10 Recommendations

10.1 Introduction

Florida has an incredible transportation and economic asset in the form of 128 system airports across the state. These facilities support safety, security, business, tourism, resiliency, aerospace development and education, and many other functions. The analysis of Florida's aviation system throughout the Florida Aviation System Plan (FASP) 2035 process revealed a number of strengths. Opportunities for enhancement and change were also revealed during the study's evaluation. This chapter represents a culmination of recommendations for Florida's aviation system, along with recommendations for existing programs and processes that are used to support continuous system planning efforts, such as the Continuing Florida Aviation System Planning Process (CFASPP), the State Strategic Goal Analysis Tool (SSGAT), the Florida Transportation Plan (FTP), and the Infrastructure Analysis Tool (IAT).

10.2 Florida Airport System and FASP Inclusion Criteria Recommendations

Based on analyses of the current Florida Airport System, the following sections provide recommendations related to the definition of the Florida Airport System and FASP study airports.

10.2.1 Evaluation of Florida Airport System Facilities

As stated previously, Florida Statute (F.S.) Chapter 332 states, "the Florida airport system means all existing public-use airports that are owned and operated within the state and those public-use airports which will be developed and made operational in the future."

Currently, all public-use airports, regardless of ownership, are included in the Florida Airport System. F.S. Chapter 332 also says that only publicly-owned, public-use airports are eligible for state funding. As currently legislated, there is no benefit for privately-owned airports to be included in the Florida Airport System since there is no Florida Aviation Grant Program funding available for these airports to use to maintain or improve the airport and thus generally no way for the Florida Department of Transportation (FDOT) to influence or assist their ability to help meet the current and future demands placed on Florida's aviation system. These privately-owned airports are required to maintain a license issued by FDOT, but do not receive the financial benefits that other publicly-owned, public-use licensed airports receive for eligible projects.

There are currently 23 privately-owned, public-use airports in the Florida System:

- Privately-owned airports total 662 based aircraft, 603 of which are single-engine piston aircraft
    - *Three privately-owned airports have zero based aircraft while Orlando Apopka Airport totals 117 based aircraft*

- Privately-owned airports estimated annual operations total 283,917
    - *One privately-owned airport has zero estimated annual operations while Ferguson Airport totals 67,500 estimated annual operations*
- Seventeen of the 23 privately-owned airports are located within an approximate 115-mile radius of Orlando, FL
    - *There are no privately-owned airports south of Lake Okeechobee*
- Many of the privately-owned airports are located in rural areas
- Of the 23 privately-owned airports, 12 have turf runways, eight have asphalt runways, one has both asphalt and turf runways, and two are seaplane bases (water)

While these 23 airports serve a role in Florida's aviation system, their participation as a Florida System Airport does not make them eligible to receive state or federal funding. There are disadvantages for private-use airports to become public-use. One relates to zoning regulations associated with F.S. Chapter 333. Private-use airports do not have to comply with F.S. Chapter 333; therefore, if an airport moved from private-use to public-use to subsequently become part of the Florida Airport System, the airport would have to comply with zoning regulations.

It is recommended that the Florida Airport System be defined in F.S. Chapter 332 as publicly-owned, public-use airports, which would reduce the current Florida Airport System to 105 airports. As previously stated, the 23 privately-owned, public-use airports receive no state or federal funding; therefore, it is unlikely that there would be any economic or social impact from their removal from the Florida Airport System.

Additionally, as part of other tasks associated with the FASP, an evaluation was done to determine if any new airports were needed to serve existing or future demand in the state. Based on these analyses, no need for a new airport in any FDOT district or CFASPP region was identified.

10.2.2 Evaluation of FASP Study Airports

As noted in **Chapter 3 – Airport System and Classifications**, Florida Airport System and FASP airports are currently the same. Through the CFASPP, Florida's aviation environment is constantly monitored to maintain a viable, balanced, and integrated airport system. This necessitates consideration of airports as candidates for both inclusion and removal from the FASP.

In the FASP 2035 Update, significant analysis of the system was undertaken to evaluate the existing conditions, future needs, and the performance of the FASP airports. It was determined that no new airports are needed to serve the aviation demand in Florida. While there are capacity concerns in certain areas of the state, new airports were not identified to specifically address the capacity needs. A follow-on capacity study is recommended to further evaluate the options available to meet the demand in certain FDOT Districts.

As part of the FASP, the analysis also considered how airports were contributing to Florida's system and whether there were airports whose contributions were limited and the purpose for their inclusion in the FASP and/or the Florida System could not be determined. Through this

process, additional criteria for inclusion in the FASP were identified beyond the current definition of just being public-use, including:

- The airport must be verified to be open for use by the public
- The airport must be owned and operated by a public agency
- The airport must have a current license per Florida Administrative Code (FAC) Chapter 14-60
- The airport must meet current licensing standards for safety, compatible land-use, and/or airspace obstructions per FAC and requirements under F.S.
- The airport must be in compliance with Florida Aviation Program Assurances (Grant Assurances)
- The airport has an eligible sponsor that is able and willing to assume responsibility for managing, maintaining, and developing the facility

These criteria would require changes to F.S. Chapter 332 as well as to the FASP.

If any FASP airport does not meet the above criteria, it should be considered for removal. It is recommended that these conditions be used as minimum inclusion criteria for the FASP in future updates. It is also recommended that an FDOT procedure for removing an airport from the FASP be developed in order to provide future guidance in the event an airport's removal from the FASP is deemed advisable.

10.3 NPIAS/ASSET Recommendations

As discussed in **Chapter 3 – Airport System and Classifications,** the National Plan of Integrated Airport Systems (NPIAS) is the national aviation system for which the Federal Aviation Administration (FAA) prepares a report every two years to submit to Congress. The purpose of the report is to identify the aviation facilities that are significant to the national air transportation system. Airports included in the NPIAS are eligible for federal funding under the Airport Improvement Program (AIP). The most recent NPIAS report (the *2017 – 2021 NPIAS Report*) includes 100 of Florida's airports.[1]

This section includes a review and evaluation of potential changes to the NPIAS and the associated general aviation (GA) ASSET classifications of airports in Florida. The analysis is tailored towards evaluating non-NPIAS airports' inclusion in the NPIAS and assessing the need to upgrade the ASSET classifications of existing NPIAS airports. Based on the results of the analyses, potential changes to the NPIAS and ASSET categories are identified for consideration by the FDOT Aviation and Spaceports Office (ASO).

[1] The *2017 – 2021 NPIAS* serves as the basis of reference in all subsequent sections.

10.3.1 NPIAS

10.3.1.1 NPIAS Inclusion Criteria

The FAA defines specific criteria for airports to be considered eligible for inclusion in the NPIAS. The NPIAS criteria for commercial service and GA airports are outlined in FAA Order 5090.3C, *Field Formulation of the NPIAS*, which was reviewed in 2015 by the *Report to Congress—Evaluating the Formulation of the NPIAS*.

The following criteria are used to qualify **commercial service airports** for entry into the NPIAS:

- An existing public airport that received scheduled passenger service of aircraft and annually enplanes 2,500 or more revenue passengers as determined by the FAA
- An existing public airport which is forecast by the FAA to receive scheduled passenger service of aircraft and annually enplane 2,500 or more passengers within the plan period will be included in the NPIAS as a commercial service airport for the time periods in which it is expected to qualify
- A proposed public airport which is forecast by the FAA to be a commercial service airport within the plan period will be included in the NPIAS as a commercial service airport for the time period(s) in which it is expected to qualify

The following criteria are used to qualify **GA airports** for entry in the NPIAS:

- Is included in the State Aviation System Plan (SASP) (such as the FASP 2035 Update) or Metropolitan Airport System Plan
- Has at least 10 based aircraft (currently or within five years)
- Serves a community located 30 minutes or more average ground-travel-time (approximately 20 miles) from the nearest existing or proposed NPIAS airport
- Has an eligible sponsor willing to undertake the ownership and development of the airport

The FAA has identified that special consideration may be given to airports in the following cases:

- Previously included in the NPIAS and meets current criteria
- Demonstrate benefits that exceed development costs
- Serve the needs of Native American communities
- Support isolated communities, recreation areas, or important national resources
- Serve as an official airstop for United States (U.S.) mail service
- Have a permanently assigned unit of Air National Guard or reserve component of the Armed Forces

A public-use heliport that does not meet the criteria may be included if it is deemed to provide a significant contribution to public transportation and has at least four based rotorcraft, 800 annual itinerant operations, or 400 annual operations by air taxi rotorcraft.

10.3.1.2 Changes to Existing NPIAS Airports

NPIAS airports are grouped into two major categories: primary and nonprimary. Of the 3,332 current NPIAS airports in the U.S., only 382 are primary.

Primary airports are public airports with scheduled air carrier service that generate 10,000 passenger enplanements or more per year. These airports are further sub-categorized as large hub, medium hub, small hub, and non-hub.

In the *2017 – 2021 NPIAS Report*, the 20 primary airports in Florida include four large hub, three medium hub, six small hub, and seven non-hub airports. **Table 10-1** defines each hub type and categorizes the total number of primary NPIAS airports in the state based on the *2017 – 2021 NPIAS Report*.

Table 10-1: Florida's Primary NPIAS Airports

Categories	Percentage of total U.S. passenger enplanements	Number of Florida Airports
Large Hub	1% or more	4
Medium Hub	At least 0.25%, but less than 1%	3
Small Hub	At least 0.05%, but less than 0.25 %	6
Non-Hub Primary	More than 10,000, but less than 0.05%	7
Total		**20**

Source: National Plan of Integrated Airport Systems (NPIAS) 2017 – 2021

For primary airports, the *2017 – 2021 NPIAS Report* utilizes calendar year 2014 data. Since the release of the *2017 – 2021 NPIAS Report* and publication of updated data, two non-hub airports were recategorized as small hubs (Destin-Ft Walton Beach Airport and Punta Gorda Airport), and one small hub airport was recategorized as a non-hub airport (Key West International Airport). These changes will be reflected in the next NPIAS report, expected to be 2019 – 2023.

Nonprimary airports are mainly used by GA aircraft. As identified in the *2017 – 2021 NPIAS Report*, there are 127 nonprimary commercial service, 259 relievers, and 2,564 GA airports in the U.S. Categories within the nonprimary classification include:

- **Commercial service:** Public airports receiving scheduled passenger service and having between 2,500 and 9,999 enplaned passengers per year
- **Reliever:** Public or private airports designated by the FAA to relieve GA traffic congestion at nearby commercial service airports and provide improved GA access to the overall community

GA: Public-use airports that do not have scheduled air carrier service or have fewer than 2,500 enplanements **Table 10-2** sums Florida's nonprimary NPIAS airports by category from the *2017 – 2021 NPIAS Report*. Eighty of Florida's 100 NPIAS airports are designated as nonprimary airports in

the report. None of Florida's airports are classified in the latest NPIAS as nonprimary commercial service airports. The report includes 21 classified as reliever airports and 59 classified as GA airports.

Table 10-2: Florida's Nonprimary NPIAS Airports

Nonprimary Categories	Number of Florida Airports
Commercial service	0
Reliever	21
GA	59
Total	**80**

Source: National Plan of Integrated Airport Systems (NPIAS) 2017 – 2021

For nonprimary airports, the *2017 – 2021 NPIAS Report* included a review of airport roles or categories conducted in 2015. Since the release of the *2017 – 2021 NPIAS Report*, one GA airport was recategorized as a nonprimary commercial service airport (Vero Beach Regional Airport). This change will be reflected in the next NPIAS report, expected to be 2019 – 2023.

Additionally, four more airports are serving in a reliever role, including:

Flagler Executive Airport: Relieves GA traffic congestion at Daytona Beach International Airport

Merritt Island Airport: Relieves GA traffic congestion at Melbourne International Airport

Peter Prince Field: Relieves GA traffic congestion at Pensacola International Airport

Valkaria Airport: Relieves GA traffic congestion at Merritt Island Airport

In its November 2015 update to the *Report to Congress, Evaluating the Formulation of the National Plan of Integrated Airport Systems (NPIAS),* the FAA recommended eliminating the reliever airport designation. The future of the reliever designation is not known at this time. However, should the designation remain, Florida's reliever airport count would rise to 25.

10.3.1.3 Recommended Additions to the NPIAS

Airports considered for inclusion in the NPIAS are solely based on meeting the NPIAS criteria; however, it is recognized that through the ASSET establishment, the FAA appears to be winnowing the number of airports included in the NPIAS and eligibility for federal funding. Coordination with the FAA regarding any proposed NPIAS expansions is recommended.

Of the 128 airports included in the FASP 2035 Update, 100 are included in the NPIAS, and the remaining 28 are non-NPIAS. Twenty-two of the 28 non-NPIAS airports are privately-owned, and as such are generally not typically adopted into the NPIAS. The remaining six publicly-owned, non-NPIAS airports are evaluated in **Table 10-3,** using check marks to signify whether the airports meet the associated criteria.

Table 10-3: Non-NPIAS Publicly-owned Airports

Airport	FAA ID	Included in the FASP	10+ Based Aircraft	30+ Minutes (or 20-mile radius) from NPIAS Airport
Buchan Airport	X36	✓		
Carrabelle-Thompson Airport	X13	✓	✓	
Downtown Fort Lauderdale Helistop	DT1	✓		
Pierson Municipal Airport	2J8	✓	✓	
Tavares Seaplane Base	FA1	✓		
Wakulla County Airport	2JO	✓	✓	✓

Source: National Plan of Integrated Airport Systems (NPIAS) 2017-2021; Kimley-Horn
Notes: 1-U.S. agencies include: U.S. Forest Service, U.S. Marshals, U.S. Customs and Border Protection, and U.S. Postal Service
2-Essentail Air Service (EAS) is a government program enacted guarantee that small communities in the U.S. maintain commercial service
3-Activated after January 1, 2001

Based on the NPIAS eligibility criteria and current airport conditions, Wakulla County Airport is the only airport that appears to meet all three criteria for potential inclusion in the NPIAS. Wakulla County Airport has at least 10 based aircraft (15 based aircraft), is located 30+ miles from the nearest NPIAS airport (Tallahassee International Airport is 33 miles north), and is included in this FASP 2035 Update. While Wakulla County Airport meets the NPIAS entry criteria, the FAA also has criteria for ASSET classifications (discussed in the next section) which are different from NPIAS entry criteria. Based on the ASSET criteria, Wakulla County Airport would be a basic airport.

