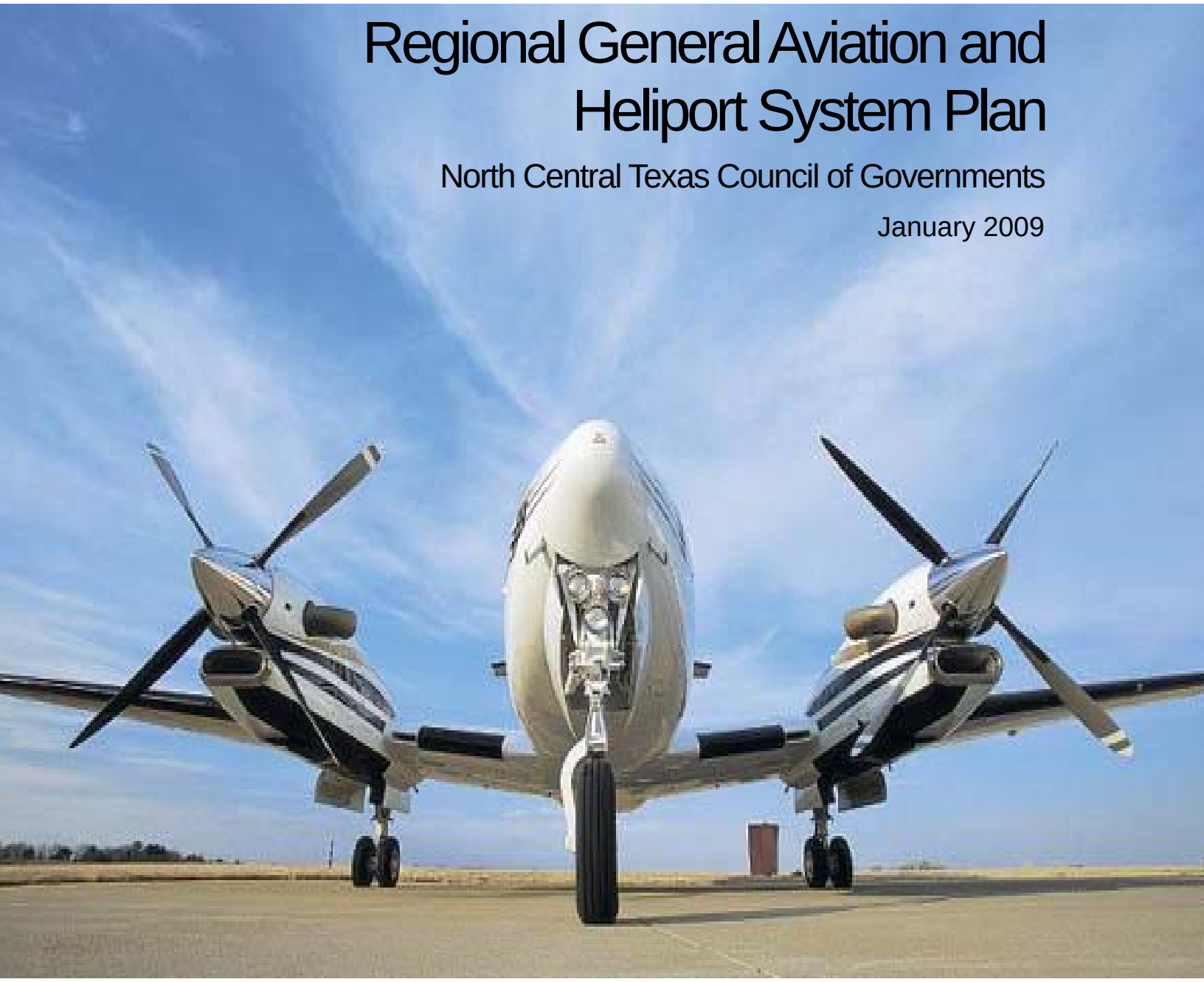
General Aviation Air Cargo Analysis



Regional General Aviation and Heliport System Plan

North Central Texas Council of Governments

January 2009

CONNECTING GLOBALLY

North Central Texas General Aviation and Heliport System Plan

Disclaimer: The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do no necessarily reflect the views or policies of the Federal Aviation Administration or the Texas Department of Transportation.

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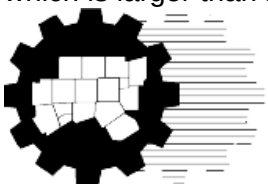
What is NCTCOG?

The North Central Texas Council of Governments is a voluntary association of cities, counties, school districts, and special districts which was established in January 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development.

It serves a 16-county metropolitan region centered around the two urban centers of Dallas and Fort Worth. Currently, the Council has **233 members**, including 16 counties, 165 cities, 23 independent school districts, and 29 special districts. The area of the region is approximately **12,800 square miles**, which is larger than nine states, and the population of the region is over **6.2 million**, which is larger than 35 states.



NCTCOG's structure is relatively simple; each member government appoints a voting representative from the governing body. These voting representatives make up the **General Assembly** which annually elects a 15-member Executive Board. The **Executive Board** is supported by policy development, technical advisory, and study committees, as well as a professional staff of 235.

NCTCOG's offices are located in Arlington in the Centerpoint Two Building at 616 Six Flags Drive (approximately one-half mile south of the main entrance to Six Flags Over Texas).

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NCTCOG's Department of Transportation

Since 1974, NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

Prepared in cooperation with the Texas Department of Transportation and the U. S. Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration.

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The authors wish to especially thank the ATTAC Committee without whose insight and assistance the successful completion of this project would not have been possible:

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Abstract

TITLE:	Air Cargo Analysis
AUTHORS:	CHA Aviation Development Team
DATE:	January 2009
SUBJECT:	The Air Cargo Analysis is part of the North Central Texas Regional General Aviation and Heliport System. The project team consists of the CHA Aviation Development Team and the North Central Texas Council of Governments. The development of the System Plan includes a review of the roles and uses of the general aviation facilities with in North Central Texas (NCT).
SOURCE OF COPIES:	Regional Information Center North Central Texas Council of Governments P.O. Box 5888 Arlington, Texas 76005-5888 (817) 640-3300
NUMBER OF PAGES:	34
ABSTRACT:	The Air Cargo Analysis report has been written to identify and evaluate the shipment of air cargo for the general aviation airports in North Central Texas. The sections of this report include background of air cargo types and airlines, growth projections, major airports and airlines that handle air cargo within NCT, the roles of regional airports in air cargo, and conclusions on future demands.

General Aviation Air Cargo Analysis

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GENERAL AVIATION AIR CARGO ANALYSIS

The ability to ship air cargo is a fundamental requirement for continued economic growth of a region. General aviation (GA) airports contribute to the economy by providing potential locations for transporting air cargo. This analysis provides a brief background on air cargo types and airlines followed by a discussion of national and international projections of air cargo growth by independent organizations. Major airports and airlines that handle air cargo within North Central Texas are identified. Additionally, the roles of regional airports in the movement of air cargo are identified and conclusions are formulated as to the future demands on GA airports for air cargo.

All scheduled regional air cargo is handled at one of three airports; Dallas/Fort Worth International Airport (DFW), Dallas Love Field (DAL), and Fort Worth Alliance Airport (AFW). In addition, most unscheduled regional air cargo is also transported at these three airports because of (1) the number of all-cargo and combination passenger airlines that fly to each of these airports on a regular basis, and (2) the established air cargo infrastructure at these airports. All North Central Texas airports have the potential to move some air cargo, and several GA airports currently have some level of air cargo activity.

BACKGROUND ON MOVEMENT OF AIR CARGO

Air cargo represents the movement of freight and mail by air. Although air cargo typically consists of highly valued commodities or high priority items, it represents only a small share of the tonnage shipped within the U.S. due to the relatively high cost of air transport.

There is no national data or identification of all items shipped by air because many are known only to the shipper. High value and high priority shipments constitute most air cargo movements based on shipper's statements. Items such as electronic products, high fashion clothing, and fresh flowers are usually included in these shipments. In addition, urgent business documents and emergency replacement parts and products are shipped by air. The critical need for air cargo results from "just-in-time" demand for products around the world by both consumers and industries.

