a report on

FLORIDA TRANSPORTATION TRENDS AND CONDITIONS

TRANSPORTATION SYSTEM

Air Facilities - Passengers and Freight

FDOT

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Introduction

Over the past several decades, Florida's aviation and air travel industry have been growing rapidly. In partnership with the airline industry, Florida's public airports have been expanding to accommodate the demand. Infrastructure expansion and renewal, airport access, airspace congestion, security, community impacts, and other considerations require ongoing planning and investment to ensure Florida's ability to compete in the international business and tourist markets. These concerns motivated the Florida Department of Transportation (FDOT) to create the Florida Aviation System Plan (FASP) in 1976. The current FASP 2030 is FDOT's strategic 20-year plan for the development of Florida's public airports. The FASP incorporates the traditional aviation planning techniques that identify future air-traffic demands and includes a planning element that positions FDOT to respond to changing aviation and economic trends.

The Federal Aviation Administration (FAA) in conjunction with Florida's airports continue to work to ensure that air travel is safe and efficient. This aspect of air travel has been significantly reformed since September 11, 2001. More recently, intermodal connectivity has been given additional attention to make sure that the air travel system is well integrated in the overall travel system for both passengers and freight.

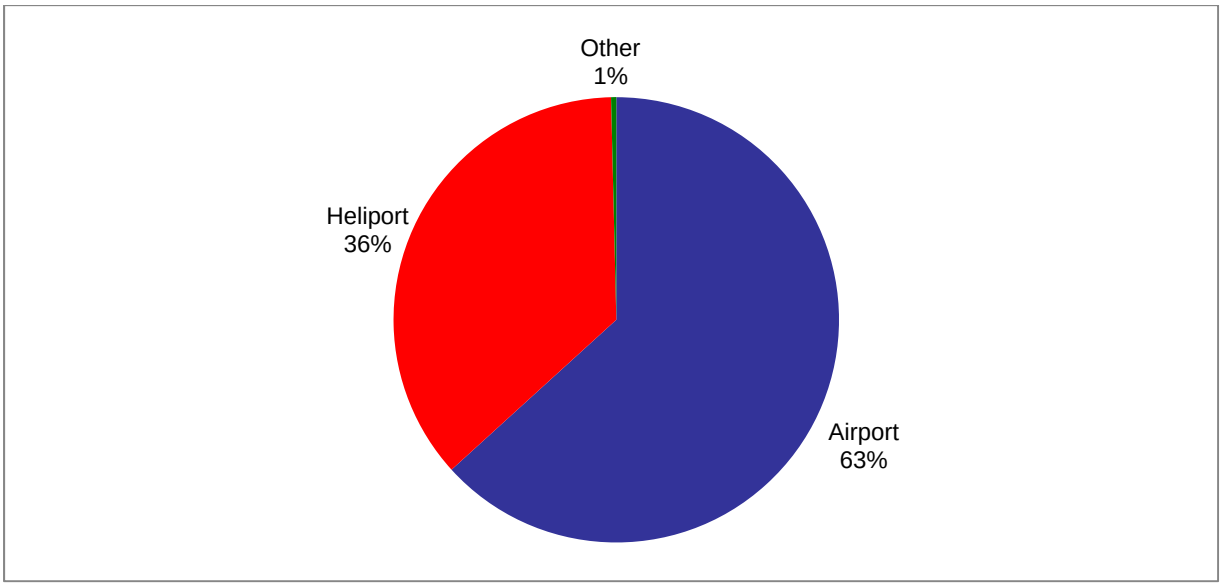
Air travel requires an integrated transportation system, as both freight and passengers are dependent on other modes of travel for access to and egress from airports.

The airline industry, like all other transportation industries, has been impacted by energy prices and economic turmoil. These changes in the economy are affecting the pace of demand growth in the airline industry - hence, the need and the financial capacity to update and expand facilities.