10.3.2 ASSET

10.3.2.1 ASSET Inclusion Criteria

As previously discussed in **Chapter 3 – Airport System and Classifications**, the FAA conducted two reviews of the network of GA facilities in the NPIAS to capture the diverse functions and economic contributions of GA airports. In 2012, the results were compiled into *General Aviation Airports: A National Asset (ASSET Study)*. This report acknowledges the following five key aeronautical functions provided by the GA airport system:

- Emergency preparedness and response
- Critical community access for remote areas
- Commercial, industrial, and economic activity functions
- Access to tourism and special events
- Other aviation-specific functions, including corporate flights and flight instruction

Four new ASSET categories were introduced to provide policymakers with a better understanding of the vast and diverse nature of the GA system. The categories are primarily

based on existing activity levels, number and type of based aircraft, and volume and types of flights. The ASSET categories also recognize NPIAS airports that are unclassified, as they do not meet other criteria and have limited activity and number of based aircraft. If a GA airport is eligible for inclusion in the NPIAS, it is also classified within the appropriate ASSET category. The following defines the ASSET categories and list the inclusion criteria for GA airports:

- **National:** Located in metropolitan areas near major business centers and support flying throughout the nation and world. These airports provide pilots with attractive alternatives to the busy primary airports. National airports have high levels of activity, averaging approximately 250 total based aircraft, including 30 jets. Eligibility criteria for this category are:
    1. 5,000+ instrument operations, 11+ based jets, 20+ international flights, or 500+ interstate departures; or
    2. 10,000+ enplanements and at least one charter enplanement by a large certified air carrier; or
    3. 500+ million pounds of landed cargo weight
- **Regional:** Located in metropolitan airports and serve relatively large populations. These airports support regional economies with interstate and some long-distance flying and have high levels of activity including limited air carrier service. Regional airports average about 100 total based aircraft, including three jets. Eligibility criteria for this category are:
    1. Metropolitan Statistical Area (metro or micro) and 10+ domestic flights over 500 miles, 1,000+ instrument operations, 1+ based jet, or 100+ based aircraft; or
    2. The airport is located in a metropolitan or micropolitan statistical area, and the airport meets the definition of commercial service
- **Local:** Provide communities with access to local and regional markets. Local airports are located near larger population centers but not necessarily in metropolitan areas. They accommodate flight training and emergency services and can be associated with moderate levels of activity. Local airports average about 34 based propeller aircraft and no jets. Eligibility criteria for this category are:
    1. 10+ instrument operations and 15+ based aircraft; or
    2. 2,500+ passenger enplanements
- **Basic:** Fulfill the principle role of a community airport providing a means for private GA flying, linking the community with the national airport system (NAS), and making other unique contributions. In some instances, the airport is the only way to access the community and provides emergency response access, such as emergency medical, firefighting, and/or mail delivery. These airports have moderate levels of activity with an average of 10 propeller aircraft and no jets. Eligibility criteria for this category are:
    1. 10+ based aircraft; or
    2. 4+ based helicopters; or
    3. The airport is located 30+ miles from the nearest NPIAS airport; or
    4. The airport is identified and used by the U.S. Forest Service, or U.S. Marshals, or U.S. Customs and Border Protection (designated, international, or landing rights), or U.S. Postal Service (air stops), or has Essential Air Service; or
    5. The airport is a new or replacement facility activated after January 1, 2001; and

6. Publicly-owned or privately-owned and designated as a reliever with a minimum of 90 based aircraft

In addition to the four classifications, there were nearly 500 airports that the FAA could not classify. These airports were referred to as unclassified based on the limited activity identified at the airports. The FAA then undertook additional analysis and in March 2014 published *ASSET 2: In-Depth Review of the 497 Unclassified Airports*. That publication resulted in four airports being removed from the NPIAS, 212 airports moving into one of the four categories, and 281 remaining unclassified. In the original *ASSET Study*, three Florida airports were identified as unclassified. During *ASSET 2*, one was moved to local (Palm Beach County Glades Airport), and both Miami Seaplane Base and Everglades Airpark remained unclassified. As part of the *2017 – 2021 NPIAS Report,* Miami Seaplane Base was reclassified as basic, leaving only one airport (Everglades Airpark) unclassified as of 2017.

10.3.2.2 Changes to Existing ASSET Airports

When the *ASSET Study* was released in 2012, Florida was determined to have 81 GA NPIAS airports, distributed as shown in **Table 10-4**. As part of updates to the NPIAS every two years, the ASSET criteria are revisited and changes to airport classifications are made. The *2017 – 2021 NPIAS Report* identified 80 GA NPIAS airports, also shown in Table 10-4. Airport-specific ASSET criteria changes are provided in **Table 10-5**.

Table 10-4: Florida Airports ASSET Categories

ASSET Category	Number of Florida Airports (2015)	Number of Florida Airports (2017)	2017 Florida Airport Examples
National	9	10	Miami Executive Airport; St. Lucie County International
Regional	32	31	North Perry Airport; Pompano Beach Airpark
Local	29	30	Clearwater Airpark; Okeechobee County Airport
Basic	9	8	Cross City Airport; Dade-Collier Training and Transition Airport
Unclassified	2	1	Everglades Airpark
Total	81	80	

Source: General Aviation Airports: A National ASSET (2012); National Plan of Integrated Airport Systems (NPIAS) 2017 – 2021

The *2017 – 2021 NPIAS Report* includes reclassification of 16 of Florida's NPIAS GA airports, including Northeast Florida Regional which gained commercial service, thus removing its GA classification. Table 10-5 summarizes the GA airports in Florida that changed ASSET categories in 2017.

Table 10-5: Changes to ASSET Categories

Airport	FAA ID	ASSET Category	
		2015	2017
Arcadia Municipal Airport	X06	Local	Basic
Bartow Municipal Airport	BOW	Regional	Local
Clearwater Air Park	CLW	Regional	Local
Crystal River-Captain Tom Davis Field	CGC	Local	Regional
Immokalee Regional Airport	IMM	Local	Regional
Lake City Gateway Airport	LCQ	Local	Regional
Lakeland Linder Regional Airport	LAL	Regional	National
Marco Island Airport	MKY	Regional	Local
Miami Seaplane Base	X44	Unclassified	Basic
Naples Municipal Airport	APF	Regional	National
Northeast Florida Regional Airport	SGJ	National	Now Primary
Ocala International-Jim Taylor Field	OCF	National	Regional
Pompano Beach Airpark	PMP	Local	Regional
Sebring Regional Airport	SEF	Local	Regional
The Florida Keys Marathon International Airport	MTH	Regional	Local
Tri-County Airport	1J0	Basic	Local

Source: General Aviation Airports: A National ASSET (2012); National Plan of Integrated Airport Systems (NPIAS) 2017 – 2021

Based on the latest *NPIAS Report*, regional and local ASSET categories comprise 75 percent of the state's NPIAS GA airports. On a national level, there are twice as many local airports as regional airports (530 to 1,261, respectively). However, in Florida, there are more regional than local airports, a trend indicative of the level of GA activity in the state. Additionally, no state has more national airports than Florida's ten.

10.3.2.3 Recommended Changes to Florida Airports' ASSET Classifications

Everglades Airpark, which is currently unclassified, meets the criteria to be upgraded to the basic category. The airport does not have over 10 based aircraft or four based helicopters, but it is located over 30 miles from the nearest NPIAS airport, Marco Island Airport. It is recommended that coordination with FAA regarding a potential upgrade of the ASSET classification be conducted to further evaluate Everglades Airpark's classification.

Additionally, should Wakulla County Airport enter the NPIAS (as recommended in the previous section), the airport would be classified as basic according to the current ASSET criteria.

10.4 Strategic Intermodal System (SIS) Recommendations

This section includes recommendations specific to the SIS based on previous FASP 2035 analyses, and feedback received from FDOT and Comprehensive Review Team (CRT) members.

As previously mentioned in **Chapter 3 – Airport System and Classifications**, Florida's Governor and Legislature established the SIS in 2003 to enhance Florida's economic competitiveness by focusing state resources on the transportation facilities most critical for statewide and interregional travel. The objectives of the SIS are to:

- Ensure the efficiency and reliability of multimodal transportation connectivity between Florida's economic regions and between Florida and other states and nations.
- Expand transportation choices and integrate modes for interregional trips.
- Provide transportation systems to support Florida as a global hub for trade, tourism, talent, innovation, business, and investment.

There are 18 commercial service airports and two GA airports that are currently designated as SIS or Emerging SIS facilities. The following sections present SIS designation criteria as it pertains to Florida airports, historical changes to these criteria, and recommended changes based on findings presented in FASP 2035.

10.4.1 Existing SIS Designation Criteria

There are two SIS designations for commercial service airports and two for GA reliever airports. The existing inclusion and designation criteria for the SIS are shown in **Table 10-6**. Of the 18 commercial service airports identified in the SIS, seven are designated as SIS airports and the remaining 11 are designated as Emerging SIS airports. The two commercial service airports in the state that are not included in the SIS include Key West International Airport and Northeast Florida Regional Airport.

Table 10-6: Existing SIS Designation Criteria

SIS Designation Criteria	
Designation	**Criteria**
Airports (Commercial Service)	
SIS	Provides scheduled commercial passenger and/or air cargo services (AND) 0.25% of U.S. total annual passenger enplanements or annual freight and mail tonnage (enplaned and deplaned)
Emerging SIS	Provides scheduled commercial passenger and/or air cargo services (AND More than 50 miles along SIS corridors and/or connectors from an SIS commercial service airport (AND) 0.05% of U.S. total annual passenger enplanements or annual freight and mail tonnage (enplaned and deplaned) (OR) 0.01% of U.S. total passenger or freight activity (AND) 0.05% of employment of industries dependent on aviation transportation (within 50 miles) or located in a county or city within a designated Rural Area of Critical Economic Concerns and 0.01% of U.S. total employment at industries dependent on aviation transportation (within 50 miles)
Airports (GA Reliever)	
SIS	Identified by FAA as a GA reliever airport to an SIS airport (AND) Handles at least 75,000 itinerant flight operations per year (AND) Has a runway with length exceeding 5,500 linear feet (AND) Has a runway capable of handling 60,000-pound dual wheel aircraft and serviced by precision instrument approach (AND) 0.05% of employment of industries dependent on air transportation located within a 50-mile radius
Emerging SIS	Identified as a reliever facility to an existing Emerging SIS commercial service airport and meets all of the same criteria as a GA Reliever SIS airport

Source: Florida Department of Transportation (FDOT) Summary of Adopted Strategic Intermodal System (SIS) Facility Types, January 2014

10.4.2 Previous Changes to SIS Designation Criteria

The criteria and thresholds for commercial service airports were originally documented in the *2005 SIS Strategic Plan* and updated in 2007. The following describe these 2007 criteria and thresholds that were updated for commercial service and GA reliever airports, which are related to economic connectivity of airports.

2007 SIS Criteria:

- **Commercial Service Airports:** Economic Connectivity Criteria: Service to industries within 50 miles dependent on aviation transportation located in or adjacent to county with top 25 percent population growth rate in Florida over the next 20 years. This is measured by proximity to one or more of the following:
    - Four-year colleges and universities
    - Clusters of high-technology businesses with more than 100 employees
    - Cluster of tourist establishments with more than 100 employees
- **GA Reliever Airports:** No change in designation criteria from what was originally adopted.

Additional revisions adopted as part of the implementation of the *2010 SIS Strategic Plan* included changes to the economic connectivity criteria and thresholds. There were no changes to the size criteria and thresholds for SIS or emerging SIS commercial service airports recommended in the *2010 SIS Strategic Plan*. The revised approach for economic connectivity criteria and thresholds eliminated the requirement for the commercial service airport to be in a fast-growing county, added a minimum activity floor, and incorporated an objective approach to evaluating industry activity by measuring key industry employment, including a lower threshold for commercial service airports located in Rural Areas of Critical Economic Concern.

2010 SIS Criteria:

- **Commercial Service Airports:** Economic Connectivity Criteria: (must meet both minimum activity floor and key industry employment criteria)
    - Minimum activity floor (must meet one of the following)
        - ≥0.01% of U.S. total annual passenger enplanements
        - ≥0.01% of U.S. total annual freight and mail tonnage
    - Key industry employment (must meet one of the following)
        - ≥0.05% of U.S. total employment of industries dependent on aviation transportation (within 50 miles)

        - Located in a county or city within a designated Rural Area of Critical Economic Concern and ≥0.01% of U.S. total employment of industries dependent on aviation transportation (within 50 miles)

- **GA Reliever Airports:** Implementation Guidance: (must meet one of the following)
    - ≥0.05% of U.S. total employment of industries dependent on aviation transportation (within 50 miles)
    - Located in a county or city within a designated Rural Area of Critical Economic Concern and ≥0.01% of U.S. total employment of industries dependent on aviation transportation (within 50 miles)

10.4.3 Recommended Changes to the SIS

Based on the findings presented in FASP 2035 as well as feedback received from the CRT, it is recommended that modifications to existing SIS airport criteria be made to better leverage the economic competitiveness and strategic nature of Florida's airports.

Specifically, it is recommended that all commercial service airports in the state be included in the SIS to promote intermodal connectivity and development opportunities at commercial airports that are not currently eligible for SIS inclusion. There are currently two commercial airports that would be included in the SIS as a result of this change (Northeast Florida Regional Airport and Key West International Airport). These facilities represent approximately 600,000 annual enplanements a year. However, Key West International Airport, while a commercial service airport, would not be eligible, as the existing road connector (US-1) to the airport is prohibited from capacity enhancements and cannot be designated as an SIS facility. The primary impact of this recommendation would be that all commercial service airports previously categorized as Emerging SIS would be full SIS facilities.

A second recommendation is that all GA airports included in the NPIAS that are categorized as a national airport by the FAA (ASSET role) should also be included in the SIS. National airports are those with very high levels of activity as averaging approximately 200 based aircraft, including 30 jets. National airports support the national and state system by providing communities with access to national and international markets in multiple states and throughout the U.S. This recommendation would prompt the inclusion of an additional nine GA airports to the SIS:

- Boca Raton Airport (BCT)
- Fort Lauderdale Executive Airport (FXE)
- Treasure Coast International Airport (FPR)
- Jacksonville Executive At Craig Airport (CRG)
- Miami-Opa Locka Executive Airport (OPF)
- Orlando Executive Airport (ORL)
- Witham Field (SUA)
- Lakeland Linder Regional Airport (LAL)

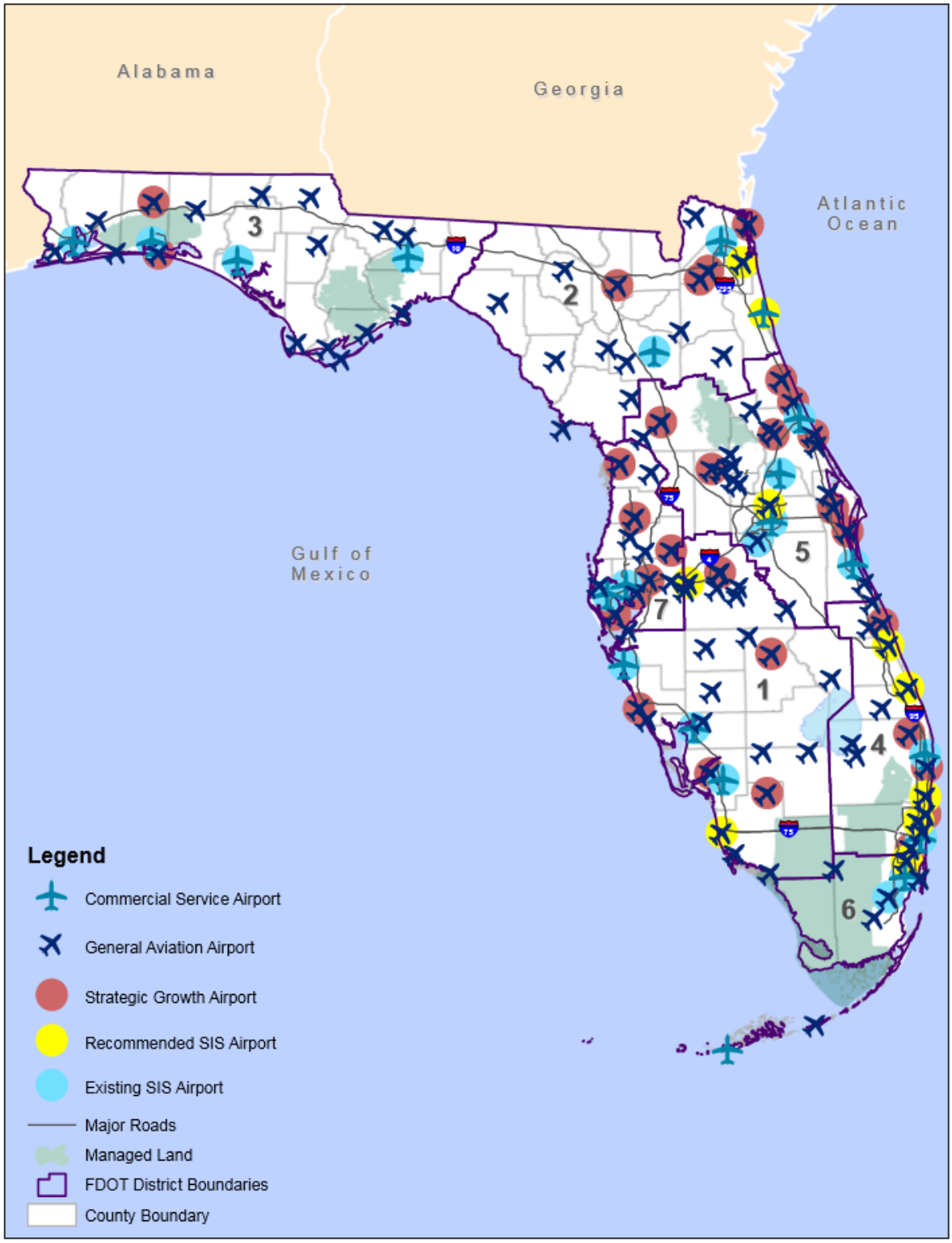
- Naples Municipal Airport (APF)

