



7. Statewide Airport System Plan Recommendations

7.1 Introduction: Striving for System Effectiveness and Efficiency

The recommendations for the Statewide Airport System Plan and the process by which they were developed are summarized in this chapter. It identifies actions the Alabama Department of Transportation (ALDOT) Aeronautics Bureau should consider to advance the Alabama airport system in support of ALDOT Aeronautics Bureau's goals, objectives, and mission. It is important to recognize that an airport system must evolve over time to reflect the changing demands placed upon it by its many users and stakeholders. Population centers and industries that often spur demand will grow and contract over time, and the aviation industry itself, and particularly that of commercial air service, is incredibly dynamic. All of these factors must be considered when planning for the future of an airport system.

Regardless of the changing aviation environment, there are two characteristics that an airport system should always strive to reflect: effectiveness and efficiency. An airport system must be consistently effective in meeting the needs of its users, its host communities, the state, and the country. As noted above, airport use is most often driven by population and economic trends since airports serve as conduits to and from communities and trade markets. This translates to providing important accessibility to host communities and the state for emergency, personal, and business purposes. In this way, airports also serve those communities as important economic generators that not only support area industrial growth, but also spur direct economic impacts themselves.

Given the wide range of benefits that airports provide their various stakeholders, it is critical that airports continue to serve their respective roles in an effective manner. However, due to the inherent costs typically associated with continually maintaining and enhancing an airport system, it is equally important that the system consistently strive to be efficient. In 2020, there were 5,217 public use airports in the United States, with over 3,300 airports included in the FAA's National Plan of Integrated Airport Systems (NPIAS), and 80 within the State of Alabama. Many of these airports were developed for intended purposes that have long since disappeared (i.e., military, emergency landing, etc.) but nevertheless remain active. While many of these airports have found other purposes and remain important infrastructure assets to their host communities, others have not retained such value. A key factor of an airport system plan to help ensure that its system of airports is "right-sized" for its existing and projected purpose and users so that limited funding can be used efficiently to support those airports most critical to a system's effectiveness.

This chapter presents system plan recommendations that support both its long-term effectiveness and efficiency. These recommendations include funding projects at system airports that are needed to meet system plan facility and service objectives, monitoring the evolving market and local conditions, and continuing to improve airports so that they support the economic goals of their respective regions and the state as a whole.

Following is an outline of the sections provided in this chapter:

- Historical Airport System Development
- Existing/Future Airport System Development
 - Support of Economic Development
 - Airport Roles and NBAA Accessibility
 - Commercial Air Service
 - Airport System Facility and Service Improvements
 - Airport Vulnerability Assessment

- Recommendations Summary
 - Funding Recommendations
 - Pavement Capital Improvements Program Recommendations
 - Project Prioritization Recommendations
 - NPIAS Airport Roles Recommendations
 - Other Recommendations

7.2 Historical Airport System Development

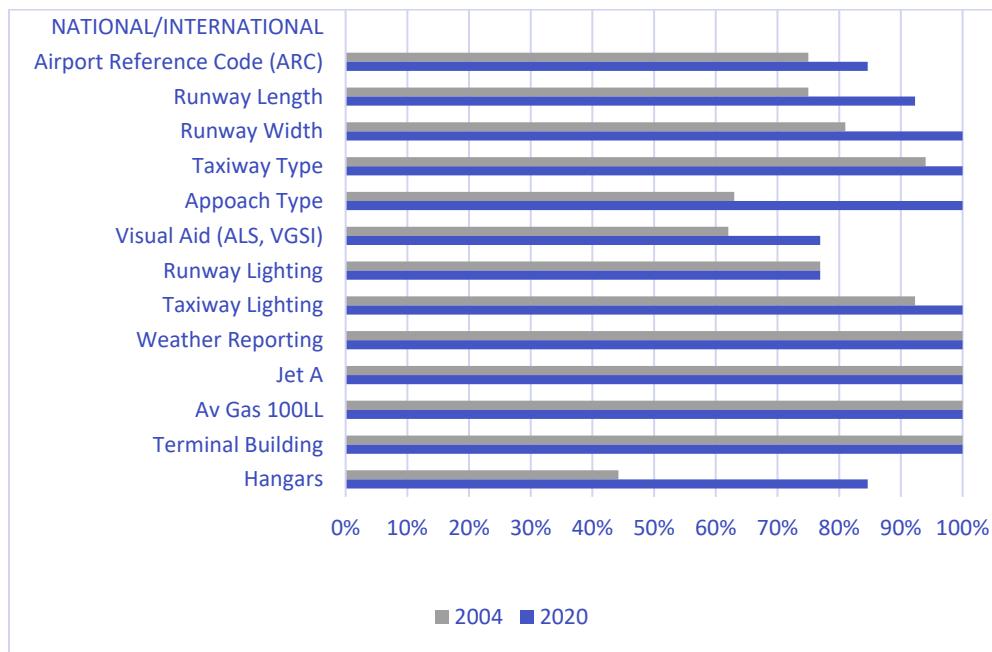
The previous airport system plan conducted for Alabama was published in 2004 and served as the basis of a rejuvenation program for the system airports. At that time, Alabama had positioned itself as a state of potential growth and development, with state and local governments actively and effectively recruiting industry to the state. As part of those efforts, it was important that commensurate infrastructure improvements be made, including to Alabama's airport system, to attract and support new industrial growth.

Most of Alabama's airports were built in the 1950s and 1960s. Since that time, resources at the state and local levels had not been available to keep pace with the growing aviation needs of the types of businesses Alabama had been working hard to attract. With limited funding for aviation development provided only through a capped aviation fuel tax, the ALDOT Aeronautics Bureau had an extremely limited annual budget of only \$600,000. Compared to its peer states at the time, this represented 33 percent of Mississippi's budget, 2.6 percent of Tennessee's, and 0.005 percent of Florida's annual budget. Nevertheless, even with limited funding resources, the ALDOT Aeronautics Bureau consistently and stridently worked to leverage its available funding to enact the findings of the 2004 airport system plan to not only halt its progressive deterioration, but also make significant improvements in its facilities and services, as well as its pavement conditions.

The following figures present the measurable system improvements that have occurred since 2004 by airport role. These comparisons of selected objectives from the 2004 plan to current system compliance illustrates marked improvement over the past 20 years. Projects across all roles have made the entire system safer and more efficient in how it serves its users.

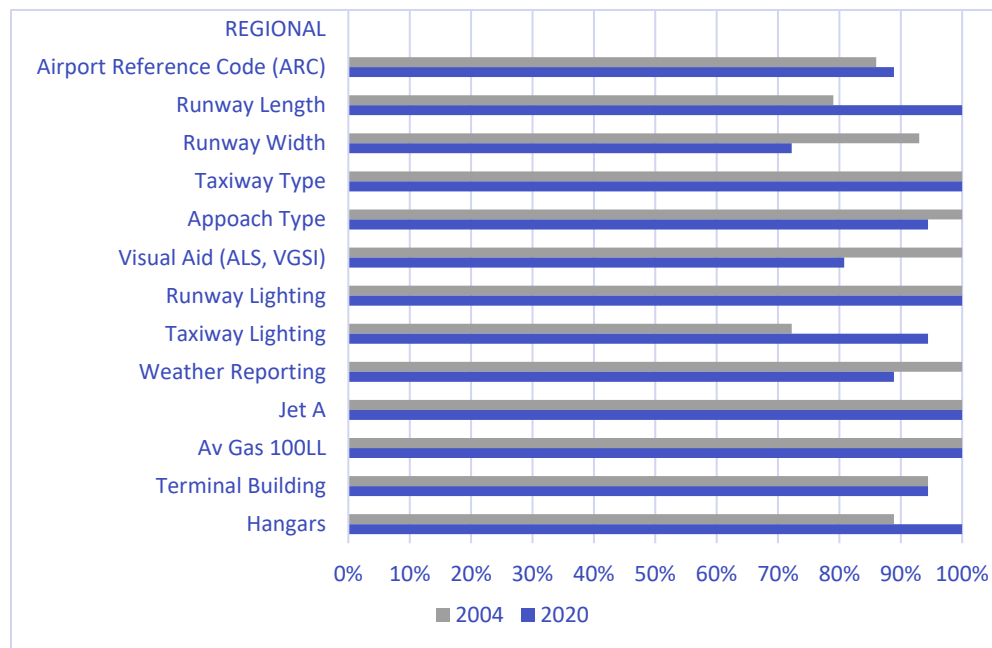


Figure 7-1: Airport System Changes since 2004 – National/International Airports



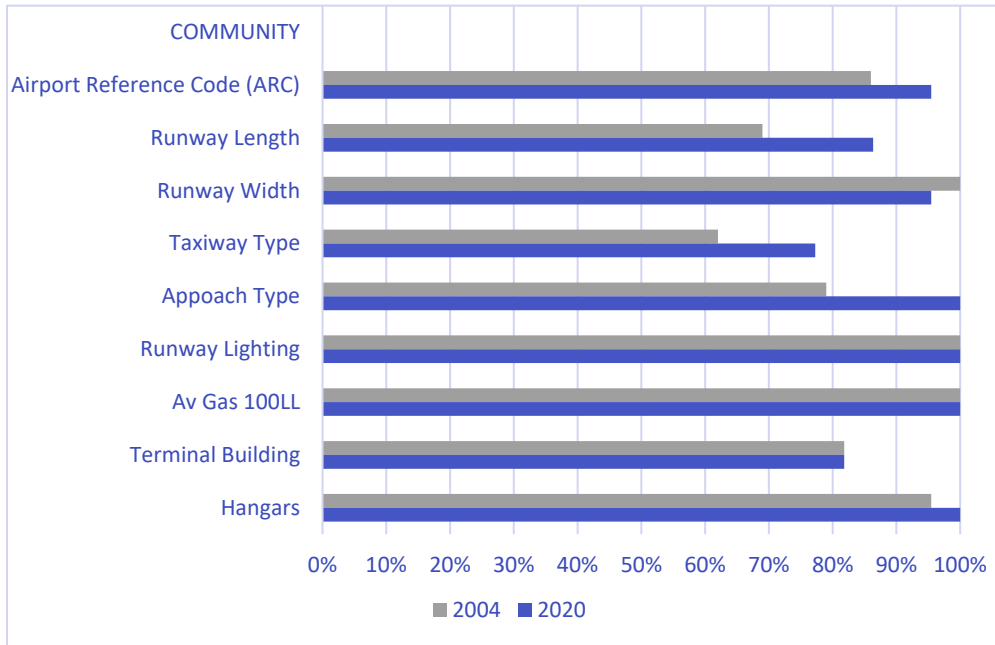
Source: Jviation

Figure 7-2: Airport System Changes since 2004 – Regional Airports



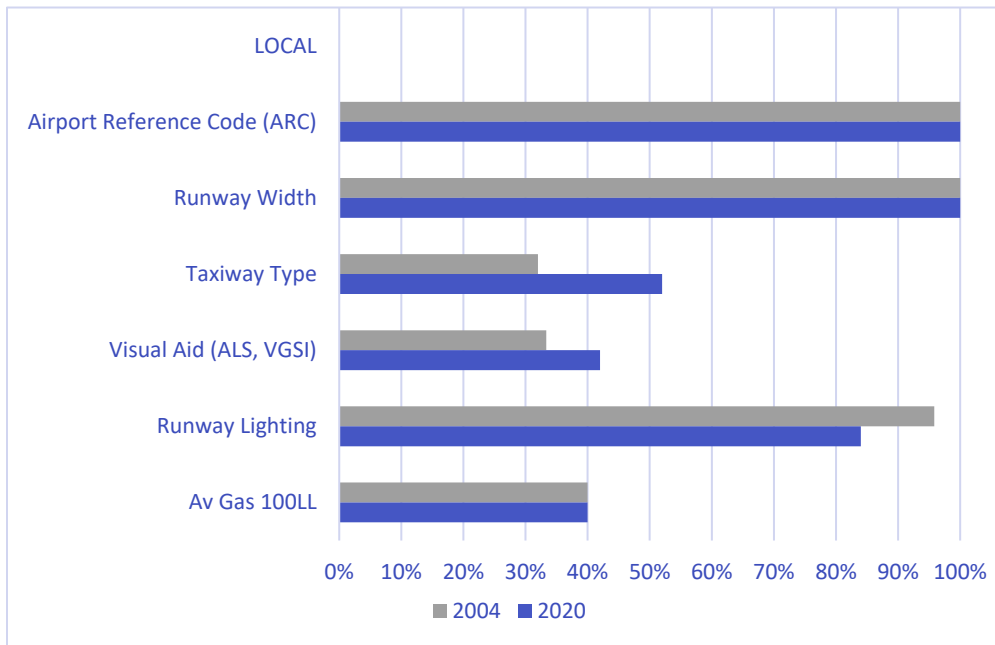
Source: Jviation

Figure 7-3: Airport System Changes since 2004 – Community Airports



Source: Jviation

Figure 7-4: Airport System Changes since 2004 – Local Airports



Source: Jviation

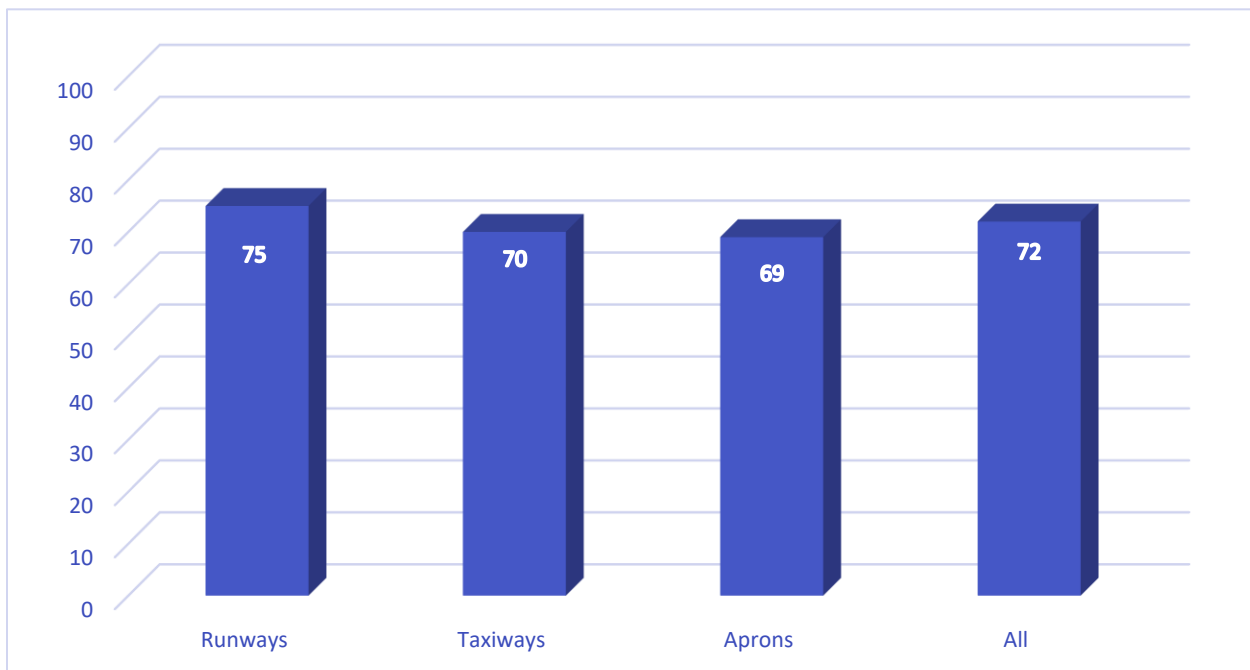
In addition to these measurable elements from the 2004 system plan, it must also be recognized that airport pavement conditions have improved markedly since that time. As part of the current Statewide Airport System Plan, a Pavement Management Program (PMP) effort was undertaken for 59 of the 80 system airports. (Note



that of the 21 airports not included in the PMP, eight are either commercial service or larger general aviation airports; it is presumed that because of their importance that these airports maintain high quality pavement conditions.)

The PMP assessed each of the 59 individual airports’ pavement quality broken down by runways, taxiways, and aprons. For each pavement section, the assessment produced a Pavement Condition Index (PCI) score, which is a numerical rating scale from 0 to 100 that provides a measure of the pavement’s functional surface condition. (Note that PCI scoring range is 70-100 = Satisfactory to Good, 55 to 69 = Fair, and below 55 = Poor to Failed.) Based on the results of the PMP, the 59 surveyed airports accounted for a total of over 69.4 million square feet of airside pavement having cumulative PCI scores for each pavement category as shown below in **Figure 7-5** below.

Figure 7-5: Area-Weighted PCI Average for 59 Alabama Airports



Source: All About Pavements

While PCI scores for these airports from 2004 are not available for direct comparison, anecdotal evidence indicates that this is a significant improvement over those historical conditions that were regularly marked by failing pavement conditions. This has been a significant accomplishment for the ALDOT Aeronautics Bureau since the basis of any airport’s viability and that of the associated airport system is its pavements.

In summary, over the past 20 years, ALDOT Aeronautics Bureau has managed to not only maintain and improve the quality of its airports’ pavements, but it has also been able to continually improve the effectiveness of its system by continually enacting the recommendations of its system plan. Given the historical limitations of its average annual budget, this should be considered to be a remarkable achievement and evidence of the efficiency with which the system has been operated, maintained, and developed.

7.3 Existing/Future Airport System Development

It is critical for a state that its airport system not only serve as an effective transportation resource for its users, sponsors, and communities, but also that it do so in an efficient, responsible, and cost-efficient manner. Alabama's existing and future airport system must likewise reflect these characteristics. This section of the chapter provides a review of several important considerations to help ascertain the effectiveness of the existing system, where that effectiveness may be improved in the future, as well as elements of efficiency.

