2. Inventory

2.1 Overview

Alabama's system of airports consists of 80 airports ranging in size from large commercial service facilities to small rural airstrips. These airports are important assets in supporting Alabama's economic development by providing safe and efficient access to the state's communities, businesses, recreational areas, and its abundant natural resources. Alabama's airports connect people and goods at local, national, and global levels – and in today's world economy, this connectivity is critical for Alabama's economic future.

Most airports are comprised of both airside and landside development, with airside including runways, taxiways, navigational aids, weather reporting equipment, and various lighting. Landside development is generally made up of passenger terminals (both commercial and general aviation), hangars, aircraft parking, other airport facilities, automobile access and parking, businesses, and concessions. This chapter of the Alabama Statewide Airport System Plan (AL SASP) presents summary reviews of these facilities' key characteristics. A part of this study, a detailed inventory was conducted with key data being collected, vetted and summarized here. Some of the key findings include:

- The longest runway in Alabama is located in Huntsville and measures 12,600 feet in length.
- Over 80 percent of airports have fuel for aircraft and half of Alabama's airports offer self-serve credit card fueling for pilots.
- Over half of Alabama airports (58 percent) have vertical guidance approaches, the most stringent available.
- Half of the airports in the state have important weather reporting equipment.
- Over 50 airports have had an airport master plan completed since 2005.
- Three quarters of all 80 system airports have a general aviation terminal or FBO terminal.

2.2 Introduction

The inventory effort for the AL SASP documents existing facilities and conditions for all airports included in the state airport system. Data collected during the inventory process is used throughout the study to complete various evaluations and to formulate final study recommendations. Information gathered during the inventory is used to project future demand, determine the adequacy of current system performance, identify airport-specific facility and service improvements, and develop recommendations for the future airport system. Data summarized in this chapter includes current conditions as they relate to:

- Aviation Activity: based aircraft and annual general aviation operations for all study airports (tables found in **Chapter 3, Projections of Demand**).
- Airside Facilities: runways and taxiways;
- Navigational, Approach, and Landing Aids: facilities that support airport usage during periods of reduced visibility or at night;
- Landside Facilities/Services: fixed base operators (FBOs), on-site maintenance, and other passenger/aircraft services, as well as aircraft parking and automobile parking (spaces available to accommodate airport users); and
- Airport Planning Documents: airport master plan and airport layout plans (ALPs).

The data collection process to support the inventory effort started in late 2018 and continued into late 2019. The data in this report reflects airport conditions at that time.

2.3 Data Collection Process

The inventory collected information from the 80 commercial service and general aviation study airports using multiple means and resources, including survey/questionnaires, on-site visits, phone interviews, and other secondary sources. An online inventory questionnaire was created and emailed to each airport to begin the inventory process. This questionnaire asked for information regarding runways, taxiways, airport visual aids, weather reporting/communication systems, airport services, hangar space/tie-down/aircraft parking, based aircraft, and aircraft operations. To the extent possible, current data from the following sources was also used to both complete the inventory and to verify information needed to support the AL SASP's analysis:

- Federal Aviation Administration (FAA) Form 5010, Airport Master Record
- FAA Airport/Facilities Directory
- FAA National Based Aircraft Inventory Program
- AirNav.com
- Individual Airport Master Plans / Airport Layout Plans
- Alabama Department of Transportation (ALDOT) Aeronautics Bureau databases
- Alabama 2004 State Airport System Plan
- Alabama Airport Directory

A copy of the inventory questionnaire used to collect information for this study is contained in **Appendix A**. Once all data was collected and verified, a database was prepared and furnished to the ALDOT Aeronautics Bureau to help facilitate future updates.

2.4 Existing Airport System

Alabama's existing airport system is comprised of 80 public use airports, all of which are publicly owned. As shown in **Table 2-1**[1] and **Figure 2-3**, the system consists of six commercial service airports and 74 general aviation airports. The carrier serving Muscle Shoals (MSL) is operating with the assistance of an operating subsidy from the federally funded Essential Air Service (EAS) program.

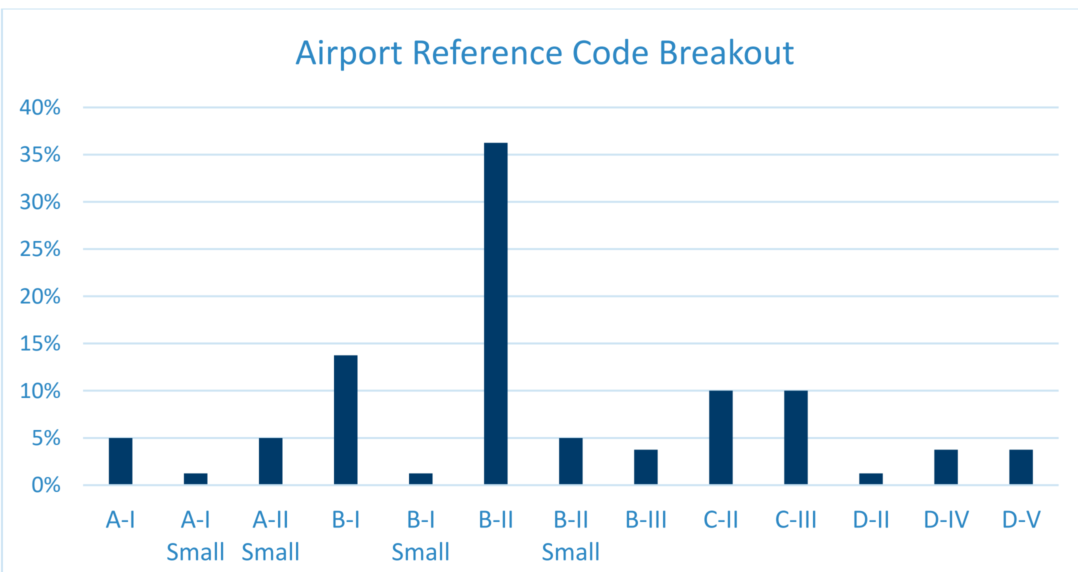
To provide additional depth and to help characterize the nature of the individual system airports, each airport's FAA Airport Reference Code (ARC) has also been provided. The FAA utilizes the ARC coding system to relate airport design criteria to the operational and physical characteristics of the types of aircraft intended to operate at that airport. Specifically, the ARC is a two-character code consisting of the Aircraft Approach Category and the Airplane Design Group (see **Appendix B** for additional information). Generally, the higher the letter designation for the Approach Category and the higher the Roman numeral for the Design Group, the larger the aircraft that the airport is designated to accommodate. **Figure 2-1** presents representative aircraft for some of the more common ARCs. As shown below, aircraft in Approach Category "A" and Design Group "I" are small general aviation aircraft. Most general aviation aircraft seldom exceed Approach Category "C". Aircraft above Approach Category C are typically commercial service aircraft. The ARCs for the Alabama Airport System are summarized in **Figure 2-2**. Note that 36 percent of Alabama airports are in the B-II ARC category which generally is representative of a small- to mid-sized business aircraft.

[1] All tables in this chapter present airports in two categories, General Aviation and Commercial Service, and are alphabetized by associated city.

Figure 2-1: ARC Representative Aircraft Types

Source: Jviation

Figure 2-2: ALDOT Aeronautics Bureau Airport System Breakdown by ARC



Source: Airport Manager Survey, ALDOT Aeronautics Bureau

Table 2-1: Existing Alabama System Airports

City	Airport Name	FAA ID	ARC
Commercial Service Airports			
Birmingham	Birmingham-Shuttlesworth International	BHM	D-IV
Dothan	Dothan Regional	DHN	D-IV
Huntsville	Huntsville International-Carl T Jones Field	HSV	D-IV
Mobile	Mobile Regional	MOB	D-V
Montgomery	Montgomery Regional (Dannelly Field)	MGM	D-V
Muscle Shoals	Northwest Alabama Regional	MSL	C-III
General Aviation Airports			
Abbeville	Abbeville Municipal	0J0	B-I
Addison	Addison Municipal	2A8	A-I
Alabaster	Shelby County	EET	B-II Small
Albertville	Albertville Regional-Thomas J Brumlik Field	8A0	C-II
Alexander City	Thomas C Russell Field	ALX	B-II
Aliceville	George Downer	AIV	B-I
Andalusia/Opp	South Alabama Regional at Bill Benton Field	79J	C-III
Anniston	Anniston Regional	ANB	C-III
Ashland/Lineville	Ashland/Lineville	26A	A-I
Atmore	Atmore Municipal	0R1	B-II
Auburn	Auburn University Regional	AUO	C-II
Bay Minette	Bay Minette Municipal	1R8	B-II
Bessemer	Bessemer	EKY	B-II
Brewton	Brewton Municipal	12J	B-II
Butler	Butler-Choctaw County	09A	B-I
Camden	Camden Municipal	61A	B-I Small
Centre	Centre-Piedmont-Cherokee County Regional	PYP	C-II
Centreville	Bibb County	0A8	B-II Small
Chatom	Roy Wilcox	5R1	A-II Small
Clanton	Chilton County	02A	B-II
Clayton	Clayton Municipal	11A	B-II
Courtland	Courtland	9A4	B-II
Cullman	Cullman Regional-Folsom Field	CMD	B-I
Dauphin Island	Jeremiah Denton	4R9	B-I

Table 2-1: Existing Alabama System Airports

City	Airport Name	FAA ID	ARC
Decatur	Pryor Field Regional	DCU	C-III
Demopolis	Demopolis Regional	DYA	B-II
Double Springs	Double Springs-Winston County	3M2	B-II Small
Elba	Carl Folsom	14J	B-I
Enterprise	Enterprise Municipal	EDN	B-II
Eufaula	Weedon Field	EUF	C-II
Evergreen	Evergreen Regional - Middleton Field	GZH	B-II
Fairhope	H L Sonny Callahan	CQF	C-II
Fayette	Richard Arthur Field	M95	B-II
Florala	Florala Municipal	0J4	B-I
Foley	Foley Municipal	5R4	B-II
Fort Payne	Isbell Field	4A9	B-II
Gadsden	Northeast Alabama Regional	GAD	C-III
Geneva	Geneva Municipal	33J	A-I Small
Greensboro	Greensboro Municipal	7A0	A-II Small
Greenville	Mac Crenshaw Memorial	PRN	B-II
Gulf Shores	Jack Edwards National	JKA	C-III
Guntersville	Guntersville Municipal - Joe Starnes Field	8A1	B-II
Haleyville	Posey Field	1M4	B-III
Hamilton	Marion County-Rankin Fite	HAB	B-II
Hartselle	Hartselle-Morgan County Regional	5M0	B-I
Headland	Headland Municipal	0J6	B-II
Huntsville	Huntsville Executive Airport Tom Sharp Jr Field	MDQ	C-III
Jackson	Jackson Municipal	4R3	B-I
Jasper	Walker County-Bevill Field	JFX	B-II
Lanett	Lanett Municipal	7A3	B-II
Luverne	Frank Sikes	04A	A-I
Marion	Vaiden Field	A08	C-II
Mobile	Mobile Downtown	BFM	D-V
Monroeville	Monroe County	MVC	B-II
Oneonta	Robbins Field	20A	A-I
Ozark	Ozark Airport - Blackwell Field	71J	B-II

