

florida

AVIATION SYSTEM PLAN

2025

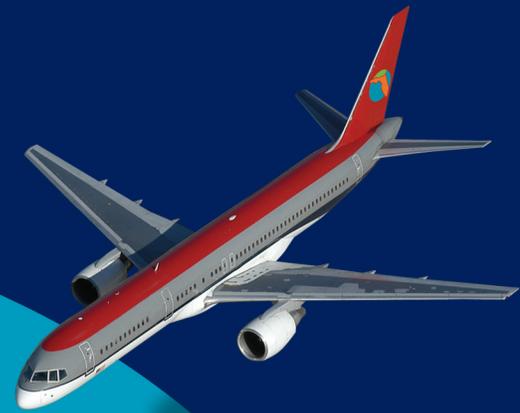
UPDATED FEBRUARY 2012



FLORIDA DEPARTMENT OF TRANSPORTATION



Without aviation, Florida does not work. Florida's geography and its diverse and expanding population and employment base are heavily dependent on aviation. Florida must protect existing airports. It is important for Florida to promote new technologies to maximize its airport system. FDOT, FAA, and local governments must work in concert to maximize investment in Florida airports. Only with a collaborative effort will Florida airports be positioned to keep abreast of predicted growth.





DID YOU KNOW...

- Florida gains 900 new residents every day
- Florida is the U.S. gateway for Latin American Air Cargo
- Florida is the only state with 4 large hub airports
- Florida's 27 active military airfields provide an annual economic benefit exceeding \$10.7 billion
- Florida's general aviation airports support vital services and businesses and provide access to Florida's natural and manmade attractions
- Over half of all visitors to Florida arrive by air
- Air Cargo is a \$6.6 billion industry in Florida
- Florida's Gross State Product is \$747.7 billion. Florida's airports account for approximately 15%, or \$114.7 billion of this value



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CHALLENGES THAT DRIVE POLICIES

By 2025, Florida will be the world's number one destination for family-oriented entertainment, geriatric healthcare, ecotourism, outdoor recreation, and international nightlife. The state will be home to nearly 30 million residents, almost twice as many as today. Another 80 million people will visit Florida each year for business, pleasure, or healthcare; and two-thirds of all visitors are predicted to arrive by air, up from one-half today.

The Florida Aviation System Plan (FASP) 2025 is the Florida Department of Transportation's (FDOT's) strategic 20-year plan for developing the state's 129 public airports. The FASP incorporates traditional aviation planning techniques that identify future air traffic demands and the facilities required to meet them. It also includes a strategic planning element that allows FDOT to respond to changing aviation and economic trends, including emerging technologies, projected funding shortfalls, and shifting priorities. FASP and the strategic planning component provide a framework for investigating issues such as intermodal transportation networking, the economic impact of airports on their local communities and the state, and development of long-range strategies to meet the future aviation needs of all Floridians.

To meet the aviation needs of a growing population, and to remain competitive in an increasingly global economy, Florida must rapidly expand and dramatically reorient its aviation system. The globalization of manufacturing, trade, and customer services will



POLICIES

will demand that Florida’s airports be an integral component of international production and distribution channels. Additionally, new generations of commercial aircraft are carrying between 500 to 800 passengers on international flights requiring major airport runway and facility modifications. Current population growth and urbanization trends are expected to continue, causing increasing congestion on Florida’s highways. Air travel and aviation facilities will be key to meeting Florida’s in-state travel needs.

Due to these growing pressures for air service, combined with limited local, state and federal resources for airports, the State of Florida is adopting the following policies to guide future development of the Florida system of airports and aviation facilities:

Target state aviation investments

Statewide, over half of all jobs in Florida benefit in some way from aviation. State resources must be targeted to foster a system of air travel and transport that is safe, reliable, and affordable. Airport investment must be targeted so that it continues to contribute to economic growth. Existing airport facilities and infrastructure must be used efficiently.

Expand the state’s busiest airports

Florida has more large-hub airports than any other state. Demand for commercial airline travel will rise steadily for the foreseeable future. Many of Florida’s largest airports have little room for additional flights. The state must help its busiest airports overcome political obstacles to airport improvements or help these airports find other ways to increase their capacity.



Expand automobile, truck, and transit access

Florida’s busiest airports account for more origin and destination passengers than any other state. These travelers contribute much to Florida’s economic success. However, they place a significantly heavier burden on terminal facilities and local roads than passengers at other large airports that serve a high percentage of connecting travelers. Expansion of Florida’s busiest airports must be closely coordinated with the state’s Strategic Intermodal System (SIS) Plan for surface transportation.



Protect airports from encroaching development

Every day, Florida gains almost 900 new residents. None of these new residents bring their roads, airports, or housing with them. All new residents depend on Florida's transportation facilities and require new housing immediately upon their arrival. Development, especially housing, requires land. Florida must protect its airports from land uses that encroach on their airspace or in other ways inhibit their services. This is especially important for general aviation airports that are in the path of urbanization.

Respond to security requirements

The continued threat of terrorism is impacting aviation by imposing new costs on the industry. At the same time, new security requirements can make air travel less convenient and unattractive. Florida's aviation policymakers must seek funding and support other initiatives to help Florida's airports pay for services and facilities that will provide security while ensuring that air travel in Florida is a pleasant experience.

Support emerging technologies

New technologies, such as New Large Aircraft (NLA), Very Light Jets (VLJs), and the Next Generation Air Transportation System (NextGen), are being developed that will alleviate some of today's problems. These technologies will make air travel and transport less expensive, more comfortable, and more convenient. Florida should continue to support research and development of new technology and help Florida's general aviation airports add facilities and equipment.

Adapt to an older population

Florida's population will become steadily older as the Baby Boom generation enters retirement. The senior age group will account for almost 40 percent of Florida's projected population increase between now and 2025. Florida's airports need to become senior-friendly in their signage, audio systems, passenger accommodations, and intermodal connections.



POLICIES

AVIATION IN FLORIDA: A VITAL IMPACT



Transportation services are the most obvious benefits provided by Florida’s public airports, but they are by no means the only ones. In addition to satisfying air travel demands, aviation operations and the businesses that support them are a boom to the economy, now employing nearly 1.2 million people and contributing over \$114 billion to the state’s economy each year.



In addition, Florida airports support essential community services, such as emergency medical flights, law and drug enforcement, and aerial insecticide applications. When disaster strikes, Florida’s general aviation airports are on hand to serve in time of need. In many areas, general aviation airports serve as the staging sites and communication centers that coordinate logistics among state and community Emergency Response Teams, first responders, utility workers, emergency medical teams, the National Guard, insurance adjusters, Red Cross employees, and other volunteers during recovery. General aviation airports serve as pipelines for the distribution of food, water, ice, and emergency medical supplies. In addition, they are logistical centers that direct the Emergency Response Teams. General aviation airports provide lifesaving interventions and basic search and rescue operations. Airports assist in damage assessment, evacuation, and rapid sheltering services for residents in areas hit by disasters. In 2004 when four hurricanes ravaged the state, airports were called into service to provide staging areas for recovery efforts of a magnitude seldom seen. In 2010, when Haiti experienced a magnitude 7.0 earthquake, Florida airports were used to evacuate Haitian residents and stage international aid operations. Florida airports improve the quality of life for all of the state’s residents, even those who never directly use them.





Transportation

Public airports are a crucial link in Florida's transportation network. This year, an estimated 41 million travelers will arrive in Florida via one of its 19 commercial service airports. Combined, the state's 129 commercial service and general aviation airports

serve more than 6 million annual aircraft operations and are home to more than 14,000 based general aviation aircraft. Florida leads the world in pilot training and is the primary launch site for the worldwide aerospace industry.

Florida airports are the link between North and South America. People and goods moving between the two continents use Florida's airports for their primary points of enplaning and deplaning. Millions of travelers use Florida's commercial airports to travel to international destinations. Florida airports also ship and receive millions of tons of international air cargo.

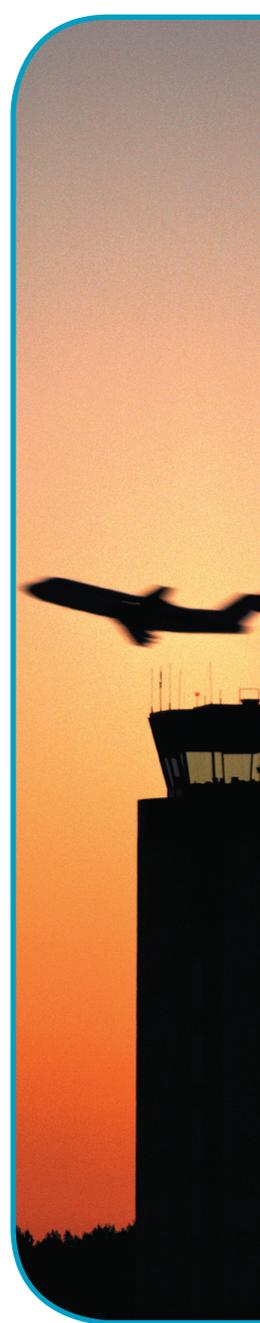
Often less noticed is the role Florida airports play in supporting in-state travel. With Florida highways increasingly congested, air travel is a viable and essential alternative to highway travel. Each week, hundreds of scheduled commercial airline flights—and thousands more business, recreational, tourist-related, and charter flights—enhance travel between large and small communities throughout the state.

Economic impacts

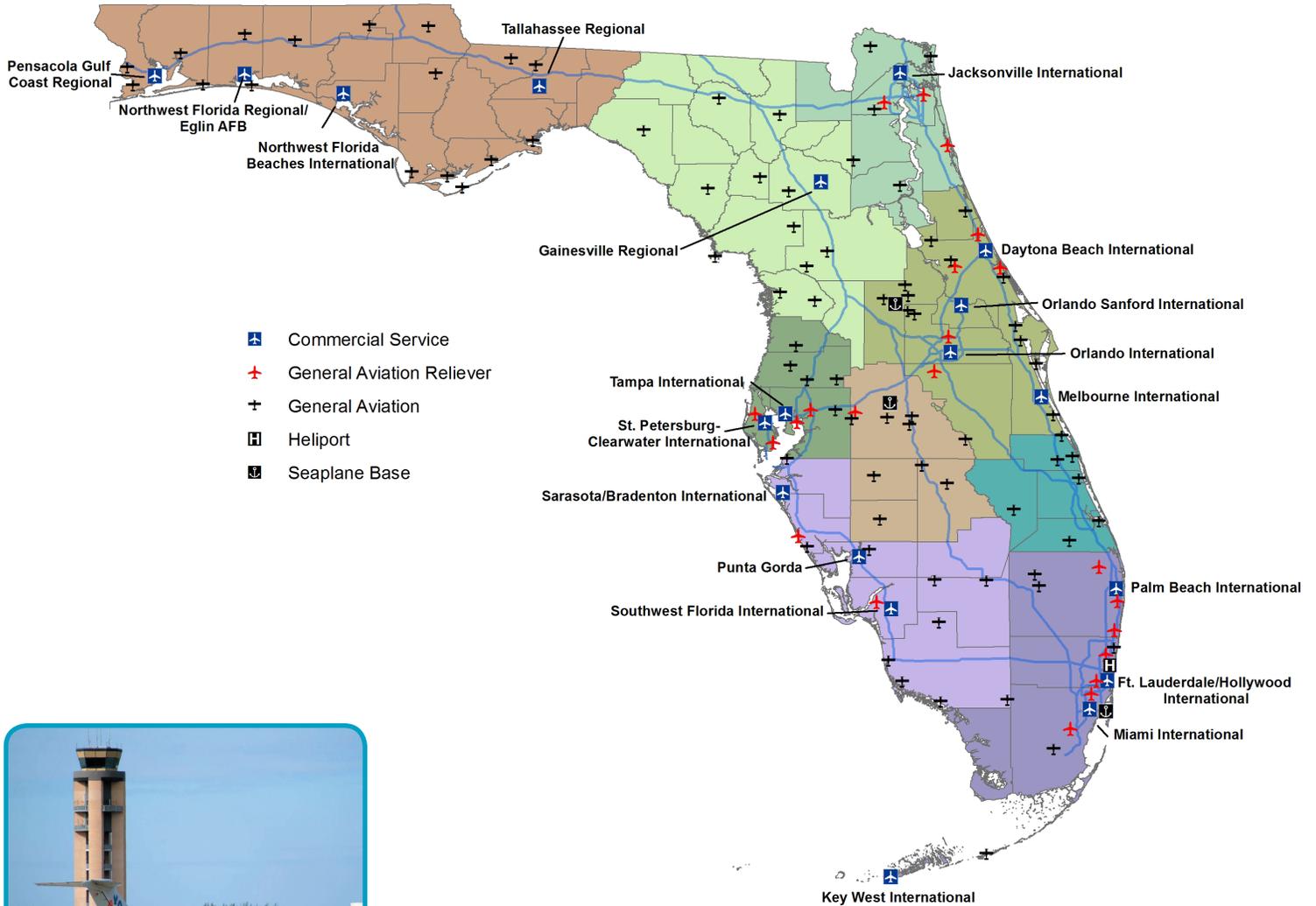
Florida's vast system of public airports meets the needs of residents, businesses, and visitors in communities statewide. When employers and businesses consider expanding their operations in Florida, proximity to a commercial service airport and a first-class general aviation airport are among the top five factors they consider. The diversity and geographic distribution of Florida's airports are also critical to supporting tourism, the state's number one industry.