7.3.1 Support of Economic Development

A key factor in determining the effectiveness of an airport system is the degree to which it is able to support a state's industrial base and business community. Elements of **Chapter Four** of the Statewide Airport System Plan focused on the access general aviation and commercial service airports provide for local businesses and centers of economic development throughout Alabama. Major industries groupings that have been identified within Alabama include:

- Forestry Products – *The Alabama forestry industry is comprised primarily of wood product manufacturing, paper manufacturing, logging, and household and/or institutional furniture and kitchen cabinet manufacturing sectors.*
- Aerospace Manufacturing – *Alabama has a significant concentration of aerospace manufacturing plants, aircraft assembly plants, with specialties in research and development in equipment related to space travel, rocketry, and defense.*
- Automotive Manufacturing – *Automotive manufacturing in Alabama includes rubber product manufacturing, engine, turbine, and power transmission equipment manufacturing, motor vehicle manufacturing, motor vehicle body and trailer manufacturing, and motor vehicle parts manufacturing sectors.*
- Bioscience – *This Alabama industry sector includes businesses related to pesticide, fertilizer, and other agricultural chemical manufacturing; pharmaceutical and medicine manufacturing; scientific research and development services; and medical and diagnostic laboratories.*
- Metals and Metal Fabrication – *Alabama is home to over 1,000 businesses in primary and fabricated metal manufacturing as well as several major pipe-manufacturing businesses.*

Alabama's expanding automotive manufacturing industry has powered much of the state's economic growth for the past 30 years, while Boeing, Lockheed Martin, Raytheon, and Teledyne Brown are among the growing number of aerospace and defense-related companies that are active in the state. Of particular note is an Airbus Final Assembly Line for its A220/A320 family of aircraft, located in Mobile, and Redstone Arsenal, a U.S. Army post in Huntsville, both of which are major employers within Alabama. The traditional industry base of forestry products also remains a major contributor to the state's economy with this industry supporting thousands of jobs, particularly in rural communities.

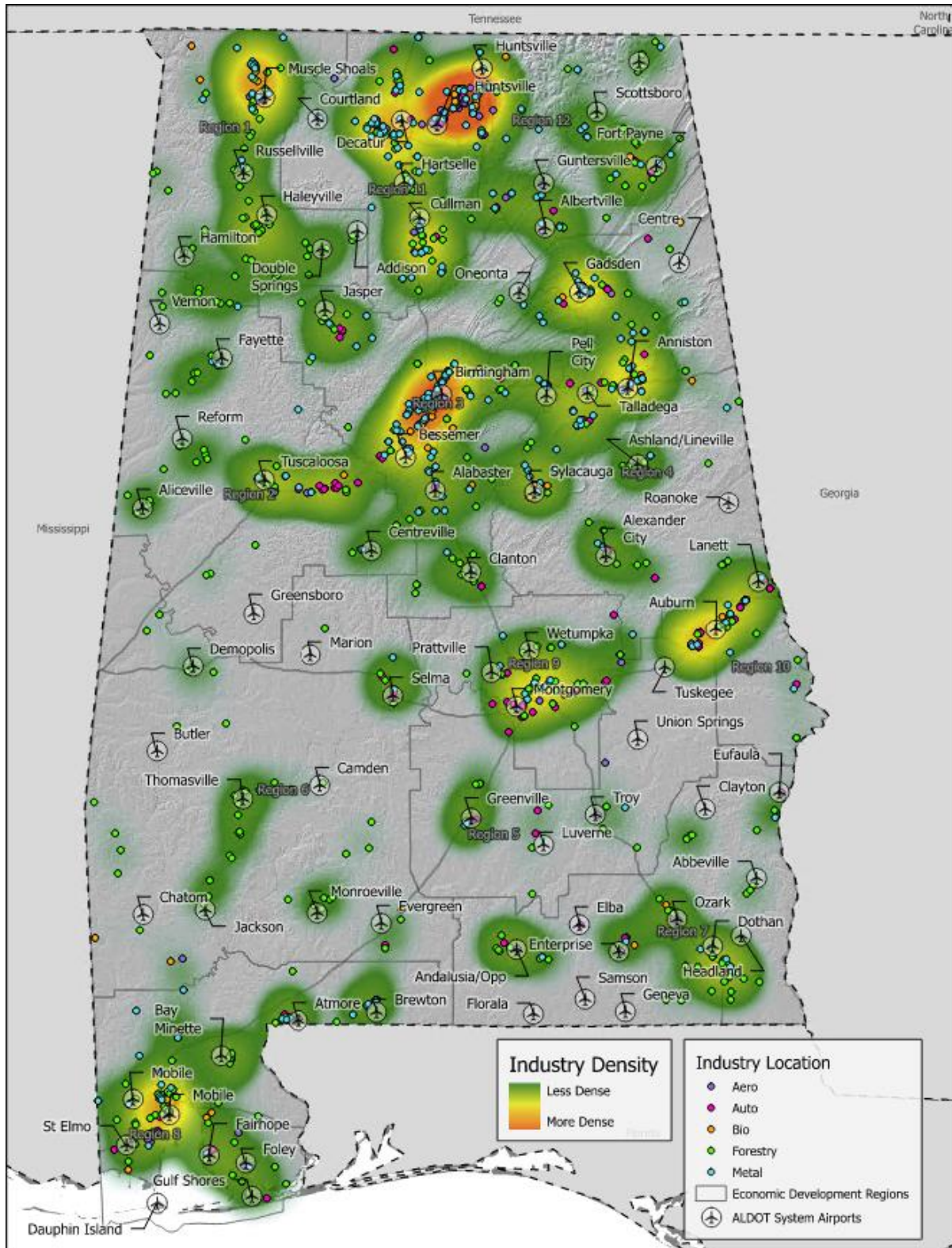
Figure 7-6 illustrates the combined economic activity for companies engaged in metals, aerospace, forestry, automotive, and biosciences in Alabama. The heat map graphic shown in this figure represents combined industry clusters and reflects the density of businesses by sector. Orange and yellow colors on the heat map are reflective of greater industrial concentrations. Alabama's airports are also shown on the map to demonstrate which general aviation and commercial service airports are best positioned to support these various industrial clusters. Note that the greatest industrial densities tend to exist within the major metropolitan areas, including Huntsville, Birmingham, Mobile, Montgomery, Florence, Auburn, and Dothan. As depicted on the map, the Huntsville metropolitan area has the greatest density of the state's primary industries.



All of these metropolitan areas have immediate (within a 60-minute drive time) access to a commercial service airport. All of the metropolitan areas are also supported by one or more general aviation airports (located both in-state and out-of-state). It is also noteworthy that business locations in the state are generally concentrated along interstate and limited access highway corridors in proximity to the state's metropolitan areas. An example of this is the business cluster located on the Interstate 20 and 59 corridors in the Birmingham area. Information in **Figure 7-6** helps to demonstrate the proximity of transportation resources as it relates to industrial development. Whether by air, rail, water, or road, industry depends on efficient transportation infrastructure. (Note that for additional economic growth context, the projected population growth and employment growth by each county in the state from 2017 to 2027 have also been presented in **Figure 7-7** and **Figure 7-8**. These were previously introduced in **Chapter Three**.)

By implementing recommendations in this Statewide Airport System Plan, the ALDOT Aeronautics Bureau will continue to effectively support state, regional, and local economic development opportunities for its many industrial sectors. Alabama businesses, as well as their customers and suppliers, actively utilize general aviation and commercial airports to support efficient travel both within and beyond the state. To help facilitate these activities, the ALDOT Aeronautics Bureau has actively coordinated with airport managers, regional economic development agencies, the Governor's office, and state-elected officials to ensure that the state's airport facilities and services provide the transportation support needed for economic growth and diversification. Additionally, the accompanying statewide economic impact study demonstrated that, in addition to the employment tied to airports/aviation, there are over 40,600 non-aviation jobs in Alabama that have improved efficiency from using aviation, many of which are associated with the businesses and industries reflected in **Figure 7-6**. By continuing to grow, maintain, and invest in the airport system, those benefits realized by businesses from the airport system will only increase.

Figure 7-6: Alabama's Primary Industrial Clusters



Source: Alabama Department of Commerce; Jviation



Figure 7-7: Projected Population Growth by Alabama County (2017-2027)



Source: Woods & Poole, Inc.



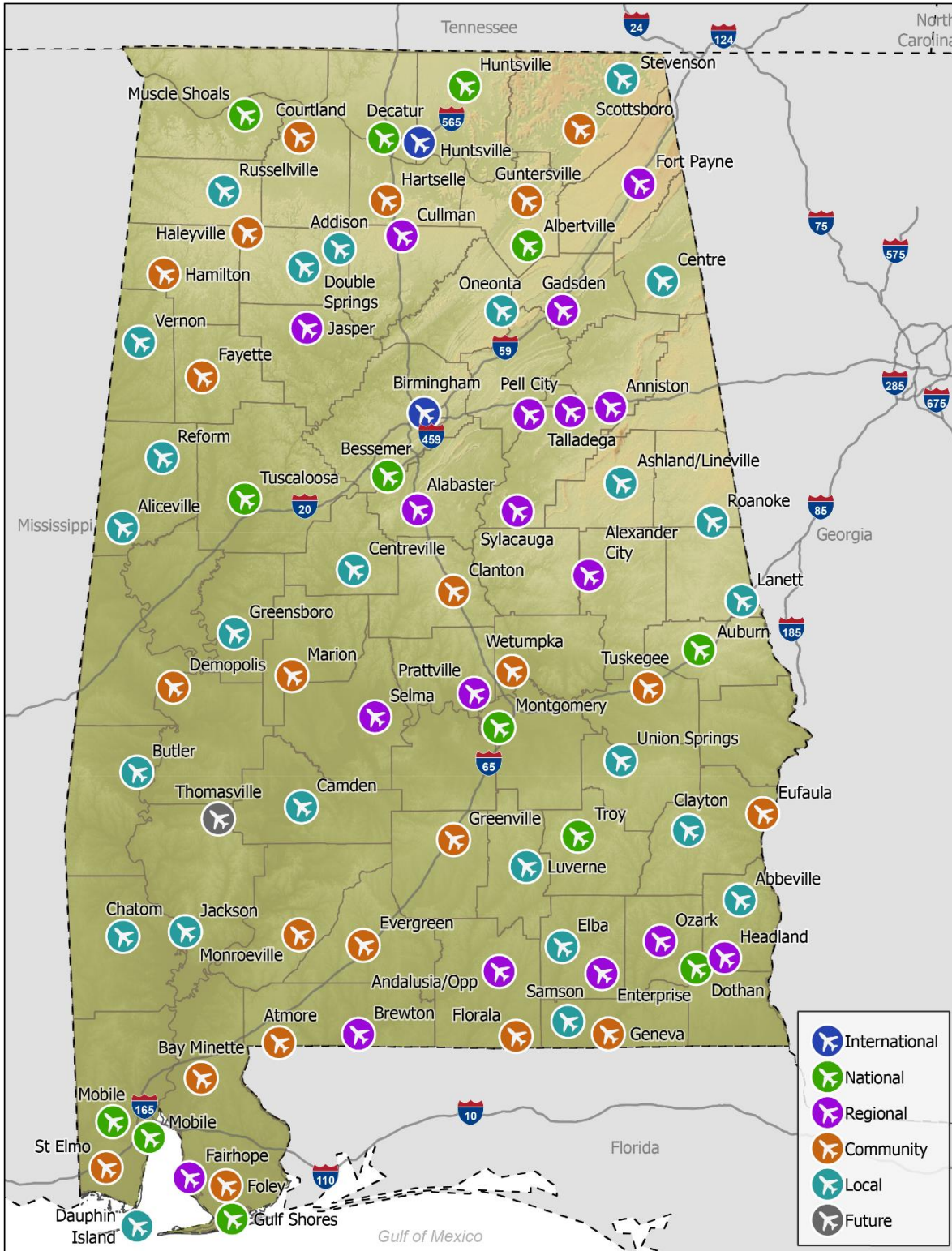
7.3.2 Airport Roles and NBAA Accessibility

This Statewide Airport System Plan focused on determining recommended roles for all system airports to help ensure that system airports are developed appropriately to be effective in serving their various users and market areas. As described in **Chapter Five**, the 80 study airports were stratified and assigned to one of five role categories. The state airport roles reflect the type of users each airport currently accommodates and/or is anticipated to accommodate, as well as the facilities and services that the airport has in place. Roles also reflect an airport's relative importance and performance as it relates to meeting the state's transportation and economic needs and objectives. From a practical perspective, roles are important within the system planning process since they help to establish facility and service objectives that are desirable for airports in a given role. The five role categories for Alabama system airports are presented below:

- *International* - International airports serve as Alabama's primary gateway to global passenger and air cargo markets.
- *National* – National airports serve a contributing role in enabling the local, regional, and statewide economy to have access to and from the national and global economy. All commercial and reliever airports are contained within this classification, as are other airports initially deemed to contribute significantly to Alabama's airport system. National airports accommodate the highest level of general aviation activity and serve major population centers in the State.
- *General Aviation Regional* – General Aviation Regional (GAR) airports serve a contributing role in supporting the local and regional economies and connecting them to the State and national economies. GAR airports serve primarily general aviation activity, with a focus on serving business activity, including small jet and multi-engine aircraft. These airports support the system of National airports and should provide significant coverage to the State's population.
- *General Aviation Community* – General Aviation Community (GAC) airports serve a supplemental contributing role in the local economy. GAC airports focus on providing aviation access for small business, recreational, and personal flying activities throughout Alabama. These airports are located throughout the State to serve rural needs and provide another connection to the State's transportation infrastructure.
- *Local Service* – Local Service (LS) airports serve a limited contributing role in the local economy. These airports are considered to have local importance, primarily serving recreational and personal flying activities.

Figure 7-9 identifies the recommended roles for each airport in the Alabama system. Note that the figure also reflects the future development of Southwest Alabama Regional Airport, a new General Aviation Regional airport to be located in Clarke County in southwest Alabama.

Figure 7-9: Recommended System Roles for Alabama Airports



Source: Jviation



As referenced above, **Chapter Four** provides an analysis of five of the fastest-growing industrial sectors in the state and their proximity to commercial service and general aviation airports. The chapter also identifies those airports that are most capable of serving the medium- and light-business jet aircraft typically used by businesses, as well as their proximity to those businesses. In this chapter, an analysis was conducted to establish how well the current airport system provides business aviation capabilities to those business clusters. **Figure 7-10** again presents Alabama's business clusters and economic hot spots, while also incorporating the combined 45-minute drive time service areas (shown in white) for airports currently meeting NBAA characteristics to serve medium business jets. Those areas that lie outside of the 45-minute drive time for one of these NBAA airports are shaded in a dark gray. Based on this analysis, it is evident that there are multiple areas of the state with business clusters that remain outside of a 45-minute drive time to an airport with NBAA characteristics for serving medium business jets.

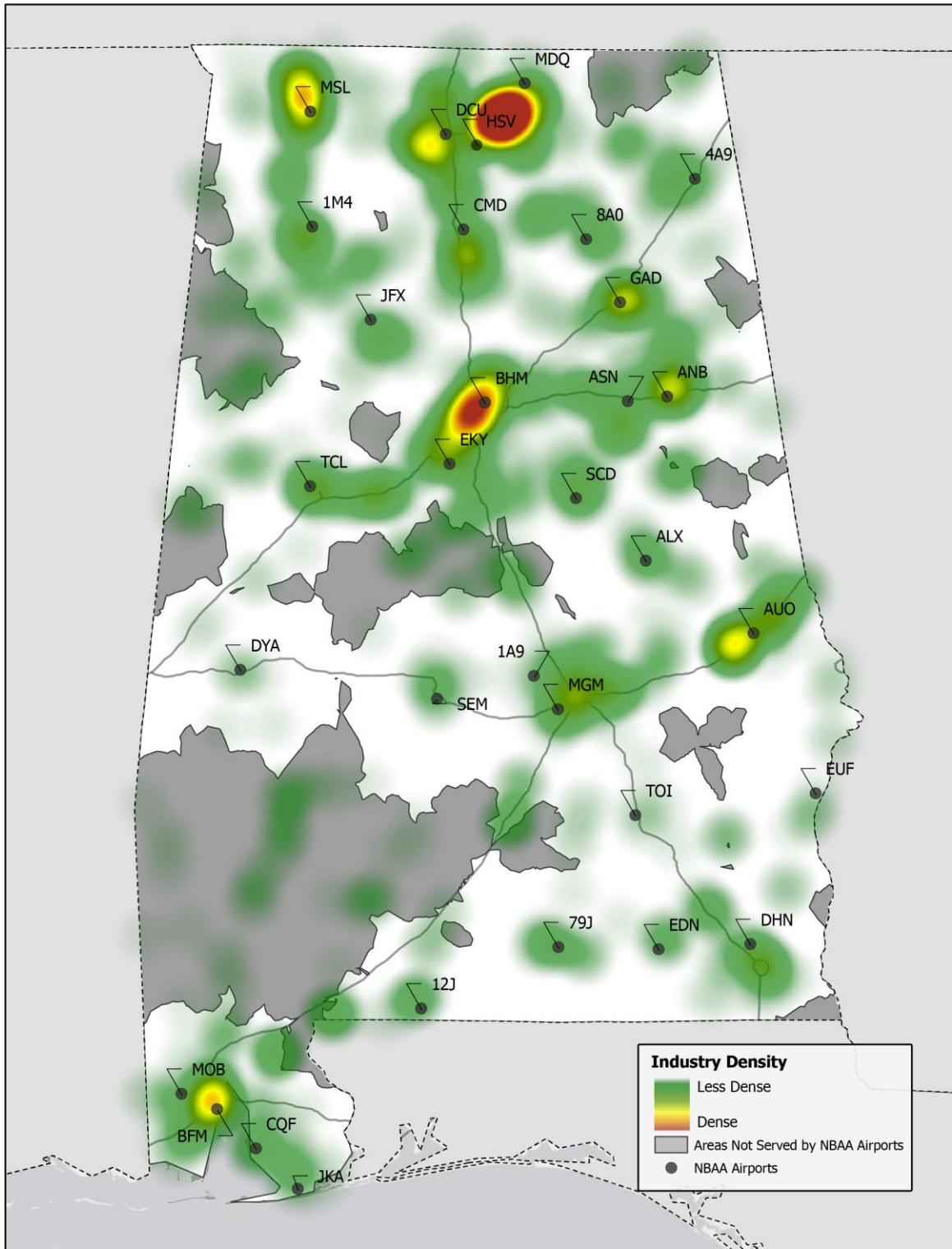
For those areas of the state where business clusters exist outside of the 45-minute drive time of airports having NBAA characteristics, an analysis was conducted to identify those existing airports that nearly meet the NBAA requirements to determine their ability to fully meet those requirements in the future. A total of nine airports were identified through this process. Appropriate improvements at these airports would have the effect of increasing the overall business aircraft accessibility coverage within the state as well as reducing the number of business clusters that lie outside of that coverage. As an example, Marion County Airport (HAB) meets nearly every standard for servicing business jet aircraft except for providing local weather reporting. By installing such equipment on the airport, Marion County would thereby meet all facility and service standards as defined by the NBAA and therefore provide additional drive time coverage in northwest Alabama. This would effectively fill existing system gaps in coverage and provide accessibility to two existing business clusters that currently lack immediate access.