It is also recommended that GA airports categorized in the NPIAS as a regional airport be designated as strategic growth airports. Regional airports have high levels of activity with some jets and multi-engine propeller aircraft averaging about 90 based aircraft and three jets. Regional airports support regional economies by connecting communities to statewide and interstate markets. The strategic growth categorization would replace the previous Emerging SIS designation and would include airports determined by FDOT to be of compelling state interest that either serve a unique market niche, serve a cluster of transportation-dependent industries, or are located in a region without designated SIS facilities. Recommended strategic growth airports would include:

- Brooksville-Tampa Bay Regional Airport (BKV)
- Bob Sikes Airport (CEW)
- Crystal River-Captain Tom Davis Field (CGC)
- Deland Municipal-Sidney H Taylor Field (DED)
- Destin Executive Airport (DTS)
- Fernandina Beach Municipal Airport (FHB)
- Page Field (FMY)
- North Perry Airport (HWO)
- Immokalee Regional Airport (IMM)
- Cecil Airport (VQQ)
- Herlong Recreational Airport (HEG)
- Lake City Gateway Airport (LCQ)
- Leesburg International Airport (LEE)
- Merritt Island Airport (COI)
- Smyrna Beach Municipal Airport (EVB)
- Ocala International-Jim Taylor Field (OCF)
- Kissimmee Gateway Airport (ISM) (currently in SIS)
- Ormond Beach Municipal (OMN)
- Flagler Executive Airport (FIN)
- Pompano Beach Airpark (PMP)
- Sebring Regional Airport (SEF)
- Albert Whitted Airport (SPG)
- Peter O Knight Airport (TPF)
- Tampa Executive Airport (VDF)
- Space Coast Regional Airport (TIX)
- Venice Municipal Airport (VNC)
- Vero Beach Regional Airport (VRB)
- North Palm Beach County General Aviation Airport (F45)
- Palm Beach County Park Airport (LNA)
- Winter Haven's Gilbert Field (GIF)
- Zephyrhills Municipal Airport (ZPH)

Existing SIS airports, recommended SIS airports, and recommended strategic growth airports are shown in **Figure 10-1**. It should be noted that the existing SIS category in Figure 10-1 includes all airports that are currently designated SIS or Emerging SIS.

Figure 10-1: Existing and Recommended SIS Airports



Source: Florida Department of Transportation (FDOT) Strategic Intermodal System (SIS); Kimley-Horn Analysis

10.5 FASP 2035 Recommendations

The following recommendations are a result of the system goal performance assessment presented in **Chapter 7 – Analysis**. These recommendations are organized by system goal.

10.5.1 Goal 1: Provide safe, efficient, secure, and convenient service to Florida's citizens, businesses, and visitors

Access to safe, efficient, secure, and convenient air transportation for all users is the cornerstones of a well-functioning aviation system. Based on a preliminary demand/capacity (D/C) analysis of Florida's airports, more detailed analyses may be warranted in some Districts to ensure all citizens, businesses, and visitors have access to air travel. Service availability is secondary to a safe and secure system compliant with state and federal statutes and regulations. The FASP 2035 Update recommends prioritizing funds to address state licensing standards and federal requirements, as well as other indicators of safety, protection, and resiliency.

10.5.1.1 Goal 1 Recommendations

- Preserve existing infrastructure or replace when necessary.
- Conduct a more detailed capacity study, looking specifically in FDOT Districts 4, 5, and 6.
- Monitor FAA FACT studies as they are developed.
- Prioritize funding for projects that address state licensing standards per FAC Rule 14-60.
- Compile runway protection zone (RPZ) ownership data.
- Promote state funding for projects that address state and federal standards for protection and compatibility, including compatible land uses within RPZs.
- Coordinate with state and local Emergency Operations Centers (EOCs) on airport emergency power needs.
- Develop a roadmap for addressing airport wildlife hazards at a statewide level for non-Part 139 airports.
- Track the implementation of projects to correct the identified taxiway deficiencies.
- Develop facility, infrastructure, and service guidelines for lower activity general aviation airports.
- Update the FDOT General Aviation Security Assessments.

10.5.2 Goal 2: Contribute to operational efficiency, economic growth, and competitiveness while remaining sensitive to Florida's natural environment

FDOT has the opportunity to implement policies designed to actively support activities that significantly benefit the state's economy and encourage economic growth and the marketability of aviation in Florida. This support requires active coordination with local, regional, and statewide partners; the cultivation of appropriate business development on airport property; and support for key aviation activities including aviation education, flight training, and workforce development.

Enhancing the state's multimodal infrastructure may be the most important singular step towards advancing this overall goal. FDOT should support the development of multi modal options at and around airports, and existing SIS criteria should be modified to better leverage the economic competitiveness and strategic nature of Florida's airports. Airport planning processes, including airport master plans and ALPs, also have a role in creating business-friendly environments.

10.5.2.1 Goal 2 Recommendations

- Coordinate with local, regional, and state business and tourism partners to support and encourage economic growth; communicate the benefits of the aviation industry; and foster social responsibility.
- Develop a study to identify business suitability and leverage opportunities at airports, including commercial air service enhancements.
- Coordinate with Metropolitan Planning Organizations (MPOs) and other modal partners to support and improve intermodal connectivity.
- Continue to maintain a database of current master plans and ALPs and develop a database to track sustainability and business plans on file.
- Support efforts related to Florida's aviation education, flight training, and workforce development.
- Recommend modifications to existing SIS airport criteria to better leverage the economic competitiveness and strategic nature of Florida's airports.
- Continue to update and communicate the FDOT *Airport Sustainability Guidebook*.

10.5.3 Goal 3: Support and enhance the national position of leadership and prominence held by Florida's aviation industry

Ensuring the state's continued leadership and prominence in the aviation industry requires an ongoing commitment to identifying and communicating the value of investing in Florida's airport system through various forums including publications and industry organizations.

10.5.3.1 Goal 3 Recommendations:

- Monitor and promote the return on investment (ROI) of state funds invested in Florida's airports.
- Continue to update the *Statewide Aviation Economic Impact Study* in conjunction with the FASP.

10.5.4 Goal 4: Protect airspace and promote compatible land uses around public airports

FDOT and policymakers have an obligation to protect airspace and ensure compatible land use around public airports to support the safety of aircraft, their passengers, and individuals on the ground. FDOT offers continuous training for airport sponsors to comply with the latest state and federal requirements, as well as provides the necessary resources for developing and implementing airport compatible land use zoning and policies for airport protection.

10.5.4.1 Goal 4 Recommendations:

- Provide continuous training on the latest requirements of F.S. Chapter 333, *Airport Zoning*.
- Provide resource materials for developing and implementing zoning ordinances, land use compatibility, and airport protection.
- Develop a web-based statewide land use compatibility tool that includes unmanned aircraft systems (UAS) information.
- Develop a statewide database of electronic airport layout plan (eALP) files provided by airports during the master planning process.

10.5.5 Goal 5: Foster technological innovation and support implementation of new technologies

Technological innovations are driving major changes within the aviation industry that will affect nearly every aspect of flying—from how we board, to the aircraft we fly, to the way aircraft move through our skies. In the coming years and decades, airports and FDOT must be prepared to evolve with the changes that are likely to be brought by NextGen, remote and virtual towers (RVTs), UAS, and larger and lighter aircraft capable of flying longer distances with less fuel—among many others potential technological advancements. FDOT should take a proactive approach to meet the needs of these changes to keep Florida on the leading edge of modern aviation.

10.5.5.1 Goal 5 Recommendations:

- Develop an implementation plan for maximizing NextGen approach procedures at Florida airports.
- Continue to work with and support partners in the space industry to advance NextGen technologies.
- Monitor technological advances that could impact airport development needs.

10.5.6 Goal 6: Promote support for aviation from business, government, and the public

Enhancing businesses', policymakers', and the public's understanding of the importance of airports promotes aviation and encourages economic growth. To strengthen the ties between airports and their communities, the FASP 2035 Update recommends leveraging the resources provided by the Airport Cooperative Research Program (ACRP) to develop Florida-specific tools for aviation support. Furthermore, FDOT should continue to support and improve existing systems to act as good stewards of public resources while maintaining the highest quality of aviation services across the state.

10.5.6.1 Goal 6 Recommendations:

- Leverage ACRP information to develop Florida-specific resources and tools to gain support from businesses, public, and government representatives.
- Continue to fund and provide statewide pavement condition index inspections and training.
- Improve Capital Improvement Plan (CIP) management and coordination to better manage financial resources for the Joint Automated Capital Investment Program (JACIP).

10.5.7 Goal 7: Foster Florida's reputation as a military- and aerospace-friendly state

Florida is home to numerous military installations that provide safety, security, resiliency, meaningful employment, and a significant economic contribution to the state—among numerous other benefits. The U.S. military brings a unique perspective on the aviation industry with specific needs associated with the airport system. Furthermore, the military serves as an important driver of the state's aerospace and defense industries. Today, Florida is home to many of the world's largest aerospace and defense firms, many of which are clustered at or near airports across the state. Most notably, a dense concentration of aerospace and defense contractors has arisen along the Space Coast near Cape Canaveral and the Kennedy Space Center and within the Florida panhandle in the vicinity of Eglin Air Force Base.

10.5.7.1 Goal 7 Recommendations:

- Ensure that military and aerospace-industry personnel are invited and encouraged to participate in planning processes, such as the *Statewide Aviation Economic Impact Study*, FASP, CFASPP planning efforts, and airport master plans.
- Coordinate and support the efforts of the U.S. military in Florida through FDOT/EOC coordination.

10.5.8 FASP Recommendations Alignment with FTP & SIS

A summary of all FASP 2035 recommendations, categorized by how they fit with FTP goals and SIS objectives, as well as the recommended timeframe for implementation and prioritization, is shown in **Table 10-7**. The recommendations presented in Table 10-7 represent the culmination of all specific policy endorsements identified in previous portions of this document. These recommendations were presented at a CRT meeting in December 2016 to get feedback regarding how FDOT should prioritize the recommendations (high, medium, low) as well as a recommended implementation timeframe (continuous, 0-5 years, 5-10 years, 10-20 years). The FTP goals and SIS objectives that each policy recommendation applies to are identified in the key below the table.

Table 10-7: FASP 2035 Recommendations by FTP Goal and SIS Objective

FASP Goal	FASP Recommendation	Timeframe	Prioritization	FTP Goal	SIS Objective
Goal 1	Preserve existing infrastructure or replace when necessary.	Continuous	High	1	1
	Conduct a more detailed capacity study, looking specifically in FDOT Districts 4, 5, and 6.	10-20 year	Medium	1	1
	Monitor FAA Future Airport Capacity Task (FACT) studies as they are developed.	Continuous	Medium	1	1
	Prioritize funding for projects that address state licensing standards per FAC Rule 14-60.	Continuous	High	1	1
	Compile RPZ ownership data.	0-5 year	Medium	1	1
	Promote state funding for projects that address state and federal standards for protection and compatibility, including compatible land uses within RPZs.	5-10 year	Medium	1	1
	Coordinate with the state and local EOCs on airport emergency power needs.	Continuous	Medium	1	1
	Develop a roadmap for addressing airport wildlife hazards at a statewide level for non-Part 139 airports.	5-10 year	Medium	1	1
	Track the implementation of projects to correct the identified taxiway deficiencies.	Continuous	Low	1	1
	Develop facility, infrastructure, and service guidelines for lower activity general aviation airports.	10-20 year	Low	1	1
	Update the FDOT General Aviation Security Assessments	5-10 year	Medium	1	1
Goal 2	Coordinate with local, regional, and state business and tourism partners to support and encourage economic growth; communicate the benefits of the aviation industry; and foster social responsibility.	Continuous	High	2	3
	Develop a study to identify business suitability and opportunities at airports, including commercial air service enhancements.	5-10 year	Medium	2	3
	Coordinate with MPOs and other modal partners to support and improve intermodal connectivity.	Continuous	Medium	2	2
	Continue to maintain a database of current master plans and airport layout plans (ALPs) and develop a database to track sustainability and business plans on file	Continuous	Medium	2	1
	Support efforts related to Florida's aviation education, flight training, and workforce development.	Continuous	Medium	2	3
	Recommend modifications to existing SIS airport criteria to better leverage the economic competitiveness and strategic nature of Florida's airports.	0-5 Year	Medium	2	3
	Continue to update and communicate the FDOT *Airport Sustainability Guidebook*	0-5 year	Medium	2	1
Goal 3	Monitor and promote the ROI of state funds invested in Florida's airports.	Continuous	High	3	3
	Continue to update the *Statewide Aviation Economic Impact Study* in conjunction with the FASP.	Continuous	High	3	3
Goal 4	Provide continuous training on the latest requirements of F.S. Chapter 333, *Airport Zoning*.	Continuous	High	4	1
	Provide resource materials for developing and implementing zoning ordinances, land use compatibility, and airport protection.	0-5 year	High	4	1
	Develop a web-based statewide land use compatibility tool that includes UAS information.	0-5 year	Medium	4	1
	Develop a statewide database of eALP files provided by airports during the master planning process.	5-10 year	Medium	4	1
Goal 5	Develop an implementation plan for maximizing NextGen approach procedures at Florida airports.	0-10 year	Medium	5	1
	Continue to work with and support partners in the space industry to advance NextGen technologies.	Continuous	Medium	5	3
	Monitor technological advances that could impact airport development needs.	Continuous	High	5	1

FASP Goal	FASP Recommendation	Timeframe	Prioritization	FTP Goal	SIS Objective
Goal 6	Leverage ACRP information to develop Florida-specific resources and tools to gain support from businesses, public and government representatives.	0-5 year	Low	6	3
	Continue to fund and provide statewide Pavement Condition Index (PCI) inspections and training.	Continuous	Medium	6	1
	Improve CIP management and coordination to better manage financial resources for the JACIP.	0-5 year	High	6	3
Goal 7	Ensure that military and aerospace industry personnel are invited and encouraged to participate in planning processes such as the *Statewide Aviation Economic Impact Study*, FASP, CFASPP planning efforts, and airport master plans.	Continuous	High	7	1
	Coordinate and support the efforts of the U.S. military in Florida through FDOT/EOC coordination.	Continuous	High	7	1

FTP Goals:

1) Provide efficient, safe, and convenient service to Florida's citizens, businesses, and visitors.
2) Contribute to operational efficiency, economic growth, and competitiveness while remaining sensitive to Florida's natural environment.
3) Support and enhance the position of leadership and prominence held by Florida's aviation industry.
4) Protect airspace and promote compatible land uses around public airports.
5) Foster technological innovation and support implementation of new technologies.
6) Promote support for aviation from business, government, and the public.
7) Foster Florida's reputation as a military- and aerospace-friendly state.