Community support

Among the many health, welfare, and safety benefits that Florida's airports support are emergency medical flights, search and rescue operations, aerial applications to control insects, wildfire suppression, law and drug enforcement, and news and traffic reporting.



Florida's Public Airports



CHALLENGES AND OPPORTUNITIES

The events of September 11, 2001, changed the aviation industry irrevocably, and like their counterparts across the country, Florida airports continue to adapt to post 9/11 challenges. In the face of serious financial shortfalls, airports must meet new security measures mandated by the Transportation Security Administration (TSA). At the same time, many of Florida's commercial airports need immediate operational capacity improvements. Balancing these funding and operational demands is perhaps the biggest challenge facing Florida airports today.

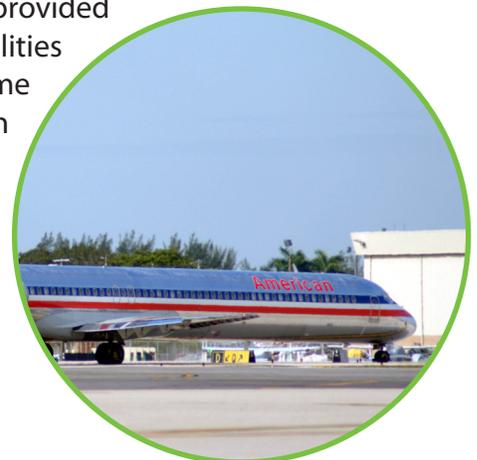
Security requirements



Following 9/11, the TSA mandated a litany of new security-related requirements for commercial airports. Security changes for air cargo carriers are pending. The new requirements include procedures, personnel, and equipment. While all Florida airports have plans to comply with these requirements, most face serious financial challenges in doing so.

Capacity rich airports

Florida's commercial airports are valuable assets that have the capacity to be used to support additional commercial airline activity. Unfortunately, many of the nation's Legacy carriers, such as Delta, American, United, and US Airways have reduced capacity in order to maximize revenues during challenging economic times. These carriers have traditionally provided service to the Florida airports with underused facilities and capacity. All of the Legacy carriers have at one time declared bankruptcy as a means to reorganize and return to profitability. Additionally, they continue to struggle with rising fuel costs and an uncertain economic future.



Commercial passenger demand

With tourists visiting Florida from around the country and the world, Florida's larger commercial airports have been able to attract a wide array of low cost carriers (LCCs). The percentage of commercial airline seats provided by LCCs statewide is notably above the national average for all commercial service airports. Average airline fares in Florida are significantly below the national average, keeping visitors streaming to the state's beaches and other tourist attractions.

Capacity needs

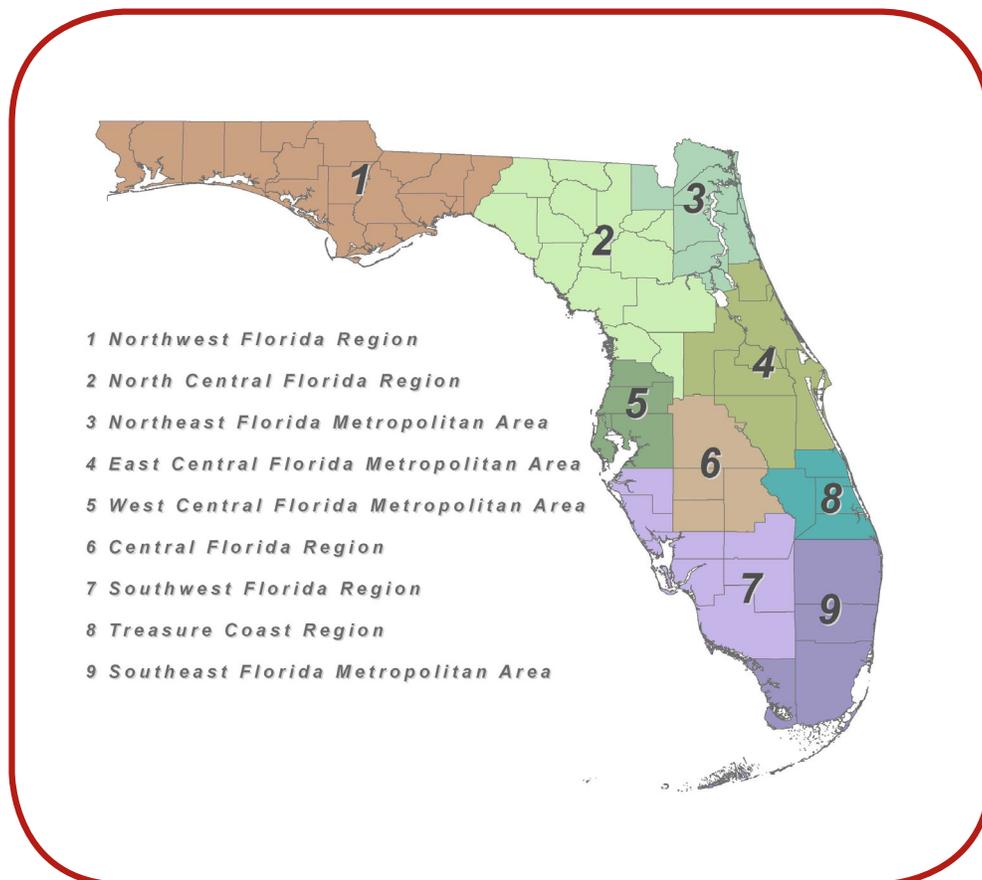
Prior to 2001, it appeared that annual operational demand at dozens of Florida airports would exceed capacity. Post 9/11, however, Florida airports experienced decreases in all segments of demand. This decrease was further compounded by the Great Recession that began in 2008. While this lag has provided "breathing room" for some airports that needed to tackle capacity-improvement projects, statewide, many airports have already seen an increase in operational levels and are once again facing capacity challenges. As general aviation and commercial operations continue to rebound and increase, the need for operational capacity improvements at many airports is increasingly apparent. FDOT will need to reinvigorate its efforts to increase capacity at Florida's busiest airports.



SOCIOECONOMIC TRENDS

Changing socioeconomic conditions, including population and employment growth, play a major part in requiring improvements to Florida airports. This plan considers the effects that Florida's growing—and aging—population will have on the state's airports. It also considers Florida's rapid and continuous urbanization, which places increased development and land-use pressures on many airports. Strategies that protect Florida's critical aviation resources from encroachment and incompatible land uses are important aspects of the FASP.

Rates of population and employment growth—and their projected effects—differ regionally within the state. This plan considers the unique assets and challenges of each of the nine Continuing Florida Aviation System Planning Process (CFASPP) regions in Florida. The plan describes a diverse and geographically well distributed system of public airports to serve the needs of Florida residents, businesses, and visitors.



STATE OVERVIEW

Florida stands at the threshold of an exciting new era in aviation, an era full of promise but also with many potential pitfalls. Over the course of the next few decades, technological advances in aircraft design and computer-assisted navigation are expected to make air travel and transport cheaper, safer, and more convenient.

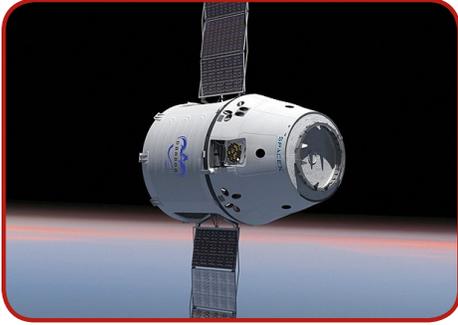
In the short term, however, airports and commercial air carriers face a variety of problems and uncertainties. One difficulty is keeping airports and aviation services abreast of Florida's rapid population growth, which is expected to continue at a very high rate through 2025 and beyond. Another task will be adapting existing facilities and services to changing demands and opportunities. As Florida continues to urbanize, many airports will need to expand, specialize in distinct markets, or both. Still other issues may be posed by unstable consumer demand, airline industry restructuring, and ongoing terror threats. To fulfill the long-term promise of aviation, aviation policymakers must first navigate these near-term difficulties.

Each day, more than 900 new residents move to Florida. In 1970, the state had less than 7 million residents. Today, there are almost 19 million. If current rates of growth continue, Florida expects to have 24 million residents by 2025. This rapid growth strains all state infrastructures, especially the airport system. As the state's population continues to grow, demand for in-state, domestic, and international air travel will increase, as will the need to ship and receive goods by air.

Growth is projected to occur in every region of the state. Today, the three largest regions are the Southeast, the East Central, and the West Central. Together, they account for roughly one-third of Florida's total population. They are also the regions projected to gain the largest number of additional residents in future years.

The West Central Metropolitan Area (Tampa), the East Central Metropolitan Area (Orlando), and the Southeast Florida Metropolitan Area (Palm Beach, Fort Lauderdale, and Miami) have and will continue to have the highest concentrations of the state's population through 2025. The areas around Jacksonville, Fort Myers, and Pensacola are also projected to experience rapid population growth.





Airports and aviation services play a critical role in Florida's economic and community development. This is true not only for tourism, which is highly dependent on air travel, but also for most other parts of the state's economy. Manufacturing, retail and wholesale trade, management and professional services, health care, and other economic sectors use air travel. All rely on air shipping to obtain production inputs, visit markets and customers,

distribute inventories to outlets, and transport products to distributors or directly to consumers. Although aviation may not be a prerequisite for particular business activities, the availability of aviation services often reduces costs, saves travel time, and expedites marketing and product delivery. Consequently, airports are engines for business growth and job creation.

Florida is a national and international leader in aviation. The state's climate and terrain are ideal for flying. In part, this is why Florida was the site of much flight training for World War II, and today is home to some of the nation's largest and most significant military airbases. For similar reasons, Florida is the world's leader in flight training. Twenty percent of the world's flight training occurs in Florida. Of course Florida is also America's main launching point for space exploration, cargo, and transportation, and is the epicenter of research for space-related technologies. America's early achievements in space exploration, which culminated in a manned flight to the moon in 1969, originated in Florida. This tradition continues today, as

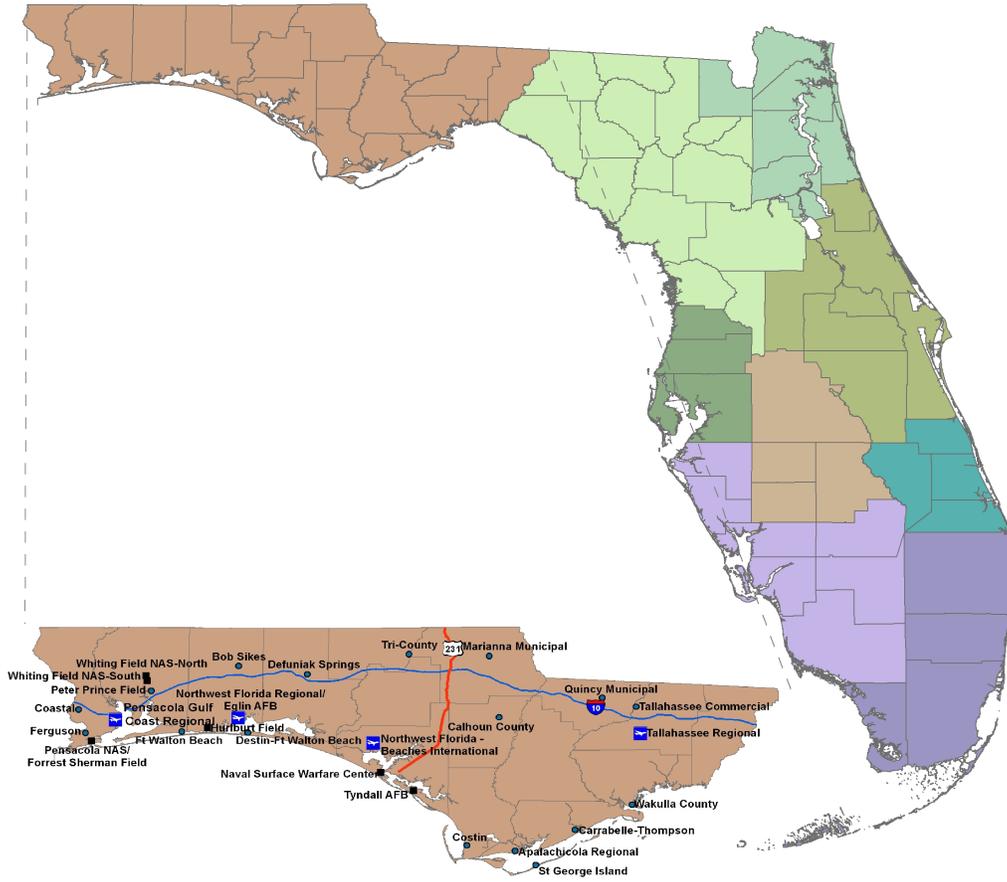
private industry continues to develop commercial space exploration and space tourism, while NASA continues development on the international space station and in unmanned flights to other planets.

