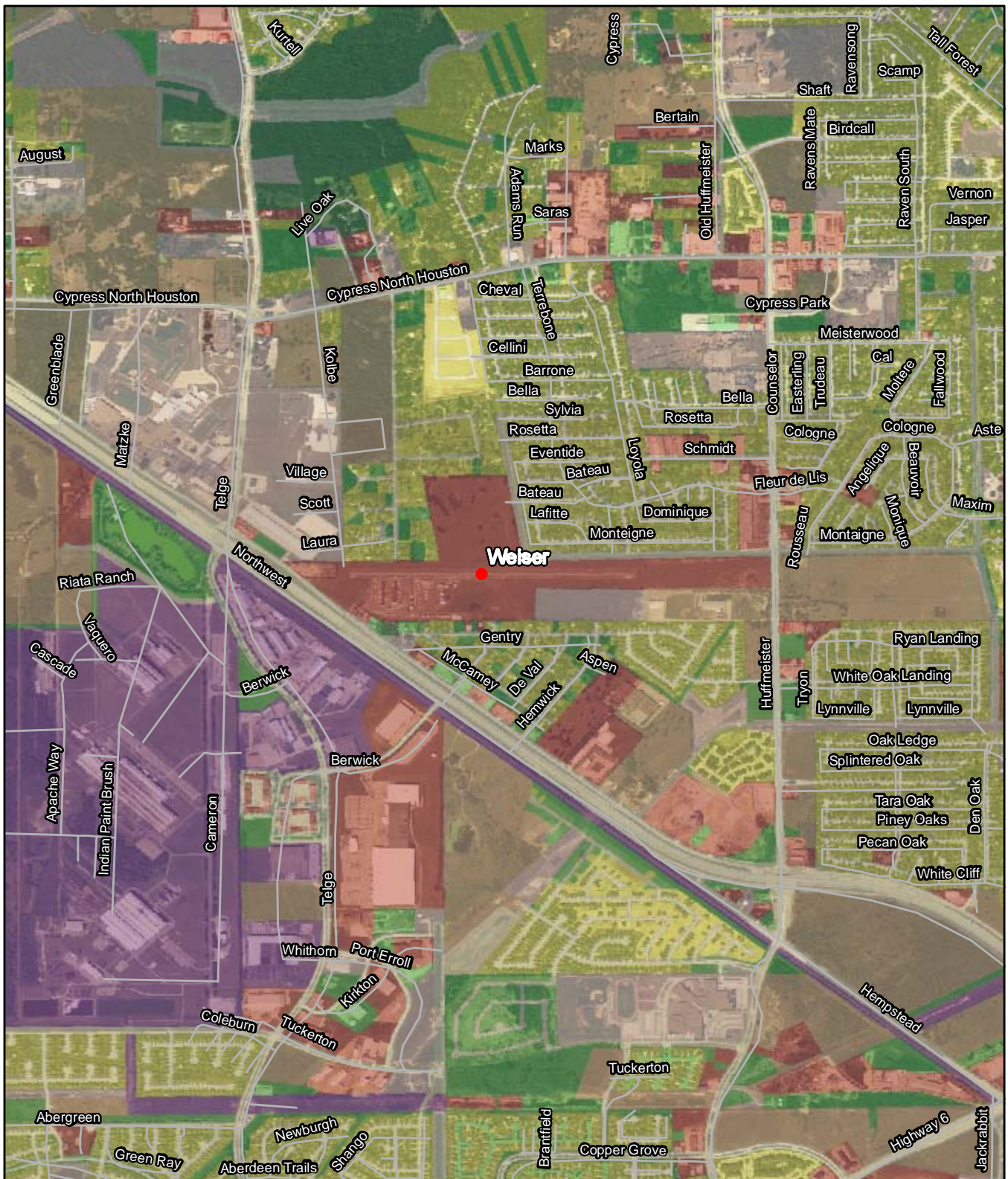
13. What environmental issues may affect airport use and development?

**Answer:** There are wetlands throughout the area. The Katy Prairie Conservancy is active in Waller County and would oppose any airport improvements that might affect migratory birds.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

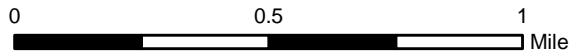
Answer: The airport has never had a master plan throughout its history.





**Legend - Land Use**

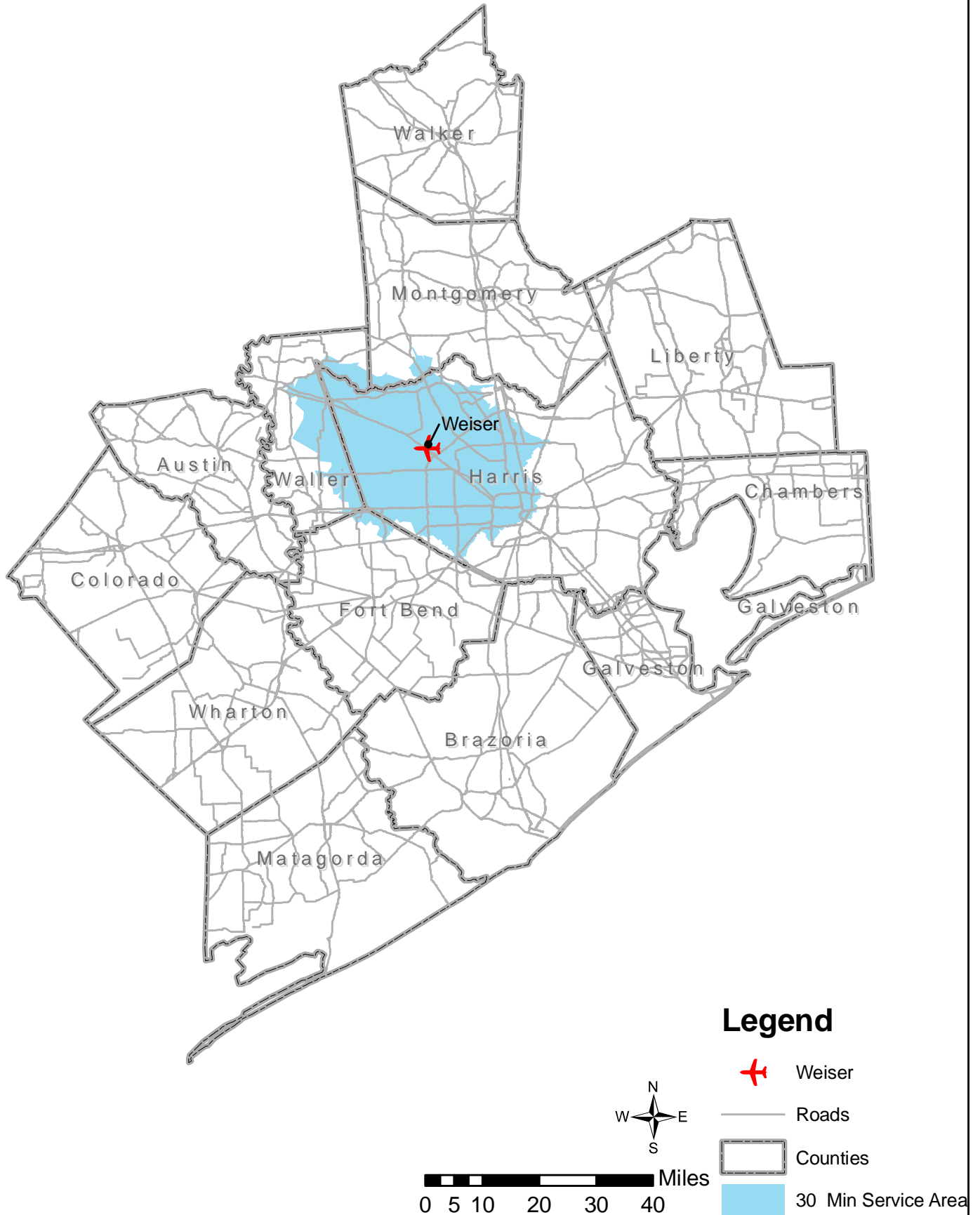
- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant



# Weiser Air Park

2040 Regional Aviation System Plan Update

# Weiser Air Park 30 min Service Area in 2009



**Weiser Air Park (EYQ)**  
*Airport Summary*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Weiser Air Park is privately owned and operated by Cecil and Robert Weiser.

**Airport Location**

Weiser Air Park is located in Harris County, Texas approximately five (5) miles southeast of the Cypress central business district and 24 miles northwest of Houston. The airfield lies north of SH 6/US 290.

**Existing Airport Facilities**

Weiser Air Park, including the airfield, hangars, airport administration office, and safety areas, encompasses approximately 98 acres. The Airport's Airport Identifier is EYQ. The facility is located at an elevation of 137 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°56'06.7634"N (estimated) and longitude 095°38'22.5760"W.

*Airfield Facilities*

Weiser Air Park currently has two (2) runways. Runway 9/27 is 3,455 feet in length and 40 feet wide with a pavement strength rated to accommodate aircraft with a single-wheel load of 10,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with non-standard low intensity runway lighting.

Runway 16/34 is 2,000 feet in length and 33 feet wide with strength rated to accommodate aircraft with single-wheel load of 4,000 pounds or less. The runway is constructed of turf and is in fair condition. The runway is intended for emergency use only.