SIS Objectives:

1) Interregional Connectivity: Ensure the efficiency and reliability of multimodal transportation connectivity between Florida's economic regions and between Florida and other states and nations.
2) Intermodal Connectivity: Expand transportation choices and integrate modes for interregional trips.
3) Economic Development: Provide transportation systems to support Florida as a global hub for trade, tourism, talent, innovation, business, and investment.

Source: Florida Aviation System Plan (FASP); Kimley-Horn Analysis, prepared April 2017

10.6 System Gaps and Opportunities

One of the primary types of system evaluation includes the use of drive-time analyses to determine system accessibility. **Chapter 7 – System Analysis**presented the evaluation of Florida's airports in providing residents and visitors access to airports with key facilities or services within a reasonable drive time. This section includes recommendations based upon the results of the mapping analyses in **Chapter 7 – Analysis.**

10.6.1 Additional Airport Analysis: Accessibility

The mapping analysis identified accessibility in terms of drive times for both commercial service and GA airports within Florida. "Reasonable" drive time thresholds for commercial airports were established for resident access as follows:

- Large hub airports: 90 minutes
- Medium hub airports: 60 minutes
- Small and non-hub airports: 45 minutes

While each of the airport hub sizes was analyzed independently, they were also combined to look at accessibility of all commercial service airports in aggregate, removing duplicative populations. Based on these thresholds, it was identified that over 93 percent of current Florida residents live, and more than 94 percent of projected residents in 2035 will live, within a reasonable drive time from a commercial service airport (see **Table 10-8**).

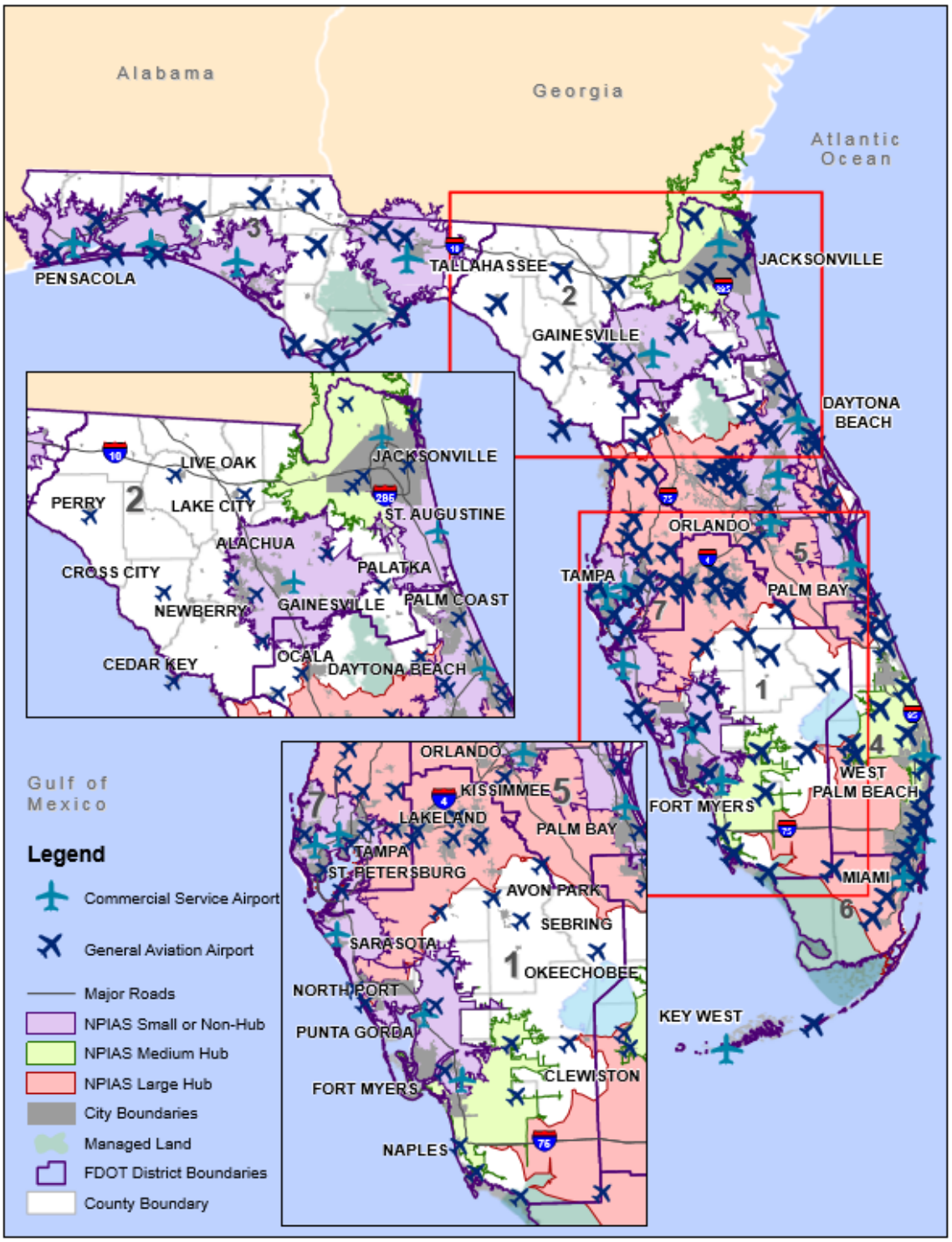
Table 10-8: Drive Time Coverage of Airports by Commercial Service Hub Size

Commercial Service					
Hub Size	**Drive Time Area**	**2016: Percentage of Population Within Drive Time**	**2016: Percentage of Cumulative Population Within Drive Time**	**2035: Percentage of Population Within Drive Time**	**2035: Percentage of Cumulative Population Within Drive Time**
Large	90 Minutes	70.5%	N/A	70.9%	N/A
Medium	60 Minutes	27.9%	84.4% (Large + Medium)	28.6%	85.5% (Large + Medium)
Small and Non-Hub	45 Minutes	45.5%	93.4% (Large + Medium + Small + Non)	46.1%	94.2% (Large + Medium + Small + Non)

Source: National Plan of Integrated Airport Systems (NPIAS) 2017 – 2021; Kimley-Horn Analysis

The analysis concluded that less than seven percent of current residents and less than six percent of residents in 2035 are not or will not be within a reasonable drive time to a commercial service airport. These residents are primarily located in remote areas of Districts 1, 2, and 3 (see **Figure 10-2**). As shown, geographic areas in District 1 that are not within the cumulative drive times are generally southeast of Tampa and northwest of Fort Lauderdale. Cities within District 1 that are outside the cumulative drive time coverage areas include Avon Park, Sebring, and Okeechobee. It should be noted that drive times between these cities and commercial airports, including Sarasota Bradenton International Airport, Tampa International Airport, and Palm Beach International Airport are less than 2 hours.

Figure 10-2: Large Hub Airport 90-Minute Drive Times, Medium Hub 60-Minute Drive Times, and the Small/Non-Hub 45-Minute Drive Times



Source: National Plan of Integrated Airport Systems (NPIAS) 2017 – 2021; Kimley-Horn Analysis

Areas in District 2 and the eastern portion of District 3 that are not within the cumulative drive times are located between Tallahassee, Gainesville, and Jacksonville. As shown in Figure 10-2, cities within District 2 that are not within the cumulative drive time coverages include Lake City and Live Oak. It should be noted that both of these cities are within 90-minute drives of the commercial air service provided by Gainesville Regional Airport, Tallahassee International Airport, and Jacksonville International Airport.

Areas within District 3 outside of the cumulative drive times are located between Tallahassee and Pensacola and include communities such as Marianna and Chipley. These areas are within 90-minute drive times of Tallahassee International Airport and Northwest Florida Beaches International Airport.

It's important to understand that airlines make decisions about providing commercial airline service, not the FAA, the FDOT ASO, or the airports. Airlines typically make decisions about where to provide the service, the amount of service, aircraft types, etc., based on their ability to generate a profit, which is typically driven by the amount of traffic they expect to realize in a given market. The amount of traffic is highly dependent on the number of people, both residents and visitors, that want to travel from and to that area. Based on the relatively low current and projected population of the areas that are beyond the existing drive times of Florida's current commercial service airports, additional commercial service airports are not needed. The existing network of commercial service airports in Florida serves the majority of the population and the areas that have a longer drive time do not appear to have the level of population that would support viable commercial airline service.

For GA airports, the mapping analysis in **Chapter 7 – System Analysis** identified the percentage of residents who currently live, or are projected to live, within a 30-minute drive time of airports in the NPIAS with ASSET classifications of national, regional, local, or basic (see **Table 10-9**). The analysis concluded that approximately 86 percent of current Florida residents live within a 30-minute drive of one of these classifications of airports (85 percent by 2035). This analysis was expanded to include commercial airports, unclassified NPIAS GA airports, and non-NPIAS airports that are public-use facilities, to identify the percent of the state's current and projected population within reasonable proximity to drive to any airport that provides GA service. When these airports are added to the analysis, the current population with access to GA service is nearly 94 percent, and the 2035 population is projected to be slightly above 93 percent (see **Figure 10-3**).

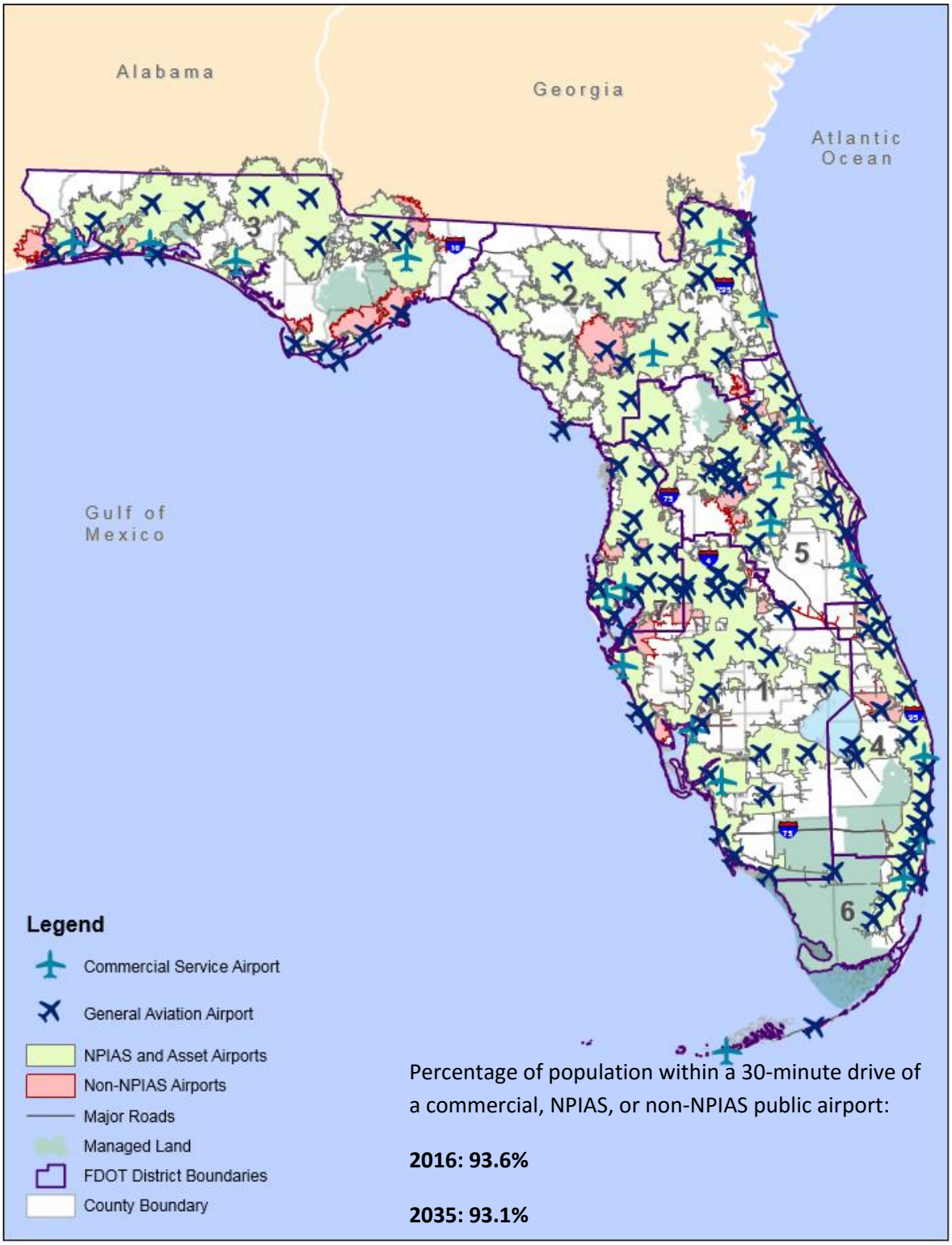
While non-NPIAS airports are not eligible to receive FAA grants, they can still be eligible for state funding if they are publicly-owned and open for use by the public. Based on the results of this expanded analysis, additional GA airports are not anticipated to be needed in the FASP 2035 20-year planning horizon.

Table 10-9: NPIAS Airports by ASSET Classification

General Aviation					
ASSET Category	**Percentage of GA Airports**	**2016: Percentage of Population Within a 30-Minute Drive**	**2016: Percentage of Cumulative Population within a 30-Minute Drive**	**2035: Percentage of Population Within a 30-Minute Drive**	**2035: Percentage of Cumulative Population within a 30-Minute Drive**
National	13% (10 of 80)	41.5%	N/A	41.3%	N/A
Regional	39% (31 of 80)	54.4%	80.1% (National + Regional)	54.1%	80.1% (National + Regional)
Local	38% (30 of 80)	23.4%	85.2% (National + Regional + Local)	22.8%	84.7% (National + Regional + Local)
Basic	10% (8 of 80)	11.1%	85.5% (National + Regional + Local + Basic)	10.4%	85.0% (National + Regional + Local + Basic)

Source: National Plan of Integrated Airport Systems (NPIAS) 2017 – 2021; Kimley-Horn Analysis

Figure 10-3: Commercial, NPIAS, and Public Non-NPIAS Airports 30-Minute Drive Times



Source: Florida Aviation System Plan (FASP); Kimley-Horn Analysis

10.6.2 Additional Airport Analysis: Capacity

Another analysis of gaps/opportunities within the Florida aviation system evaluated existing and future D/C ratios, which was presented in **Chapter 6 – Aviation Activity Forecasts**. The analysis identified each airport's annual service volume (ASV) and compared it with base year 2014 aircraft operations and forecasted aircraft operations through 2035. The purpose of the analysis was to identify individual airports that may need to enhance airfield capacity currently or in the future, as well as to highlight any specific geographical areas or FDOT Districts in the state that currently experience issues with airport capacity, or that are anticipated to in the future.

The results of this analysis identified that in base year 2014, there were five airports that exceeded the FAA's recommended 60 percent D/C ratio threshold that indicates a need to plan for capacity enhancements, and three additional airports that exceeded the 80 percent threshold which suggests a need to start implementation for capacity enhancements. The analysis also projected that by 2035, 11 airports would exceed the 60 percent threshold, six additional airports would exceed the 80 percent threshold, and three more would exceed their ASV altogether.