The U. S. Department of Transportation (DOT) records the annual number of freight ton-miles accumulated by each mode of domestic transport. Statistics indicate that in 2006 air transportation carried 15.4 billion ton miles or 0.3 percent of the total cargo movement activity by weight within the United States. The comparison of domestic air shipments to rail, truck, pipeline, and barge/ship movements is shown in Exhibit 1.

Exhibit 1
Domestic Freight in 2006 by Mode
(Freight ton-miles in billions)

Mode	2006 Freight Ton Miles	Share	Percentage Change 1990-2006
Railroad	1,852.8	40.0%	74%
Truck	1,294.5	27.9%	53%
Pipeline	913.2	19.7%	6%
Water	561.6	12.1%	-33%
Air	15.4	0.3%	47%
Total	4,637.5	100.0%	

Source: U.S. DOT, October 2008

Over the period from 1990 to 2006, railroad and truck volume grew over 50 percent as the U.S. economy improved and as more international products were transported within the domestic market. Air volume grew 47 percent. In contrast, the pipeline mode grew only slightly because few new pipelines were opened, while the volume shipped by water actually declined as coal and other commodities were shifted to rail and truck.

Using a different metric, the DOT indicates air shipments represented approximately 0.4 percent of the weight shipped internationally in 2006, with 7,854,000 tons moved. However, this weight represented approximately 25.3 percent of the value of items shipped internationally in the same period.

Air cargo moves by three principal types of airlines as described below.

- **Integrated carriers**

The start of Federal Express (now FedEx) operations in 1973 transformed the air cargo industry. Prior to 1973, freight forwarders and the scheduled passenger airlines handled most air cargo. They generally shipped the product from one airport to another, sometimes assisting in packaging the products, consolidating shipments, or helping with customs processing. In some cases, the freight forwarder provided pick up and delivery of the shipment, but usually the shipment was picked up and delivered at the airport. FedEx "integrated" the cargo shipment process from pick up to delivery (door to door), which led to these types of full-service cargo shipment firms being termed "integrators." The rapid increase in the volume of FedEx and other integrated carrier shipments has been caused by lowering prices and making the shipping process easier, as well as the exemplary and dependable service.

The role of integrated carriers is to handle the entire shipping process including package pick up, paperwork, shipping, and delivery. Thus, the process is simplified for the shipper/sender who contracts with one firm to handle every aspect of the cargo movement and for the receiver who can contact one firm to determine the status of the shipment.

The integrated package air carriers have been purchasing or expanding over-the-road trucking companies to offer air and ground delivery service and/or mixing the two types of services. Services offered by integrated packagers can include overnight with morning delivery and overnight with afternoon delivery, as well as lower cost, one-day, two-day, and three-day cargo delivery services.

Integrated carriers are also called "package delivery" firms because their business started with the companies carrying high-value or priority envelopes and small packages to domestic points; however, they have expanded their operations over the years to include much larger shipments and international operations. Today there are four significant integrated carriers: FedEx, United Parcel Service (UPS), DHL, and BAX Global. FedEx, UPS, and BAX Global generally handle cargo in their own aircraft, while DHL uses two airlines (ABX Air, Inc. and AStar Air Cargo) to carry cargo. DHL is currently exploring contracting with UPS to move its packages by air, thus allowing it to concentrate on ground handling services.

Today, integrated firms handle most of the domestic air cargo. Statistics from the Federal Aviation Administration (FAA) indicate that the integrated carriers transported 80.9 percent of the domestic air cargo in 2006.

- **Scheduled Airlines**
  Scheduled domestic passenger airlines, such as American, Continental, Delta, Northwest, United, and US Airways, also carry air cargo that is usually referred to as "belly cargo," or cargo carried in the baggage compartment of an aircraft.

  Of the scheduled domestic passenger airlines, only Northwest and Alaska have dedicated all-cargo aircraft. Northwest Airlines has 12 all-cargo Boeing 747 aircraft in addition to utilizing passenger aircraft for air cargo. Alaska has one Boeing 737-400 all-freighter aircraft and four Boeing 737-400 combination aircraft that carry passengers and cargo on the main level of the aircraft. However, neither airline has scheduled all-cargo service to North Central Texas.

  The scheduled airlines are divided into passenger carriers who carry air cargo as a "sideline" to their passenger flights and the dedicated all-cargo airlines who deal only in air cargo. An example of all-cargo airlines is Arrow Air, which has 11 DC-10 and DC-8 all-freighter aircraft based in Miami. Both scheduled passenger carriers and the all-cargo carriers provide charter service for specific routes or shipments.

- **Air Taxi, On-Demand Carriers, and Charter Airlines**
  A third category of airlines is only somewhat different from the integrated and scheduled carriers identified above. However, there are firms that provide only charter or on-demand air cargo service and do not operate scheduled service or provide all the services of the integrated carriers. While both integrated and scheduled airlines can

provide on-demand flights, this class of charter airline typically specializes in carrying military, auto parts, and live animals. Other services are for small, specialized, extremely high value, or unusual shipments. For example, Ameriflight has hundreds of small aircraft based around the U.S. carrying small, high priority items such as engineering drawings and financial documents, as well as medical samples for testing. Carriers like Kalitta and Evergreen often own or operate the all-cargo aircraft that are leased or chartered to other carriers, such as FedEx, or operated in dedicated service for a major shipper or freight forwarder.

While unusual, a company can also transport its own air cargo. For example, both Boeing and Airbus have dedicated freighter aircraft to carry parts among their manufacturing facilities. Like domestic commercial passenger airlines, air cargo flights are largely deregulated, permitting any carrier to fly any domestic route; therefore, market forces determine prices and service levels.

The two largest integrated carriers are FedEx and UPS, who together represented over half of the domestic air cargo carried in 2007. The ten largest domestic air cargo airlines (by revenue ton-miles carried) are presented on Exhibit 2.

Exhibit 2
Largest U.S. Cargo Carriers in 2007 by Revenue Ton Miles Carried

Rank	Carrier Name	Ton Miles (millions)	Type of Carrier
1	FedEx	10,543	Integrated
2	UPS	6,270	Integrated
3	Atlas	5,342	All-cargo
4	Northwest	2,269	Combination passenger/cargo
5	American	2,231	Combination passenger/cargo
6	United	2,048	Combination passenger/cargo
7	Delta	1,239	Combination passenger/cargo
8	Kalitta	1,190	All-cargo
9	Continental	1,006	Combination passenger/cargo
10	Evergreen	840	All-cargo

Source: Air Transport Association, 2008

The movement of air cargo represents a complicated arrangement of firms and shipment types, each with a unique method of operation. Several specific issues of air cargo movement are identified and discussed below.

- **Mail**
  While mail is transported by a variety of methods, most mail moves in U.S. Postal Service (Postal Service) trucks. First class letters and high priority packages move either as belly cargo on scheduled passenger flights or by contract on all-cargo flights. Mail is carried by most of the scheduled passenger airlines such as Delta and United in contracts that are periodically bid by the Postal Service. FedEx currently has the largest dedicated Postal Service contract with a nationwide network of flights to move First Class and Priority mail. The Postal Service previously operated its own air shipment

operation, but closed this operation in 2001 when it became more cost effective to contract with one of the existing all-cargo carriers.

- **International versus Domestic Air Cargo**
  International cargo is not necessarily handled in a different manner than domestic cargo although it is generally transported through the largest airports (such as Miami, DFW, Los Angeles' LAX, Chicago's O'Hare, San Francisco, and New York City's Kennedy) that have both the available U.S. Customs facilities and infrastructure to handle wide-body, long distance air cargo aircraft. The FAA indicates that in 2007, 39.4 percent of the revenue ton-miles of cargo on U.S. airlines were domestic, and 60.6 percent of the revenue ton-miles were in international routes. (The greater amount of revenue ton-miles for international service is due to the longer distances normally flown, resulting in more revenue ton-miles.)

- **Freight Forwarders**
  In the past, most air cargo was handled by freight forwarding firms that specialized in managing cargo movement. While such firms continue to be active in international air shipments, integrated carriers now have much of the traditional domestic business.