Runway 9/27 is classified as a Non-Precision Instrument Approach runway. The following published approaches were available as of April 9, 2009:

- NDB-F
- RNAV (GPS)-G

Taxiway A is a partial parallel taxiways serving Runway 9/27. The taxiway provides access from the apron edge to the Runway 9 end.

A clear and green rotating beacon is located at the Airport providing visual guidance to the Airport. The Airport does not have a segmented circle and lighted wind cone; however, the EYQ does have a wind cone located on the roof of Anything's Possible Aviation. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.



### Landside Facilities

The landside facilities at Weiser Air Park include the current airport administration offices, the three (3) flight schools, T-hangars, Quonset huts, and conventional hangars.

### Fixed Base Operator Facilities

Weiser Air Park does not have a FBO. They do, however, have two (2) flight schools which include: Anything's Possible Aviation and The Flight School.

### Aircraft Storage

Aircraft storage at the Air Park includes tie-down spaces, T-hangars, Quonset huts, and conventional hangars. The Airport had a few hangars destroyed during Hurricane Ike.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Weiser Air Park. It is located south of Runway 9/27 and adjacent to the apron. It provides aboveground storage capacity for 10,000 gallons of Aviation Gasoline (AVGAS). The tank is self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 75 fixed wing aircraft based at Weiser Air Park. This includes 70 single-engine and five (5) multi-engine aircraft. Additionally, there are three (3) helicopters based at the Air Park.

### **Interviewer Conclusion**

Weiser Air Park has a large number of based aircraft, but according to air park management, there is not a lot of activity on the field. At one time, the Air Park had 120 based aircraft. Currently, Weiser Air Park boasts 78 aircraft which includes three helicopters. The inactivity may largely be due to the current economy. Air park management shared that the inactivity has affected revenue for the Air Park. Weiser Air Park relies heavily on fuel sales and hangar rentals to cover operating costs.

Various entities have expressed interest in purchasing the property. To date, the Owner has elected not to sell. Should the Owner decide to sell Weiser Air Park, this would have a detrimental impact on the H-GAC System due to the vast number of aircraft based at the Air Park. This possibility should be of great concern for both the tenants and area airports because it has been identified through the course of this study that many of the area airports are at capacity for aircraft storage. The displacement of a large number of based aircraft is a very real issue.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Weiser Air Park

Airport Manager: Clyde Allison

Airport Owner: Cecil and Robert Weiser

Date: February 17, 2009

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars							
T-Hangars							
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)							
<b>Total</b>	70	5			3		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
<b>Total</b>					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron		

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	
AVGAS	68,000
Jet-A	

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
10,000	AVGAS	Aboveground

5. Please provide the following information about your fueling operation.

<b>Item</b>	<b>MOGAS</b>	<b>AVGAS</b>	<b>JET-A</b>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops			
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

<b>Aircraft Type</b>	<b>Number of Daily Operations*</b>				<b>% Night**</b>
	<b>Off-Peak</b>		<b>Peak</b>		
	<b>Weekday</b>	<b>Weekend Day</b>	<b>Weekday</b>	<b>Weekend Day</b>	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings      \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Early morning, early afternoon

8. What is the busiest day(s) of the week? Weekends

9. For the above table, what are your off-peak and peak seasons? Consistent all year round

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<b>Primary Use</b>	<b>Number</b>	<b>Aircraft Types</b>
Rental		
Charter		
Air Taxi		
Student Training		Helicopter training, other flight training
Crop Dusting		
Other		
<b>Total</b>		

11. Please provide the following airfield data:

<b>Runway ID</b>	<b>Length</b>	<b>Width</b>	<b>Gradient</b>	<b>Surface Type</b>	<b>Marking</b>
9-27	3455'	40'	.1%	ASPHALT	NSTD
16-34	2,000'	33'		TURF	

<b>Runway End</b>	<b>End Elevations</b>	<b>Visual</b>	<b>NP</b>	<b>P1/P2/P3</b>	<b>Displaced Threshold</b>	<b>Lighting</b>	<b>ALS</b>	<b>REILS</b>	<b>PAPI/VASI</b>
9	137.1'		X			LIRL		N	
27	133.5'		X			LIRL		N	
16		X							
34		X							

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

<b>Taxiway ID</b>	<b>Length</b>	<b>Width</b>	<b>Lighting</b>	<b>Surface Type</b>	<b>Access To</b>

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Runway could be 5500' towards Huffmeister Road

If no, when did runway reconstruction or rehabilitation last occur? Resurfaced in 2002

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. \_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>	<i>Item</i>	<i>Yes</i>	<i>No</i>	<i>Frequency</i>
Airport Traffic Control Tower		X		Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom	X		122.8
National Weather Service		X		Precision Approach Radar / MLS/ILS		X	
Civil Air Patrol		X		Segmented Circle		X	
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon	X		286	Remote Transmitter Receiver		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility		XX	
Ground Communications Outlet		X		Remote Communications Outlet			

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16. What do you view as the long-range potential for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport)\_\_\_\_\_

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19. Have nearby residents complained of aircraft noise?\_\_\_\_\_

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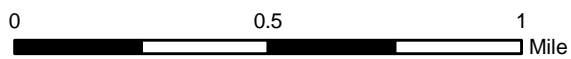
20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport?\_\_\_\_\_

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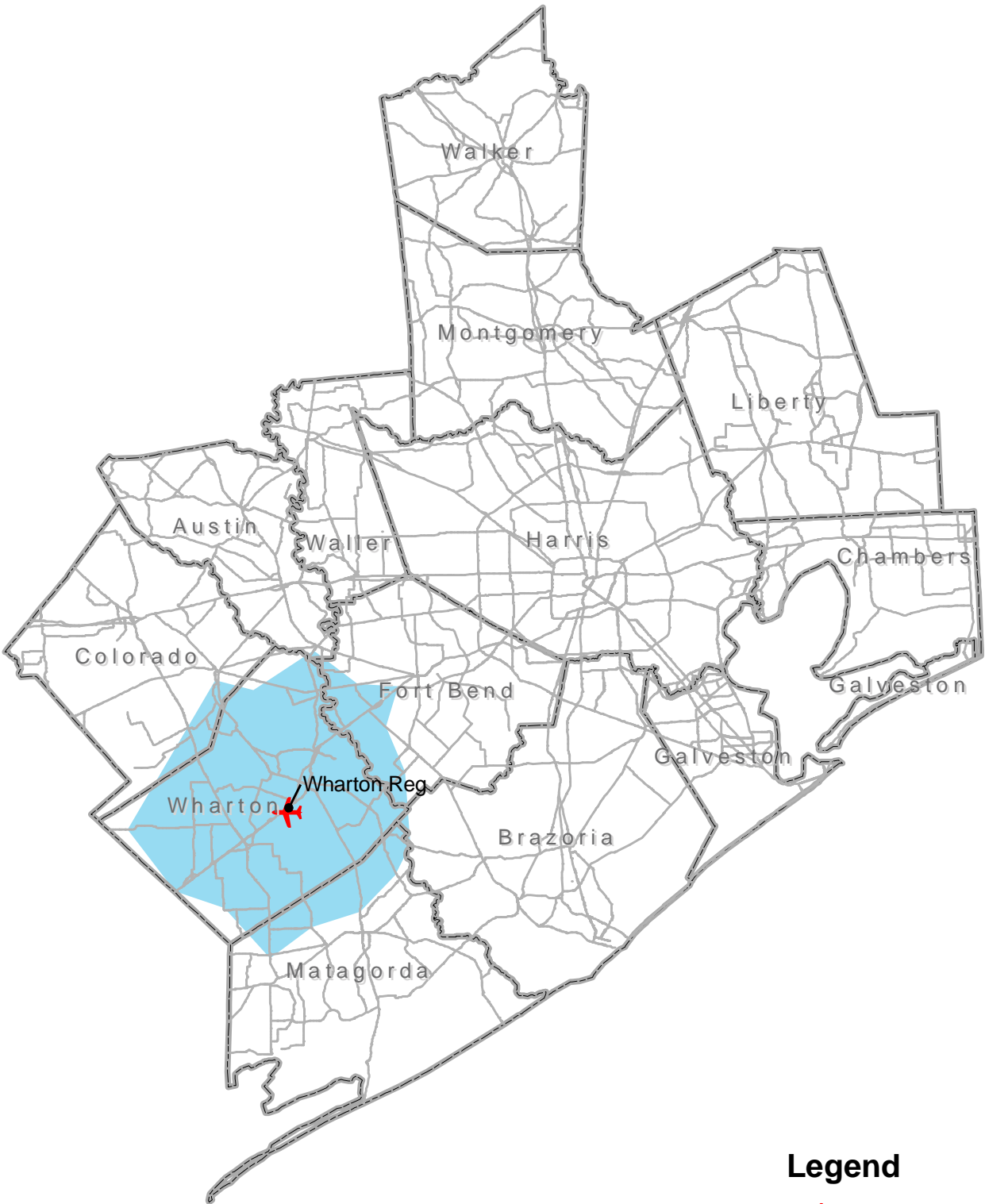


# Wharton Regional Airport

2040 Regional Aviation  
System Plan Update



# Wharton Regional Airport 30 min Service Area in 2009



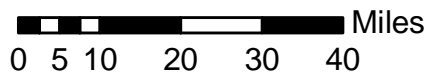
## Legend

 Wharton Reg

 Roads

 Counties

 30 Min Service Area



**Wharton Regional Airport (ARM)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Wharton Regional Airport is publicly owned and operated by the City of Wharton.