Florida Aviation Facilities

Florida's air facilities include airports, heliports, seaplane bases and other facilities (Figure 1). The state has 779 aviation facilities, of which 129 are for public-use with 19 commercial service airports and 650 are for private-use. Among the 19 commercial service airports, one is also a military facility - the Northwest Florida Regional Airport/Eglin Air Force Base.

Figure 1 – Florida Air Facilities by Type

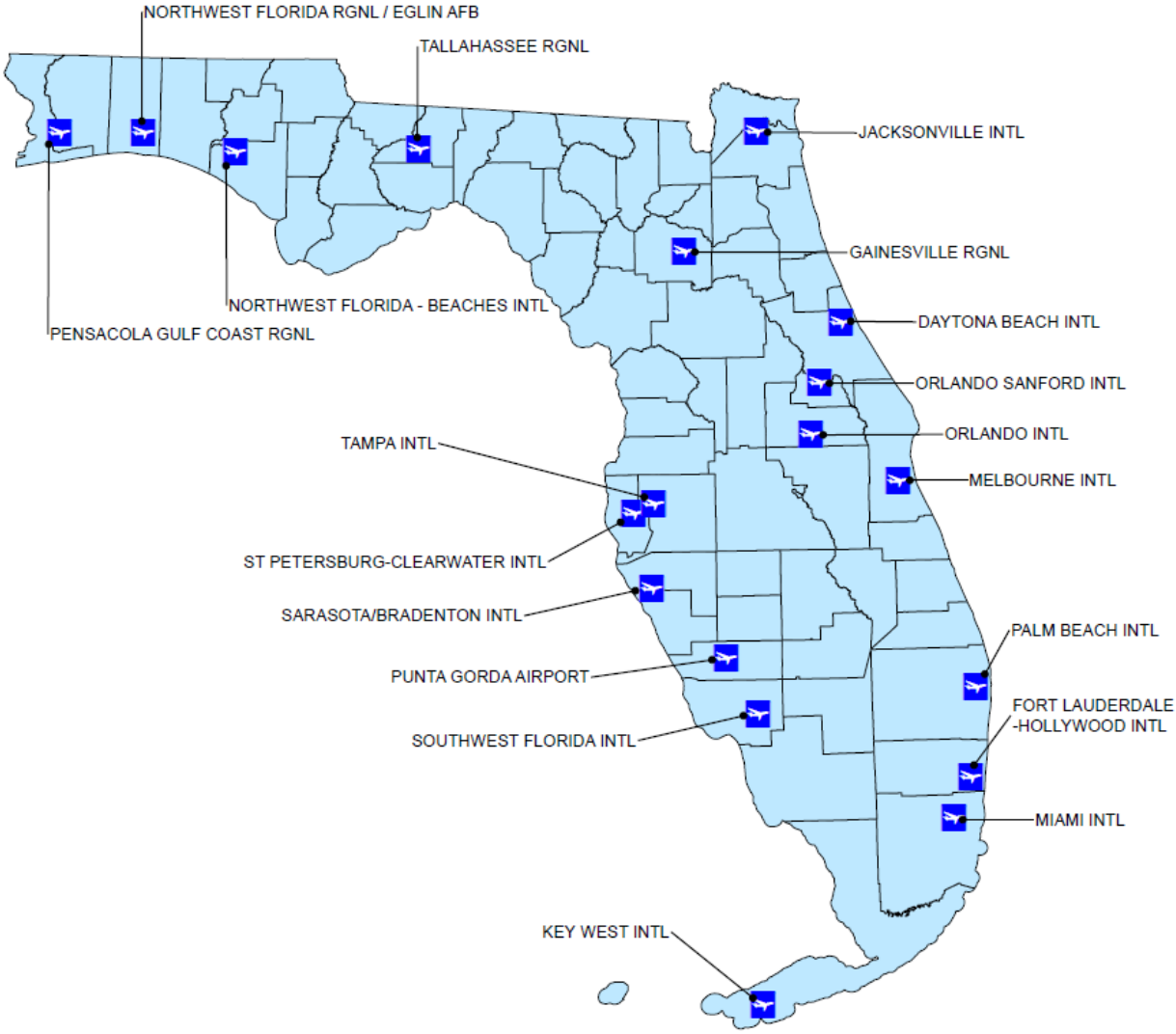


Source: Florida Department of Transportation, 2012

Of Florida's 19 commercial service airports, seven are Strategic Intermodal System (SIS) facilities and ten are emerging SIS facilities. The seven commercial service SIS airports are Ft. Lauderdale/Hollywood International, Jacksonville International, Miami International, Orlando International, Palm Beach International, Southwest Florida International, and Tampa International. In addition, Kissimmee Gateway, a general aviation airport, is designated as a SIS reliever airport.

The SIS is a statewide network of high-priority transportation facilities including the state's commercial service airports. FDOT has in place a system-wide review of all transportation and economic activity data associated with SIS designation. The dispersion of Florida's air traffic volumes over numerous major facilities has enabled Florida to accommodate growth more effectively than in states where a single facility dominates and approaches capacity.