  The key role of freight forwarders is handling international shipments. These firms process the U.S. and foreign customs and other required paperwork, as well as provide other services such as pick up, packaging, storage, and delivery. Particularly for unusual shipments, small items, and infrequent shippers, the freight forwarder provides a vital role. Freight forwarders also handle live animals, refrigerated items, or bulky items. These firms are sometimes called 'consolidators' because they can successfully lower costs, speed shipment, and reduce loss or damage by consolidating many small shipments onto one pallet or into one container.

- **Choice of Mode**
  In the recent past, shippers often chose either air or ground transport. Today, the integrated carriers, Postal Service, freight forwarders, and the airlines choose the best method of transportation without identifying the actual shipper. A shipment may move from one airline to another and/or from truck to aircraft and/or from one freight forwarder to another in order to meet the delivery requirements. For example, for UPS's two-day guaranteed service packages move from the west coast to its Louisville hub by air and from Louisville to east coast cities by truck. Neither the sender nor receiver of a package may know exactly the method, route, or mode of transportation.

- **Air Cargo Facility Developers**
  Another factor influencing the shipment of air cargo is the role of third party developers who build air cargo ramps, warehouses, or other facilities to attract airlines, freight

forwarders, or major shippers to a particular airport or location on an airport. In a few cases such as AFW, an entire airfield/industrial park complex has been developed, partly to provide a site for air cargo firms or firms dependent upon air cargo to establish their regional operations. An airport itself can act as the developer, building air cargo facilities on the speculation of attracting new tenants or users.

- **Shipment Security**
  Prior to September 11, 2001, air cargo was shipped in all types of aircraft without significant regard to security. Today, security is a major factor in air cargo shipments and the U.S. Transportation Security Administration (TSA) has numerous rules that apply. Air cargo is highly restricted in the belly of passenger aircraft, and the identification of the shipper is required before the package can be handled. Specifically, any First Class or Priority package over 13 ounces must be presented to the Postal Service in person or be shipped by a pre-approved entity.

The movement of air cargo is a complicated process, often with numerous firms involved and is continually evolving as market forces and other factors change. Continued increases in air cargo volume are expected because of the diversity and high priority of items shipped and the involvement of multiple types of firms with an interest in stimulating and improving service.

PROJECTIONS OF NATIONAL AND INTERNATIONAL AIR CARGO GROWTH

On a worldwide basis, the amount of cargo shipped by air has been increasing rapidly as the world economy strengthens and as specialization of production results in the need to move products from one part of the globe to another. Within the U.S., the market has dictated a need for just-in-time delivery of products both to factories and to individuals. For industrial production, assembly plants do not want to keep products on hand due to holding costs and concern about obsolescence, so they often receive component parts on an overnight shipment basis. Similarly, consumers demand items such as computers, software, clothes, and books with next day delivery.

The good news for consumers is that the efficiency of the supply chain has lowered the cost of air transportation to make this just in time or next day delivery possible. The result is that, according to Airbus, air cargo volume worldwide has grown at an average annual rate of 4.6 percent over the last ten years. For the next 20 years, Airbus predicts air cargo volume worldwide will grow 5.8 percent annually. However, because much of the projected growth is in trans-Pacific and intra-Asia travel, Airbus forecasts the U.S. domestic market will grow 4.2 percent annually.

Boeing projects worldwide air cargo growing at a 6.1 percent average annual rate over the next 20 years, with North American traffic growing at a 3.8 percent average annual rate. The FAA's March 2008 forecast of air cargo growth is for a domestic increase of 3.0 percent annually over the next 17 years. For international air cargo to and from the United States, the FAA projects a 6.0 percent growth rate for the next 17 years. A summary of these air cargo growth projections is shown in Exhibit 3.

Exhibit 3
Summary of Air Cargo Forecasts

Source	International	Domestic
Airbus	5.8%	4.2%
Boeing	6.1%	3.8%
FAA	6.0%	3.0%

Source: As indicated

The forecast for air cargo remains one of continued growth both for domestic and international shipments. Even the most conservative estimates indicate that air cargo volumes will more than double over the next 20 years.

CURRENT AIR CARGO ACTIVITY IN NORTH CENTRAL TEXAS

This section identifies the existing movement of air cargo in North Central Texas. By determining the airports that are currently handling air cargo and identifying the cargo airlines within the region, the role of GA airports can be is assessed.

North Central Texas Airports with Air Cargo Service

Any airport in North Central Texas may see an air cargo flight or the movement of air cargo. However, DFW, AFW, and DAL experience the greatest recorded volume of activity.

The cargo activity at these three airports in 2007 is as follows:

DFW

DFW reported 798,432.8 tons of cargo arriving and departing. This volume made DFW the 27th busiest airport in the world for movement of air cargo. Within the U.S., DFW is ranked the tenth busiest airport for air cargo.

DFW classifies its cargo based on the type of operator providing the service. The 2007 activity of the three major categories as defined by the airport are presented below.

- Integrated Carriers - The integrated carriers transported the largest proportion of the cargo at DFW, with UPS, FedEx, and DHL together carrying almost 50 percent of the air cargo through the airport. UPS was the largest single airline in tonnage of air cargo at DFW with 23.8 percent of the volume, while FedEx followed with 19.8 percent. DHL handled 4.3 percent of the airport's freight volume.

- All-Cargo Carriers - All-cargo aircraft operators represented 32.1 percent of the DFW traffic. Five Asian airlines (EVA Air, Singapore Cargo, Korean Air, China Airlines, and Cathy Pacific) and one European airline (Lufthansa) together carried 85.8 percent of the cargo shipped to and from DFW on all-cargo aircraft.

- Combination Passenger-Cargo Carriers - The combination passenger/cargo airlines represented 19.7 percent of the air cargo volume. Fourteen airlines including Alaska and Frontier carried cargo in the belly of their passenger aircraft. American Airlines, the dominate passenger carrier at DFW, represented 16.9 percent of all air cargo at DFW and 85.7 percent of the total for combination airlines.

The breakdown of DFW air cargo by the largest airlines and type of airline is shown in Exhibit 4. In addition, a small amount of air cargo (0.3 percent) was carried by unknown or miscellaneous categories of airlines listed under Non-Classified Carriers.

Exhibit 4
DFW Air Cargo Volume in 2007 by Type of Carrier and Airline

Airline	Cargo Tons (thousands)	Percent Share
Integrated Carriers		
UPS	189,960.8	23.8%
FedEx	158,046.8	19.8%
DHL	34,324.2	4.3%
Total Integrated Carriers	382,331.8	47.9%
All-Cargo Carriers		
EVA Air	53,860.9	6.7%
Singapore Cargo	45,480.0	5.7%
Korean Air	39,322.9	4.9%
China Airlines	31,762.0	4.0%
Lufthansa	27,136.0	3.4%
Cathy Pacific	22,117.0	2.8%
All others	36,427.4	4.6%
Total All-Cargo Carriers	256,106.2	32.1%
Combination Passenger/Cargo Carriers		
American	134,653.9	16.9%
All others	22,423.5	2.8%
Total Combination	157,077.4	19.7%
Non-Classified Air Cargo	2,917.3	0.3%
Total DFW Air Cargo	798,432.8	100.0%

Source: DFW Airport, 2008

DFW is able to attract air cargo activity for numerous reasons including:

- Seven runways that are among the longest in the world including four at 13,400 feet and three which are 200 feet wide
- The latest all-weather runway instrument approach systems

- A full-time FAA air traffic control tower
- 24-hour U.S. Customs
- Aircraft fueling and other services for all types and sizes of aircraft
- Aircraft and air cargo handling support services open 24-hours.
- Over two million square feet of cargo warehouse space
- Extra strength aircraft parking ramp that can handle 11 all-cargo 747 aircraft simultaneously

DFW reports it is currently served by 21 all-cargo airlines, six integrated carriers, and 29 combination passenger/cargo airlines for a total of 56 scheduled carriers providing air cargo service. There is an average of 241 all-cargo flights per week, or an average of 34 per day. DFW also reports it handles 61.0 percent of the international air cargo in Texas versus 34.3 percent at Houston, 2.6 percent at El Paso, and 2.1 percent at Laredo. The size of the air cargo operation at DFW allows the airlines to shift cargo among their flights for increased efficiency. The large volume of flights and volume of air cargo at DFW has also attracted a large number of specialized air cargo firms to locate on the field or around the airport. Most of the freight forwarders, customs brokers, and other types of cargo service/support firms in North Central Texas have offices at or near DFW.