The analysis revealed that the majority of airports that currently or are projected to have D/C ratios exceeding the previously mentioned 60 percent and 80 percent thresholds were located in FDOT Districts 4, 5, and 6. These areas are primarily located in the coastal corridor between Jacksonville and Miami, where airport activity is impacted by tourism, corporate activity, flight schools, and other factors (see **Figure 10-4**).

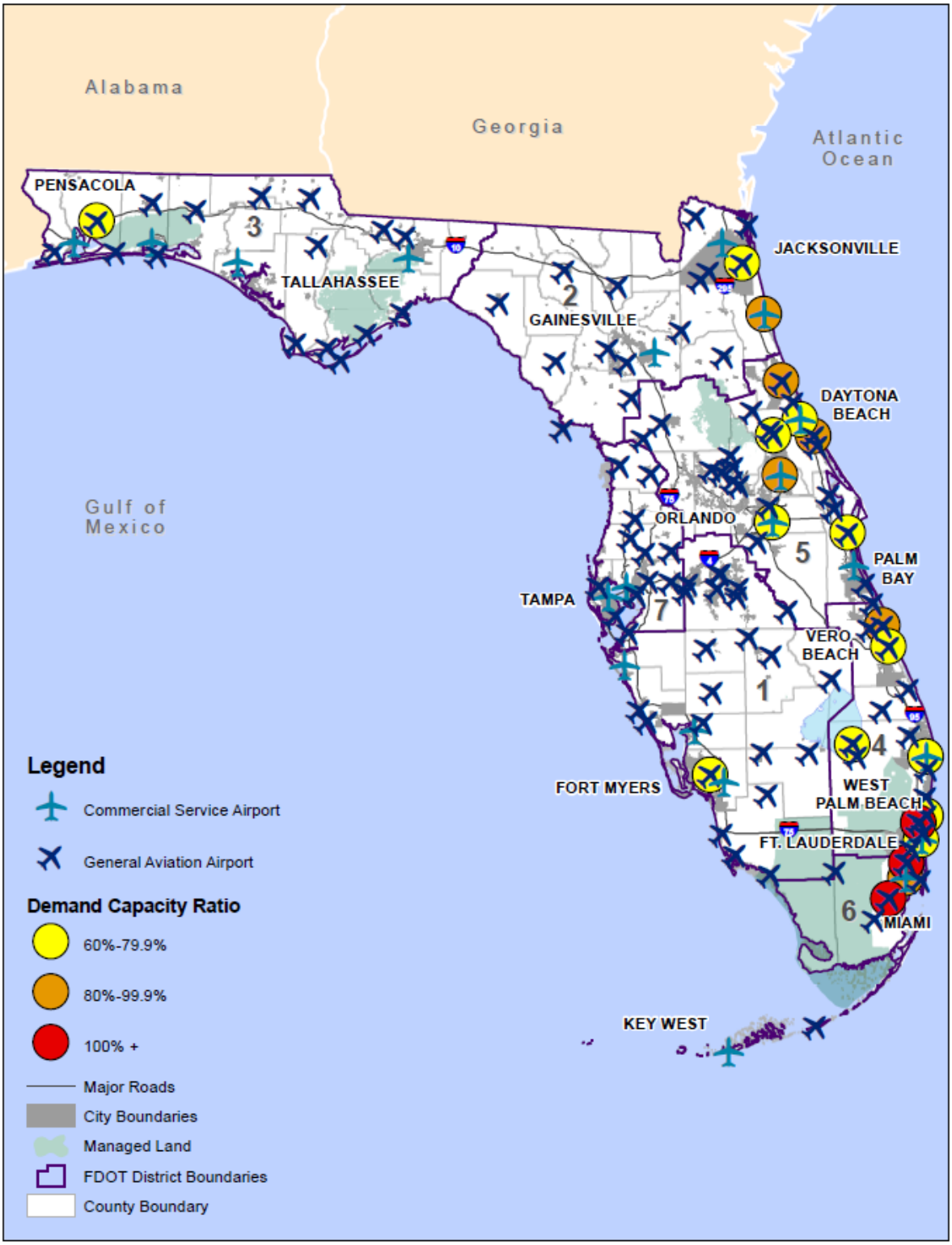
Airports are often able to mitigate capacity constraints by adding exit taxiways, implementation of an air traffic control tower (ATCT), construction of additional runways, reducing flight training operations (often relocated to other nearby facilities), and other measures. For example, Palm Beach International Airport and Fort Lauderdale Executive Airport are located approximately 35 miles from each other and both are anticipated to experience levels of activity that would require planning for or implementation of capacity enhancement by 2035. Within relatively close proximity, there are several airports that appear to have ample capacity now and in the future based on projected demand levels, including Boca Raton Airport, North Perry Airport, and Witham Field.

From an FDOT perspective, mitigating capacity issues is beneficial not only to enhance the safety and efficiency of individual airports, but also to alleviate congestion in specific high-activity regions of the state. As such, it is encouraged that future airport master plan updates or similar planning studies at airports identified in FASP 2035 as exceeding the 60 percent D/C planning ratio within 20 years include demand, capacity, and operations analyses. For airports with low and medium levels of activity, these analyses should be based on planning parameters identified in FAA AC 150/5060-5 *Airport Capacity and Delay*. Analyses for higher-level activity and commercial airports may need to utilize more specialized capacity tools, such as AirTOp, the Total Airspace and Airport Modeler (TAAM), the FAA's Airport and Airspace Simulation Model (SIMMOD), and the Runway Exit Design Interactive Model (REDIM).

It should be noted that although D/C ratios based on ASV are generally acceptable measurements to identify airfield capacity issues, they are not always the most telling indicators, particularly at commercial service airports. *ACRP Report 104: Defining and Measuring Aircraft Delay and Airport Capacity Thresholds* offers guidance to help airports, particularly larger commercial airports, understand, select, calculate, and report measures of delay and capacity that may be more effective than the calculations outlined in FASP 2035.

Due to the complex nature of individual airport capacity, regional connectivity between airports, type of demand that individual airports accommodate (corporate, flight training, etc.), and potential capacity enhancement measures that can be pursued, a specific recommendation of FASP 2035 is for FDOT to conduct additional capacity studies for the three Districts where elevated levels of activity have been projected, namely Districts 4, 5, and 6.

Figure 10-4: D/C Ratios, 2035



Source: Florida Aviation System Plan (FASP); Kimley-Horn Analysis

10.6.3 Aviation System Facility and Service Gaps/Opportunities

While the drive-time mapping and D/C ratio analyses constituted the primary mechanisms to identify gaps or opportunities in the state's aviation system in terms of airport accessibility and capacity, additional analyses were also provided in **Chapter 7 – System Analysis** to measure existing and future population coverage with access to airports with specific facilities or services, including:

- ATCTs
- SIS facilities
- Runways of at least 3,200 feet in length
- Precision approaches
- Business use airports
- Flight training

The results of these additional analyses confirmed that the state's airports are equipped to accommodate existing and projected levels of demand, and that additional commercial service or GA airports do not appear to be needed in the future. However, the results of this analysis identified gaps and opportunities from a facility/service perspective. These are summarized in the following pages.

- **ATCT:** Nearly 90 percent of the state's current population and 90 percent of its population projected for 2035 resides or will reside within a 30-minute drive of an airport equipped with an ATCT. However, from a geographical perspective, there are substantial gaps in coverage in the south-central portions of the state, spanning large areas of FDOT Districts 1, 4, 5, 6 and 7 (see **Figure 10-5**). FDOT Districts 2 and 3 also have large areas that do not provide access to ATCTs.

  The FAA has the authority to establish control towers or discontinue tower services throughout the National Airspace System when activity levels and safety considerations merit such action. The general qualifications necessary to become a candidate site for establishment or discontinuance of a control tower are published in the Federal Aviation Regulations (FAR) Part 170, "Establishment and Discontinuance Criteria for Air Traffic Control Services and Navigational Facilities." According to FAR Part 170.13, the following criteria, along with general facility establishment standards must be met before an airport can qualify for an ATCT:

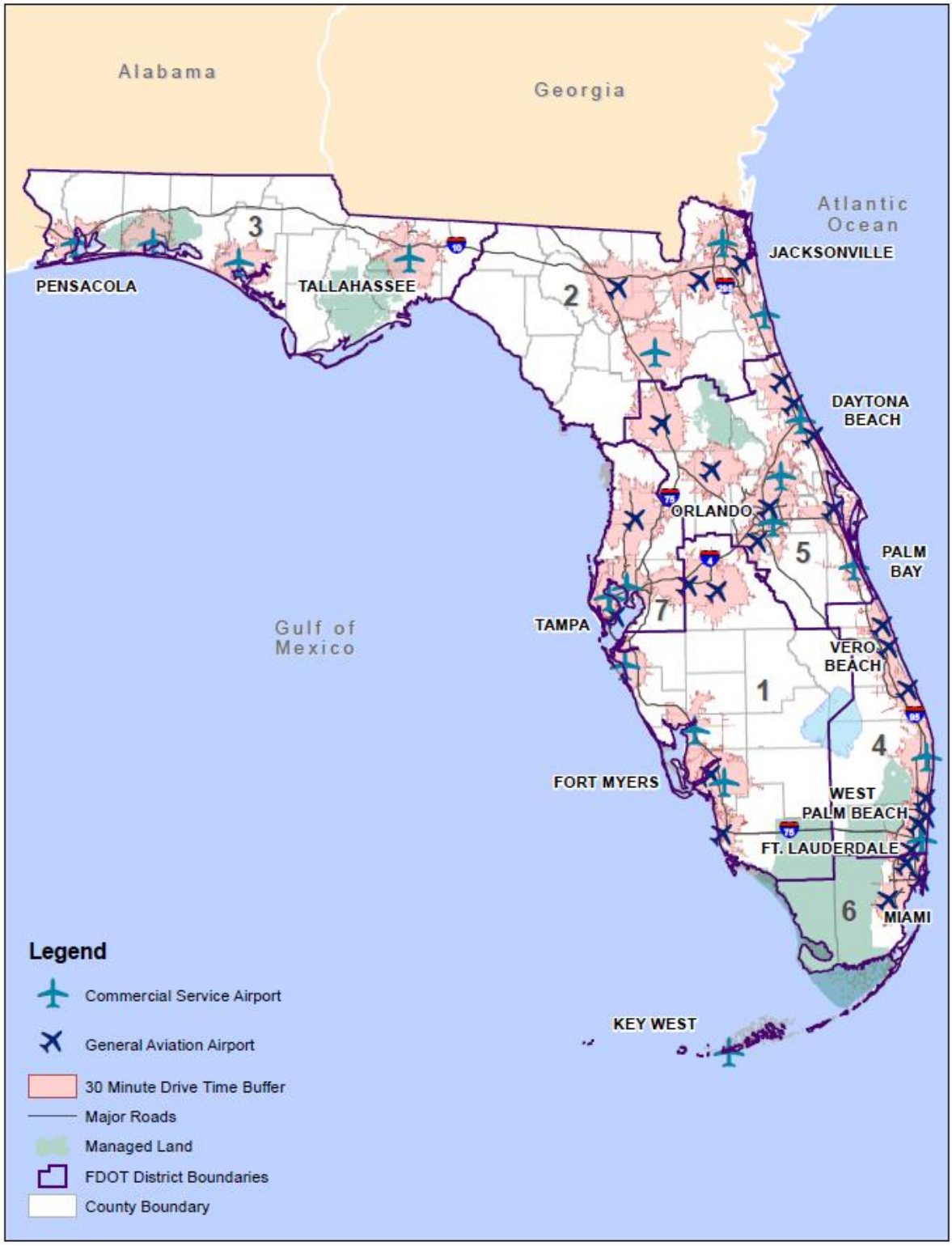
  1. The airport, whether publicly or privately-owned, must be open to and available for use by the public as defined in the Airport and Airway Improvement Act of 1982;
  2. The airport must be part of the NPIAS;
  3. The airport owners/authorities must have entered into appropriate assurances and covenants to guarantee that the airport will continue in operation for a long enough period to permit the amortization of the control tower investment;

4. The FAA must be furnished appropriate land without cost for construction of the control tower; and
5. The airport must meet the benefit-cost ratio criteria specified herein utilizing three consecutive FAA annual counts and projections of future traffic during the expected life of the tower facility.

While it is not unprecedented for airports currently without an ATCT to get a new ATCT when airports meet the criteria mentioned above, including a new ATCT scheduled to open at Dentin Executive Airport in November 2017, the FAA has shown little interest in the past few years in greatly expanding the number of facilities operated either by the FAA or a contract operator. As a result, there has been increased interest for RVTs. An RVT is a facility that provides the same services as a traditional ATCT either at an airport or remotely by using video sensor-based surveillance. While RVT development is still in experimental stages, there is one RVT in operation in Europe (whose system was also tested at Leesburg Executive Airport in Virginia in summer of 2015), and in 2015, the FAA announced that Fort Collins-Loveland Municipal Airport in Colorado was the first official FAA approved Virtual ATCT test site in the U.S.

While the analysis presented in **Chapter 7 – System Analysis** did not identify any immediate needs for expansion of ATCT facilities, it is recommended that FDOT monitor operational activity at airports located in geographical areas that are not equipped with an ATCT and assess if any significant increases in aircraft operations merit traditional ATCT studies or pursuance of an alternative such as an RVT if the technology becomes more common. This monitoring process should be a continual effort throughout the 20-year planning horizon.