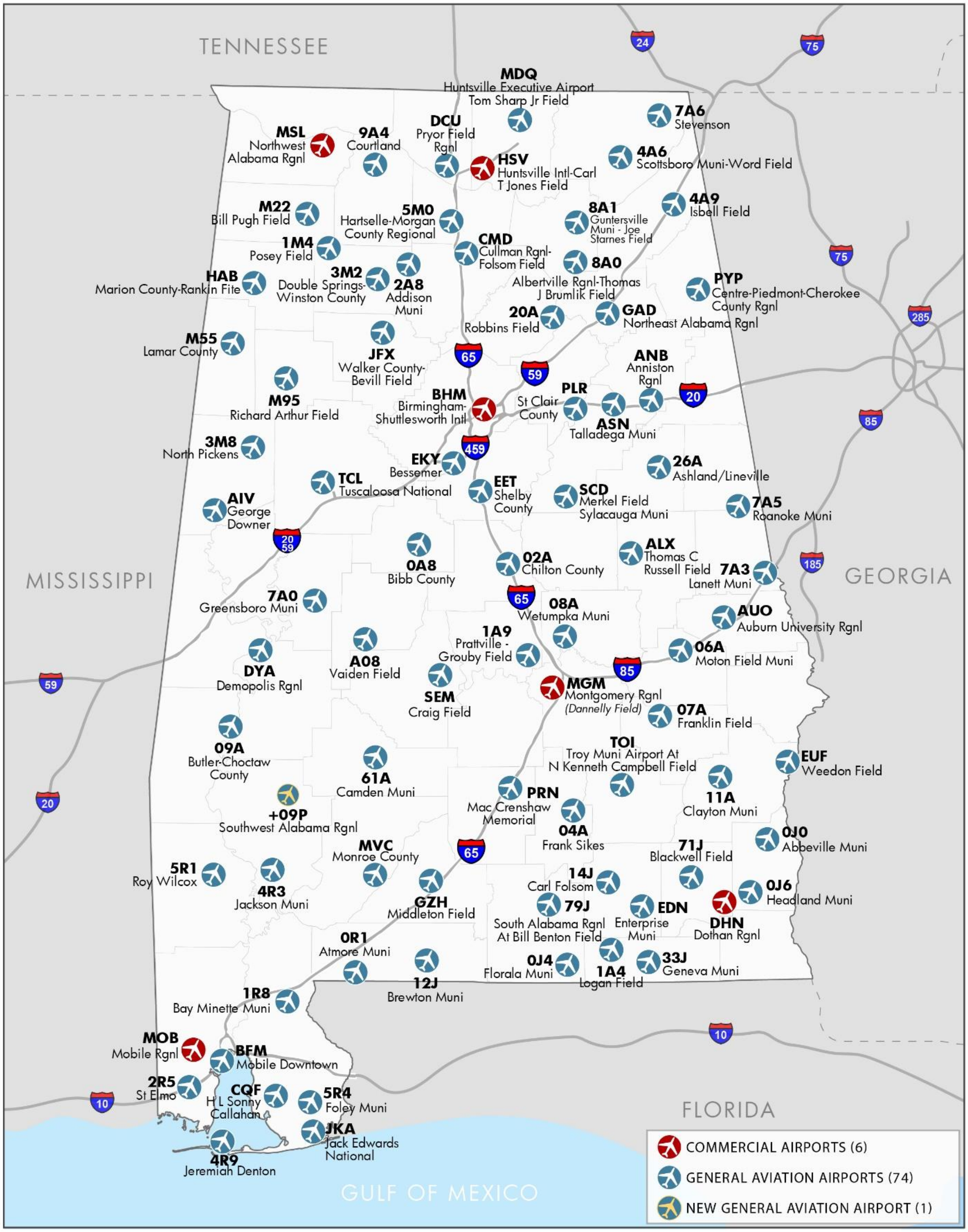
Table 2-1: Existing Alabama System Airports

City	Airport Name	FAA ID	ARC
Pell City	St Clair County	PLR	B-II
Prattville	Prattville - Grouby Field	1A9	B-III
Reform	North Pickens	3M8	B-I
Roanoke	Roanoke Municipal	7A5	B-I
Russellville	Bill Pugh Field	M22	B-II
Samson	Logan Field	1A4	B-II Small
Scottsboro	Scottsboro Municipal-Word Field	4A6	B-II
Selma	Craig Field	SEM	D-II
St Elmo	St Elmo	2R5	B-II
Stevenson	Stevenson	7A6	A-II Small
Sylacauga	Merkel Field Sylacauga Municipal	SCD	C-II
Talladega	Talladega Municipal	ASN	C-II
Troy	Troy Municipal Airport at N Kenneth Campbell Field	TOI	B-II
Tuscaloosa	Tuscaloosa National	TCL	C-III
Tuskegee	Moton Field Municipal	06A	B-II
Union Springs	Franklin Field	07A	A-II Small
Vernon	Lamar County	M55	B-II
Wetumpka	Wetumpka Municipal	08A	B-II

Source: Airport Manager Survey, ALDOT Aeronautics Bureau

It should be noted that in addition to the 80 existing airports included in the Alabama Airport System, a future general aviation airport has also been included. Announced by the FAA in November 2019, the future Southwest Alabama Regional Airport is planned to be located in Clarke County to enhance system efficiency and meet the transportation needs of the region.

Figure 2-3: ALDOT Aeronautics Bureau Airport System - Commercial and General Aviation Airports



Source: ALDOT Aeronautics Bureau, Jviation

2.5 System Airport Aviation Activity and Based Aircraft

Data for operations and based aircraft was collected for each airport during the inventory process from various FAA data sources. Operational data (aircraft takeoffs and landings) are essential to determining future airport needs within a state system plan. Aircraft activity for the study airports is discussed briefly in the following sections. Current and historical operational data as well as current demand for each study airport can be found in **Chapter 3, Projections of Demand**.

Regarding the accuracy of airport operational data, it should also be noted that airports with air traffic control towers (ATCT) provide the most accurate takeoffs and landings counts. At airports without a tower, annual operations are typically considered to be "best estimates" of annual activity, based on airport representatives' experience and knowledge of their airport's activity[2]. Of the 80 airports in the state system, eight airports currently have air traffic control towers with an additional tower scheduled to come online in 2021:

- Birmingham-Shuttlesworth International (BHM)
- Dothan Regional (DHN)
- Huntsville International (HSV)
- Mobile Downtown (BFM)
- Mobile Regional (MOB)
- Montgomery Regional (MGM)
- Troy Municipal at N Kenneth Campbell Field (TOI)
- Tuscaloosa National (TCL)
- Jack Edwards National (JKA)[3]

Based aircraft represent those aircraft that are permanently stored at an airport. Storage for based aircraft is typically distributed between hangars and paved tie-down spaces. Beginning in 2007, FAA undertook a more stringent program for airports to report their individual counts of based aircraft. FAA implemented this program to record based aircraft by actual "N" number (the N number is specific to each aircraft and is displayed on the plane).

The program was needed because multiple airports were reporting the same aircraft as being based at their airports, leading to double counting of general aviation aircraft in the United States fleet. When this FAA program was implemented, the number of based aircraft reported at many airports within the United States showed a decrease. In reality, the based fleet did not shrink, but with the elimination of double and triple counting of the same aircraft, the number of active aircraft in the United States fleet showed contraction. Current and historical based aircraft for each study airport are reported in **Chapter 3, Projections of Demand**.

2.6 System Airport Airside Facilities

The study inventoried each airport's airside facilities and collected relevant data for existing runways, taxiways, and lighting at study airports. This information is used throughout the study to determine the ability of study airports to meet facility objectives associated with their role in the state airport system.

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[2] This "best estimate" approach can also include some airports with air traffic control towers since many operate fewer than 24 hours a day.

[3] Jack Edwards National Airport in Gulf Shores is scheduled to open a new air traffic control tower (ATCT) in 2021.

2.6.1 Primary Runway Information

Runway information collected through the inventory process includes the following elements:

- Primary Runway Identification
- Runway Dimensions
- Runway Surface Type
- Runway Lighting
- Runway Approach Lighting

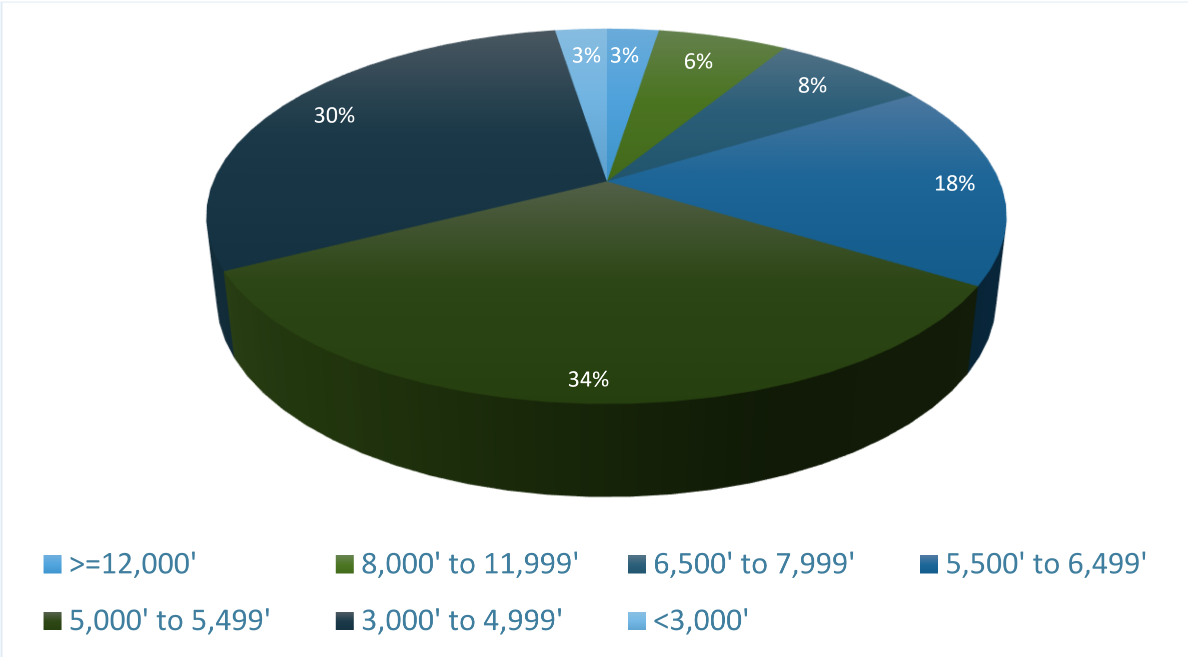
It should be noted that the focus of this effort was on an airport's primary runway, although many airports in Alabama's airport system also have one or more secondary runways. A secondary or crosswind runway is intended to complement a primary runway where less than the recommended 95 percent wind coverage is provided for the aircraft forecast to use the airport on a regular basis. For the AL SASP, primary runways were determined to be the focus of the study since their design, operational capabilities, and maintenance (as well as associated funding requirements) is most critical to the effectiveness and sustainability of the airport system.