**Airport Location**

Wharton Regional Airport is located in Wharton County, Texas approximately five (5) miles southwest of the Wharton central business district and 67 miles southwest of Houston. The airfield lies south of US 59.

**Existing Airport Facilities**

Wharton Regional Airport, including the airfield, hangars, airport administration offices, and safety areas, encompasses approximately 124 acres. The Airport's Airport Identifier is ARM. The facility is located at an elevation of 100 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°15'15.4"N (estimated) and longitude 096°09'15.8"W.

**Airfield Facilities**

Wharton Regional Airport currently has one (1) runway. Runway 14/32 is 5,004 feet in length and 75 feet wide with a pavement strength rated to accommodate aircraft with single wheel load of 22,000 pounds or less. The runway is constructed of asphalt and is in good condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and has four-light Precision Approach Path Indicators (PAPI) on the left of both runway ends.

Taxiway A is a full parallel taxiway serving Runway 17/35 from the apron edge. The taxiway is 25 feet wide and constructed of asphalt. The taxiway is not lighted.

Wharton Regional Airport has a clear and green rotating beacon providing visual guidance to the Airport for pilots. The Airport also has a segmented circle and lighted wind cone. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at the Airport include the terminal, conventional hangars, and T-hangars.

**Fixed Base Operator Facilities**

The City of Wharton serves as the fuel provider. Restrooms are available in the terminal building.

**Aircraft Storage**

Aircraft storage at the Airport includes 28 tie-down spaces, T-Hangars, and conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by the City of Wharton. It is located in the north of the terminal building and adjacent to the apron. It provides aboveground storage capacity for 10,000 gallons of Aviation Gasoline (AVGAS) and 7,000 gallons of Jet-A. After hours, AVGAS and Jet-A fueling is self-serve and available by credit card machine.

### Based Aircraft

In 2008, there were a total of 46 fixed wing aircraft based at Wharton Regional Airport. These aircraft include 37 single-engine aircraft, seven (7) multi-engine aircraft, and two (2) turbo-props. Additionally, there are 10 gliders and two (2) ultra-lights based at the Airport.

### **Interviewer Conclusion**

Wharton Regional Airport is City-owned. Airport management expressed there is great support by the City and community for the Airport. The City has invested a great deal in the Airport, providing City staff to accomplish drainage work and road improvements. The City also funded the construction of the taxiway.

The relationship between the Airport and TxDOT is strong, too. TxDOT is receptive and involved in Wharton Regional Airport's projects. In 2002, the runway and ramp were rehabilitated.

The Airport, at one time, had plans to construct a terminal building. The budget was estimated at \$700,000 and as a result, the project was eliminated. Airport management indicated that a new terminal building is still part of the long-term goals. Other future plans include reworking the entrance road, building hangars, obtaining control over the sale of fuel, and a Jet-A tank. There is adequate land available to extend the runway, as well.

Other needs at Wharton Regional Airport include commercial space for aviation related businesses. For example, aircraft maintenance and avionics repair. The Airport does not have a flight school, but expressed that reaching out to the local college and building a partnership is a possibility.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: Wharton Regional Airport

Airport Manager: David H. Allen

Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft	Glider	Ultra-Light
Conventional (Bay) Hangars	3		2			10	2
T-Hangars	31	6					
Portable Hangars							
Tie-Down (Paved)	3	1					
Tie-Down (Unpaved)							
Total							

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

Storage Type	Single Engine	Multi Engine	Turbo Prop	Business Jet	Rotorcraft
Conventional (Bay) Hangars	NA		<del>1</del>		
Tie-Down (Paved)	2	1	2	3	
Tie-Down (Unpaved)	11				
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

Apron Type	Area (sq yds)	Number of Tie-Down Spaces
Maintenance Apron Area		1
Based Aircraft Apron		11
Transient Aircraft Apron		16

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

Type of Fuel	Fuel Flowage (gallons/year)
MOGAS (auto)	
AVGAS	
Jet-A	

Tank Size (gallons)	Type of Fuel (MOGAS, AVGAS, JET-A)	Aboveground / Under-ground
10,000	AVGAS / Double wall	aboveground
7,000	Jet-A / single wall	aboveground

5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)			1 Truck / 2500
Frequency of Fuel Drops			
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine		2 - 6		8 - 10	
Multi-Engine Piston					
Turbo Prop		1 - 2		same	
Business Jet		0		2	
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. At what time of day does most of the activity occur at this airport? depends on the weather

8. What are the busiest days of the week? Fri, Sat, Sun most of time

9. For the above table, what are your off-peak and peak seasons? Hunting is our peak season, it can vary from month to month

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total		

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
14/32	5,004	75		ASPH -6	NPI-6 / NPI-6

Runway End	End Elevations	Visual	NP	P1/P2*	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
14	100	3.00/3.00			NA	Med		NA	

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		x		Automatic Terminal Landing System		x	
Flight Service Station		x		Unicom	x		122.7
National Weather Service		x		Precision Approach Radar / MLS/ILS	<del>x</del>	x	
Civil Air Patrol		x		Segmented Circle	x		
Automatic Weather Observing System (A, I, II, III, IV)	x		118.475	Centerfield Wind Indicator		x	
Automated Surface Observing System	x			Supplemental Wind Cone	x		
Non-Directional Radio Beacon	x		245	Remote Transmitter Receiver / Communications Facility		x	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		x		Aircraft Rescue and Fire Fighting Facility		x	

14. Does the airport need new facilities in the next five years? (e.g., taxiways, aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? EXTEND RUNWAY & TAXIWAY 500', BUILD NEW HANGAR, PLANNED - DRAINAGE NPE & CIP

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) REWORK ENTRANCE ROAD & BUILD NEW TERMINAL BUILDING & PARKING.

16. What do you view as the long-range potential for the airport? growth of the airport and growth for more transient aircraft consisting of Business jets and turbo prop

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) \_\_\_\_\_

19. Have nearby residents complained of aircraft noise? NA

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? \_\_\_\_\_



*Wharton County Chamber of Commerce*  
*Focus Group*

*Summary Report*

Stakeholders Perspective

**I Airport History/Environment**

From the stakeholder's perspective, the airport has limited land to expand. The infrastructure at the airport needs improvement; although the 5,000 foot runway is adequate for the general aviation traffic. The City currently acts as the fixed based operator (FBO). The stakeholders are considering whether or not the County should be the airport's public sponsor instead of the City. There has been political concern relating to the Schlumberger building at the airport as it provides approximately one third of the airport's revenue. It needs to be removed because of flight path issues. There are a number of issues, besides Schlumberger, which needs were discussed:

- Hangers are at full capacity
- Challenge to find funding for additional hangers and/or tie downs
- Safety issues
- Buildings encroaching the runway
- Requirement for an improved GPS system or new ILS system
- Identity problem
- Better ground transportation; i.e., rental cars
- Need for an attractive incentive package to bring in transportation, manufacturing and retail

**II Goals/Objectives**

The stakeholder's objectives are to support those who can address the issues mentioned above; particularly improving the airport with a new terminal, longer runways, and an ILS approach.

**III Initiatives**

The EDC and Chamber are aggressively supporting the opportunities that will come from the Kansas City Southern Railway Co. and CenterPoint Industrial Development Park that is approximately ten miles from the airport. They are also marketing to other potential companies that wish to develop multimodal facilities at or near the airport.

#### IV Recommended Airport Enhancements

- Runway extended to 6,000 feet
- Improved landing instrument approach system (ILS)
- New executive airport terminal that will attract business aviation
- Strong management team

#### V Interviewers Conclusion

Enthusiasm by both the Chamber and the EDC is evident regarding the airport's potential for the future. Stakeholders seem to recognize the importance of the airport as part of the economic engine for the area. It needs to be developed further as an additional tool in the area's tool box to attract business and industry that are locating at the multimodal transfer/industrial site center.

On the other hand, the airport's 30 tenants who have been based there for some years are not inclined to support a great deal of change. The City has lukewarm interest in the airport development because of the difficulty of finding the funding.

## Wharton County Chamber of Commerce Interview

Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber Name:</u>	Wharton Chamber of Commerce
<u>Chamber Representative:</u>	See sign-in sheet
<u>Airport Name:</u>	Wharton Regional Airport (ARM)
<u>Interview Date:</u>	January 28, 2009

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### Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** In the next few years, there will be major commercial growth in the area that will impact the future of Wharton Regional Airport (ARM). The airport will evolve into a strong general aviation/corporate airport from this influence. The stakeholders can expect:

- Additional business aircraft utilization
- Runway extension
- Attractive general aviation/business terminal
- Increased public awareness.
- Airport is not anticipated to expand past its current 200 acres.
- Additional hangar and tie down space will be developed.
- Incentive package will be developed to attract business to the airport.
- Airport being near US59 and I-69 makes for excellent access that can be leverage for the facilities future growth.
- Airport may cease to be owned by city with the county becoming the sponsor
- Airport may become privately owned by a global shipping company

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:**

Kansas City Southern and CenterPoint Properties: A transfer station and industrial park are being built by Kansas City Southern Railway Co. (KCSR) and CenterPoint Properties about ten miles north of Wharton on 800 acres. This operation, due to open in 2010, will infuse 3,000 jobs into the area. There are eight million feet of leasable space.