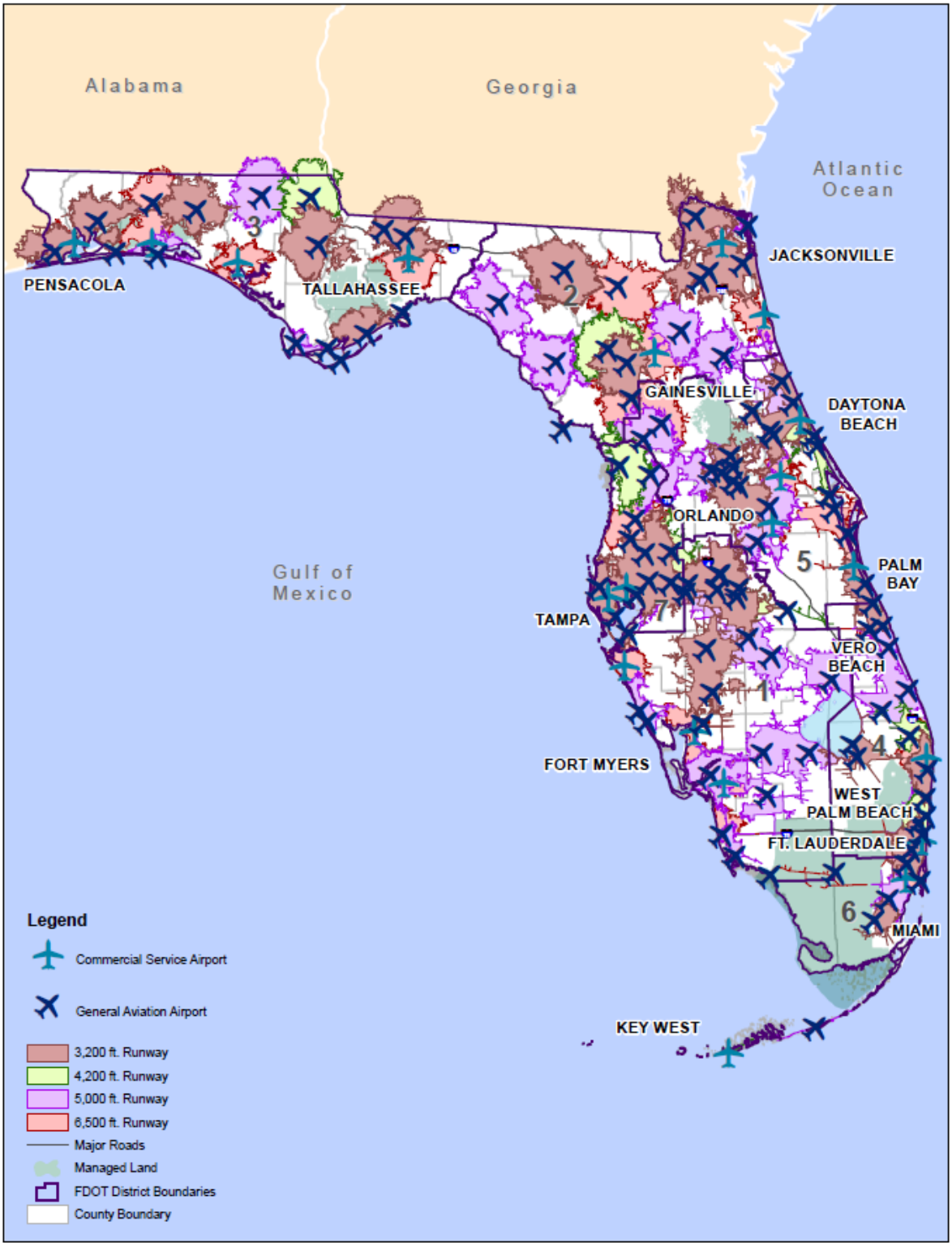
Figure 10-5: Airports with ATCTs by FDOT District



Source: National Flight Data Center (NFDC); Kimley-Horn Analysis

- **SIS Facilities:** Over 72 percent of Florida's existing and projected population by 2035 is or will be located within a 30-minute drive of an airport designated as an SIS facility. While this coverage is substantial, it was noted in **Chapter 7 – System Analysis** that adding airports to the SIS must be evaluated on an airport-by-airport basis. SIS evaluation criteria are currently being evaluated by FDOT and specific SIS recommendations are provided later in this Chapter.
- **Runways 3,200+ feet long:** Nearly 94 percent of the state's current population resides within a 30-minute drive of an airport with a runway of at least 3,200 feet in length. The 3,200-foot length is the calculated take-off distance required to accommodate 100 percent of small GA aircraft (12,500 lbs. or less) at mean sea level and standard day temperature of 59° Fahrenheit as described in FAA AC 150/5325-4B*, Runway Length Requirements for Airport Design*. The 94 percent coverage is anticipated to decrease to just over 93 percent by 2035 due to changes in population and where they choose to live. The only service gap for population access to a runway at least 3,200 feet in length was identified in District 6 (see **Figure 10-6**); however, the population of this District is very dense in certain areas and equally as sparse in others. District 6 is also home to very large areas of conservation space, such as Everglades National Park. While siting a new airport in this remote location is unlikely and not needed to serve any population base, FDOT should monitor the conditions to assess if there is a safety need for aircraft to utilize an existing runway for emergency landings in this area.

Figure 10-6: Runways Over 3,200 Feet, 30 Minute Drive Times



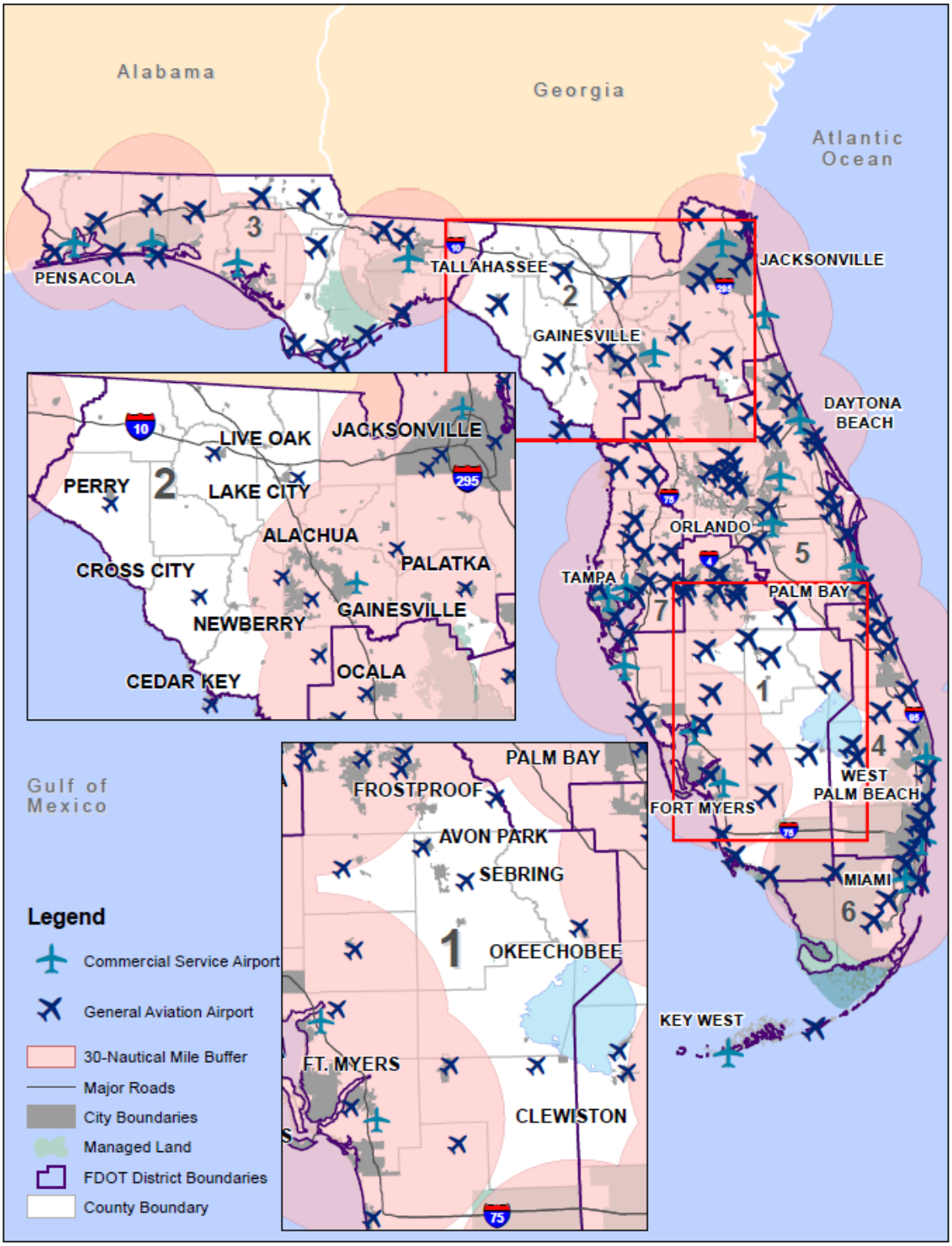
Source: Florida Aviation Database (FAD); Kimley-Horn Analysis

- **Precision Approaches:** Over 75 percent of all the land in Florida is within 30 miles of an airport equipped with a precision approach. Based on the analysis presented in **Chapter 7 – System Analysis,** it was identified that airports with precision approaches are clustered near developed and metropolitan areas, and that geographical service gap areas are present within FDOT Districts 1 and 2 (see **Figure 10-7**).

  Based on runway length and forecasted operations, airports in District 1 that could be potential candidates for a precision approach include Sebring Regional Airport and/or Avon Park Executive Airport. Airports in District 2 that may benefit from a precision approach include Lake City Gateway Airport and/or Suwanee County Airport.

  Because precision approaches are particularly important to corporate and commercial service aircraft, especially during inclement weather, it should be a priority to reduce the number and size of geographical areas whose airports are not equipped with precision approaches. An increase in the number of airports equipped with precision approaches throughout the state, especially in areas that are not proximate to airports with these capabilities, would provide additional facilities for aircraft to conduct emergency landings or diversions due to severe weather. It is recommended that FDOT monitor aircraft operations at the previously identified airports within Districts 1 and 2 to identify if additional precision approaches are warranted.

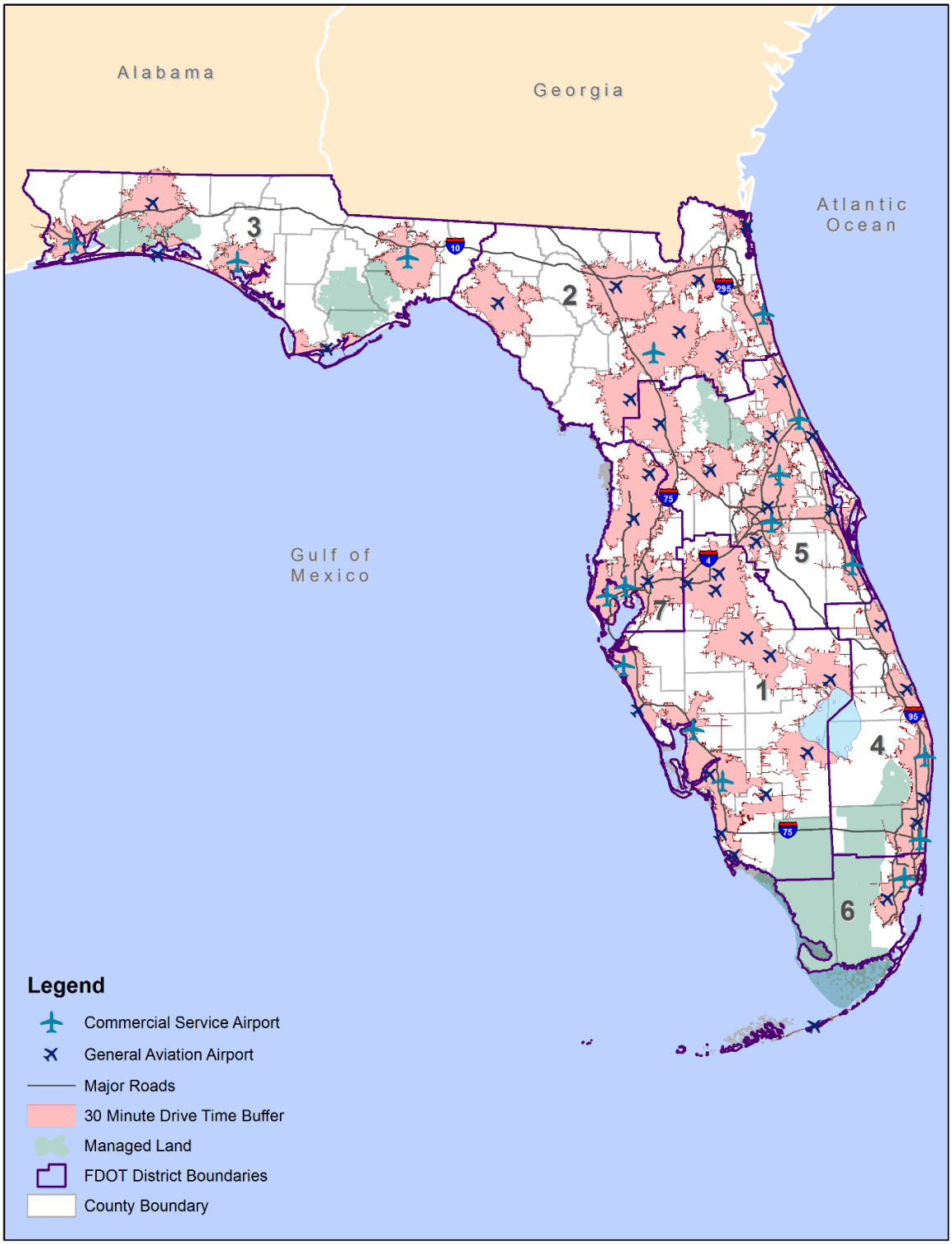
Figure 10-7: Airports with Precision Approaches by FDOT District, 30 Nautical Miles



Source: Individual Airport Layout Plans (ALPs); AirNav.com; Kimley-Horn Analysis

- **Business Use Airports:** Nearly 85 percent of current and 2035 projected Florida residents live or will live within a 30-minute drive of a business-use airport, identified as an airport with a 5,000-foot long runway, Jet A fuel, instrument approach, and a weather reporting station. Based on the analysis provided in **Chapter 7 – System Analysis**, there is a lack of airports meeting this criteria in Districts 2, 3, 4, and 6 (see **Figure 10-8**). While these gaps represent lower population areas, FDOT should routinely examine master plans and other planning documents developed for these airports to identify if these facilities satisfy the criteria established for inclusion as a business-use airport.

Figure 10-8: Business-Use Airports by FDOT District

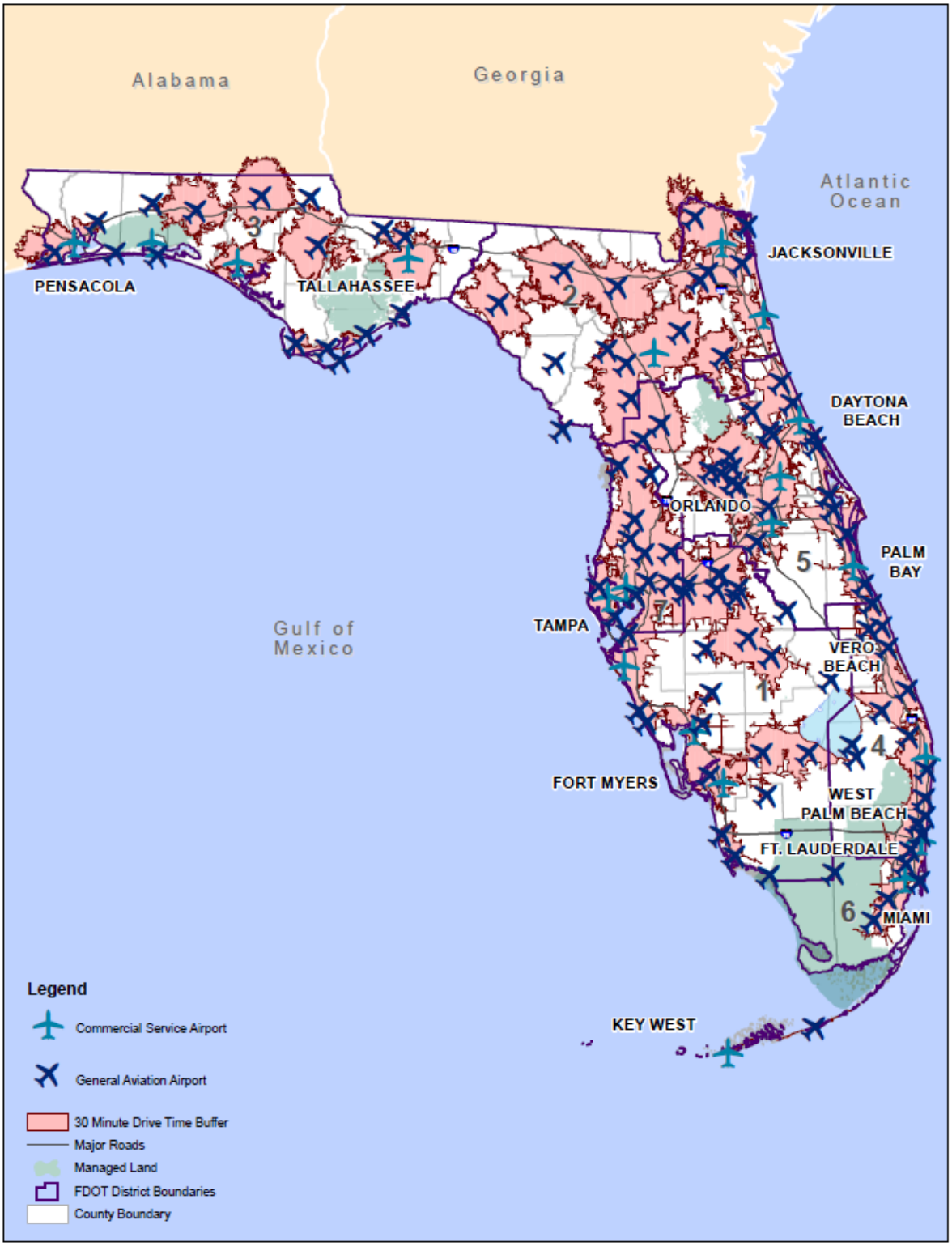


Source: National Flight Data Center (NFDC); Florida Aviation Database (FAD); Individual Airport Layout Plans (ALPs); AirNav.com; Kimley-Horn Analysis

- **Flight Training:** Based on the analysis presented in **Chapter 7 – System Analysis**, it was identified that 92 percent of Florida's current population, and a little less than 92 percent of its future population, lives or will live within a 30-minute drive of an airport with flight training activity. The analysis further described that Districts 1, 4, and 6 have significant coverage gaps although the population within these gap areas is relatively low (see **Figure 10-9**).