Florida's leadership role in aviation is an enormous asset that took decades to earn. The challenge now is to maintain and strengthen this position. Florida must take advantage of its climate, geography, and other aviation strengths to continue to develop an aviation system that enhances the state's economy and quality of life.



STATE OVERVIEW

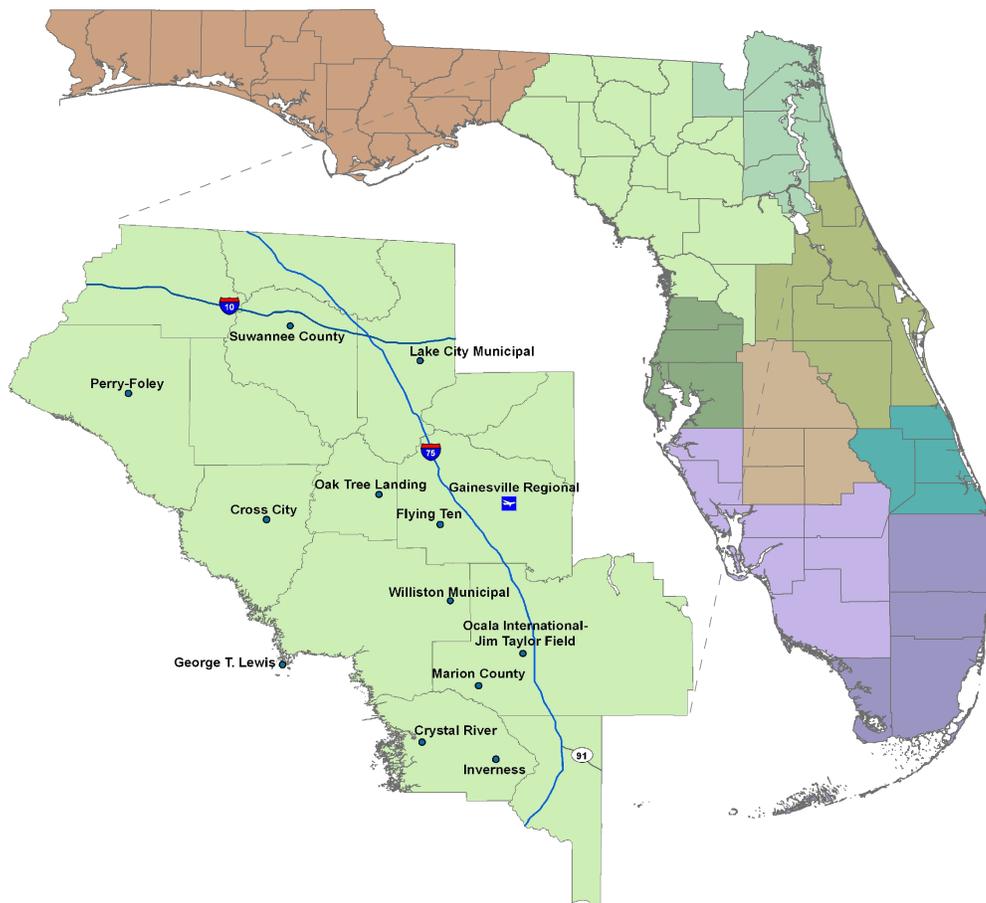
NORTHWEST FLORIDA REGION



Recently, Northwest Florida has come to be called the Great Northwest, because it is Florida's newest frontier of rapid growth and urbanization. Geographically, it is the largest Continuing Florida Aviation System Planning Process (CFASPP) region in Florida. Beginning at the northwestern edge of the state, it spans 240 miles east-to-west, includes 16 counties, and is home to 1.4 million residents. The region's population more than doubled between 1970 and 2007, and it is expected to increase by another 33 percent between 2008 and 2035. Much of this growth will be among retirees, who will be attracted by new communities along the Gulf Coast being developed by the St. Joe Paper Company, the largest private landowner in Florida.



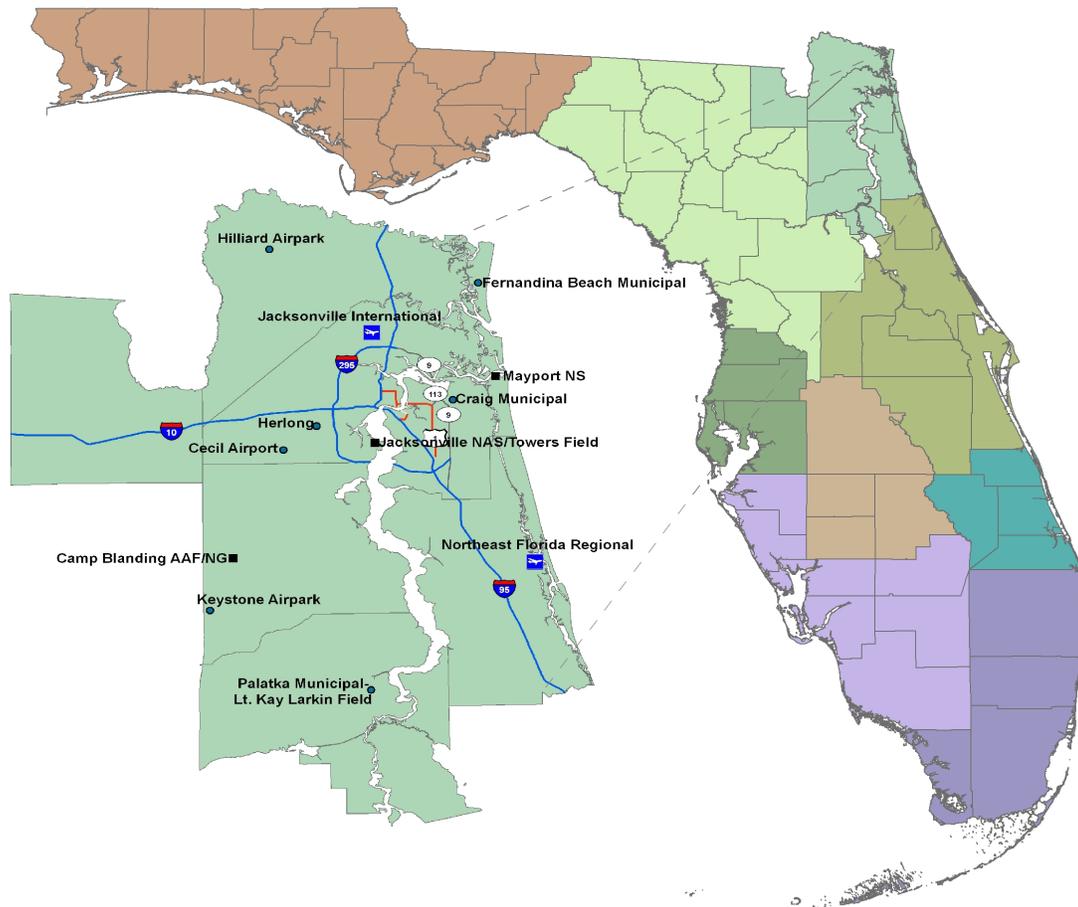
NORTH CENTRAL FLORIDA REGION



Florida's North Central Region is one of the fastest growing and geographically largest CFASPP regions in the state. Roughly 80 miles wide and 170 miles long, the region straddles the I-75 corridor from the Georgia-Florida border all the way past Wildwood where I-75 connects to the Florida Turnpike. Between 1970 and 2007, North Central Florida's population more than doubled in size, and it is expected to increase by an additional 48 percent between 2008 and 2035. Already, the region's population exceeds 1 million. Most of the growth will be concentrated along the Interstate corridors, especially in Alachua and Marion Counties, which together contain almost half the region's residents today. The City of Gainesville in Alachua County is home to the University of Florida, which is fueling economic development and attracting workers and students as well as retirees. Also contributing to growth are large metropolitan areas near the region's eastern, southern, and western borders: Jacksonville, Orlando, and Tampa, all of which are proximate destinations on the Interstates traversing the region.

REGIONAL OVERVIEW

NORTHEAST FLORIDA METROPOLITAN AREA

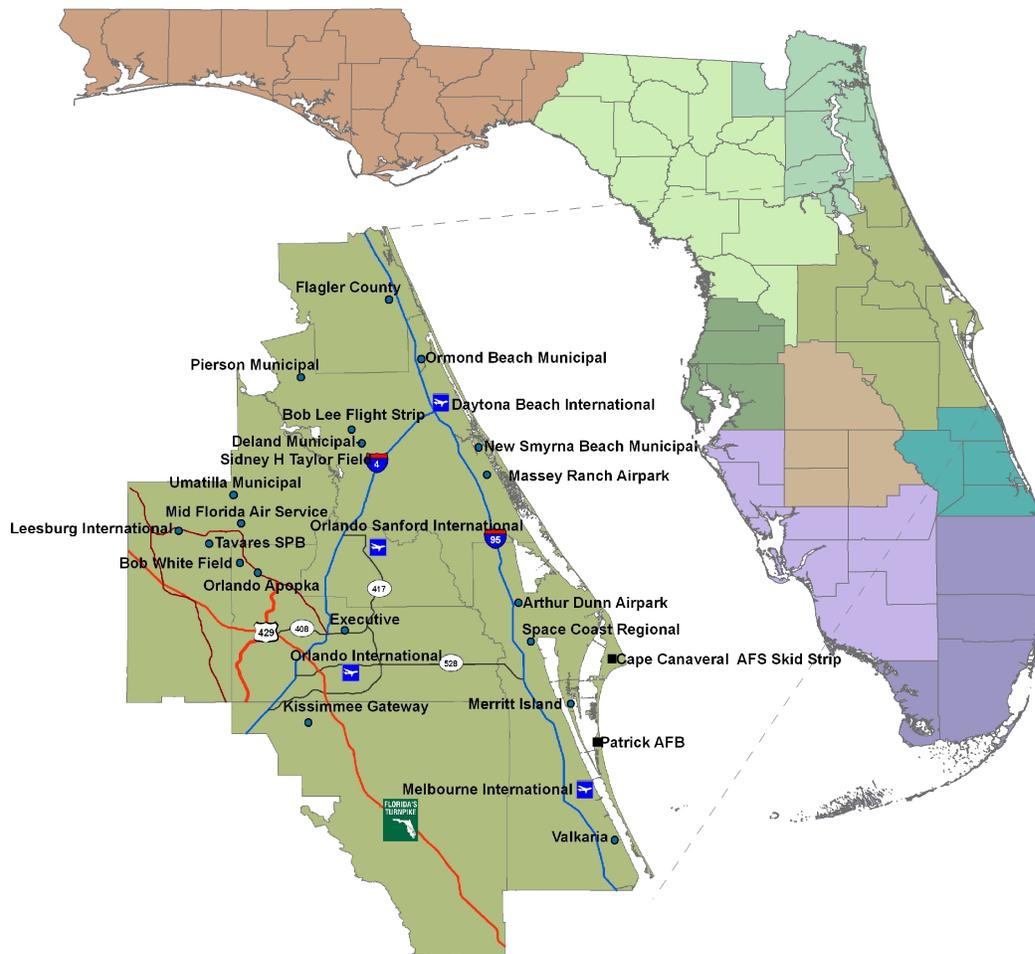


In the CFASPP, the Northeast Region includes Duval, Clay, St. Johns, Nassau, Putman, and Baker Counties. Duval County has the largest population base and the area's largest commercial service airport, Jacksonville International Airport. Duval also has three general aviation reliever airports. St. Johns County and Nassau County each have one general aviation reliever airport, with Nassau having one additional general aviation airport. With the exception of Baker, the remaining counties have one general aviation airport each.

Northeast Florida is experiencing rapid population growth and economic development. The region's population more than doubled between 1970 and 2007, and it is expected to increase by an additional 46 percent between 2008 and 2035. Unlike most other CFASPP regions, Northeast Florida has a comparatively small proportion of senior citizens. The region's growth is being fueled by Jacksonville's thriving economy, which is attracting a steady influx of economically active young adults.