It should be noted that this analysis also incorporates the future Southwest Alabama Regional Airport that will be located in Clarke County. This new airport will provide coverage for the largest geographic part in the state currently without such accessibility and includes Washington, Clarke, and Monroe Counties. This area is strong in the forestry industry with multiple mills and other forestry products being manufactured in the area. The future Southwest Alabama Regional Airport will help significantly in filling a gap for business aircraft accessibility for local industry.

Table 7-1 identifies the nine existing airports that have the greatest potential for meeting business aircraft needs while also filling existing system coverage gaps as well as the anticipated costs. The table also recognizes to what level each airport currently meets the business aircraft standards as well as its deficiencies. Note that one airport has only one deficiency, three airports have two, while the remaining five have three. It should also be recognized that some of the NBAA facility deficiencies identified here have already been recognized through other means and those improvements are already being planned either through system plan recommendations or through individual ACIPs. Thus, costs presented in **Table 7-1** reflect both the estimated costs to enact all NBAA improvements as well as the estimated costs for those improvements not already programmed into an ACIP or the system plan (i.e., these would be wholly new costs).

Based on the information provided in the table, recommended actions have also been provided for each airport as well as any new associated additional costs. Generally, all existing ACIP and system plan projects have been assumed, and all new NBAA improvements not associated with runway widening have been recommended. Note that while a runway width of 100 feet is recommended for an NBAA airport, a slightly narrower width (especially those that still meet FAA airport design standards) should not preclude such aircraft from operating at the airport; therefore, the cost-benefit for such an improvement specifically to accommodate NBAA recommendations would likely not be adequate to warrant such a widening. One example is Thomas C Russell Field (ALX) that meets all NBAA criteria with the exception of four feet of runway width. With only this minor deficiency, ALX has been classified as meeting the NBAA criteria since this will reasonably not prevent business aircraft from actively utilizing this airport. Other recommended improvements (i.e., weather, fuel, approaches, etc.) are more likely to have a positive impact on such aircraft in choosing to operate at a given airport.

Figure 7-10: 45-Minute Accessibility to Airports Meeting NBAA Medium Business Jets



Source: Alabama Department of Commerce; Jviation



Table 7-1: Airports Nearest to Meeting NBAA Medium Business Jet Standards in the Future

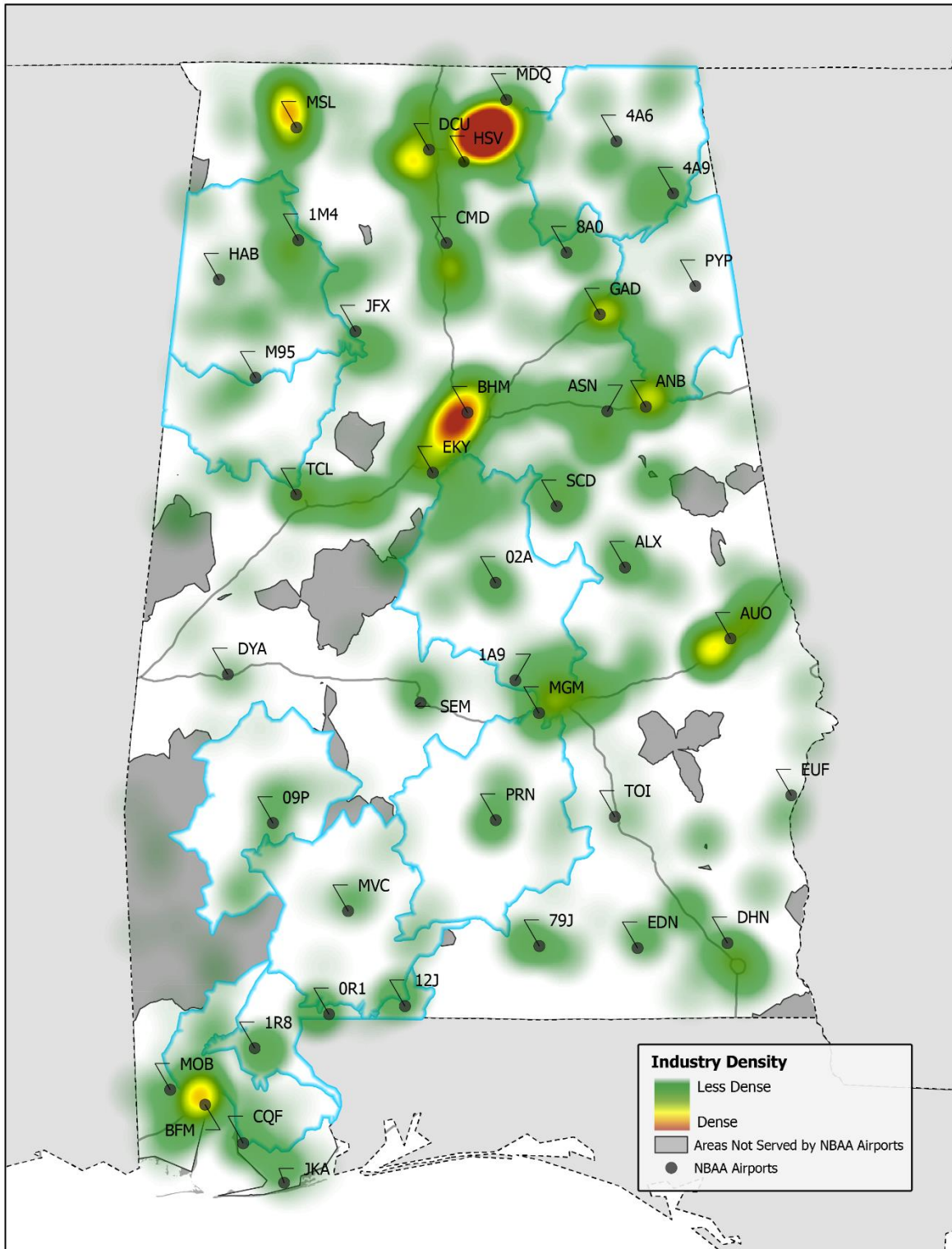
City	Atmore	Bay Minette	Centre	Clanton	Fayette	Greenville	Hamilton	Monroeville	Scottsboro
Airport Name	Atmore Municipal	Bay Minette Municipal	Centre-Piedmont-Cherokee	Chilton County	Richard Arthur Field	Mac Crenshaw Memorial	Marion County-Rankin Fite	Monroe County Airport	Scottsboro Municipal-Word Field
FAA ID	0R1	1R8	PYP	02A	M95	PRN	HAB	MVC	4A6
System Plan Role	GA Community	GA Community	GA Local	GA Community	GA Community	GA Community	GA Community	GA Community	GA Community
Primary Runway Length	5,001'	5,500'	5,500'	4,007'	5,009'	5,501'	5,495'	6,028'	5,240'
Runway Width	80'	79'	100'	100'	80'	80'	100'	100	80'
Approach	Vertical Guidance Approach	Vertical Guidance Approach	Vertical Guidance Approach	Published Approach	Published Approach	Published Approach	Vertical Guidance Approach	Published Approach	Published Approach
VGSI	P2L / P2L	P2L / P2L	None	P2L / P2L	P2L / P2L	P2L / P2L	P2L / P2L	P4L / P4L	P4L / P4L
Runway Lighting	MED	MED	MED	MED	MED	MED	MED	MED	MED
Weather	None	None	None	None	None	ASOS	None	None	AWOS
FBO	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Aircraft Maintenance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jet A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Number of Deficiencies	3	3	3	3	3	2	1	2	2
Total Cost Estimate to Address NBAA Deficiencies	\$1,527,700	\$5,900,000	\$861,800	\$10,593,700	\$1,498,317	\$1,129,424	\$300,000	\$442,846	\$5,359,223
Total Cost to Address NBAA deficiencies Not Already Included in SASP/ACIP	\$1,211,400	\$300,000	\$625,800	\$1,743,700	\$1,073,317	\$1,129,424	\$300,000	\$442,846	\$159,223
Recommended Action(s)	Install Weather & Jet-A	Install Weather & Widen RW	Install VGSI, Weather, & Jet-A	Extend RW; Install Weather & LPV	Install Weather & LPV	Install LPV	Install Weather	Install Weather & LPV	Widen RW; Install LPV
Total Cost for Recommended Action(s) Not Already Included in SASP/ACIP	\$300,000 for Weather	\$300,000 for Weather	\$625,800 for Weather and Jet-A	\$1,743,700 for Weather & LPV	\$160,417 for LPV	\$126,924 for LPV	\$300,000 for Weather	\$442,846 for Weather & LPV	\$159,223 for LPV

Source: Jviation

Note: Deficient factors identified in **RED**.

Based on this analysis, an additional \$4.2 million beyond the existing system plan or ACIP costs would be required to enact these recommendations. If they were to be enacted, **Figure 7-11** reflects the improved system coverage if all nine airports were to implement enhancements to meet the NBAA standards (with the exception of not widening runways specifically for this purpose), plus the addition of the future Southwest Alabama Regional Airport to be located in Clarke County.

Figure 7-11: 45-Minute Accessibility to Airports Meeting NBAA Medium Business Jets (Post Improvements)



Source: Alabama Department of Commerce; Jviation



7.3.3 Commercial Air Service

Likely the most visible representation of any airport system’s effectiveness is the degree to which it provides access to commercial air service for the state’s citizens and its visitors. The FAA categorizes airports with commercial passenger service in the National Plan of Integrated Airport System (NPIAS) as either primary or nonprimary. Based on activity levels, primary airports are grouped into four categories: large, medium, small, and nonhub. Nonprimary airports with commercial air service and at least 2,500 annual passenger enplanements are also classified as nonhub airports. **Table 7-2** identifies FAA Airport Categories for commercial services airports.

Table 7-2: FAA Categories of Airport Activities

Statutory Definition	Criteria	Also referred to as:
Commercial Service	Publicly owned airports with at least 2,500 annual enplanements and scheduled air carrier service. Primary airports are a commercial service airport with more than 10,000 annual enplanements.	
Large Hub	Receives 1 percent or more of the annual U.S. commercial enplanements	Primary
Medium Hub	Receives 0.25 to 1.0 percent of the annual U.S. commercial enplanements	Primary
Small Hub	Receives 0.05 to 0.25 percent of the annual U.S. commercial enplanements	Primary
Nonhub	Receives less than 0.05 percent but more than 10,000 of the annual U.S. commercial enplanements	Primary
Nonprimary Commercial Service, Nonhub	Also referred to as nonhub nonprimary, these airports have scheduled passenger service and between 2,500 and 10,000 annual enplanements.	Nonprimary*

Source: FAA

*The Nonprimary category was established for the distribution of nonprimary entitlements apportioned under the AIP (§47114(d)(3)). Included in this category are the nonprimary commercial service, reliever, and general aviation airports.

As reflected in **Table 7-3**, Alabama’s commercial airport system includes three nonhub and two small hub airports that receive scheduled commercial air service from a U.S. network carrier (the sixth airport does not have an FAA hub classification). Birmingham-Shuttlesworth International Airport (BHM) is the busiest airport in the state with over 1.5 million passenger enplanements in 2019 followed by Huntsville International-Carl T. Jones Airport (HSV) with just over 700,000 annual passenger enplanements. Northwest Alabama Regional Airport (MSL) is the smallest commercial service airport in the state with just over 6,000 enplanements and receives federal funding for subsidized air service. It is also important to recognize that in 2021, the Federal Aviation Administration (FAA) approved a plan by the Mobile Airport Authority to relocate all commercial passenger air services from Mobile Regional Airport (MOV) to a new international airport terminal located at Mobile Downtown Airport (BFM). The new terminal is expected to open at Mobile Downtown in early 2024 and it is anticipated that it should replace Mobile Regional as a nonhub airport in the NPIAS classifications for Alabama.

Table 7-3: Alabama Commercial Service Airports Categories and Activities

Associated City	Airport Name	FAA Hub Classification	Passenger Growth 2018-2019	Number of Airlines (2021)	2019 Pax Enplanements
Birmingham	Birmingham-Shuttlesworth International	Small	4.01%	4	1,516,075
Dothan	Dothan Regional	NonHub	11.36%	1	58,860
Huntsville	Huntsville International-Carl T Jones Field	Small	20.94%	5	702,574
Mobile	Mobile Regional	NonHub	10.32%	3	328,245
Montgomery	Montgomery Regional (Dannelly Field)	NonHub	14.33%	2	194,990
Muscle Shoals	Northwest Alabama Regional	None	0.02%	1	6,124

Source: FAA

Air Service Industry Trends and Issues

The following sections provides an overview of the recent history of the United States (U.S.) air service industry and relevant industry-wide trends and issues that could impact Alabama's commercial air service system, especially at its smaller, nonhub airports. Because the air service industry is so dynamic and constantly in a state of change, it is important that system recommendations appropriately anticipate and reflect these trends.

Recent History of the U.S. Commercial Air Service Industry

Prior to the passing of the Airline Deregulation Act of 1978, the airline industry was controlled by the Civil Aeronautics Board (CAB), an agency of the U.S. federal government. CAB regulated airline routes, fares, and the entry of new airlines into the market. Since deregulation and the inception of a free market, there have been five distinct business cycles in the U.S. airline industry:

- **Expansion and Consolidation (1978 – 2000):** Legacy airlines expanded service and there were many new entrants to the market like America West Airlines and ValuJet Airlines. Eventually, many of the new entrants failed or were acquired by larger, legacy carriers during the mid-1990s. Airline consolidation, or the merger of two airlines, continued into the 2000s. Carriers consolidated in the 1980s to build regional hubs. Consolidation in the 1990s was more focused on buying assets like international route authorities. Consolidation in the 2000s was largely necessary for airlines to survive financially.
- **Status Quo (2001 – 2006):** During the early 2000s, the airline industry was significantly impacted by the events of 9/11, its aftermath, and the beginning of a rise in fuel prices. The average cost of a barrel of oil from 1978 to 2004 was less than \$50.¹ Oil prices peaked at \$165 per barrel in 2008. This was critical since jet fuel is the second largest cost center after labor for an airline. This rapid increase in oil cost made the majority of commercial airline service unprofitable and unsustainable. There was little relationship between growth in U.S. gross domestic product (GDP) and the number of available airline seats (seat capacity). Historically, there had been a high and positive correlation between GDP and airline service.
- **Rationalization (2007 – 2009):** The Great Recession and the “new normal” of higher fuel prices sent macroeconomic shocks into the airline industry. In response, airlines underwent an active reduction in available seat capacity. The industry also moved its focus from mainline operations to the use of regional operators or “feeders” that used smaller aircraft. This trend further reduced the number of available seats. As the supply of available seats decreased, the remaining seats became more valuable because of the scarcity, and fares subsequently rose. This resulted in increased revenues per seat for the airlines.
- **Capacity Discipline (2010 – 2014):** During this period, seat capacity growth continued to be restricted by network carriers, including Southwest Airlines (a “Low-Cost Carrier”), even as increased passenger enplanements persisted. A growing demand for seats, as demonstrated by increased enplanements, coupled with restricted supply in available seats, led to even higher airline revenues per available seat.
- **Capacity Regeneration (2015 – present):** The seat capacity discipline exhibited by airlines prior to 2015 began to give way to new, measured seat growth that more closely mirrored growth in the U.S. economy. Seat growth since 2015 has been the result of a general trend toward larger aircraft, in

¹ “Crude Oil Prices – 70 Year Historical Chart,” Macrotrends.net, accessed March 25, 2020, <https://www.macrotrends.net/1369/crude-oil-price-history-chart>.



addition to added service. Air carriers continue to trend toward replacing smaller 50-seat regional jets with larger aircraft that can seat at least 70 to 90 passengers.²

In 2000, eleven mainline carriers were operating in the United States. Today, after seven major airline consolidations, only five mainline carriers remain (Delta Airlines, United Airlines, Southwest Airlines, American Airlines, and Alaska Airlines). Together with low-cost carriers JetBlue, Spirit Airlines, Frontier Airlines, Allegiant Air, and Sun Country Airlines, these carriers provide the vast majority of U.S. scheduled domestic service.

Over the last two decades, airlines also began to shift their business model from maximizing market share to maximizing earnings. They accomplished this as they exercised more growth discipline. Specifically, the industry has worked to correlate its overall capacity growth (as reflected in Available Seat Miles [ASM]) with growth in the U.S. economy (in the form of real gross domestic product [GDP]). During the 1991 – 2001 period, ASMs had grown by 100 percent as compared to the base period, whereas real GDP had grown by 66 percent. The fact that ASMs were growing much faster than the growth in the economy made it difficult for airlines to price the seats and earn a sufficient profit. As a result, when available seats were significantly higher than growth in the economy, the U.S. airline industry lost billions of dollars. As rates of seat growth have become more aligned with GDP growth, airlines have become more profitable.