Considered to be one of the most critical physical facility elements of an airport, runway lengths are generally related to the operational characteristics of the most demanding aircraft type to operate regularly at an airport. **Figure 2-4** summarizes runway lengths at Alabama airports. A total of 66 percent of system airports currently have a primary runway of at least 5,000 feet with Huntsville International Airport (HSV) having the longest runway in the state at 12,600 feet. Over 34 percent of all airports (27 airports) have a primary runway between 5,000 and 5,499 feet with another 30 percent of airports (24 airports) have a primary runway between 3,000 feet and 4,999 feet. Only 3 percent (2 airports) in Alabama have a primary runway less than 3,000 feet in length with Addison Municipal Airport (2A8) having the shortest primary runway in the state at 2,644 feet. **Figure 2-6** presents a graphical representation of the geographic location of runway lengths at Alabama airports.

Runway widths also vary among the airports. Most NPIAS airports that are publicly owned are eligible to compete for FAA grants and hence must comply with FAA design standards. For Non-NPIAS airports, the ALDOT Aeronautics Bureau makes efforts to follow FAA standards when feasible. According to FAA design standards, 60 feet is the minimum width for any runway. As **Figure 2-5** shows, all of the 80 study airports have a current runway width greater than 60 feet. In subsequent portions of this study, the adequacy of current runway lengths and widths is considered based on the airport's role in the state system. Note that 16 percent of all airports (13 airports) have a primary runway width of 150 feet while 34 percent (27 airports) have a width between 100 and 149 feet. Another 34 percent have a runway width between 80 and 99 feet, while 15 percent of airports (12 airports) have a runway width of 75 to 79 feet. Only one system airport has a primary runway width less than 75 feet.

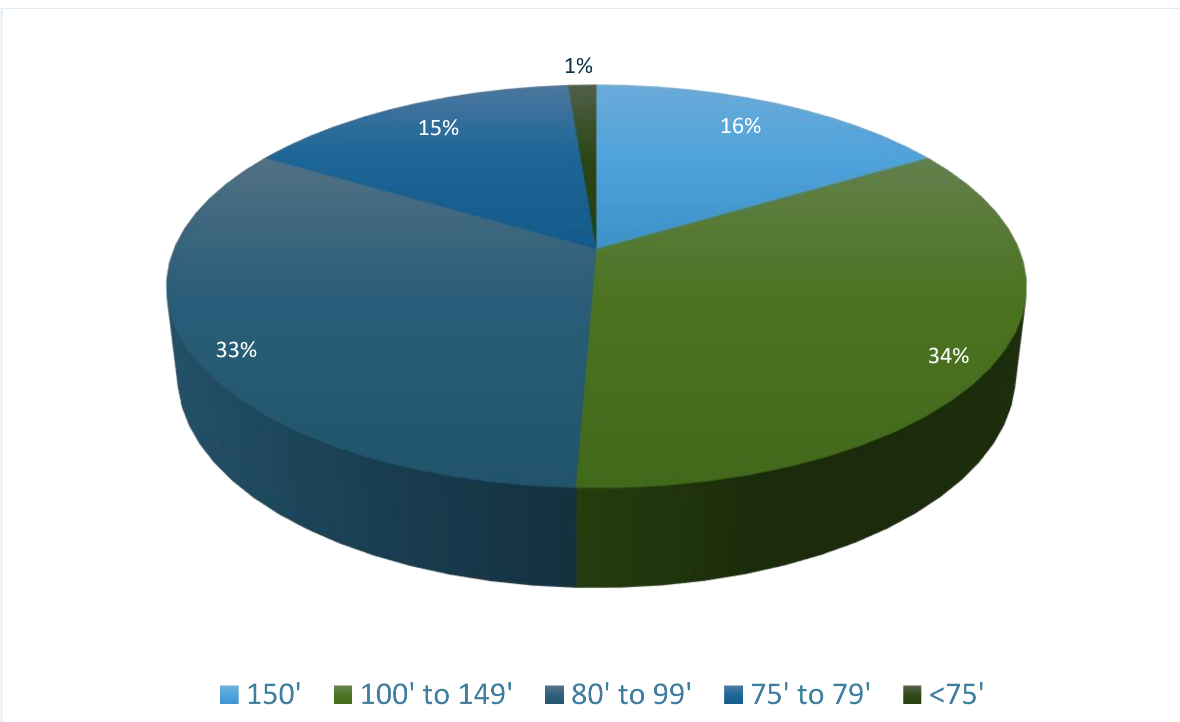
Note that the entirety of the primary runway data collected as part of this effort (including other data elements) is reported in **Appendix B, Table B-1.**