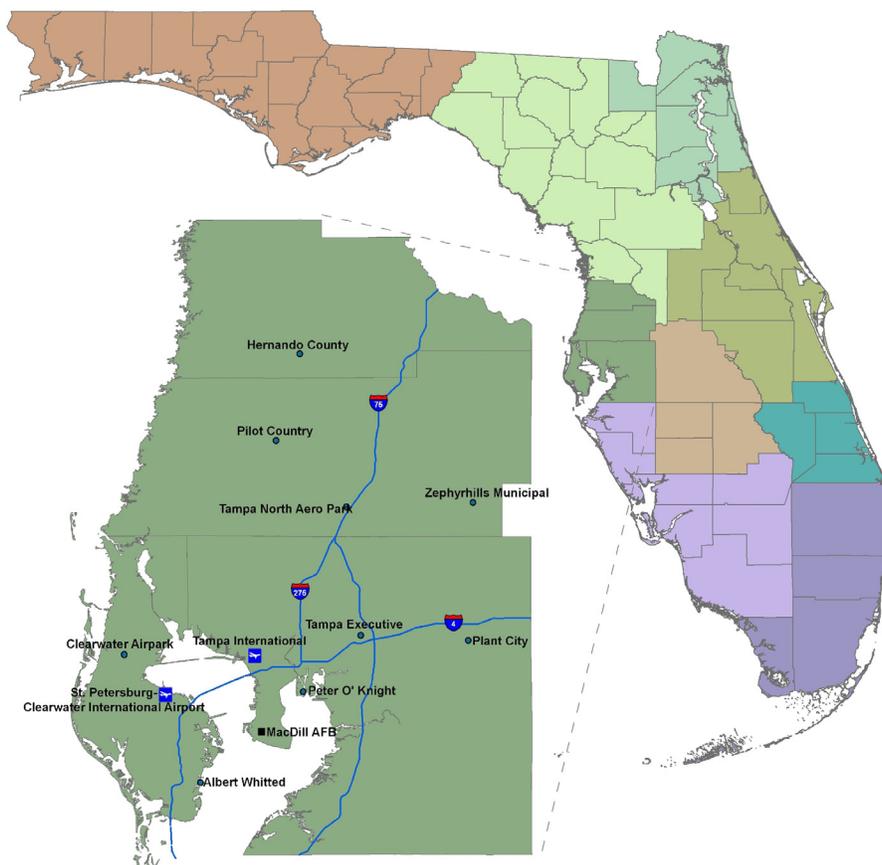
EAST CENTRAL FLORIDA METROPOLITAN AREA



More than any other region in the CFASPP, East Central Florida highlights the critical importance of aviation services to the state's present and future economic prosperity. Home to Disney World, Universal Studios, Sea World, and other popular theme parks, as well as the Kennedy Space Center, East Central Florida is thriving, even through the Great Recession. The region's eastern half is made up of Flagler, Volusia, and Brevard Counties, which are part of what is known as the Space Coast. Inland, the region consists of Orange, Seminole, Lake, and Osceola Counties. In terms of population, East Central Florida is the second largest CFASPP region. Its population increased by a million residents between 1970 and 1990, and it grew by another 1.2 million between 1990 and 2007. The region's extremely rapid growth is fueled by global tourism, which depends on commercial passenger service. Aviation services are also an essential ingredient to the region's economic diversification.

REGIONAL OVERVIEW

WEST CENTRAL FLORIDA METROPOLITAN AREA

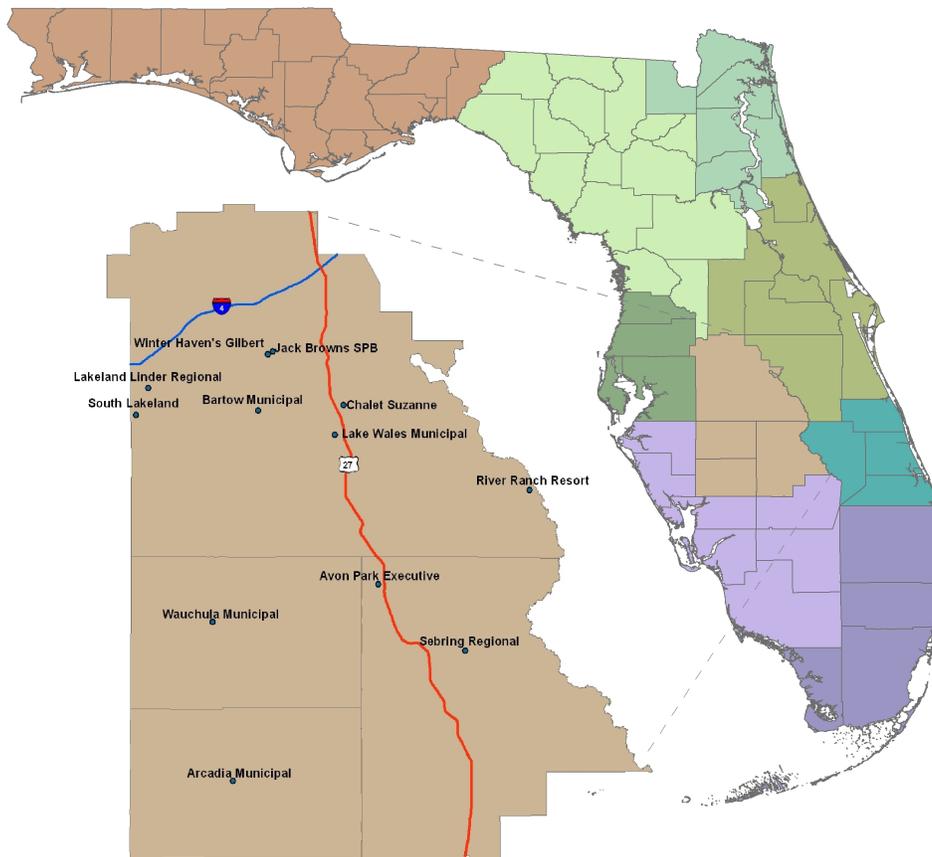


In the CFASPP, the West Central Florida Metropolitan Area includes Pinellas, Hillsborough, Pasco, and Hernando Counties, which respectively form the western and eastern sides of Tampa Bay, plus the next two Gulf-Coast Counties to the north, Pasco and Hernando. Even though the latter are largely rural and suburban, West Central Florida is the most densely populated CFASPP region in the state.

Population and employment are centered in Tampa and St. Petersburg, the state's two largest cities in population after Jacksonville and Miami, but the region is urbanizing outward in all landward directions. Between 1970 and 2007 the region more than doubled in population, starting with 1.1 million residents at the beginning of the period and rising to 2.7 million by the end.



CENTRAL FLORIDA REGION

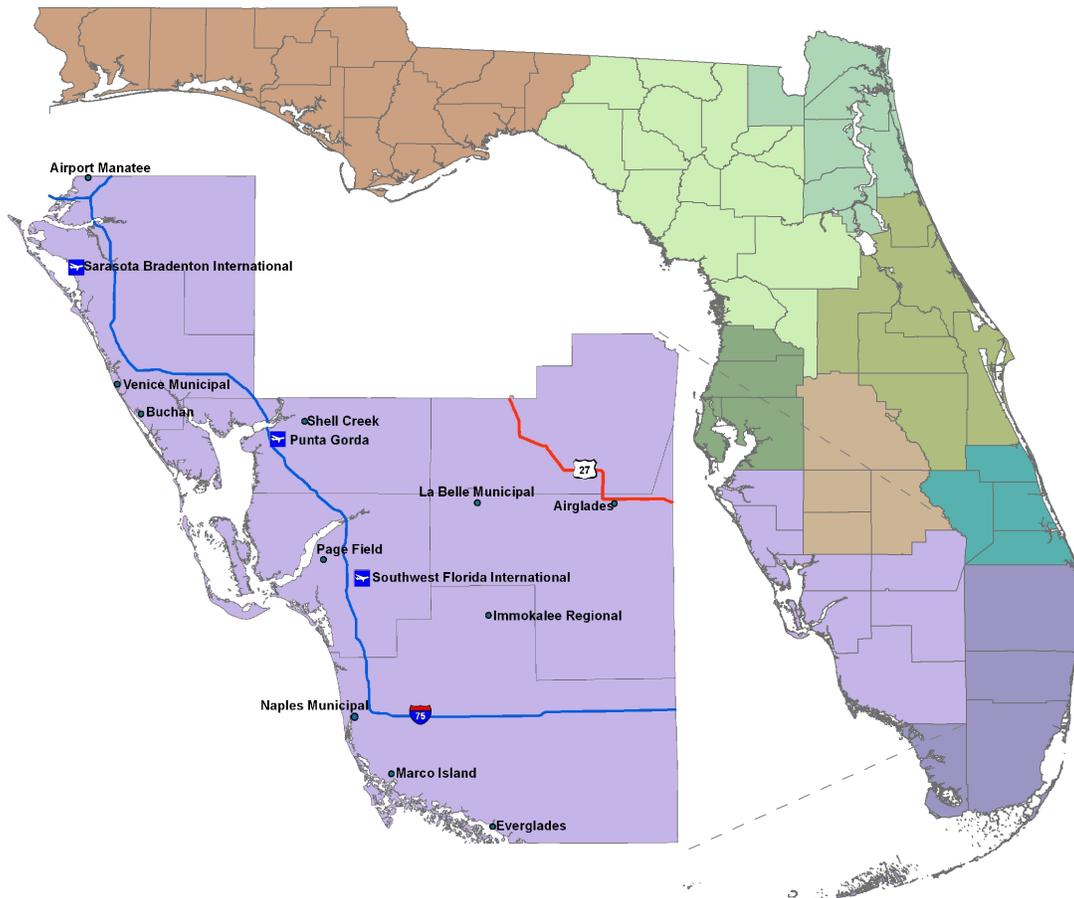


In the CFASPP, the Central Florida Region includes Polk, Hardee, Highlands, and DeSoto Counties. The region is referred to as “Florida’s Heartland.” It is experiencing an influx of residents, especially retirees, who want Florida’s subtropical weather without the high costs and dense urbanization of Florida’s sprawling metropolitan areas.

Between 1970 and 2007, the population of Central Florida more than doubled, and it is expected to increase by an additional 47 percent between 2008 and 2035. However, the region’s recent growth has been unevenly distributed and has been characterized by an overabundance of low-value residential development rather than an economically sustainable mix of businesses, factories, and upscale as well as affordable housing. Hence, despite recent growth, several counties in the region have been designated by the state as Areas of Critical Economic Concern.

REGIONAL OVERVIEW

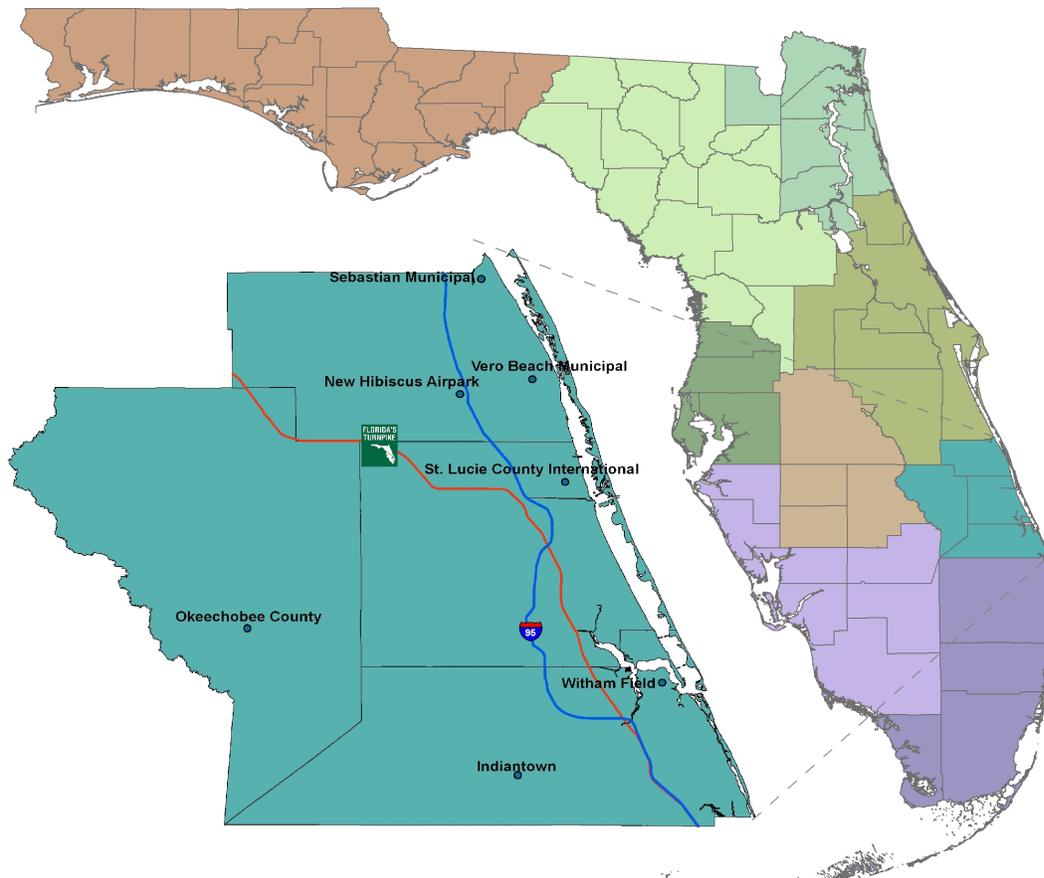
SOUTHWEST FLORIDA REGION



In the CFASPP, the Southwest Florida region includes Manatee, Sarasota, Charlotte, Lee, and Collier Counties along the coast, plus the inland counties of Glades and Hendry. Until the Recession, the region's population had been growing at an incredibly rapid pace, rising from less than 500,000 in 1970 to more than 1.9 million in 2007. Led by in-migrating retirees from the Midwest and Northeast, the region's growth is recovering again and is expected to maintain a rapid pace for the foreseeable future. Urbanization is expected to be spread more or less evenly along the entire coastal corridor. This pattern and blistering rate of urbanization will cause isolated environmental and urban problems amidst the region's overall prosperity. By increasing access, targeted investments in aviation facilities could boost economic activity in areas that are not as well off financially as the rest of the region.