Airline and airport/community interests have diverged as the industry has evolved and matured. Early airline strategies were to grow market share. To do so, airlines aggressively added seats to the system. In the era immediately following deregulation, airlines sought out cities where they could concentrate service to increase their market share in a “city-pair” (origin city and destination city). The result of this market-focused model meant business development in local communities followed available air service, which acted as a utility to the community.

Under the profit-focused business model more prevalent today, airlines seek out a strong, established local economy that can support air service and therefore maximize the airlines’ revenue. Airports still want growth, while airlines are much less aggressive in adding seats as they focus on profits.

Community-driven goals of airports are to attract air service that serves the business and leisure passenger demands in a community. In addition, air service brings passengers who spend money on hotels, meals, rental cars, and other items that have an economic impact on that community. With the existence of competition for air service in virtually every region of the U.S., communities must be assertive in their air service development strategies or risk losing service to another market.

General Commercial Air Service Trends

The nation’s domestic network carriers have been more disciplined since 2015 in their approach to managing growth, and carriers are increasingly revenue driven. There are also other trends in the U.S. airline industry that have impacted air service at smaller U.S. airports, including those in Alabama.

Pilot Shortage

In 2013, the FAA increased the qualification requirements for first officers (also known as co-pilots) who fly for U.S. passenger and cargo airlines. FAA now requires first officers to hold an Airline Transport Pilot certificate, requiring 1,500 hours total time as a pilot. Previously, first officers were required to have a commercial pilot certificate, which requires a minimum of 250 hours of flight time.

² Federal Aviation Administration, *Report to Congress: National Plan of Integrated Airport Systems (NPIAS) 2019-2023*, www.faa.gov, September 26, 2018, p. 33, https://www.faa.gov/airports/planning_capacity/npias/reports/media/NPIAS-Report-2019-2023-Narrative.pdf.

According to a U.S. Government Accountability Office (GAO) report, airlines will need to hire 1,900 to 4,500 new pilots annually to meet demand.³ The impact is felt at the regional airline level, due to a decline in qualified entry-level pilots. Entry-level pilots are needed to fill positions vacated by pilots hired by mainline carriers. There are also negative perceptions as they relate to salary and benefits for pilots who fly for regional airlines.

A lack of qualified pilots is a challenge for airlines to retain their service and attract new service. The decline in travelers as a result of the COVID-19 pandemic has temporarily alleviated the shortage; however, if passenger demand for air travel returns and the number of qualified pilots continues to decrease, the weakest performing routes may be the first to lose air service, especially if an alternative airport is within a reasonable driving distance.

Fleet Evolution

There is a national airline trend that reflects a migration from using smaller (50-seat) aircraft to larger (70-90 seat) aircraft. This trend is especially impactful on nonhub airports since small regional jets have historically been used to serve the nation's smaller airports. This is important in that nonhub airports would now have to generate sufficient demand to support the larger aircraft to maintain airline service profitability, and not all smaller airports and markets would be able to do so. As an example, three daily flights of 50-seat aircraft would serve 150 daily passengers, whereas three daily flights by 90-seat aircraft would accommodate 270 passengers. A community may not have the passenger base to justify the same number of flights with larger aircraft. In this case, an airline using larger aircraft might prefer only two daily flights (180 passengers) of 90-seat aircraft. Thus, the trend toward using larger aircraft may threaten to reduce or eliminate existing and/or new air service at nonhub airports.

Airport Infrastructure and Connectivity Constraints

Airport infrastructure, particularly access to large and medium hub airports, is critical for nonhub airports to thrive. Passengers leaving nonhub airports most often fly to a larger airport to connect to another flight to reach their final destination. Some larger or busier airports lack available gates to absorb more flights, and consequently, this can result in constraining airlines wishing to expand services from those larger airports to smaller, nonhub airports.

The Rise of Hub Alternatives for Leisure Markets

Air service from most mainline carriers has evolved into a "hub-and-spoke" model which is one in that flights from smaller airports are routed through larger connecting hub airports where passengers make connections to another flight to their eventual destination. This differs from the point-to-point model often used by low-cost carriers to provide flights to leisure-oriented destinations. While hub operations are used to improve airline operating efficiencies, point-to-point operations tend to improve opportunities for destination markets.

"Open Skies" Agreements

Open Skies Agreements (OSAs) minimize governmental regulation on air transport between two countries. Such agreements can enhance international travel by lifting restrictions on the destinations that foreign airlines can access and removing barriers such as regulations and tariffs. While OSAs do not currently impact Alabama nonhub markets and most likely will not increase opportunities for its small hub airports, OSAs encourage competition, allowing airlines to expand to new markets and lower the cost of doing business.

³ U.S. Government Accountability Office, *Aviation Workforce: Current and Future Availability of Airline Pilots*, GAO-14-232, February 2014, <https://www.gao.gov/products/GAO-14-232>.



The Volatility of Oil Prices

Price unpredictability has made it difficult for airlines to maintain consistent profitability since airlines cannot guarantee the cost to provide service. The price of oil is highly susceptible to geopolitical and macroeconomic shocks. Even low oil prices are not always a good thing for airlines, as low oil prices can signal weakness in the global economy. A weakening global economy causes airlines to reduce service from their respective hubs, diminishing connectivity levels at nonhub airports that are largely reliant on having the largest number of connecting options possible.

The U.S. Economy, Global Trade Tensions, and Wall Street

The airline industry is susceptible to economic disruptions occurring on the national and world stage. Sluggish macroeconomic indicators (such as GDP, unemployment rate, etc.), pandemics, international trade disputes, and little appetite from Wall Street investors for growth in airline service have put additional performance pressure on the airline industry. These effects trickle down to the smallest markets, and many small and nonhub airports must competitively provide air service incentives as a cost of entry for new service.

Alabama Commercial Air Service Airports

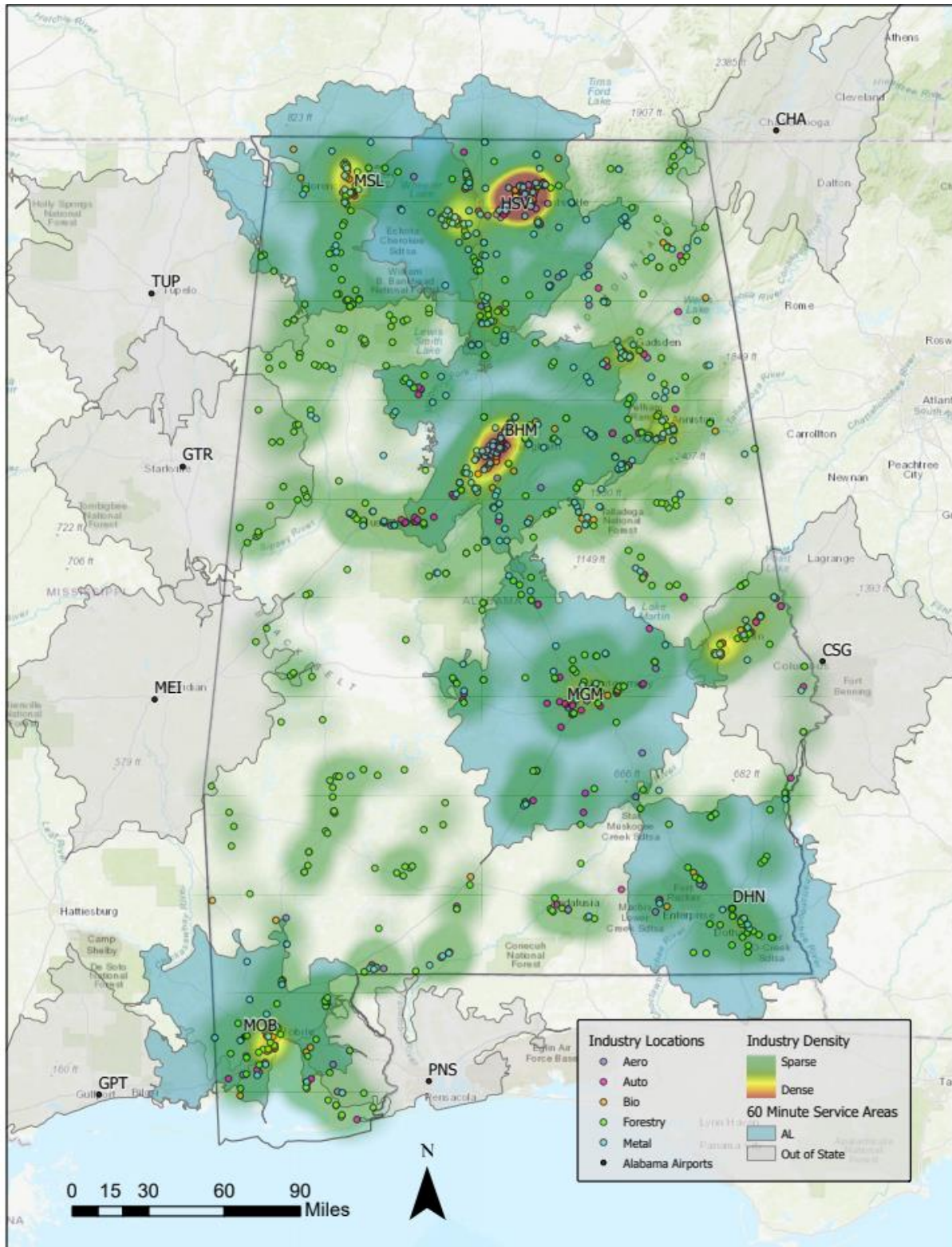
As presented in **Chapter Four**, an important aspect of the Statewide Airport System Plan is an evaluation the system's current performance with respect to its commercial air service airports. This evaluation is supported using several predetermined system performance measures based on those characteristics that are reflective of a high functioning airport system that meets statewide transportation and economic needs and objectives. For the system plan, the following system performance measures were considered:

- 60-minute accessibility to Alabama system airports or public airports in nearby states with scheduled airline service.
- 90-minute accessibility to Alabama system airports or public airports in nearby states with scheduled airline service.

Using these performance measures, an analysis was undertaken to determine current accessibility to commercial service airports and proximity to economic development corridors and areas in Alabama. The results of the mapping analysis are reviewed in the following sections and include both population and geographic coverages.

Figure 7-12 illustrates the 60-minute access coverage by Alabama commercial service airports as well as those located outside of the state but with service areas that lie partially within Alabama. Economic "hot spots" and significant industry clusters are also shown in the figure to reflect areas of industry concentrations in proximity to commercial service airports. Out-of-state commercial service airports provide additional coverage and levels of service to Alabama residents and businesses; these include Pensacola Regional Airport (PNS), Columbus Airport (CSG), Chattanooga Metropolitan Airport (CHA), Tupelo Regional Airport (TUP), Golden Triangle Regional Airport (GTR), Meridian Regional Airport (MEI), and Gulfport Biloxi Regional Airport (GPT). When all airports are also considered, approximately 78 percent of Alabama's population lives within 60 minutes of a commercial service airport, and geographic coverage of the state reaches 49 percent of the total area. The map also illustrates that much of the state's industry clusters are located within commercial service airport market areas, with a notable exception being the more rural southwest Alabama region.

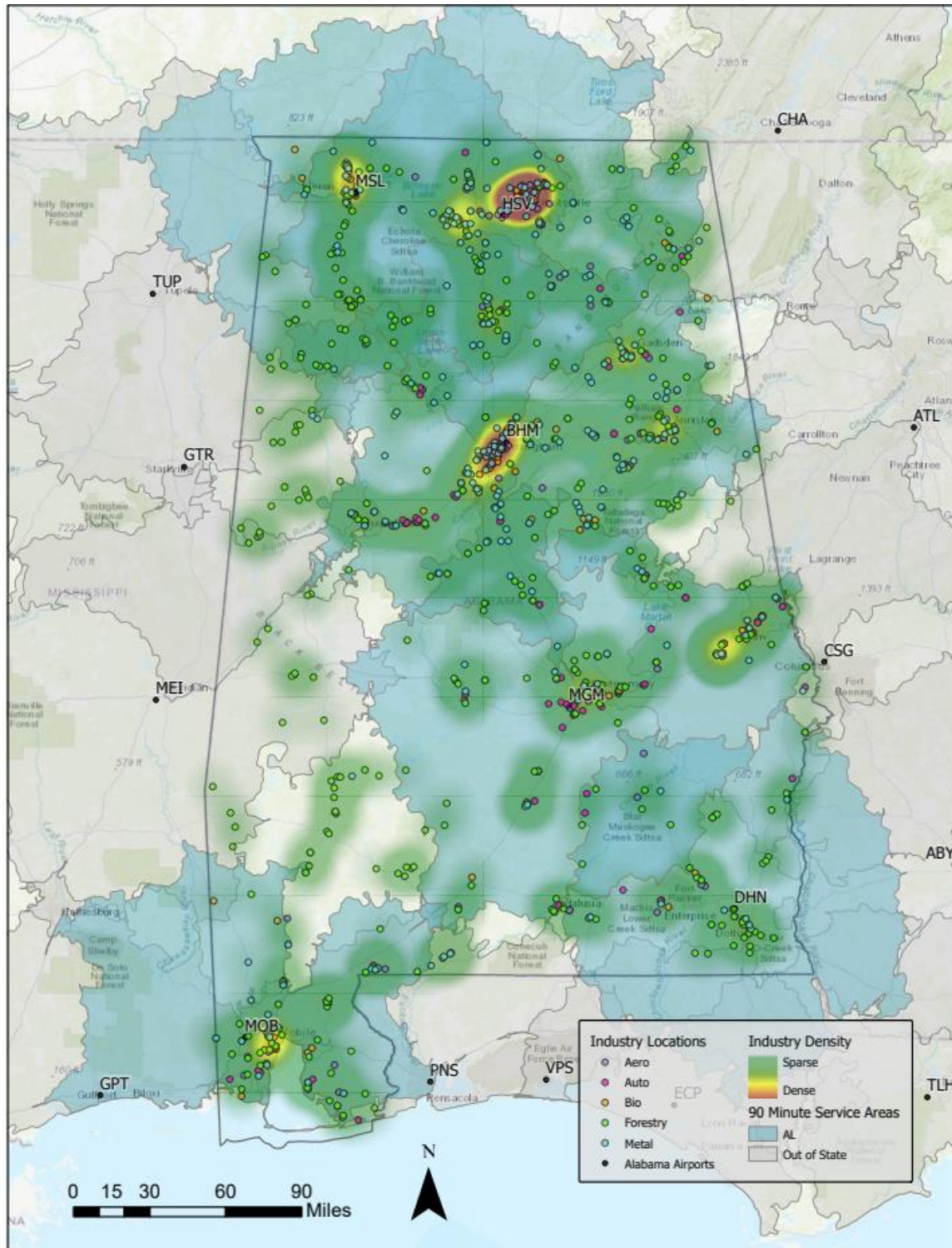
Figure 7-12: Commercial Service Airports 60-minute Coverage Areas in Alabama and Industry Density



Source: Jviation



Figure 7-13: Commercial Service Airports 90-minute Coverage Areas in Alabama and Industry Density



Source: Jviation

Figure 7-13 represents the 90-minute access coverage by commercial service airports both within Alabama and in neighboring states. Based on this metric, approximately 98 percent of Alabama’s residents are located within 90 minutes of a commercial service airport, as well as over 90 percent of Alabama’s land area.

Based on these analyses, the current level of accessibility to commercial air service for the citizens and businesses of Alabama appears to be adequate, particularly when factoring in coverages provided by airports that lie in neighboring states. However, given the extremely fluid nature of the commercial air service industry, it is critical that the ALDOT Aeronautics Bureau be vigilant in monitoring the health and viability of its commercial air service provider, airports, and markets to help ensure that coverages remain appropriate.

7.3.4 Airport System Facility and Service Improvements

Each airport within the Alabama system should strive to meet all facility and service objectives for its recommended system role to better serve the needs of its users, improve the efficiency and effectiveness of the airport system, and to help it fulfill its broader goals for the state. **Figure 7-14** summarizes the statewide facility and service objective compliance for Alabama’s 80 system airports. Overall, the system can reasonably be characterized as performing at a very high level with selected areas available for future improvement. In fact, for 14 of the 22 objectives, the existing system scores greater than 90 percent compliance and two of those objectives (FBO and Jet A fueling) score 100 percent compliance. Spanning all 22 objectives, the Alabama airport system has an average compliance score of 85 percent.

With respect to existing system deficiencies, the most common facility deficiencies include approach lighting, apron tie-downs, and taxiway systems. While it is understood that service improvements are largely market-driven, statewide service deficiencies include access to 100LL fuel and the availability of public phones. (Note that the relative importance of the latter has been largely diminished with general improvements in cell phone coverages across the state; therefore, this criterion has been removed from consideration with this system plan.) Several airports also require updated airport master plans to meet system plan objectives.