The center will serve as a transfer station for trucks and rail cars as KCSR continues its project to restore the rail line between Victoria and Rosenberg, a \$100 million project. Once restored, the line will reduce the current route to and from Mexico by about 70 miles.

The CenterPoint Industrial Park, associated with the KCSR project, will attract manufacturing/distribution centers that will move their products through the KCSR transfer station.

Other multimodal facilities are also being considered closer to Wharton.

Retail: There are two businesses located near the airport that pilots fly in just to visit; Carol's Gun Shop (regionally recognized as a retail gun shop and sporting goods store) and a local boutique/smoke house. The US59 highway access, along with the airport, provides good transportation to these businesses for their customers. Those driving or flying come as avid gun collectors or are in the area to hunt the Canadian Geese.

Other economic potential: A major contractor/developer in the state is looking at the possibility of investing in a three-acre intermodal facility on property at the Wharton Regional Airport.

3. Where and what do you expect for the area's future growth?

**Answer:** (See above Question #2)

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:**

- Limited space for expansion. Airport sits on 200 acres and all surrounding land is owned by ranchers.
- Hangars are at full capacity
- Challenge to find funding for additional hangars and/or tie downs
- Safety issues associated with the airport
- Clear zone issues
- Buildings encroaching the runway
- Requirement for an improved GPS system or new ILS system
- Airport has an identity problem
- Better ground transportation; i.e., rental cars
- Need for an incentive package to attract transportation, manufacturing and retail to the airport
- Schlumberger building lease at airport has created an issue

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- Runway needs to be extended. Land availability and clear zones are issues. Buildings would currently be in the way.
- Height hazard zoning to protect the runways from having towers/high structures being built around the airport.

- Immediate need for access and facility improvements; i.e., 6,000 foot runway and instrumentation.
- Stakeholders think the runway needs to be reconfigured.

6. How could a better integrated airport system serve the community's needs?

**Answer:** The stakeholders support a public private partnership to develop and improve the airport. They feel they are fortunate in that they have the infrastructure to be all they desire to be.

7. What kind of new development in the area would most contribute to airport use and development?

**Answer:** (See question #2 relating to the Kansas City Southern Railway Co. and CenterPoint Properties project)

8. How can the airport support local business development?

**Answer:** The stakeholders support local business by attracting manufacturing to the airport through new and renovated facilities. They have an interest in bringing in light jets as well as aviation related support businesses.

Associated with the CenterPoint development, there will be support services coming to the area, and many might come via aircraft. It is important to the development that a functioning airport is nearby.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The stakeholders feel they have the ability to be a regional gateway through partnering with the surrounding area and marketing as a team. Having an attractive terminal at the airport would aid in the marketing.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** There are no noise or general access complaints. There are a few complaints about crop dusters but this all goes with a ranching/agricultural region. Generally, the community relationship with the airport is excellent.

11. Is there organized opposition to airport development and expansion?

**Answer:** There is no opposition (organized or otherwise) currently; however, the stakeholders are concerned that if plans for airport improvements are brought to fruition, the current 30+ tenants on airport may object to all the changes. This has been "their airport" for a number of years and change is always difficult.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None that we know that would impact us.

13. What environmental issues may affect airport use and development?

**Answer:** There are no wetlands in the area, but a number of underground pipelines exist.

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** The last master plan is dated February 2006 created by O'Malley Engineers in Brenham, Texas.

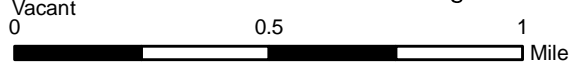
15. Do you know of other people or groups that we should contact?

**Answer:** No



**Legend - Land Use**

- Commercial
- Residential
- Industrial
- Parks, Recreation
- Vacant

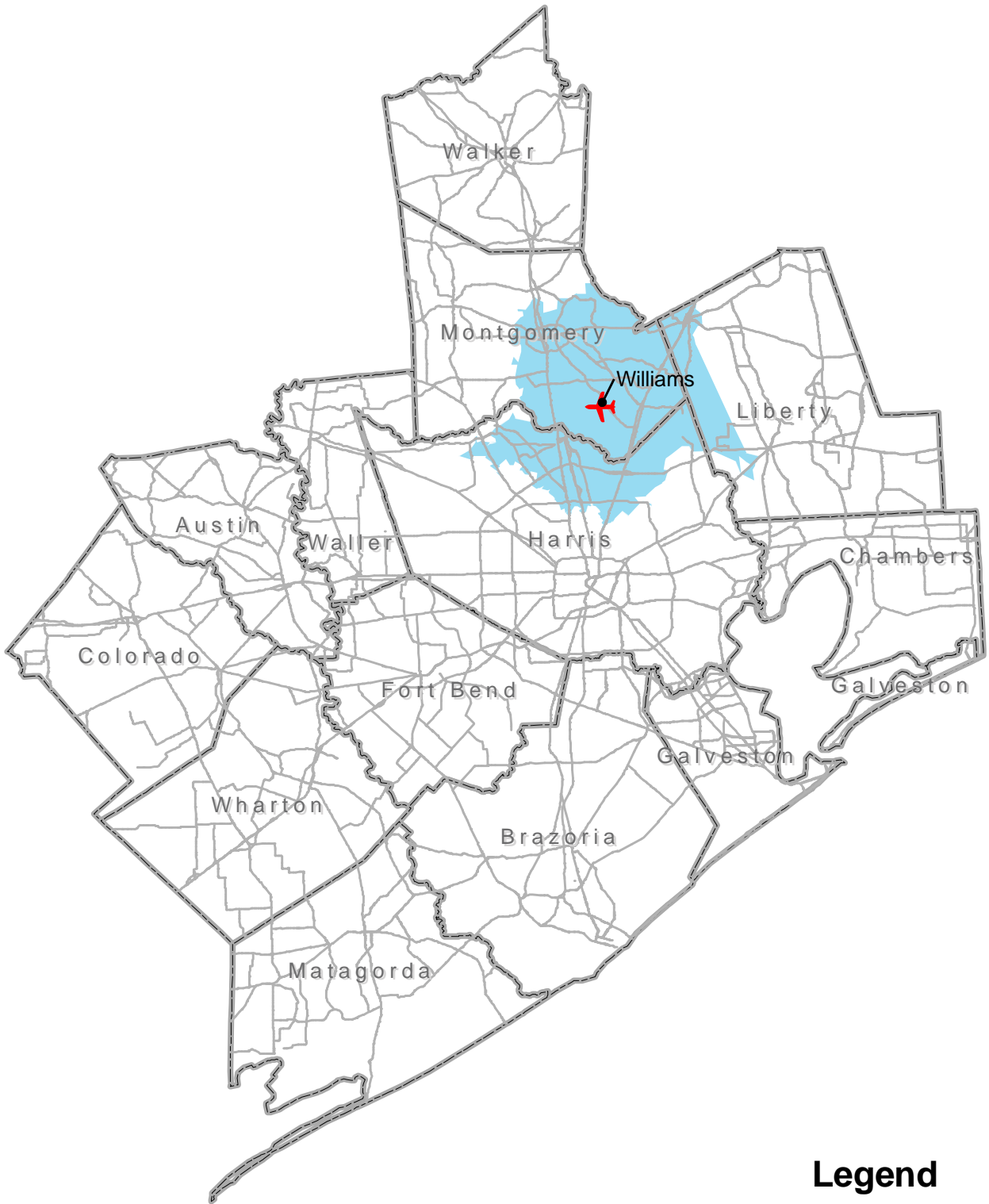


# Williams Airport

**2040 Regional Aviation System Plan Update**



# Williams Airport 30 min Service Area in 2009



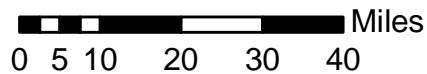
## Legend

 Williams

 Roads

 Counties

 30 Min Service Area



**Williams Airport (9X1)**  
**Airport Summary**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Williams Airport is privately owned and operated by the Williams Airport, Inc.

**Airport Location**

Williams Airport is located in Montgomery County, Texas approximately seven (7) miles northwest of the Porter central business district and 33 miles north of Houston. The airfield lies west of FM 1314.

**Existing Airport Facilities**

Williams Airport, including the airfield, hangars, airport administration offices, and safety areas, encompasses approximately 107 acres. The Airport's Airport Identifier is 9X1. The facility is located at an elevation of 122 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates is latitude 30°09'12.15"N (estimated) and longitude 095°19'19.16"W.

**Airfield Facilities**

Williams Airport currently has one (1) runway. Runway 17/35 is 3,594 feet in length and 46 feet wide. The runway is constructed of asphalt and is in fair condition. The runway is equipped with Low Intensity Runway Lighting (LIRL) and Runway End Identifier Lights (REIL).

Taxiway A is a full parallel taxiway serving Runway 17/35 from the apron edge. The taxiway is 25 feet wide and constructed of asphalt. The taxiway is not lighted.

At this time, Williams Airport does not have a clear and green rotating beacon providing visual guidance to the Airport. The Airport also does not have a segmented circle, but a lighted wind cone is located east of Taxiway A and south of the apron area. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

**Landside Facilities**

The landside facilities at the Airport include the airport administration offices, a conventional hangar, and T-hangars, and open shade hangars.