DFW is the largest airport in Texas for air cargo shipments and aggressively seeks new business. The Airport won *Air Cargo Magazine's* Best Air Cargo Airport in the World between 500,000 and 999,999 Metric Tons award in 2005 and 2007.

Fort Worth Alliance Airport (AFW)
Opened in 1989 as part of an extensive land and industrial development project, AFW does not have any scheduled passenger service; FedEx provides almost all of its air cargo service.

AFW serves as a second airport service point for FedEx within the North Central Texas area. This dual-station status is unusual for an integrated all-cargo airline within a metropolitan area. However, FedEx's strong business, coupled with its need for ramp and sorting space, puts it into a position of splitting its operations between DFW and AFW.

The FedEx facility at AFW is its Southwest Regional Sort Hub where air cargo is redistributed for the south central United States. AFW reports that FedEx averages 20 flights per day from the facility, including about five flights during daylight hours for U.S. Mail and second-day packages. The night sort operation averages 15 flights per day. The operations include all the aircraft types in the FedEx fleet, as well as charter flights.

Aircraft seen at the FedEx facility range from Cessna Caravan and Fokker F-27 turbo-props up to the large A-310 and DC-10 intercontinental jets.

While DFW is the 10th largest U.S. airport in air cargo volume, AFW is ranked as 26th. Airport statistics for 2007 indicate 263,196 tons of air cargo were handled at AFW; this is approximately one third of the air cargo weight handled at DFW. FedEx processed 99.9 percent of AFW's air cargo with 262,887 tons, with other operators carrying 309 tons.

AFW has two runways, the longest being 9,600 feet and the other being 8,220 feet. Both have Instrument Landing Systems (ILS) and are capable of handling the largest and heaviest air cargo aircraft. The airport is currently working to extend one of the runways to 11,000 feet to provide increased capability for international flights. Other on-airport facilities and services include an FAA control tower and 24-hour Fixed Base Operator (FBO).

In addition to the large FedEx sort facility, the airport has an extensive ramp area that handles all-cargo aircraft and an FBO that has the specialized equipment to handle all types of air cargo. The airport's Air Trade Center has 99,000 square feet with multiple truck docks and adjacent aircraft ramp. While designed to handle air cargo, the building is currently vacant. The airport has additional space for lease with airfield access that is being offered for air cargo or aviation-related development.

DAL

DAL handles the belly cargo of Southwest Airlines and the cargo of integrated carrier DHL. In addition, there are occasional on-demand cargo flights that use the airport.

Other than DFW, DAL, and AFW, no other North Central Texas airports are known to have scheduled air cargo service. This concentration of service in a major metropolitan area by a few airports is not unusual. Scheduled commercial air passenger service in North Central Texas is limited to DFW and DAL; the all-cargo airlines generally prefer to use the same airports as the passenger airlines largely because the highest quality airport facilities are already in place. Further, aircraft services are readily available and the airport's costs for construction and operation can be shared with the scheduled passenger airlines. Finally, excellent road access is normally provided around commercial service airports for passengers that can be used by the air cargo companies as well.

General Method of Operation of Cargo Airlines

To provide an example of the limited number of airports typically served by the integrated all-cargo airlines, UPS reports that it currently serves 99 airports in the U.S., or an average of two

per state. Based on its size, Texas has a larger number of airports served by UPS than most other states. UPS aircraft serve the following seven airports in Texas:

- Austin
- DFW
- El Paso
- Harlingen
- Houston
- Laredo
- San Antonio

In adjacent states, UPS aircraft serve Albuquerque, New Mexico; Oklahoma City, Oklahoma; Tulsa, Oklahoma; Shreveport, Louisiana; and New Orleans, Louisiana. This small number of service points per state indicates the high selectivity of integrated all-cargo operators such as UPS.

In order to provide service to more distant points from these major cities, an airline like UPS relies principally on truck service. UPS scheduling personnel indicate that truck service can be used for locations 250 miles or more from a served airport. Outside of this typical driving range, charter aircraft are sometimes used to connect smaller cities with a major airport that has UPS flights. The Cessna Caravan is the most common aircraft used to provide connecting, or feeder service for UPS, FedEx and DHL. These feeder flights are typically used only on routes over 250 miles from the main airport or at least three hours by truck. The North Central Texas study area is within approximately 100 miles or two hours of driving time from DFW; therefore, truck transfer is expected to remain the method of operation for FedEx, UPS, BAX Global, and DHL in the 16-county North Central Texas area surrounding DFW, DAL, and AFW.

Combination passenger/cargo and all-cargo airlines generally serve only the largest cities in order to meet demand. More specifically, based on 2007 FAA data, there are 20,341 airports in the U.S., but only 566 have scheduled commercial passenger air service.

For international air cargo service, even fewer airports have the facilities and demand to support scheduled service. Within Texas, only the airports of DFW and Houston Intercontinental have significant scheduled international passenger service to European, Asian, and South American cities that is likely to result in shipments of international air cargo. However, numerous other airports in the state (particularly those located on the Texas-Mexico border) such as El Paso, Brownsville, and Corpus Christi have on-call customs services available that can be used to clear international air cargo. The runway extension planned for AFW will offer additional opportunity for international air cargo shipments.

THE ROLES OF GENERAL AVIATION AIRPORTS FOR REGIONAL AIR CARGO

This section identifies the current and future roles for air cargo at North Central Texas GA airports. Facility infrastructure that influences air cargo is identified so that airports that want to encourage air cargo service can consider these needs.

Reasons for the Concentration of Current Air Cargo Service

There are approximately 400 general aviation facilities in the 16-county study area. Air cargo may be shipped from any of these; however, the two airports with scheduled commercial passenger service – DFW and DAL – are expected to continue to experience most of the cargo volume. In addition, AFW has the FedEx Southwest Regional Sort Hub that will continue to ensure air cargo activity at that airport. Other airports in the region, which have specialized air cargo service or have the ability to handle air cargo, are also identified in this section.

As previously discussed, air cargo is handled at the same airports that have scheduled commercial passenger service because of the following two advantages:

- **Population/Industrial Base** - Commercial passenger airports are generally located in the heart of the most densely populated areas, which are also the locations of industrial firms, distribution centers, and office parks, as well as firms like freight forwarders that support air cargo movement. These airports and the areas surrounding them are typically well served by major interstate and other highways, making truck transportation easy.

- **Extensive Airport Facilities and Services** - Commercial passenger airports generally have the necessary airport infrastructure to support air cargo operations. This infrastructure includes runways of sufficient length and strength to handle the largest types of aircraft, as well as automated aircraft landing and approach systems, which permit operations in all weather conditions. Other facilities at major commercial airports include large aircraft ramp areas, cargo transfer/sort buildings, customs inspection/holding facilities, and, as necessary, specialized buildings such as cool warehouses for flowers, frozen storage for medical supplies, and controlled areas for live animals. Services typically needed around the clock include an air traffic control tower, fuel service, main deck or other specialized aircraft loading equipment, and customs.

  Major airports that are used by numerous passenger and all-cargo airlines generate sufficient annual volume to create economies of scale. This results in the continued investment in facilities and lower cost per use. That is, all-cargo airlines typically share the use of the airfield, aircraft service-related facilities, and the airport's other services, with passenger airlines, resulting in increased efficiency.

Survey of Regional General Aviation Airports

To evaluate current air cargo service at North Central Texas GA airports, all facilities designated by the FAA as relievers within the region, as well as all the airports with a runway at least 6,000 feet, were surveyed. The survey criteria included all airports with instrument approaches and control towers, as well as a runway long enough to handle the jet aircraft typically used in commercial air cargo service. Jet all-cargo aircraft include corporate planes such as the Falcon 20 and converted passenger aircraft such as the DC-9 and B-737. Thus, any airport with facilities capable of handing jet cargo aircraft on an all-weather basis was surveyed. Certain other airports that were outside the criteria of the survey were also contacted as a check on the validity of the results. Details of the findings of the survey are presented in this section. The surveys are included in the appendices to this report.