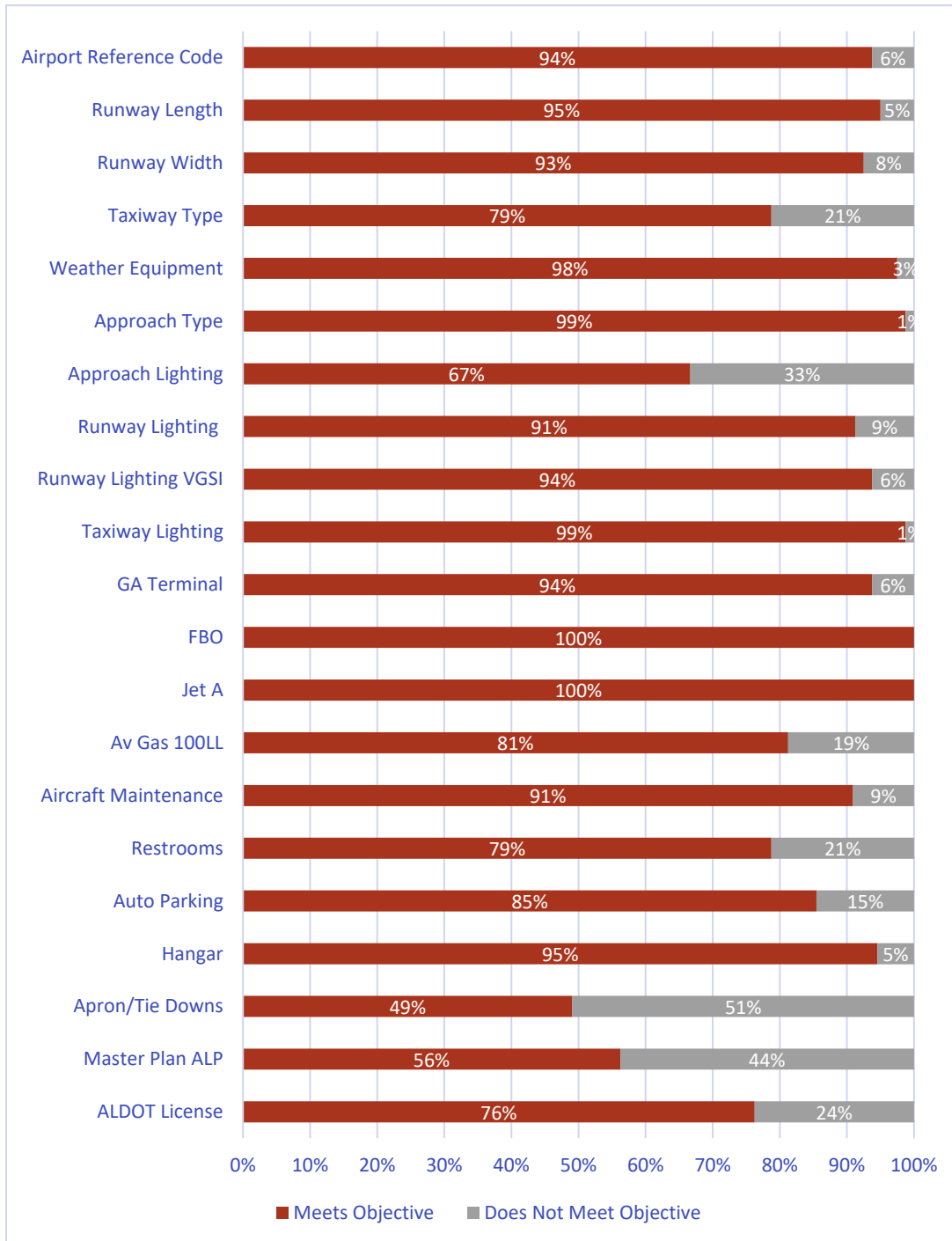
It must also be recognized that many of the potential airport-specific projects identified in the Statewide Airport System Plan to improve system performance must be confirmed by ALDOT Aeronautics Bureau staff and be supported by local airport master planning efforts. As airports in Alabama update their individual airport master plans, projects identified in the facilities and services objectives analysis should be incorporated into those plans. Some projects identified in the Statewide Airport System Plan, especially those that involve airfield improvement, will require justification and detailed environmental review prior to their implementation. Many services available at airports are market-driven and are beyond the ability of the ALDOT Aeronautics Bureau to influence or implement. These services include fuel availability, aircraft maintenance, and FBO services, all of which are primarily based on local demand.

Over time, it is possible statewide or local community conditions may change; thus, airport roles, as defined in this system plan, could likewise change. The facilities and services by airport role, as identified in this plan, serve as a guide for any airport to consider if market conditions change.

A summary of projects by airport that are needed to meet all established objectives is available in the airport report cards presented in **Appendix D**. It is possible that based on local need or development history, some airports may exceed their system plan objectives. Similarly, it is important to note that it is also possible that based on specific airport constraints, some airports might not be able to meet all the objectives associated with their recommended system role.



Figure 7-14: Alabama Airport System Facility and Service Objectives Compliance Summary



Source: Jviation

7.3.5 Airport Vulnerability Assessment

A key consideration in assessing the effectiveness of any system is to also gauge its long-term sustainability and viability by examining any potential weaknesses or vulnerabilities inherent to the system. Therefore, a separate assessment was conducted in the Statewide Airport System Plan to gauge the relative sustainability of airports within the state system. Presented in **Chapter Five**, this effort was undertaken to provide the ALDOT Aeronautics Bureau with an indication of potential challenges the airport system may face with respect to the long-term viability of specific airports. Having this information will help the ALDOT Aeronautics Bureau anticipate potential future changes to the airport system so that it can effectively formulate appropriate responses to potentially changing conditions. A wide variety of factors were considered in assessing every system airport's relative strength with regards to local funding, financial, activity level, and local support considerations. These are the most common underlying considerations that make airports more susceptible to negative pressures on their long-term viability and sustainability. Within the overall airport system, 35 airports were identified as having either a low, moderate, or high degree of negative pressure on their long-term viability and sustainability.

As part of its charge to support appropriate airport system planning, the ALDOT Aeronautics Bureau must consider broader trends within the aviation industry so that they can better anticipate future challenges. One trend that is important to recognize is the number of public airport closures in the United States. Since the early 1970s, when there were more than 7,000 airports open throughout the country, the remaining number of public-use airports has declined to about 5,000 currently. While the majority of this decline can be attributed to privately-owned airports, many were in fact publicly-owned facilities. The majority of these closures were rooted in lack of funding, diminishing activity levels, declining local support, or a combination of the three⁴.

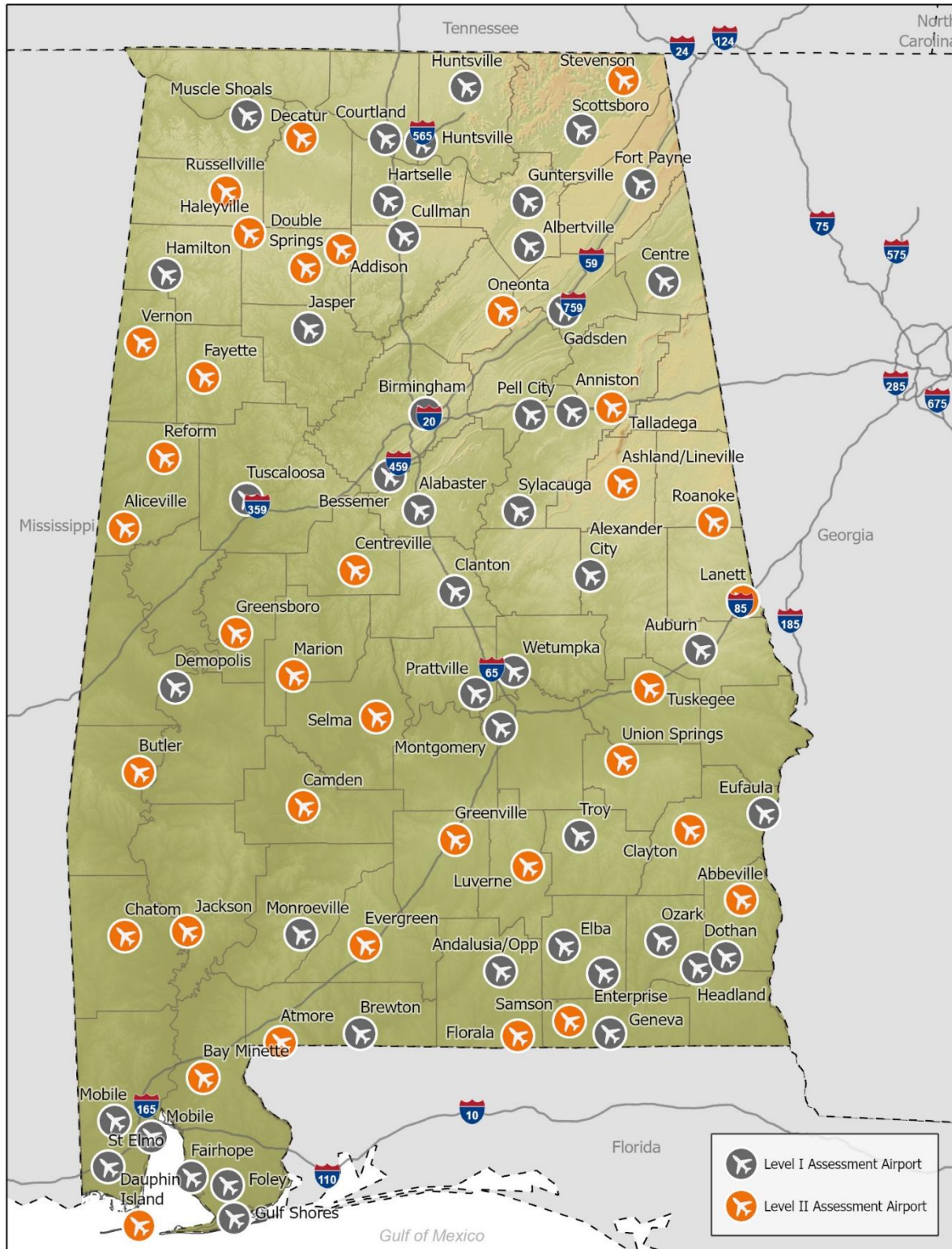
Recognizing this national trend, the ALDOT Aeronautics Bureau elected to analyze all system airports to assess their long-term strength, viability, and relative sustainability. This analysis included identifying those airports that may be potentially susceptible or vulnerable to key airport closure indicators. The system plan analysis encompassed a two-level assessment with the first Level I Assessment examining the entire system in a broad context to identify those airports that may potentially be most vulnerable. The 35 airports that were identified as warranting further analysis in a second Level II Assessment are illustrated in **Figure 7-15**. Further, **Figure 7-16** depicts the 30-minute drive-times for each of these 35 airports, as well as the drive times for all other system airports and those out-of-state airports that have drive times that extend into Alabama.

The 35 Level II Assessment airports are generally distributed throughout the state with some concentrations in southwest, northwest, and eastern Alabama. Many of the Level II Assessment airports also have service areas that overlap with other Alabama system airports, as well as with nearby airports located out-of-state. Overlapping drive time coverages of airports were analyzed further in a Level II Assessment with the intent of determining whether potential consolidation or regionalization of these airports with other nearby airports may be either reasonable or appropriate.

⁴ Note that the first factor, declining funding, is particularly concerning. Funding deficiencies can result in a degradation of the existing airport facilities to the point where they are unsafe for use. In such a situation, it is incumbent upon the airport and regulatory agencies to act before airport facilities degrade to an unsafe operating condition.



Figure 7-15: Level I and Level II Assessment Results



Source: Jviation



The Level II Assessment of the 35 airports is based on a detailed review of key indicators that included financial conditions, activity levels, facilities, market factors, and local sponsor engagement and support. Based on this review, 11 airports were identified as being most susceptible or vulnerable to experiencing negative pressures significant enough that their long-term viability and sustainability could be compromised. (See **Table 7-4** for a listing of the 11 airports presented alphabetically by associated city.)

Table 7-4: Most Vulnerable Alabama System Airports

City	Airport Name	FAA ID	Alabama Airport System	FAA NPIAS Role	ALDOT License
Addison	Addison Municipal	2A8	Local	Non NPIAS	Yes
Butler	Butler-Choctaw County	09A	Local	Unclassified	No
Camden	Camden Municipal	61A	Local	Basic	No
Clayton	Clayton Municipal	11A	Local	Unclassified	No
Double Springs	Double Springs/Winston County	3M2	Local	Non NPIAS	No
Jackson	Jackson Municipal	4R3	Local	Basic	No
Luverne	Frank Sikes	04A	Local	Non NPIAS	No
Roanoke	Roanoke Municipal	7A5	Local	Basic	Yes
Samson	Logan Field	1A4	Local	Non NPIAS	Yes
Stevenson	Stevenson	7A6	Local	Non NPIAS	No
Vernon	Lamar County	M55	Local	Non NPIAS	Yes

Source: Jviation

It is critical to recognize that the results of this assessment are not a definitive judgment of any airport’s absolute sustainability or viability - there are far too many local, state, and national variables that are unique to each airport to make such a determination. However, this assessment is appropriate for providing the ALDOT Aeronautics Bureau with an indication of which airports are potentially most vulnerable to those pressures known to pose the greatest challenge to an airport’s long-term viability.

This high-level overview provides several benefits. First, it provides airport sponsors with a gauge to work towards improving their airport so it is less susceptible to the factors that could ultimately negatively impact the airport’s viability. Second, it provides the ALDOT Aeronautics Bureau with the opportunity to provide guidance, as requested, to those airports that could face such pressures. Additionally, this information can also be used by the ALDOT Aeronautics Bureau to develop contingency plans if one or more of the identified airports prove to not be sustainable in the future.

Contingency Planning for Vulnerable Airports

The two levels of assessment included in the Statewide Airport System Plan evaluated and identified airports that have the potential to face challenges that could hinder their long-term viability. This process ultimately identified 11 airports that had characteristics that made them likely to be most vulnerable. **Table 7-4** and **Table 7-5** identify these airports and provide a sampling of their identified sustainability challenges. Of particular note, seven of the airports do not currently meet ALDOT Aeronautics Bureau Licensing standards, of which four are listed in the FAA National Plan of Integrated Airport Systems (NPIAS). Two of the four NPIAS airports are in the Unclassified category making them less likely to receive federal funding. All but one of the airports have fewer than 10 based aircraft (with four airports having 1 or no based aircraft) which has implications for the five NPIAS airports in that they could experience a change to their NPIAS airport role designation. Three airports have runway pavement in poor condition.

Table 7-5: Vulnerable Airports Facility and Activity Summary

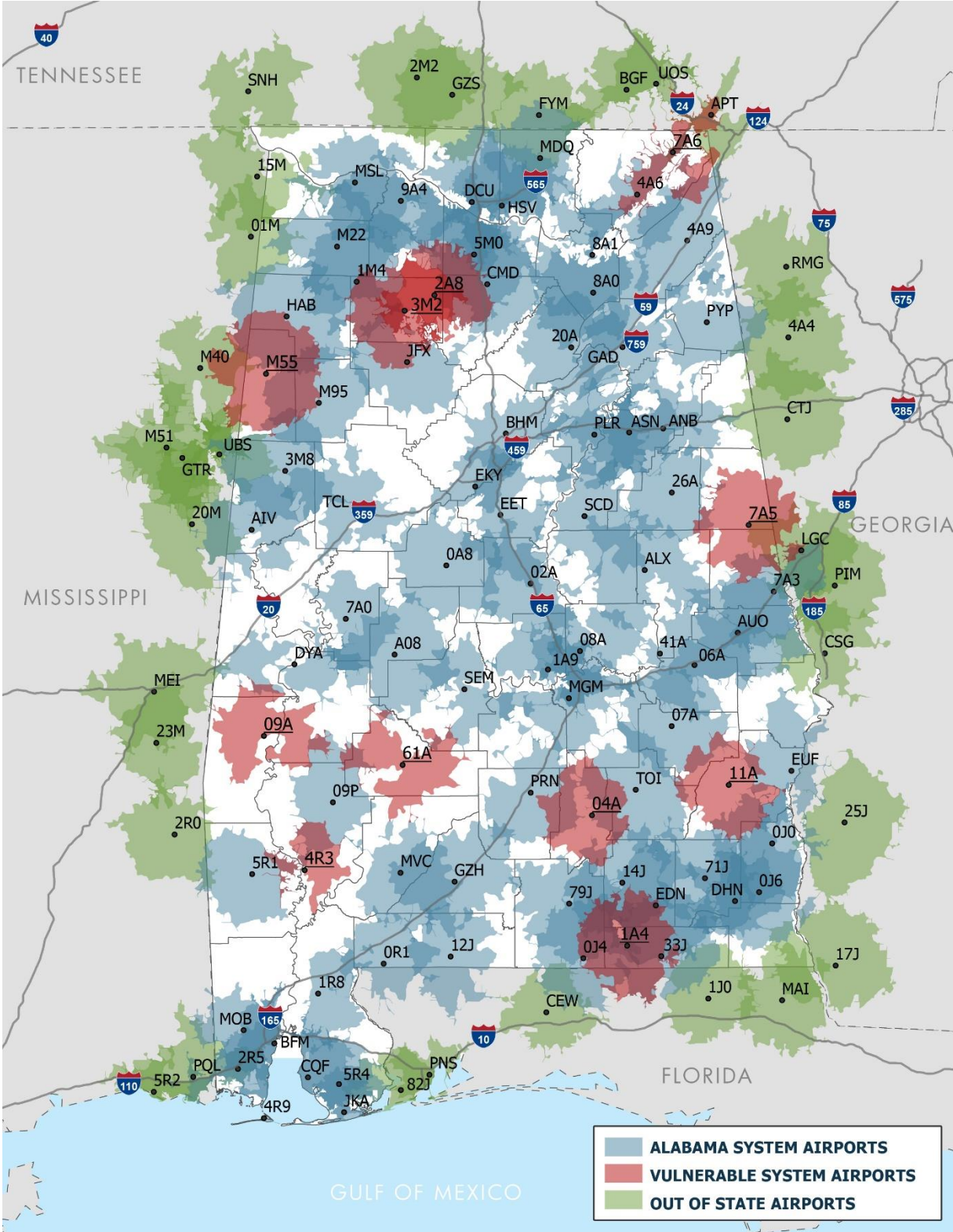
City	Airport Name	FAA ID	Runway Length	Pavement Condition	Fueling Facilities	Based Aircraft
Addison	Addison Municipal	2A8	2,644'	TURF-G	No	4
Butler	Butler-Choctaw County	09A	4,082'	ASPH-P	No	0
Camden	Camden Municipal	61A	4,303'	ASPH-G	No	3
Clayton	Clayton Municipal	11A	5,010'	ASPH-E	No	1
Double Springs	Double Springs/Winston County	3M2	3,331'	ASPH-P	No	1
Jackson	Jackson Municipal	4R3	5,003'	ASPH-E	Yes	5
Luverne	Frank Sikes	04A	4,649'	ASPH-F	No	6
Roanoke	Roanoke Municipal	7A5	3,561'	ASPH-F	No	11
Samson	Logan Field	1A4	3,596'	ASPH-F	No	5
Stevenson	Stevenson	7A6	4,103'	ASPH-F	No	7
Vernon	Lamar County	M55	3,613'	ASPH-P	No	1

Source: Jviation, ALDOT Aeronautics Bureau Data, FAA Form 5010 records

With respect to contingency planning, **Figure 7-17** presents the 30-minute drive times for the airport system’s 11 most vulnerable airports to visually represent the potential system coverage implications that could be realized if one or more of these airports were to be degraded or closed. Additionally, **Figure 7-18**, **Figure 7-19**, and **Figure 7-20** provide closer views of each of these airports.