Figure 2-4: Summary of Runway Lengths (in Feet) for Alabama System Airports



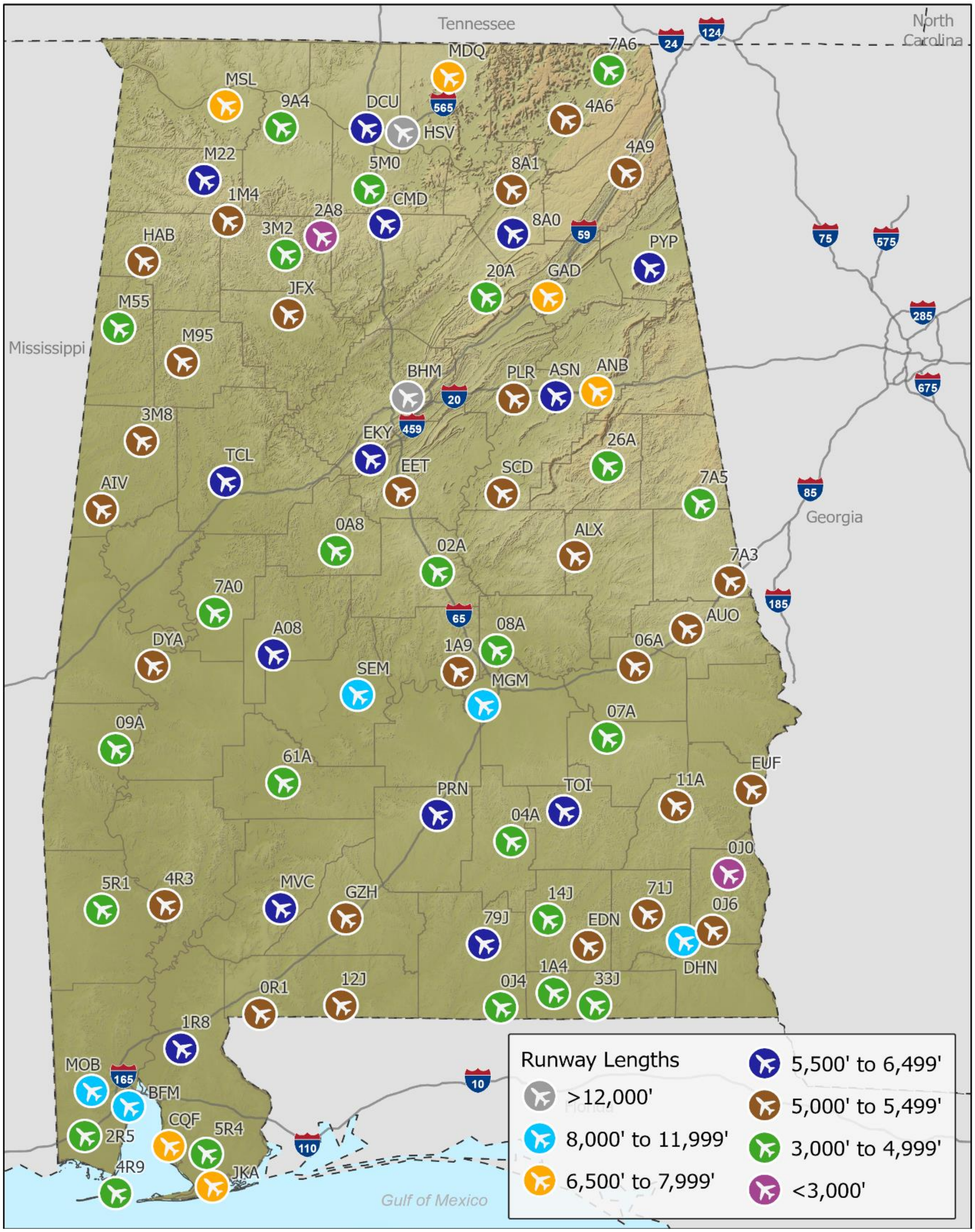
Source: FAA 5010 Records

Figure 2-5: Summary of Runway Widths (in Feet) for Alabama System Airports



Source: FAA 5010, Airport Management, Jviation

Figure 2-6: Primary Runway Lengths within Alabama



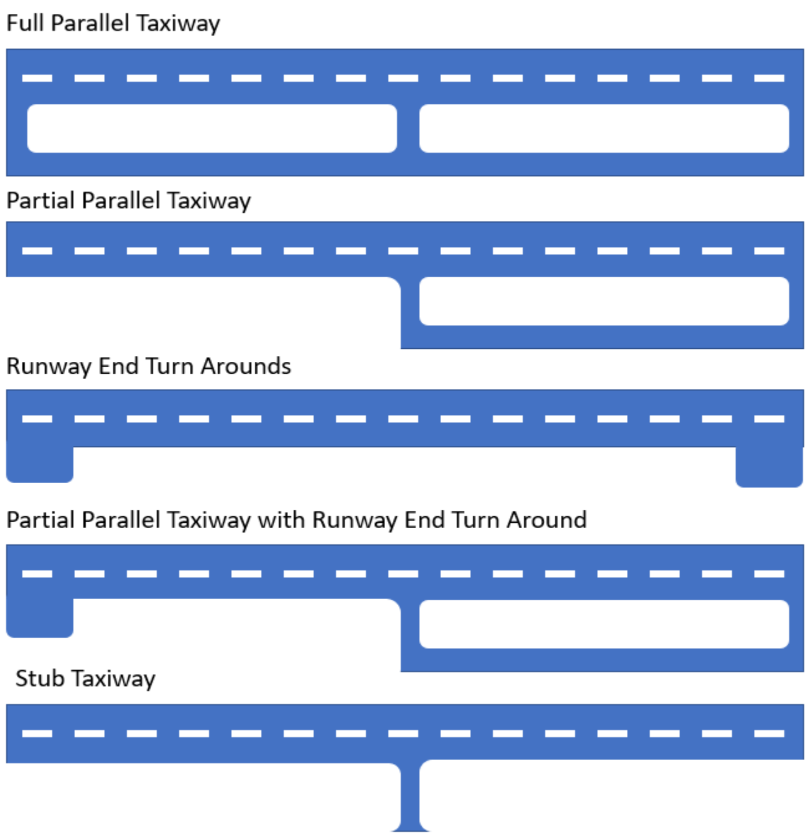
Source: Jviation

2.6.2 Taxiway Information

Taxiway information collected as part of this study included the type of taxiway system and taxiway width. The types of taxiways vary from full parallel, partial parallel, to turnarounds and stubs that provide access to apron areas. All taxiways contribute to an airport's safety and operating efficiency. Current taxiway information for each airport's primary runway is shown in **Appendix B, Table B-2**.

Note that according to FAA guidelines, full parallel taxiways are considered to be the most effective taxiway type and are most often needed at the busiest of airports or at airports that have a precision approach. A full parallel taxiway improves both runway safety and operational capacity. Because many of the study airports have lower activity levels, they do not have, nor do they need to have, a full parallel taxiway. Nevertheless, to support safety and operational needs, over 80 percent of study airports have at least a taxiway turnaround or taxiway exit at the end of the runway. Note that turnarounds are located on runway ends and provide landing aircraft with the ability to turn around and back-taxi on the runway to reach hangar areas or other landside facilities. **Figure 2-7** below depicts the various types of taxiway systems.

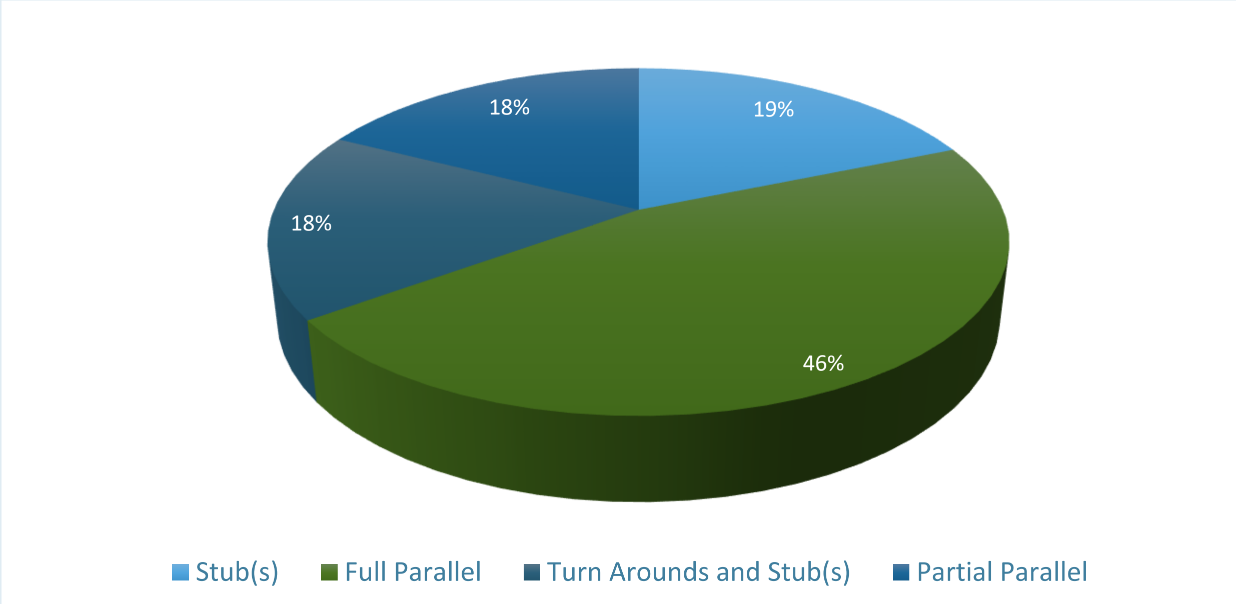
Figure 2-7: Types of Taxiway Systems



Source: Jviation

For the Alabama system, **Figure 2-8** details the percentage of system airports that have each of the various types of taxiways. Nearly half of the system airports (49 percent) have a full parallel taxiway, with an additional nine percent having a partial parallel taxiway. Over half of the airports have a turnaround at one or both runway ends. Some airports may have both a partial parallel taxiway system and turnarounds at a runway end.

Figure 2-8: Percentage of Alabama Airports by Taxiway Type



Source: FAA 5010 data, Jviation

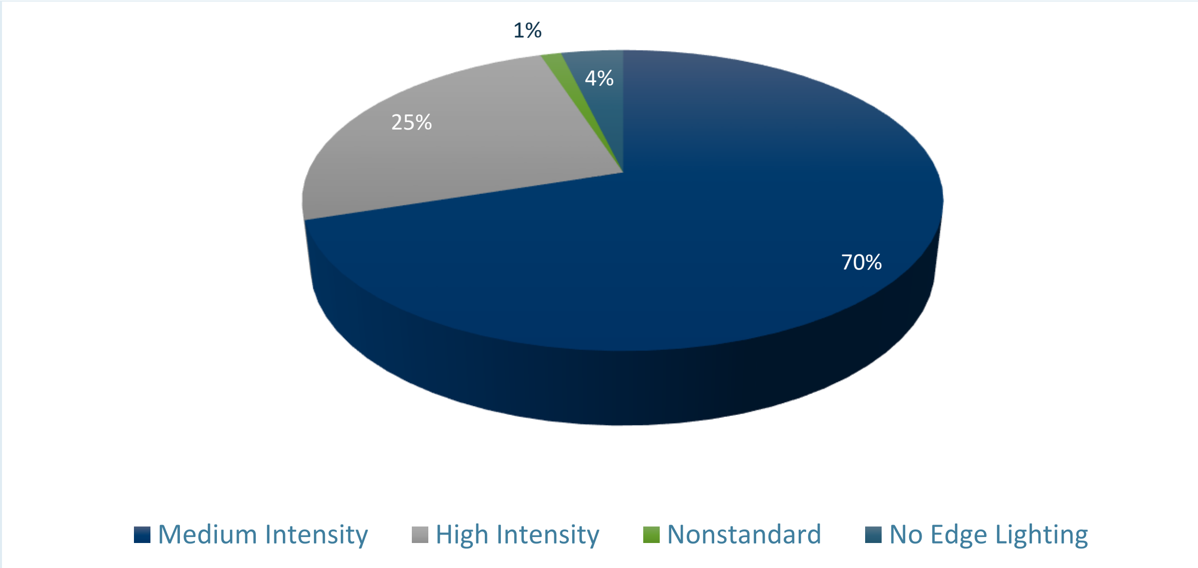
2.6.1 Runway Lighting

Runway lights help airports remain operational during periods of reduced visibility and throughout nighttime hours. **Figure 2-9** provides a summary of airfield lighting at Alabama system airports. Runway lighting comes in low (LIRL), medium (MIRL) and high (HIRL) forms. These lights are often controllable by the pilot in the aircraft if the pilot-controlled lighting (PCL) is installed at the airport. In total, 25 percent of Alabama system airports are equipped with HIRL lighting while 70 percent (56 airports) are equipped with MIRL or medium intensity lighting. Only 4 percent (3 airports) have no edge lighting while one airport indicates it has nonstandard edge lighting.

The inventory also collected information on approach lighting systems at study airports. Approach lighting systems are needed only when an airport has a precision instrument approach, but even non-precision runways benefit from the various types of approach aids that were inventoried as part of the System Plan. Runway and approach lighting inventoried in this study includes runway edge lighting and approach lighting:

- Visual Glide Slope Indicators (VGSI) are ground devices that use lights to assist a pilot in landing. The lights define a vertical approach path during the final approach to a runway and can help the pilot determine if the airplane is too high or too low for an optimum landing. There are several types of VGSI:
  - Precision Approach Path Indicators (PAPI): PAPIs are a lighting system consisting of two or four lights located to the side of the runway touchdown zone. The system uses red and white lights to provide visual glide path indication to the approaching aircraft.
  - Visual Approach Slope Indicators (VASI): VASIs are a lighting system located to the side of the runway touchdown zone. The light from this system provides visual approach slope guidance that ensures clearance of all obstructions in the approach area.
  - Approach Path Alignment Panels (APAP): APAPs are a system of panels used for alignment of an approach path, which may or may not be lighted.

