TEXAS AIRPORT SYSTEM PLAN UPDATE 2002

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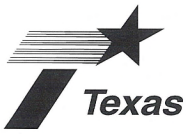


Texas Department of Transportation

Published in December 2002. This document has been created to further the purposes of §201.053(b)(7) Texas Transportation Code to maximize federal funding for highways, public transportation, and aviation purposes, and to help the Department achieve its performance measures set out in the General Appropriations Act, H.B. 1, 76th Legislature, Regular Session. This publication has been filed with the State Publications Clearinghouse in the State Library in accordance with the Texas State Depository Law.

Preparation of this material was financed in part by an Airport System Planning Grant provided by the Federal Aviation Administration as authorized by the Airport and Airway Improvement Act of 1982, as amended.

Contents

Executive Summary

The nation's air transportation system currently has the attention of the American public, with the focus of this attention principally on the needs of the country's largest airports. Since the enactment of the Airline Deregulation Act of 1978, the proliferation of low fares has sparked a dramatic increase in passenger traffic. In addition, improved air service with increased frequencies through connecting hub airports to multiple destinations has placed a heavy demand on the existing airports that serve as centers for passenger travel. Meeting the demand will entail construction of additional runways and other improvements at existing airports and, possibly, some new major air carrier facilities.

While the nation's scheduled air carrier airports are still the most visible component of the U.S. air transportation system, the majority of aircraft operations occur at the smaller airports that serve the general aviation component of demand. These airports make up over 80 percent of the airports in the National Plan of Integrated Airport Systems (NPIAS) and over 90 percent of the facilities in the Texas Airport System Plan (TASP). General aviation is an important contributor to both the state and national economies.

The airports in the national and state plans are those that have been identified as being the most essential to the nation's air transportation system; however, several thousand airports are not included in either of the plans. Consequently, the objective of both plans is to direct state and federal resources to the airports that can best support the plan's goals of increasing system capacity, providing access by air to centers of population, industry, agriculture and natural resource development, and fostering economic development.

The focus of the TASP is on the general aviation airports that provide capacity to the system in urban areas served by commercial service airports and on the airports serving the state's smaller communities. In the past, these airports were often associated with recreational flying, but today most communities recognize that an adequate airport is an essential component in attracting business and industry. One of Texas' newest airports—Alliance, located north of Fort Worth—was built exclusively to serve business needs.

The TASP describes the way in which the state's aviation infrastructure can be developed to support the economic development goals of Texas. Moreover, it is recognized by the state's business and government leaders that the economy of Texas is still in transition. The aviation system continues to play a strong role in support of that transition.

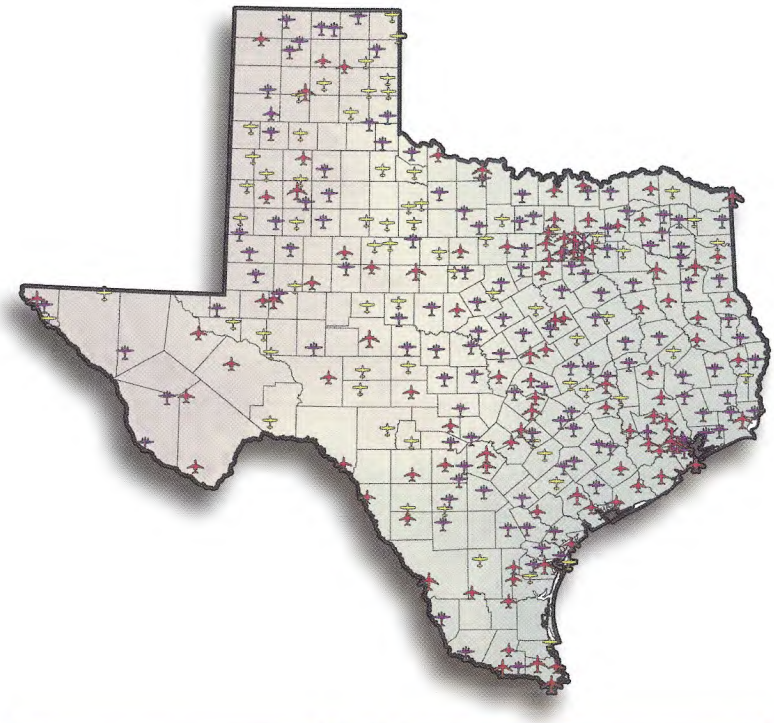
Texas is not alone in recognizing the contribution that aviation can make to the state's economic development. Other states are investing in their airport systems. For Texas to remain competitive, the resources must be available for airport development. This report documents a 20-year plan for improvement of an airport system that can support the state's economic development objectives. The details of the plan are summarized in the following paragraphs.

The State Airport System

The TASP includes 300 airports and three heliports that are classified by the role they perform:

- Commercial Service airports – 27
- Reliever airports – 23
- Transport airports – 59
- General Utility airports – 125
- Basic Utility airports – 66
- Heliports – 3

Full implementation of the TASP will result in almost 99 percent of the state's population and purchasing power being within a 30-minute drive of a TASP airport. Ninety-four percent of the mineral resources and 87 percent of agricultural production will also be within 30 minutes of a plan facility.



TASP Airports

It is believed that strategically located transport and general utility airports will be instrumental in attracting manufacturing and other types of development to the communities they serve.

Aviation Activity Forecast

As has been the case for the past several years, growth in many segments of aviation activity is expected to continue at a modest rate. The expansion of both the U.S. and world economies has had a major impact on the demand for commercial airline services. General aviation activity, while not as robust as commercial aviation activity, has been gradually increasing and is evident in the trends in general aviation aircraft sales. The dominant trends in aviation activity forecast for the next 10 years are for a continued strong growth in commercial aviation and renewed, but low growth in general aviation. Texas aviation activity growth rates are expected to be somewhat higher than the average growth rates for the nation.

TASP Implementation Costs

The costs of implementing the TASP were identified through a series of 62 public meetings over a three-year period with the sponsors and operators of the system's airports. The development program is staged in 0-5 year, 6-10 year, and 11-20 year time frames. The capital improvements identified are those for developing each airport to fulfill the role specified by the TASP within 20 years. It should be noted, however, that implementation costs are included in this summary document only for the first five years for general aviation airports because of the uncertainty of reliably

predicting the costs of improvements beyond those time frames.

The almost $500 million cost for the first five years includes projects to increase safety, preserve existing facilities, meet design standards, upgrade facilities to accommodate more demanding aircraft, and expansion to handle increased levels of activity.

Funding

Funding for TASP development is expected to come from several sources. Federal government financial assistance programs will continue to play a major role in funding the TASP's implementation. The State of Texas also has a significant role in funding airport improvements. The largest share of funding should come from aviation user fees collected by the federal government and returned to airports through the Federal Aviation Administration's *Airport Improvement Program*. The State of Texas Aviation Facilities Development Program is expected to fund the balance of the program cost with additional funding coming from user fees collected by airport operators and appropriations from the governmental bodies that own and operate the airports.

The amount of financial assistance available to airports in the future is difficult to predict over the long term. The current federal program, for example, is authorized only through FY 2003 and state funding is appropriated biennially. The TASP, therefore, has concentrated its financial analysis on the first five years of the program.

The Future of Aviation in The State of Texas

Despite an uncertain financial outlook for funding the development of the state airport system, aviation will remain an integral component of the state's economy. The Dallas/Fort Worth metroplex will remain a center of aviation manufacturing and development. Texas' recovery from the recession engendered by the oil "bust" is reflected in its prominence in aviation, ranking among the top two or three states in virtually every aspect of aviation activity.

NASA space shuttle cockpit replica in Houston, TX.

The geographic size of the state and the distances between population centers make air travel in Texas a necessity. In addition to serving the needs of decentralized

industry and other businesses, aviation offers many opportunities for the development and diversification of the state's economy. Significant growth in international markets, particularly in Europe, Latin America, and the Pacific Rim, as well as increased commerce with Mexico and Canada because of the North American Free Trade Agreement, will place an increased emphasis on facilities that will enable Texas to compete in the worldwide marketplace.

The possibilities for service to new markets by new aircraft for an expanding state economy certainly promise that the future of aviation in Texas will be exciting. The TASP represents the path leading to that development. The following pages outline the state airport system necessary to keep Texas on the route to a successful future.

THE TASP STRUCTURE

The Texas Airport System Plan (TASP) is designed to identify those airports and heliports in the state that will perform an essential role in the economic and social development of Texas. From among more than 1,600 landing sites, 300 airports and three heliports have been identified in the TASP as those that best meet this requirement.

A duplication of facilities in the TASP is minimized in order to concentrate public financial resources in these facilities. The capital improvement needs of the TASP airports have been identified as part of the planning process in order to provide a guide for the programming of federal and state financial assistance for airport development.

The following pages explain the process by which the TASP was developed.

The Planning Process

This version of the TASP is an update of a state airport system plan originally developed in 1970. Formerly called the Texas Aeronautical Facilities Plan, the plan is now updated approximately every four to five years to reflect current trends in aviation activity. The last update was completed in 1994.

This summary report documents the update process that has occurred since that time. During this period, the Aviation Division planning staff met with local airport sponsors and community leaders in over 60 meetings held throughout the state. The products of the meetings are *development worksheets* for each of the TASP airports. The worksheets indicate the improvements needed at each airport for the airport to realize its system role, and the scheduling of those improvements over the next 20 years.

The capital improvements identified are those needed for each airport to fulfill the role specified by the TASP within 20 years; however, implementation costs are included in this summary document only for the first five years for general aviation airports because of the uncertainty in reliably predicting the costs of improvements beyond those time frames. Development costs are not included for commercial service airports due to the volatile nature of commercial airport needs and the difficulty in obtaining consistent, up-to-date information.

TASP System Goals and Objectives

The goals of the TASP are to develop a statewide system of airports that will provide adequate access by air to the population and economic activity centers of the state, and to provide for the timely development of the airport system. Other goals include maximizing the economic benefits and return on investment to the state from development of the airport system, and integrating the airport system effectively with other transportation modes thereby providing an efficient multimodal transportation system. Additional goals of the TASP are to maximize the opportunity for growth in international trade and travel, and to minimize adverse impacts on the environment.

The goal of adequate air service has been expressed in terms of the proximity of activity centers to a TASP airport. Objectives are to provide airports capable of supporting scheduled commercial service within a 60-minute drive of population centers, and to provide airports capable of supporting business jet activity within a 30-minute drive of population and mineral resource centers and the economic activity generated by urban development. Other objectives include providing airports capable of supporting single- and twin-engine piston-powered aircraft within a 30-minute drive of agricultural resource centers, providing adequate airport capacity to meet forecast demand, and providing an airport system developed to applicable federal and state planning and design standards.

Airport Service Level and Role Classification

The classification of the airports in the TASP is shown in Table 1. They are grouped into four service levels: primary and non-primary commercial service airports, relievers, and general aviation airports and heliports.

Primary and Non-Primary Commercial Service Airports

Commercial service airports are those that offer scheduled service by major airlines (American, Delta, Continental, Southwest, etc.), national airlines (US Air, etc.), and regional airlines (American Eagle, ASA, etc.) There are 27 primary commercial service airports in the TASP. The TASP does not include any non-primary airports at present.

The requisite for inclusion in the TASP as a primary commercial service airport is that the airport recorded at least 10,000 annual passenger enplanements in the year 2000. To be included as a non-primary commercial service airport, the airport must have enplaned at least 2,500 but less than 10,000 passengers annually. One airport, Brownwood Regional, had scheduled passenger service in 2000 but enplaned fewer than 2,500 persons. Del Rio International which enplaned more than 2,500 passengers but fewer than 10,000 during 1997 has since lost its service and is therefore not included as a

TASP Commercial Service Airports

TABLE 1
TASP SERVICE LEVEL AND ROLE CLASSIFICATION OF AIRPORTS

SERVICE LEVEL	AIRPORT ROLE	NUMBER IN TASP*	ATTRIBUTES	DESIGN STANDARDS**
Primary Commercial Service	Transport	27	Supports scheduled passenger service by large and medium transport aircraft; enplanes at least 10,000 passengers annually.	Transport; precision instrument approach
Non-Primary Commercial Service	Transport	0	Supports scheduled passenger service by smaller transport aircraft; enplanes fewer than 10,000 but more than 2,500 passengers annually.	Transport; precision instrument approach
Reliever	Transport or General Utility	23	Relieves congestion at metropolitan commercial service airports by providing alternative facilities for general aviation use.	Transport or General Utility; non-precision instrument approach.***
General Aviation	Transport	59	Provides community access by business jets.	Transport; non-precision instrument approach.***
General Aviation	General Utility	125	Provides community access by single and light twin-engine aircraft, and a limited number of business jets.	General Utility Stage I or II; non-precision instrument approach.
General Aviation	Basic Utility	66	Provides air access for communities less than 1/2 hour drive from Commercial, Reliever, Transport, or General Utility airports; and/or supports essential but low level activity.	Basic Utility Stage I or II; visual approach.
General Aviation	Heliport	3	Accommodates helicopters used by individuals, corporations, and helicopter air taxi services. Scheduled passenger service may be available if sufficient demand exists.	NA

* Includes airports currently meeting standards plus those proposed to be upgraded or constructed to those standards in the next 20 years.
** See Table 8 for a discussion of design standards.
*** In some cases, a precision approach may be justified depending on the volume and type of activity.
Source: Texas Department of Transportation, Aviation Division, 2001.

non-primary service airport in this document. Similarly, Fort Worth Meacham International enplaned more than 10,000 passengers in 1997, but has since lost its service and is no longer considered a primary commercial service airport. All of the commercial service airports provide access by business jets and commercial jet transport aircraft.

The primary commercial service airports are identified in Table 2. Other airports with commercial service, but fewer than 10,000 enplanements are shown in Table 3. In addition, several airports that have had commercial service in the recent past or that have the potential to support commercial service are identified in Table 4.

Reliever Airports

Reliever airports have a special designation in the TASP. They are located within the state's major metropolitan areas and provide alternative airport facilities for general aviation users who might otherwise use the larger commercial service airports. There are 21 existing and two proposed airports currently in the plan, which are identified in Table 5.

The proposed Greater Austin airport replaces Austin Executive, which was closed in 1999, and the Waller County airport recognizes the need for new access and additional capacity west of Houston and east of Sealy. In addition, Georgetown Municipal Airport has been designated by the FAA as a reliever since the last publication of this document.

TASP Reliever Airports

TABLE 2
PRIMARY COMMERCIAL SERVICE AIRPORTS

ASSOCIATED CITY	AIRPORT NAME
Abilene	Abilene Regional
Amarillo	Amarillo International
Austin	Austin - Bergstrom International
Beaumont - Port Arthur	Jefferson County
Brownsville	Brownsville/South Padre Island International
College Station	Easterwood Field
Corpus Christi	Corpus Christi International
Dallas	Love Field
Dallas - Fort Worth	Dallas - Fort Worth International
El Paso	El Paso International
Harlingen	Rio Grande Valley International
Houston	Ellington Field
Houston	William P. Hobby
Houston	George Bush Intercontinental
Killeen*	Killeen Municipal
Laredo	Laredo International
Longview	Gregg County
Lubbock	Lubbock International
McAllen	McAllen Miller International
Midland	Midland International
San Angelo	Mathis Field
San Antonio	San Antonio International
Texarkana	Texarkana Regional
Tyler	Tyler Pounds Field
Victoria	Victoria Regional
Waco	Waco Regional
Wichita Falls	Sheppard AFB/Wichita Falls Municipal

* Robert Gray Army Air Base will replace Killeen Municipal Airport in 2004.
Source: Texas Department of Transportation, Aviation Division, 2001.

TABLE 3
TASP AIRPORTS WITH SCHEDULED COMMERCIAL SERVICE

ASSOCIATED CITY	AIRPORT NAME
Brownwood	Brownwood Regional

Source: Texas Department of Transportation, Aviation Division, 2001.

TABLE 4
POTENTIAL SCHEDULED COMMERCIAL SERVICE AIRPORTS

ASSOCIATED CITY	AIRPORT NAME
Alpine *	Alpine - Casparis Municipal
Del Rio *	Del Rio International
Fort Worth *	Meacham International
Galveston	Galveston Municipal
Lufkin/Nacogdoches *	Angelina County/A.L. Mangham Jr. Regional
Paris	Cox Field
Sherman/Denison	Grayson County
Temple	Draughon - Miller Central Texas Regional

* These airports supported commercial service for a limited time during the 1994-1998 planning period.
Source: Texas Department of Transportation, Aviation Division, 2001.

TABLE 5
RELIEVER AIRPORTS

ASSOCIATED METROPOLITAN AREA	AIRPORT NAME
Austin	Georgetown Municipal
	Greater Austin (proposed)
	San Marcos Municipal *
Dallas-Fort Worth	Arlington Municipal
	Addison Municipal
	Denton Municipal
	Mesquite Metro
	Grand Prairie Municipal
	Lancaster Municipal
	McKinney Municipal
	Redbird
	Fort Worth Alliance
	Fort Worth Meacham International
	Fort Worth Spinks
Houston	Brazoria County
	David Wayne Hooks Memorial
	La Porte Municipal
	Clover Field
	Montgomery County
	Sugar Land Municipal
	West Houston
	Waller County (proposed)
San Antonio	Stinson Municipal

* San Marcos Municipal is a designated Reliever for both Austin and San Antonio.
Source: Texas Department of Transportation, Aviation Division, 2001.

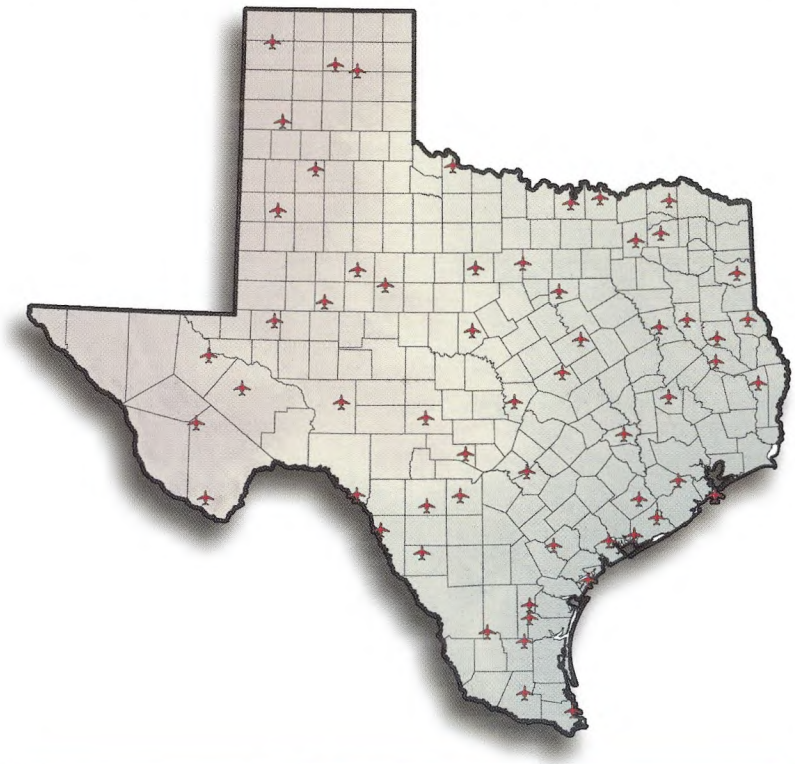
Reliever airports may be designed to accommodate business jet aircraft or only smaller piston aircraft. In either case, their importance to the system is that they increase the capacity of the commercial service airports by diverting general aviation activity away from larger airports. Since 1982, the FAA has placed emphasis on the development of reliever airports as a way to increase the national system capacity. This update of the TASP continues to reflect that emphasis.

General Aviation Airports

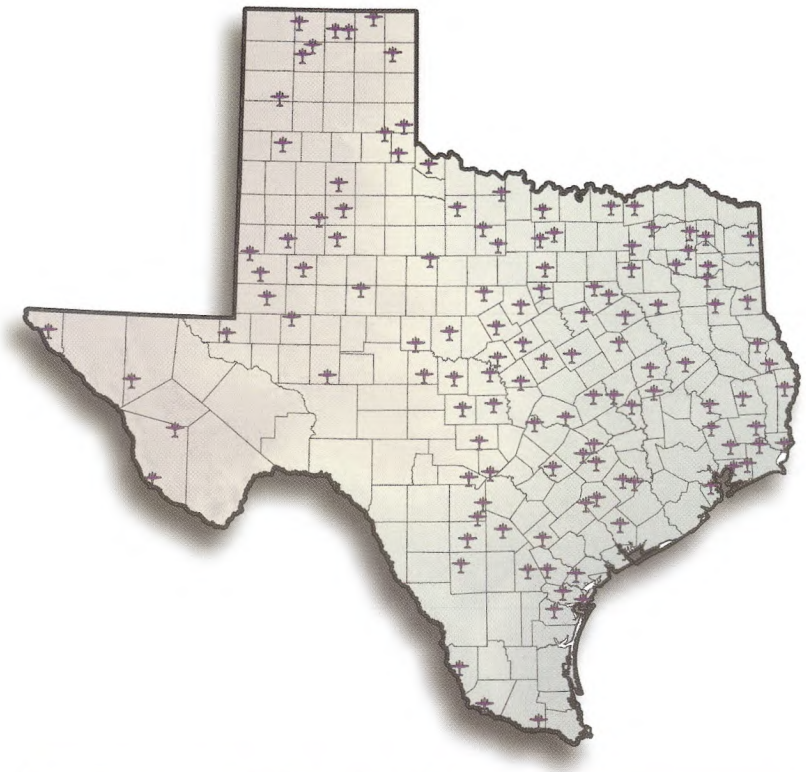
General aviation consists of all flying that is not scheduled commercial service or military. The airports that serve this segment of aviation represent the majority of the facilities included in the TASP. They are also at the heart of meeting the plan's goal of providing air access to widely dispersed economic activity centers of the state.

All the airports in the TASP are classified according to the role they perform in providing essential access. In a previous TASP, the general aviation airports were classified as Business Service, Community Service, or Basic Service depending on their function. As of the 1994 update, the role designations of Business, Community, and Basic Service were replaced by Transport, General Utility, and Basic Utility to be more consistent with FAA design standards and were applied to the commercial service and reliever service levels as well. The following is a description of the role classifications.

Transport airports provide access to turboprop and turbojet business aircraft and are located where there is sufficient



TASP Transport Airports



TASP General Utility Airports

population or economic activity to support a moderate to high level of business jet activity and/or to provide capacity in metropolitan areas. There are 59 general aviation transport airports in the TASP.