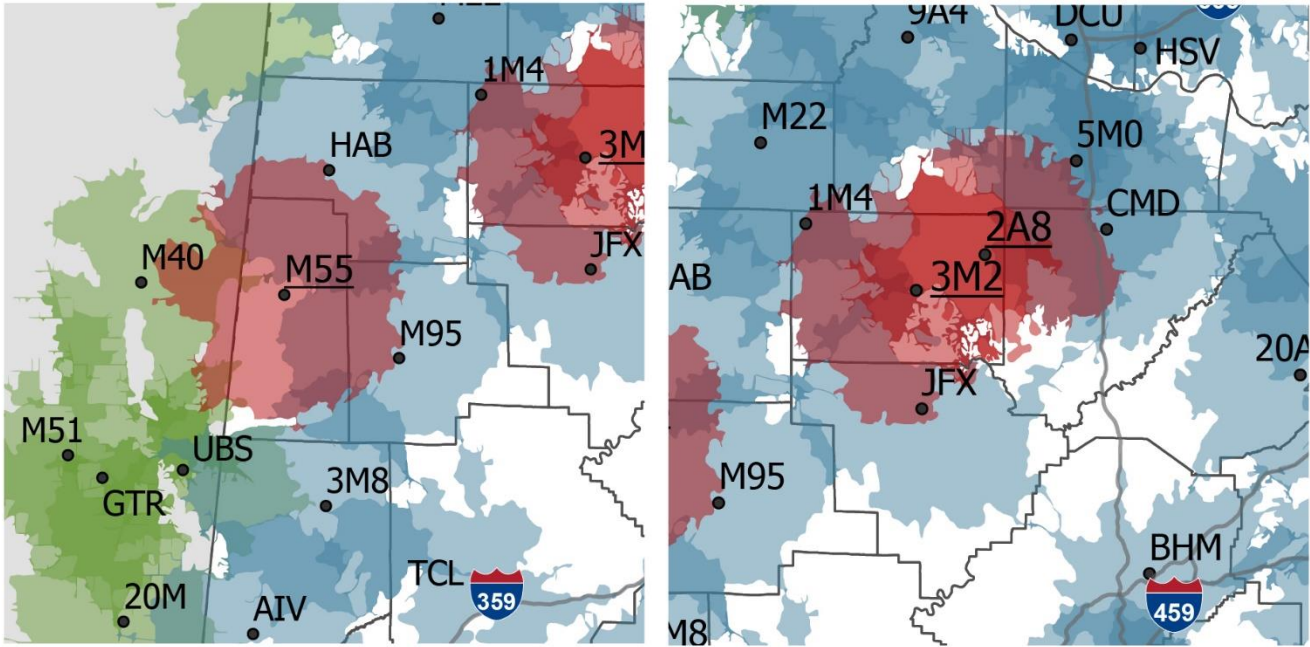


Figure 7-17: 30-Minute Drive Times for Most Vulnerable Airports



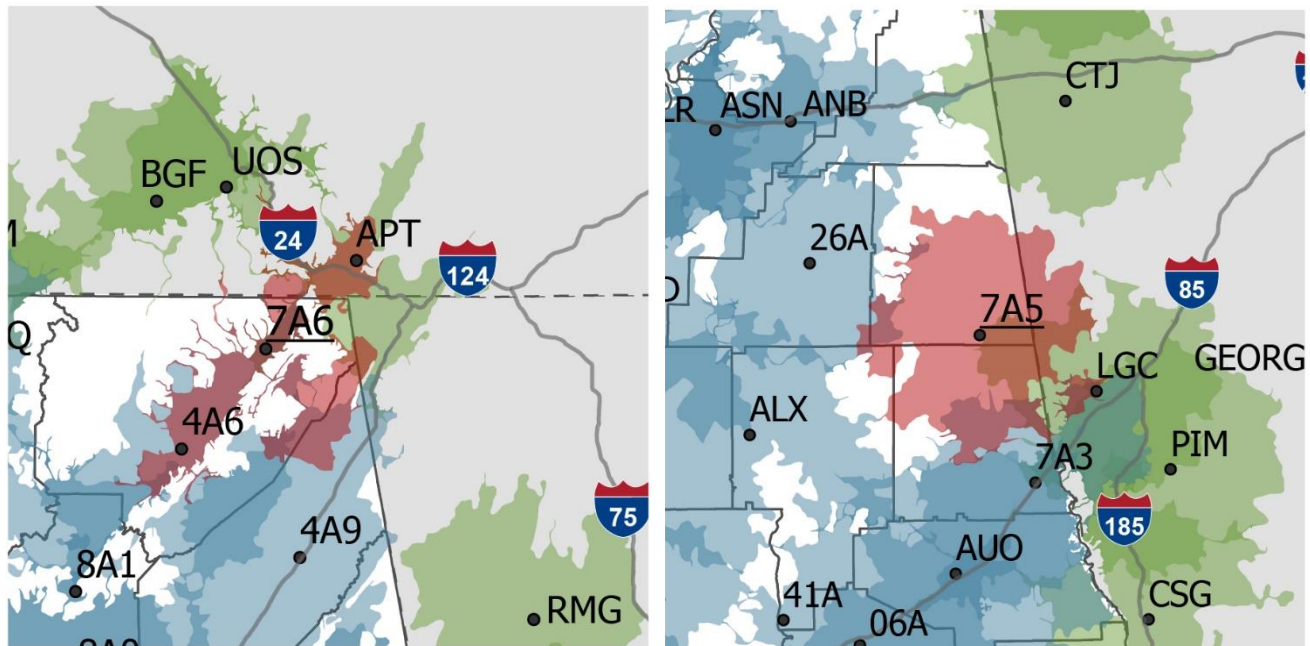
Source: Jviation

Figure 7-18: 30-Minute Drive Times for Most Vulnerable Airports (Northwest Areas)



Source: Jviation

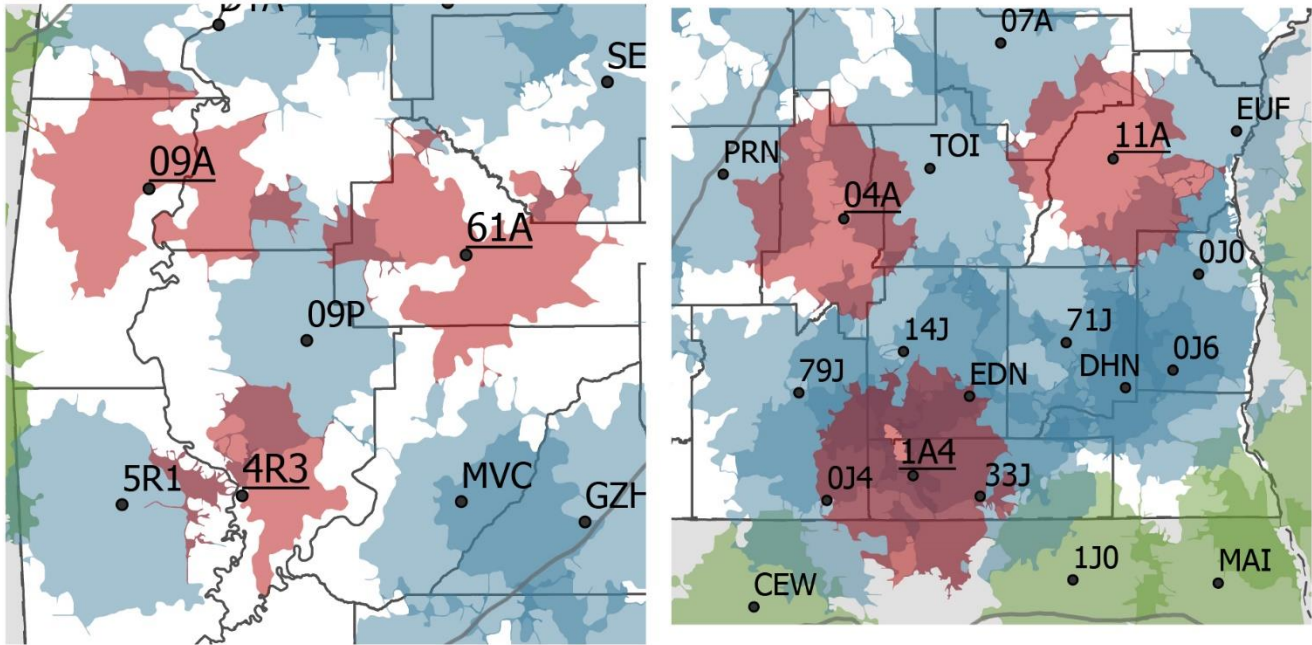
Figure 7-19: 30-Minute Drive Times for Most Vulnerable Airports (Northeast/East Areas)



Source: Jviation



Figure 7-20: 30-Minute Drive Times for Most Vulnerable Airports (South Areas)



Source: Jviation

It should also be noted that the FAA guidance for airport separation distance up until 2019⁵ was 20 miles or a 30-minute drive time buffer between NPIAS airports. Typically, when distances between airports are less than the FAA standard, one of the airports in the overlapping service areas was considered to be ineligible for inclusion in the NPIAS. In 2019, the FAA revised NPIAS inclusion criteria to increase the distance between NPIAS airports to a radius of 30 miles (air miles). Nationally, this new distance criterion has significantly increased the number of NPIAS airports having overlapping service areas as well as the degree of overlap. The resulting impact from this change is likely to be limiting the number of potential airports eligible for NPIAS inclusion in the future.

When considering the potential implications of the previous figures, several of these vulnerable airports have the potential to consolidate their market area services with neighboring airports. Consolidation of selected airports could increase the overall efficiency of the state airport system. Vulnerable airports that are less than 30 miles from another system airport should also be examined and contingencies planned for their potential future consolidation if future circumstances warrant such an action. A review of these airports, particularly those that are the closest in proximity to each other, may necessitate further analysis of the efficiencies gained by potentially consolidating the functionality of these airports. **Table 7-6** below identifies the 11 most vulnerable airports and any public-use airports that are within 30 miles (including out-of-state airports and the future Southwest Alabama Regional Airport) ranked in order of proximity to the nearest airport. The purpose of this is to present how the market area of a vulnerable airport may be able to be served if that airport ultimately had to be consolidated. There are several important points to acknowledge with respect to this table:

- Addison Municipal serves a niche role within the system in that it has a turf runway. As such, it often attracts users that are specifically interested in utilizing that type of runway.

⁵ <https://www.faa.gov/documentLibrary/media/Order/Order-5090-5-NPIAS-ACIP.pdf>

- Double Springs has the greatest number of airports located within 30 miles with a total of six. (*Note: Double Springs Airport officially closed in 2021.*)
- The new Southwest Alabama Regional Airport that will be located in Clarke County (near Thomasville) lies within 30 miles of three of the 11 vulnerable airports (Butler-Choctaw County, Camden Municipal, and Jackson Municipal).
- Since the start of the system plan study and this associated vulnerability analysis, Jackson Municipal has taken significant steps in reducing its consolidation susceptibility. These actions include the receipt of FAA AIP grants in association with its NPIAS role classification as a Basic airport and providing self-serve fuel service.
- Roanoke Municipal has also recently been the recipient of FAA AIP grants in association with its NPIAS role classification as a Basic airport and has over 10 based aircraft at the airport.
- Lamar County, Roanoke Municipal, and Stevenson Airport all have airports located in neighboring states within 30 miles.

Table 7-6: Vulnerable Airport Proximity Summary

City	Airport Name	FAA ID	Nearest ALDOT System Airport	FAA ID	DISTANCE IN AIR MILES
Addison	Addison Municipal	2A8	Double Springs*	3M2	11 mi
			Cullman Regional	CMD	18 mi
			Hartselle-Morgan County	5M0	18 mi
			Walker County – Bevill Field	JFX	23 mi
			Haleyville – Posey Field	1M4	26 mi
Double Springs	Double Springs/Winston County	3M2	Addison Municipal*	2A8	11 mi
			Walker County – Bevill Field	JFX	17 mi
			Haleyville – Posey Field	1M4	18 mi
			Cullman Regional	CMD	28 mi
			Hartselle-Morgan County	5M0	29 mi
			Russellville - Bill Pugh Field	M22	30 mi
Samson	Logan Field	1A4	Geneva Municipal	33J	12 mi
			Floral	0J4	15 mi
			Enterprise	EDN	17 mi
			Carl Folsom	14J	21 mi
			Andalusia	79J	24 mi
Luverne	Frank Sikes	04A	Troy Municipal	TOI	17 mi
			Greenville	PRN	22 mi
			Carl Folsom	14J	25 mi
			Andalusia	79J	30 mi
Stevenson	Stevenson	7A6	Marion County*	APT	17 mi
			Scottsboro Municipal*	4A6	18 mi
			Franklin County, TN	UOS	23 mi
			Winchester Municipal, TN	BGF	25 mi
			Isbell Field	4A9	29 mi



City	Airport Name	FAA ID	Nearest ALDOT System Airport	FAA ID	DISTANCE IN AIR MILES
Vernon	Lamar County	M55	Richard Arthur Field/Fayette	M95	20 mi
			Marion County-Rankin Fite	HAB	20 mi
			Monroe County Airport, MS	M40	22 mi
			Columbus-Lowndes County, MS	UBS	30 mi
Clayton	Clayton Municipal	11A	Weedon Eufaula	EUF	21 mi
			Abbeville Municipal	0J0	24 mi
			Union Springs	07A	27 mi
			Troy Municipal	TOI	31 mi
Butler	Butler-Choctaw County	09A	Demopolis Regional	DYA	26 mi
			Southwest Alabama Regional**	09B	26 mi
Roanoke	Roanoke Municipal	7A5	Lagrange-Callaway Airport, GA	LGC	19 mi
			Lanett Municipal	7A3	23 mi
			Ashland/Lineville	26A	27 mi
Camden	Camden Municipal	61A	Southwest Alabama Regional**	09B	23 mi
			Selma Craig Field	SEM	32 mi
Jackson	Jackson Municipal	4R3	Roy Wilcox	5R1	18 mi
			Southwest Alabama Regional**	09B	31 mi
			Monroe County	MVC	32 mi

Source: Jviation

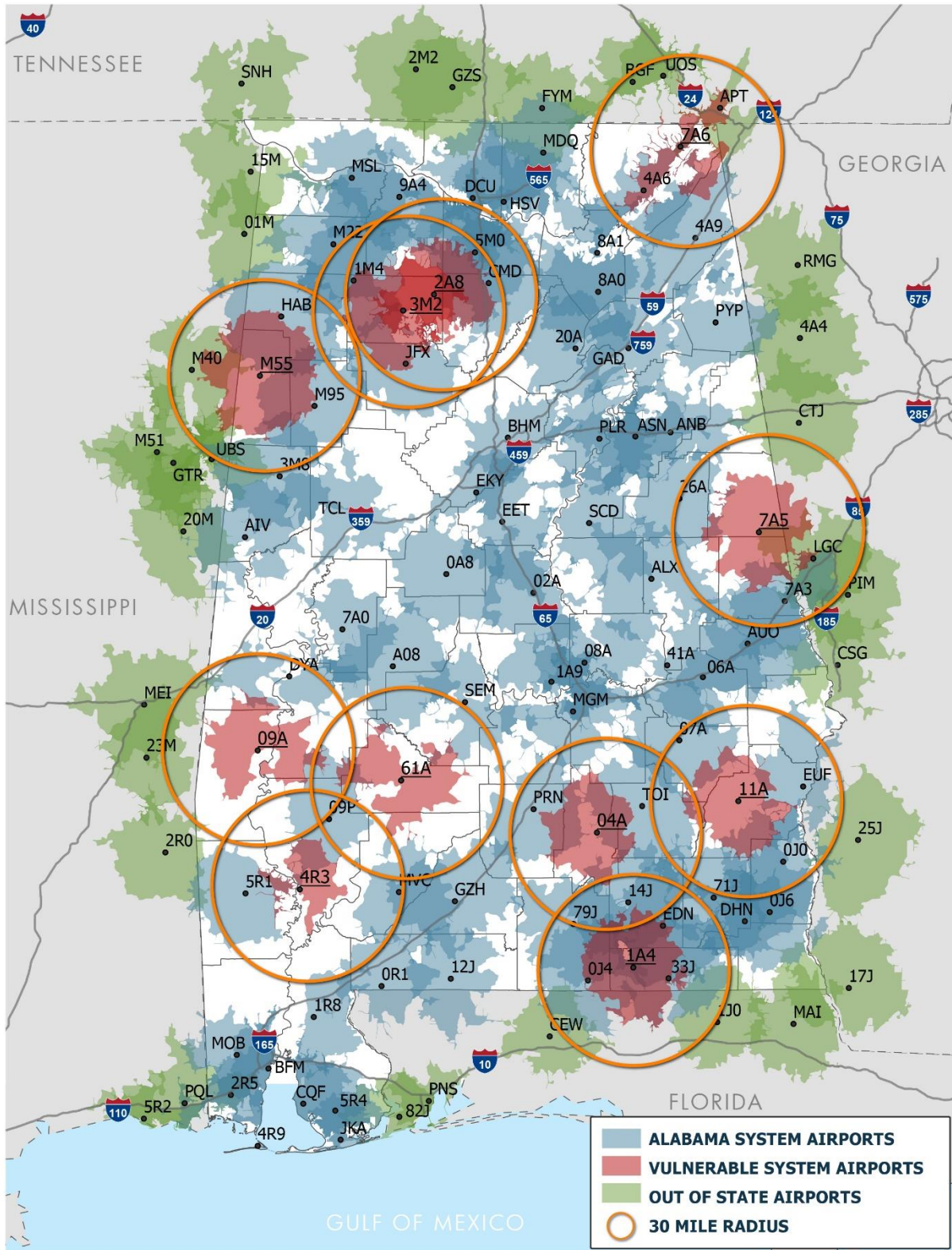
* Airport has been identified as being vulnerable.