Figure 2 – Map of Commercial Airports in Florida



Source: Florida Department of Transportation, 2012

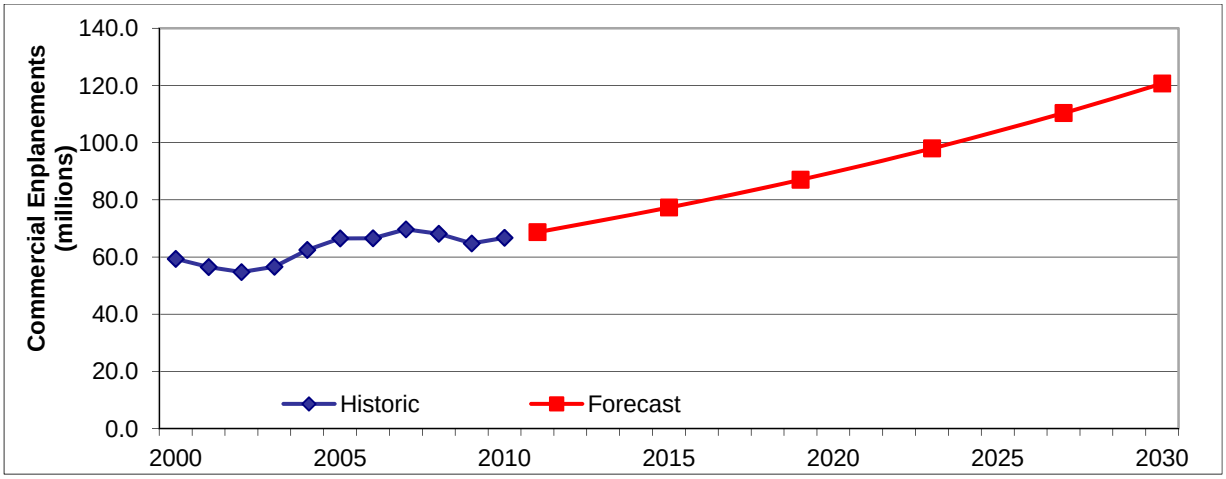
Florida's Enplanements, Aircraft Operations, and Air Cargo Shipments

Florida's ability to connect efficiently to both domestic and international markets is vital to its economy. With thousands of flights departing from and arriving at Florida's airports every day, tracking trends in airline services provides insight into how Florida's economy is growing and changing. Three important trends to monitor are the number of passengers, aircraft operations, and cargo tonnage handled at the commercial airports.

Enplanements are defined as the total number of revenue passengers boarding an aircraft, including originating, stopover, and transfer passengers in scheduled and non-scheduled

services. Figure 3 presents the historic trend of enplanements at Florida's commercial airports as well as forecasted enplanements through 2030. The number of enplanements has been increasing, and forecasts made in 2011 predict the continued growth of air travel. Nine of Florida's 19 commercial airports provided 95 percent of service for enplanements in 2011.