Service areas containing a population of about 10,000 and generating approximately $100 million annually in agricultural production, mineral production, or family purchasing power will frequently attract economic activity requiring business jets. However, at least 500 annual business jet operations are normally necessary to support the facilities associated with a transport airport.

General Utility airports provide primary business access to smaller communities throughout the state, capacity in many of the metropolitan areas, access to the state's agricultural and mineral production, and access to important recreational resources.

All general utility airports will accommodate single and light twin piston-engine aircraft. Sufficient activity exists at many of these locations to justify maintenance or upgrading to standards for turboprop and business jet use.

There are 125 general utility airports included in the TASP. Eight new airports are planned, as shown in Table 6. Six of the new airports will provide access to communities not presently served by air. Two of the new facilities are intended as replacements for existing airports that will be unable to fulfill their roles in their present locations. As is the case with transport airports, some reliever airports

TABLE 6
NEW SYSTEM AIRPORTS

SERVICE LEVEL	AIRPORT	TIME PERIOD	PURPOSE
Commercial	Robert Gray AAB	0 - 5	Replacement
Reliever	Waller County	0 - 5	Capacity
	Greater Austin	0 - 5	Capacity
General Aviation	Bandera County	6 - 10	New Access
	Boerne - Kendall County	6 - 10	New Access
	Buffalo - Centerville	6 - 10	New Access
	Eden - Concho County	0 - 5	New Access
	Mills County	6 - 10	New Access
	Stratford	0 - 5	Replacement
	Sunray	0 - 5	Replacement
	Weatherford - Parker County	0 - 5	New Access
	Houston CBD Heliport	0 - 5	Replacement

Source: Texas Department of Transportation, Aviation Division, 2001.

TASP Basic Utility Airports

perform a general utility role as well as their reliever function.

Basic Utility airports are located within the service area of a commercial service, reliever, general aviation transport, or general utility airport, and have very low use, or both. These airports provide additional convenience for clear weather flying and training operations. Some represent the only public landing site for many miles. Many cannot be expanded to meet the size and instrument approach standards to support business access.

There are 66 basic utility airports included in the TASP. No new basic utility facilities are planned.

General Aviation Heliports

General aviation heliports accommodate helicopters used by individuals, corporations, and helicopter taxi services. Scheduled passenger service may be available if sufficient demand exists. There are three general aviation heliports included in the TASP, two currently exist and one is planned.

Airport Functional Categories

In addition to service level and role, the airports in the TASP have been further subdivided into functional categories related specifically to the airport's use or expected use. The following is a description of the nine functional

The terminal parking apron at Fort Worth Meacham International Airport.

categories. Table 7 provides a summary of the TASP airports by functional category.

The role of the airport influences the design and the type of aircraft it can accommodate. Similarly, the main functional use of the airport further determines what features must be in place to meet the needs of the users and the community. An airport is designated a specific function whenever its primary use is at least 60% of its total operations.

There are nine functional categories used to define airport features at general aviation airports.

Commercial

These airports are publicly owned with scheduled passenger service boardings exceeding 2,500 passengers.

Reliever

These airports are designated by the FAA to relieve congestion at large commercial service airports and increase access to general aviation in the community.

Regional

These airports are designed to support higher performance aircraft than the surrounding smaller general aviation facilities in the area and are the focal point of aviation activity for a region or the largest population center. These facilities may experience commuter or charter service periodically. The airside facilities should provide the best technology possible for weather, approach minimums, and approach aids.

Multipurpose

The operations at these airports are diversified and are not dominated by any one type of activity. The general criteria used for the airport roles are adequate for planning purposes; however, special features may still be required to meet the needs of specific users.

Industrial

This functional category describes the type of businesses associated with the airport, particularly those that are aviation-related. The itinerant traffic is specifically there to conduct business with a tenant or industry based at the airport. These visitors may not have a need for access or direct business within the community; however, their transactions support the economy and tax revenue base of that community. The need for a terminal or meeting facility would possibly be based on the total operations not associated with the industrial activity.

Special Use

This functional category includes airports that are used on a seasonal basis primarily for tourism, hunting or other recreational purposes. Many of these rural airports are located near significant parks,

TABLE 7
SUMMARY OF TASP AIRPORTS BY FUNCTIONAL CATEGORY

	ROLE			
FUNCTIONAL CATEGORY	TRANSPORT	GENERAL UTILITY	BASIC UTILITY	TOTAL
COMMERCIAL	27			27
RELIEVER	19	4		23
REGIONAL	37	5		42
MULTIPURPOSE	14	104	24	142
INDUSTRIAL	5			5
AGRICULTURAL		10	10	20
SPECIAL	3	2	4	9
REMOTE	1	1	4	6
ACCESS		2	24	26
TOTAL	**104**	**130**	**67**	**300**

Source: Texas Department of Transportation, Aviation Division, 2001.

lakes, or provide access to various types of hunting. The operations at these sites are typically small; however, they provide a significant contribution to the local economy.

An aerial application aircraft is loaded with fertilizer.

Agricultural

This functional category includes airports that serve areas of intense agricultural production. Agricultural spraying services are required to support production capability within many small communities; therefore, many of the design standards of these general aviation airports are specifically related to the needs of agricultural operators.

Terminal facilities and runway lights may not be necessary. Agricultural activities may occur at a variety of facilities and the special needs of this type of activity, including use of chemicals and traffic patterns, may require additional features for safe operations. Additional roads may be necessary to provide access for chemical trucks and to prevent trucks from operating on the aircraft apron. Segregated agricultural aprons may need to be constructed.

Remote

This functional category includes airports serving remote areas. Many rural communities are separated by more than 100 or more miles from even other rural populations. This is frequently true in west and south Texas. Many typical rural activities such as ranching and oil production require access to these communities by air. In addition, emergency access by air is essential to remote communities.

A truck awaits hunters on the parking apron at a special use airport.

Access

This functional category includes airports that provide minimal service to the community and, as a result, are not likely to receive

Aviation plays a crucial role in saving lives.

funds to replace the facility. They are eligible to receive minimal funding for preservation.

Airport Design Standards

Within each role classification of airports, the TASP identifies a range of design standards to accommodate the types of aircraft that will use the facility. TASP airport design standards are adapted from the Advisory Circulars published by the FAA covering utility and transport airports and instrument approaches.

An airport's role classification is based on the type of service it is expected to provide, as described in the preceding section. The airport design standard is then determined by the type of aircraft using or forecast to use the facility. TASP airport design standards are listed in Table 8.

Primary commercial service airport are designed to serve the larger jet transport aircraft used by the scheduled commercial service airlines, especially those operating aircraft with 60 or more seats (Part 121 certificate). Non-primary commercial service airports, depending on the airport, might be developed to accommodate the smaller jet and turboprop aircraft used by regional carriers, which fly aircraft seating fewer than 60 passengers (Part 135 operations).

Among the general aviation airports, transport facilities, which will accommodate the largest business jets as well as all turboprop aircraft, are to be developed to transport standards. General utility airports are designed to accommodate light twin-engined turboprop aircraft, as well as some of the smaller business jets that can utilize the shorter and narrower runways of general utility and basic utility airports. The largest aircraft served by the basic utility airports is a light twin-engined piston aircraft.

The general utility-stage II design standard shown in Table 8 refers to transport

A passenger checks in at the ticket counter at the Sheppard AFB/Wichita Falls Municipal Airport.

length runways that are limited to general utility widths of 75 feet. These runways are adequate for business jet aircraft but not most large transport aircraft.

There are no design standards, as such, specifically for reliever airports. Reliever airports can be designed as either transport facilities or general utility airports depending on the specific role they play in the TASP.

Aircraft like this Cessna 414 allow businesses to access communities in virtually all parts of the state.

Some TASP airports have been assigned a role classification, although they are not yet developed to the design standard associated with that classification. The TASP identifies the time period (0-5 years, 6-10 years, or 11-20 years) in which the airport should be upgraded to one of the design standards appropriate to its role classification. The phasing of development in the TASP is shown in Table 9. Within the 20-year time frame of the TASP, all airports would ideally attain their planned design standard.

The remainder of this report examines the forecasts of state aviation activity and the cost of the airport improvements identified in the TASP to accommodate that activity. The final section discusses the availability of federal and state financial assistance for airport improvement and the implications these aid programs might have on the eventual implementation of the TASP.

This Learjet is typical of aircraft that would operate at a Transport airport.

TABLE 8
TASP MINIMUM DESIGN STANDARDS

	COMMERCIAL SERVICE		GENERAL AVIATION		
	PRIMARY	NON-PRIMARY	TRANSPORT	GENERAL UTILITY	BASIC UTILITY
AIRPORT DESIGN					
	Transport	Transport	Transport	General Utility-Stage I or II	Basic Utility-Stage I or II
DESIGN AIRCRAFT					
	Heavy transport	Light transport, busines jet	Business jet	Light twin, turboprop, light business jet	Light twin and single piston
MINIMUM LAND REQUIREMENTS					
Landing area		136 acres	136 acres	62 or 40 acres	36 acres
Approach area	As required by hub size	160 acres	160 acres	60 or 50 acres	50 acres
Building area		24 acres	24 acres	24 or 12 acres	12 acres
RUNWAYS					
Length *		5,000'	5,000'	5,000' or 4,000'	3,200'
Width	As required by critical aircraft	100'	100'	75' or 60'	60'
Strength **		30,000 lb.	30,000 lb.	30,000 lb. or 12,500 lb.	12,500 lb.
Lighting ***	HIRL	MIRL	MIRL	MIRL	MIRL
TAXIWAYS					
Type	Full parallel	Full parallel	Full parallel	Full or partial parallel	Full or partial parallel
APPROACH					
Type	Precision	Precision	Precision	Non-precision	Visual
Visibility minimums	200' - 1/2 mile	200' - 1/2 mile	400' - 3/4 mile straight-in	No minimum standard	Not applicable
SERVICES					
	Full range	Full range	Terminal, restrooms, telephone, avgas, Jet A, attended 18 hours	Terminal, restrooms, telephone, avgas, Jet A, attended 16 hours	Telephone

* Runway length is based on sea level and increases at higher altitudes; see AC 150/5300-13 and 150/5325-4.
** Single-wheel landing gear.
*** High (H), Medium (M), and Low (L) Intensity Runway Lighting.
Source: Texas Department of Transportation, Aviation Division, 2001.

TABLE 9
DEVELOPMENT STATUS OF TASP AIRPORTS BY PERIOD

TIME PERIOD	TRANSPORT	DESIGN STANDARD: GENERAL UTILITY - STAGE II	GENERAL UTILITY - STAGE I	BASIC UTILITY - STAGE II	BASIC UTILITY - STAGE I	TOTAL
Primary Commercial Service Airports						
Present	27	0	0	0	0	27
0 - 5 yrs	27	0	0	0	0	27
6 - 10 yrs	27	0	0	0	0	27
11 - 20 yrs	27	0	0	0	0	27
Reliever Airports						
Present	17	0	3	1	0	21
0 - 5 yrs	19	0	4	0	0	23
6 - 10 yrs	19	1	3	0	0	23
11 - 20 yrs	19	1	3	0	0	23
General Aviation - Transport Airports						
Present	35	22	2	0	0	59
0 - 5 yrs	42	16	1	0	0	59
6 - 10 yrs	49	10	0	0	0	59
11 - 20 yrs	59	0	0	0	0	59
General Aviation - General Utility Airports						
Present	0	13	66	30	8	117
0 - 5 yrs	0	25	76	17	3	121
6 - 10 yrs	0	26	84	15	0	125
11 - 20 yrs	0	35	90	0	0	125
General Aviation - Basic Utility Airports						
Present	0	0	1	29	36	66
0 - 5 yrs	0	0	0	40	26	66
6 - 10 yrs	0	0	0	43	23	66
11 - 20 yrs	0	0	0	46	20	66

Source: Texas Department of Transportation, Aviation Division, 2001.

AVIATION ACTIVITY FORECASTS

The TASP is designed to guide the development of the state's airport system through the next two decades. To accomplish this, the future demand for aviation services must be addressed. To some extent, past trends are helpful in pointing in the right direction, although periods of rapid growth or significant decline may unduly influence the trend. Because the development of the state's infrastructure is a long-range endeavor, short-term fluctuations in demand can be discounted in favor of establishing the long-term trend.

The long-term capital improvement needs of the airport system should reflect the future demands of the state's economy. Therefore, it is useful to begin the forecast of aviation demand by examining the outlook for Texas' economic development.

The State Economy

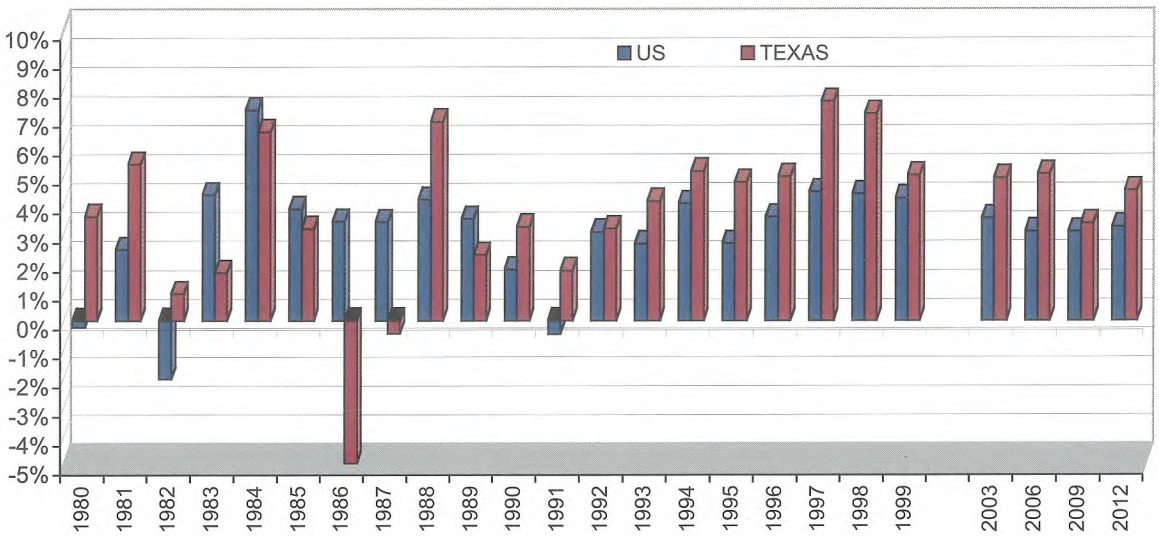
The overall health of the air transportation industry is closely linked to the health of the national economy, and within Texas, to the health of the Texas economy. The first part of this section provides an overview of how the Texas economy has been doing relative to the national economy. Since several of the forecasts provided later in this section are based on Texas' share of a national forecast, it is important to understand if Texas is expected to grow at a rate faster or slower than the nation as a whole.

Figures 1-4 show the fluctuations in the Texas economy during the 1980s and most of the 1990s. Each year, during the period 1990 to 1999, the Texas gross state product (Figure 1) grew at a faster rate than the nation's gross domestic product. The Texas Comptroller of Public Accounts forecasts that Texas will continue to grow at levels slightly higher than the nation as a whole through 2012, with Texas' share of the U.S. economy averaging about 8.2 percent.

Growth rates for Texan's personal income (Figure 2) were also higher than U.S. growth rates for each year during the period 1990 to 1999 and are forecast to continue to grow at rates slightly faster than the nation. Of interest is the fact that while Texas' gross state product is about 8.2 percent of the nation's gross domestic product, Texas' personal income is about 7.5 percent of the nation' personal income. This suggests that average personal income in Texas is below the national average.

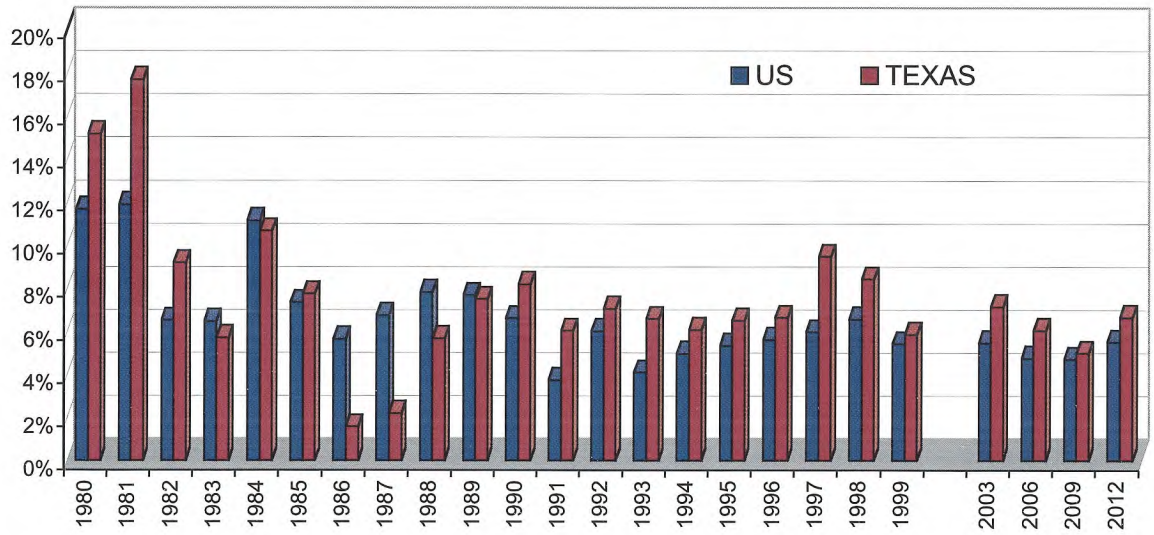
The state's population (Figure 3) grew rapidly during the 1990s and, in some years, approached rates almost twice the rate for the nation. This trend is forecast to continue through 2012. In 1997, the state's population was about 7.2 percent of the U.S. population. By 2012, it is forecast to increase to about 8.0 percent of the nation's population.

FIGURE 1
GROSS STATE/NATIONAL PRODUCT GROWTH RATES



Source: Bureau of Economic Analysis.

FIGURE 2
PERSONAL INCOME GROWTH RATES



Source: Bureau of Economic Analysis.

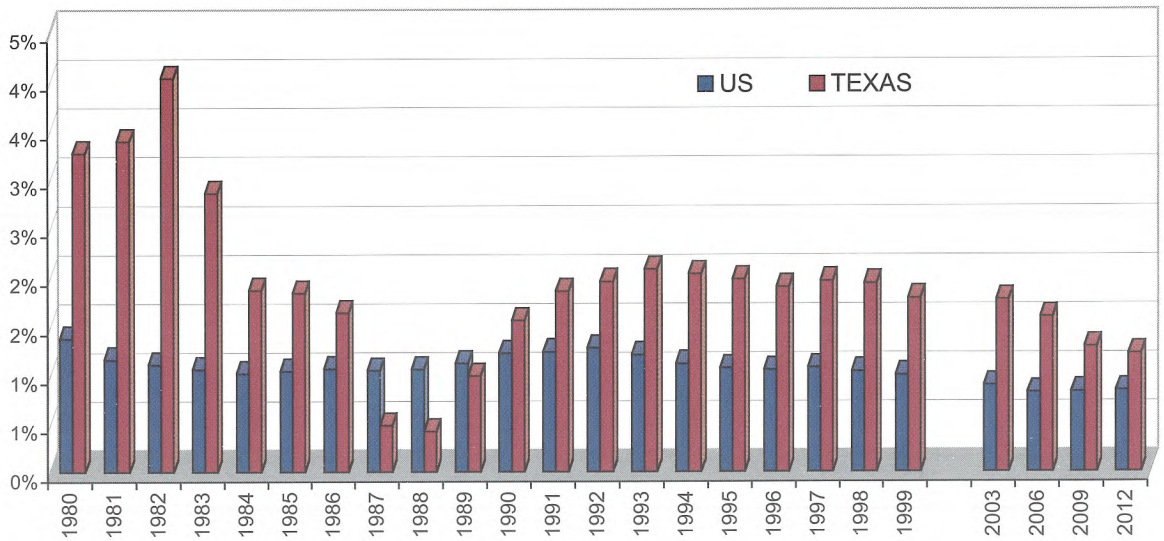
Texas' nonagricultural employment (Figure 4) also increased each year from 1990 to 1999 at a rate faster than the U.S. Texas' nonagricultural employment was about 7.1 percent of U.S. employment in 1999. This is forecast to grow at a faster rate than the remainder of the nation at an average of 7.7 percent through 2012.

The Texas and national economies have demonstrated remarkable growth throughout the 1990s with Texas growing at rates above the rate for the U.S. These trends are forecast to continue for at least the immediate future. Some economists believe that a correction is inevitable but there is no consensus as to when this may occur. The strong state economy from 1990 to 1999 suggests that growth in the air transportation industry would be impressive as well. As will be shown later, this has not been the case. While commercial aviation at some locations has shown impressive growth, it has not grown in other locations. General aviation continues to grow as well with six consecutive years of growth since passage of the General Aviation Revitalization Act in 1994.

The Effect of the Economy on Aviation

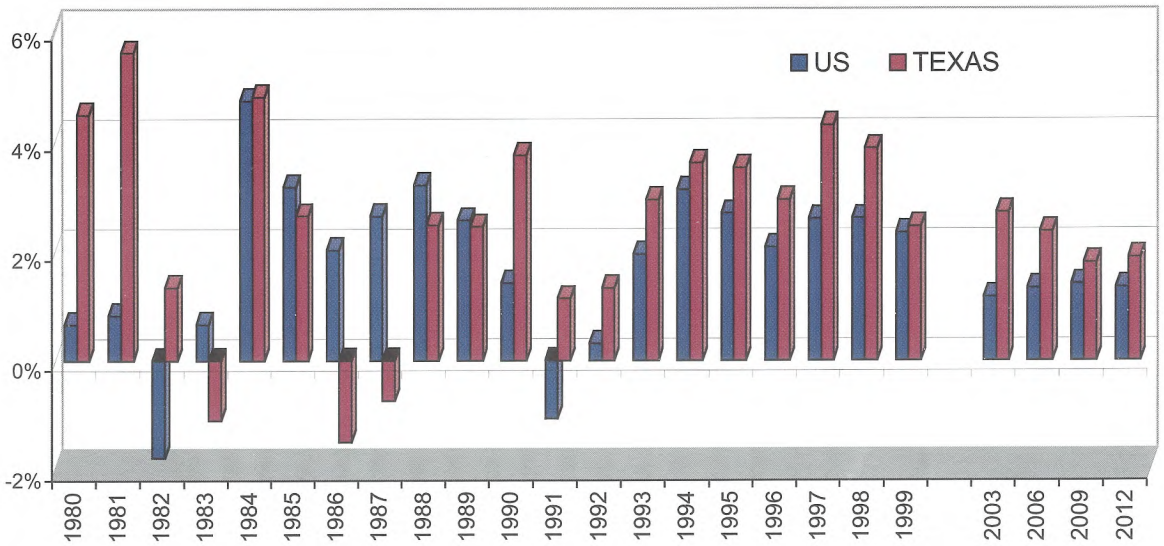
The expansion of both the U.S. and most world economies since 1990 has had a major impact on the demand for commercial aviation services. Figures 5 and 6 show the number of passenger enplanements and Texas' percentage of U.S. enplanements, respectively, at Texas commercial service airports from 1980 to 1999. The number of enplanements has grown yearly except for a slight decrease in 1991 when both domestic and international economic recessions occurred. Texas, with 8.2 percent of the U.S. gross domestic product, 7.5 percent of the personal income, 7.2 percent of the population, and 7.1 percent of the nonagricultural income, has 9.4 percent of the

FIGURE 3
POPULATION GROWTH RATES



Source: Bureau of Economic Analysis. Texas Comptroller of Public Accounts.