** Southwest Alabama Regional Airport is a new regional airport that is planned for construction in Clarke County.

Figure 7-21 provides an illustration of the information provided in the previous table. The 11 vulnerable airports are denoted by two factors: the red areas on the map represent their 30-minute drive times, and the orange rings represent a 30-mile NPIAS radius. Many of the vulnerable airports have overlapping drive-time coverage areas with other Alabama system airports. When applying the FAA NPIAS standard of a 30-mile radius, all 11 vulnerable airports are within the radius of one or more Alabama system airports as well as several airports located out-of-state. The only exception to this is Camden Municipal (61A), which is not currently within a 30-mile radius of another airport but will be once the new Southwest Alabama Regional Airport (09P) is constructed in Clarke County.

While the closure of airports is not typically an ideal circumstance, it must be recognized that consolidation of the vulnerable airports could create a more efficient airport system and reduce the number of airport sponsors facing difficulties in meeting the financial obligations of maintaining their facility. The potential consolidation of airports could also address the duplication of overlapping airport catchment areas. Note that the new Southwest Alabama Regional Airport has the potential to consolidate one or more airports in southwest Alabama, and could serve as a template for the ALDOT Aeronautics Bureau to follow in the coming years.

Figure 7-21: 30-Minute Drive Times for Most Vulnerable Airports with NPIAS 30-Mile Separations



Source: Jviation



Finally, it is again important to acknowledge that the consolidation of airports is not a goal of the ALDOT Aeronautics Bureau, and the closure of any airport can be a challenging process that often involves multiple layers of stakeholders representing local, state, and federal concerns. However, for planning purposes, it is nevertheless prudent to anticipate how the airport system might be able to respond to a potential future airport closure. If a future closure were to occur (as it has recently occurred with Double Springs in 2021), the ALDOT Aeronautics Bureau must be able to react appropriately to continue to serve any market area that may be left uncovered by the closure. Responses could include the following, among other actions:

- Removal of the closed airport from the state airport system as well as the FAA NPIAS, if it was a participant.
- Identification of neighboring airports that could accommodate the market area of the closed airport.
- Additional investments in those neighboring airports to help accommodate the market area demands of the closed airport.
- Potential airport system role changes for those neighboring airports in response to their accommodating the market area demands of the closed airport.
- Potential FAA NPIAS role changes or inclusion in the NPIAS for those neighboring airports in response to their accommodating the market area demands of the closed airport.
- No action, if the market area of the closed airport is already adequately served by neighboring airports.

7.4 Recommendations Summary

The Statewide Airport System Plan provides a comprehensive look at how Alabama's airport system is currently performing, its degree of effectiveness for its various users and stakeholders, how to continue to improve its performance, as well as how to enhance it to meet future needs. The evaluation has also identified a variety of recommendations designed to enhance the safety and performance of the Alabama airport system, to help augment the system's effectiveness for the state, and to promote its long-term sustainability. The following sections focus on various elements related to the efficiency with which the system may be able to maintain its effectiveness.

7.4.1 Funding Recommendations

In order to provide a complete view of the total funding requirements of the Alabama airport system, the system plan has provided an analysis of funding recommendations based on three primary data sources: the Statewide Airport System Plan itself, the results of the airport Pavement Management Program (PMP) produced as part of the system planning effort for 59 of the 80 system airports, and the actual Airport Capital Improvement Program (ACIP) for each system airport. When combined and sorted to eliminate any duplications, these comprise the basis of the airport system financial requirements and funding recommendations.

Based on system analyses, the Statewide Airport System Plan identifies specific projects for implementation at specific airports in the Alabama system. These projects relate to improving the airport system's performance, especially as it relates to facility and service objectives set as part of this study. A cost estimate has been provided for recommended projects.

Current Airport Capital Improvement Programs were reviewed studied to provide a general understanding of what projects are already being considered on the local level that would address facility or service deficiencies noted in the Statewide Airport System Plan. An analysis was performed for each airport to ensure project costs

were not duplicated between the Statewide Airport System Plan and current ACIP projects. **Table 7-7** presents the adjusted costs by project type for all system airports based on system plan recommendations.

Table 7-7: Adjusted System Plan Costs for Recommended Development

	International	National	General Aviation Regional	General Aviation Community	Local Service	Subtotals	In %
Runway Extension	\$-	\$3,660,000	\$-	\$5,920,000	\$-	\$9,580,000	14.1%
Runway Widening	\$-	\$-	\$7,200,000	\$64,000	\$-	\$7,264,000	10.7%
Install Turn Arounds	\$-	\$-	\$-	\$1,940,000	\$6,960,000	\$8,900,000	13.1%
Design LPV	\$-	\$-	\$80,000	\$2,047,000	\$-	\$2,127,000	3.1%
Install PAPI	\$-	\$285,000	\$-	\$-	\$-	\$285,000	0.4%
Install ALS	\$-	\$10,450,000	\$-	\$-	\$-	\$10,450,000	15.3%
Install HIRL	\$-	\$2,550,000	\$-	\$-	\$-	\$2,550,000	3.7%
Install MIRL	\$-	\$-	\$-	\$-	\$1,070,000	\$1,070,000	1.6%
Install MITL	\$-	\$-	\$1,230,000	\$-	\$-	\$1,230,000	1.8%
Install ASOS	\$-	\$-	\$600,000	\$1,500,000	\$300,000	\$2,400,000	3.5%
Add Hangar Space	\$5,800,000	\$3,230,000	\$-	\$-	\$-	\$9,030,000	13.3%
Install Tie Downs	\$-	\$105,000	\$147,000	\$141,000	\$-	\$393,000	0.6%
GA Terminal	\$-	\$-	\$-	\$518,000	\$-	\$518,000	0.8%
GA Car Park	\$-	\$69,000	\$199,000	\$7,000	\$-	\$275,000	0.4%
Fuel Install	\$-	\$-	\$-	\$-	\$3,909,600	\$3,909,600	5.7%
New MP	\$-	\$2,000,000	\$2,040,000	\$2,380,000	\$1,700,000	\$8,120,000	11.9%
Totals	\$5,800,000	\$22,349,000	\$11,496,000	\$14,517,000	\$13,939,600	\$68,101,600	100.0%

Source: Jviation

Note: Costs do not include individual ACIP projects

The combined costs from all three sources (system plan facility analyses, pavement management, and airport-specific ACIPs) provide a comprehensive view of the anticipated financial needs for Alabama’s system of airports over the next ten years. **Table 7-8** provides a summary of identified costs by system plan role and project source. A complete description of the project costs (e.g., system planning costs, pavement management program costs, and ACIP costs) have been provided in **Appendix E**.



Table 7-8: Summary of Total Identified Development Costs by Role and Plan

Airport Role	10-Year System Plan Development Need	10-Year ACIP Need	10-Year Pavement Maintenance Need*	Combined 10-Year Development Need	Average Annual Development Costs
International	\$5,800,000	\$105,757,680	\$102,401,520	\$213,959,200	\$21,395,920
National	\$22,349,000	\$267,946,616	\$214,354,084	\$504,649,700	\$50,464,970
General Aviation Regional	\$11,496,000	\$114,328,211	\$156,837,700	\$282,661,911	\$28,266,191
General Aviation Community	\$14,517,000	\$131,081,944	\$71,851,156	\$217,450,100	\$21,745,010
General Aviation Local	\$13,939,600	\$60,649,828	\$47,740,019	\$122,329,447	\$12,232,945
10-Year Development Need	\$68,101,600	\$679,764,280	\$593,184,478	\$1,341,050,358	\$134,105,036
Average Annual Development Costs	\$6,810,160	\$67,976,428	\$59,318,448	\$134,105,036	

Source: Jviation

*The Pavement Management Program conducted in association with the Statewide Airport System Plan provided an analysis for 59 of the 80 system airports. For those airports not included in the Pavement Management Program, pavement management costs were interpolated through an averaging methodology based on each airport’s individual ACIP.⁶

To complete the analysis, a full 10-year estimate of anticipated project costs was developed. Projects identified within the Statewide Airport System Plan do not have a programmed year, so costs from that source were averaged over a 10-year period to arrive at an annualized estimate. Additionally, since Alabama airports’ ACIPs only project six years into the future and the pavement management projects seven years, the remaining years were interpolated based on averages of identified project costs to better represent all funding needs over the next 10 years.

Average annual costs to implement all system plan-related projects are estimated at approximately \$6.8 million over the next ten years. Average annual costs to address current ACIP requests and pavement maintenance costs are estimated at \$68.0 million and \$59.3 million, respectively. Considering costs from all elements over the next 10 years, it is estimated that the total annual financial need will be \$134.1 million.

When the total average annual investment need of \$134.1 million is compared to anticipated annual federal, state, and local funding, it is clear that a significant annual funding gap should be anticipated. Based on average historical funding levels experienced by Alabama, there is an anticipated average annual funding gap of approximately \$67.6 million. Without additional FAA or state funding, this will mean that funding decisions will need to be prioritized to ensure that airports and projects that are most critical to the success of the Alabama airport system are provided funding. However, to be clear, in order not only preserve but also enhance the effectiveness of the overall system for the benefit of the State of Alabama, the ALDOT Aeronautics Bureau should strive to fully meet the annual financial need described above.

To support the implementation of projects that can help to best preserve and elevate the performance of Alabama’s airport system, stakeholders, and elected officials should be briefed and educated on the financial needs of the airport system as well as its resultant benefits. Educational efforts should focus on the total

⁶ Appendix E only provides specific details of the pavement management costs associated with the 59 airports included in the Pavement Management Plan. Interpolated pavement management cost for the 21 airports not included in the Pavement Management Program have been assumed to be included in each airport’s individual ACIP.

economic benefits of the system (see **Table 7-9**) as provided in the companion 2020 Alabama Statewide Airport Economic Impact Study versus the airport system’s projected annual need. This statewide analysis has shown that there is an average annual need of \$134.1 million to maintain and improve the airport system. However, that number pales in comparison to the \$4.9 billion of annual economic benefit produced the airport system as well as the 44,399 jobs it generates. Clearly, the annual economic benefits produced by the airport system, in addition to the \$267.6 million of tax benefits⁷ it generates on an annual basis, significantly exceed the system’s annual financial need.

Table 7-9: Summary of Identified Investment Needs, Economic Activity, and Employment by Airport Role

Airport Role	Average Annual Investment Need	Total Annual Economic Activity	Total Employment
International	\$21,395,920	\$1,668,572,600	18,021
National	\$50,464,970	\$2,926,954,200	23,216
General Aviation Regional	\$28,266,191	\$229,873,400	2,219
General Aviation Community	\$21,745,010	\$81,779,100	820
General Aviation Local	\$12,232,945	\$16,491,900	123
Totals	\$134,105,036	\$4,923,671,200	44,399

Source: Jviation

7.4.2 Pavement Capital Improvements Program Recommendations

It is recommended that the ALDOT Aeronautics Bureau implement pavement improvements and assist airports in prioritizing pavement-related projects. It is also recommended that the ALDOT Aeronautics Bureau continue to encourage improved routine pavement maintenance practices and educate airport officials on the benefits of pavement maintenance and the existing pavement condition index (PCI) program.

Responsible for preserving and enhancing Alabama’s air transportation system, ALDOT implemented an Airport Pavement Management Program (APMP) in 2008 using the PAVER system. The Statewide Airport System Plan scope of work included an update of the APMP for 59 airports, which was conducted by All About Pavements, Inc., a project team member.

An APMP provides an integrated framework for comprehensive evaluation and decision-making for managing airfield pavements. The essential components of an effective APMP provide for an objective evaluation of the condition of existing pavements, identification of short-term and long-range major rehabilitation work, necessary improvements in the pavement structural capacity, and the recurring maintenance work that should be completed each year. The APMP also provides a budget for each of these types of pavement construction.

Historically, pavement maintenance decisions have been based on past experiences and without the benefit of documented data or analysis. This practice does not encourage life cycle cost analysis, nor the evaluation of cost-effectiveness of alternate scenarios, and can lead to the inefficient use of funds. With limited allocated funding for Maintenance and Repair (M&R) Program projects, a defined procedure for setting priorities and schedules that will maximize the funds available is more important than ever.

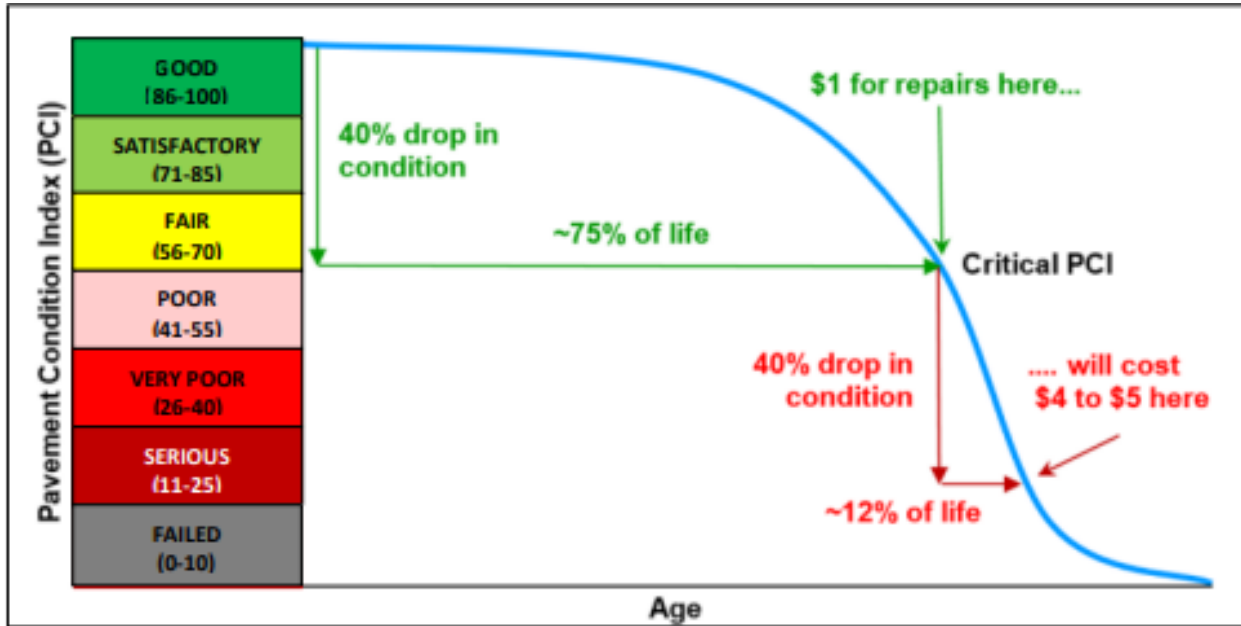
In examining the lifespan of a 20-year pavement, a “good” to “fair” condition rating may last only 5 to 15 years. After that point, the rate of deterioration of pavements accelerates sharply as the age of the pavement increases, and within five years, the pavement may deteriorate to the point of failure. In order to extend

⁷ Tax revenues were estimated based on direct economic impacts, not on total economic impacts. For more detail, please see the companion *Alabama Statewide Airport Economic Impact Study Technical Report*.



pavement life, maintenance and repairs need to be scheduled and performed before the pavement surface declines to a “fair” condition. The point at which rehabilitation can be done before the steep decline occurs is called the “critical PCI” and is generally considered to occur when the PCI is between 60 and 70 for general aviation airports. If the work is done before deterioration accelerates, the cost of rehabilitation can be reduced as shown in Figure 7-22.

Figure 7-22: Pavement Management Concept



Source: All About Pavements Inc.

For Alabama, the following APMP tasks were completed to achieve the project objectives at each airport evaluated:

- Updated the PAVER work history with records review information provided by ALDOT
- Conducted a visual pavement condition survey of the airfield pavements
- Updated the PAVER database with inventory and condition data
- Updated Maintenance and Rehabilitation policies and unit costs
- Developed a 7-Year Pavement Capital Improvement Program (PCIP) with associated cost estimates

With this update of the APMP, Alabama airports will continue to be eligible for FAA funding for major pavement rehabilitation work under the AIP since an APMP meets the pavement maintenance management requirements described in Appendix A of FAA AC 150/5380-6C. As part of the Statewide Airport System Plan, each airport’s aeronautical pavements were analyzed to determine overall condition. It is recommended that the ALDOT Aeronautics Bureau continue to implement pavement improvements and assist airports in prioritizing pavement-related projects.

7.4.3 Project Prioritization Recommendations

The ALDOT Aeronautics Bureau has established grant program guidelines in association with the Alabama Airport Improvement Funding Program, which is a reimbursement program intended to provide financial assistance to the state’s publicly owned airports for planning and capital construction of various airfield facilities, as well as land acquisition for airport expansion and/or obstruction removal. This is in conformance

with funding authorizations provided by the “Airport Constitutional Amendment” of 1946 and by Section 23-1-360 of the Code of Alabama 1975. Specifically, the Alabama Airport Improvement Funding Program has two primary priorities:

- Develop and maintain the safe and secure operation of Alabama’s airport system
- Preserve and improve an adequate system of airports to meet economic development trends occurring in the state.