TREASURE COAST REGION

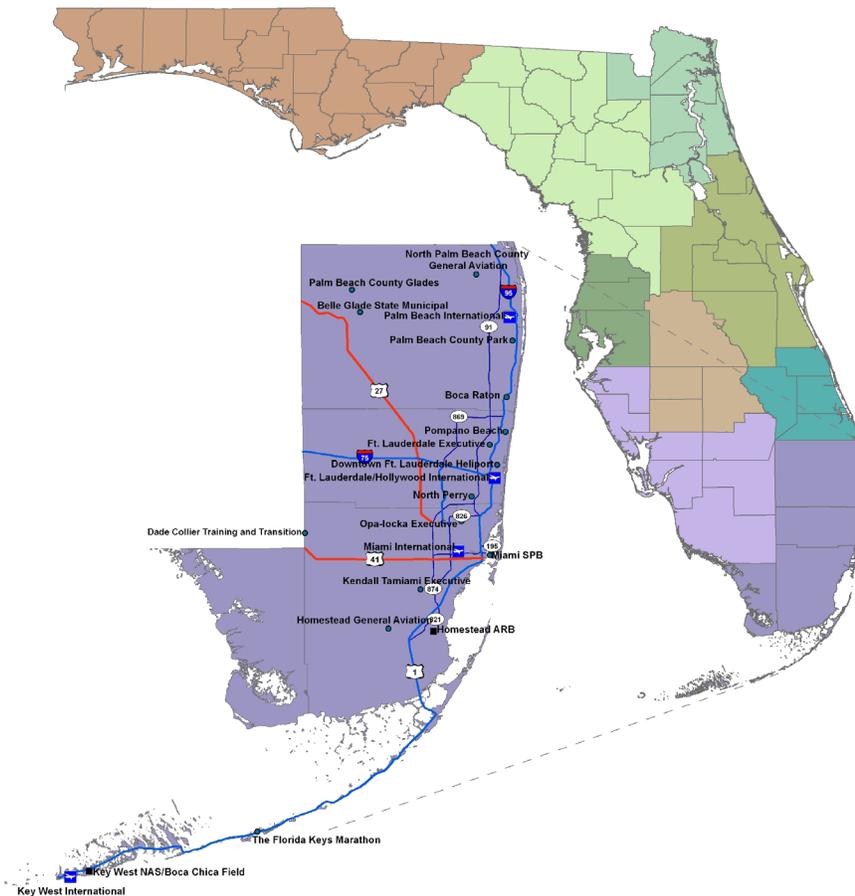


In the CFASPP, the Treasure Coast Region is comprised of Martin, St. Lucie, Indian River, and Okeechobee Counties. Historically an agricultural area with a small amount of coastal tourism, the Treasure Coast is in the initial stages of urbanization. Although the Recession has taken its toll during the period from 2006-2009, the region has historically experienced strong population growth because it is directly in the path of urban development extending up the coast from Miami and down the coast from Daytona Beach. The regional population increased from 126,000 in 1970 to almost 600,000 in 2007. It is expected to approach 1 million by 2035.

The main challenge posed by this rapid growth is paying for and delivering the public services and facilities required by the incoming residents. The region's population growth is accompanied by business growth, with a steady increase in the region's civilian labor force. While nearly 38 percent of workers are employed in the services sector, another 18 percent of workers are employed in retail trade, another 13 percent are in construction, and 10 percent are in accommodations. Local governments in the Treasure Coast are working to achieve an appropriate balance of residential, commercial, and industrial development. Airports and aviation services are critical to the region's economic growth and prosperity.

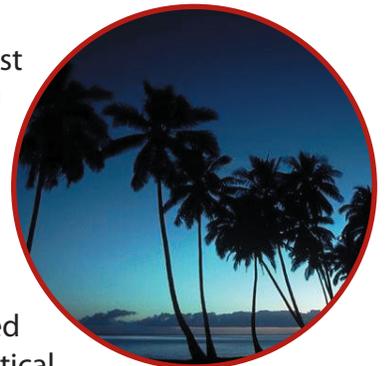
REGIONAL OVERVIEW

SOUTHEAST FLORIDA METROPOLITAN AREA



The nation's gateway to Latin America and the Caribbean, Southeast Florida is one of the world's most dynamic metropolitan areas. In the CFASPP, the Southeast region includes Monroe, Miami-Dade, Broward, and Palm Beach Counties. Monroe County is developing somewhat separately from the rest of the region because it is primarily the Florida Keys, which are a gentle arc of islands extending for 150 miles into the straits between the Gulf and the Atlantic. The remaining counties form a single organic metropolis that is anchored in Miami and spreading northward along the I-95 corridor.

Southeast Florida more than doubled in population during the last three decades, exceeding five million in the 2000 census and reaching 5.6 million in 2007. The region's rapid growth is expected to continue for the foreseeable future, with a population of 7.3 million forecast for 2035. In an increasingly global economy, Southeast Florida has the potential to move alongside London, Paris, New York, and other world leaders in international commerce. To do so, however, it must first increase the capacity of its major airports, which are landlocked by surrounding development. Aviation in Southeast Florida is a critical component for the future economy and development of the entire state.



AIR CARRIER AIRPORTS

Fast facts:

Florida has 19 Commercial Service Airports that consist of:

- 4 Large Hub Airports
- 3 Medium Hub Airports
- 5 Small Hub Airports
- 7 Non-Hub Airports

Florida's Commercial Service Airports:

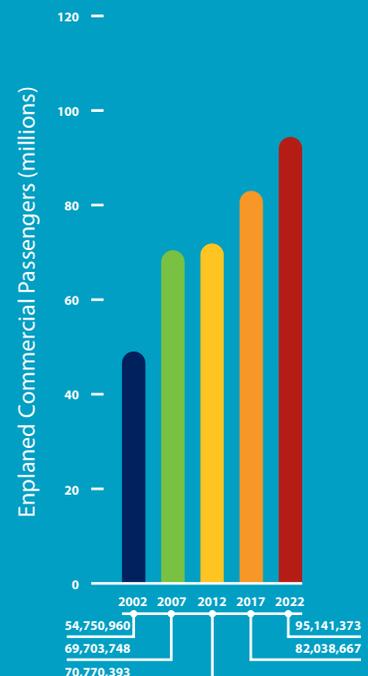
- Serve approximately 140 million passengers each year
- Enplane nearly 9 percent of the nation's air cargo which represents the largest driver of Florida's economy in international trade dollars
- Support Florida's tourists, over 50 percent of whom arrive in the state each year via the commercial airlines



Florida has eight airports with scheduled commercial service to international destinations with approximately 2,100 weekly departures

- 51 percent of these flights are bound for the Caribbean
- 36 percent are headed to Central and South America
- 8 percent are headed for Europe
- The remaining 5 percent are bound for Canada
- There are also a small percentage of flights that travel to destinations in the Middle East
- Florida also has a very active international air charter industry

Statewide Commercial Passenger Enplanements

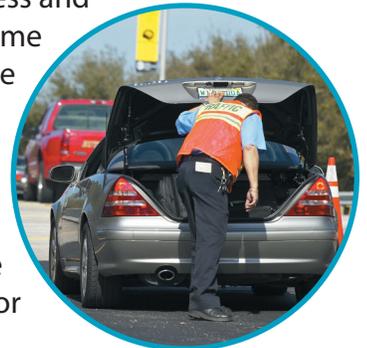


Florida's commercial service airports are vital to the state's transportation system, its tourism industry, and its overall economy. While each airport has a distinct market or service area, the proliferation of low-cost carrier service in the state has blurred market area boundaries. Florida airports find themselves competing not only with airports in other states, but also with each other for the limited number of new domestic and international flights being added by carriers.

This study identified common issues that impact all of Florida's commercial service airports. These challenges must be addressed so that Florida airports can continue to compete effectively for their fair share of air service expansion opportunities.

Security

- All of Florida's commercial airports face unfunded security mandates from the TSA. These mandates involve facilities, equipment, and personnel. Without funds to address mandated security needs, Florida airports will be at a competitive disadvantage.
- Long security lines and increased travel times have had a negative impact on most in-state commercial airline travel that is essential to business and tourism in the state. Approaches for reducing passenger wait time and for improving the efficiency of the in-state travel experience are needed.
- Depending on the airport, between 60 and 80 percent of all travelers who arrive on commercial airlines are visitors arriving in Florida for business and vacation. If travel through Florida airports is perceived as being less desirable because of the security "hassle factor," Florida airports' ability to compete for business and leisure travel will be adversely impacted.

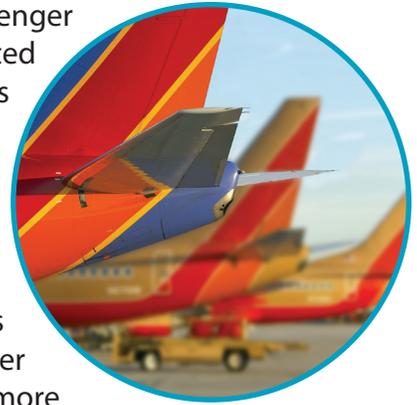


Air service

- Historically, scheduled airline service in Florida was provided almost exclusively by legacy carriers such as Delta, United, and American. These carriers are financially weakened, having lost collectively more than \$25 billion since 2001. Further reduction of service by these carriers may impact many Florida airports.
- One way that Florida airports can effectively compete for new air service is to keep their costs competitive. Florida markets are traditionally not high-yield markets for the carriers. Funds provided by FDOT to Florida's commercial airports are an important ingredient for remaining competitive.
- Since 1997, low-cost carriers introduced high volumes of service to Florida's larger commercial airports. Nationally, low-cost carriers account for less than 30 percent of all scheduled airline seats; in Florida, this percentage is

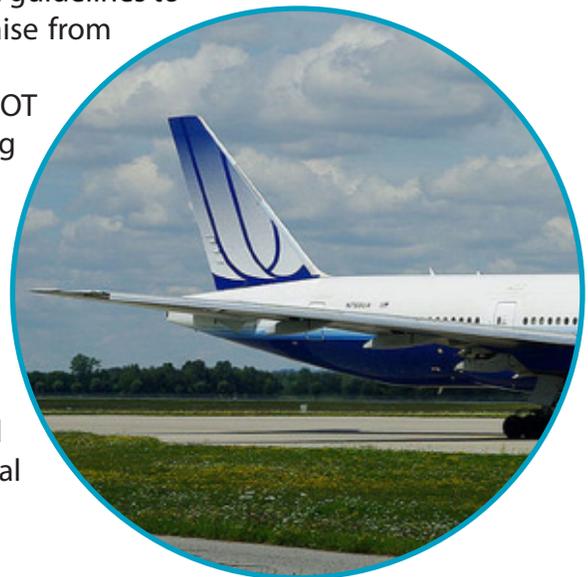
notably higher. Low-cost carrier service has stimulated passenger demand, but because this service tends to be concentrated at the larger airports, a passenger diversion from Florida's smaller commercial airports has occurred.

- Addressing security-related issues and promoting a healthy system of in-state scheduled airline service can help Florida airports surpass historic demand levels.
- Many commercial airlines, first the legacy carriers and now the low-cost carriers, have chosen to include large numbers of regional jets in their operating fleets. With their smaller seating capacities, these aircraft enable carriers to offer more flights. However, more planes are needed to carry the same number of travelers. This increased flight activity advances critical operational demand sooner rather than later. Airlines may choose to phase out these regional jets in favor of larger, more fuel-efficient aircraft. This shift in operating aircraft could impact the aviation system in Florida, where regional jets make up a large percentage of total commercial operations.



Land use

- Aside from shortfalls in funding, encroachment from activities and land uses that are not compatible with Florida airports and their operations is a major issue facing all commercial airports. Statewide action and cooperation is needed to ensure that Florida's valuable airport resources are adequately protected and that commercial airports in Florida can expand when needed.
- Florida Statute 333 provides guidance on compatible land use in the environs of Florida airports, but mechanisms for enforcing and expanding the scope of this statute are needed to protect commercial service airports. FDOT's existing educational outreach and recently completed Land Use Guidebook are efforts to distribute airport-specific land use guidelines to local planners. These efforts have received praise from many around the state, and will continue.
- Commercial airports in Florida believe that FDOT can play an important and vital role in assisting all airports with their compatible land use educational needs. Outreach and education are keys to ensuring that Florida airports are protected.



Capacity

- As demand for commercial airline travel to and from Florida continues to grow, some commercial

airports in the state will need terminal improvements. Often, airlines are the key participants in funding these types of improvements. Given the weakened financial condition of many carriers, the possibilities for security-related funding in passenger terminals from them may be diminished. Additional focus on creative, third-party, private, and state funding or a combination thereof may be needed.

- As new-generation commercial aircraft come online, some airports may require longer runways to serve them. Other commercial airports need runway extensions to serve their existing operators on existing routes. Florida airports stand to attract an increasing number of international flights, and longer runways will be needed to enable carriers to reach existing and new international destinations from the state.
- Accessibility to Florida's commercial airports is critical. This study determined that many airports are in need of ground access improvements and that others could benefit from multi-modal connections. A collaborative effort among state, regional, and local transportation and planning agencies is needed to ensure that Florida's commercial airports are supported by a healthy ground access system.
- Growing commercial, air cargo, and general aviation operations at Florida's commercial airports indicate the need for capacity improvement projects including new runways and taxiways. FASP 2025 indicates that more than 50 percent of Florida's commercial airports will experience demand levels that will totally saturate their operational capacity during the planning period.