GA airport managers were asked about the current and expected level of air cargo service at their airports. None of the surveyed GA airports have scheduled air cargo service; however, AFW has the FedEx hub with approximately 20 all-cargo aircraft landings per day in dedicated service from that one operator.

Several airports have unscheduled air cargo flights, with a frequency of typically once per month or no more than once per week. The aircraft are usually twin piston or twin turbo-prop picking up or delivering a bag, box, or small pallet load. The value of the item to the sender and recipient is generally considered to be substantial in order to warrant the expenditure of an air cargo operation.

With the exception of AFW, none of the GA airports have dedicated air cargo facilities such as ramps, warehouses, or sorting centers. However, many of the GA airports have common aircraft ramp areas capable of handling all-cargo aircraft, which is the only facility needed for basic air cargo service.

Most survey respondents expressed an interest in growing passenger charter and corporate aviation business, but only several envision significant potential for air cargo service. Generally, the airport managers are pleased about receiving what air cargo business might be available, but they are not actively soliciting this type of business. Rather, most airport managers indicate that air cargo routes, facilities, and operators are established at the largest regional airports, so there is little value in seeking this type of business. In contrast, several airports expressed an interest in increasing their air cargo service. These included Denton, Mineral Wells, Collin County, Lancaster, Granbury, and Gainesville, as well as AFW. These airport managers have unique reasons for seeking increased air cargo service based on local conditions.

While the survey is only applicable to these airports at this time, it represents a sample of current and future expectations for air cargo service at the GA airports in North Central Texas. A summary of the survey results are presented in Exhibit 5.

Exhibit 5

General Aviation Air Cargo Survey Summary

Airport	Longest Runway (feet)	Any scheduled air cargo?	Any unscheduled air cargo?	Dedicated cargo facilities?	Key restricting factor for cargo.	Cargo growth plans?
Existing Commercial Service Airports						
DFW	13,401	Yes	Yes	Yes	None.	Yes
Dallas Love Field	8,800	Yes	Yes	Yes	None.	Yes
General Aviation Airports						
Addison	7,202	No	Yes	No	Available land at airport.	No
Alliance	9,600	FedEx	Yes	Yes	None.	Yes
Arlington	6,080	No	Yes	No	None.	No
Collin County	7,000	No	No	No	None.	Yes
Corsicana	5,000	No	No	No	No ILS and runway strength.	No
Dallas Executive	6,451	No	No	No	City ordinance prohibits cargo.	No
Denton	6,000	No	Yes	No	Runway length.	Yes
Gainesville	6,000	No	No	No	None.	Yes
Granbury	3,603	No	No	No	Runway length.	Yes
Grand Prairie	4,000	No	No	No	Runway length and no ILS.	No
Greenville Majors	8,000	No	No	No	None.	No
Lancaster	5,000	No	No	No	Runway length and strength.	Yes
Meacham	7,500	No	No	No	None.	No
Mesquite	6,000	No	No	No	None.	No
Mineral Wells	6,000	No	Yes	No	None.	Yes
Spinks	6,000	No	No	No	None.	No

Source: Each airport.

The location of the survey airports in the region are shown on Exhibit 6.

Several of the GA airports in North Central Texas report certain unscheduled air cargo service or expectations for future service; the activity at these airports is presented below:

- Addison Airport has four on-demand cargo airlines based at the airport. These companies utilize a wide variety of aircraft from small piston twins to large, jet DC-9s and B-737s. Their principal business is serving the auto industry for example with flights that go from Mexican border towns to Michigan. These cargo firms generally use the airport as their administrative headquarters and aircraft maintenance base. The cargo aircraft typically arrive and depart empty to shuttle to and from other locations. Lack of available land for cargo facilities limits the prospect of air cargo growth at this facility.

- Alliance Airport is the location of the Southwest Regional FedEx Sort Hub as previously discussed. In addition, the airport sees occasional charter air cargo flights and has its Air Trade Center building for lease.

- Arlington Municipal Airport is the closest airport to the General Motors (GM) assembly plant in Arlington. The airport averages from one to two flights per week of just-in-time materials, either coming to the assembly plant or being shipped from nearby auto part component factories that supply GM. The types of aircraft utilized vary from small Falcon 20 corporate jets to DC-9s converted to carry cargo. The airport expects to continue to serve the on-demand air cargo requirements of GM.

- Dallas Executive cannot have air cargo operations because of a City ordinance prohibiting it.

- Denton Airport has three local manufacturing firms that occasionally ship from the airport. These firms manufacture trucks, assemble packing machinery, and repair jet engines. In most cases, the shipments are conducted by turbo-prop aircraft, but aircraft as large as DC-9s are sometimes used. Current air cargo shipments are relatively infrequent, but the airport expects an increase.

- Granbury Regional Airport has no air cargo operations at this time. However, once the runway is extended and if there is further industrial or commercial development around the airport, air cargo flights are possible.

- Lancaster Airport currently has no air cargo service; however, a 6,000-acre rail transfer center and logistics hub is being constructed adjacent to the airport. The airport expects to have air cargo service as the airport runway is lengthened and the logistics hub begins operations.

- Mineral Wells Airport has an average of one air cargo flight per month. Most flights are by twin piston engine aircraft, but corporate jets have been used. The typical type of air cargo is a small electric motor or pump, believed to be associated with oil and gas operations.

Other airport respondents indicated that air cargo flights may occur on their properties, but not on a regular basis or in significant amounts.

Factors That Make an Airport Appealing to Air Cargo
This section identifies factors that make an airport more desirable for air cargo service. Facility and service factors associated with air cargo include:

- **Demand** - Demand is the most significant factor associated with air cargo. For example, businesses or industries located near the airport that need air cargo service may utilize the airport.

- **Runway Length** – Significant volumes of air cargo or the need to transport cargo a long distance require that a jet-powered aircraft be utilized. The minimum runway length requirement for most jets is at least 5,000 feet with 6,000 suggested due to insurance requirements and the density/altitude in the hot summers of North Central Texas. Widebody jets or cross-country flights require even longer runways, and international flights (other than to and from Mexico) likely need 10,000-foot long runways or more.

- **Runway Strength** – A heavy all-cargo jet requires a runway, taxiway, and ramp with sufficient load bearing capacity to handle its weight.

- **Ramp Area** – A sufficient amount of ramp area is necessary to park one or more aircraft, as well as to provide space for the equipment loading, cargo staging, and truck access.

- **Instrument Lighting System (ILS)** – A runway instrument approach system is usually necessary for scheduled or unscheduled air cargo service because the operator must be confident it can utilize the airport regardless of weather. A control tower is also desirable to enhance on-field safety, as is an on-field weather station. To assure dependable air cargo service, an airport must be open and provide services 24 hours a day, regardless of the weather or other factors.

- **FBO Services** – While extensive support services are not always necessary for air cargo service, the airport or its FBO typically supply cargo handling equipment, aircraft fuel, flight planning services, aircraft deicing, and/or other services. Customs service is also necessary if international cargo is received. Large jet aircraft require a main deck loader and pallet handling equipment.

- **Available Facilities or Land for Development** – Handling large amounts of specialized air cargo may require additional on-airport facilities. Land adjacent to runways and taxiways may be necessary to attract aviation-related air cargo shippers who seek to construct a cargo ramp, sort center, maintenance hangar, or factory.

- **Existing Passenger or All-Cargo Airlines** – In order to attract new air cargo service, it is common for extensive existing passenger or all-cargo service to exist on airport so that economies of operation and scale can be achieved.