  Flight training is an extremely important facet of the aviation industry in Florida. Flight schools in Florida train more pilots than any other state in the U.S. Providing close, convenient access to airports with flight training is critical to the overall success of the industry, as well as an essential component of the future of aviation both in Florida and around the world. According to data from the Florida Aviation Database (FAD), 83 airports in Florida were identified as providing flight training services. While FDOT cannot dictate which airports provide flight training, it can support the activity through various channels and publications. It is recommended that throughout the 20-year planning horizon for FASP 2035, FDOT continue to support flight training and aviation-related careers and work with Districts to identify and communicate existing flight training opportunities to enhance interest in underserved areas and the state as a whole.

Figure 10-9: Airports with Flight Training Activity by FDOT District



Source: National Flight Data Center (NFDC); Kimley-Horn Analysis

10.7 IAT and SSGAT Recommendations

As part of the FASP 2035 Update, the current use of the IAT and SSGAT were evaluated for their role in assessing the services of airports as well as the ability of projects that are funded to fulfill the goals of the state. This section provides recommended future actions and polices related to the IAT and SSGAT as it relates to their use by both the FDOT ASO and FDOT District offices.

10.7.1 IAT Overview and Recommendations

FDOT created the IAT to categorize Florida's airports and assess airports' abilities to meet specific mission areas based on the measurements of various airport characteristics. Florida's 19 commercial service airports are assessed by the IAT in three categories[2]:

- Tourism (commercial service/business)[3]
- Air cargo
- Intercontinental service

The 109 GA airports in the state are assessed by the IAT in five categories:

- Flight training
- Corporate
- Tourism
- Recreational/Sport
- Business/Recreational

An example IAT analysis of a commercial service airport is provided in **Table 10-10**. As shown, the airport is scored by comparing the "airport service quotient" to the "optimal service quotient" which determines the "airport performance by role," given as a percentage of the "optimal service quotient." **Appendix D – Infrastructure Assessment Tool (IAT)** includes the results of the IAT analysis for FASP airports.

Table 10-10: IAT Output for a Commercial Service Airport

Airport Service Category	Optimal Service Quotient	Airport Service Quotient	Airport Performance by Role
Tourism (commercial service)	8.00	2.11	26%
Business	8.00	2.11	26%
Air Cargo	7.33	2.22	30%
Intercontinental Service	8.63	1.88	22%

Source: Florida Aviation Database (FAD)

[2] Florida currently has 20 commercial service airports. Northeast Florida Regional Airport is considered a GA airport in the existing IAT.
[3] For the purposes of this study, the tourism and business categories were evaluated jointly, as the optimal service quotients and infrastructure requirements are identical.

The IAT was originally developed by FDOT to be a tool that could monitor and quantify the ability of Florida's airports to serve users, and, as such, was incorporated into the FAD. Based on data collection efforts and review of the IAT, it was found that the purpose, value, and methodology behind the IAT is not clear. It was also identified that not only is there a lack of understanding on what the results of the IAT mean, but there is also a lack of understanding on the data inputs that went into it, when they were input, how they were input, and even how to update it. Based on discussions with the FDOT ASO, it is recommended that the IAT no longer be utilized or displayed in the FAD. The data that is presented portrays incorrect and inconsistent information that does not benefit FDOT or the airports. In addition to not being useful, the information provided by the IAT is often misleading and can result in an incorrect perception of the service level of an airport.

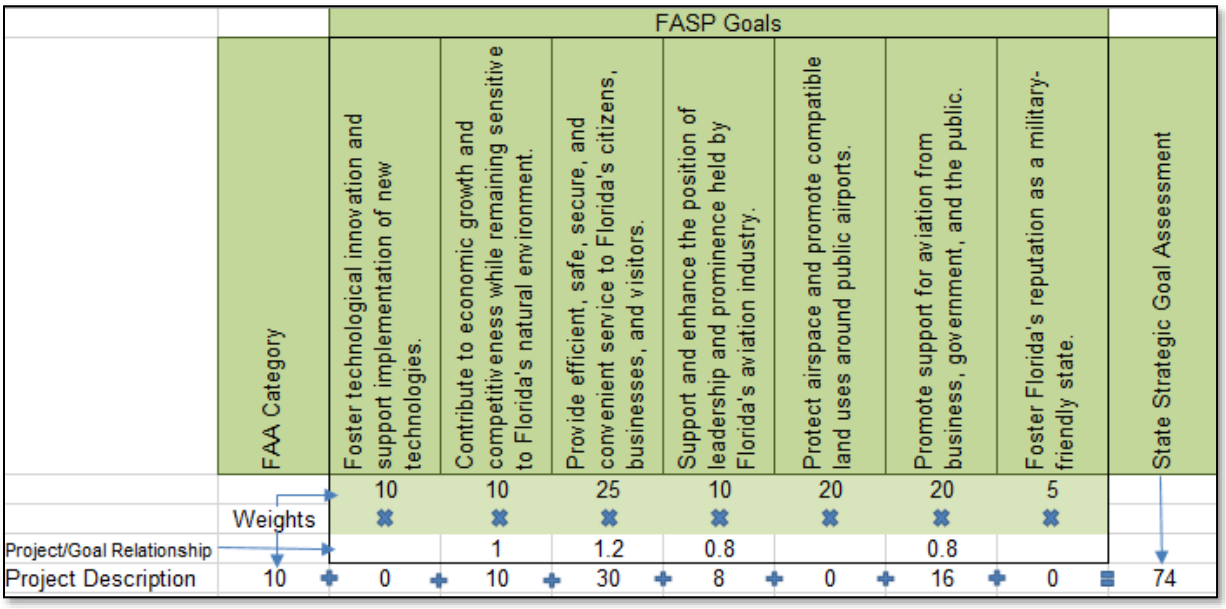
10.7.2 SSGAT Overview and Recommendations

As noted in **Chapter 9 – Funding**, the SSGAT was developed as part of the FASP 2025 Update to evaluate projects that are entered in the JACIP. The SSGAT uses a weighted matrix to assess how well each airport project entered in the JACIP addresses the goals established by the FASP.

The SSGAT was designed to help evaluate different project types based on their FAA project categories and ability to support the goals of the FASP. Within the SSGAT, each FAA project category and FASP goal was assigned a "weight" that prioritizes projects that best support these goals. FAA project category weights are static while FASP goal values are adjusted based on the ability of a specific project to accomplish the goals of the FASP. Projects are evaluated for their relationship to the FASP goal categories with options of selecting high, medium, or low relationships that have associated weights of 1.2, 1.0, and 0.8, respectively. If a project has no correlation, it receives a weight of zero for that FASP goal category. These weights are then multiplied by the value for the FASP goal to derive the total score relative to the relationship of the project to the FASP goal categories.

Figure 10-10 provides a screenshot of the SSGAT and a sample project evaluation. A detailed overview of the SSGAT is provided in **Chapter 9 – Funding**.

Figure 10-10: SSGAT Tool Screenshot



Source: Florida Aviation System Plan (FASP) Phase I Analysis, May 2016

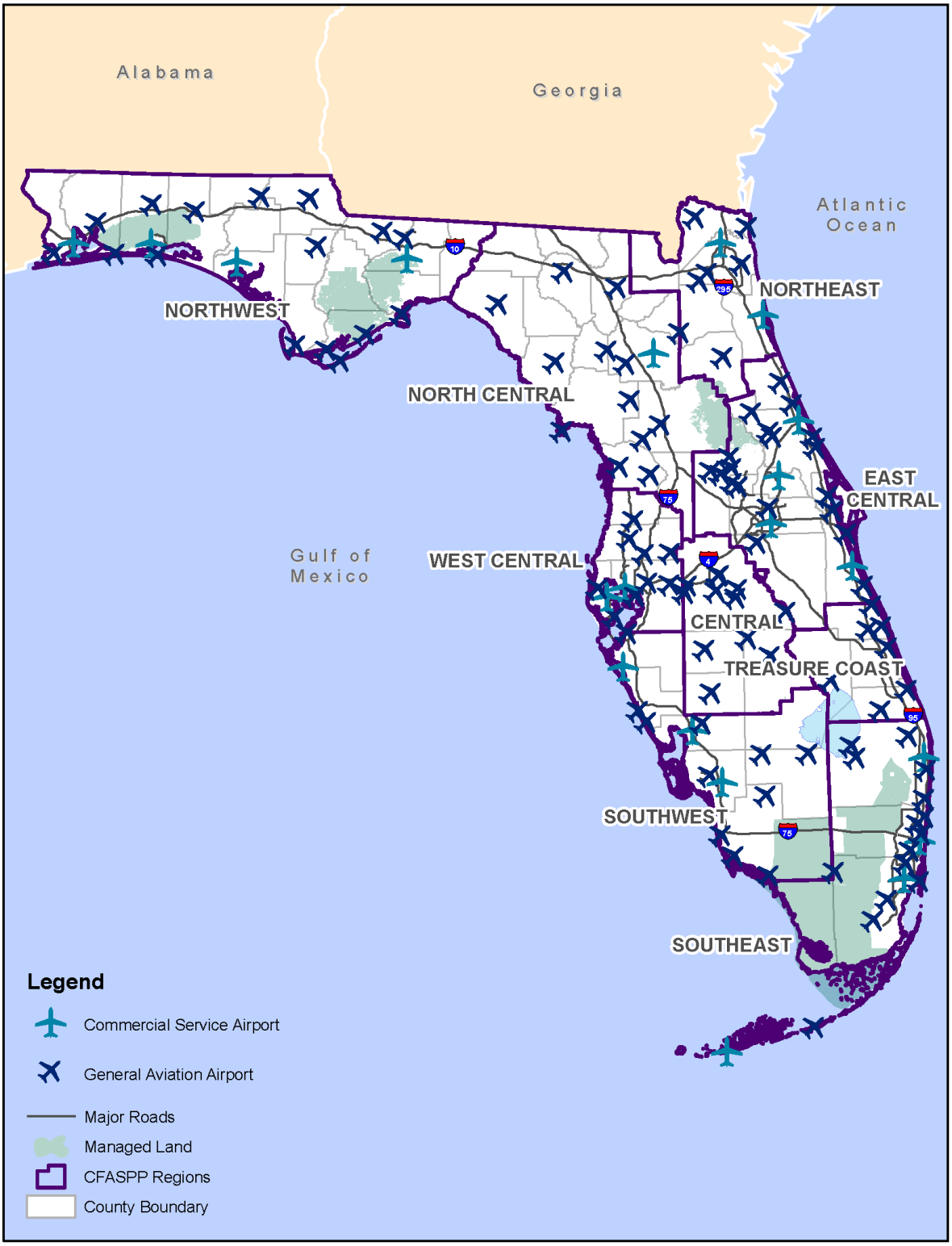
The SSGAT was not developed to be a critical determinant in project funding; rather, it was developed to be an additional data element to consider the viability of a proposed project. Currently, use of the SSGAT differs greatly between FDOT District offices, though more of an emphasis was placed on its consideration based on the findings from an internal audit at FDOT. Therefore, it is recommended that FDOT continue to use the SSGAT to aid in assessing the potential of applying state funds to a specific project and to promote the development of projects that support the goals of the FASP. Promotion of the SSGAT could be achieved through presentations at FDOT District aviation staff meetings, including discussions of how the tool is best implemented. It is also important that all SSGAT users understand the tool and are using it consistently. During the review of the SSGAT and comparison of JACIP requests to the 2017 – 2021 Work Program allocations, it was found that users may be making different selections for the same projects resulting in different SSGAT scores. It is further recommended that the FASP goals included in the tool be updated to reflect the goals established in this FASP 2035 Update.

10.8 CFASPP Recommendations/Enhancements

As discussed in **Chapter 3 – Airport System and Classifications,** Florida has the most established continuous system planning process in the nation. Instituted in the 1980s, the CFASPP provides the FDOT ASO, FAA, airports, and aviation stakeholders the opportunity to offer input, obtain information, and coordinate activities that are relevant to implementing the FASP and maintaining the statewide airport system. The goal of establishing CFASPP was to continue the statewide planning effort conducted by the FDOT ASO, providing a process to help preserve a viable statewide aviation environment. CFASPP utilizes an extensive outreach program, including a comprehensive website and a structured series of meetings that are conducted at the regional and statewide levels to discuss FDOT's planning efforts, processes, and results, as well as airports' needs and issues. The program allows for the continuous monitoring of the aviation environment, including determining the development requirements needed to meet projected aviation demands.

Through a committee structure comprised of airport representatives, the state has identified nine centers of aviation activity. Each center is referred to as a CFASPP "region" or "metropolitan area" (MA). A CFASPP region is an area containing several communities with common aviation ties to each other due to geographic and economic characteristics. A CFASPP MA is an area of the state with interrelationships between airports that have a common economic base due to contiguous urban development. The CFASPP contains five regions and four MAs. The current CFASPP boundaries and names are presented in **Figure 10-11**. The determination of which airports are within each region or MA is made by each airport sponsor who can petition to change from one region or MA to another based on their ties to other areas, whether due to economic activity or geographic characteristics.

Figure 10-11: CFASPP Boundaries



Source: Florida Department of Transportation (FDOT); Kimley-Horn Analysis

Each of the nine CFASPP regions and MAs have a Regional CFASPP Steering Committee; these nine committees each have an elected chairperson that also serves as the region's representative on the Executive Statewide Committee. Each committee establishes its own meeting agendas and is responsible for coordinating with the CFASPP Administrator on meetings. Each year three rounds of regional meetings are held along with three statewide meetings. CFASPP utilizes a website to publicize information relative to the Florida aviation system, the CFASPP meetings, and other relevant information.

The CFASPP activities were evaluated as part of another activity prior to the FASP 2035 Update to determine if changes were needed to support the ongoing efforts to maintain the aviation system. The evaluation focused on the following, each of which are discussed in the next sections:

- Number of meetings
- Outreach efforts
- CFASPP website updates
- CFASPP boundaries

10.8.1 Number of Meetings

The results of the prior evaluation of the CFASPP activities, which were discussed with CFASPP participants during regional meeting rounds and at a statewide meeting several years ago, identified that the current process of holding three rounds of meetings with each CFASPP region or MA and three statewide meetings held at the conclusion of the regional meetings continues to be most appropriate. Fewer meetings would not provide sufficient opportunities to be effective and more meetings would not be productive. It was also determined that the meetings should continue to be held in person, although opportunities for participants to teleconference are suggested for listening purposes.