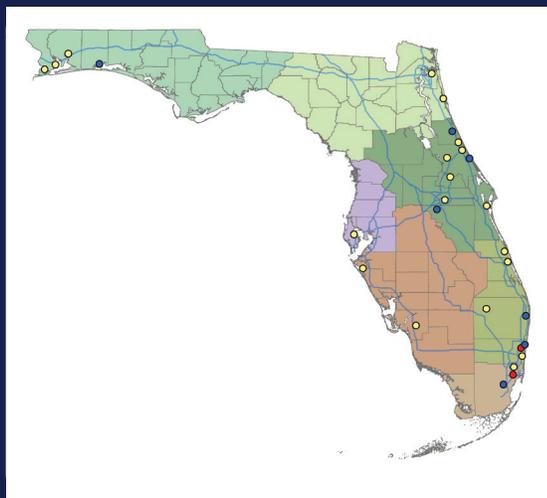
All commercial airport resources are valuable to the state, and the needs of Florida's commercial airports have been and will continue to be considered as funding priorities are established.



DEMAND AND CAPACITY TRENDS

Projections of future aviation demand and capacity needs are the foundation for identifying airport improvements. Florida's aviation system is one of the busiest and fastest growing in the nation. In 1988, Florida airports housed an estimated 12,000 based aircraft. Today, more than 14,200 aircraft are based at Florida's commercial service and general aviation airports. In 1988, total aircraft operations at Florida airports were estimated at 8.6 million. Over the past decade, total annual aircraft operations in Florida have approached 10 million.

As a result of the economic downturn that began in 2000, and accelerated by the events of 9/11, and then again by the Great Recession starting in 2008, commercial and general aviation activity declined in Florida and across the country. Many segments of the aviation industry have started to recover and are on track to reach projections developed before the downturn. Florida's commercial airports are expected to exceed pre-2001 passenger levels over the FASP planning period. Increased business and corporate use and fractional ownership have aided a general aviation sector rebound, and emerging technologies being fostered and supported in Florida will help support future general aviation growth.



POST 2030 DEMAND CAPACITY RATIO

- Airports operating over 100% of Airfield capacity
- Airports operating between 80% to 100% of Airfield capacity
- Airports operating between 60% to 80% of airfield capacity

High demand for travel to Florida is fueling demand for commercial airline service. Low-cost carriers, which first established themselves at Florida airports in 1997, continue to add flights. The percentage of departing seats provided by low-cost carriers in Florida exceeds the national average and helps support the tourism sector so vital to the state’s economy.

With demand seemingly back on track, Florida must focus on potential shortfalls in operational capacity. Around 2040, Florida airports are expected to accommodate an estimated 13 million aircraft operations. Unless improvements are made to airfield infrastructure, some airports may meet or exceed their ability to process annual demand.

CFASPP Region*	Airports Exceeding 100% Operational Capacity by 2040
East Central Florida Metropolitan	New Smyrna Beach Municipal
Northwest Florida Region	Northwest Florida Regional
South Florida Metropolitan	Fort Lauderdale Executive
	Miami International
Southeast Florida Metropolitan	Palm Beach International

*For purposes of the Continuing Florida Aviation System Planning Process (CFASPP), aviation activity in Florida is divided into nine regions and metropolitan areas.

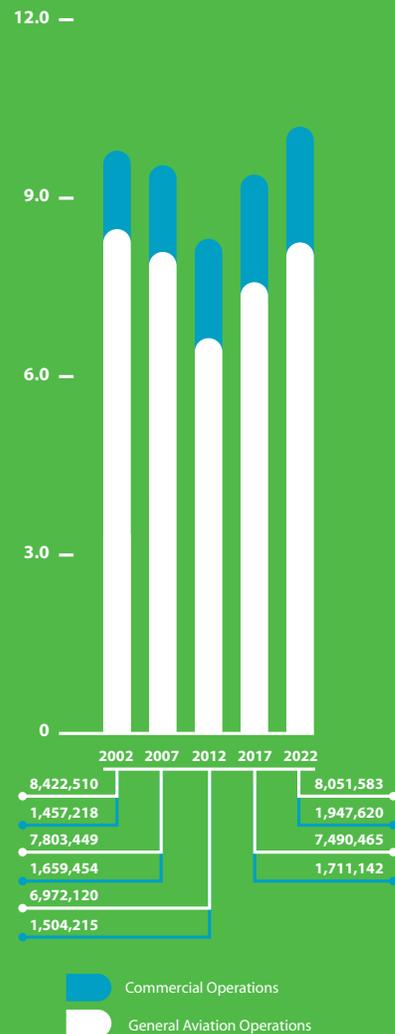




In addition, many of Florida's commercial airports exceed or will soon exceed the FAA's trigger point of 80 percent demand versus capacity, indicating the need to implement capacity improvement projects. Without improvements, almost 14 percent of all system airports are projected to exceed the 80 percent demand/capacity threshold around 2040. To ensure that the system can meet the state's growing aviation demand, Florida must develop and implement policies that ensure investment in capacity-improvement projects.



Total Aircraft Operations





Current air cargo activity

In today's global economy, the huge volume of time-critical, high-value products crossing national boundaries by aircraft results in markets and industries being connected together. Through connectivity provided by air cargo, markets and industry share a common goal to improve and enhance the quality of life for individuals, families, businesses and societies. The FDOT Aviation Office supports and encourages air cargo activity around the state. While many airports in Florida can accommodate air cargo activity to a certain degree, there are 18 airports in Florida which have scheduled air cargo service supporting business and industry throughout the State.

- Florida's commercial airports enplane over 9 percent of the nation's air cargo.
- 36 percent of Florida's international trade dollars are generated by air cargo shipments.
- The largest driver of Florida's economy is international trade.
- The economic impact of air cargo produced or sold in Florida totals \$6.6 billion each year.

Air Cargo Airport Functions

Airport	Int'l Gateway	Passenger or Cargo Hub	USPS Sort Center	Integrated Express Spoke	Major Carrier Spoke
Miami	→	→		→	→
Orlando	→	→	→	→	→
Ft. Lauderdale	→			→	→
Tampa	→			→	→
Jacksonville				→	→

Security regulations

Anticipated new security regulations for air cargo are likely to shift air cargo away from passenger or combination carriers and concentrate it among integrated carriers and logistics companies whose vertical integration allows for greater control, security, and tracking of shipments. Increased costs for providing a secure environment for air cargo could solidify the use of trucks as a less expensive mode for domestic and transit air cargo. The use of trucks for short-haul and time-deferred services has become widespread and is likely to intensify. With 70 percent of Florida’s air cargo considered transient (gateway) cargo, modal competition from road feeder services and less-than-truckload (LTL) companies makes truck access to airports a significant factor in the support and development of the Florida air cargo industry.

Economic impact

This study has determined that more than 2.7 million tons of air cargo move through Florida airports each year. The impact of goods transported by air in Florida totals \$33.4 billion in economic activity, of which \$3.1 billion is paid in earnings to workers. Of these impacts, a vast majority is attributable to cargo produced in Florida and then flown out of state.

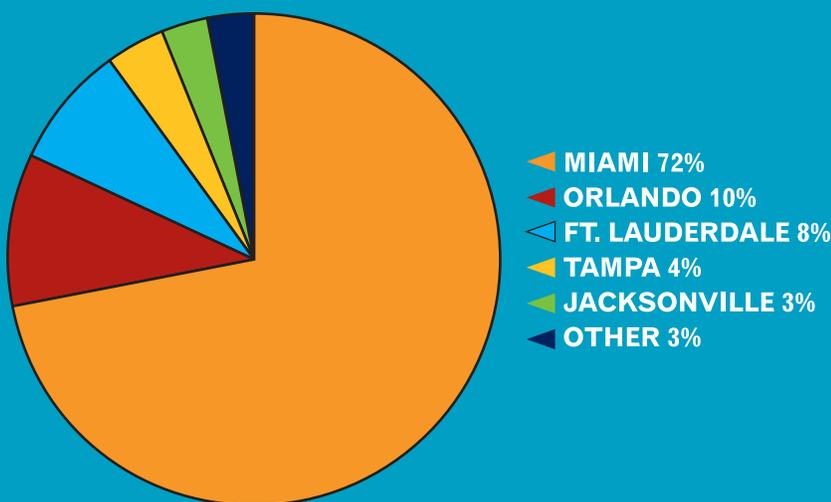
Infrastructure needs

Air cargo development is actually an intermodal issue. Analyses completed during this study have shown increasing evidence that substantial bottlenecks for air cargo development

are occurring outside the airports, on highways. Air cargo activity relies heavily on truck feeder activity for both local (in-state) and gateway (transient) air cargo. Increasing air cargo volumes directly translate to an increase in the number of trucks requiring access to Florida’s airports.

FASP 2025 identifies ground/truck access, security, and on-airport planning as the highest

Florida Air Cargo Market Share





priorities among air cargo-related improvements. Many airports, notably Miami, Orlando, Tampa, Southwest Florida International, Melbourne, and Jacksonville, report congestion on key highway access routes as one of the most significant limitations to increasing the effective use of their airports. The growing imbalance between supply and demand for roads is not unique to Florida. However, the fact that trucks are the dominant form of goods movement in Florida and that most air freight arrives at airports by truck, underscores the importance of improving highway access to air cargo airports in the Florida system.

Infrastructure demands related to air cargo security present another daunting task for Florida's airports. Currently, limiting airside access and enhancing perimeter security are the primary air cargo security initiatives. Limiting access to cargo aircraft while still allowing for the efficient flow of cargo in and out of the airfield is a major challenge.

The potential for 100 percent cargo screening also poses many costs and challenges. The scope, method, and timing of this massive undertaking have yet to be finalized by TSA. For maximum effectiveness, all physical infrastructure required to accommodate an air cargo screening program will need to be located on, or directly adjacent to, secure airport facilities. This will require airports to provide:

- Large amounts of land near air cargo facilities
- Consolidation of air cargo facilities
- Additional warehouse/screening buildings
- Separate and secure access roads for queued-up trucks
- Additional security personnel
- Screening equipment/technology

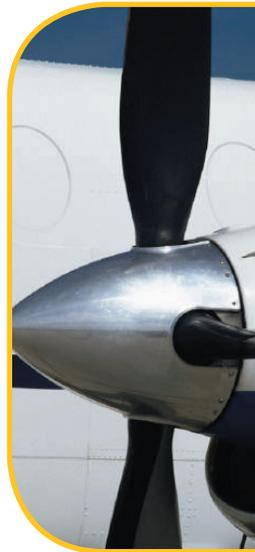
On-airport infrastructure planning for air cargo expansion and development is a primary concern of FASP 2025. To capitalize on air cargo opportunities, airports must remain flexible and proactive in planning for future air cargo needs.





GENERAL AVIATION AIRPORTS

Florida has 110 public-use facilities poised to meet general aviation needs and provide critical services to their local communities. These facilities are referred to as “General Aviation Airports” or “Reliever Airports” in FAA documentation. These general aviation airports are located strategically around the state serving both metropolitan and rural areas. General aviation airports have proven their worth time and time again. All airports in Florida, even the busiest commercial service airports, accommodate general aviation aircraft operations. Florida’s general aviation airports are important to the Florida airport system because:



- General aviation airports support over 54,000 jobs, over \$1.8 billion in total annual payroll, and \$6 billion in total annual economic activity
- Over 75 percent of all aircraft operations in Florida are flown by general aviation aircraft
- Nine million business and leisure travelers use general aviation aircraft to reach cities throughout Florida that are not in proximity to one of the commercial service airports
- Florida is home to over 14,000 based general aviation aircraft that are primarily housed at the general aviation airports
- Florida ranks among the top three states nationally for the volume of general aviation demand that its airports serve
- General aviation airports host much of Florida’s pilot training, an activity for which the state is a world leader
- General aviation airports are part of the infrastructure needed for Florida communities to sustain and attract various types of economic development and many non-aviation businesses rely on and benefit from these airports each day
- General aviation airports support vital health, welfare, and safety services
- General aviation airports often support “just-in-time” shipping
- Agriculture continues to be important to Florida’s economy and general aviation airports host companies that provide support to this industry
- More remote and less developed areas of the state are accessible via the general aviation airports

General aviation airports play many roles and support many aspects of Florida’s economy and lifestyle. Similar to the commercial service airports, general aviation airports throughout Florida find themselves faced with a changing environment. As the general aviation airports in Florida adapt to change, they will do so considering the following trends and/or developments that impact general aviation aircraft and users.

General aviation airports, designated by the FAA as reliever airports, also serve to provide pilots with attractive alternatives to using congested hub airports. Reliever airports reduce congestion at commercial service airports, in part, by accommodating growing corporate aviation and allowing the commercial service airports to focus on international, commercial, and air cargo operations. There are currently 21 FAA designated reliever airports situated around the state near major metropolitan areas.



Changing industry/technology

The Next Generation Aircraft System (NextGen) will revolutionize air travel in the future. Technology initially developed by NASA may some day make air travel within everyone's reach. In the near term, the NextGen initiative will improve the operating efficiency of the aviation system by lowering the distance required between aircraft operations, and creating detailed flight paths which will save fuel.



New technology in the aviation system and in the aircraft themselves will change the way tomorrow's pilots are trained. These satellite-based systems will also increase air access to general aviation airports in Florida.