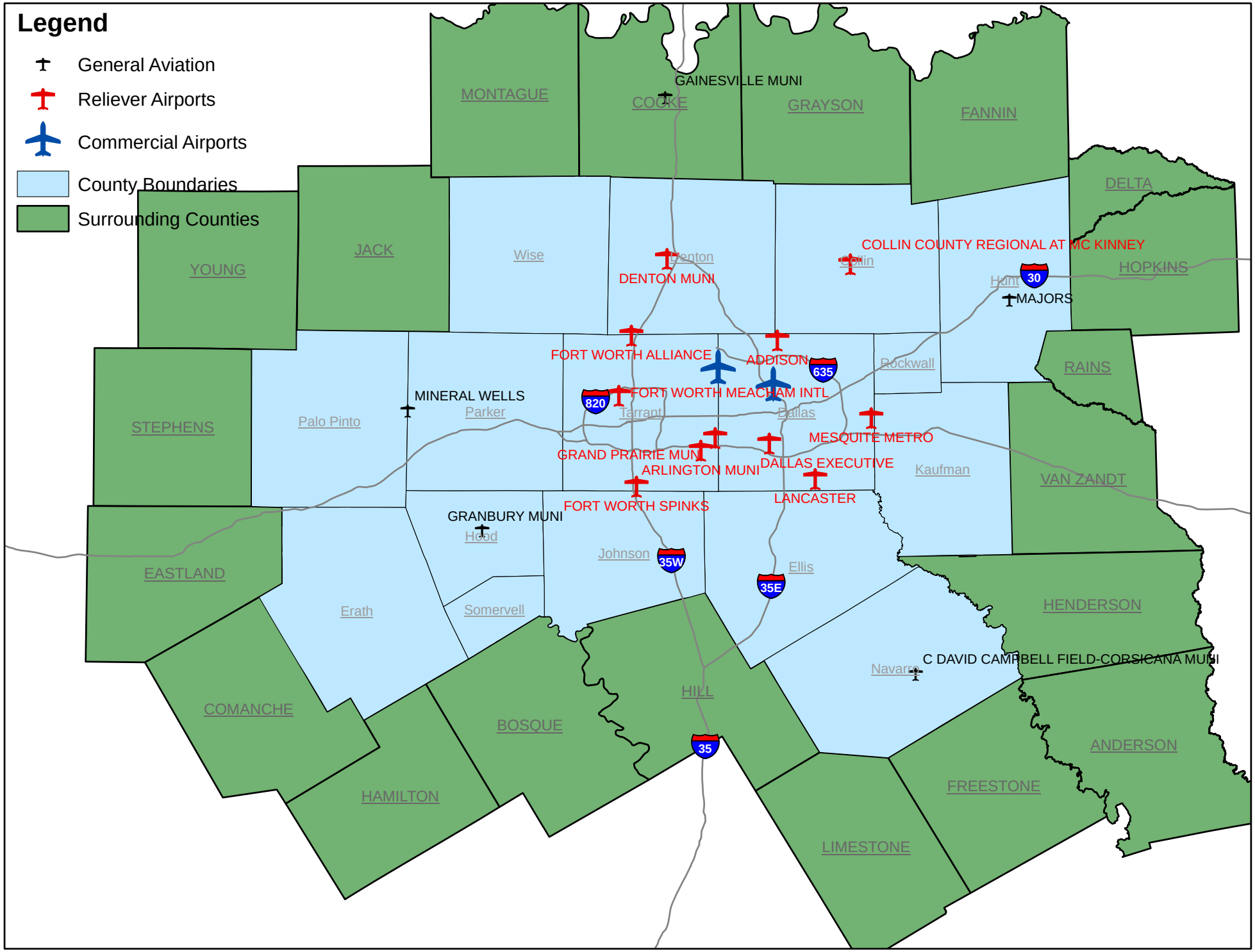
Other factors that may influence airport use include marketing incentives and the individual choice of air carriers and users. It is often the freight forwarders or other shipping companies that choose the carrier, route, and airport for shipment.

SUMMARY OF FINDINGS

This analysis of air cargo activity at GA airports in North Central Texas found that several GA airports have limited air cargo activity or expectations for such in the future. In most cases, air cargo service consists of occasional flights by turbo-prop or corporate jets carrying high value or priority goods.

Basic facilities exist for many GA airports in North Central Texas to serve the shipment of air cargo because, at a minimum, no dedicated facilities are needed other than a public aircraft ramp area and sufficient runway infrastructure. However, a number of GA airports are lengthening their runways or making other improvements to attract new tenants or users including air cargo specific operators or firms that ship air cargo.

The vast majority of air cargo in North Central Texas is currently handled at the largest commercial service airports in the region – specifically DFW, DAL, and AFW. Because of numerous factors associated with the current amount of air cargo activity and economies of scale, most regional air cargo activity is likely to remain at the commercial service airports. This is also true because the current commercial service airports are well located near population centers and are easy to reach via limited access highways. However, for high priority or specialized shipments, air cargo opportunities will be available at several regional GA facilities.


Legend
General Aviation
Reliever Airports
Commercial Airports
County Boundaries
Surrounding Counties
MONTAGUE
COOKE
GRAYSON
FANNIN
DELTA
HOPKINS
GAINESVILLE MUNI
JACK
YOUNG
Wise
Denton
DENTON MUNI
Collin
COLLIN COUNTY REGIONAL AT MC KINNEY
Hunt
30
MAJORS
FORT WORTH ALLIANCE
ADDISON
635
Rockwall
RAINS
MINERAL WELLS
Parker
820
FORT WORTH MEACHAM INTL
Tarrant
Dallas
STEPHENS
Palo Pinto
MESQUITE METRO
GRAND PRAIRIE MUNI
DALLAS EXECUTIVE
ARLINGTON MUNI
Kaufman
VAN ZANDT
LANCASTER
FORT WORTH SPINKS
GRANBURY MUNI
Hood
Johnson
35W
Ellis
35E
EASTLAND
Erath
Somervell
HENDERSON
C DAVID CAMPBELL FIELD-CORSICANA MUNI
Navarro
HILL
COMANCHE
BOSQUE
35
ANDERSON
HAMILTON
FREESTONE
LIMESTONE

APPENDIX A

AIRPORT SURVEYS

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Addison Airport, ADS

Contact – Joel Jenkinson, Assistant Airport Manager, 972-392-4850

Interview date – August 6, 2008

- **Does the airport have any scheduled air cargo?** – No

- **Does the airport have any unscheduled air cargo?** – Yes, we have four on-demand cargo carriers: 1) Cherry Air, Lear 25 and Falcon 20, 2) Ameristar, DC-9, 737, Falcon, and Lear, 3) GTA, piston Cessna 400, and 4) Martinair, Cessna Cargo Master. Mainly these carriers serve the auto industry, but Martinair also carries for UPS – but not out of Addison. All the cargo moves from the Mexican border airports to and from Michigan.

- **Does the airport have any specific air cargo facilities?** – No, but Ameristar may switch cargo from one aircraft to another on the ramp.

- **In your opinion, what facilities or available services hinder growth of air cargo service?** – We have no room for any on-field expansion. There are only 400 or so acres for the airport and you would have to tear something down to build something new. The biggest available site is 5 ½ acres, but there is a hangar on that site that would need to be torn down before you could develop the area.

- **Are any commercial aircraft based at the airport?** – Yes, we have a number of Part 135 passenger charter operators with corporate jets. For example, Flex Jet has a Challenger and a maintenance base and Million Air has a Challenger 604.

- **Whom would you consider your competitors for air cargo flights?** – I've never really thought about that question because we are not a cargo airport. Love Field is only 11 miles away, so they are our competitor for corporate aviation.

- **Do you expect any change in air cargo service**? – No and we will never get scheduled passenger service because of our proximity to Love Field.

- **Do you have a growth plan for air cargo service**? – We do not have room, but we want our tenants to stay busy and their business has slowed as auto assembly has slowed.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Fort Worth Alliance Airport, AFW

Contact – Chris Peterman, Service Coordinator, 817-890-1000; Tim Ward, Airport Director

Interview date – August 7, 2008

- **Does the airport have any scheduled air cargo?** – FedEx has a major station at Alliance. The daytime flights average about 5 landings per day and about 15 land at night for a total of 20 landings per day. The aircraft range from smaller F-27s and Caravans to large 727s, A-310s, and DC-10s.

- **Does the airport have any unscheduled air cargo?** – Yes, up to the largest 747s and Russian Antonovs, but at a maximum, we see just one or two such flights per month.

- **Does the airport have any specific air cargo facilities?** – FedEx has their own ramp and support facilities. The airport has an air trade building with 20 to 30 truck docks and airside access, but it is unused and available for lease. We have air cargo ramp space available.

- **In your opinion, what facilities or available services hinder growth of air cargo service?** – Nothing really hinders us at Alliance. We are extending one of the runways to 11,000 feet.