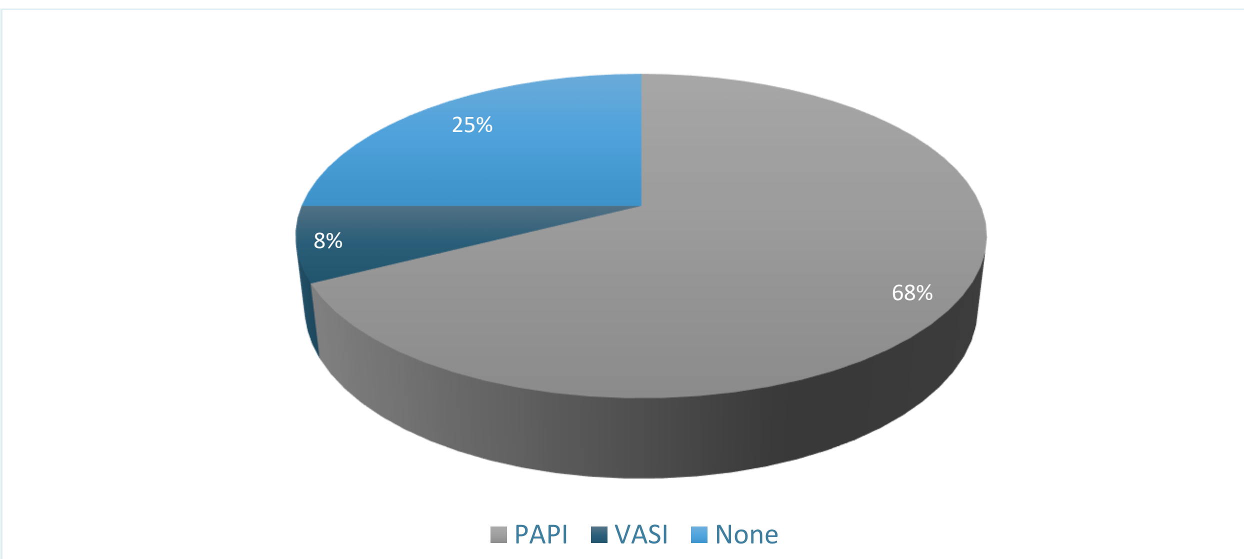
Figure 2-9: Summary of Runway Lighting Intensity for Alabama System Airports



Source: FAA 5010 data, Jviation

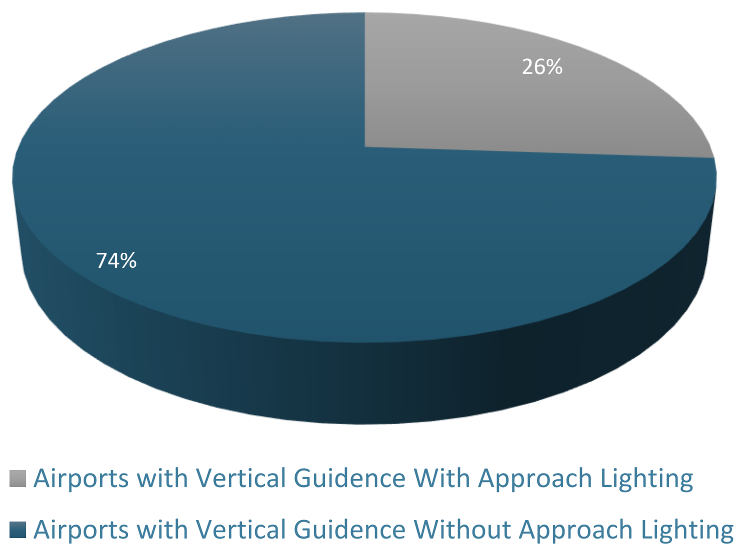
Figure 2-10 and **Figure 2-11** summarize the approach aids at Alabama system airports. Analysis of inventory data indicates 8 percent of system airports have VASI while 68 percent have PAPI. Airports with approaches with vertical guidance often require approaching lighting. Airports with visual approaches often do not have approach lighting. Inventory data indicates 25 percent of airports in the state lack approach (VASI/PAPI) lighting. In Alabama, 26 percent of airports in the system with vertical guidance NAVAIDS are equipped with either MALSR or MALSF lighting. Current approach lighting information for each airport including REILs, Edge Lights, VGSI, Approach Lighting equipment is shown in **Appendix B, Table B-3**.

Figure 2-10: Summary of Approach Lighting for Alabama System Airports



Source: FAA 5010 data, Jviation

Figure 2-11: Approach Lighting at Airports with Vertical Guidance Approaches



Source: FAA 5010 data, Jviation

2.7 Navigational Aids

A variety of navigational aids (NAVAIDs) support operations at study airports. NAVAIDs provide information for enroute and ground-based pilots and include instrument approach aids, visual aids, and automated weather systems. NAVAIDs improve safety and help airports remain operational during periods of reduced visibility.

2.7.1 Instrument Approach Aids

Instrument approach aids are categorized by precision and non-precision. Precision instrument approaches provide both lateral and vertical guidance to aircraft, while non-precision approaches primarily provide only lateral guidance. The most common approach types include:

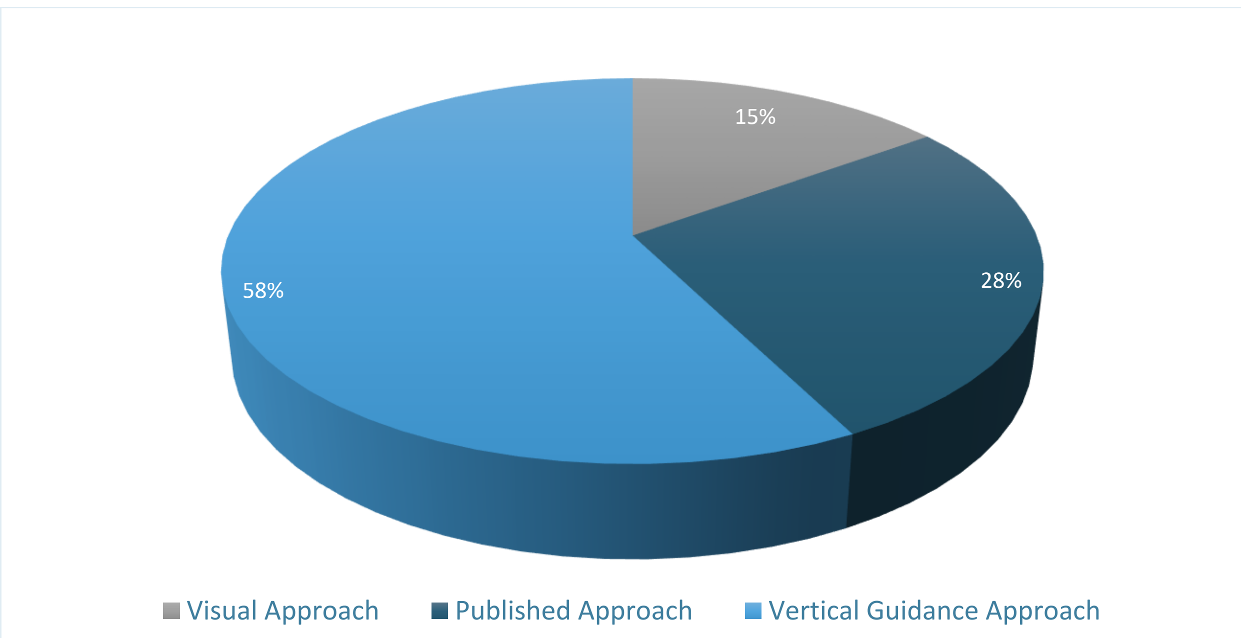
- Instrument Landing System (ILS): ILS is a precision approach that provides precise vertical and horizontal guidance information to approaching aircraft. The ILS provides guidance through the use of a localizer, a glide slope, and other ground-based facilities.
- Global Positioning System (GPS): GPS is a non-precision approach. It is a space-based radio navigation system that consists of a network of satellites and ground stations. GPS satellites are capable of providing aircraft with three-dimensional position (latitude, longitude, and altitude), velocity, and time of day, in all weather conditions.
- Area Navigation/Required Navigation Performance (RNAV/RNP): RNAV/RNP is a non-precision approach and performance-based navigation that allows aircraft to fly on a desired path within the coverage of ground or space-based NAVAIDs. RNP-capable aircraft are equipped with onboard performance monitoring and alerting capabilities.
- Localizer Performance with Vertical Guidance (LPV): LPV is not an approach in and of itself; an LPV provides minimum approach heights for GPS/RNAV approaches through the use of wide area augmentation system (WAAS) and very precise GPS capabilities. In most cases, approaches with LPV

have minimums comparable to if not better than an ILS approach. An LPV approach provides both lateral and vertical guidance.

- Very High Frequency Omni-Directional Range (VOR): VOR is a non-precision approach. It is a ground-based radio navigation aid that provides 360 degrees of continuous directional information and supplies aircraft with location relative to the VOR station.
- Localizer (LOC): The LOC is a non-precision approach using a radio transmitting antenna that supplies aircraft with lateral course guidance to the runway.
- Distance Measuring Equipment (DME): DME is a non-precision approach, ground based, Ultra High Frequency NAVAID that corresponds to aircraft DME avionics; it enables aircraft to determine the slant range between the aircraft and ground station.
- Non-Directional Beacon (NDB): The NDB is a non-precision approach, ground-based, low- or medium-frequency radio beacon that broadcasts non-directional signals on an assigned frequency signal. Pilots can use NDBs to determine their location in relation to the ground station.