10.8.2 Outreach Efforts

Several of the outreach methods, primarily focused on the CFASPP website, were updated as part of the FASP 2035 Update. Improvements to the CFASPP calendar, meeting invitations, online surveys to gauge meeting participation, and opportunities to submit airport-related activities and relevant news to a statewide calendar were included in the FASP 2035 Update to allow for continued engagement to promote the study's findings and obtain input. These changes were vetted through coordination with the FASP 2035 Update's CRT, whose members included representatives of all CFASPP regions and MAs as well as FDOT District offices and the FAA. The CRT noted that the current CFASPP process served the state's airport system well and that, other than changes to the website and outreach efforts, should continue to be maintained as is. The CFASPP was noted to provide significant value by meeting participants, and most indicated that they were happy with the current format and organization.

10.8.3 CFASPP Website Updates

In addition to the CFASPP website updates noted in the previous section, other updates are needed to continue to provide meaningful information on the continuous planning process, including the implementation progress of FASP recommendations. Specifically, the FASP component of the CFASPP website and the FDOT ASO website should be updated to reflect the final FASP 2035 Update outcomes and deliverables. To the extent possible, the FASP pages and information should be the same between CFASPP and FDOT ASO websites to provide a consistent message of the importance of aviation to stakeholders statewide.

The CFASPP website serves as an implementation and communication mechanism for the FASP and should continue to be updated to reflect FASP results as well as other study findings conducted by the FDOT ASO under the continuous planning umbrella. Similarly, the FDOT ASO's website should reflect the ongoing and completed activities conducted to support the aviation stakeholders in the state and beyond.

10.8.4 CFASPP Boundaries

While the general CFASPP process was deemed to be working to meet the needs of airports in the planning process, the FDOT ASO noted that a review of CFASPP boundaries was needed to determine if the boundaries should be tied to other existing geographical categorizations such as FDOT Districts or Florida Economic Development Council (FEDC) regional boundaries. These boundaries are compared to CFASPP boundaries in the following sections.

10.8.4.1 FDOT District Boundaries

FDOT uses Districts for funding purposes and coordination of activities. FDOT is decentralized in accordance with legislative mandates, with a Central Office and seven Districts that are responsible for maintaining a balanced state transportation system to serve all areas of the state. Each District is managed by a District Secretary, with similar organizational structures that include divisions such as administration, planning, production, and operations. Each District has a District Aviation Coordinator to assist airports with aviation grant program implementation, including developing and funding capital projects, implementing the FASP, and providing technical assistance and help with local governmental coordination and stakeholder outreach. **Figure 10-12** depicts the locations of airports within the seven FDOT Districts.

Due to the allocation and distribution of funding to Districts, this FASP 2035 Update utilized Districts in the evaluation of the system's performance and needs (reviewed in **Chapter 7 – System Analysis**). While crosswalks are provided within the plan to CFASPP regions and MAs, the Districts were the primary regional divisions analyzed in this FASP 2035 Update.

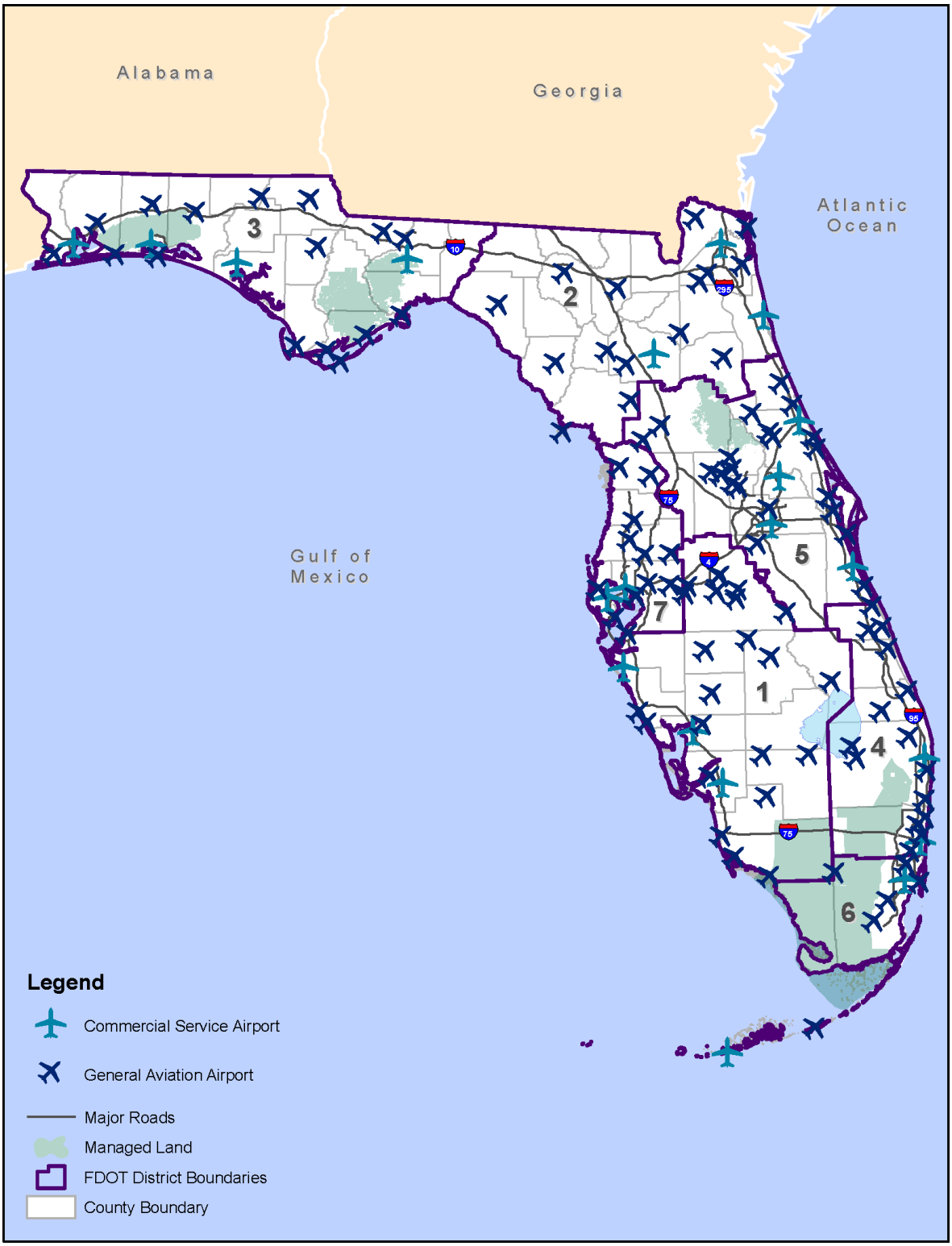
There are seven Districts compared to nine CFASPP regions. While there are many overlaps between the boundaries of each, the primary differences between the boundaries include:

- All Central CFASPP airports are in District 1
- All Southwest CFASPP airports are included in District 1
- Treasure Coast CFASPP airports are included in Districts 1 and 4

- All Northeast CFASPP airports are in District 2
- North Central CFASPP airports are included in Districts 2, 5, and 7
- All Northwest CFASPP airports are in District 3
- Southeast CFASPP airports are included in Districts 4 and 6
- All East Central CFASPP airports are in District 5
- All West Central CFASPP airports are included in District 7

Overall, the North Central and Southeast CFASPP boundaries would be most affected if FDOT District boundaries were used to define CFASPP boundaries.

Figure 10-12: FDOT District Boundaries



Source: *Florida Department of Transportation (FDOT); Kimley-Horn Analysis*

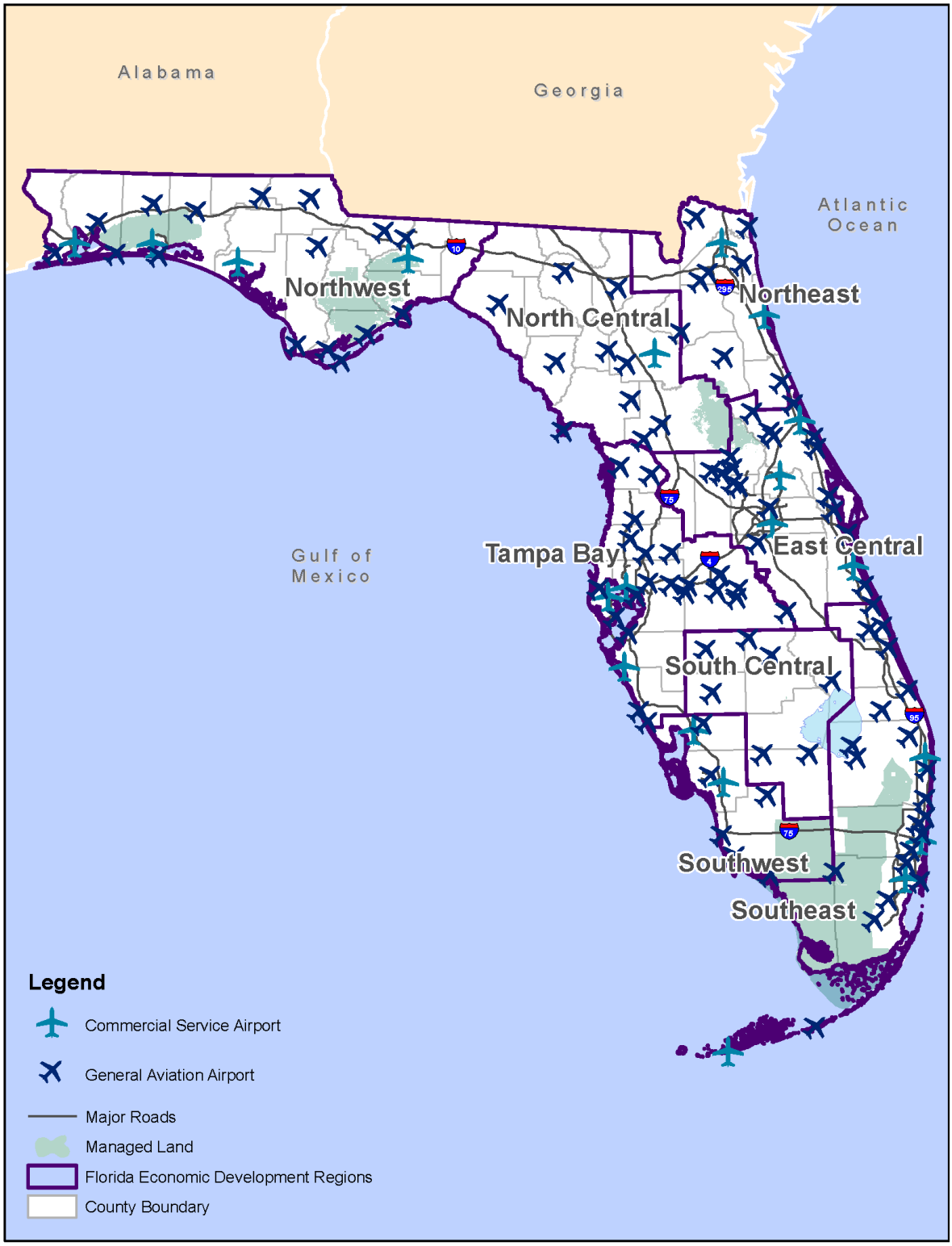
10.8.4.2 Florida Economic Development Regions

Another set of boundaries—FEDC regions—was examined for potential relevance to organizing Florida's airports based on economic conditions. The eight FEDC boundaries are shown in **Figure 10-13**. These regions were established to reflect commonalities between economic development opportunities. While similar to both CFASPP and FDOT District boundaries, there are also a number of differences, specifically:

- Central CFASPP airports are in the South Central and Tampa Bay FEDC regions
- All but one East Central CFASPP airports are in the East Central FEDC region (Flagler Executive Airport is in Northeast FEDC)
- All but two North Central CFASPP airports are included in the North Central FEDC region (Crystal River-Captain Tom Davis Field and Inverness Airport are in the Tampa Bay FEDC region)
- All Northeast CFASPP airports are in the Northeast FEDC region
- All Northwest CFASPP airports are in the Northwest FEDC region
- All Southeast CFASPP airports are included in the Southeast FEDC region
- Southwest CFASPP airports are included in the South Central, Southwest, and Tampa Bay FEDC regions
- Treasure Coast CFASPP airports are included in the South Central and Southeast FEDC regions
- All West Central CFASPP airports are included in the Tampa Bay FEDC region

Overall, the Southwest and Treasure Coast CFASPP boundaries would be most impacted if FEDC boundaries were utilized for the CFASPP.

Figure 10-13: Florida Economic Development Regional Boundaries



Source: Florida Department of Transportation (FDOT); Kimley-Horn Analysis

10.8.5 CFASPP Summary

The evaluation of the CFASPP identified that the general process, outreach efforts, and outcomes of the CFASPP are perceived to be adequate by the participants. Additional evaluation of the CFASPP boundaries identified the potential impacts of changing the boundaries, but further analysis and coordination with CFASPP committees is needed prior to determining the effectiveness of such a change.

10.9 Follow-On Study Needs

Throughout the development of the FASP 2035 Update, a significant amount of data was collected on the aviation system. During this process, additional data opportunities became apparent in which information was unavailable or data was collected and compiled in an inconsistent manner. Further, development of the FASP 2035 also led to the identification of additional projects and/or studies that would support the continued implementation of the FASP and support FDOT's overall transportation system. Seven project concepts were developed for future integration, including (listed in order of priority of completion):

1. **Statewide airport resiliency and disaster response assessment** to identify infrastructure, environmental, and planning considerations relevant to increasing an airport's resiliency related to natural and man-made situations, climate trends, and Florida-specific considerations. This assessment will also identify those services and facilities needed to make an airport effective and responsive during and immediately after a natural disaster. A statewide gap analysis should be conducted by airport and minimum disaster response-related infrastructure, equipment, facilities, and services should be identified by airport type.
2. **Business suitability study** to identify gaps and opportunities at airports, including commercial air service enhancements, and develop facility, infrastructure, and service guidelines for various types of business needs by airport size and role.
3. **Replace the FAD** with new, modernized tools and technology solutions. This process will start by developing an asset management framework that evaluates the value and use of data currently maintained, as well as data maintenance needs for various management support activities. Additional components have also been identified for future integration into the FAD.
4. **Detailed capacity study** looking specifically in FDOT Districts 4, 5, and 6.
5. **Facility, infrastructure, and service guidelines** for lower-activity GA airports to assist airports make project and funding decisions by establishing criteria to be used during evaluation processes.
6. **Develop a statewide roadmap to address airport wildlife hazards for non-Part 139 airports** to identify statewide actions and recommendations for airports to conduct wildlife site visits or wildlife hazards assessments and to provide guidance for effective wildlife management to improve the safety of Florida's 102 non-Part 139 airports.
7. **RPZ ownership data compilation** to help identify incompatible land uses within and the land ownership of these safety areas.

8. **CFASPP boundary evaluation** to determine if the existing delineations continue to be the most appropriate divisions for statewide planning efforts.

To support the initiation of these follow-on studies, white papers have been developed for each one that details the need for the project, anticipated benefits, a cursory literature review, and more. These white papers are included in **Appendix E – Follow-On Study White Papers.**

10.10 Summary

This collection of recommendations is a result of a collaborative effort between the FDOT ASO and stakeholders to identify opportunities for system enhancement. Areas for improvement within the Florida aviation system, along with other programs and processes that complement the continuous system planning effort, were revealed during the study. The recommendations included in this Chapter will help guide and inform the FDOT ASO, airport sponsors, FAA, and aviation stakeholders in planning facility, service, and program enhancements moving forward.