- **Are any commercial aircraft based at the airport?** – No.

- **Whom would you consider your competitors for air cargo flights?** – Just DFW; all the freight forwarders are located at DFW, so they try to use the closest airport and that is DFW.

- **Do you expect any change in air cargo service**? –Yes, the airport is looking for tenants and some of them may utilize air cargo.

- **Do you have a growth plan for air cargo service**? – Yes, we have a national marketing effort and land is actively marketed for air cargo operators.

Note: 2007 volume in tons was 262,887 (FedEx) and 309 (other) for a total of 263,196 tons.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Arlington Municipal Airport – GKY

Contact – Robert Porter, Airport Manager; 817-459-6100

Interview date – August 1, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – Yes, GM has an assembly plant in Arlington, so the airport might see 50 to 100 air cargo landings per year. Maybe 40 DC-9 flights and 20 Falcon 20 flights per year, plus a few 727s and Convair 580s. We do not keep a weight or operations records, so we have no exact numbers. All the cargo is associated with the GM assembly plant or auto supplier plants that relate to GM.
- **Does the airport have any specific air cargo facilities?** – No, the FBO uses a folk lift to move the GM cargo.
- **In your opinion, what facilities hinder growth of air cargo service?** – None, we can handle air cargo since the runway was extended to 6,080 feet in 2002 and the ILS was installed. In fact, the first DC-9 the airport ever saw arrived the day the runway extension was opened.
- **Are any commercial aircraft based at the airport?** – No
- **Whom would you consider your competitors for air cargo flights?** – Fort Worth Meacham was used until our runway was extended; Alliance is the FedEx hub.
- **Do you expect any change in air cargo service**? – No, but our air cargo activity is dependent upon GM and we do not do any cargo marketing. Our growth plan is focused upon attracting corporate aircraft.
- **Do you have a growth plan for air cargo service**? - No.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Collin County Regional Airport at McKinney, TKI

Contact – Kenneth Wiegand, Airport Director, 972-562-4214

Interview date – August 6, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No, in six years here, I only remember one air cargo shipment.
- **Does the airport have any specific air cargo facilities?** – No
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – There is nothing holding us back since we have a 7,000-foot runway; but we are planning an expansion for future growth.
- **Are any commercial aircraft based at the airport?** – No
- **Whom would you consider your competitors for air cargo flights?** – Alliance and DFW are each approximately an hour away.
- **Do you expect any change in air cargo service**? – Yes, we are actively seeking to extend our runway from 7,000 feet to 8,500 feet and widen it from 100 feet to 150 feet. The runway will be strengthened to handle a 600,000 pound load for 777 freighters.
- **Do you have a growth plan for air cargo service**? – Yes, the community is supporting the runway expansion for air cargo and/or passenger service, as well as corporate aviation.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Corsicana Municipal Airport – CRS

Contact – FBO runs airport, FBO Manager Sarah Farley - 903-654-4847

Interview date – August 1, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No
- **Does the airport have any specific air cargo facilities?** – No
- **In your opinion, what facilities hinder growth of air cargo service?** – The 5,000 x 75 foot runway may be too short, but the lack of an ILS is equally important. Our biggest problem, even for large corporate jets, is runway load bearing capacity. We see G-4s and Challengers, but they are too heavy for regular use of our runway.
- **Are any commercial aircraft based at the airport?** – No
- **Whom would you consider your competitors for air cargo flights?** – Maybe Fort Worth Meacham or DFW.
- **Do you expect any change in air cargo service?** – No, nobody ever asks for air cargo service. At one point, the city showed interest in having UPS or FedEx service at the field, but that was years ago. We have lots of land available, if someone wanted to add a business dependent upon air freight.
- **Do you have a growth plan for air cargo service**? – No.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Dallas Executive Airport, RBD

Contact – Lana Furra, Airport Manager, 214-670-7612

Interview date – August 7, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No
- **Does the airport have any specific air cargo facilities?** – No
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – A City of Dallas ordinance specifically prohibits cargo flights at Executive for aircraft over 60,000 pounds duel wheel weight. So, we do not seek air cargo.
- **Are any commercial aircraft based at the airport?** – Yes, a few Part 135 and Part 91 passenger charter operators are based here.
- **Whom would you consider your competitors for air cargo flights?** – DFW, Alliance, and Love handle all the regional cargo.
- **Do you expect any change in air cargo service**? –No.
- **Do you have a growth plan for air cargo service**? – Absolutely not.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Denton Municipal Airport, DTO

Contact – Tim Whitman, Airport Manager, 940-349-7744; Andrea Sumner, Operations Manager

Interview date – August 7, 2008

- **Does the airport have any scheduled air cargo?** – No.

- **Does the airport have any unscheduled air cargo?** – Yes, we have three local firms that ship by air. These are Peterbuilt (trucks), Tetra Pak (packaging machinery), and Alliance Air Cargo (jet parts). We have aircraft as large as 737s and DC-9s, but most are turbo-props. Call Andrea Bax (now married, new last name Sumner) at 940-349-7738 and she can provide the operations numbers. She also has an interactive CD that promotes the airport.

- **Does the airport have any specific air cargo facilities?** – We have what we call the cargo ramp, but we don't have or need specific air cargo handling facilities.

- **In your opinion, what facilities or available services hinder growth of air cargo service?** – Our runway is 6,000 feet long now and we are trying to extend it to 8,000 feet, but we will likely settle for 7,000 feet because construction money is tight. Once the runway is longer, we hope to increase the number of corporate passenger aircraft and the amount of air cargo business.

- **Are any commercial aircraft based at the airport?** – No, but we do have a based 727 corporate aircraft and corporate jets as large as the 737 occasionally land here.

- **Whom would you consider your competitors for air cargo flights?** – We have no competitors for air cargo. We serve only the businesses in our community.

- **Do you expect any change in air cargo service**? –Yes.

- **Do you have a growth plan for air cargo service**? – We plan for moderate growth of air cargo. We have a first class FBO; we are trying to obtain a Foreign Trade Zone; we are trying to extend the runway; and, we market the airport.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport –Gainesville Municipal Airport, GLE

Contact – David Vinton, Airport Director, 940-668-4565

Interview date – August 6, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No
- **Does the airport have any specific air cargo facilities?** – No. The airport has a forklift, but it has never been used for air cargo shipments.
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – We have lots of local industry, but none of the high-tech industries that would need air cargo service.
- **Are any commercial aircraft based at the airport?** – No
- **Whom would you consider your competitors for air cargo flights?** – Maybe Denton or Addison have air cargo, I'm not sure. Wichita Falls might have service.
- **Do you expect any change in air cargo service**? – We would like to have air cargo, but we do not. This is horse and oil country, so the area is not oriented to air cargo types of businesses.
- **Do you have a growth plan for air cargo service**? – As I said, we would like to have air cargo service, but you must realize most air cargo moves to larger airports in trucks, so we do not expect such service.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Granbury Regional Airport, GDJ

Contact – John Holt, Airport Manager, 817-579-8533

Interview date – August 6, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No, but sometimes aircraft may leave here to pick up commercial passengers or cargo.
- **Does the airport have any specific air cargo facilities?** – No, but an on-airport firm does sometimes ship a small part or two by air.
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – We are extending the runway from 3,600 feet to 5,500 feet and we are buying more land. Once this happens, we expect to have based corporate jet aircraft and we may attract a business that needs air cargo service.
- **Are any commercial aircraft based at the airport?** – Yes, a few Part 135 passenger charter operators pass through the airport with King Airs or Citation 5's.
- **Whom would you consider your competitors for air cargo flights?** – My guess is Meacham Field or Cleburne.
- **Do you expect any change in air cargo service**? – Yes, once the runway is extended, we should see based jets and additional air taxi service.
- **Do you have a growth plan for air cargo service**? – Yes, once the runway is extended. Several years ago, Dollar Stores showed interest in building in Granbury, but the runway was too short. In the future, the community may attract a new industry that is dependent upon the airport.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Grand Prairie Municipal Airport – GPM