FIGURE 4
NON-AGRICULTURAL EMPLOYMENT GROWTH RATES



Source: Bureau of Economic Analysis.

nation's scheduled passenger enplanements. The Texas population has been, and continues to be, an above average user of commercial aviation.

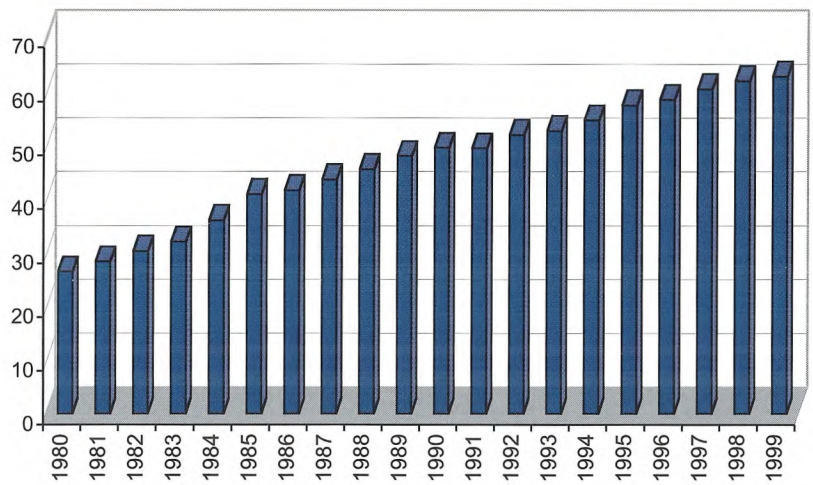
The impact of the U.S. and Texas economies on general aviation has not been as positive. Figure 7 shows that the number of hours flown by general aviation aircraft registered in Texas has gradually decreased since 1980 although a rising trend is beginning to appear. This decrease is also true for the entire nation. Texas' share of the U.S. general aviation hours flown has generally declined since 1980 as shown in Figure 8; however, with a share of U.S. hours of about 8.7 percent, Texans' usage of general aviation is higher than its 7.2 percent share of the U.S. population.

Another activity indicator is the trend in general aviation aircraft sales (Figures 9 and 10). Sales of turboprop and turbojet aircraft ended their general downward trend in 1992 and sales have increased since that time. These are the types of aircraft used primarily by corporations. Sales of single-engine and multi-engine piston-powered aircraft declined from 1980 to 1994. These are the types of aircraft typically owned by small businesses and by individuals.

In 1995, the sale of piston-powered aircraft began to increase. Many in the general aviation industry believe that a turnaround is now underway. This is discussed in detail later in this section. However, most analysts believe that a significant increase in the number of piston-powered aircraft is not likely to occur before 2010.

Historically, there has been a strong relationship between the economy and the demand for aviation services. Business today is conducted over great distances. Markets are nationwide and, increasingly, worldwide. Electronic communication and air transportation permit the decentralization of management. Many service and manufacturing

FIGURE 5
TEXAS AIR CARRIER ENPLANEMENTS (MILLIONS)



Source: FAA APO Terminal Area Forecast Summary Report.

activities are now located great distances from the corporate offices. Manufacturing is no longer clustered in the industrial cities of the East and Midwest. Overnight small package air service is available to most addresses in the U.S.

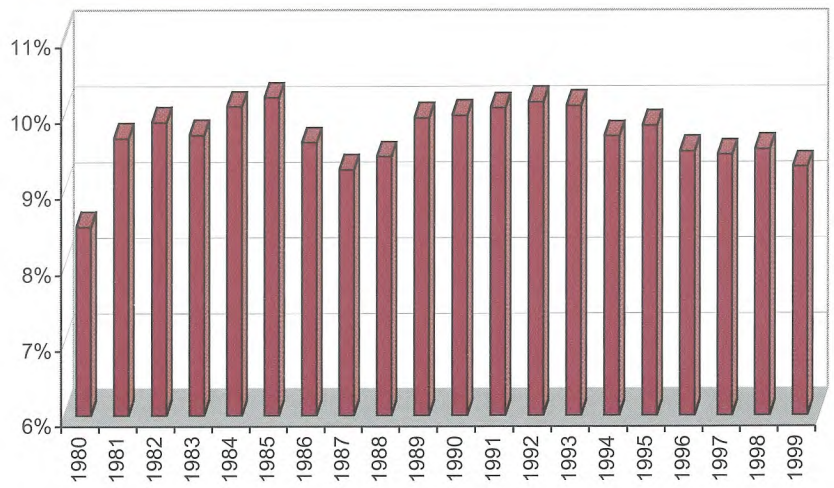
Texas' larger cities are well served by both commercial and general aviation. Texas residents make frequent use of commercial service for intrastate and interstate travel. According to the Air Transport Association (ATA), the Houston-Dallas/Ft. Worth market continues to be one of the most heavily traveled airline route segments in the nation ranking 12th among domestic airline markets in the year 2000.

Many Texas cities once served by turbojet aircraft operated by national carriers are now served by regional carriers operating turboprop aircraft connecting these cities to the major hub airports in Dallas/Fort Worth and Houston. In 1999, the new regional jet aircraft began operating on some of these routes replacing turboprop aircraft. The regional airlines expect these newer aircraft to stimulate demand in many of these markets.

To many people, air transportation means service only by commercial carriers. The primary focus of the TASP, however, is on access by air to all parts of Texas. Most cities will not attract commercial air service due to the limited market they represent. Nonetheless, these same cities are choice locations for new business development and expansion of existing businesses. Since businesses are increasingly dependent on air access, it is the TASP's goal for as many Texas economic centers as feasible to be accessible by the turbojet aircraft operated by businesses.

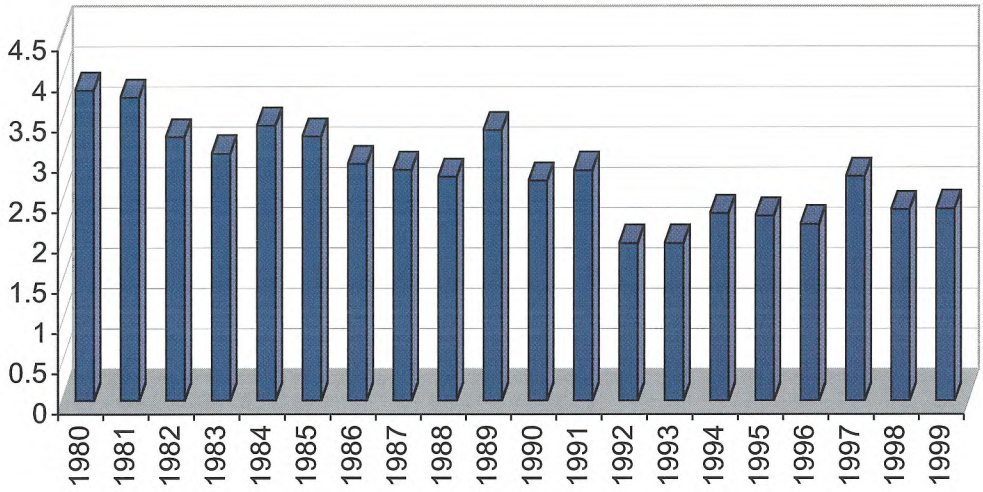
Those communities not expected to attract scheduled commercial service or business turbojet aircraft can benefit from air access by single-engine and multi-engine piston-powered and turboprop general

FIGURE 6
TEXAS AIR CARRIER ENPLANEMENTS (PERCENTAGE OF U.S.)



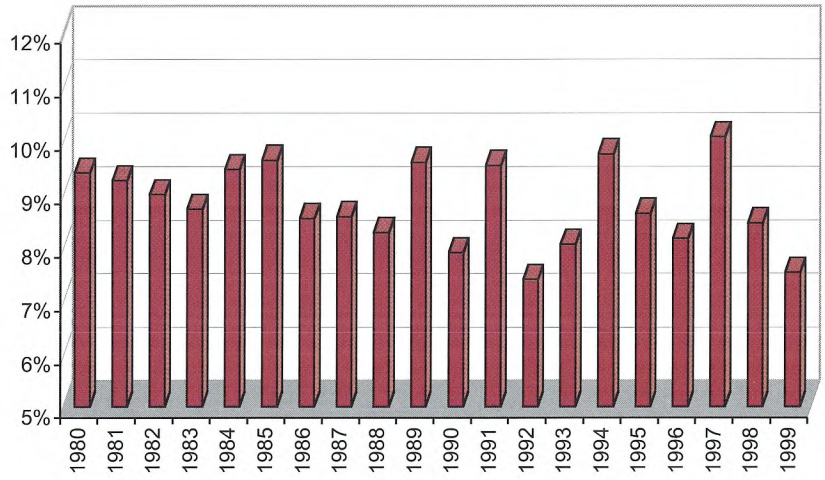
Source: FAA APO Terminal Area Forecast Summary Report.

FIGURE 7
TEXAS GENERAL AVIATION HOURS FLOWN (MILLIONS)



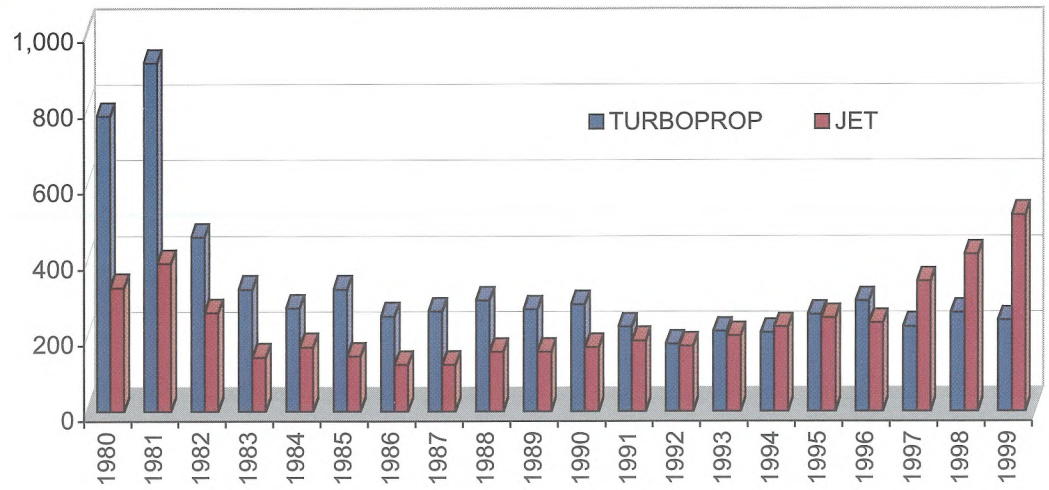
Source: FAA Statistical Handbook of Aviation

FIGURE 8
TEXAS GENERAL AVIATION HOURS FLOWN (PERCENTAGE OF U.S.)



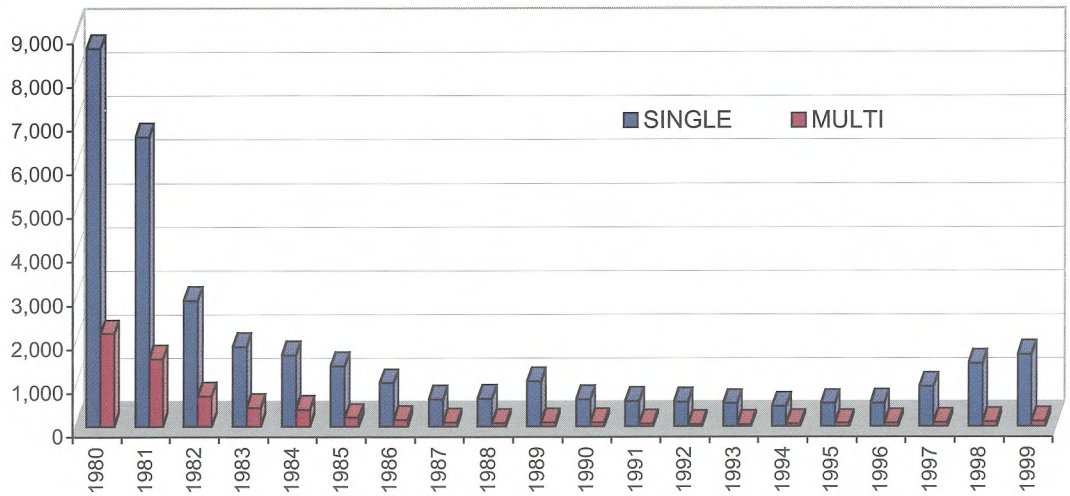
Source: FAA Statistical Handbook of Aviation

FIGURE 9
U.S. SHIPMENTS OF GENERAL AVIATION TURBINE-POWERED AIRCRAFT



Source: FAA Statistical Handbook of Aviation

FIGURE 10
U.S. SHIPMENTS OF GENERAL AVIATION PISTON-POWERED AIRCRAFT



Source: FAA Statistical Handbook of Aviation

aviation aircraft. Access by these types of aircraft is important for agriculture, oil and gas exploration and production, banking, real estate development, and many other economic activities.

Texas has made great strides in diversifying its economy by adding many manufacturing and service industries that complement its traditional natural resource and agriculture economic base. To remain competitive, Texas must offer services and facilities comparable to those available in competing locations in other states and nations. An airport is one of the facilities that businesses consider in determining sites for development or relocation. Continued development of the Texas airport system is an important element in the future growth of the state's economy.

Emerging and advanced technology is frequently used today to manage the growing amount of traffic in the air transportation system.

Aviation Activity Forecasts

The two dominant trends in aviation activity over the next 10 years are for a continued strong growth in commercial aviation and renewed but slow growth in general aviation. The TASP aviation activity forecasts are based primarily on the FAA "Aerospace Forecasts, Fiscal Year 2001-2012." As discussed earlier, the Texas economy is expected to grow at a rate above the U.S. growth rate. Similarly, Texas aviation activity growth rates are expected to grow at somewhat higher rates than the average growth rates for the nation.

The TASP forecasts were prepared using a top-down methodology where national activity forecasts are allocated to the state. The allocation of activity is based on the historical ratio of state-to-national activity and the trend that relationship has taken in recent years.

Forecast Summary

The forecast summaries for commercial passenger and general aviation activity are shown in Figures 11-16. The details are discussed separately in the following sections.

Commercial Service

The commercial aviation industry recorded five years of strong traffic growth from 1994 to 1999. Following the enactment of the Airline Deregulation Act of 1978, a number of structural and operational changes occurred in the commercial aviation industry. Deregulation led to competitive pricing in most markets and resulted in lower fares. Fuel price declines allowed airlines to stabilize fare structures and reduce prices. The strong national and state

economy has stimulated demand for business and leisure travel.

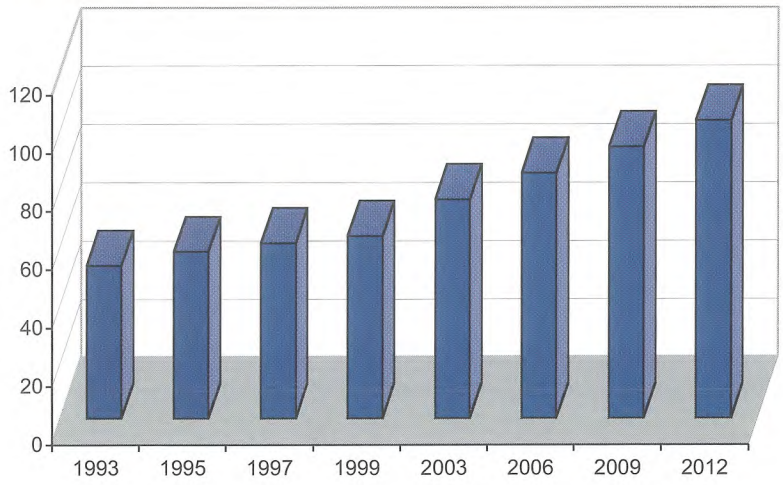
The strong growth in commercial aviation resulted in an increasingly heavy demand on the nation's airway system. Although experienced mostly at the major hub airports, delays have become more common throughout the nation's commercial airports.

The number of enplanements at Texas' commercial service airports (Table 10) increased 27 percent between 1990 and 1999. During the same period, enplanements nationwide increased 36 percent. The reasons for the slower growth rate in Texas are complex. Changes in service patterns, the substitution of turboprop aircraft in markets previously served by turbojet aircraft, and the substitution of regional airline service for national airline service have contributed to a decline in passenger traffic in some markets. Other contributing factors to this decline include changes in fare structures, improvements in the speed and quality of intercity highway transportation, and improvements in the safety, reliability, and comfort of personal use vehicles.

The airports serving the cities of Abilene, Amarillo, Beaumont, Brownsville, Corpus Christi, El Paso, Harlingen, Houston (Ellington Field), Laredo, Longview, Midland, San Angelo, Texarkana, Tyler, and Wichita Falls all had fewer enplanements in 1999 than in 1993. Considering the strong growth in the Texas economy during this period, this decline in passenger enplanements is noteworthy. In 1999, studies were initiated to explore opportunities to increase the quality of scheduled air passenger service in many of these communities.

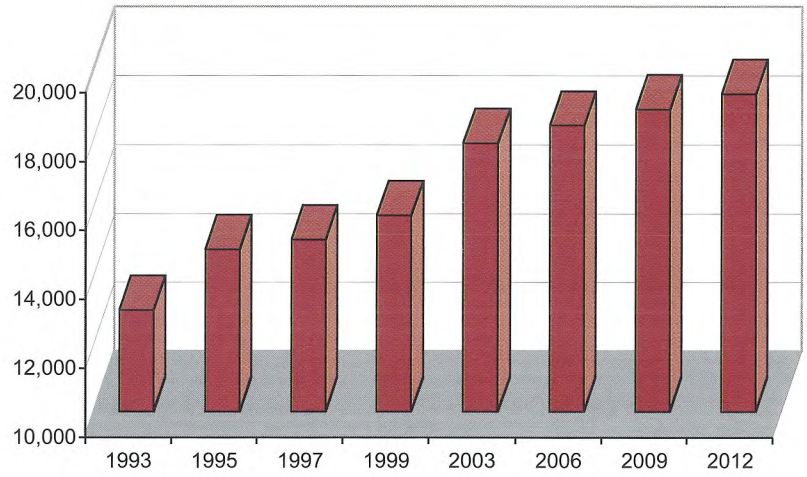
As the state's economy continues to grow, the number of enplanements at commercial service airports in Texas is forecast to

FIGURE 11
TEXAS PASSENGER ENPLANEMENTS (MILLIONS)



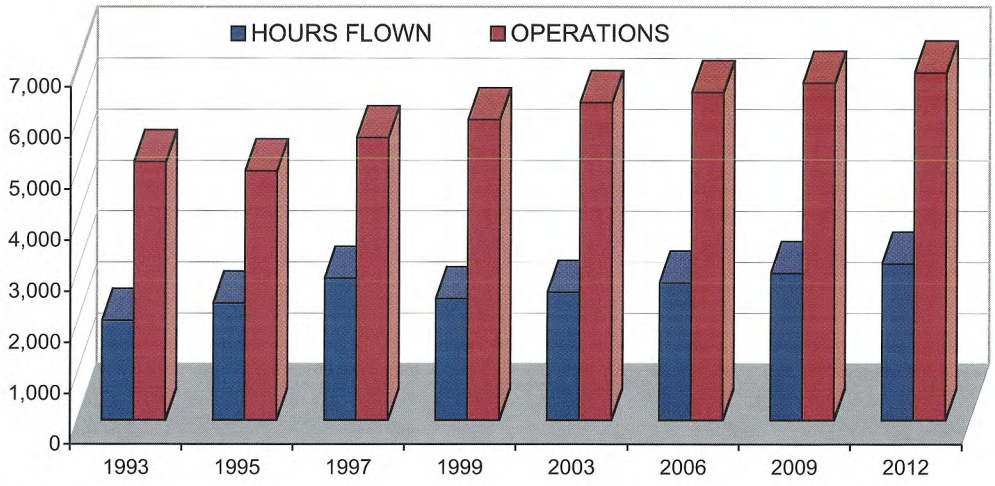
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 12
TEXAS GENERAL AVIATION ACTIVE AIRCRAFT



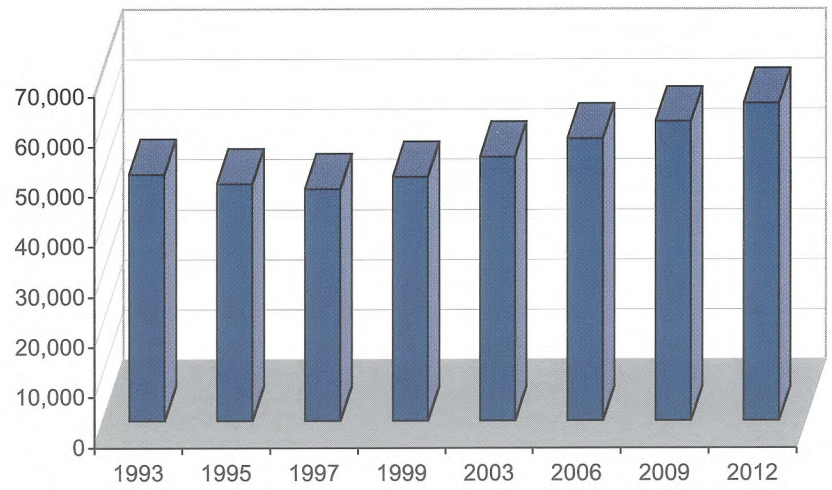
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 13
TEXAS GENERAL AVIATION ACTIVITY (THOUSANDS)



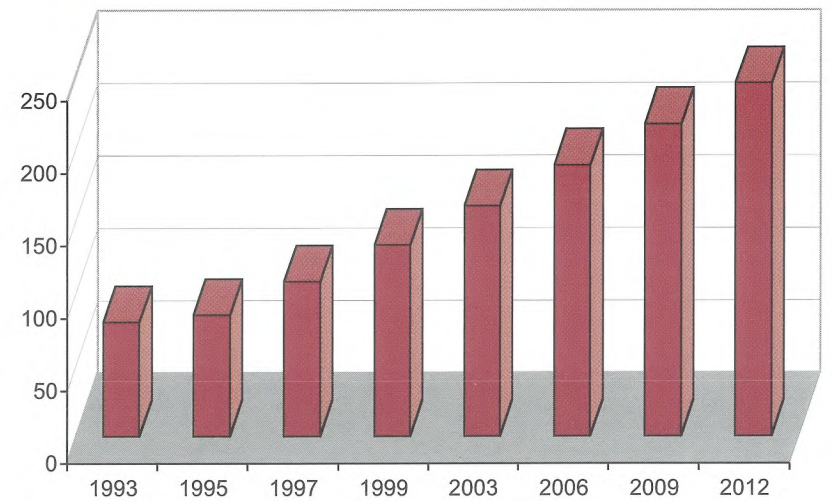
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 14
TEXAS PILOTS



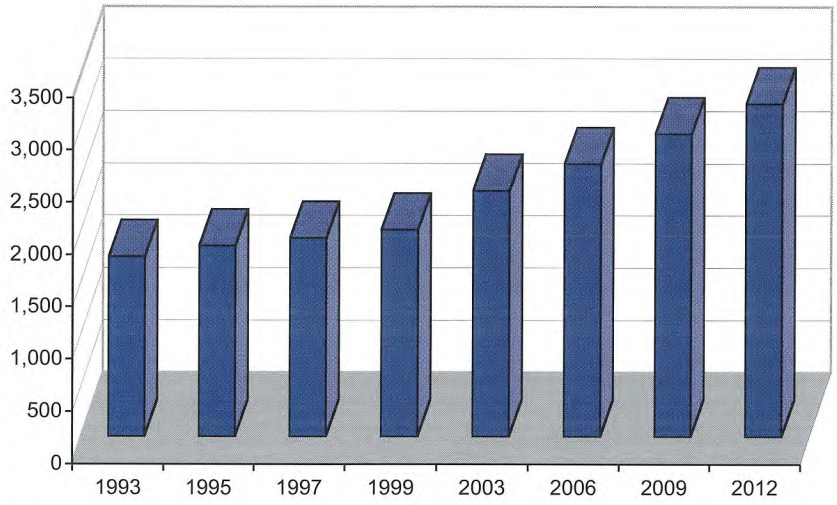
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 15
TEXAS GENERAL AVIATION FUEL CONSUMPTION (MILLIONS OF GALLONS)



Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 16
TEXAS COMMERCIAL AVIATION FUEL CONSUMPTION (MILLIONS OF GALLONS)



Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

increase at an average annual rate of about 4.0 percent for the next decade. This follows the expected national average growth rate. Enplanement forecasts at Texas airports that currently have scheduled service are shown in Table 10.