Figure 3 – Florida Commercial Service Enplanements, 2000–2030



Source: Florida Department of Transportation, 2012

Table 1 details the number of enplanements handled by airports in 2010 and 2011. Miami International and Orlando International handled 52 percent of Florida's commercial air passengers in 2011.

Table 1 – Passenger Enplanements Handled by Airports, 2010 and 2011

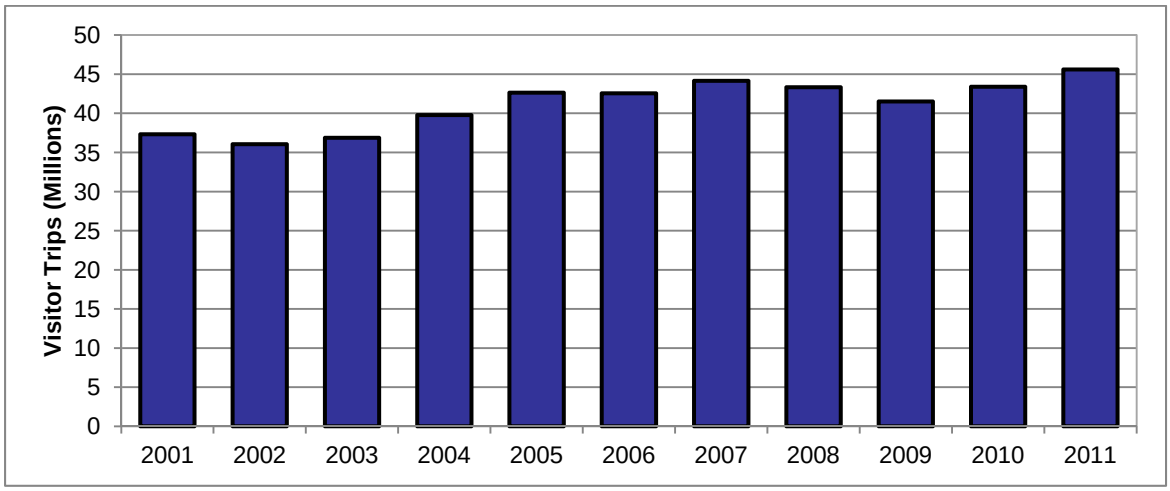
Airport	Enplanements		Share in 2011 in Florida
	2010	2011	
Miami International	17,017,654	18,342,158	26.5%
Orlando International	17,017,491	17,250,415	24.9%
Orlando Sanford International	553,892	768,938	1.1%
Tampa International	8,137,222	8,174,194	11.8%
Ft. Lauderdale/Hollywood International	10,829,810	11,332,466	16.4%
Palm Beach International	2,958,416	2,877,158	4.2%
Jacksonville International	2,755,719	2,700,514	3.9%
Southwest Florida International	3,714,157	3,748,366	5.4%
Sarasota/Bradenton International	670,992	657,157	1.0%

Source: Federal Aviation Administration, data analysis by CUTR, 2012

The number of enplanements has been increasing over the past several years, and forecasts made in 2011 predict continued growth in air travel.

As discussed in the report "Travel Demand: Visitors and Tourists," close to 53 percent of visitors to Florida enter the state by air. In 2011, Florida had 45.6 million visitors who traveled by air. Figure 4 presents the estimated number of visitor trips by air from 2001 through 2011.