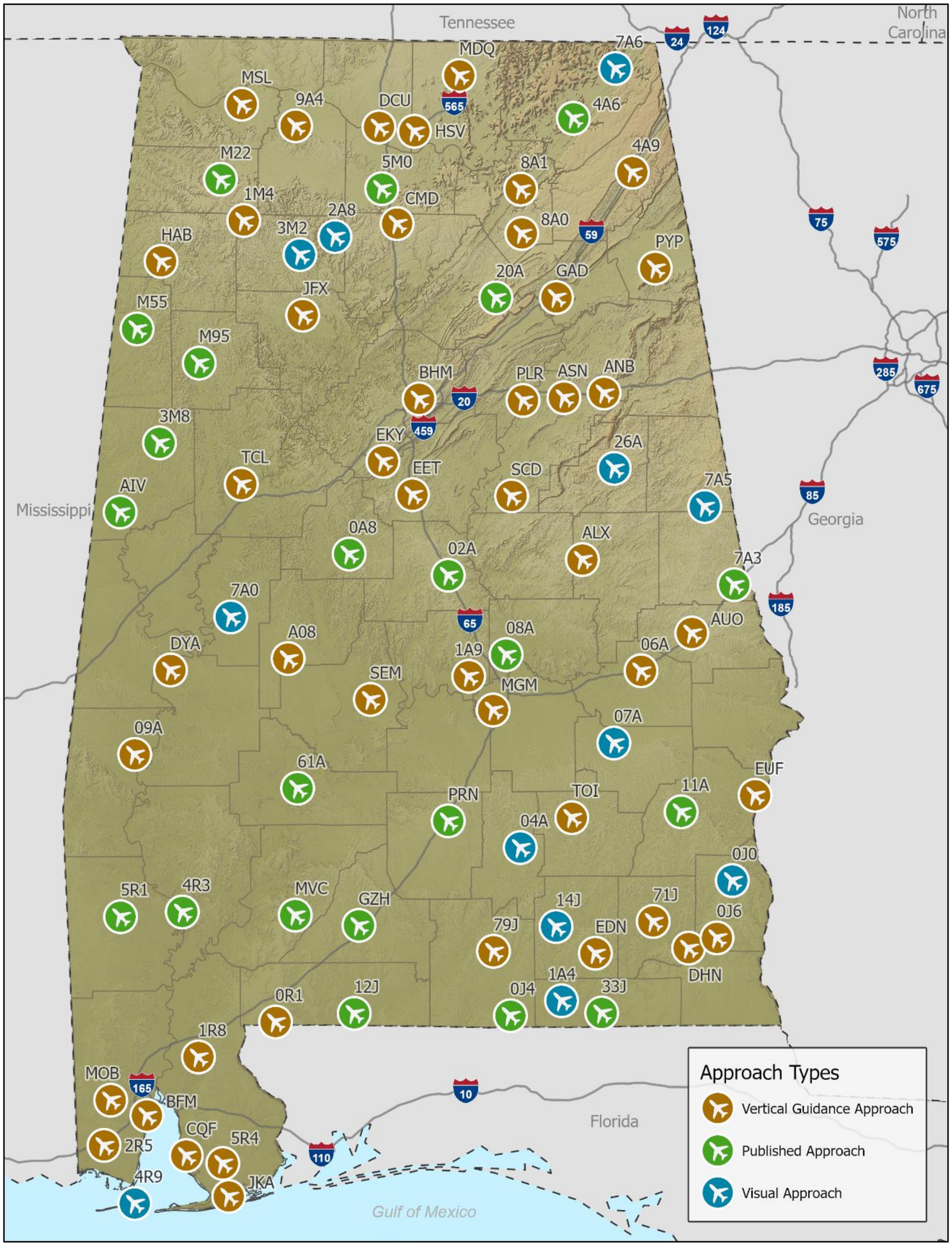
Figure 2-12 shows that study airports are currently served by a variety of approach aids. Study airports that do not have either a precision (vertical guidance) or a non-precision published approach have a visual approach. For this study, airports with an ILS or LPV approach are considered to have an approach with vertical guidance or a precision type approach. Analysis of the data indicates 58 percent of Alabama system airports (46 airports) have either an ILS or LPV approach, while 28 percent (22 airports) have a published approach such as a GPS based RNAV approach, and an additional 15 percent (12 airports) have visual approaches. **Figures 2-13** present these navigational aids geographically. Additionally, 76 airports have a rotating beacon and 74 airports have a lighted windsock. Current NAVAID and visual aids equipment for each airport are shown in **Appendix B, Table B-4**.

Figure 2-12: Airport Approach by Type



Source: FAA data, Jviation

Figure 2-13: Airport Approaches by Type in Alabama



Source: Jviation

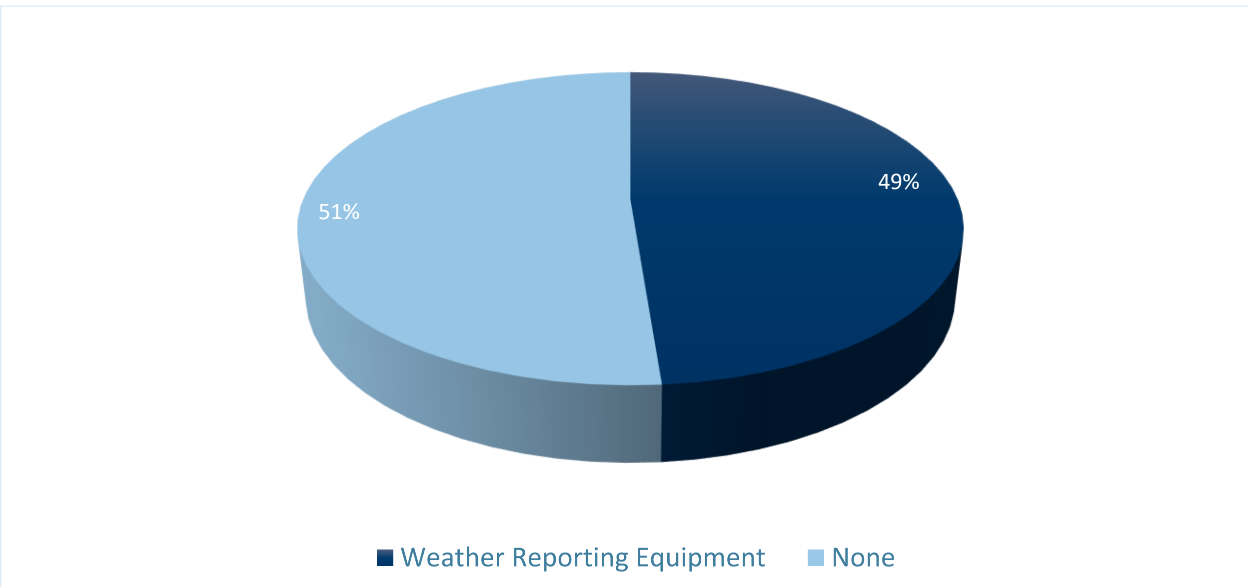
2.7.2 Weather Reporting Equipment

Additionally, automated weather systems can be located on airports to provide operators with basic weather data such as temperature, dew point, density altitude, altimeter setting, and wind speed and direction. These can also be equipped with Hazardous Inflight Weather Advisory Service systems. The two types of automated weather systems are defined below:

- Automated Weather Observation System (AWOS): The AWOS automatically collects weather data from various locations on and around the airport. The information is then transmitted to pilots via a computer-generated voice message on a specified frequency.
- Automated Surface Observation System (ASOS): The ASOS collects minute-by-minute weather observations, from which it generates aviation weather information. This information is disseminated to pilots by a computer-generated voice message via a specified radio frequency.

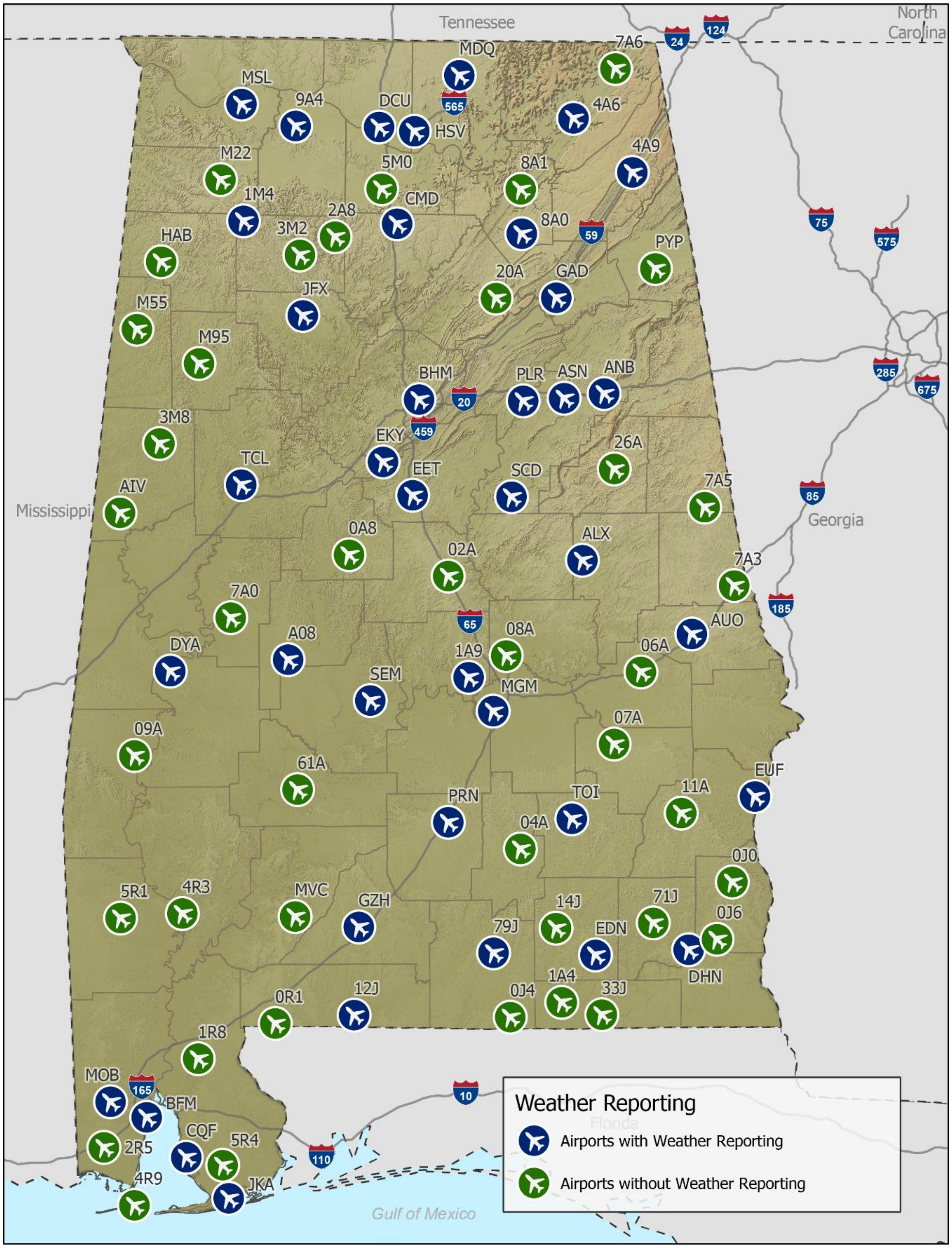
Of the 80 Alabama study airports, 39 (49 percent) have weather reporting systems (see **Figure 2-14** and **Figure 2-15**). Based on their respective system roles, each airport will be reviewed in a subsequent section to assess the adequacy of their current visual aids and weather reporting. Airport Visual Aids and Weather Reporting equipment are identified in **Appendix B, Table B-5**.