TSA recently published guidelines outlining security objectives for airports serving general aviation. As with the mandates for commercial airports, there is no federal funding to enable all general aviation airports to be fully compliant with these guidelines. FDOT will help Florida's general aviation airports identify and meet appropriate TSA security guidelines.

Flight restrictions

The TSA may make Temporary Flight Restrictions (TFRs) a permanent fixture in the airspace system. The general aviation community opposes such restrictions because the TFRs can go into effect with little or no advanced warning, preventing air travelers from reaching their destination. Class C airspace restrictions in Florida's busiest metropolitan areas also have the potential to adversely impact travel by general aviation aircraft. For Florida to have an adequate airport system, it is important for the state to have sufficient airport resources beyond the Class C boundaries.

National Air Tour Safety Standards may impact the ability of general aviation aircraft to fly over certain parts of the state, particularly the Everglades. With Florida's large areas of restricted military airspace, the airspace needed for the commercial airports, and the state's restricted north-south airspace corridors, further restriction on areas that can be traversed by general aviation aircraft may not be desirable.





Changing demand/user needs

Fractional ownership, particularly of business jets, has increased the number of companies around the U.S. that use general aviation to meet their travel needs on a routine basis. The number of companies belonging to the National Business Aircraft Association (NBAA) has increased significantly. As the percentage of corporate and business aircraft in the general aviation fleet increases, Florida's airports must be positioned to serve these sophisticated users.

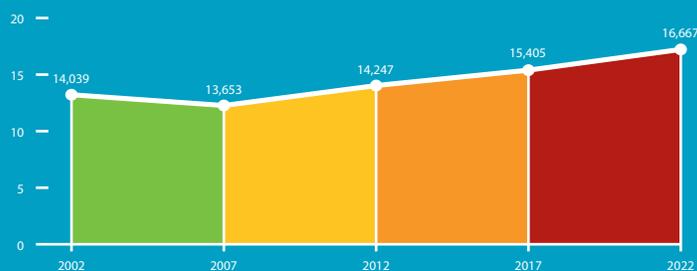
Growing business demand has resulted in the need for "high end" services and facilities. Corporate aircraft customers and users need longer runways and more precise airport approaches. They also desire specialty services such as catering, pilot lounges, and secure/covered overnight aircraft storage. As this segment of aviation grows, Florida's general aviation airports will need to continue to respond to changing industry needs.

The hardest hit segment of commercial airline travel continues to be in trips that are less than 500 miles. Loss of this commercial airline traveler has resulted in a corresponding increase in general aviation travel. Many business travelers have turned to corporately owned aircraft, fractional ownership, charter, or air taxi services as a means for replacing the trip they once took on a commercial carrier.

Fuel costs have increased exponentially in recent months. Adverse impacts have been experienced in both the commercial and general aviation segments of the industry. Most notably, general aviation trips that are solely pleasure or leisure related have been reduced. Some FBOs report that their cost to obtain insurance is increasing. In some instances, providers of aviation services report that they are no longer able to obtain insurance, and they are resorting to self-insurance. Liability issues with courtesy cars, a staple of many general aviation airports, put this long-available service at risk.



Statewide Projection of Based Aircraft



Funding

After 21 extensions of the prior authorization bill, Congress passed the FAA Reauthorization and Reform Act, authorizing a 3-year funding program for the Airport Improvement Program. This legislation gives airports and state planners enhanced planning capabilities when addressing airport needs. Shortfalls in funding are common at most general aviation airports and this increased flexibility in the federal program benefits all general aviation airports in Florida. General aviation entitlements provide a good source of revenue for general aviation airports. These funds can be accumulated over a multiyear period, transferred among airports in the system, and used to leverage additional state and federal grant participation.

General aviation airports in metropolitan and urban areas in Florida report positive revenue impacts from increased business use. Because airports are experiencing higher percentages of business jets in their operating fleets, revenues are increasing. These aircraft buy more fuel; and even if demand stays constant, the higher percentage of these types of planes at some general aviation airports is driving airport revenue up.

One of the biggest challenges facing any state department of transportation is the rational balancing of the needs of commercial and general aviation airports. This study provides information to FDOT that assists them in this process.





SYSTEM'S ABILITY TO MEET GOALS & OBJECTIVES

As part of this study, a facilitated process was used to seek stakeholder input on appropriate goals and objectives for Florida's airports. The strategic planning process identified measurements to determine how well Florida's airport system is meeting these established goals and objectives.

Goal: Support new technologies and innovations in aviation.

Objectives/Approaches	Measurements
Modernize airport technology	Florida continues to be a leader in advancement of NextGen technology.
	Nearly 30% of Florida airports report a precision approach and over 80% report at least a published approach.
	Over 50% of Florida airports have a published GPS (RNAV) approach.
Recommendations	
<ul style="list-style-type: none"> • Establish a Joint Sponsored Research Agreement (JSRA) acceptable to public and private stakeholders for the purpose of establishing ground rules for the protection of intellectual properties. • Develop a business plan and a market approach for attracting national and international manufacturers and research organizations to Florida. • Establish formal coordination with Enterprise Florida, the Department of Economic Opportunity, and other state economic development organizations to effectively apply resources. • Collect data and prepare an inventory of airports with available infrastructure to support aircraft manufacturing and production. 	



Goal: Contribute to sustainable growth while remaining sensitive to the environment.



Objectives/Approaches	Measurements
Use aviation to retain and expand employment	Areas in Florida expecting the highest rates of employment growth are well served by airports with runway lengths and approaches to serve corporate aircraft.
	50% of Florida's airports report they support an existing industrial/business park.
Maintain an appropriate mix of airports by region	Information from FASP enables FDOT to strategically respond to funding requests concerning the maintenance and development of Florida airports.
Promote Florida assets to benefit aviation	Florida airports are catalysts for the state's economy, supporting over one million jobs and \$114 billion in annual output.
	Florida offers unique assets with hundreds of miles of water access for seaplanes.
Encourage a well planned distribution of airport services	FDOT's aviation infrastructure assessment tool helps Florida plan for a system of airports that can meet current and future needs.
Promote multi-modal opportunities	58% of all commercial and 27% of all general aviation airports report that they provide multi-modal connections (31% of all airports).
Encourage Wildlife Management Planning at airports	One-third of Florida airports currently have a Wildlife Management Plan in place

Recommendations

- Coordinate with Workforce Florida to identify and promote aviation related careers available at Florida airports.
- Continue the development of a statewide approach to stormwater management practices on airports.
- Annually review the mix of aviation services provided at state airports using the CFASPP regional committees for technical input.
- Ensure that the aviation system is adequately considered in all Strategic Intermodal System (SIS) Plan deliberations.
- Conduct an in-depth study to analyze the interaction between Florida's general aviation airports and the state's natural and manmade attractions.
- Support the development of airport sustainability plans, as well as Airport Master Drainage Plans
- Support the use of synthetic/biofuels at General Aviation airports



Goal: Provide efficient, safe, convenient, and secure airports

Objectives/Approaches	Measurements
Expand service delivery capabilities	Nearly 40% of Florida's commercial airports will operate at a demand/capacity ratio greater than 80% before 2040.
Maintain safe operating conditions	68% of all Florida airports meet FAA's runway safety area standards on their primary runway.
Address security needs	34% of all airports report having a security plan.
Support emergency needs	22% of all Florida airports now support at least a moderate volume of emergency/medical flights.
Encourage targeted business use of airports	37% of all Florida airports report having a marketing plan to target select businesses and tenants.
Alleviate capacity shortfalls at Flight Training airports	More than 40% of Florida's Flight Training airports will operate at a demand/capacity ratio of more than 60% before 2025.
Support air cargo	Miami International is the busiest international air cargo airport in the U.S. and the ninth busiest worldwide.

Recommendations

- Encourage capacity sharing among airports where feasible.
- Coordinate with the State Emergency Operations Center to ensure that airports are efficiently utilized in crisis situations.
- Continue to work with flight training providers to ensure that their airspace and facility requirements are addressed.
- Identify airport/capital project incentives to encourage wider distribution of flight training.
- Provide and advertise detailed air cargo data to public and government organizations to promote the economic benefits of the air cargo industry.
- Coordinate with Enterprise Florida, the Department of Economic Opportunity, Visit Florida, and other state agencies to better promote all Florida airports to businesses worldwide, and provide an inventory of Florida airports with infrastructure capable of supporting aircraft maintenance, manufacturing, and production.
- Continue the strict adherence to FDOT airport inspection guidelines and provide financial assistance to correct deficiencies, as funds allow.
- Continue to monitor aging aviation infrastructure, and make investments and improvements when necessary.



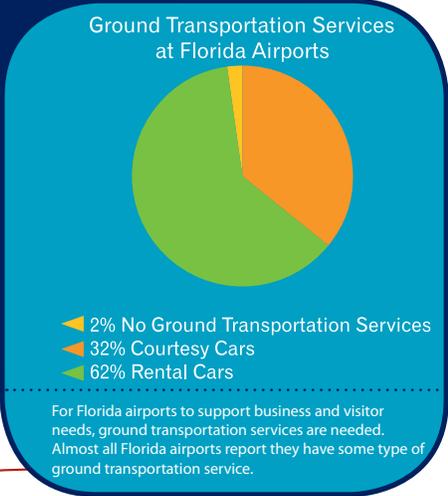


Goal: Enhance Florida's leadership and prominence in the aviation industry.

Objectives/Approaches	Measurements
Preserve and protect public airports in Florida	Florida's airport system contains 129 airports owned by various municipalities and authorities; other airports are privately owned.
Preserve and protect privately owned airports used by the public	There are more than 379 privately owned airports in Florida; 23 are open to the public and others can be used with prior arrangement.
Ensure that airports used by businesses have some type of ground transportation services	62% of all Florida airports have rental cars, 36% of all Florida airports have loaner cars, and 27% have both.
Review the state's aviation trends each year	FASP provides FDOT with a forecasting model that facilitates consideration of past trends in relationship to future growth.
Encourage Florida airports to implement financial planning	57% of the Florida airports report they have a business plan and 83% report they have a staff member assigned to address the airport's fiscal needs.
	66% of all airports report they are constrained as a result of financial shortfalls.

Recommendations

- Promote development and expansion of on-site ground transportation services at business airports through capital improvement projects.
- Establish a working group with Enterprise Florida, the Department of Economic Opportunity, FLAUSA, the State Forestry Department, DEP, and OTTED to promote business and recreation in the state.
- Using the FASP 2025 economic impact study as a baseline, update statewide aviation economic impact study as soon as feasible and monitor on a routine basis.
- Develop a template for airports in the system to use in creating a business and/or marketing plan focused on increasing and diversifying their revenue streams.
- Catalog intermodal services available at general aviation airports.
- Support dual-fuel systems and non-ethanol fuels at general aviation airports
- Encourage airports to implement sustainability planning, when feasible



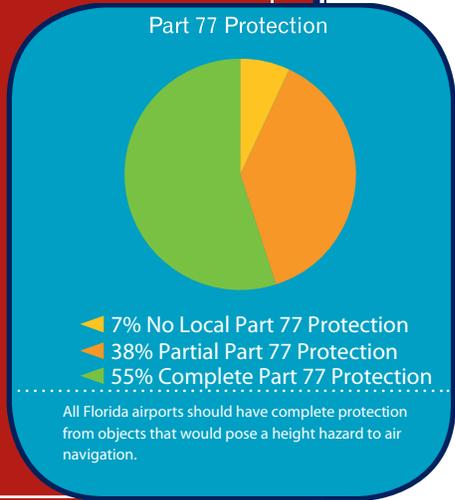
Goal: Protect airspace and promote compatible land use planning around Florida airports.



Objectives/Approaches	Measurements
Encourage adoption of ordinances compatible with F.S. 333 and inclusion of airports in local comprehensive plans	57% of all airports report having some type of community/land use-related constraint.
	55% of all airports have complete Part 77 protection, 38% have partial protection, and 7% have no local protection.
	63% of airports have a master plan; 27% are current within the last 5 years.
Protect airports from incompatible land use	77% of all airports are now included in a local comprehensive plan.
	53% of all airports have noise contours to identify areas of potential land use incompatibility.
Assist airports with access constraints	85% of all airports report their current roadway is adequate.
Enhance compatibility with natural and manmade features	47% of all airports report constraints posed by natural environmental features.
	43% of all airports report constraints from manmade features.

Recommendations

- Continue to identify jurisdictions that have not fully implemented the provisions of F.S. Ch 333 and develop an action plan to bring those jurisdictions into compliance.
- Provide guidance to airport management regarding the procedures for including the airport master plan in the Local Comprehensive Plan of all jurisdiction(s) within the airport environs.
- Continue to provide technical assistance to airports needing expertise related to airspace and compatible land use issues in their local environs.
- Continue distributing the Compatible Land Use Guidebook.
- Publicize that airports represent major public investments that need to be protected by local communities and the state
- Coordinate with local Metropolitan Planning Organizations (MPOs), Transportation Planning Organizations (TPOs), or other local governing bodies to protect Florida airports



Goal: Promote aviation to business, government, and the public.