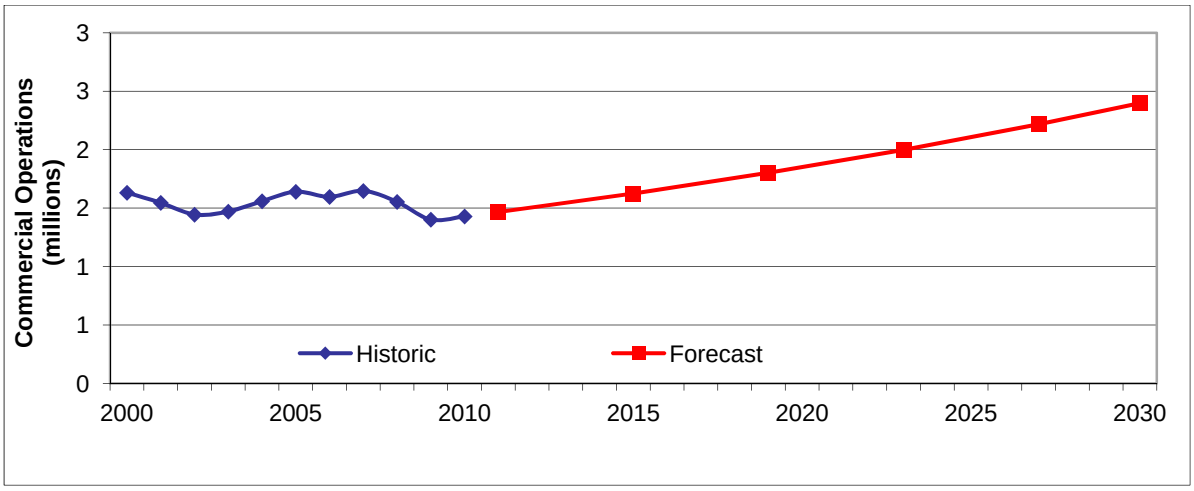
Figure 4 – Florida Visitor Trips by Air, 2001–2011



Source: Visit Florida, 2011

Figure 5 provides the historic trend and forecast of commercial service operations. Aircraft operations include landings, takeoffs, and touch-and-go of an aircraft. The number of service operations at Florida's commercial airports, while increasing over the decades, has been fluctuating over the past several years, and forecasts from 2011 predict continuous increase in the future.

Figure 5 – Florida Commercial Service Operations, 2000 – 2030

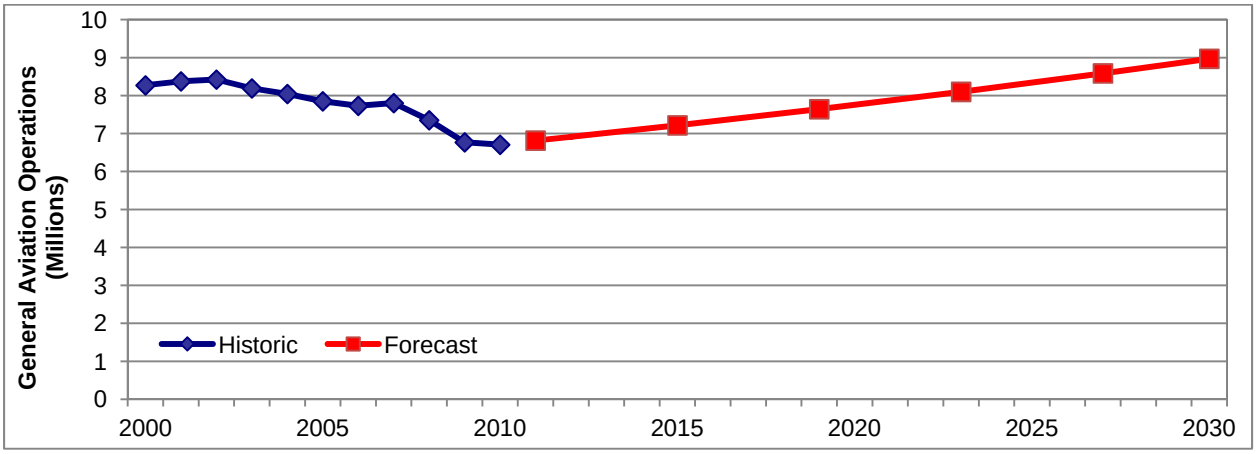


Source: Florida Department of Transportation, 2012

Florida General Aviation Aircraft Operations

General aviation operations primarily cater to cargo, business, business/recreational, tourism and flight training services at commercial and community airports (general aviation). Figure 6 shows the demand for these services declining over the past decade. However, growth is forecasted to resume in the future with the introduction of very light jets (VLJs) for small aircraft transportation system (SATS) as per the FDOT Florida Next Generation Aircraft Study. This is expected to influence the operations at commercial airports and at general aviation airports across Florida, both of which could see an increase in demand for such services.