**Fixed Base Operator Facilities**

Williams Airport, Inc. serves as the fuel provider. Restrooms, vending machines, and public telephone is available. The Airport has plans to construct a FBO terminal building in the future.

**Aircraft Storage**

Aircraft storage at the Airport includes 3 tie-down spaces, 63 T-Hangars, nine (9) open shade hangars, and a conventional hangar.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by the Williams Airport, Inc.. It is located in the northeast corner and adjacent to the apron. It provides aboveground storage capacity for 6,000 gallons of Aviation Gasoline (AVGAS). Aircraft fueling is self-serve and available 24 hours by credit card machine.

### Based Aircraft

In 2008, there were a total of 56 fixed wing aircraft based at Williams Airport. These aircraft include 52 single-engine aircraft and four (4) multi-engine aircraft.

### **Interviewer Conclusion**

Williams Airport is experiencing fast-paced growth with new ownership. The Airport has plans for a runway extension, land acquisition, and future aviation development.

The Airport's facilities did suffer damage from Hurricane Ike. At the time of the site visit, several hangar repairs had been completed. Airport management stated they were about two weeks from finishing other damaged hangars. Some of the aircraft based at Williams Airport had been damaged as well.

Williams Airport had an Airport Layout Plan (ALP) completed in April of 2008. The ALP identified plans for a runway extension, full-service FBO building, additional T-hangars, a large corporate hangar, relocating the access road, and fencing the entire property. Other improvements airport management indicated include: adding Jet-A and a fuel truck, improving drainage; electrical work; and moving power lines underground. The Airport also hopes to acquire more land.

Airport management indicated that they have received several inquiries from prospective corporate tenants that would like to hangar aircraft at Williams Airport. The Airport seeks to capture that market.

There is some interest in having a flight school, but airport management is in the process of deciding if it would be better for the Airport to operate a flight school or if they want to outsource flight training to another operation. The proximity to IAH and subsequently, Class B airspace is a concern. Airport management expressed they will be very selective in finding the right operation should the decision be to outsource flight training.

The Airport is focused on being included in the NPIAS. Williams Airport currently has 56 aircraft based at the field and it is anticipated reaching 100 based aircraft will not be difficult.

Airport management indicated they have great support. The tenants are appreciative of the improvements that have been made at the Airport since the new ownership took over and support the growth of the facility. The County and the Chamber of Commerce are also supportive and see the benefit of the Airport to the community.

**Airport Facilities and Services Questionnaire  
Houston-Galveston Area Council  
Regional Aviation System Plan**

Airport Name: Williams Airport

Airport Manager: Katie Jarrett

Airport Owner: Williams Airport Inc.

Date: \_\_\_\_\_

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>	<b>Glider</b>	<b>Ultra-Light</b>
Conventional (Bay) Hangars							
T-Hangars	50	4					
Portable Hangars							
Tie-Down (Paved)							
Tie-Down (Unpaved)	2						
Total							

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<b>Storage Type</b>	<b>Single Engine</b>	<b>Multi Engine</b>	<b>Turbo Prop</b>	<b>Business Jet</b>	<b>Rotorcraft</b>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)	2				
Total					

3. Please indicate the amount of ramp space available for aircraft parking:

<b>Apron Type</b>	<b>Area (sq yds)</b>	<b>Number of Tie-Down Spaces</b>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron	1733	3 tie down spaces on aircraft refueling apron.

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<b>Type of Fuel</b>	<b>Fuel Flowage (gallons/year)</b>
MOGAS (auto)	
AVGAS	18,000 gallons (estimated)
Jet-A	

<b>Tank Size (gallons)</b>	<b>Type of Fuel (MOGAS, AVGAS, JET-A)</b>	<b>Aboveground / Under-ground</b>
6000	Avgas	Above ground

5. Please provide the following information about your fueling operation.

<i>Item</i>	<i>MOGAS</i>	<i>AVGAS</i>	<i>JET-A</i>
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops			
Average Gallons per Drop			

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

**Number of Daily Operations\***

<i>Aircraft Type</i>	<i>Off-Peak</i>		<i>Peak</i>		<i>% Night**</i>
	<i>Weekday</i>	<i>Weekend Day</i>	<i>Weekday</i>	<i>Weekend Day</i>	
Single Engine	15	25	20	35	2
Multi-Engine Piston	2	2	2	4	
Turbo Prop					
Business Jet					
Rotorcraft	2	2	2	2	
Other					

\*Takeoffs and landings      \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Between dawn and dusk – generally between 0730 and 2000 \_\_\_\_\_

8. What is the busiest day(s) of the week? Saturday \_\_\_\_\_

9. For the above table, what are your off-peak and peak seasons? \_\_\_\_\_

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

<i>Primary Use</i>	<i>Number</i>	<i>Aircraft Types</i>
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total	0	

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
17/35	3596	46		Asphalt	Std. cntrln nonstd #s

Runway End	End Elevations	Visual	NP	P1/P2/ P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
17	Est. 122	X	N		N	LIRL		Y	N
35	Est. 122	X	N	N	N	LIRL		Y	N

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
	3596	25	None	Asphalt	17/35

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. Yes. Runway 17/35 will be extended to the south to approximately 5500' and widened to 75'.

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. Yes. Taxiway needs to be resurfaced and widened. In addition another taxiway is needed on the west side of the runway to access future hangars.

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_

13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		x		Automatic Terminal Information Service		x	
Flight Service Station		x		Unicom/CTAF			122.8
National Weather Service		x		Precision Approach Radar / MLS/ILS		x	
Civil Air Patrol		x		Segmented Circle		x	
Automatic Weather Observing System (A, I, II, III, IV)		x		Centerfield Wind Indicator	x		
Automated Surface Observing System		x		Supplemental Wind Cone		x	
Non-Directional Radio Beacon		x		Remote Transmitter Receiver		x	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		x		Aircraft Rescue and Fire Fighting Facility		x	
Ground Communications Outlet		x		Remote Communications Outlet		x	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? The airport needs additional ramp space, a larger maintenance hangar, additional T-hangars, bay hangars, PAPI and runway lighting, rotating beacon, AWOS or ASOS, and an expanded fuel farm. Williams airport is not eligible for TxDOT CIP funding.

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) The access road needs to be moved, along with the above ground power lines. The airport needs additional auto parking, airport security fencing, FBO building, and offices.

16. What do you view as the long-range potential for the airport? The airport is ideally situated for easy access from Humble, Kingwood, and The Woodlands. We believe the airport will be a significant reliever airport, with the ability to support corporate, private, and industrial aviation aspects of GA.

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? Montgomery County and the East Montgomery County Improvement District are very interested in the development of the airport. We are not aware of any opposition to public funding.



18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) Not at this time.

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19. Have nearby residents complained of aircraft noise? Not that we have been made aware.

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20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? Not at this time.

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*East Montgomery County Chamber*  
*Focus Group*

*Summary Report*

Stakeholders Perspective

**I Airport History/Environment**

Williams Airport (9X1) was founded and permitted as an airport in 1946 by the Williams family. When it was sold in 1973, the runway was a grass strip with serious drainage challenges. For over 30 years, the second owners provided fill and drainage improvements that allowed an asphalt runway to be constructed, but drainage continued to be a problem. In addition, several hangars were also constructed. The airport was sold again in April 2008 to S&H Airport Management, LLC of Porter, Texas. The new owners have invested over \$1.2 million for improvements since their acquisition.

**II Goals/Objectives**

The primary goal for the airport, under the leadership of Herb Jeffries of S&H Airport Management, is to drain and enhance the facility and expand this general aviation facility into a first class business airport. In line with that vision, 16 new hangars will be constructed, and a future 1500 foot runway extension will be added.

**III Initiatives**

The initiative to meet the goal is being structured around a preliminary business plan that can be financially implemented. In the year that S&H has owned the property, they have aggressively moved forward with a number of basic improvements:

- Improved current office and hangar facilities
- Purchasing a Jet A fuel truck to provide service to the larger corporate aircraft (light jets).
- Provided runway lighting 24/7
- Eliminated runway obstacles in clear zones by major tree cutting and clearing
- On-going land acquisition for expansion of airport
- Secured professional airport staffing
- On-going major drainage improvement

#### IV Recommended Airport Enhancements

- Security fencing
- Lengthening and widening its current 3,594 foot asphalt runway and adjacent taxiway
- Constructing additional T-hangars and corporate hangars
- Constructing a new Fixed Base Operator (FBO) building
- Continued improvements to existing facilities
- Additional property acquisition
- Establishing additional aircraft support services for clients; i.e., rental cars, maintenance facilities, etc.
- Industrial park with rail spur (upon demand)
- The stakeholders would like to see better airport access between EarthQuest using FM1314, as well as to the proposed Grand Parkway.

#### V Interviewers Conclusion

The airport is unique in that it is ten miles from Bush Intercontinental Airport and within Class B airspace. Depending on how it is developed, it could also have direct access to the proposed Grand Parkway/US59. It has the potential of becoming another reliever airport in the system with well over 100 based aircraft. The airport currently has approximately 50 based aircraft with 15,000 operations per year.