The FAA enplanement forecast shows that most of the increased enplanements will occur at the seven busiest airports. These airports are: Dallas/Fort Worth International (DFW), George Bush Intercontinental in Houston, Houston Hobby, Dallas Love, San Antonio International, El Paso International, and Austin-Bergstrom International Airport. According to the Air Transport Association (ATA), DFW ranked as the fourth busiest domestic airport in passenger enplanements and George Bush Intercontinental ranked as the 13th busiest in 1999.

The DFW airport is the major commercial service airport in Texas and the south central U.S. In 1999, DFW accounted for almost half the state's annual enplanements. As the principal hub for American Airlines and a major hub for Delta Airlines, capacity at DFW and within the Dallas/Fort Worth metropolitan area will continue to be a concern throughout the planning period. The recently opened Austin-Bergstrom International Airport will enplane almost 6,000,000 passengers by 2010.

General Aviation Forecast

The general aviation industry sustained its recovery by registering its sixth consecutive increase in aircraft shipments in 2000. The turnaround in the industry is generally attributed to the passage of the General Aviation Revitalization Act in 1994 that sought to revitalize the industry decline that began in the mid-1980s. Texas' share of the nation's active general aviation fleet

TABLE 10

FORECAST OF DOMESTIC AND INTERNATIONAL PASSENGER ENPLANEMENTS AT TEXAS COMMERCIAL SERVICE AIRPORTS

Airport	1993	1995	1997	1999	2003	2006	2009	2012
Abilene	66,287	67,631	53,826	48,624	52,902	56,110	59,319	62,527
Amarillo	444,943	465,713	458,096	435,809	462,290	482,150	502,011	521,872
Austin	2,262,970	2,652,309	2,939,854	3,235,560	4,088,058	4,635,027	5,181,995	5,728,964
Beaumont	115,457	112,033	111,494	101,300	108,088	113,180	118,271	123,363
Brownsville	3,821	78,749	78,760	71,333	81,086	88,402	95,717	103,032
College Station	86,512	85,281	91,560	92,988	110,907	124,347	137,787	151,227
Corpus Christi	481,805	507,839	477,686	452,686	511,038	554,802	598,567	642,331
Dallas Love	3,116,776	3,418,261	3,481,830	3,415,726	4,342,398	4,854,487	5,254,962	5,655,438
Dallas/Ft. Worth	25,298,664	26,947,281	28,145,193	28,074,665	33,723,611	38,036,399	42,349,188	46,661,976
El Paso	1,753,169	1,861,059	1,675,241	1,663,004	1,865,780	2,017,863	2,169,945	2,322,028
Harlingen	533,975	500,336	466,188	463,658	534,854	588,251	641,648	695,046
Houston Ellington Field	55,547	47,105	50,671	48,048	48,048	48,048	48,048	48,048
Houston Hobby	4,066,754	3,925,461	3,954,076	4,222,752	4,679,739	4,998,749	5,317,760	5,636,770
George Bush Intercontinental	9,504,540	11,494,226	12,912,612	14,996,958	18,504,135	21,062,292	23,620,451	26,178,608
Killeen	50,955	56,979	84,176	86,868	95,912	102,696	109,479	116,263
Laredo	92,110	64,198	61,728	88,735	104,399	116,148	127,898	139,647
Longview	39,775	33,891	26,565	28,888	32,029	34,384	36,740	39,096
Lubbock	596,488	594,641	600,335	565,067	604,057	633,300	662,543	691,786
McAllen	257,028	328,835	314,948	307,555	342,193	368,171	394,150	420,128
Midland	544,277	563,308	529,700	482,624	506,654	524,679	542,704	560,729
San Angelo	51,342	52,920	42,021	40,400	40,400	40,400	40,400	40,400
San Antonio	2,804,188	3,066,256	3,361,170	3,384,107	3,980,343	4,427,522	4,874,700	5,321,879
Texarkana	43,932	43,545	35,592	40,425	40,425	40,425	40,425	40,425
Tyler	74,840	74,993	70,248	73,884	84,596	92,630	100,664	108,698
Victoria	19,248	18,686	20,519	20,766	22,590	23,958	25,326	26,694
Waco	51,378	59,974	57,404	61,830	68,985	74,352	79,718	85,085
Wichita Falls	61,271	62,078	54,985	54,344	54,344	54,344	54,344	54,344
Total	**52,478,052**	**57,183,588**	**60,156,478**	**62,558,604**	**75,089,861**	**84,193,116**	**93,184,760**	**102,176,404**

Source: FAA APO Terminal Area Forecast Summary Report, 2001

began to decline in the mid-1980s, but began to increase in 1994 as shown in Figure 17. Strong growth in aircraft shipments from 1994 to 2000 and the increase in student pilots provide optimism for the future of the general aviation industry.

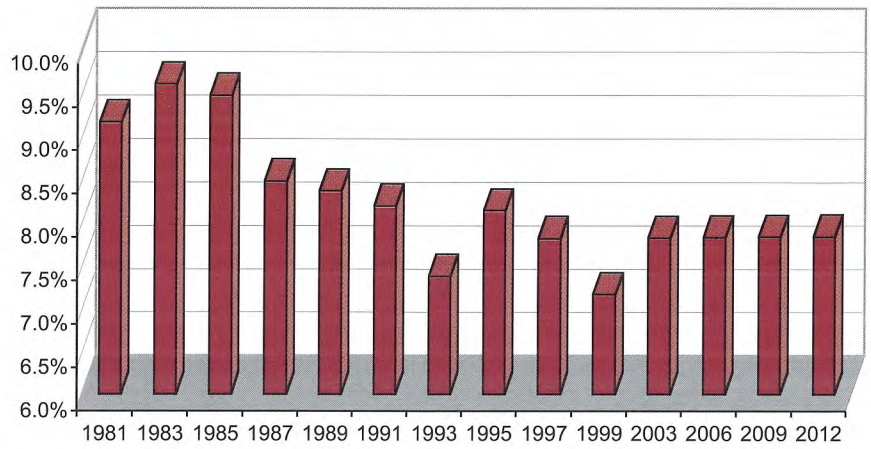
In 1994, the general aviation aircraft manufacturing industry shipped only 928 aircraft—one of the lowest numbers in general aviation history. In 1998, the industry shipped 2,220 units and in 1999, 2,504 units. This was the first time since 1985 that total shipments exceeded 2,000 units. (In the first six months of 1999, 1,082 units worth $3.5 billion were shipped.) Although it is difficult to predict long-range trends based on four years of data, there is clearly reason for optimism.

Sales of single-engine piston-powered aircraft are again growing and manufacturers are introducing some totally new models. In 1999, 1,634 single-engine piston-powered aircraft were shipped compared to only 444 in 1994, the lowest year. In 1998, Cessna manufactured half of the single-engine piston-powered aircraft followed by New Piper with 239 units, Mooney with 93 units, and Raytheon with 93 units. In 1998, 98 twin-engine piston-powered aircraft were shipped compared to 39 in 1993, the lowest year. The twin-engine piston-powered aircraft sales are about evenly divided between Raytheon and New Piper.

In 1998, 271 twin-engine turboprop aircraft were shipped with the Raytheon Beech King Air and the Cessna Caravan accounting for almost all of the sales.

In 1998, 415 turbojet aircraft were shipped. Turbojets weighing less than 30,000 pounds constituted 85 percent of the units shipped. Cessna Citation models were the most popular jets in this class followed by Raytheon's Hawker and the Beechjet. In the over 30,000 pound class,

FIGURE 17
TEXAS SHARE OF U.S. GENERAL AVIATION AIRCRAFT



Source: FAA Statistical Handbook of Aviation. Texas Transportation Institute TASP Forecasts, 2001.

The new Cirrus SR20.

Gulfstream models were the most popular jets. In 1998, new jets were introduced by Cessna— the Citation Excel, by Learjet—the Lear Model 45, and by Boeing—the Boeing Business Jet.

Innovations and technology advances are stimulating demand for new aircraft. Raytheon began deliveries of its Premier I, an entry-level jet with composite fuselage and metal wings, in 1999, and began deliveries of the new Hawker-Horizon in 2001. Cessna has announced four new Citation models, the Citation CJ1, the Citation CJ2, the Citation Sovereign, and the Citation Ultra Encore. Deliveries of the new Mooney Eagle began in 1999. New Piper began deliveries of the new turboprop, Malibu Meridian, in 2000. In 1999, Cirrus Design Corp. delivered its first production Cirrus SR20 and Lancair International introduced its kit-built Legacy 2000 and Columbia 300. Duncan Aviation Inc. introduced its kit-built Xantus.

Technology advances in aircraft avionics, such as multifunction Global Positioning System (GPS) displays, moving maps, Global Positioning System/Wide Area Augmentation System (GPS/WAAS) receivers, and heads-up displays, are changing cockpits and making aircraft easier to fly. Technology advances are expected to result in major innovations during the next decade, possibly greatly reducing the time and cost associated with learning to fly and the cost of manufacturing new aircraft.

Industry/NASA-sponsored programs such as the Advanced General Aviation Transport Experiments (AGATE) and the Small Airplane Transportation System (SATS) could have major impacts on general aviation during the next decade.

Fractional ownership of general aviation airplanes is not a new concept, but it has become a rapidly growing industry. In 1998, 15 percent of all new business turbojet aircraft were delivered to fractional ownership companies and firm orders by fractional ownership companies represent a higher percentage of manufacturer's backlog for new turbojets. Fractional ownership companies

are forecast to hire 500 pilots per year through 2004.

Historically, the ratio of pilots to aircraft has remained stable at about three to one. This suggests that if the number of pilots grows, growth in aircraft sales will follow. General aviation industry programs such as "GA Team 2000" and "BE A PILOT" are aimed at increasing the pilot population.

Fleet Forecast

The forecasts for active general aviation aircraft (Figures 18, 19, and 20) predict that the number of active general aviation aircraft will increase modestly over the planning period. The biggest percentage increase will occur in the number of turbine-powered aircraft, especially turbojets.

The number of single-engine aircraft is forecast to increase at a rate of 10 percent over the forecasting period. The number of multi-engine piston-powered aircraft and piston rotorcraft will not change significantly for the next decade. The potential impacts of the new aircraft, new avionics, and new pilot programs are not yet reflected in these forecasts. The impact of these initiatives should be much clearer by the end of the next decade, 2010.

Overall, Texas is expected to maintain a level of 7.8 percent of the total U.S. fleet of general aviation aircraft for the next decade. Strong resale values for many older general aviation aircraft should contribute to a slow rate of retirement of the older airplanes that comprise more than half of the total number of aircraft in the fleet. As the Texas economy continues to grow, the use of business aircraft could again make Texas the home of one-seventh of the nation's turbine-engine airplane fleet.

Registered Aircraft

Historically the largest numbers of registered general aviation aircraft are found in

Concept drawing of SATS airport and aircraft.

Cockpits are becoming more and more like commercial jetliners. This is especially true with new model business aircraft.

the state's metropolitan areas. In 1994, 75.6 percent of the general aviation aircraft were based in Texas' 27 Metropolitan Statistical Areas (MSA). This percentage is projected to grow to 81.6 percent by 2010 because the population in MSA counties is forecast to grow at a faster rate than the population in non-MSA counties. The number of expected aircraft registrations in each Texas MSA is shown in Table 11.

Flight Activity

Flight activity closely parallels the number of active aircraft. The increase in total general aviation flight hours is forecast to be modest except for turbojet aircraft. Single-engine flight hours will increase modestly (Figure 21), while flight hours for turbojet aircraft are expected to increase 60 percent over the forecasting period (Figure 22). Aircraft operations will also increase slightly for the next decade (Figures 23 and 24). By 2010, total aircraft operations are forecast to return to about the same level as they were in 1990.

Pilots

The number of airline transport pilots has increased each year since 1956 and the demand for airline transport pilots is expected to continue to be strong. Airline transport pilots comprise 22 percent of the pilot population. The number of private pilots has been declining every year for several years.

The FAA is forecasting the number of private pilots to increase in 1999 and expects this number to continue increasing during the next decade. The number of student pilots began increasing in 1996 and continued to increase in 1997 and again in 1998.

Continued growth in student pilots is forecast through 2010. During the past several years, the general aviation industry has

instituted a number of industry-wide programs, including "GA Team 2000," designed to attract new pilots to general aviation. The increased numbers of student pilots show that these programs are beginning to have a positive effect. The number of private and student pilots is forecast to rebound to 1990 levels by 2010 (Figure 25).

Fuel Use

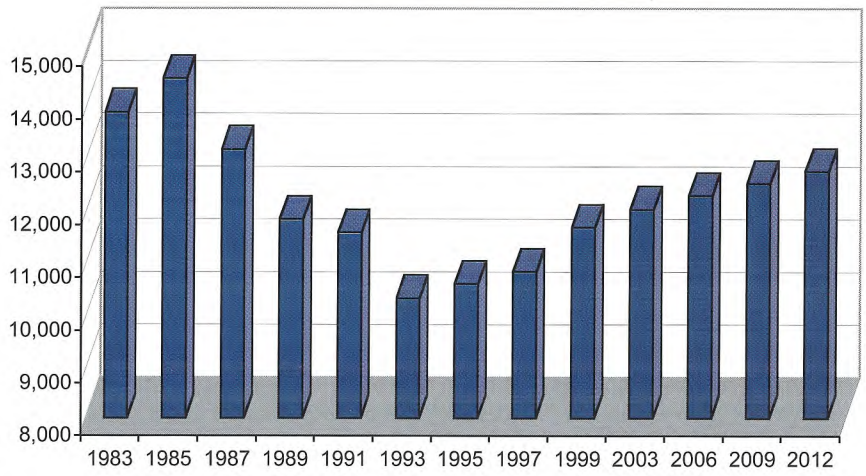
Fuel consumption is not a factor in aviation demand. Nonetheless, it is an important by-product of aviation activity. Federal taxes on general aviation fuel provide funding for the federal Airport and Airways Trust Fund used to finance airport and airway development.

The use of aviation gasoline by piston-powered general aviation aircraft is expected to grow modestly as the number of active piston-powered aircraft grows modestly. Aircraft usage—the average hours flown per aircraft per year—is not expected to change from current usage. The use of turbine fuel in turbine-powered general aviation aircraft will grow more rapidly due to the forecast increases in the number of turboprop and turbojet aircraft. The fuel's use will also grow due to a forecast increase in the average aircraft usage and the average hours flown per aircraft per year (Figure 26).

Fuel used by turbine-powered general aviation aircraft will increase 50 percent over the planning period, flight hours will increase 60 percent, and operations will increase 10 percent. This means that an increasing number of more fuel-efficient turbine aircraft will make more flights and fly greater distances.

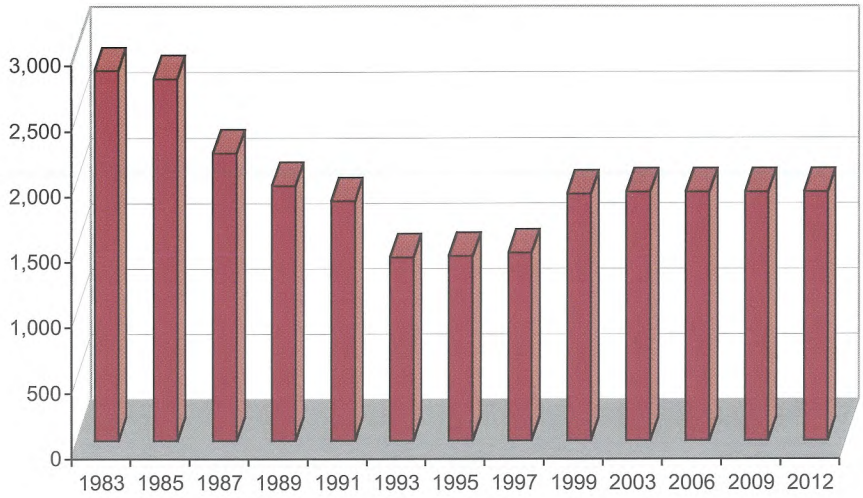
Commercial aircraft will accommodate the 43 percent increase in passenger enplanements shown in Table 10 with a 40 percent increase in fuel consumption (Figure 27). Overall, fuel consumption should increase by about 40 percent (Figure 28).

FIGURE 18
TEXAS ACTIVE GENERAL AVIATION AIRCRAFT FLEET
SINGLE-ENGINE, PISTON-POWERED



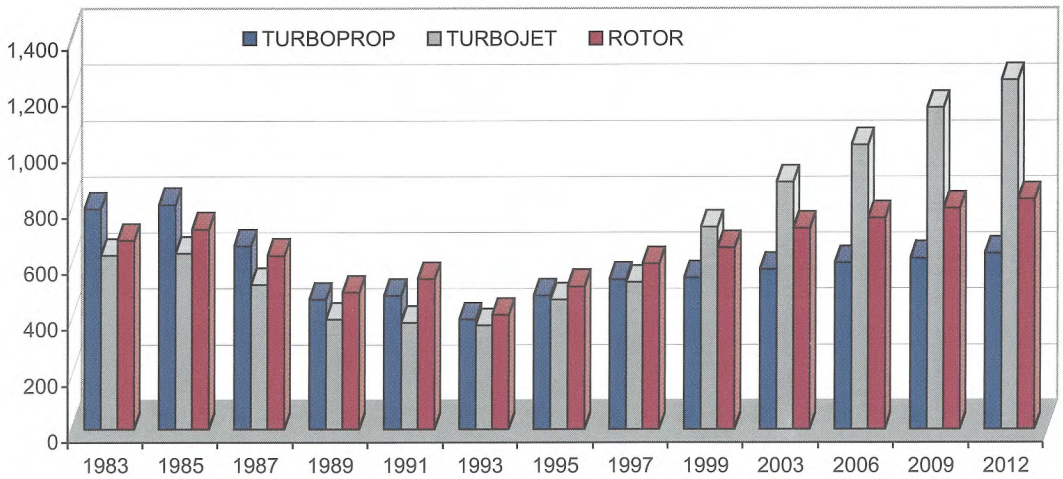
Source: Texas Transportation Institute TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 19
TEXAS ACTIVE GENERAL AVIATION AIRCRAFT FLEET
MULTI-ENGINE, PISTON-POWERED



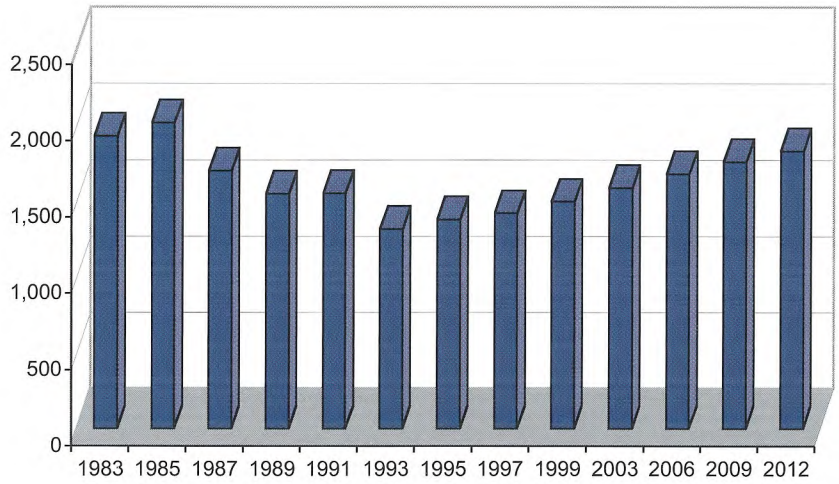
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 20
TEXAS GENERAL AVIATION AIRCRAFT FLEET