Figure 2-14: Weather Reporting Equipment



Source: FAA 5010 data, Jviation

Figure 2-15: Airport Weather Reporting Equipment in Alabama



Source: Jviation

2.8 Services

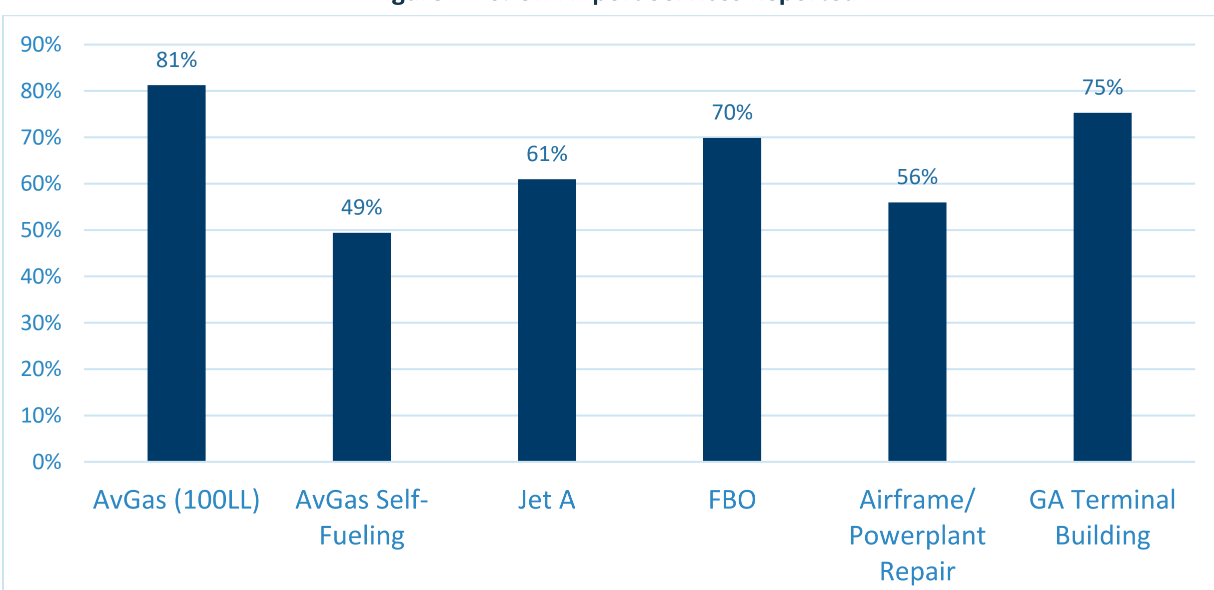
2.8.1 Aircraft Fuel Services

Nearly all study airports (81 percent) currently have some type of aircraft fuel available. The two most common types of fuel used for aviation activities are 100LL (AvGas) and Jet A. AvGas is most often used by smaller general aviation, piston-engine aircraft, while Jet A fuel is used by all turbine (e.g., turboprop and jet) aircraft. **Figure 2-16** indicates 81 percent (65 airports) have AvGas while 61 percent have Jet A. All airports with Jet A also provide AvGas. An additional 22 percent of airports provide only AvGas, while 19 percent of Alabama airports (15 Airports) have no fuel sales at all. Nearly half of Alabama's airports have self-fueling credit card pumps. Based on their respective system roles, each airport will be reviewed to assess the adequacy of their current aircraft fueling capabilities. **Figure 2-17** geographically identifies airports with AvGas and Jet A fuel availability. Airport Fuel Services and FBO Services are identified in **Appendix B, Table B-6**.

2.8.2 Aircraft and Pilot Services

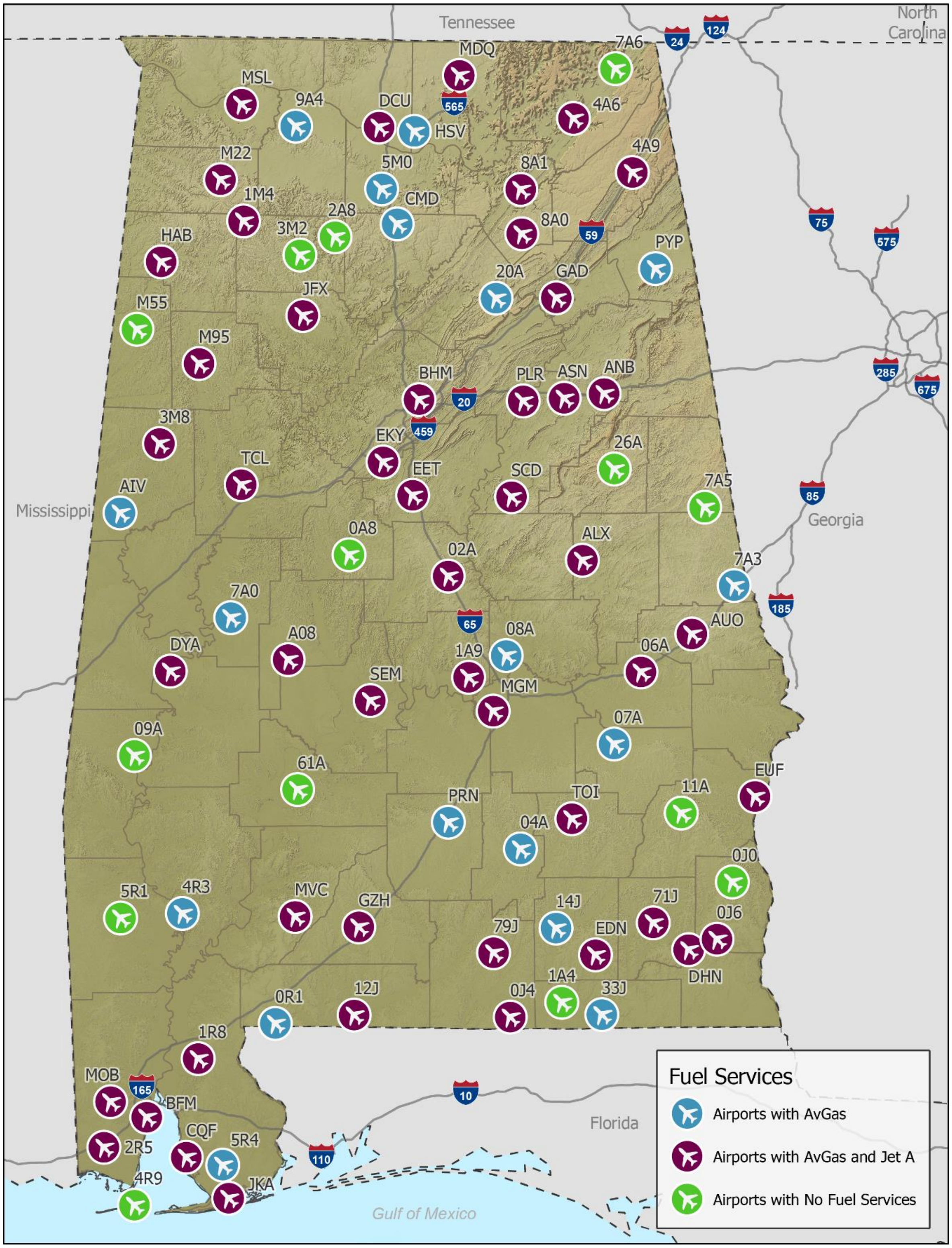
Aircraft owners and pilots often require on-airport services when using airports in Alabama. Fixed Base Operators act as a "filling station" and may sell fuel, aircraft repair services, pilot supplies, aircraft parts, and food and beverages. Other services FBOs provide include pilots lounge, conference rooms, restrooms, and a pilot briefing station. These activities are accommodated within the FBO building and or airport administration building. A general aviation terminal building may host the FBO as well as airport administrative offices. **Figure 2-16** indicates 70 percent (56 airports) of the system provide FBO facilities while 51 percent of the state's 80 system airports provide aircraft airframe and powerplant repair services. Analysis of inventory data indicates 74 percent of Alabama's airports have a general aviation terminal building. **Figure 2-18** identifies the range of building sizes for airports with terminals. Of the total, the most typical size (35 percent or 22 airports) for a terminal building is from 2,000 to 5,000 square feet. The largest terminal in the state is at Auburn University Regional Airport (AUO) with a 26,000 square foot general aviation terminal, while the smallest terminal is located on Roy Wilcox Airport (5R1) with a modest 300 square foot terminal. Complete terminal building details are identified in **Appendix B, Table B-10.**

Figure 2-16: On-Airport Services Reported



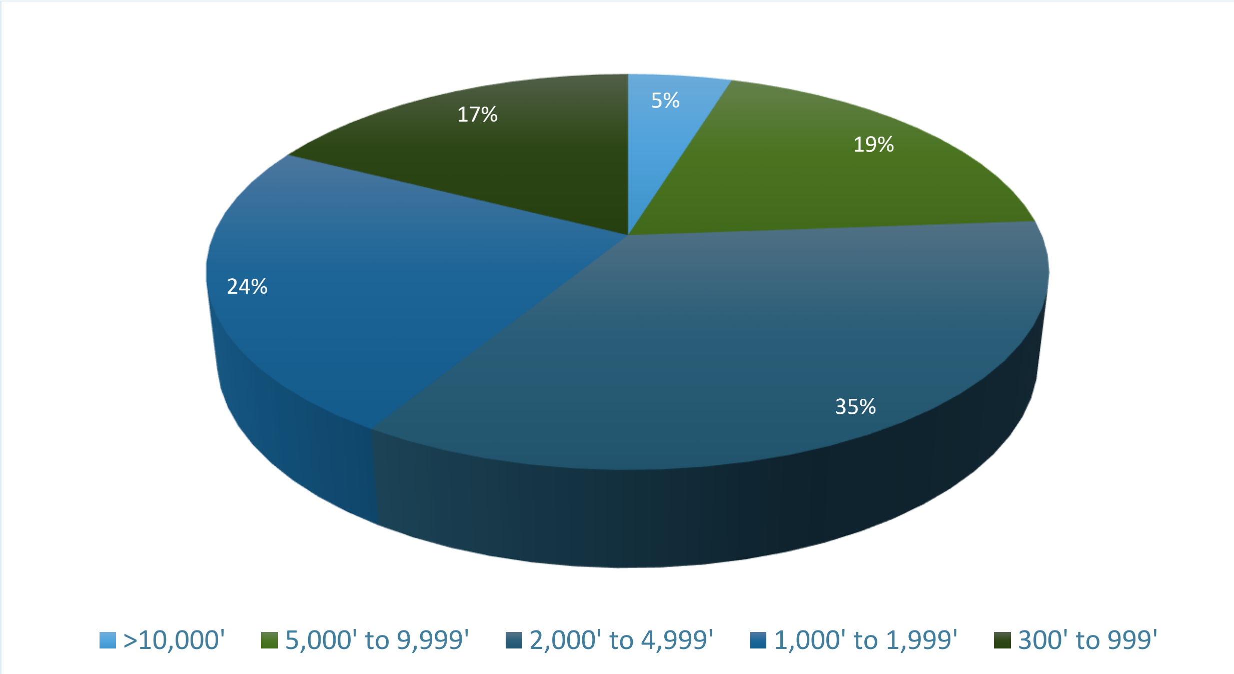
Source: FAA 5010 data, Airport Manager Survey, Airnav.com, Jviation