Objective/Approaches	Measurements
Encourage reports that detail the contribution of Florida airports to the regional economies	FASP estimates annual regional aviation economic impacts as follows: Central: \$279 million East Central: \$32 billion North Central: \$516.5 million Northeast: \$3.2 billion Northwest: \$1.9 billion Southeast: \$44.7 billion Southwest: \$5.4 billion Treasure Coast: \$855.6 million West Central: \$8.2 billion
Promote aviation with Florida educational institutions.	74% of all airports report that they have a program with an educational institution.
Promote Florida's unique advantages in skilled workforce, infrastructure, access to markets, and military presence in an effort to attract new aviation manufacturing operations.	Work closely with the Florida Airports Council (FAC) to promote economic development in aviation around the state.
Recommendations	
<ul style="list-style-type: none"> Using the FASP 2025 economic impact study as a baseline, update the statewide aviation economic impact study as soon as feasible, and monitor on a routine basis. Develop a working group to support the development of K-12 aviation/ aerospace training resources for teachers to use in their classrooms. 	



Goal: Foster Florida's reputation as a military-friendly state.

Objectives/Approaches	Measurements
Encourage military operators to participate in CFASPP	27 active military airfields in Florida serve a broad range of military operational requirements.
	11 civilian airports in Florida support a military guard or reserve unit.
	55% of all airports report supporting transient military operations.
Recommendations	
<ul style="list-style-type: none"> • Encourage military operators to participate in the system planning process. • Support a system for improved coordination of the use of Military Training Routes. 	



FINANCIAL NEEDS

To ensure that Florida's airport system can support FASP 2025 findings, significant investment will be needed at the private, local, state, and federal levels. In a constrained financial environment, FDOT must identify those improvements most critical to the success of Florida's future airport system.

Through the Joint Automated Capital Improvement Plan (JACIP) process, Florida airports annually submit locally identified airport development needs to the FAA and FDOT. This plan incorporates a system that matches airport service categories to future development needs, helping FDOT avoid duplication of investment in airports while insuring adequate facilities to support transportation and economic needs.

Each year, the Aviation Office funds projects directly related to specific categories of airport improvements. These categories of funding are capacity, preservation, revenue/operational, safety, environmental, and security-related projects. Current funding estimates and categories for the years 2012 through 2016 are shown on the following page, broken out by work mix group and funding program:



State Aviation Funding by Work Mix Group (\$)

<u>Category</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>Total</u>
Aviation Safety	9,239,138	13,957,735	10,632,267	15,026,042	14,842,446	63,697,628
Aviation Security	5,110,107	7,137,475	3,823,139	5,270,096	8,465,791	29,806,608
Aviation Capacity	95,972,454	64,304,293	75,968,933	72,756,032	58,757,344	367,759,056
Aviation Preservation	23,580,645	31,161,576	30,077,737	31,947,158	35,863,205	152,630,321
Aviation Environmental Project	1,108,140		1,023,020	640,000	1,260,000	4,031,160
Aviation Revenue/Operational Improvement	29,951,339	20,019,288	21,024,098	18,873,221	23,965,340	63,697,628
Total	164,961,823	136,580,367	142,549,194	144,512,549	143,154,126	731,758,059



State Aviation Funding by Program (\$)

<u>Category</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>Total</u>
Economic Development	19,088,641	2,729,257	4,251,177	3,701,067	4,161,540	33,931,682
Technical Assistance	3,000,000	2,000,000	2,800,000	2,500,000	2,500,000	12,800,000
Master Plan	1,662,527	2,402,575	873,644	1,058,900	1,450,000	7,447,646
Discretionary Capacity	26,277,886	31,820,461	38,802,809	38,087,814	31,250,371	166,239,341
Commercial Service	67,234,481	57,344,391	44,352,898	61,400,348	50,237,787	280,569,905
General Aviation	47,218,288	39,123,683	51,330,516	37,520,041	55,318,883	230,511,411
Aviation Land Acquisition	480,000	1,160,000	138,150	244,379	30,000	2,052,529
Total	164,961,823	136,580,367	142,549,194	144,512,549	144,948,581	733,552,514



THE NEW PARADIGM

Meeting Florida's airport development needs in a fiscally constrained, rapidly changing environment will require that FDOT keep its policies flexible, continually tracking trends that could impact the airport system and making mid-course corrections when necessary. Funding priorities must stay flexible to reflect changing conditions and needs, but must also maximize federal investment in airport improvement projects, protect and enhance the state's system of commercial airports, and leverage projects with the potential for high return on investment.

FASP 2025 identified five possible scenarios that could impact Florida aviation during the planning period and therefore influence policy development:

- An airport capacity crunch. While demand for air services will rise steadily for the foreseeable future, many of Florida's largest airports have little room for additional flights, and surrounding development and opposition from nearby neighborhoods increasingly hamper airport expansion. The airports facing capacity and land-use constraints handle the bulk of Florida's passengers and cargo. In the near-term, three policy options are available for dealing with gridlock at Florida's busiest airports. The state could (1) intervene into local land-use decision-making to overcome political obstacles for airport expansion; (2) attempt to redirect air services from maxed-out airports to others with available capacity; or (3) allow gridlock to develop and let market forces push passengers and carriers to other airports where capacity is available. Unfortunately, the first option is politically difficult; the second may not be possible; and the third could result in service disruptions that could be devastating for the state's economy.

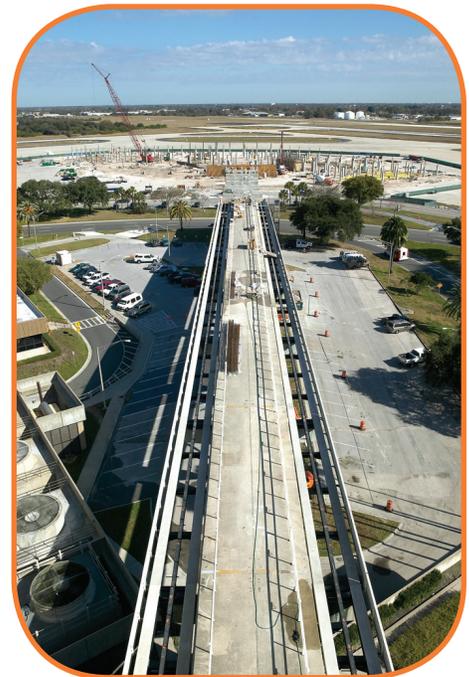
- Serious market disruptions. Periodically during the last three decades, aviation services have been severely impacted by changes in public policy, large spikes in fuel prices, and other events originating outside the market. The most recent examples are the terrorist attacks of September 11, 2001, the SARs outbreak in 2003, and the Great Recession beginning in 2008. Common sense suggests that unanticipated disruptions of comparable magnitude may occur in the future. The airports impacted most from such events are Florida's busiest. To defend against the consequences of future disruptions, Florida should consider making extraordinary investments in



security at Florida's busiest airports. It would also be prudent for the state to establish an emergency fund for aiding these or other airports in the event of future emergencies.



- Continued centralization of service. The growing dominance of a few commercial service airports in airline travel and air cargo shipping has negatively impacted service at airports in Florida's smaller communities. Reducing or eliminating service to small communities may reduce airline costs, but it imposes serious impacts on the state as well as on the affected communities. A few local governments in Florida and elsewhere have offered subsidies and income guarantees to air carriers in return for increased service and lower fares. In general, subsidies for air carrier service in small communities have proven expensive and only marginally effective. If Florida policymakers conclude that subsidies are warranted, service decentralization should be pursued on a coordinated regional or statewide basis rather than through isolated initiatives by jurisdictions operating independently. Funding could be offered to airlines for adding increments of service to the existing delivery system regionally or statewide in a manner that would not only increase service to smaller communities, but also achieve system-wide improvements in connectivity and capacity for in-state travel.
- Generalized traffic congestion. Airports cannot be successful without a well functioning roadway system connecting them to passengers and cargo. Florida's busiest airports obviously need nearby roads to be free of chronic congestion, but their catchment areas are not exclusively or even primarily local. Larger airports, especially those that are part of Florida's Strategic Intermodal System (SIS), attract passengers and air cargo from market areas that span hundreds of miles. Air service in Florida could be adversely affected if traffic congestion becomes chronic on almost any SIS highway corridor in the state. If traffic continues to mount on SIS highways, delays would rapidly increase the cost of transporting cargo by truck to larger, more distant airports. This would hurt international trade and commerce statewide. Two options are available for mitigating this problem: (1) improve traffic flow on SIS roads (corridors and connectors to airports) or coordinate airport enhancements with road improvements; and (2) reduce automobile traffic on the SIS to make way for more trucks. SIS highway corridors will require sustained funding at high levels for the foreseeable future. In the long run, building a dependable, convenient, comfortable, and affordable system of in-state air service would probably be easier, quicker, and less expensive.



- Technological breakthroughs. New technologies could resolve some of today's operational issues while making air travel less expensive and more comfortable and convenient. One of the most promising developments is the Next Generation Aircraft System (NextGen). This new satellite-based navigation system will revolutionize air travel in the future. New large aircraft (NLA) are another emerging innovation. NLA are super-jumbo jets capable of carrying between 500 and 800 passengers between Asia, Europe, and the U.S. NLA's will lower the cost of flights to Florida from Asia and Europe, thus benefiting international trade and tourism. Florida should continue to support research and development into new technologies that would benefit the Florida aviation system. The state may also need to help general aviation and commercial airports add facilities and equipment to take advantage of new technologies when they arrive.



INITIATIVES

While not all of these operating scenarios are equally probable, each could have implications for the Florida airport system. This plan recommends a multi-faceted policy approach that is flexible enough to address the complexities of the current aviation environment and the uncertainty of future development by focusing on the following:

- Investment to promote economic development
- Intervention into local land-use decision making to remove barriers for important aviation projects
- Investment to improve air travel for Florida's aging population
- Support for technological innovations in aviation
- Initiatives to build an in-state air service system to improve scheduled service and to reduce highway congestion
- Investment to meet security and passenger needs at major airports
- Establishment of an emergency fund to address market disruptions
- Development of a system for tracing, evaluating, and re-directing policy as needed

These initiatives, which support previously stated policies, should be pursued simultaneously and incrementally so that their effectiveness can be monitored on an ongoing basis.



FUNDING PRIORITIES

Florida airports are fortunate because they benefit from one of the best endowed state-appropriated airport development funds in the U.S. The dedication of funds collected from the sale of aviation fuel has enabled the airport system to emerge as a model for other states and to achieve its status as a global leader in aviation. Nevertheless, anticipated funding shortfalls create tremendous competition for funds dedicated to airport development.

As determined through this study's strategic planning component, Florida's aviation needs are continually changing, driven by a combination of state initiatives and policies, locally determined requirements, and continual changes in the commercial and general aviation industries. Consequently, it is important that funding priorities remain flexible and that they allow FDOT to respond to changing circumstances and needs. This plan recommends placing funding priorities on the following:

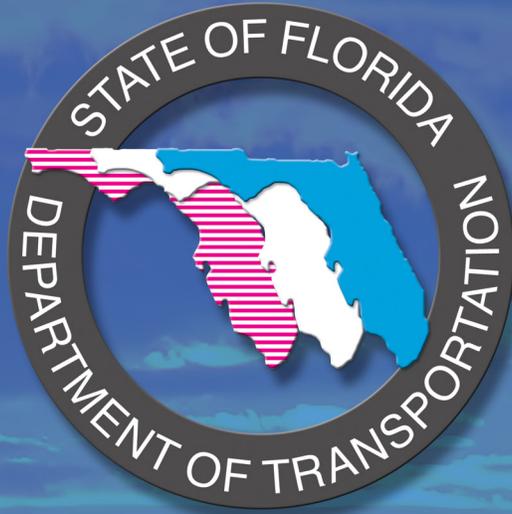
- Investing in projects that leverage FAA investment from AIP. To maximize the flow of federal investment into the Florida airport system, funds should be made available to match grants for both discretionary and entitlement funding from AIP.
- Focusing on projects that preserve and enhance Florida's critical system of commercial airports. Many of Florida's commercial airports are faced with funding shortfalls related to compliance with TSA security requirements. Other airports have or will face constraints related to ground access or operational capacity. Florida's commercial airports are vital to the state's transportation and economic systems, and continued investment to meet the needs of these airports is important to the success of the system.
- Investing in airports and projects with the highest probability to provide economic return for the investment made. The propensity for airport investment to provide the greatest economic return is influenced by the type of project being requested, as well as by the characteristics of the market area the airport serves. This system plan provides information that helps FDOT determine how to prioritize investments when return on investment is an important consideration.



- Investing in follow-on activities, actions, programs, and research deemed necessary to support policies identified the strategic planning component of FASP 2025. This report provides an overview of policies that warrant consideration to insure the future of Florida’s system of public airports.
- Maintaining a system of general aviation airports that protect commercial airport capacity. Reliever airports – airports that provide alternative landing sites for general aviation aircraft destined for busy commercial service airports – are vital. Florida should identify, maintain, and enhance general aviation airports that serve this important role.

The major challenge confronting Florida’s aviation policymakers—and the primary goal of FASP 2025—is prudent and strategic use of limited state funding resources. The authority to foster an airport system that is not only safe, reliable, and affordable, but that also contributes to economic growth, uses airport facilities efficiently, and positions Florida to overcome near-term challenges and leverage emerging aviation technologies is also essential.





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