Contact – Randy Byers, Airport Manager; 972-237-7591

Interview date – August 1, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No
- **Does the airport have any specific air cargo facilities?** – No
- **In your opinion, what facilities hinder growth of air cargo service?** – We have only a 4,000-foot runway and no ILS.
- **Are any commercial aircraft based at the airport?** – No
- **Whom would you consider your competitors for air cargo flights?** – Fort Worth Meacham, Alliance, Love Field, and Arlington.
- **Do you expect any change in air cargo service?** – No, our runway is too short and there are other airports surrounding us with air cargo service. We have a consulting firm currently doing a corporate air service improvement study, but they are not looking at air cargo because it does not make sense. Finally, we have limited land for development.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Majors (Greenville) Airport, GVT

Contact – FBO Manager, Jim Folks, 903-457-3168

Interview date – August 7, 2008

- **Does the airport have any scheduled air cargo?** – No.
- **Does the airport have any unscheduled air cargo?** – No.
- **Does the airport have any specific air cargo facilities?** – No; however, the L3 company has an aircraft repair facility on the airport, so they may have the capability to move air cargo, but, to my knowledge, they do not.
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – No facility issues prevent service. We have an 8,030-foot runway with 1,000-foot overruns and an ILS. Our community does not have any air cargo demand.
- **Are any commercial aircraft based at the airport?** – No, but we service transient corporate jets as large as G-4s.
- **Whom would you consider your competitors for air cargo flights?** – Airports in the Dallas and Fort Worth area.
- **Do you expect any change in air cargo service**? – No.
- **Do you have a growth plan for air cargo service**? – No.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Lancaster Airport, LNC

Contact – Arb Rylant, airport manager, 972-218-1274

Interview date – August 7, 2008

- **Does the airport have any scheduled air cargo?** –No.
- **Does the airport have any unscheduled air cargo?** – No, our runway at 5,000 feet long is too short and it only has a 40,000-pound duel wheel weight bearing capacity.
- **Does the airport have any specific air cargo facilities?** – No, and our ramp is very small.
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – First, the runway is not long enough, even the extension to 6,500 feet may not be sufficient. Second, the future weight bearing capacity at 60,000-pound duel wheel will not be enough for large aircraft. Finally, we will need a larger ramp. Therefore, once this runway work is complete, we will investigate either a second runway or substantial improvement to the existing runway. We will also need an ILS, air traffic control tower, and all the other requirements for Part 139 certification.
- **Are any commercial aircraft based at the airport?** – No.
- **Whom would you consider your competitors for air cargo flights?** – DFW and Alliance.
- **Do you expect any change in air cargo service**? –Yes, The Allen Group is putting in a 6,000-acre logistics hub next to the airport. It will be an intermodal facility for Union Pacific and we expect to benefit from it. In addition, the Grupo Domos out of Laredo is interested in connecting the border with south Dallas and the integrated carriers (FedEx, UPS, and DHL) all need additional capacity.
- **Do you have a growth plan for air cargo service**? – We have plans to grow with the logistics hub next door, as well as other users. This is, however, dependent upon airport improvements.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Fort Worth Meacham International Airport, FTW

Contact – Kent Penney, City of Fort Worth; 817-392-5400; Kent.Penney@FortWorthgov.org

Interview date – August 6, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No
- **Does the airport have any specific air cargo facilities?** – No
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – There is nothing holding us back from having air cargo. Trucks can access the ramp and no airport rules or procedures prohibit air cargo.
- **Are any commercial aircraft based at the airport?** – No, but charter flights might show up.
- **Whom would you consider your competitors for air cargo flights?** – Alliance is the FedEx hub and DFW.
- **Do you expect any change in air cargo service**? – No, we are not actively seeking air cargo.
- **Do you have a growth plan for air cargo service**? - No

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Mesquite Metro, HQZ

Contact – Cynthia Godfrey, Airport Manager, 972-216-4131

Interview date – August 13, 2008

- **Does the airport have any scheduled air cargo?** – No.
- **Does the airport have any unscheduled air cargo?** – No. Well a box or an envelope may be dropped off or picked up maybe as frequently as once per month. But, no, Mesquite does not have any air cargo.
- **Does the airport have any specific air cargo facilities?** – No.
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – None, because we do not seek air cargo. The runway is 6,000 feet long and that may be too short in the summer, but we do have an ILS purchased by the City.
- **Are any commercial aircraft based at the airport?** – No.
- **Whom would you consider your competitors for air cargo flights?** – No competitors because we are not seeking air cargo. Love Field is the closest major airport, but DFW and Alliance were built for passengers and cargo.
- **Do you expect any change in air cargo service**? – No, but if it comes, it comes.
- **Do you have a growth plan for air cargo service**? – No growth plans because we are not actively seeking air cargo. The airport is close to DFW, so we attract business aircraft and private pilots that seek to avoid the congestion of DFW.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport –Mineral Wells Airport, MWL

Contact – Bobby Bateman, Airport Manager, 940-328-7808

Interview date – August 11, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – Occasionally, perhaps once per month a piston twin Cessna (piston) or Falcon 20 (jet) will carry a load in or out of Mineral Wells.
- **Does the airport have any specific air cargo facilities?** – No, we do not even need the forklift for any air cargo, but we do have ramp area available.
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – Nothing is holding us back; we have a 6,000-foot runway with an ILS. In addition, we have space next to the runway where you can build. But, we have no need, locally, for air cargo. Our businesses are oil and gas; as for recreation, people come to Mineral Wells to visit our cutting horses.
- **Are any commercial aircraft based at the airport?** – No. Our largest based aircraft is a turbo-prop twin MU2. We have transient corporate passenger service from corporate jets, but most commonly from twin-turbo-prop King Airs.
- **Whom would you consider your competitors for air cargo flights?** – Any competitors must be in Fort Worth or Dallas; no one talks about air cargo here.
- **Do you expect any change in air cargo service**? – Perhaps air cargo will grow in time, we just do not know when.
- **Do you have a growth plan for air cargo service**? – We would welcome air cargo.

North Central Texas Regional General Aviation and Heliport System Plan
Task 3.4 Air Cargo
Airport Survey

Airport – Fort Worth Spinks Airport, FWS

Contact – Kent Penney, City of Fort Worth; 817-392-5400

Interview date – August 6, 2008

- **Does the airport have any scheduled air cargo?** – No
- **Does the airport have any unscheduled air cargo?** – No
- **Does the airport have any specific air cargo facilities?** – No
- **In your opinion, what facilities or available services hinder growth of air cargo service?** – Same answer as Meacham - There is nothing holding us back from having air cargo. The airfield is adequate, trucks can access the ramp, and no airport rules or procedures prohibit air cargo.
- **Are any commercial aircraft based at the airport?** – No
- **Whom would you consider your competitors for air cargo flights?** – Alliance is the regional FedEx hub and DFW.
- **Do you expect any change in air cargo service**? – No.
- **Do you have a growth plan for air cargo service**? - Same answer as Meacham, we are not actively seeking air cargo for Spinks.

APPENDIX B

REFERENCE MATERIALS

Air Transport Association – 2007 Economic Report
Air Transport Association of America, Inc., Washington, D.C.; 2008

Global Market Forecast - 2007-2026
Airbus S.A.S., 31707 Blagnac Cedex, France; 2007

World Air Cargo Forecast – 2006-2007
Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124; 2007

Pocket Guide to Transportation 2008
U.S. Department of Transportation, Bureau of Transportation Statistics, Research and Innovative Technology Administration, Washington, D.C.; February 2008

FAA Aerospace Forecast, Fiscal Years 2008-2025
U.S. Department of Transportation, Federal Aviation Administration, Aviation Policy and Plans, Washington, D.C.; March 2008

DFW International Airport Named Best Cargo Airport in the World
March 7, 2006, Dallas Fort Worth International Airport Public Affairs Department
Available at:
http://www.dfwairport.com/mediasite/pdf/06/03/060307-air-cargo.pdf

United Parcel Service
Airports Served
Available at:
http://www.ups.com/aircargo/using/services/airports.html

FedEx Corporation
Company Information
Available at:
http://about.fedex.designcdt.com/our_company/company_information/fedex_express

Dallas/Ft. Worth Airport
The DFW Cargo Opportunity
Available at:
http://www.dfwairport.com/cargo/opportunities.php