Figure 6 – General Aviation Operations

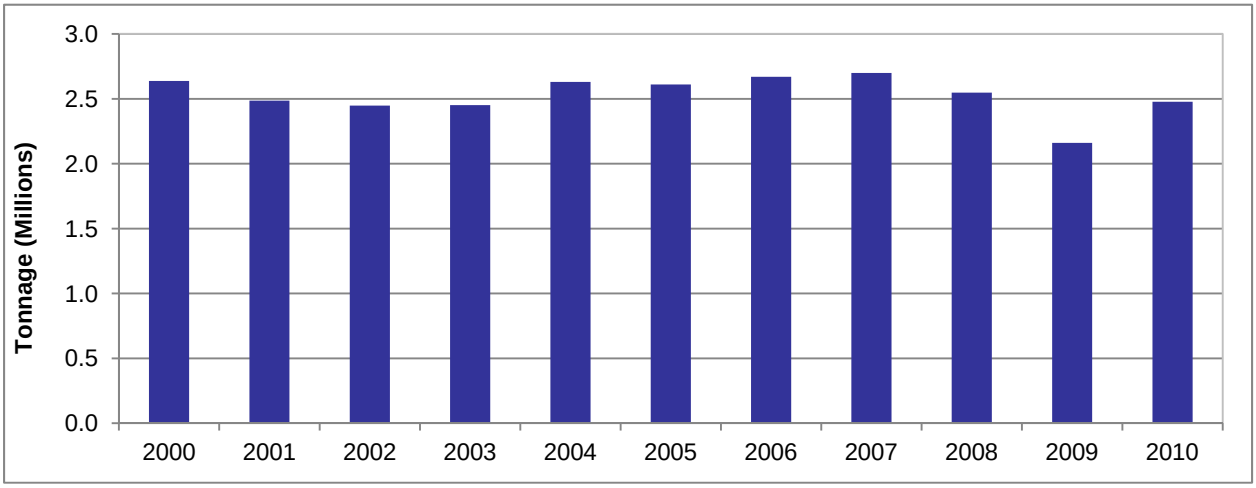


Source: Florida Department of Transportation, 2012

Air cargo activity is another important purpose of the air transport system in Florida. Air cargo shipments typically are higher in value and lower in weight. As discussed in the "Travel Demand: Trade and Freight Transportation," the aviation system handles a relatively small but important share of Florida's total freight trade. The aviation system typically transports valuable, fragile, and/or time-sensitive items. Figure 7 shows the trend of the total air cargo weight in millions of tons. The data in Figure 7 includes airports qualified as carrying significant air cargo, which is defined as at least 100 million-pounds per annum. The airports qualified in Florida are *Miami, Orlando, Fort Lauderdale Jacksonville, Tampa, Southwest Florida and St. Petersburg*.

The total tonnage transported by air had remained relatively steady at about 2.5 million tons per annum over the last decade, except for the slump experienced during 2009. As shown in Figure 7, the freight tonnage recovered to the values experienced during the early part of last decade. It is anticipated that average annual freight activity could reach pre 2009 levels during the early part of this decade, and potentially see slow but steady growth with improving economic condition.

Figure 7 – Annual Freight at Qualifying Cargo Airports, 2000 – 2011



Source: Airports Council International; Airport Records; FDOT, *Air Cargo Study*, 2012

Table 2 illustrates the tonnage handled at each of the top seven commercial airports in Florida in 2010 and 2011. Jacksonville International experienced the highest growth of over 21%; Orlando International grew by about 8%; and Miami International, which accounts for more than 80% of all airfreight, saw a marginal increase of less than a percent. On the other hand, Southwest Florida witnessed the highest annual decline of about 5%, followed by Fort Lauderdale/Hollywood international by over 2%. These two airports accounted for just about 5% of the total freight among the seven airports. Changes in the mix of products shipped by air and their value can result in the different trend for the value of products as compared to volume trends reported in Table 2. Data on air cargo value is not currently available for the corresponding set of airports shown in Figure 7.