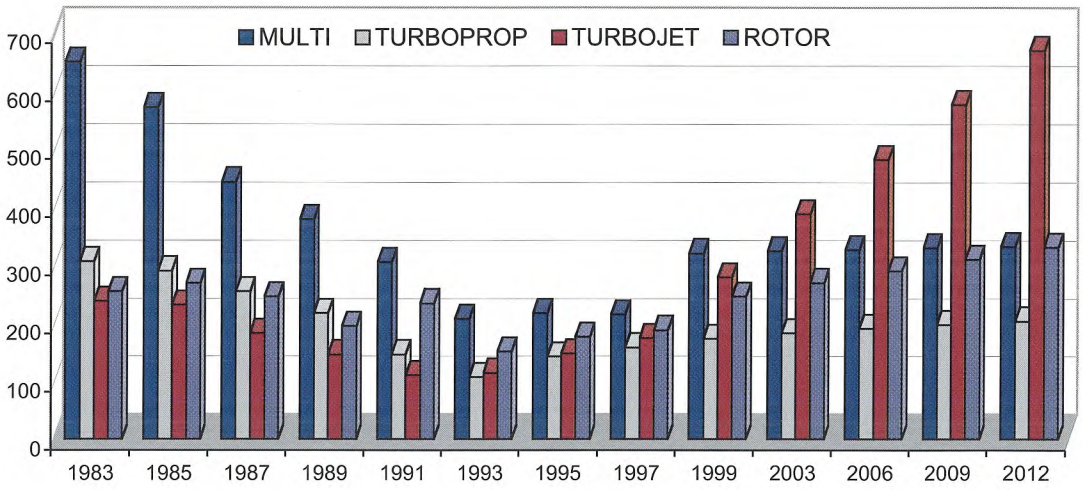
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 21
TEXAS GENERAL AVIATION AIRCRAFT FLIGHT HOURS (SINGLE-ENGINE) (THOUSANDS)



Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 22
TEXAS GENERAL AVIATION AIRCRAFT FLIGHT HOURS (THOUSANDS)



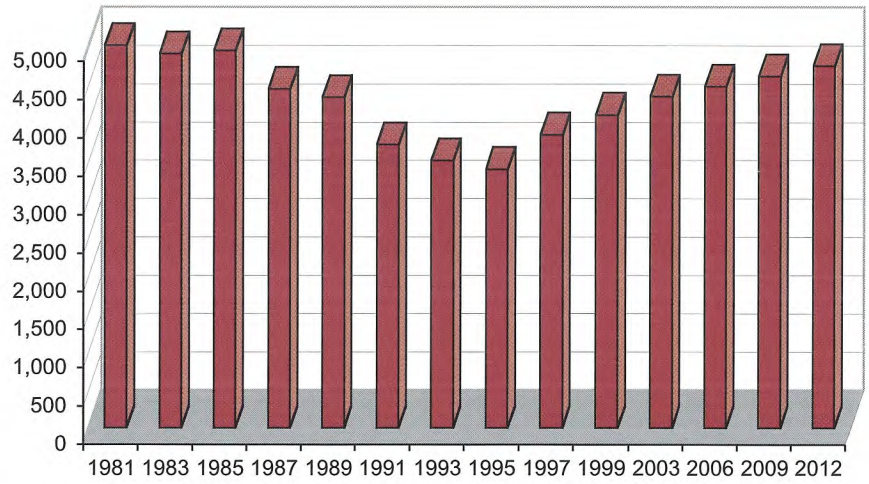
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

TABLE 11
REGISTERED TEXAS AIRCRAFT BY METROPOLITAN STATISTICAL AREA

MSA	2001	Forecast 2005	Forcast 2010	Forecast 2015
Abilene	155	163	167	170
Amarillo	298	307	323	339
Austin	1,380	1,480	1,713	1,988
Beaumont/Port Arthur	283	286	289	290
Brazoria	385	415	463	518
Brownsville/Harlingen	324	388	440	495
Bryan/College Station	178	172	184	196
Corpus Christi	273	310	329	347
Dallas	5,539	5,683	6,257	6,914
El Paso	586	729	805	884
Fort Worth/Arlington	3,191	3,238	3,469	3,714
Galveston/Texas City	388	366	433	460
Houston	3,860	4,078	4,467	4,911
Killeen/Temple	206	220	241	263
Laredo	86	93	94	95
Longview/Marshall	263	270	277	282
Lubbock	334	340	348	355
McAllen	402	504	612	737
Midland/Odessa	602	671	703	734
San Angelo	181	199	209	219
San Antonio	1,387	1,561	1,712	1,873
Sherman/Denison	234	216	220	224
Texarkana	158	149	149	147
Tyler	230	228	238	247
Victoria	117	127	135	143
Waco	290	280	287	293
Wichita Falls	240	245	249	252
Subtotal	21,570	22,722	24,811	27,091
Non MSA	5,482	6,300	6,871	7,535
State Total	**27,052**	**29,021**	**31,681**	**34,626**

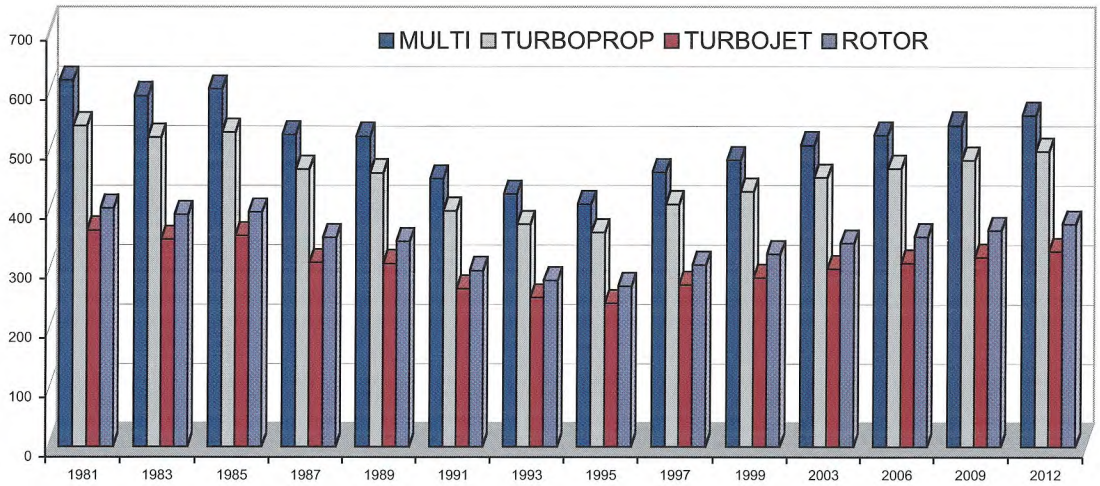
Source: FAA Census of U.S. Civil Aircraft. Texas Comptroller of Public Accounts. Texas Transportation Institute, TASP Forecasts, 2001.

FIGURE 23
TEXAS GENERAL AVIATION AIRCRAFT OPERATIONS (SINGLE-ENGINE) (THOUSANDS)



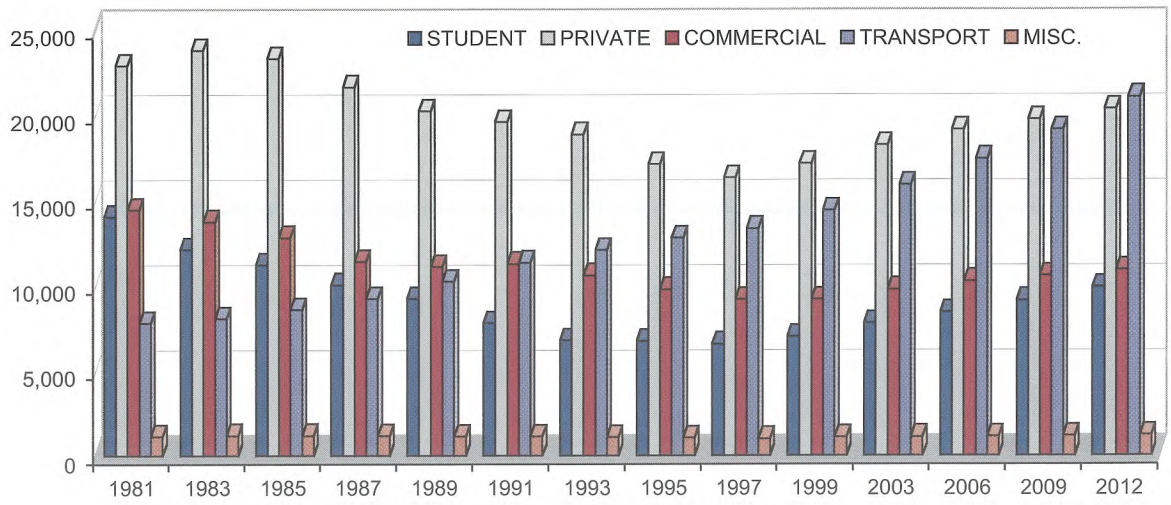
Source: Texas Transportation Institute TASP Forecasts, 2001. FAA Terminal Area Forecast Summary Report. FAA General Aviation and Air Taxi Activity Survey.

FIGURE 24
TEXAS GENERAL AVIATION AIRCRAFT OPERATIONS (THOUSANDS)



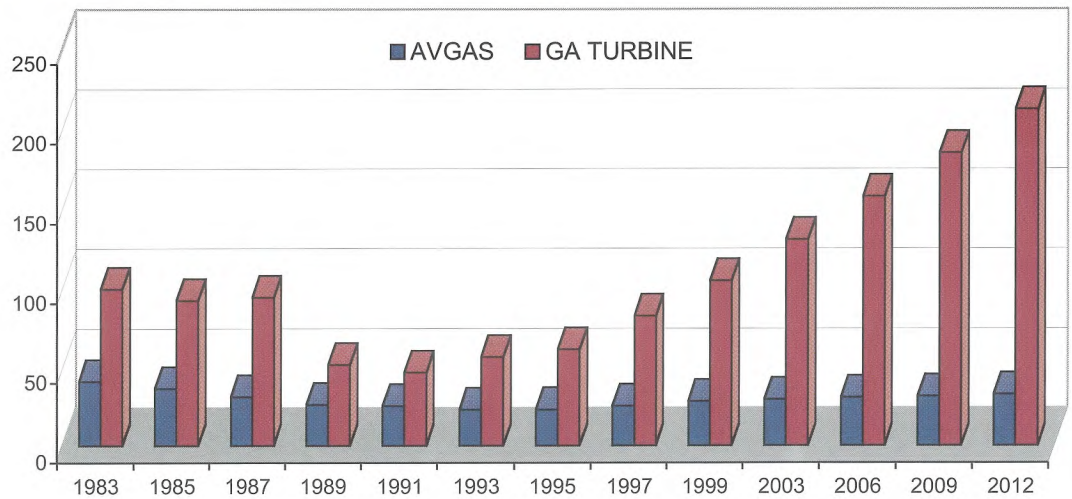
Source: Texas Transportation Institute TASP Forecasts, 2001. FAA Terminal Area Forecast Summary Report. FAA General Aviation and Air Taxi Activity Survey.

FIGURE 25
TEXAS TEXAS ACTIVE PILOTS BY TYPE OF CERTIFICATE



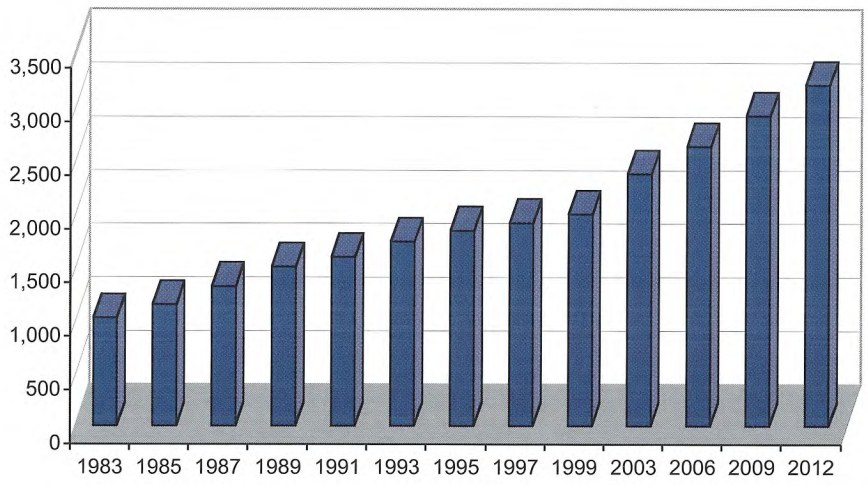
Source: FAA Aerospace Forecasts, Fiscal Years 2001-2012. FAA Statistical Handbook of Aviation. Texas Transportation Institute, TASP Forecasts, 2001.

FIGURE 26
TEXAS GENERAL AVIATION FUEL CONSUMPTION (MILLIONS OF GALLONS)



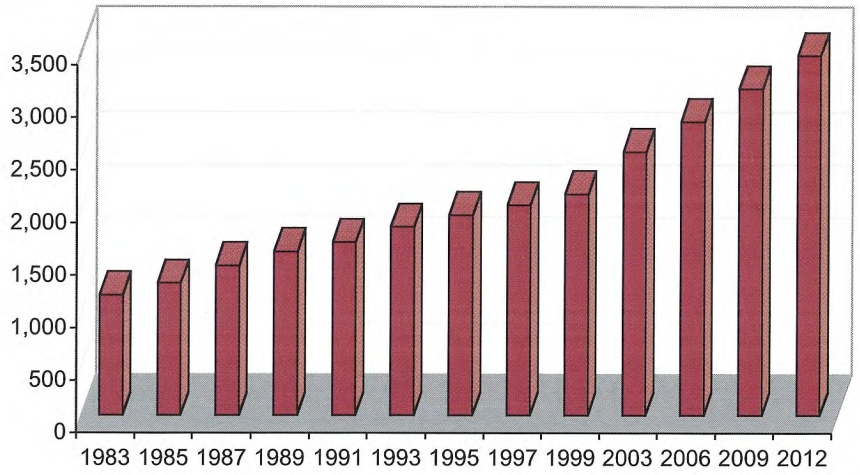
Source: Texas Transportation Institute, TASP Forecasts, 2001. FAA Aerospace Forecasts, Fiscal Years 2001-2012.

FIGURE 27
TEXAS COMMERCIAL AVIATION FUEL CONSUMPTION (MILLIONS OF GALLONS)



Source: FAA Aerospace Forecasts, Fiscal Years 2001-2012. FAA APO Terminal Area Forecast, Summary Report. Texas Transportation Institute, TASP Forecasts, 2001.

FIGURE 28
TEXAS AVIATION FUEL CONSUMPTION (MILLIONS OF GALLONS)



Source: FAA Aerospace Forecasts, Fiscal Years 2001-2012. FAA APO Terminal Area Forecast, Summary Report. Texas Transportation Institute, TASP Forecasts, 2001.

TASP Implementation Costs

The planning process described in a previous section of this report resulted in the selection of the airport sites required to meet the TASP goals and the identification of the improvements needed at those sites to implement the plan. This section of the report summarizes the costs of implementing the plan and the timing of development.

The costs for each of the 303 airport sites are included on the Development Worksheets, which are available under separate cover. The development worksheets itemize needed improvements and their costs, assuming unconstrained funding.

The remaining section of the summary report will discuss the financial implications of the plan and sources of funding for system improvements.

Program Objectives

Improvements identified in the plan have been classified by the program objective that they address. The classification of projects by objective makes it possible to set financial aid priorities for airport improvements. The TASP objectives are identified in Table 12.

Implementation Schedule

On the development worksheets, the capital improvement needs of the system airports are identified in three increments: the 0-5 year period, the 6-10 year period, and the 11-20 year period. For this summary report, however; only the 0-5 year needs are included. Previous publications of the TASP included costs for the entire 20-year period; however, due to the uncertainty of realistically predicting these long-range airport needs, the current TASP concentrates on the short-range time frame for only the general aviation airports, including relievers. As previously mentioned,

TABLE 12
TASP CAPITAL IMPROVEMENT OBJECTIVES

Projects for Existing Airports		
1	Safety	Work required to make the airport safe for aircraft operations.
2	Preservation	Work required to preserve the functional or structural integrity of the airport.
3	Standards	Improvements required to bring the airport to design standards for current users.
4	Upgrade	Improvements required to expand the airport to accommodate larger aircraft or longer stage lengths consistent with the airport's functional classification.
5	Capacity	Expansion required to accommodate more aircraft or higher activity levels.
Projects for New Airports		
6	Access	A new airport that will provide access to an area currently not served.
7	Capacity	A new airport required to supplement capacity or relieve congestion at other airports in the area.

Source: Texas Department of Transportation, Aviation Division, 2001.

Construction crews working on an airport runway.

long-range needs continue to be included on the development worksheets.

All costs are estimates and are given in 2000 dollars, although an inflation factor has been incorporated into the unit costs. In general, the estimates reflect the average costs for the improvements identified and do not reflect circumstances at a given site.

The improvements and costs for the earlier time periods are more detailed and reflect current planning by the sponsors; however, some of the projects programmed for the first five years may be shifted into later time periods. Some projects may also be moved forward to earlier time periods.

Most, but not all of the projects identified in the TASP, are eligible for federal financial assistance if the airport is included in the National Plan of Integrated Airport Systems (NPIAS). At many airports, there are additional improvements required that are not funded through the FAA. This is especially true at the larger commercial service airports which have extensive "landside" projects such as automobile parking facilities.

Other items such as fuel systems and terminal buildings are shown as needs at the general aviation airports where appropriate, but are not eligible for federal funding. Some of these items however, such as terminal buildings, are eligible for state funding. To assess the overall financial impact of the plan implementation, projects that are ineligible for funding are included since they are considered to be identified needs. Consequently, these needs should be considered as part of the costs of implementation of the plan.

The planning process has attempted to identify a realistic improvement program for each airport; however, it is recognized that not all sponsors may be able to implement the improvements for their airports as shown nor will there necessarily be public funding available. There may also be improvements that have not been identified in the plan which may become important in the future due to changing conditions.

Commercial Service Airports

Primary Commercial Service

Primary commercial service airports account for the largest share of improvement costs required over the next 20 years; however, as mentioned in a previous section of this report, those costs are not included in this publication due to the volatile nature of commercial airport needs and the difficulty in obtaining consistent, up-to-date information.

Among the primary commercial service airports in the TASP, the two large hubs—Dallas/Fort Worth International and George Bush Intercontinental—account for 69 percent of the state's passenger enplanements. Those enplanements combined with the enplanements at the medium hubs—William P. Hobby, Love Field, San Antonio International, Austin-Bergstrom International, and El Paso International—account for a total of 94 percent of the state's enplanements.

Not surprisingly, most of the primary commercial service improvements are programmed for these airports, which are expected to bear the brunt of increased enplanements in the immediate future. Most of the improvements slated for these larger airports are generally related to increasing airport capacity.

Non-Primary Commercial Service

Currently, there are no non-primary commercial service airports in the plan. It is possible that during the planning period, one or two transport or general utility airports may move into this category; however, given the volatile nature of the airline industry, this is difficult to predict. The implications of this role classification are discussed in the section on financial assistance. No development costs are shown in this category.

Inside The new Austin-Bergstrom International Airport terminal building.
Courtesy of The City of Austin

Relievers

Improvement costs for reliever airports represent 40 percent of the five-year development costs. Upgrade projects account for the largest share of the improvement costs at reliever airports, followed by costs associated with preservation. Table 13 presents development costs by program objective for reliever airports.

Although there are only 23 reliever airports in the TASP, improvements included on the development worksheets for those locations account for almost 40 percent of the five-year costs of general aviation improvements. Reliever airports have become increasingly

important to the overall capacity of the airport system and significant improvements have been funded and constructed at several of these airports since the last TASP update.

The need for two new airports to supplement system capacity is still recognized and costs for these airports are included as well. Since most reliever airports are located in urban areas, costs associated with their development can be significantly greater than for similar airport improvements in rural areas.

General Aviation

Improvement costs for the 253 general aviation airports in the TASP are depicted in Table 14. Almost 81 percent of the costs are for preservation of existing airport facilities and bringing the airports up to current design standards.

Transport Airports

The five-year costs of improvements for the 59 transport airports are 66 percent of those for the 125 general utility airports. Transport airports are developed to design specifications that will accommodate business jet traffic (see Table 8). The additional runway and taxiway pavement required to meet these specifications is the reason for the higher per airport cost for the development of transport airports, although many of the general utility airports are also designed to accommodate corporate traffic.

General Utility Airports

The costs for needed general utility airport improvements are estimated at almost $150 million for the next five years (Table 14). Included in this amount are costs for construction of four new or replacement airports in the short term. The single largest expenditure is for bringing existing airports up to design standards, followed by the costs associated with preserving the investment currently in place and upgrades to accommodate more demanding aircraft.

Basic Utility Airports

Improvements identified on the development worksheets for basic utility airports for the next five years average about $9 million per year. Most of the costs shown in Table 14 are associated with bringing existing facilities up to

TABLE 13
SUMMARY OF 5-YEAR TASP RELIEVER AIRPORT DEVELOPMENT COSTS BY PROGRAM OBJECTIVE (Thousands of Dollars)

	PROGRAM OBJECTIVE							
AIRPORT ROLE	Safety	Preservation	Standards	Upgrade	Capacity	New Airport Access	Planning	TOTAL
Reliever	$4,670	$46,113	$25,110	$76,739	$42,664	$11,094	$1,388	$207,778

Source: Texas Department of Transportation, Aviation Division, 2001.

standards and the reconstruction of deteriorating pavement. No new basic utility airports are included in the TASP.

Basic utility airports are the lowest functional class and provide limited additional access to the state's economic activity. Expenditures on basic utility airports preserve the public investment existing in the facility. The TASP does not envision significantly increased investment in basic utility airports

Summary of Development Costs by Project Type

A summary of five-year development costs for the reliever airports by the type of improvement is included in Table 15 while Table 16 includes a breakdown of development costs for general aviation airports by role. Altogether, almost $200 million in improvements have been identified for the reliever airports, while over $295 million in improvements have been identified for general aviation facilities. The largest category of improvements for both general aviation and reliever airports is airport paving, including runways, taxiways and aprons. Improvements in the "other" category include, but are not limited to, fencing and drainage improvements.

Only a small number of the airports in the TASP, with the exception of the commercial service airports, would be able to finance the improvements that have been identified for them without some form of government financial assistance. As with the other components of the community infrastructure, the public role in the development of the air transportation system includes providing the necessary facilities. Funding for the implementation of the TASP and its implications are discussed in the following section.