Herbert C. Jeffries and his partner have the vision and the financial capabilities, along with the business background, to view the airport acquisition as more than just a passion for aviation. (He is not a pilot but a businessman and sees the long term potential.) He has developed a preliminary plan to move this facility in the right direction to meet the goals he has set and attract the flying corporate community. He plans to attract more based aircraft and develop a variety of maintenance support services for aircraft; i.e., avionics, refurbishing, paint shops, engine plant repair, etc.

Unlike many airport sponsors, the current owners envision Williams Airport as a business that can support itself. The owners have a preliminary plan to make that possible in a reasonable amount of time.

*East Montgomery County Chamber of Commerce Interview*  
*Stakeholders Focus Group*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

<u><i>Chamber/EDC Name:</i></u>	East Montgomery County COC
<u><i>Chamber/EDC Representatives:</i></u>	See sign-in sheet
<u><i>Airport Name:</i></u>	Williams Airport (9X1)
<u><i>Interview Date:</i></u>	February 18, 2009

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*Stakeholders Perspective*

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:**

Williams Airport (9X1), a privately owned public use airport under new ownership, plans the following improvements in the next ten years:

- Construct additional T-hangars and community hangars
- Lengthen and widen the current 3,594 foot asphalt runway and adjacent taxiway
- Construct a new Fixed Base Operation (FBO)
- Continue improvements to existing facilities
- Additional property acquisition
- Buy a truck for transporting Jet A fuel for the larger corporate aircraft (light jets)
- Provide "loaner cars" for the business pilot who flies into the airport
- Airport has started keeping runway lights on all night
- There have been requests for rail spurs: the stakeholders feel they may be looking at creating another industrial park, because East Montgomery County Industrial Park is almost sold out.
- Airport access to EarthQuest from FM1314
- Airport access to the proposed Grand Parkway
- Security fencing

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The stakeholders see the growth of the airport directly related to a development called EarthQuest Adventures (dinosaur theme park), which will be a 1,600 acre, \$1.5 billion destination resort filled with an amusement park and hotels along with a major research institute.

The development is on either side of US59 and will be constructed in two phases: The resort and research institute to the west of US59 and the residential development to the east. First phase (500 acres) is to break ground in 2010 at a cost of \$500-600 million. The park is scheduled to open to the

public in 2012. The actual park area is approximately 200 acres with several hotels slated to be built in and around the park. There is also a residential area proposed as part of the project.

Williams Airport is approximately eight miles from EarthQuest Adventures, and is positioned to accommodate the private aircraft that will be attracted to the project.

East Montgomery County Industrial Park is 500 acre and is looking to expand towards the Splendora. The Park is eight miles from the airport. The Industrial Park is an anchored company with a one million square foot Wal-Mart distribution center. The current park houses companies from France, Africa, and China.

**In summary:**

- East Montgomery County has rapid economic growth as evidenced by EarthQuest Adventures and the Industrial Park.
  - EarthQuest will include a high-rise hotel, convention center and research facility in addition to the entertainment venue.
  - The first phase of this project will be \$500-600 million for the institute, theme park and hotel.
  - A residential development is planned in the project.
  - The entire 1,600 acre project is a green technology, with a 50 acre technology center.
- EDC has in process a major improvement district.
- Major retail center is developing off US59.
- Economic development zones for 25 acres or more
- Currently, the county passed another half cent sales tax for economic development.

**3. Where and what do you expect for the area's future growth?**

**Answer:**

- New high school being built near the airport.
- Rumored to be a 2,000 acre residential project being planned
- Grand Parkway (Section H) will be going through or near this residential property, so there will also be commercial development.
- Expansion of the East Montgomery County Industrial Park. Surrounding the industrial park is potential commercial and residential development.
- FM1314 expansion to five lanes.
- Grand Parkway will provide easier access to the airport. This Parkway is 3,000 feet off the end of Williams Airport Runway.

**4. What do you think are the local issues facing your area as it relates to aviation?**

**Answer:**

- Drainage
- Encroachment of homes
- Limited access
- Education: The educational organizations in the area are researching aviation job opportunities in order to implement programs and classes to support that need. They also provide \$1,000

scholarships to any high school graduate of New Caney, Splendora, home school or GED program for higher education.

- Montgomery County Industrial Board has provided \$10 million of Texas funding for economic improvement projects for the east county area. This will be paid back and is a low interest loan.
- The Kingwood area is home to many Continental pilots who own private recreational aircraft. As the airport improves, there could be potential for this to become an alternative for these pilots to base their aircraft at Williams rather than at Lone Star Executive Airport or Hooks Airport.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:**

- Aviation education is the primary focus.
- The ability to expand and attract conferences and conventions; bring them in using EarthQuest development as a marketing tool in their toolbox.
- The area hotels are starting to have more and more traffic.
- There are plans for an FBO this year.
- The existing hangar has been renovated with two administrative offices; one for flight instruction, as well as space for an avionics operation.

6. How could a better integrated airport system serve the community's needs?

**Answer:** A better integrated system can relieve congestion at IAH and HOU. There are certain aviation activities that are not appropriate for all airports; i.e., banner towing, sky diving, crop dusting, etc. An integrated system insures that all activities are handled within the system.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** The stakeholders realize they are not the economic drivers, but rather they are supporters for those that bring economic opportunities to the area. They promote the concept of a better life style for the community by providing an educated work force. The airport is an environment where aviation training can provide future opportunities that will result in raising the economic level in the region.

8. How can the airport support local business development?

**Answer:** The airport has the potential to become an employment center depending on what kind of business it attracts over the next few years.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** The airport has the potential of being a "Gateway to EarthQuest" or the "Gateway to East Montgomery County Industrial Park."

10. What types of community relationships does the airport have with its neighbors?

**Answer:** The airport was virtually unknown until the private aircraft crash in February 2009 killing two people that by chance also had the name of Williams. Up until that time the majority of the region did not even know where the airport was or if there was an airport. The neighborhoods are willing to partner with the airport.

11. Is there organized opposition to airport development and expansion?

**Answer:** None

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** No

13. What environmental issues may affect airport use and development?

**Answer:**

- Drainage
- Wildlife

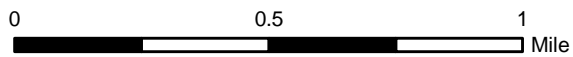
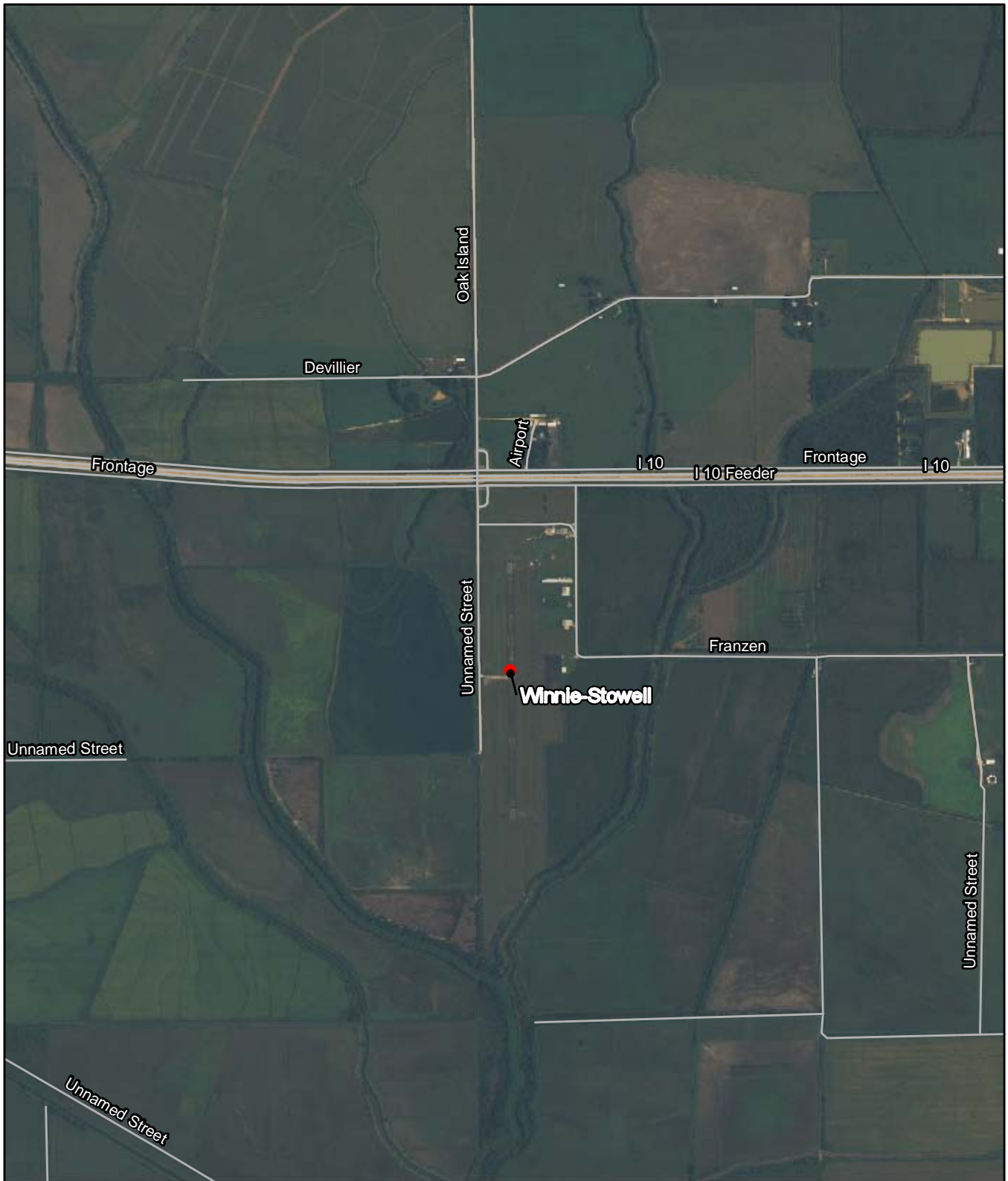
14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** No airport master plan