Table 2 – Air Cargo Landed by Qualified Cargo Airports in Florida

Airport	Tons		Percent Change (2011-2010)
	2010	2011	
Miami International	2,023,620	2,030,379	0.3%
Orlando International	149,799	161,462	7.8%
Fort Lauderdale/Hollywood International	98,067	95,931	-2.2%
Jacksonville International	59,962	72,658	21.2%
Tampa International	96,873	95,876	-1.0%
St Petersburg-Clearwater International	15,508	-	-
Southwest Florida International	17,084	16,275	-4.7%

Source: Airports Council International

Conclusions

Florida's air travel growth over the past few decades is testimony to the fact that both consumers and distributers have recognized the value of rapid travel time and been willing to purchase air travel. Just as ports and rail yards are critical economic engines in urban development, so, too, are airports recognized as economic engines and critical to an area's economic competitiveness.

Ongoing security concerns, airline restructuring and service cutbacks, communications technology as a substitution for travel, overall economic conditions, and higher fuel costs may result in slower growth in air travel than the high growth rates of past decades. Yet, the fundamental attractiveness of air travel remains. Subject to economic growth trends, air travel is destined to continue to grow. Florida's location as the southeastern most, peninsula shaped state and its role as a destination for tourism contribute to a high dependency on air travel. This will require ongoing investments in airports and their supporting facilities, including adequate access to and from airports for passengers, employees, and transporters.

Florida has the advantage of several commercial airports that provide convenient access for travelers throughout the state. This dispersed network of airports results in the substantial air travel to and from Florida being distributed over several facilities; this enables Florida to accommodate significant demand and be in a position to expand capacity (without significant airspace capacity constraints) as demand dictates and resources become available.

By its very nature, air travel is a mode of travel that requires an integrated transportation system, as both products and people are dependent on other modes of travel for access to and egress from airports. Thus, providing a high-quality air travel system and the necessary access for passengers, freight, and employees is destined to remain an important transportation priority for Florida.

Bibliography

Bibliography

AASHTO. "Florida Statewide Planning". 2012. http://statewideplanning.org/states/florida/ (accessed July 23, 2012).

Airports Council International - North America, *The Voice of Airports.* http://www.aci-na.org/content/airport-traffic-reports (accessed January 10, 2013).

Federal Aviation Administration. "Airport Environmental Program". April 1, 2011. http://www.faa.gov/airports/environmental/vale/media/vale_eligible_airports.xls (accessed June 25, 2012).

—."Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports". http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/ (accessed September 25, 2012).

Florida Department of Transportation."Aviation Office". 2010. http://www.dot.state.fl.us/aviation/pdfs/Welcome%20to%20Fl%20Aviation112010.pdf (accessed July 23, 2012).

—."Data and Forecasts". http://www.dot.state.fl.us/aviation/dataforecasts.shtm (accessed September 25, 2012).

—."Florida Aviation System Plan (FASP)". http://www.dot.state.fl.us/aviation/FASP_details.shtm (accessed September 26, 2012).

—. "Florida's Public Airports". 2012. http://www.dot.state.fl.us/aviation/facilitymap.shtm (accessed June 26, 2012).

—. "NextGen System". http://www.dot.state.fl.us/aviation/aircrafttrans.shtm (accessed September 25, 2012).

Visit Florida. "Florida's Key Tourism Indicators". 2011. http://www.visitflorida.org/AM/Template.cfm?Section=Key_Indicators&Template=/CM/HTMLDisplay.cfm&ContentID=13117 (accessed June 25, 2012).