TABLE 14
SUMMARY OF 5-YEAR TASP GENERAL AVIATION AIRPORT DEVELOPMENT COSTS BY PROGRAM OBJECTIVE (Thousands of Dollars)

	PROGRAM OBJECTIVE							
AIRPORT ROLE	**Safety**	**Preservation**	**Standards**	**Upgrade**	**Capacity**	**New Airport Access**	**Planning**	**TOTAL**
Transport	$1,260	$51,387	$36,616	$6,503	$3,335		$239	$99,340
General Utility	$852	$34,406	$73,566	$29,107	$3,995	$6,550	$1,432	$149,908
Basic Utility	$309	$13,334	$29,389	$2,613	$719		$163	$46,527
TOTAL	**$2,421**	**$99,127**	**$139,571**	**$38,223**	**$8,049**	**$6,550**	**$1,834**	**$295,775**

Source: Texas Department of Transportation, Aviation Division, 2001.

TABLE 15
SUMMARY OF 5-YEAR TASP RELIEVER AIRPORT DEVELOPMENT COSTS BY PROJECT TYPE (Thousands of Dollars)

	PROJECT TYPE						
AIRPORT ROLE	Land	Buildings	Paving	Lighting	Landing Aids	Other	TOTAL
Reliever	$20,458	$7,909	$84,755	$4,680	$6,724	$74,430	$198,956

Source: Texas Department of Transportation, Aviation Division, 2001.

TABLE 16
SUMMARY OF 5-YEAR TASP GENERAL AVIATION AIRPORT DEVELOPMENT COSTS BY PROJECT TYPE (Thousands of Dollars)

	PROJECT TYPE						
AIRPORT ROLE	Land	Buildings	Paving	Lighting	Landing Aids	Other	TOTAL
Transport	$641	$1,655	$74,351	$7,162	$9,109	$6,422	$99,340
General Utility	$8,433	$4,782	$99,531	$13,609	$8,143	$15,410	$149,908
Basic Utility	$3,820	$1,676	$25,725	$6,888	$1,791	$6,627	$46,527
TOTAL	**$12,894**	**$8,113**	**$199,607**	**$27,659**	**$19,043**	**$28,459**	**$295,775**

Source: Texas Department of Transportation, Aviation Division, 2001.

FUNDING

The ability of the airports in the TASP to finance the improvements that have been identified in the previous section varies. The majority of the commercial service airports may be capable of generating airport revenue that will pay for the cost of operating and maintaining the airport; however, for major capital improvements of the type identified in the TASP, they will require financial assistance. At the other end of the system, the smaller general aviation airports may be incapable of funding either operating or capital improvement needs.

Federal government financial assistance programs will continue to play a major role in funding the TASP's implementation. The State of Texas also has a role in funding airport improvements. This section of the summary report discusses these funding roles and how they contribute to financing the TASP improvements.

The Federal Role

The federal government through the FAA has a major role in airport improvements. The Airport and Airway Development Act of 1970 established the Airport and Airway Trust Fund into which aviation user fees are paid. Improvements to the airport and airway system are financed from the Trust Fund through grants to eligible public airport sponsors.

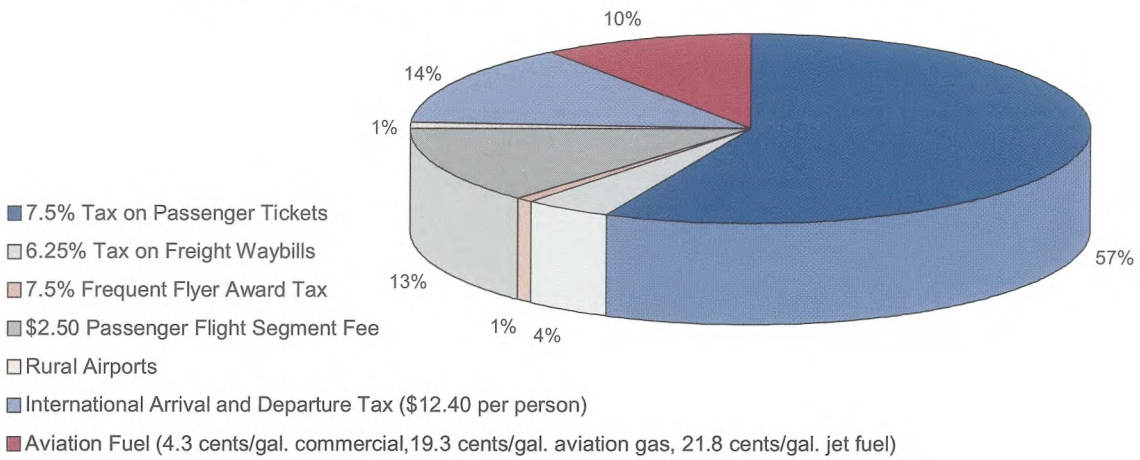
The 1982 Airport and Airway Improvement Act established the present Airport Improvement Program that provides assistance to many of the TASP airports.

The State Block Grant Program became effective on a pilot basis on October 1, 1989. In 1993, Texas was selected as a pilot participant in the State Block Grant Program giving the state greater discretion and flexibility in selecting, developing, and administering projects, thus further strengthening the airport development program. The Federal Aviation Reauthorization Act of 1996 implemented the State Block Grant Program as a permanent program. Under this regulation, states assume responsibility for administering Airport Improvement Program (AIP) grants at airports classified as "other than primary." In 1997, Texas was one of nine other states selected to participate permanently in the program. The State Block Grant Program is expanding to 10 qualified states beginning in fiscal year 2002.

Airport Improvement Program

The AIP uses Trust Fund monies to assist local sponsors with airport improvements. Trust Fund revenues come from an assortment of aviation user fees, including an 7.5 percent tax on airline tickets, a $12.40 international arrival and departure tax, and 19.3 cents per gallon and 21.8 cents per gallon taxes on aviation gasoline and jet fuel, respectively. The percentages of the Trust Fund receipts for 1999 are shown in Figure 29. The U.S. Congress makes annual allocations from the Trust Fund.

FIGURE 29
1999 FEDERAL AVIATION TRUST FUND REVENUES



Source: Federal Aviation Administration, 2001.

There are close to 20,000 airports in the U.S. but only 4,000 are eligible for federal funding under the AIP. For Texas, the Aviation Investment and Reform Act for the 21st Century (AIR-21) authorizes the following amounts for the AIP: Fiscal Year 2000, $24 million; FY 2001, $36 million; FY 2002, $37 million; and FY 2003, $38 million.

Grants are made to eligible recipients by the FAA or through the State Block Grant Program. Not all airports are eligible for federal AIP grants. They must be included in the National Plan of Integrated Airport Systems (NPIAS), which is prepared by the FAA. The NPIAS airports are those that the FAA designates as the most essential to the national air transportation system. Private airports are included in the NPIAS if they are essential to the system.

All Texas airports in the NPIAS are also in the TASP; however, not all of the TASP airports have been included in the NPIAS. Figure 30 identifies the relationship between the state and federal system plans. From Figure 30, it is evident that the airports in certain TASP functional classes are less likely to be included in the NPIAS and, therefore, fewer are eligible for federal aid.

The fact that a general aviation airport is included in the NPIAS does not ensure that it will receive federal grants. Only two-thirds of the state's general aviation airports eligible for federal assistance actually received a grant between 1995 and 1999. The limit on AIP appropriations and FAA program priorities determine where the available funding is allocated. Figure 31 shows the grants allocated by the FAA for 2000. Figure 32 shows the grants allocated for 2000 to Texas.

Commercial Service Airports

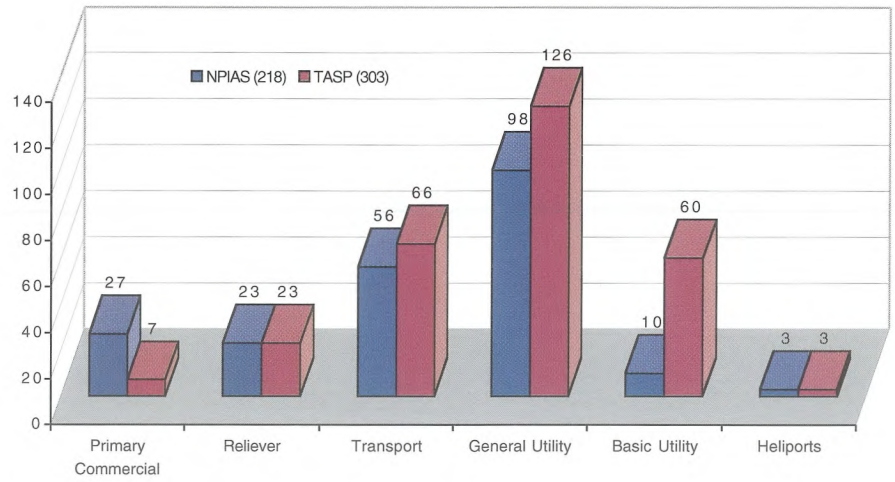
Federal law classifies commercial service airports as airports with scheduled passenger service that have at least 2,500 passenger boardings a year and are owned by non-federal public entities. Commercial service airports consist of primary and non-primary airports.

Primary Airports

The law classifies commercial airports with more than 10,000 passenger boardings per year as primary airports. Those airports are eligible for AIP funds provided by formula. The FAA divides primary airports into two major categories: *hubs*, which provide at least 0.05 percent of annual passenger boardings, and *non-hubs*, which provide less than 0.05 percent of that total. The law further classifies hubs as large, medium, and small.

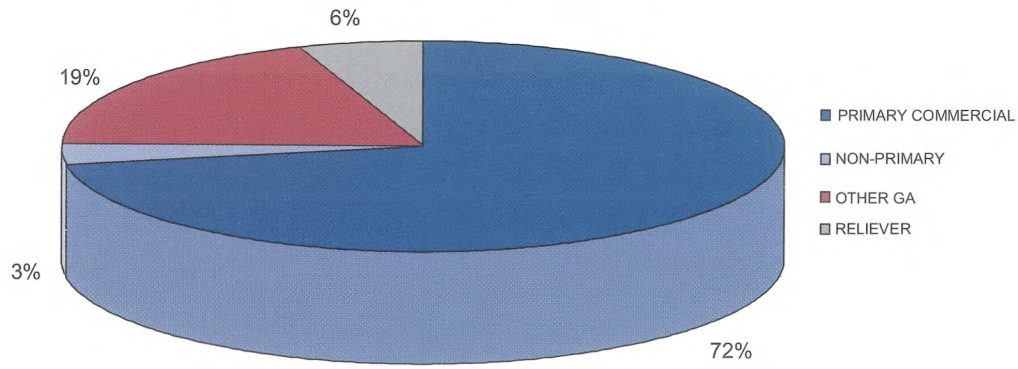
- ***Large hubs.*** Large hubs are airports (7 percent) that account for at least 1 percent of total passenger boardings.
- ***Medium hubs.*** Medium hubs are airports (9 percent) that account for between 0.25 percent and 1 percent of total passenger boardings.
- ***Small hubs.*** Small hubs are airports (19 percent) that account for between 0.05 percent and 0.25 percent of total passenger boardings.
- ***Non-hubs.*** Commercial service airports (65 percent) that have less than 0.05 percent of total passenger boardings but at least 10,000 boardings annually.

FIGURE 30
TASP COMPARED TO THE NPIAS



Source: Texas Department of Transportaion, Aviation Division, 2001.

FIGURE 31
FY 2000 AIP GRANT AGREEMENTS (U.S. TOTALS)



Source: Federal Aviation Administration, 2001.

Primary Commercial Service Airports

Grants to large primary commercial service airports (those enplaning 0.25 percent or more of the total annual U.S. passenger boardings) are for 75 percent of eligible project costs. The remaining primary commercial service airports are eligible for grants for 90 percent of eligible costs.

Non-Primary Commercial Service Airports

Airports that have 2,500 to 10,000 passenger boardings a year are classified as non-primary. They do not receive AIP entitlement funding but compete nationally for 2.5 percent of the total AIP allocation that has been set aside for non-primary commercial service airports.

As is evident from Figures 31 and

Passengers deplane a flight at Easterwood Airport.

32, airports that have scheduled commercial service receive the largest percentage of AIP funds. These airports are currently the focus of FAA activity to increase the capacity of the nation's major airports and the airway system.

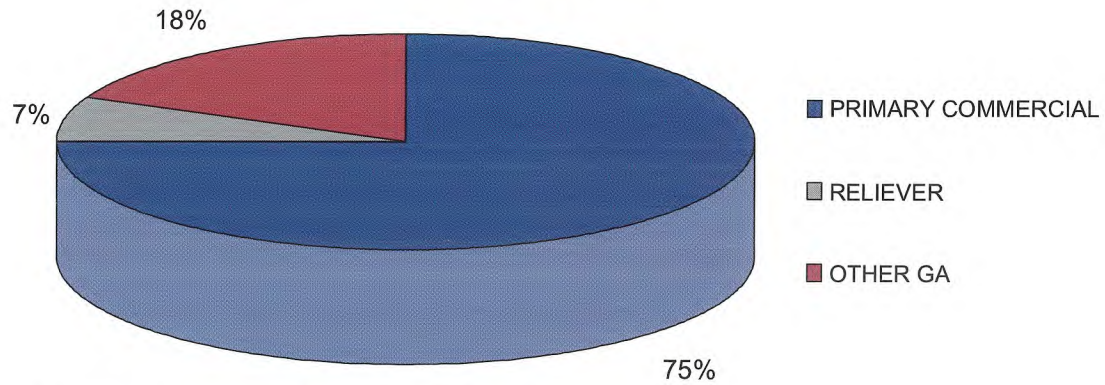
Under Air-21 the maximum entitlement grant is $22 million annually with a minimum entitlement of $500,000 per airport. Airports are also entitled to funds based on their share of the total U.S. freight tonnage, if they land at least 100 million pounds annually.

Non-Commercial Airports

The FAA classifies non-commercial airports as reliever airports, other general aviation airports, and general aviation airports that are not included in the NPIAS.

Relievers. To discourage general aviation from further congesting many large and medium hubs, the FAA has designated certain non-commercial airports in metropolitan areas as reliever airports. The FAA has encouraged the development of

FIGURE 32
FY 2000 AIP GRANT AGREEMENTS
TEXAS TOTALS



Source: Federal Aviation Administration, 2001.

General Aviation at Fort Worth Spinks reliever airport.

such airports to divert general aviation from the hubs. In 2001, the U.S. had 260 reliever airports. Reliever airports were moved into the federal state apportionment formula funding in 1997. Since that time, Texas has funded relievers through the State Block Grant Program. Prior to this time, reliever airports received their own designated funding percentage from the Aviation Trust Fund.

There are 14 privately owned general aviation airports in the TASP. The highest percentage of these is in the reliever category as can be seen in Figure 33. The importance of reliever airports caused the FAA to amend its policy of funding only publicly owned airports; however, privately owned airports other than relievers are not eligible for federal funding. Although none of the TASP airports are currently slated for public acquisition, it should be noted that the future of several privately owned reliever facilities is currently in doubt and studies are being accomplished regarding possible public acquisition.

General Aviation. In 1998, the FAA included 2,750 general aviation airports (in addition to relievers) in the NPIAS. In general, airports in this category base at least 10 locally owned aircraft and are at least 30 minutes by ground transportation from the nearest NPIAS airport.

From Figure 31 and Figure 32, it should be apparent that federal funding for general aviation and reliever airports is more limited than for commercial service airports. AIP grants for general aviation and reliever airports are made from the state's apportionment of the Trust Fund allocation set-aside for general aviation and reliever airports.

Presently, Texas expects to receive approximately $25 million annually in federal apportionment funds and $11 million in non-primary entitlement funds for general aviation and reliever airports. The $36 million annual amount has been used here for planning purposes. This money is administered for general aviation and reliever airports by the state as provided by state legislation and the State Block Grant Program and includes the recently initiated non-primary entitlement funds.

The capital improvements included in the TASP for general aviation

non-reliever airports in the next five years total $295,775,000. The expected amount of AIP funding is shown in Figure 34. Total AIP grants of $75 million would finance $82.5 million in projects with 90 percent federal/10 percent local funding.

Hypothetically, if all of the AIP funding were actually granted, 34 percent of the improvement projects would be funded. Consequently, there would be no federal funding available for an average of $32 million in projects annually.

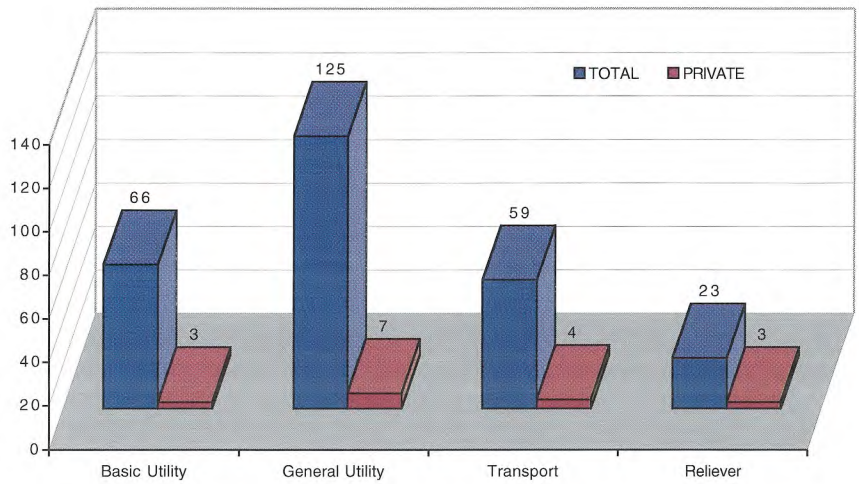
Reliever airport needs for the five-year period are identified at approximately $199 million. If $19 million were received from the FAA annually, along with the local matching share, over $94 million of projects would not be funded, amounting to $18 million annually. As shown in Figure 35, 53 percent of the needs would be funded.

Commercial service airports generate revenue from airline user fees, terminal concessions, parking fees, and property leases. These revenues permit the airport sponsors to issue revenue bonds for airport improvements. The smaller general aviation airports do not have the level or type of activity that permits them to fund their improvements in the same manner.

Most general aviation airports, and many of the smaller commercial service airports, rely on general fund contributions or general obligation bonds issued by their sponsors for funding capital improvements. Any revenues generated by the airport are used for airport maintenance and operations.

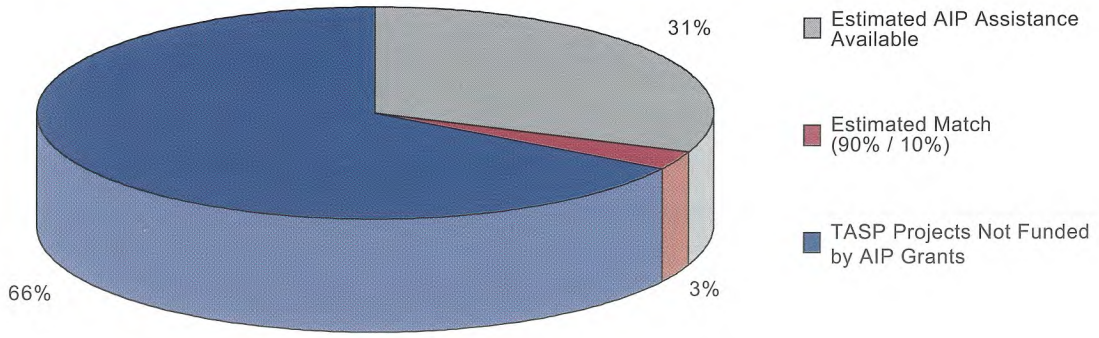
The fact that most general aviation airports are unable to finance their capital improvements is certainly not an indication that their existence and improvement is not justified. Nor is it an indication that the airports are not important to the communities they serve. As with other parts of the public infrastructure, there is a role for federal,

FIGURE 33
PRIVATELY-OWNED VERSUS OPEN-TO-THE-PUBLIC GA AIRPORTS IN THE TASP



Source: Texas Department of Transportaion, Aviation Division, 2001.

FIGURE 34
FIVE-YEAR GA DEVELOPMENT NEEDS AND ESTIMATED AIP FUNDING



Source: Texas Department of Transportaion, Aviation Division, 2001.

state, local, and private involvement. The state's role in implementing the TASP is discussed in the following paragraphs.

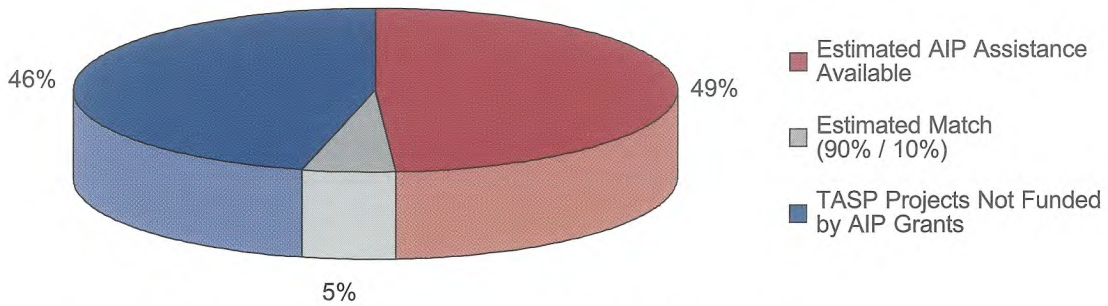
The State Role

The value of an airport is not just in the on-airport jobs created, the personal property taxes collected, or as a place to enjoy the fun of flying. The real value of an airport is that it provides a foundation upon which a community can maintain, develop, and diversify its economy. The TASP is structured to provide reasonable air access to all parts of the state, the state's population, its economic resources, and its industrial base.

Businesses are using general aviation more than ever before. The scheduling, speed, direct routing, and security advantages for both domestic and international travel have made business aviation the fastest growing segment of the general aviation community.

Business aviation, as reflected in sales and hours flown, continues to show modest growth. This growth is expected to continue at a faster rate than the other segments of general aviation. The use of

FIGURE 35
FIVE-YEAR GA DEVELOPMENT NEEDS AND ESTIMATED AIP FUNDING



Source: Texas Department of Transportaion, Aviation Division, 2001.

business aviation will continue to have a dominant effect not only on the aviation industry but also on the entire state economy in the new century.

These factors strongly suggest that Texas needs a program that fosters the development of general aviation airports that will support the state's economic development.

The State's Role in Previous Years

Historically, Texas has directed its aviation facilities development activity toward the small communities. This was at the specific direction of the Legislature, which placed population and grant limit riders on appropriations to the Texas Aeronautics Commission during the 1970s. A review of state-funded projects since the inception of the state program in 1966 shows that most grants through the 1980s had been for airports serving cities with populations of less than 5,000.