15. Do you know of other people or groups that we should contact?

**Answer:** No

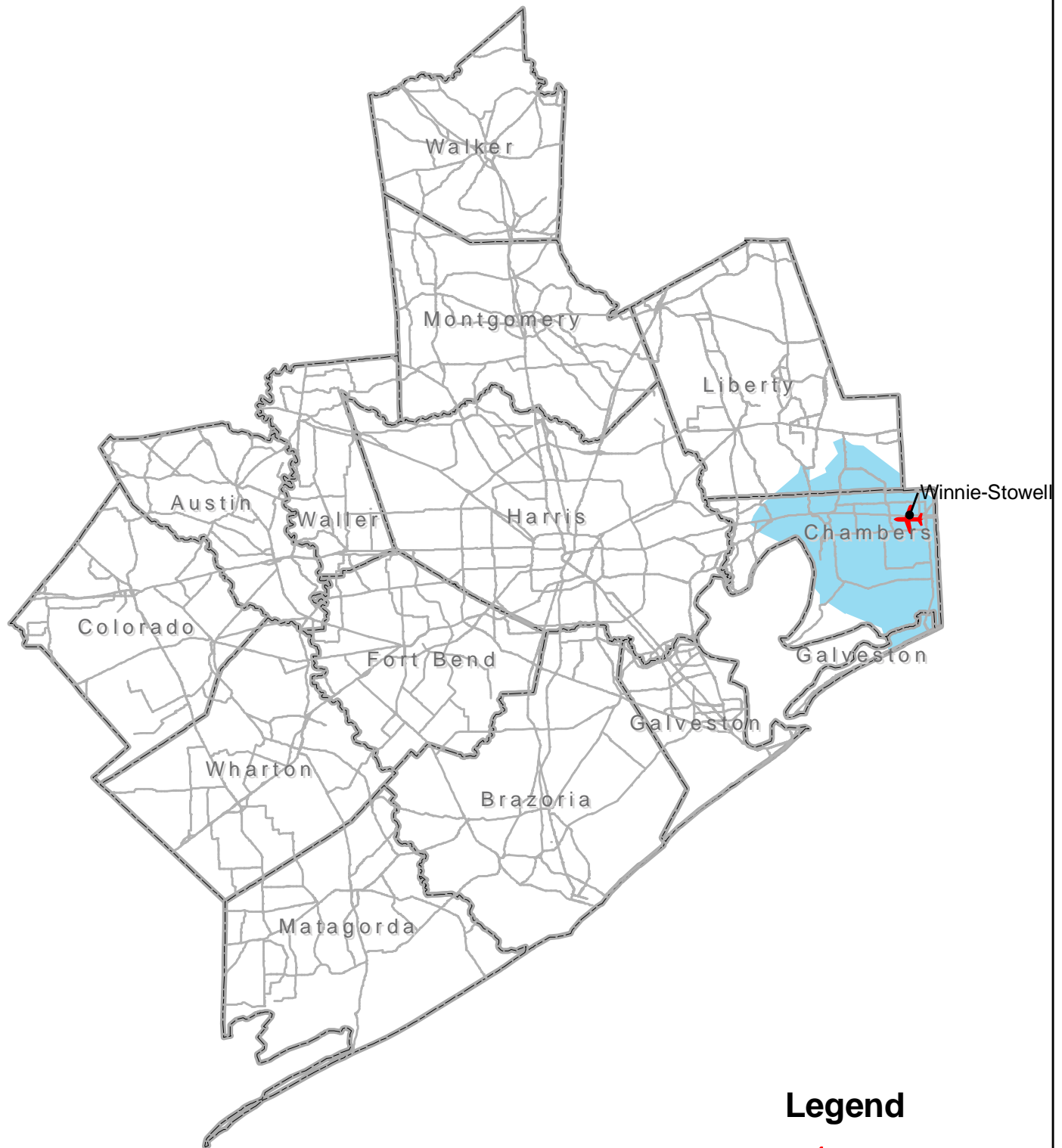





# Winnie-Stowell Airport


2040 Regional Aviation  
System Plan Update

# Winnie-Stowell Airport 30 min Service Area in 2009



## Legend

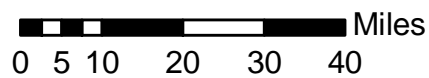
 Winnie-Stowell

 Roads

 Counties

 30 Min Service Area



 Miles

**Winnie-Stowell Airport (T90)**  
*Airport Summary*  
*Houston-Galveston Area Council*  
*Regional Aviation System Plan*

Winnie-Stowell Airport is publicly owned and operated by Chambers County.

**Airport Location**

Winnie-Stowell Airport is located in Chambers County, Texas approximately four (4) miles west of the Winnie central business district, approximately five (5) miles northwest of Stowell, and 58 miles east of Houston. The airfield lies south of Interstate 10.

**Existing Airport Facilities**

Winnie-Stowell Airport, including the airfield, hangars, and safety areas, encompasses approximately 112 acres. The Airport's Airport Identifier is T90. The facility is located at an elevation of 25 feet above Mean Sea Level (MSL) and the Airport Reference Point (ARP) coordinates are latitude 29°48'14.796"N (estimated) and longitude 094°25'51.683"W.

*Airfield Facilities*

Winnie-Stowell Airport currently has one (1) runway. Runway 17/35 is 3,600 feet in length and 75 feet wide. The runway is constructed of asphalt and is in fair condition. The runway is equipped with Medium Intensity Runway Lighting (MIRL) and has two-light Precision Approach Path Indicators (PAPI) on the left of the Runway 17 end.

Taxiway A is a full parallel taxiway serving Runway 17/35. The taxiway is 75 feet wide and constructed of asphalt. The taxiway is not lighted.

Winnie-Stowell Airport has a clear and green rotating beacon providing visual guidance to the Airport. The Airport also has a segmented circle and lighted wind cone. These visual aids assist pilots in verifying wind direction, runway use, and airport traffic patterns.

*Landside Facilities*

The landside facilities at the Airport include T-hangars and conventional hangars.

*Fixed Base Operator Facilities*

There are no FBO operations at Winnie-Stowell Airport; however, Chambers County serves as the fuel provider.

*Aircraft Storage*

Aircraft storage at the Airport includes 22 tie-down spaces, T-hangars, and conventional hangars.

### Aircraft Fueling Facilities

The fuel farm, located on airport property, is operated by Chambers County. It is located in the east of and adjacent to the apron. It provides aboveground storage capacity for 6,000 gallons of Aviation Gasoline (AVGAS). Aircraft fueling is self-serve and available by credit card machine.

### Based Aircraft

In 2008, there were a total of 10 fixed wing aircraft based at Winnie-Stowell Airport. These aircraft include one (1) single-engine aircraft, eight (8) multi-engine aircraft, and one (1) jet. Additionally, there is one (1) helicopter based at the Airport.

### **Interviewer Conclusion**

Winnie-Stowell is an unattended airport, therefore it is uncertain how active the Airport is. Airport management described it as simply an "air strip." The airport is small with a few hangars and the runway.

The Airport has fencing all around and easy access from the Interstate 10 feeder. Issues Winnie-Stowell faces are the need for taxiway rehabilitation and parking.

Winnie-Stowell Airport was once considered as a prime location for a regional airport for Jefferson County. It has adequate room for expansion.

According to airport management, there is no public opposition to the Airport. Support for the Airport primarily comes from the pilots.