To support these priorities, the ALDOT Aeronautics Bureau has instituted a series of policies regarding the application and use of state matching funds for qualified airport improvement projects. Key elements of these policies include the following (note that there are other elements included in the formal program):

- **Matching Ratio** – ALDOT will award grants through the Alabama Airport Improvement Funding Program up to 50 percent of the project’s actual cost incurred by the airport sponsor. For FAA-assisted projects, ALDOT will award grants up to 50 percent of the local match required for the project.
- **Local Matching Requirement** - Alabama Airport Improvement Funding Program must be matched with a local cash contribution.
- **Annual Grant Application Cycle** – An annual grant application cycle will be employed to better synchronize the Alabama Airport Improvement Funding Program with the FAA AIP. This helps ensure that the state leverages the maximum amount of FAA funding available. Through this annual process, projects are identified and prioritized in terms of funding.

Projects eligible for funding through the Alabama Airport Improvement Funding Program can be divided into six broad categories:

1. Safety Projects
2. Airside Improvements and Enhancements
3. Landside Improvements and Enhancements
4. Planning and Engineering (P&E) Services
5. FAA Airport Improvement Program Projects
6. Emergency Projects

(Note that projects ineligible for state funding generally include those items considered to be day-to-day operational expenses that are required to comply with grant assurances and/or to maintain airport facilities in proper working order.)

With respect to approval of projects and associated funding, the ALDOT Aeronautics Bureau utilizes an objective priority rating system to generate scores for individual projects. This mechanism is designed to help assess the relative importance and therefore priority of each project as they are related to ALDOT’s goals and priorities for the airport system. Specifically, points are assigned to an individual project based on a variety of criteria designed to promote system goals in a balanced and transparent manner. The current scoring system is comprised of three categories that include multiple subcategories that are themselves comprised of a wide range of factors, each of which has an associated point score. In general, the system structure is as follows:

- Category I – Project Type
 - Runways
 - Taxiways
 - Aircraft Parking Aprons
 - Landside Access/Improvements



- Land Acquisition
- Other Infrastructure
- Terminal/Hangar Area Development
- Planning & engineering Studies
- Lighting and Navigation Aids
- Category II – Airport Usage
 - Based Aircraft
 - Economic Development
 - Airport System Classification
- Category III – Sponsor Responsibility
 - Licensing Compliance
 - Airport Minimum Standards
 - Height Zoning
 - Capital Improvement Plan (CIP) Status
 - Pavement Maintenance Management Program
 - State System Plan Status

It is recommended that the ALDOT Aeronautics Bureau continue to utilize and to monitor/refine its existing priority funding investment system to reflect the results of the Statewide Airport System Plan as well as any changing requirements association local, state, federal, and industry conditions.

7.4.4 NPIAS Airport Roles Recommendations

The FAA’s National Plan of Integrated Airport Systems (NPIAS) is a plan that identifies those airports that are considered important to the national air transportation system and categorizes how those airports currently operate within the federal system. Being included in NPIAS makes an airport eligible to receive grants from the FAA’s Airport Improvement Program (AIP), which is typically utilized for the planning and implementation of many airport capital improvements. For those airports included in the NPIAS, a specific role is defined based on the activity the airport currently accommodates. The NPIAS airport roles also help define AIP funding categories and assist in the distribution of AIP funds for airport development.

Planning for the future of national air transportation infrastructure is a critical portion of the FAA’s mission. FAA Order 5090.5 (issued in September 2019) combines two former federal orders related to the Airport Capital Improvement Plan (ACIP) and the NPIAS into one order to outline requirements for inclusion in the NPIAS, as well as updating the process related to ACIP development. Important changes included airport eligibility for entry into the NPIAS, information on how an airport can withdraw from the NPIAS, and information on how to close an airport that is part of the federal system.

Seventy-three of the 80 airports in the Alabama system are included in the FAA’s current 2021-2025 NPIAS. While the Statewide Airport System Plan and FAA NPIAS role categorizations are separate and serve different purposes, a comparison of the two sets of roles helps identify how airports are prioritized in the national airport system. These airports are also subject to grant assurances if funding is utilized.

It should be noted that the NPIAS is updated every two years to provide Congress with an updated outlook of five-year AIP project needs across the federal airport system. Inclusion in the NPIAS makes an airport eligible to receive AIP funds that can then support anywhere from 75 percent to 95 percent of a project’s eligible cost.

In Alabama, AIP provides funding for approximately 90 percent of the eligible project’s cost. The remaining funds come from state and local sources.

Requirements for an airport to be considered for inclusion in the NPIAS are provided in Order 5090.5; these include:

- Airport ownership by a sponsor eligible to receive federal funds and meet FAA grant obligations
- Ten or more operational and airworthy based aircraft, with tail numbers validated against the FAA registry
- Location in a community that is outside a 30-mile radius from the nearest NPIAS airport
- Demonstration of an identifiable role in the national system
- Inclusion in a current State Airport System Plan, approved by the FAA
- No significant airfield design standard deficiencies, compliance violations, or wetland/wildlife issues

All general aviation airports are categorized as Nonprimary and are classified as either Reliever or General Aviation airports. The FAA further classifies general aviation airports in the NPIAS through five sub-categories: National, General, Local, Basic, and Unclassified.

While included in the NPIAS, Unclassified airports are limited in the types of capital improvement projects that may be funded through the ACIP. Improvements may only focus on pavement maintenance, obstruction removal, and rehabilitation related to the primary runway. Unclassified airports may also be at-risk of removal from the NPIAS due to limited activity and deficiencies in meeting the screening requirements listed above.

State airport role assignments in the Statewide Airport System Plan do not always align with the NPIAS roles, as each has a different context and intent. **Table 7-10** lists the 80 airports included in the Statewide Airport System Plan, their system plan roles, and their current FAA 2021-2025 NPIAS roles.

Table 7-10: 2020 System Roles and 2021 NPIAS Roles

Associated City	Airport Name	FAA ID	Alabama Airport Role (based on 2020 system plan update)	FAA NPIAS Airport Classification
Birmingham	Birmingham-Shuttlesworth International	BHM	International	Small Hub
Huntsville	Huntsville International-Carl T Jones Field	HSV	International	Primary - Small Hub
Montgomery	Montgomery Regional (Dannelly Field)	MGM	National	Primary - Nonhub
Dothan	Dothan Regional	DHN	National	Primary - Nonhub
Mobile	Mobile Regional	MOB	National	Primary - Nonhub
Tuscaloosa	Tuscaloosa National	TCL	National	National
Huntsville	Huntsville Executive Airport Tom Sharp Jr Field	MDQ	National	Local
Mobile	Mobile Downtown	BFM	National	Regional
Albertville	Albertville Regional-Thomas J Brumlik Field	8A0	National	Regional
Troy	Troy Municipal Airport At N Kenneth Campbell Field	TOI	National	Regional
Bessemer	Bessemer	EKY	National	Regional
Decatur	Pryor Field Regional	DCU	National	Regional
Gulf Shores	Jack Edwards National	JKA	National	Regional
Auburn	Auburn University Regional	AUO	National	Regional
Muscle Shoals	Northwest Alabama Regional	MSL	National	Regional



Associated City	Airport Name	FAA ID	Alabama Airport Role (based on 2020 system plan update)	FAA NPIAS Airport Classification
Anniston	Anniston Regional	ANB	Regional	Basic
Fairhope	H L Sonny Callahan	CQF	Regional	Regional
Jasper	Walker County-Bevill Field	JFX	Regional	Local
Alabaster	Shelby County	EET	Regional	Regional
Andalusia/Opp	South Alabama Regional At Bill Benton Field	79J	Regional	Local
Enterprise	Enterprise Municipal	EDN	Regional	Local
Pell City	St Clair County	PLR	Regional	Local
Selma	Craig Field	SEM	Regional	Basic
Alexander City	Thomas C Russell Field	ALX	Regional	Regional
Gadsden	Northeast Alabama Regional	GAD	Regional	Local
Headland	Headland Municipal	0J6	Regional	Local
Prattville	Prattville - Grouby Field	1A9	Regional	Local
Brewton	Brewton Municipal	12J	Regional	Local
Talladega	Talladega Municipal	ASN	Regional	Local
Cullman	Cullman Regional-Folsom Field	CMD	Regional	Regional
Sylacauga	Merkel Field Sylacauga Municipal	SCD	Regional	Local
Fort Payne	Isbell Field	4A9	Regional	Regional
Ozark	Ozark Airport - Blackwell Field	71J	Regional	Local
Demopolis	Demopolis Regional	DYA	Community	Local
Eufaula	Weedon Field	EUF	Community	Local
Greenville	Mac Crenshaw Memorial	PRN	Community	Basic
Tuskegee	Moton Field Municipal	06A	Community	Basic
Courtland	Courtland	9A4	Community	Local
Haleyville	Posey Field	1M4	Community	Basic
Hartselle	Hartselle-Morgan County Regional	5M0	Community	Local
Guntersville	Guntersville Municipal - Joe Starnes Field	8A1	Community	Local
Marion	Vaiden Field	A08	Community	Basic
Clanton	Chilton County	02A	Community	Local
Scottsboro	Scottsboro Municipal-Word Field	4A6	Community	Local
Bay Minette	Bay Minette Municipal	1R8	Community	Basic
Atmore	Atmore Municipal	0R1	Community	Basic
Hamilton	Marion County-Rankin Fite	HAB	Community	Local
Monroeville	Monroe County Airport	MVC	Community	Local
Evergreen	Evergreen Regional - Middleton Field	GZH	Community	Basic
Floral	Floral Municipal	0J4	Community	Basic
Wetumpka	Wetumpka Municipal	08A	Community	Local
St Elmo	St Elmo	2R5	Community	Local
Foley	Foley Municipal	5R4	Community	Local
Fayette	Richard Arthur Field	M95	Community	Basic
Geneva	Geneva Municipal	33J	Community	Local

Associated City	Airport Name	FAA ID	Alabama Airport Role (based on 2020 system plan update)	FAA NPIAS Airport Classification
Centre	Centre-Piedmont-Cherokee County Regional	PYP	Local	Local
Elba	Carl Folsom	14J	Local	Local
Greensboro	Greensboro Municipal	7A0	Local	Basic
Russellville	Bill Pugh Field	M22	Local	Basic
Reform	North Pickens	3M8	Local	Basic
Luverne	Frank Sikes	04A	Local	Non NPIAS
Stevenson	Stevenson	7A6	Local	Non NPIAS
Union Springs	Franklin Field	07A	Local	Basic
Aliceville	George Downer	AIV	Local	Unclassified
Clayton	Clayton Municipal	11A	Local	Unclassified
Jackson	Jackson Municipal	4R3	Local	Basic
Lanett	Lanett Municipal	7A3	Local	Basic
Butler	Butler-Choctaw County	09A	Local	Unclassified
Centreville	Bibb County	0A8	Local	Basic
Double Springs	Double Springs-Winston County	3M2	Local	Non NPIAS
Vernon	Lamar County	M55	Local	Non NPIAS
Ashland/Lineville	Ashland/Lineville	26A	Local	Basic
Chatom	Roy Wilcox	5R1	Local	Non NPIAS
Dauphin Island	Jeremiah Denton	4R9	Local	Basic
Roanoke	Roanoke Municipal	7A5	Local	Basic
Samson	Logan Field	1A4	Local	Non NPIAS
Camden	Camden Municipal	61A	Local	Basic
Oneonta	Robbins Field	20A	Local	Basic
Abbeville	Abbeville Municipal	0J0	Local	Basic
Addison	Addison Municipal	2A8	Local	Non NPIAS

Source: 2021-2025 NPIAS Report, Jviation

NPIAS airport roles are reviewed and updated during the FAA’s biennial update. It is recommended that the ALDOT Aeronautics Bureau monitor the status of all Alabama NPIAS airports, and in particular, the level of activity at airports with fewer than 10 based aircraft, which is a key marker separating Basic from Unclassified airports. Note that this is particularly important since existing Unclassified airports are less likely to receive federal funding for projects and may be susceptible to removal from the NPIAS altogether. To ensure accuracy, airport managers should also monitor airworthy based aircraft at their airports and update the FAA aircraft registry (basedaircraft.com) annually.

As shown above, Alabama has three NPIAS Unclassified airports: Butler-Choctaw County, Clayton Municipal, and George Downer (Aliceville). Of these three, both Butler-Choctaw County and Clayton Municipal have also been identified as being among the most vulnerable airports in Alabama due to a range of facility and service deficiencies as well as a general lack of activity and market area demands. Therefore, based on current and projected airport conditions, operational levels, and market area requirements, it is recommended that both Butler-Choctaw County Airport and Clayton Municipal Airport be formally removed from the FAA NPIAS.



Additionally, it must be recognized that the future construction of the Southwest Alabama Regional Airport in Clarke County will result in a new Alabama airport included in the FAA NPIAS. As discussed previously, Southwest Alabama Regional will provide new regional market coverage for two of Alabama's most vulnerable airports (Camden Municipal and Butler-Choctaw County), both of which are currently also included in the FAA NPIAS. (As discussed above, Butler-Choctaw has already been recommended for removal from the NPIAS.) Recognizing that appropriate coverage will be provided to the Camden market area once the new airport has been constructed, it is also recommended that Camden Municipal Airport be ultimately removed from the FAA NPIAS when Southwest Alabama Regional is opened. This will enhance system efficiency and promote effectiveness of the new airport.

7.4.5 Other Recommendations

Promote Aviation Throughout Alabama - The ALDOT Aeronautics Bureau can help promote a more widespread understanding of airports and their needs and benefits. These efforts can be supported by products from the Statewide Airport System Plan and the companion economic impact study. Aeronautics can partner with other aviation groups in the state such as the General Aviation Alliance, the Aviation Council of Alabama, and other airport stakeholders to educate state and local elected officials, along with the public, on the many benefits the state receives from the airport system. A strong and vibrant airport system is important to both Alabama's transportation system, as well as the state's economy.

Monitor Economic Development Initiatives - It is recommended that the ALDOT Aeronautics Bureau continue to support economic development opportunities in industrial sectors that have a propensity to utilize general aviation aircraft for business travel. The ALDOT Aeronautics Bureau should continue to work with airports; local, regional, and state economic development groups; and others to identify strategic investment opportunities at airports that can be used to support existing Alabama businesses and industries, or to attract new companies to the state.

Airport Roles Recommendations - The 80 study airports were stratified in **Chapter Five** into categories by identifying the role that they play within the Alabama system of airports. These roles reflect the type of users each airport accommodates and the facilities and services that the airport has in place. Roles also reflect an airport's relative importance as it relates to meeting the state's transportation and economic needs and objectives. This system plan recommends that no airport system plan roles change. However, the ALDOT Aeronautics Bureau does support an initiative for the development of a new general aviation airport in southwest Alabama. Additionally, it is important for the ALDOT Aeronautics Bureau continue to monitor the FAA NPIAS airports in Alabama with fewer than 10 based aircraft. Airport managers should also monitor airworthy based aircraft at their airports and regularly update the FAA aircraft registry.

Monitor Vulnerable Airports - It is recommended ALDOT Aeronautics Bureau staff actively monitor the status of the 11 airports identified in **Chapter Five** of the Statewide Aviation System Plan as being most vulnerable to airport closure indicators. This would serve two purposes. First, it would indicate to those airports that they may experience challenges to their long-term viability. Second, as responsible stewards of the state airport system, it would afford the ALDOT Aeronautics Bureau the opportunity to provide guidance as required to those airports, as well as to develop contingency plans if one or more of those airports were to ultimately be removed from the system.

Complete Projects Identified Through the Analysis of Facility and Service Objectives - The statewide plan identified facility and service objectives needed to optimize the performance of each airport per their assigned role category. Facility recommendations identified for each airport should be given funding priority since these improvements will optimize the performance of the state airport system. While many services available at airports are demand-driven and are beyond the control of the ALDOT Aeronautics Bureau, there are opportunities to assist airports in cultivating services. While funds are typically not available to subsidize private

businesses, the ALDOT Aeronautics Bureau can consider sponsoring feasibility studies or business plans that could help system airports determine their ability to improve their services. Additionally, the ALDOT Aeronautics Bureau should support projects specifically designed to enhance nine system airports so that they meet the NBAA facility and service recommendations for airports designed to accommodate medium-sized business aircraft. This action would fill existing gaps in system coverage for such demands.

Fund Development in Airport CIPs that align with the Statewide Airport System Plan - The system plan provides decision-making information by identifying projects and actions that are important to elevating future system performance. These include projects identified through the facility and service objectives analysis, as well as in each airport's current ACIP. As future investment decisions are made, recommendations for specific capital projects should be considered that align with the system plan's facility and service objectives. Projects from airport-specific ACIPs should be aligned with the needs of the greater state airport system. Occasionally, projects advanced at the local level are not aligned with the betterment of the state airport system.

Implement Recommendations from the concurrent Pavement Management Plan – As part of the Statewide Airport System Plan, each airport's aeronautical pavements were analyzed to assess overall condition. It is recommended that the ALDOT Aeronautics Bureau implement pavement improvements and assist airports in prioritizing pavement-related projects. This also includes continuing to encourage improved routine pavement maintenance practices and educating airport officials on the benefits of pavement maintenance and the existing PCI program.

Maintain Aeronautics Prioritization System in the ACIP - It is recommended that the ALDOT Aeronautics Bureau continue to utilize and to monitor/refine its existing priority funding investment system to reflect the results of the Statewide Airport System Plan as well as any changing requirements association local, state, federal, and industry conditions. This should be done in support of the Alabama Airport Improvement Funding Program's two primary priorities:

- Develop and maintain the safe and secure operation of Alabama's airport system
- Preserve and improve an adequate system of airports to meet economic development trends occurring in the state.