In 1989, the Legislature created the Texas Department of Aviation (TDA) and enacted "channeling" legislation that mandated the TDA to act as the agent for general aviation airport sponsors in applying for, receiving, and disbursing federal funds. Through this legislation, the TDA assumed major responsibility for the development of the state's air transportation system.

The state government, realizing the value of airports as a vital component of economic development, began a state managed aviation facilities funding program that strengthened the ability of the state to participate in the development of the Texas air transportation system. From 1990 through 2000, the Texas Department of Transportation (TxDOT) has received state grant funding totaling $83 million for an airport system that supports business, industry, manufacturing, mining, and agriculture—literally every segment of the state's economy.

In 1992, the TDA was consolidated with the State Department of Highways and Public Transportation to create TxDOT. The state aviation program was created as a separate division within TxDOT assuming all duties of the TDA. The state grant program continued to grow within TxDOT as funding was more than doubled in 1994 and nearly doubled again in 1995.

Other State Programs

State Block Grant Program. As mentioned previously, in 1997 Texas was included as a permanent participant in the State Block Grant Program. Block grant states administer funding for non-primary commercial service, reliever, and general aviation airports. Each state is responsible for determining which locations within its jurisdiction will receive funds and for ongoing project administration. A total of $72.4 million, including $17.5 million discretionary, was granted to the block grant states in fiscal year 1997. Texas received $30 million in 1999 and over $31 million in 2000.

In 1997, TxDOT's role in airport development was again expanded when reliever airports were added to Texas' federal funding program. TxDOT assumed responsibility for funding the reliever airports with a $7.5 million increase in federal funds.

The Future Role for the State

Texas, Connecticut, and Rhode Island are the only states without some type of tax on general aviation aircraft use. The National Business Aircraft Association conducted a survey for their State Aviation Tax Report for 1998-1999 that found these three states were the only states that did not have a fuel tax on aviation users.

It is unlikely that the Texas Legislature will be willing to fund from general revenue or highway monies, anything approaching the $34 million annually in non-federally funded general aviation and reliever projects that are included in the TASP. If the experience of the other 47 states is an indication of a general public policy, it would appear that the best possibility for funding a state aviation program would be with aviation user fees.

Sales and Corporate Franchise Taxes. In 1999 the Texas aviation industry paid over $90 million in taxes to the state, not including taxes on new and used aircraft. This amount has increased substantially since the last update of the TASP when 1991 tax revenues were $26.3 million. Sales tax on manufacturing of aircraft and parts accounts for over 30 percent of the tax collected every year. These revenues are now deposited in the general revenue fund.

The dedication of all or part of the sales and corporate franchise taxes paid by the aviation industry to aeronautical facility development is probably the only tax that would be widely supported by all segments of the industry in that it would not impose additional taxes on aviation users. The amount generated by the taxes shown in Table 17 would be sufficient to fund a state program consistent with the TASP; however, the Legislature may view the dedication as diminishing the general revenues needed badly for other programs.

Aviation Fuel Taxes. The remaining user fee capable of raising the revenue adequate to support the development of the TASP is an aviation fuel tax. This tax is used by 47 states as a revenue source. Taxes may be used on aviation gasoline (47 states) or on jet fuel (45 states).

The fuel tax is the federal government's principal source of revenue from general aviation users. Aviation gasoline (avgas) is taxed at a rate of 19.3 cents per gallon and

Re-fueling at many TASP airports has become more efficient with the installation of new credit card systems for fuel purchases.

TABLE 17
TEXAS AVIATION INDUSTRY 1996-1999
STATE SALES AND CORPORATE FRANCHISE TAXES

SIC CODE	DESCRIPTION	TYPE	1996	1997	1998	1999
372	Manufacture of Aircraft and Parts	Sales Tax	$16,330,550	$16,454,810	$20,247,152	$27,937,489
		Franchise Tax	$8,522,936	$4,788,745	$3,972,837	$5,643,031
451	Air Transportation Certificated Carriers	Sales Tax	$7,963,087	$9,452,409	$9,438,208	$10,961,470
		Franchise Tax	$2,696,224	$2,265,910	$2,705,780	$3,822,755
452	Air Transportation Non-Certificated Carriers (Commuters, Charters, etc.)	Sales Tax	$573,080	$1,236,007	$1,363,273	$1,204,918
		Franchise Tax	$394,228	$481,951	$442,668	$460,538
458	Fixed Facilities and Service Related to Air Transportation (Airport and Terminal Services)	Sales Tax	$6,366,634	$7,008,613	$7,803,717	$7,876,630
		Franchise Tax	$1,901,230	$1,670,837	$1,515,117	$4,173,360
Total Sales Tax			$31,233,351	$34,151,839	$38,852,350	$47,980,507
Total Franchise Tax			$13,514,618	$9,207,443	$8,636,402	$14,099,684

Source: Comptroller of Public Accounts, Resource Management Division.

jet fuel is taxed at a rate of 21.8 cents per gallon. Despite the use of the fuel tax by most states, there was some concern that the federal tax preempted the state tax on fuel.

This question was answered by the U.S. Congress, which in the 1987 Airport and Airway Safety and Capacity Expansion Act specifically authorized states to levy aviation fuel taxes at the state's discretion.

The estimated revenue that could be raised annually from a tax on aviation fuel is shown in Table 18. The tax on aviation gasoline, even at 10 cents per gallon, would not raise the entire amount needed to finance the federal portion of the TASP improvement program that is not funded. A combination of aviation gasoline, jet fuel, and commercial fuel taxes, however, could generate adequate revenue.

Tax Dedication. The revenues collected from an aviation fuel tax, or any other specific user fee, should be dedicated to the use for which they are collected. There is the inclination, especially when revenue is urgently needed for other programs, to divert user fees to other purposes. Thirty-one of the 47 states collecting an aviation user fee have dedicated the revenues to aviation programs.

A dedicated fuel tax has proven to be an effective way to finance the national and state highway systems. The user fee concept has been accepted for this purpose. Fuel-based user fees have several advantages. The tax is relatively easy to collect if collected from fuel wholesalers, and a statewide tax is uniformly applied to all users.

In the past, general aviation users expressed some concerns that any increase in the price of fuel would put private flying further out of reach for many potential users. There is no question that the cost of private flying has increased. On the other hand, airport sponsors and legislators have expressed a feeling that general aviation users should contribute to any state aviation program that might be created. The issue of how to finance an adequate state aviation program is obviously a delicate one that ultimately will be decided by the Legislature with the participation of the various segments of the aviation community that will be affected by this decision.

Adopt-An-Airport Program. The Adopt-an-Airport Program allows private citizens an opportunity to support TxDOT's beautification programs by adopting an airport for beautifying, creating a better image, and enhancing public awareness of the airport. Only publicly owned airports in the TASP are eligible to participate in the program.

Members or employees of civic and nonprofit organizations, employees of private businesses and governmental entities, and families are eligible to participate. There are currently five airports participating in the program.

TABLE 18
REVENUE ESTIMATES FOR PER GALLON TAX ON GENERAL AVIATION AND COMMERCIAL FUEL BASED ON 1999 ACTIVITY FORECASTS (Thousands of Dollars

	Tax/Gal	0¢	1¢	2¢	3¢	4¢	5¢	6¢	7¢	8¢	9¢	10¢
COMMERCIAL	0¢	$0	$1,138	$2,275	$3,413	$4,550	5,688	6,825	$7,963	$9,100	$10,238	$11,375
	1¢	$19,869	$21,007	$22,144	$23,282	$24,419	$25,557	$26,694	$27,832	$28,969	$30,107	$31,244
	2¢	$39,738	$40,876	$42,013	$43,151	$44,288	$45,426	$46,563	$47,701	$48,838	$49,976	$51,113
	3¢	$59,607	$60,745	$61,882	$63,020	$64,157	$65,295	$66,432	$67,570	$68,707	$69,845	$70,982
	4¢	$79,476	$80,614	$81,751	$82,889	$84,026	$85,164	$86,301	$87,439	$88,576	$89,714	$90,851
	5¢	$99,345	$100,483	$101,620	$102,758	$103,895	$105,033	$106,170	$107,308	$108,445	$109,583	$110,720

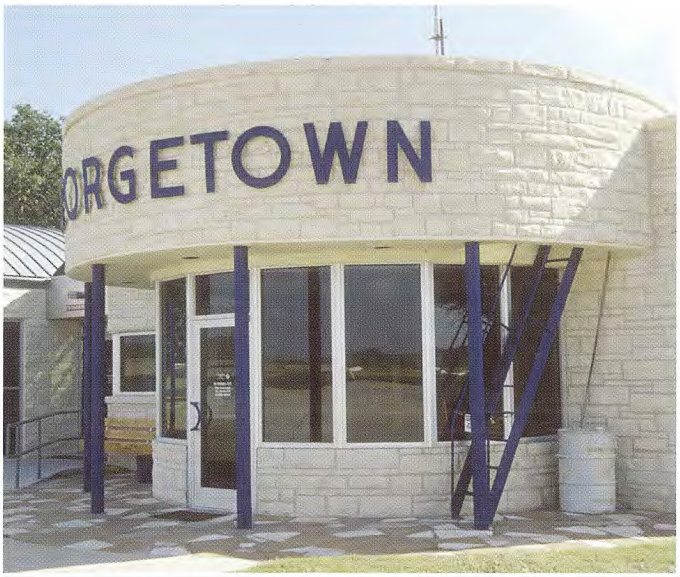
For example: A 5¢/gallon tax on general aviation fuel and a 1¢/gallon tax on commercial fuel would generate $25,557,000 annually in 1999.

Source: Texas Transportation Institute, TASP Forecasts, 1999 (Fuel Tax Revenue Component Updated September 2000) and FAA Air Traffic Activity Statistics for 1999.

Routine Airport Maintenance Program. It has long been known that airport maintenance is lacking at many airports across the state. Communities in many instances do not have the resources to perform the needed services and funding is almost always an issue. In 1996, TxDOT began an annual Routine Airport Maintenance Program (RAMP) within five pilot districts.

The program was designed to assist communities with their maintenance programs by offering state financial assistance. State funds were used to match local funds on a 50/50 basis with a $10,000 maximum in state funds per airport per year. Airports could utilize the services of the highway districts and their contracts for crack sealing, herbiciding, striping, marking, and other similar services. The initial program was a success and was expanded statewide in 1997. Then in 1999, the program was further expanded by increasing the state to a $20,000 maximum and allowing airports to issue local contracts in some instances rather than requiring state contracts for airport maintenance.

Airport sponsors are now able to use the program for almost any item that will enhance and increase the functionality of the airport. Over the years, the program has grown from about 30 participating airports with total expenditures of around $250,000 to about 100 airports with total maintenance costs slightly over $1 million. In 2001, the program was expanded even further to include 15 non-hub Commercial Service airports and to increase the state funding to a maximum of $30,000 per airport per year.



Terminal Building at the Georgetown Municipal Airport.

Airport Terminal Grant Program. The TxDOT Aviation Division Airport Terminal Grant Program can provide 50 percent matching funds up to $300,000 to sponsors of eligible publicly owned airports for the construction of new terminal buildings or the remodeling of existing terminal buildings.

To be eligible for consideration for a terminal grant, the airport must have a full time airport manager on site and aviation fuel available for sale to the general flying public.

Other factors that may have a bearing on determining eligibility for a grant include the number of based aircraft, transient traffic, and the sponsor's commitment to the airport.

The Texas Transportation Commission has approved 37 terminal building projects.

Texas began installing AWOS systems through a state block grant program in 1997.

Automated Weather Observing Systems (AWOS). Texas, one of nine state block grant program participants, received $1 million in 1997, through a federal innovative financing program, for various airport projects, with an overall federal share of 75 percent, to install automated weather observing systems, visual approach aids, and protective fencing. Although federal funds may no longer be available for this program, Texas continues to fund the AWOS program with state funds as necessary.

The Role of Local Government

Local governments, cities, and counties, are the owners and sponsors of the airports serving their communities. (The only airports owned by the State of Texas are those associated with two educational institutions and two state parks.) The responsibility for implementing the TASP, therefore, actually falls on the shoulders of local government.

Local leaders must initiate the process of making airport improvements and requesting federal and state financial assistance.

The federal AIP and past state airport improvement programs have always required the local airport sponsor to provide a share of the project cost for which federal and state monies are applied. Faced with competing financial needs some sponsors have been unable to raise even their 10 percent share of the cost.

The problem lies not with the level of interest or enthusiasm of the local government, but with the limited sources of revenue available for capital improvements.

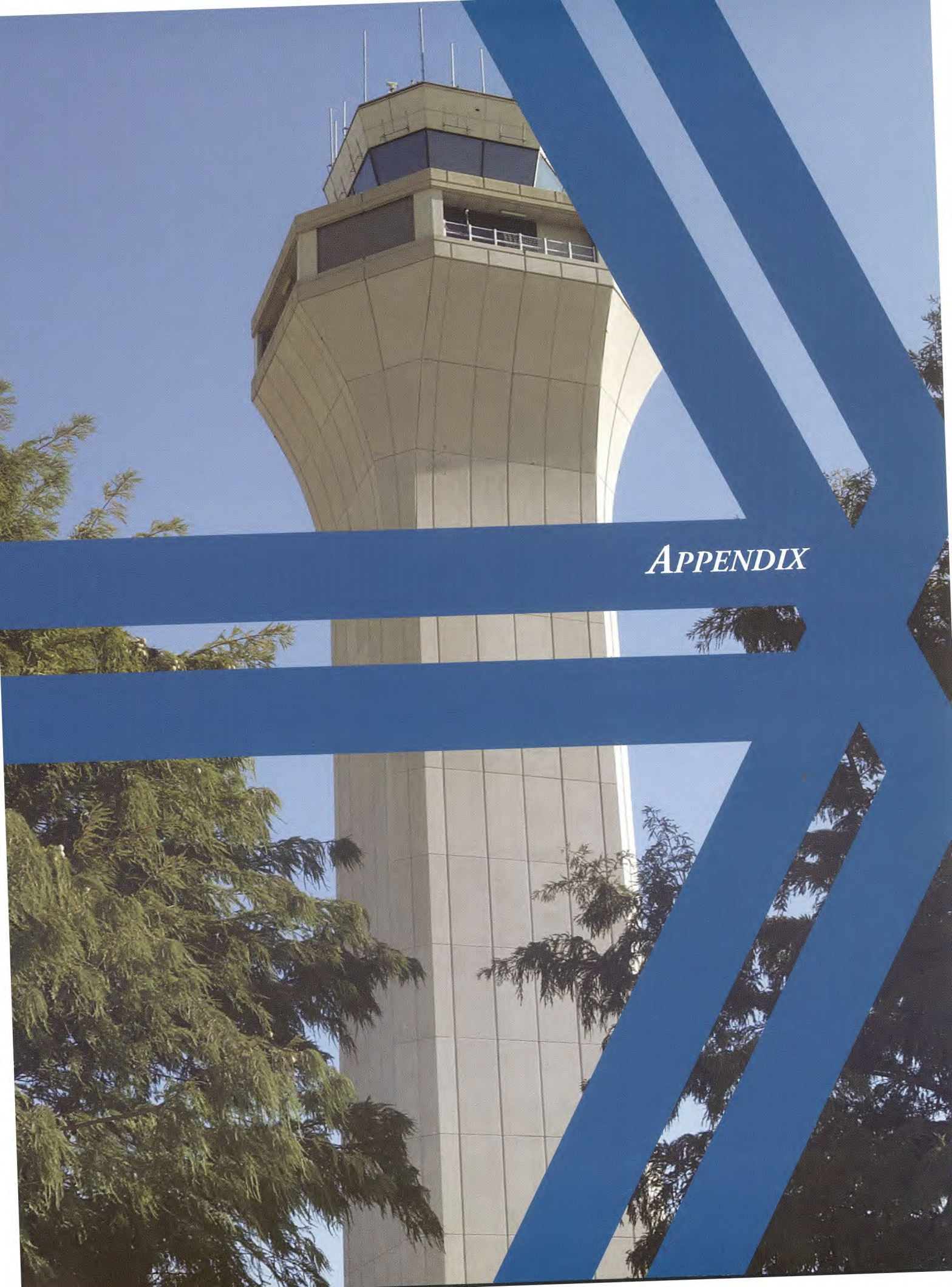
Communities faced with improving their roads, their water systems, and their parks and playgrounds are able to find federal and state financial assistance. The ability of the smallest communities to make these improvements without assistance from higher levels of government is impossible.

The airports included in the TASP represent a resource not only to the communities immediately served by them, but also to the state as a whole. Long ago, the need to develop a statewide highway system to provide access to all parts of the state was recognized and funded.

State highways serving small communities and rural areas are justified as much by the fact that they complete the system as by the actual use they receive. The same argument holds true as the rationale for a state airport development program that will benefit the state's smaller airports and communities.

The role of local government remains pivotal in the development of the TASP. Given the resources, it is expected that the communities served by the TASP airports will continue to participate in the program. Communities that fail to maintain and develop their airports may find their airport dropped from future state system plans and funding.

Communities willing to support the role of their TASP airport should receive the assistance of federal programs, and where money is lacking or projects are ineligible, an adequate state program. The deterioration and loss of a TASP airport is a loss to the system, a loss of the public resources already invested in the facility, and a lost opportunity to the state and the public for economic development.



Appendix

TASP AIRPORTS BY ASSOCIATED CITY

KEY TO APPENDIX HEADINGS	
City	Usually, the city closest to the airport site.
Airport (New)	Name of airport (new, if not currently existing at site).
NPIAS	Included in National Plan of Integrated Airport Systems (yes or no).
Federal Role	Airport's classification based on the type of service it is expected to provide: PR - Primary Commercial Service; RL - Reliever; and GA - General Aviation.
State Role	TASP classification: T - Transport; GU - General Utility; BU - Basic Utility; and H - Heliport.
ARC	Airport Reference Code - a coding system used to relate airport design criteria to the operational and physical characteristics of the aircraft intended to operate at the airport.
Design Standard	Airport design criteria associated with the ARC: T - Transport; GUI - General Utility Stage 1; GUII - General Utility Stage 2; GUIA - General Utility Stage IA; BUI - Basic Utility Stage I; and BUII - Basic Utility Stage 2.
Current	Present design standard.
Short	Planned design standard within 0-5 years.
Medium	Planned design standard within 6-10 years.
Long	Planned design standard within 11-20 years.
Function	TASP functional categories.

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Abernathy	Abernathy Municipal	N	GA	BU	A-II	BUI	BUI	BUI	BUI	Access
Abilene	Abilene Regional	Y	PR	T	C-IV	T	T	T	T	Commercial
Albany	Albany Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Alice	Alice International	Y	GA	T	C-II	T	T	T	T	Regional
Alpine	Alpine-Casparis Municipal	Y	GA	T	B-II	GUIA	GUIA	T	T	Regional
Amarillo	Amarillo International	Y	PR	T	D-VI	T	T	T	T	Commercial
Amarillo	Tradewind	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Anahuac	Chambers County	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Andrews	Andrews County	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Angleton/Lake Jackson	Brazoria County	Y	RL	T	C-III	T	T	T	T	Reliever
Arlington	Arlington Municipal	Y	RL	T	C-II	T	T	T	T	Reliever
Aspermont	Stonewall County	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Athens	Athens Municipal	Y	GA	GU	B-I	GUI	GUI	GUI	GUI	Multipurpose
Atlanta	Hall-Miller Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Austin	Austin-Bergstrom International	Y	PR	T	D-V	T	T	T	T	Commercial
Austin	Greater Austin (New)	Y	RL	T	C-II	T	T	T	T	Reliever
Ballinger	Bruce Field	N	GA	GU	B-I	BUII	BUII	BUII	GUI	Multipurpose
Bandera	Bandera County (New)	Y	GA	GU	B-II			GUI	GUI	Multipurpose
Bay City	Bay City Municipal	Y	GA	T	B-II	GUII	GUII	T	T	Regional
Beaumont	Beaumont Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Beaumont/Port Arthur	Southeast Texas Regional	Y	PR	T	C-IV	T	T	T	T	Commercial
Beeville	Beeville Municipal	Y	GA	GU	B-II	GUIA	GUIA	GUIA	GUIA	Multipurpose
Berclair	Goliad County Industrial Airpark (New)	Y	GA	T	D-IV	T	T	T	T	Multipurpose
Big Lake	Reagan County	N	GA	GU	A-I	BUI	BUI	GUI	GUI	Multipurpose
Big Spring	Big Spring McMahon-Wrinkle	Y	GA	T	C-III	T	T	T	T	Regional
Bishop	Bishop Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Boerne	Kendall County-Boerne (New)	Y	GA	GU	B-II			GUI	GUI	Multipurpose
Bonham	Jones Field	Y	GA	GU	B-II	BUI	GUI	GUI	GUI	Multipurpose
Borger	Hutchinson County	Y	GA	T	B-II	T	T	T	T	Regional
Bowie	Bowie Municipal	Y	GA	GU	B-I	BUII	BUII	BUII	GUI	Multipurpose
Brady	Curtis Field	Y	GA	GU	B-II	BUII	GUI	GUI	GUII	Multipurpose
Breckenridge	Stephens County	Y	GA	T	C-II	T	T	T	T	Regional
Brenham	Brenham Municipal	Y	GA	T	C-II	GUII	GUII	GUII	T	Multipurpose
Bridgeport	Bridgeport Municipal	Y	GA	GU	B-I	GUI	GUI	GUI	GUI	Multipurpose
Brownfield	Terry County	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Brownsville	Brownsville/South Padre Island International	Y	PR	T	D-IV	T	T	T	T	Commercial
Brownwood	Brownwood Regional	Y	GA	T	C-II	T	T	T	T	Regional
Bryan	Coulter Field	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Buffalo/Centerville	Leon County (New)	N	GA	GU	B-II			GUI	GUI	Multipurpose
Burnet	Burnet Municipal Kate Craddock Field	Y	GA	T	B-II	GUII	GUII	T	T	Regional
Caddo Mills	Caddo Mills Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Caldwell	Caldwell Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Cameron	Cameron Municipal Airpark	Y	GA	GU	B-I	BUII	BUII	BUII	GUI	Agricultural
Canadian	Hemphill County	Y	GA	GU	B-II	GUI	GUI	GUI	GUII	Multipurpose
Carrizo Springs	Dimmit County	Y	GA	T	B-II	GUII	GUII	GUII	T	Special Use
Carthage	Panola County-Sharpe Field	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Multipurpose
Castroville	Castroville Municipal	Y	GA	GU	B-II	GUIA	GUIA	GUIA	GUII	Multipurpose
Center	Center Municipal	Y	GA	T	C-II	GUII	GUII	T	T	Multipurpose
Childress	Childress Municipal	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Cisco	Cisco Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Clarendon	Clarendon Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Clarksville	Clarksville-Red River County	Y	GA	BU	B-I	BUI	BUII	BUII	BUII	Multipurpose