**Airport Facilities and Services Questionnaire**  
**Houston-Galveston Area Council**  
**Regional Aviation System Plan**

Airport Name: **Winnie-Stowell Airport – T90**

Airport Manager: **Don Brandon**

Airport Owner: **Chambers County**

Date: **09 January 2009**

1. Please indicate the number of based aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>	<i>Glider</i>	<i>Ultra-Light</i>
Conventional (Bay) Hangars	1		7	1	1		
T-Hangars							
Portable Hangars							
Tie-Down (Paved)			1				
Tie-Down (Unpaved)							
<b>Total</b>	<b>1</b>		<b>8</b>	<b>1</b>	<b>1</b>		

2. Please indicate the average number of overnight transient aircraft at your facility and how the aircraft are stored.

<i>Storage Type</i>	<i>Single Engine</i>	<i>Multi Engine</i>	<i>Turbo Prop</i>	<i>Business Jet</i>	<i>Rotorcraft</i>
Conventional (Bay) Hangars					
Tie-Down (Paved)					
Tie-Down (Unpaved)					
<b>Total</b>					

3. Please indicate the amount of ramp space available for aircraft parking:

<i>Apron Type</i>	<i>Area (sq yds)</i>	<i>Number of Tie-Down Spaces</i>
Maintenance Apron Area		
Based Aircraft Apron		
Transient Aircraft Apron		22

4. Please indicate your estimated annual fuel flowage and fuel tank capacities.

<i>Type of Fuel</i>	<i>Fuel Flowage (gallons/year)</i>
MOGAS (auto)	
AVGAS	17,112.5
Jet-A	

<i>Tank Size (gallons)</i>	<i>Type of Fuel (MOGAS, AVGAS, JET-A)</i>	<i>Aboveground / Under-ground</i>
6,000	100 Low Lead AvGas	Aboveground



5. Please provide the following information about your fueling operation.

Item	MOGAS	AVGAS	JET-A
Number of Fuel Trucks / Capacity of each (gallons)			
Frequency of Fuel Drops		3.5 months	
Average Gallons per Drop		5,500	

6. Please indicate the average number of daily takeoffs and landings, by aircraft type, at your airport.

Aircraft Type	Number of Daily Operations*				% Night**
	Off-Peak		Peak		
	Weekday	Weekend Day	Weekday	Weekend Day	
Single Engine					
Multi-Engine Piston					
Turbo Prop					
Business Jet					
Rotorcraft					
Other					

\*Takeoffs and landings \*\*Percentage of operations between 10 pm and 7 am

7. During what hours does most of the activity occur at this airport? Early afternoon

8. What is the busiest day(s) of the week? Monday & Friday

9. For the above table, what are your off-peak and peak seasons?

10. Please indicate the number and types of aircraft owned by the FBO, according to the following uses:

Primary Use	Number	Aircraft Types
Rental		
Charter		
Air Taxi		
Student Training		
Crop Dusting		
Other		
Total		

11. Please provide the following airfield data:

Runway ID	Length	Width	Gradient	Surface Type	Marking
17 - 35	3600	75	0	Paved Asphalt	Center lined striping Non-Instrument

Runway End	End Elevations	Visual	NP	P1/P2/P3	Displaced Threshold	Lighting	ALS	REILS	PAPI/VASI
Lighting		VFR	Yes	None	None	Lo-intensity	No	NO	VASI

\*P1 = CAT I; P2 = CAT II; P3 = CAT III

Taxiway ID	Length	Width	Lighting	Surface Type	Access To
Yes	3600	75	NONE	Paved Asphalt	Paved Asphalt

12. Does the airport need a new runway or runway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new runway, and name, length and runway end for an extension, and name for runway rehabilitation. **Yes, rehabilitation**

**Runway 17 - 35**

**Mid 90's last rehabilitation**

If no, when did runway reconstruction or rehabilitation last occur? \_\_\_\_\_

12a. Does the airport need a new taxiway or taxiway extension, reconstruction or rehabilitation in the next five years? If yes, please describe length and orientation of new taxiway, and name, length and taxiway end for extension, and name for taxiway rehabilitation. **Yes** \_\_\_\_\_

If no, when did taxiway reconstruction or rehabilitation last occur? \_\_\_\_\_



13. Please identify NAVAIDS and other facilities available at your airport.

Item	Yes	No	Frequency	Item	Yes	No	Frequency
Airport Traffic Control Tower		X		Automatic Terminal Information Service		X	
Flight Service Station		X		Unicom	X		122.90
National Weather Service		X		Precision Approach Radar / MLS/ILS			
Civil Air Patrol		X		Segmented Circle	X		
Automatic Weather Observing System (A, I, II, III, IV)		X		Centerfield Wind Indicator	X		
Automated Surface Observing System		X		Supplemental Wind Cone		X	
Non-Directional Radio Beacon	X			Remote Transmitter Receiver		X	
VHF Omni-Directional Range (VOR) / Terminal / Doppler / Tactical Air Navigation (VORTAC)		X		Aircraft Rescue and Fire Fighting Facility		X	
Ground Communications Outlet	X			Remote Communications Outlet		X	

14. Does the airport need new facilities in the next five years? (e.g., aprons, hangars, NAVAIDS, air traffic control, airfield lighting) Does the airport currently have a project planned or in the TxDOT Aviation Capital Improvement Program? **Yes** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15. What other facilities need to be upgraded, replaced or repaired? (e.g., access roads, auto parking, fencing, terminal building, car rental) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16. What do you view as the long-range potential for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

17. Are you aware of broad community support for using public funds for construction and operation of the airport? Are there people or groups that are opposed to public funding for the airport? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

18. Does the airport have protective zoning to prohibit obstructions, encroachment of air space, or noise impacts? Have obstructions or incompatible land uses been proposed or built near the airport? (e.g., water tank, tower, antenna, homes near airport) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

19. Have nearby residents complained of aircraft noise? **No** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

20. Has the airport (or the city or county government) taken steps to limit or minimize incompatible land uses near the airport? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Winnie Chamber of Commerce**  
**Focus Group**

**Summary Report**

Stakeholders Perspective

**I Airport History/Environment**

Chambers County is within the Houston-Sugar Land-Baytown Metropolitan Area with a population of approximately 29,000 people. Nearly 32% of the County is water; therefore, outdoor sports, particularly hunting and fishing, are a big part of its economy along with agriculture. This same environment attracts birds and the County is a major flyway.

Chambers County, Winnie/Stowell Airport (T90), operating in an unincorporated area, is a publically owned, general aviation facility that covers 112 acres with a 3,600 x 75 foot asphalt runway. The entire area is in a post-hurricane recovery period.

**II Goals/Objectives**

The stakeholders are not aware of any goals or objectives that the County has set for the airport. They would like to see improved and expanded amenities to attract business.

**III Initiatives**

The County has limited financial abilities and is not looking to do major improvements or marketing of the airport. The area is focused on hurricane recovery.

**IV Recommended Airport Enhancements**

- Improve community awareness
- Land acquisition for a future runway extension
- T-hangars

**V Interviewers Conclusion**

The Focus Group had limited knowledge about the airport.

## Winnie Chamber of Commerce Interview

Stakeholders Focus Group  
Houston-Galveston Area Council  
Regional Aviation System Plan

<u>Chamber Name</u>	Winnie Chamber of Commerce
<u>Chamber Representatives:</u>	See sign-in sheet
<u>Airport Name:</u>	Chambers County, Winnie/Stowell Airport (T90)
<u>Interview Date:</u>	February 17, 2009

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### Stakeholders Perspective

1. How do you envision this airport growing over the next ten years (general aviation, corporate, cargo, air service)?

**Answer:** Chambers County, Winnie/Stowell Airport (T90) has the potential of stimulating the local economy, providing diversification to the area's future growth and helping the community get back on its feet; but the airport sponsor does not see that vision.

In the next decade, there is potential in the following areas:

- Light cargo/freight operation with excellent access to I-10
- Improve amenities through the development of a new terminal
- Improve community awareness
- Acquisition of land to extend the runway
- Additional T-hangars

2. What kinds of economic development are now occurring around the airport? What additional near airport development do you expect over the next five years?

**Answer:** The area is still in a recovery mode from last year's hurricane. The community seems unwilling to spend any money to grow the economy, so the result is nothing is happening. There is expected growth in population, based on the number of people moving inland from Bolivar Peninsula, so the area will need to develop housing options. The airport improvements are not part of the County's focus.

3. Where and what do you expect for the area's future growth?

**Answer:** The stakeholders believe there is potential for the Winnie/Stowell area, but the community vision will dictate whether or not anything happens. The City will need to be incorporated before any major growth can occur. They also feel someone will need to step up and lead the charge to make something positive happen.

4. What do you think are the local issues facing your area as it relates to aviation?

**Answer:** Winnie/Stowell has no tax base; and therefore, has poor infrastructure. There is no governmental organization to assist financially in building either the airport or the community's future. The County government is apathetic towards this area.

5. What do you believe are the area's needs that can best be handled by airport improvement?

**Answer:** Improve the economy through tax dollar generation and incorporation.

6. How could a better integrated airport system serve the community's needs?

**Answer:** The stakeholders feel this airport could act as a relief valve for cargo freight with their excellent access to I-10.

7. What kinds of new development in the area would most contribute to airport use and development?

**Answer:** See Question #1

8. How can the airport support local business development?

**Answer:** To support local business development, there has to be a County effort made. The enthusiasm by the County is not there for the Winnie/Stowell Airport. The focus group contributed the following:

- Increased County initiative. Have elected officials that understand the airport's economic benefits and why it is an asset.
- Increase the amenities to attract business development.

9. How can the airport be better projected as a local or regional gateway for transportation and commerce?

**Answer:** It is not ready to be a gateway for either transportation or commerce. It lacks the facilities to attract such.

10. What types of community relationships does the airport have with its neighbors?

**Answer:** It is basically an unknown and under recognized community asset. There is the Rice Festival each year that attracts almost 100,000 attendees in four days. Maybe a fly-in connected with that event would draw the attention necessary.

11. Is there organized opposition to airport development and expansion?

**Answer:** There has neither been any airport development or expansion so there has not been any opposition.

12. Do you know of any current or proposed legislation or ordinance that might affect the airport?

**Answer:** None

13. What environmental issues may affect airport use and development?

**Answer:** Wetlands

14. Do you know of a master plan for the airport? When it was last updated? How we can get a copy?

**Answer:** Not aware of one

15. Do you know of other people or groups that we should contact?

**Answer:** No