Figure 2-17: Aviation Fuel Availability in Alabama



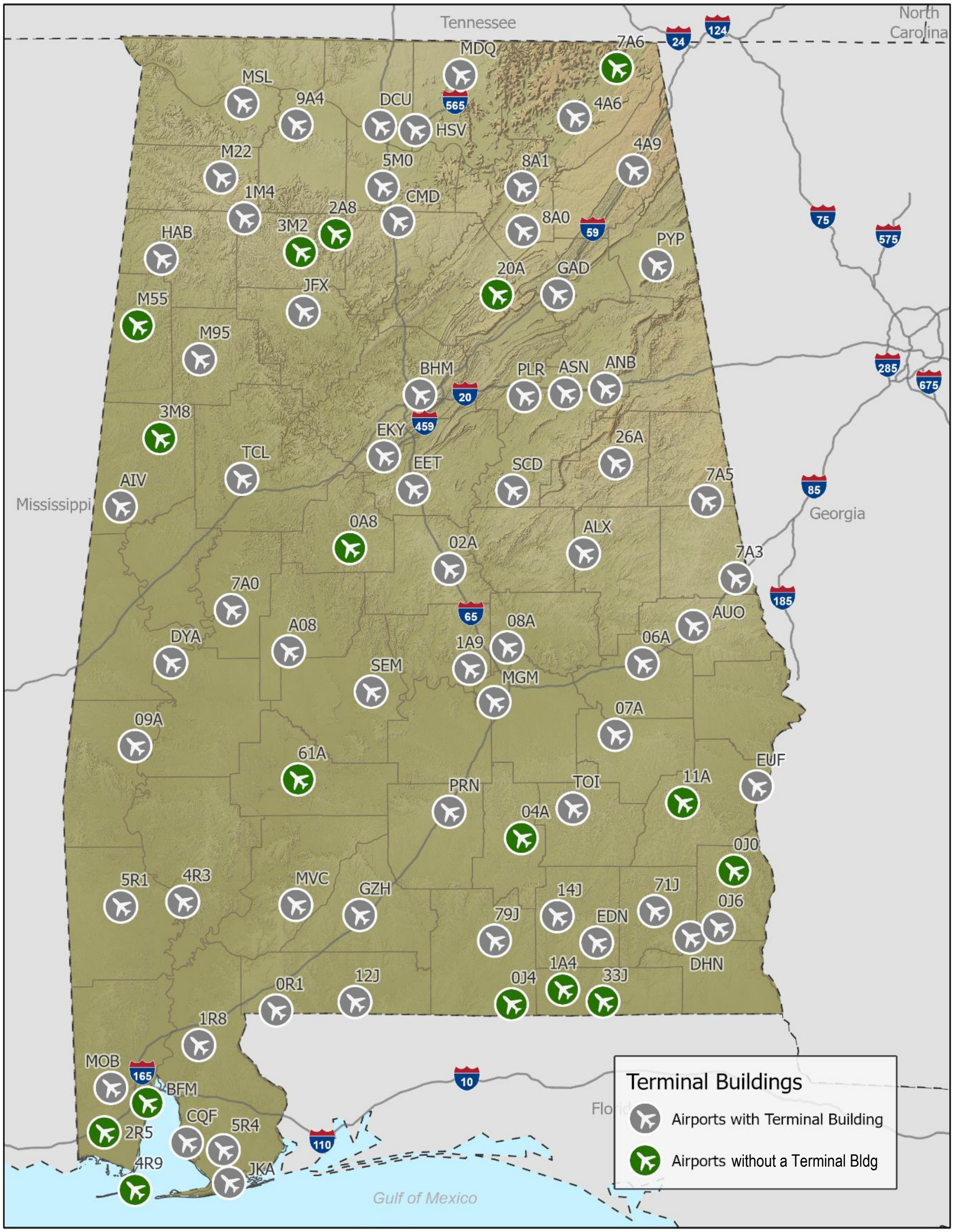
Source: Jviation

Figure 2-18: Terminal Building Sizes in Square Feet



Source: Airport Manager Survey, Jviation

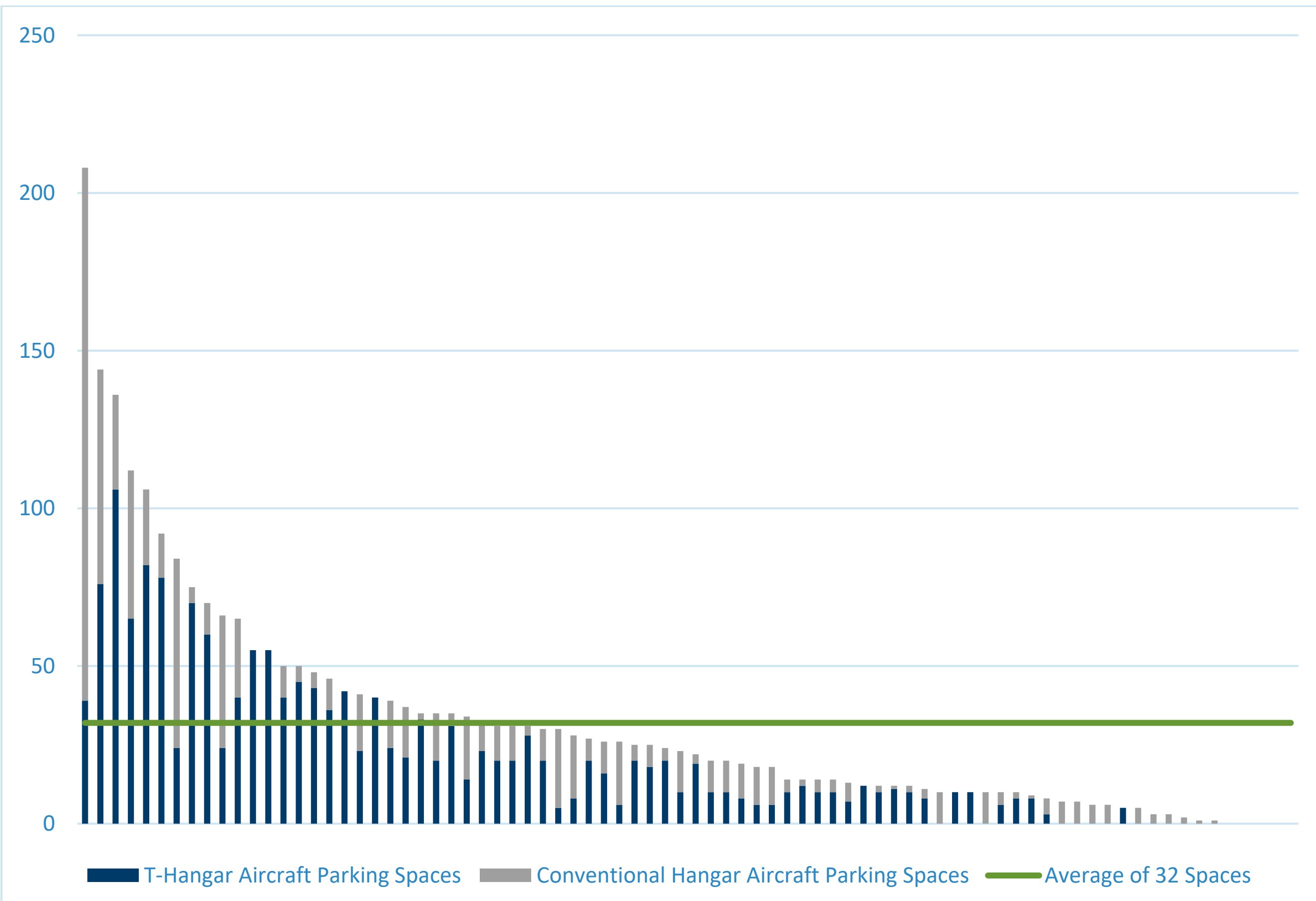
Figure 2-19: General Aviation Terminal Buildings in Alabama



Source: Jviation

Aircraft hangars on airports provide aircraft owners and businesses places to store their aircraft and provide safety and security for their investments. Airport managers were requested in the data collection process to provide estimates of T-hangar and conventional hangar spaces on their airport. Analysis of the data indicates 94 percent (75 airports) have hangars. Inventory data indicates there are 1,629 T-hangar spaces in Alabama and approximately 928 conventional hangar spaces. Conventional hangar spaces are estimates and some larger aircraft may be occupying more than one average sized space. There are 32 hangar spaces on average at system airports with Tuscaloosa National Airport having the most at over 200 spaces. **Figure 2-20** below identifies airport hangar spaces for all system airports in a graduated format. Aircraft apron also provide space for aircraft storage (tie-downs). Inventory data indicates there are 2,444 aircraft apron tie-down spaces at Alabama system airports with Craig Field, in Selma providing an estimated 1,000 aircraft parking spaces due its extensive apron areas. **Appendix B, Table B-7** identifies T-Hangar aircraft parking spaces, conventional hangar aircraft parking spaces, and aircraft apron parking spaces.

Figure 2-20: Hangar Storage – System Overview



Source: Airport Manager Survey, Jviation

2.8.3 Airport Master Plans

Airports conduct master plan periodically to provide guidance on airport development, project future levels of activity and to preserve and protect land for future use. Airport management and FAA Grant History data indicate over 50 airport master plans, airport layout plans and updates have occurred since 2005. **Appendix B, Table B-8** identifies Alabama airports and years they were completed or funded by the FAA.

2.9 Summary

Information presented in this chapter is essential to subsequent steps in the system planning process. In following chapters, various system performance measures/benchmarks and facility and service objectives are used to evaluate the current performance for Alabama's airport system and individual study airports. Information gathered as part of the inventory effort helps the ALDOT Aeronautics Bureau better understand how current airport system and individual airport performance may need to be enhanced in the future.