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Cleburne	Cleburne Municipal	Y	GA	T	C-II	T	T	T	T	Regional
Cleveland	Cleveland Municipal	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Clifton	Clifton Municipal/Isenhower Field	Y	GA	BU	A-I	BUI	BUI	BUI	BUI	Multipurpose
Coleman	Coleman Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
College Station	Easterwood Field	Y	PR	T	D-IV	T	T	T	T	Commercial
Colorado City	Colorado City	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Agricultural
Columbus	Robert R. Wells Jr	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Comanche	Comanche County-City	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Commerce	Commerce Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Conroe	Montgomery County	Y	RL	T	C-III	T	T	T	T	Reliever
Corpus Christi	Corpus Christi International	Y	PR	T	D-IV	T	T	T	T	Commercial
Corsicana	C. David Campbell Field-Corsicana Municipal	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Regional
Cotulla	Cotulla-La Salle County	Y	GA	GU	B-II	GUIA	GUII	GUII	GUII	Special Use
Crane	Crane County	N	GA	BU	B-II	BUI	BUI	BUI	BUI	Access
Crockett	Houston County	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Crosbyton	Crosbyton Municipal	N	GA	GU	B-I	BUI	BUI	BUII	GUI	Multipurpose
Crowell	Foard County	N	GA	BU	B-I	BUI	BUI	BUI	BUI	Agricultural
Crystal City	Crystal City Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Cuero	Cuero Municipal	Y	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Daingerfield	Greater Morris County	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Dalhart	Dalhart Municipal	Y	GA	T	B-II	GUII	GUII	T	T	Regional
Dallas	Addison	Y	RL	T	C-II	T	T	T	T	Reliever
Dallas	Dallas CBD Vertiport	Y	GA	H						Heliport
Dallas	Dallas Love Field	Y	PR	T	D-IV	T	T	T	T	Commercial
Dallas	Redbird	Y	RL	T	C-II	T	T	T	T	Reliever
Dallas-Fort Worth	Dallas/Fort Worth International	Y	PR	T	D-VI	T	T	T	T	Commercial

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Decatur	Decatur Municipal	Y	GA	GU	B-II	GUI	GUI	GUIA	GUIA	Multipurpose
Del Rio	Del Rio International	Y	GA	T	C-II	GUII	T	T	T	Regional
Dell City	Dell City Municipal	N	GA	BU	B-I	BUI	BUI	BUI	BUII	Remote
Denton	Denton Municipal	Y	RL	T	C-II	T	T	T	T	Reliever
Denver City	Denver City	N	GA	GU	B-II	GUIA	GUIA	GUIA	GUIA	Multipurpose
Devine	Devine Municipal	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Dilley	Dilley Airpark	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Dimmitt	Dimmitt Municipal	Y	GA	GU	B-I	GUI	GUI	GUI	GUI	Agricultural
Dryden	Terrell County	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Remote
Dublin	Dublin Municipal	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Dumas	Moore County	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Regional
Eagle Lake	Eagle Lake	Y	GA	GU	B-I	GUI	GUI	GUI	GUI	Agricultural
Eagle Pass	Maverick County Memorial International	Y	GA	T	C-II	T	T	T	T	Regional
Eastland	Eastland Municipal	Y	GA	GU	B-I	BUII	GUI	GUI	GUI	Multipurpose
Eden	Eden-Concho County (New)	Y	GA	GU	B-II		GUI	GU	GUI	Multipurpose
Edinburg	Edinburg International	Y	GA	T	B-II	GUII	GUII	GUII	T	Multipurpose
Edna	Jackson County	Y	GA	GU	B-I	BUII	BUII	GUI	GUI	Multipurpose
El Paso	El Paso International	Y	PR	T	D-V	T	T	T	T	Commercial
El Paso	West Texas	Y	GA	GU	A-I	BUI	BUI	GUI	GUII	Multipurpose
Eldorado	Eldorado	N	GA	BU	A-I	BUI	BUII	BUII	BUII	Access
Ennis	Ennis Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Fabens	Fabens	Y	GA	BU	A-I	BUI	BUI	BUI	BUI	Agricultural
Falfurrias	Brooks County	Y	GA	T	B-II	GUII	GUII	GUII	T	Special Use
Floydada	Floydada Municipal	Y	GA	GU	B-I	BUI	BUII	BUII	GUI	Multipurpose
Follett	Follett/Lipscomb County	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Multipurpose
Fort Stockton	Fort Stockton-Pecos County	Y	GA	T	C-II	T	T	T	T	Regional

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Fort Worth	Fort Worth Alliance	Y	RL	T	D-V	T	T	T	T	Reliever
Fort Worth	Fort Worth Meacham International	Y	RL	T	D-IV	T	T	T	T	Reliever
Fort Worth	Fort Worth Spinks	Y	RL	T	C-II	T	T	T	T	Reliever
Fredericksburg	Gillespie County	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Multipurpose
Freer	Duval-Freer	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Special Use
Friona	Benger Air Park	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Agricultural
Gainesville	Gainesville Municipal	Y	GA	T	C-II	T	T	T	T	Multipurpose
Galveston	Scholes International Airport at Galveston	Y	GA	T	C-III	T	T	T	T	Regional
Garland	Garland/DFW Heloplex	Y	GA	H						Heliport
Gatesville	City-County	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
George West	Live Oak County	N	GA	GU	B-II	GUI	GUIA	GUIA	GUII	Multipurpose
Georgetown	Georgetown Municipal	Y	RL	T	C-II	T	T	T	T	Reliever
Giddings	Giddings-Lee County	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Gilmer	Fox Stephens Field - Gilmer Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Gladewater	Gladewater Municipal	Y	GA	GU	B-II	BUII	BUII	BUII	GUI	Multipurpose
Goldthwaite	Mills County (New)	N	GA	GU	B-II			GUI	GUI	Multipurpose
Gonzales	Gonzales Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Graford	Possum Kingdom	N	GA	BU	B-I	BUI	BUII	BUII	BUII	Special Use
Graham	Graham Municipal	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Regional
Granbury	Granbury Municipal	Y	GA	GU	B-I	BUII	GUI	GUI	GUI	Multipurpose
Grand Prairie	Grand Prairie Municipal	Y	RL	GU	B-II	GUI	GUI	GUI	GUI	Reliever
Greenville	Majors	Y	GA	T	D-IV	T	T	T	T	Industrial
Groveton	Groveton-Trinity County	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Gruver	Gruver Municipal	Y	GA	GU	B-I	BUII	BUII	BUII	GUI	Multipurpose
Hallettsville	Hallettsville Municipal	N	GA	GU	B-I	BUII	BUII	BUII	GUI	Multipurpose
Hamilton	Hamilton Municipal	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Hamlin	Hamlin Municipal	N	GA	BU	A-I	BUI	BUII	BUII	BUII	Agricultural
Harlingen	Rio Grande Valley International	Y	PR	T	D-V	T	T	T	T	Commercial
Haskell	Haskell Municipal	Y	GA	BU	B-I	BUI	BUI	BUII	BUII	Agricultural
Hearne	Hearne Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Hebbronville	Jim Hogg County	Y	GA	T	B-II	GUII	T	T	T	Special Use
Henderson	Rusk County	Y	GA	GU	B-II	GUI	GUI	GUI	GUII	Multipurpose
Hereford	Hereford Municipal	Y	GA	T	B-II	GUI	GUII	GUII	GUII	Regional
Higgins	Higgins-Lipscomb County	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Hillsboro	Hillsboro Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Hondo	Hondo Municipal	Y	GA	T	C-II	T	T	T	T	Industrial
Houston	Waller County (New)	Y	RL	T	C-II		T	T	T	Reliever
Houston	Clover Field	Y	RL	GU	B-II	GUIA	GUIA	GUII	GUII	Reliever
Houston	David Wayne Hooks Memorial	Y	RL	T	C-II	T	T	T	T	Reliever
Houston	Ellington Field	Y	PR	T	D-IV	T	T	T	T	Commercial
Houston	George Bush Intercontinental Airport/Houston	Y	P	T	D-V	T	T	T	T	Commercial
Houston	Houston Gulf	N	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Houston	Houston Heliport (New)	Y	GA	H						Heliport
Houston	Houston-Southwest	N	GA	T	C-II	T	T	T	T	Multipurpose
Houston	Sugar Land Municipal/Hull Field	Y	RL	T	C-II	T	T	T	T	Reliever
Houston	West Houston	Y	RL	GU	B-II	GUI	GUI	GUI	GUI	Reliever
Houston	William P. Hobby	Y	PR	T	D-IV	T	T	T	T	Commercial
Huntsville	Huntsville Municipal	Y	GA	T	C-II	T	T	T	T	Regional
Ingleside	T.P. McCampbell	N	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Jacksboro	Jacksboro Municipal	Y	GA	BU	A-II	BUI	BUI	BUI	BUI	Access
Jacksonville	Cherokee County	Y	GA	T	B-II	GUII	GUII	GUII	T	Multipurpose
Jasper	Jasper County-Bell Field	Y	GA	T	B-II	GUII	GUII	GUII	T	Regional

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Jayton	Kent County	N	GA	BU	A-I	BUI	BUI	BUII	BUII	Agricultural
Jefferson	Cypress River	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Junction	Kimble County	Y	GA	T	C-II	GUII	GUII	T	T	Regional
Kenedy	Karnes County	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Kerrville	Kerrville Municipal/Louis Schreiner Field	Y	GA	T	C-II	T	T	T	T	Regional
Killeen	Killeen Municipal	Y	PR	T	C-II	T	T	T	T	Commercial
Killeen*	Robert Gray Army Air Field	Y	PR	T	D-IV	T	T	T	T	Commercial
Kingsville	Kleberg County	Y	GA	T	C-II	GUII	T	T	T	Regional
Kirbyville	Kirbyville	N	GA	BU	B-I	GUI	BUII	BUII	BUII	Access
Knox City	Harrison Field of Knox City	N	GA	BU	B-I	BUI	BUII	BUII	BUII	Agricultural
Kountze/Silsbee	Hawthorne Field	Y	GA	GU	B-II	GUIA	GUIA	GUII	GUII	Multipurpose
LaGrange	Fayette Regional Air Center	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Multipurpose
LaPorte	La Porte Municipal	Y	RL	GU	B-II	BUII	GUI	GUI	GUI	Reliever
Lago Vista	Lago Vista Texas - Rusty Allen	Y	GA	GU	B-I	BUII	BUII	GUI	GUI	Multipurpose
Lajitas	Lajitas (New)	N	GA	T	C-II		T	T	T	Remote
Lamesa	Lamesa Municipal	Y	GA	GU	B-II	GU1A	GU1A	GU1A	GU1A	Agricultural
Lampasas	Lampasas	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Lancaster	Lancaster	Y	RL	T	C-II	T	T	T	T	Reliever
Laredo	Laredo International	Y	PR	T	D-IV	T	T	T	T	Commercial
Leakey	Real County	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Remote
Levelland	Levelland Municipal	Y	GA	T	B-II	GUII	GUII	T	T	Regional
Liberty	Liberty Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Littlefield	Littlefield Municipal	Y	GA	BU	B-I	BUI	BUII	BUII	BUII	Multipurpose
Livingston	Livingston Municipal	Y	GA	GU	B-II	GUI	GUI	GUIA	GUIA	Multipurpose
Llano	Llano Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Lockhart	Lockhart Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUII	Multipurpose

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Longview	Gregg County	Y	PR	T	D-IV	T	T	T	T	Commercial
Lubbock	Lubbock International	Y	PR	T	D-IV	T	T	T	T	Commercial
Lufkin	Angelina County	Y	GA	T	C-II	T	T	T	T	Regional
Luling	The Carter Memorial	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Madisonville	Madisonville Municipal	N	GA	GU	B-I	BUII	BUII	BUII	GUI	Access
Marfa	Marfa Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Marlin	Marlin	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Marshall	Harrison County	Y	GA	T	C-II	T	T	T	T	Regional
Mason	Mason County	N	GA	GU	B-I	BUII	BUII	BUII	GUI	Multipurpose
McAllen	McAllen Miller International	Y	PR	T	D-IV	T	T	T	T	Commercial
McCamey	Upton County	N	GA	BU	B-II	BUII	BUII	BUII	BUII	Access
McGregor	McGregor Executive	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
McKinney	Mc Kinney Municipal	Y	RL	T	C-III	T	T	T	T	Reliever
McLean	McLean/Gray County	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Memphis	Memphis Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Menard	Menard County	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Mesquite	Mesquite Metro	Y	RL	T	C-II	T	T	T	T	Reliever
Mexia	Mexia-Limestone County	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Multipurpose
Miami	Miami-Roberts County	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Multipurpose
Midland	Midland Airpark	Y	GA	GU	B-II	GUIA	GUIA	GUIA	GUIA	Regional
Midland	Midland International	Y	PR	T	D-IV	T	T	T	T	Commercial
Midlothian/Waxahachie	Mid-Way Regional	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Mineola/Quitman	Wood County	N	GA	GU	B-I	BUII	GUI	GUI	GUI	Multipurpose
Mineral Wells	Mineral Wells	Y	GA	T	C-II	T	T	T	T	Industrial
Monahans	Roy Hurd Memorial	Y	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Morton	Cochran County	Y	GA	BU	A-I	BUI	BUII	BUII	BUII	Multipurpose

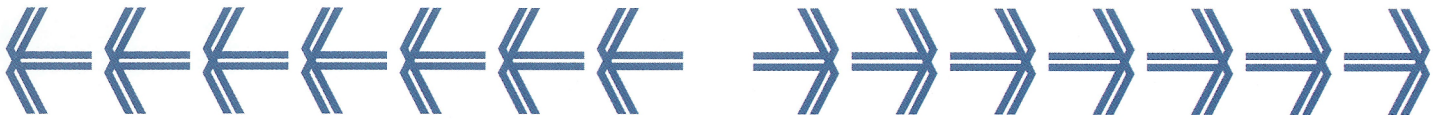
CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Mount Pleasant	Mount Pleasant Municipal (New)	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Regional
Mount Vernon	Franklin County	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Muleshoe	Muleshoe Municipal	Y	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Munday	Munday Municipal	N	GA	BU	B-I	BUI	BUII	BUII	BUII	Agricultural
Nacogdoches	A. L. Mangham Jr. Regional	Y	GA	T	B-II	GUII	GUII	T	T	Regional
Navasota	Navasota Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
New Braunfels	New Braunfels Municipal	Y	GA	T	C-II	T	T	T	T	Regional
Newton	Newton Municipal	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Odessa	Odessa-Schlemeyer Field	Y	GA	T	C-II	GUII	T	T	T	Regional
Olney	Olney Municipal	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Orange	Orange County	Y	GA	GU	B-II	GUIA	GUII	GUII	GUII	Multipurpose
Ozona	Ozona Municipal	Y	GA	T	C-II	GUII	T	T	T	Regional
Paducah	Dan E. Richards Municipal	N	GA	BU	B-I	BUI	BUII	BUII	BUII	Multipurpose
Palacios	Palacios Municipal	Y	GA	T	C-II	T	T	T	T	Multipurpose
Palestine	Palestine Municipal	Y	GA	T	C-II	T	T	T	T	Multipurpose
Pampa	Perry Lefors Field	Y	GA	T	C-II	T	T	T	T	Regional
Panhandle	Panhandle-Carson County	N	GA	BU	A-I	BUI	BUI	BUI	BUII	Multipurpose
Paris	Cox Field	Y	GA	T	C-III	T	T	T	T	Regional
Pearsall	McKinley Field	N	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Pecos	Pecos Municipal	Y	GA	T	C-II	GUII	T	T	T	Multipurpose
Perryton	Perryton Ochiltree County	Y	GA	GU	B-II	GUIA	GUII	GUII	GUII	Multipurpose
Pineland	Pineland Municipal	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Plains	Yoakum County	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Multipurpose
Plainview	Hale County	Y	GA	T	C-II	T	T	T	T	Regional
Pleasanton	Pleasanton Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Port Aransas	Mustang Beach	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Special Use

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Port Isabel	Port Isabel-Cameron County	Y	GA	T	C-II	T	T	T	T	Multipurpose
Port Lavaca	Calhoun County	Y	GA	T	B-II	GUII	GUII	GUII	T	Multipurpose
Port Mansfield	Charles R. Johnson	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Special Use
Post	Post-Garza County Municipal	Y	GA	GU	B-I	BUI	BUII	BUII	GUI	Multipurpose
Presidio	Presidio Lely International	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Remote
Quanah	Quanah Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Refugio	Rooke Field	Y	GA	GU	B-I	GUIA	GUIA	GUIA	GUIA	Multipurpose
Rio Grande City	Starr County	N	GA	GU	B-II	BUII	GUI	GUI	GUII	Multipurpose
Roanoke	Northwest Regional	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Robert Lee	Robert Lee	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Robstown	Nueces County	Y	GA	GU	B-II	BUII	GUI	GUIA	GUII	Multipurpose
Rockdale	H.H. Coffield Regional	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Multipurpose
Rockport	Aransas County	Y	GA	T	C-II	T	T	T	T	Regional
Rocksprings	Edwards County	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Remote
Rockwall	Rockwall Municipal	Y	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Rotan/Roby	Fisher County	N	GA	BU	A-I	BUI	BUI	BUII	BUII	Agricultural
San Angelo	San Angelo Regional/Mathis Field	Y	PR	T	C-IV	T	T	T	T	Commercial
San Antonio	San Antonio International	Y	PR	T	D-V	T	T	T	T	Commercial
San Antonio	Stinson Municipal	Y	RL	T	C-II	T	T	T	T	Reliever
San Augustine	San Augustine County	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Access
San Marcos	San Marcos Municipal	Y	RL	T	C-II	T	T	T	T	Reliever
San Saba	San Saba County Municipal	N	GA	GU	B-II	BUII	BUII	BUII	GUI	Multipurpose
Seminole	Gaines County	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Seymour	Seymour Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Shamrock	Shamrock Municipal	N	GA	BU	A-I	BUI	BUI	BUI	BUII	Multipurpose
Sherman	Sherman Municipal	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	ARC	DESIGN STANDARD				FUNCTION
						CURRENT	SHORT	MEDIUM	LONG	
Sherman/Denison	Grayson County	Y	GA	T	D-IV	T	T	T	T	Industrial
Sinton	San Patricio County	Y	GA	GU	B-II	GUIA	GUIA	GUIA	GUIA	Multipurpose
Slaton	Slaton Municipal	Y	GA	GU	B-II	BUI	BUII	BUII	GUI	Multipurpose
Smithville	Smithville Municipal	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Snyder	Winston Field	Y	GA	T	C-II	T	T	T	T	Regional
Sonora	Sonora Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Spearman	Spearman Municipal	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Agricultural
Stamford	Arledge Field	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Stanton	Stanton Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Stephenville	Clark Field Municipal	Y	GA	GU	B-I	GUI	GUI	GUI	GUI	Multipurpose
Stratford	Stratford Field (New)	N	GA	GU	B-II		GUI	GU	GUI	Agricultural
Sulphur Springs	Sulphur Springs Municipal	Y	GA	T	B-II	GUII	GUII	GUII	T	Multipurpose
Sunray	Sunray (New)	N	GA	GU	B-II		GUI	GUI	GUI	Agricultural
Sweetwater	Avenger Field	Y	GA	T	C-II	T	T	T	T	Regional
Tahoka	T-Bar	N	GA	BU	B-I	BUI	BUII	BUII	BUII	Agricultural
Taylor	Taylor Municipal	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Teague	Teague Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Access
Temple	Draughon-Miller Central Texas Regional	Y	GA	T	C-II	T	T	T	T	Regional
Terrell	Terrell Municipal	Y	GA	GU	B-II	GUI	GUII	GUII	GUII	Multipurpose
Texarkana	Texarkana Regional-Webb Field	Y	PR	T	D-IV	T	T	T	T	Commercial
Tulia	City of Tulia/Swisher County Municipal	Y	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Tyler	Tyler Pounds Field	Y	PR	T	C-III	T	T	T	T	Commercial
Uvalde	Garner Field	Y	GA	T	C-II	T	T	T	T	Regional
Van Horn	Culberson County	Y	GA	GU	B-II	GUIA	GUII	GUII	GUII	Multipurpose
Vega	Oldham County	Y	GA	GU	B-II	BUI	GUI	GUI	GUI	Agricultural
Vernon	Wilbarger County	Y	GA	T	C-II	T	T	T	T	Regional

CITY	AIRPORT	NPIAS	FEDERAL ROLE	STATE ROLE	DESIGN STANDARD					FUNCTION
					ARC	CURRENT	SHORT	MEDIUM	LONG	
Victoria	Victoria Regional	Y	PR	T	D-IV	T	T	T	T	Commercial
Waco	TSTC Waco	Y	GA	T	D-IV	T	T	T	T	Industrial
Waco	Waco Regional	Y	PR	T	D-IV	T	T	T	T	Commercial
Weatherford	Weatherford (New)	Y	GA	GU	B-II		GUI	GUI	GUI	Multipurpose
Wellington	Marian Airpark	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Weslaco	Mid Valley	Y	GA	GU	B-II	GUII	GUII	GUII	GUII	Multipurpose
Wharton	Wharton Regional	Y	GA	T	B-II	GUII	GUII	GUII	T	Regional
Wheeler	Wheeler Municipal	N	GA	BU	A-I	BUI	BUI	BUI	BUII	Multipurpose
Wichita Falls	Kickapoo Downtown Airpark	Y	GA	GU	B-I	GUI	GUI	GUI	GUI	Multipurpose
Wichita Falls	Sheppard AFB/Wichita Falls Municipal	Y	PR	T	D-VI	T	T	T	T	Commercial
Wills Point	Wills Point Municipal	N	GA	BU	B-I	BUII	BUII	BUII	BUII	Multipurpose
Wink	Winkler County	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Winnie/Stowell	Chambers County-Winnie Stowel	N	GA	GU	B-II	GUI	GUI	GUI	GUI	Agricultural
Winnsboro	Winnsboro Municipal	Y	GA	GU	B-II	BUII	GUI	GUI	GUI	Multipurpose
Winters	Winters Municipal	N	GA	BU	A-I	BUI	BUI	BUI	BUI	Access
Woodville	Tyler County	Y	GA	GU	B-II	GUI	GUI	GUI	GUI	Multipurpose
Yoakum	Yoakum Municipal	N	GA	GU	B-I	BUII	BUII	GUI	GUI	Multipurpose
Zapata	Zapata County	N	GA	GU	B-II	GUII	GUII	GUII	GUII	Special Use

*** Commercial replacement for Killeen Municipal**



Texas Airport System Plan 2002

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