

## **CHAPTER EIGHT**

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### **RECOMMENDED PLAN**

## CHAPTER EIGHT RECOMMENDED PLAN

### A. SUMMARY OF RECOMMENDED PLAN

The primary goal of the Alabama Statewide Airport System Plan (SASP) was to develop a recommended aviation system to meet the needs of Alabama's flying public and to meet statewide economic development objectives. The study had three primary purposes:

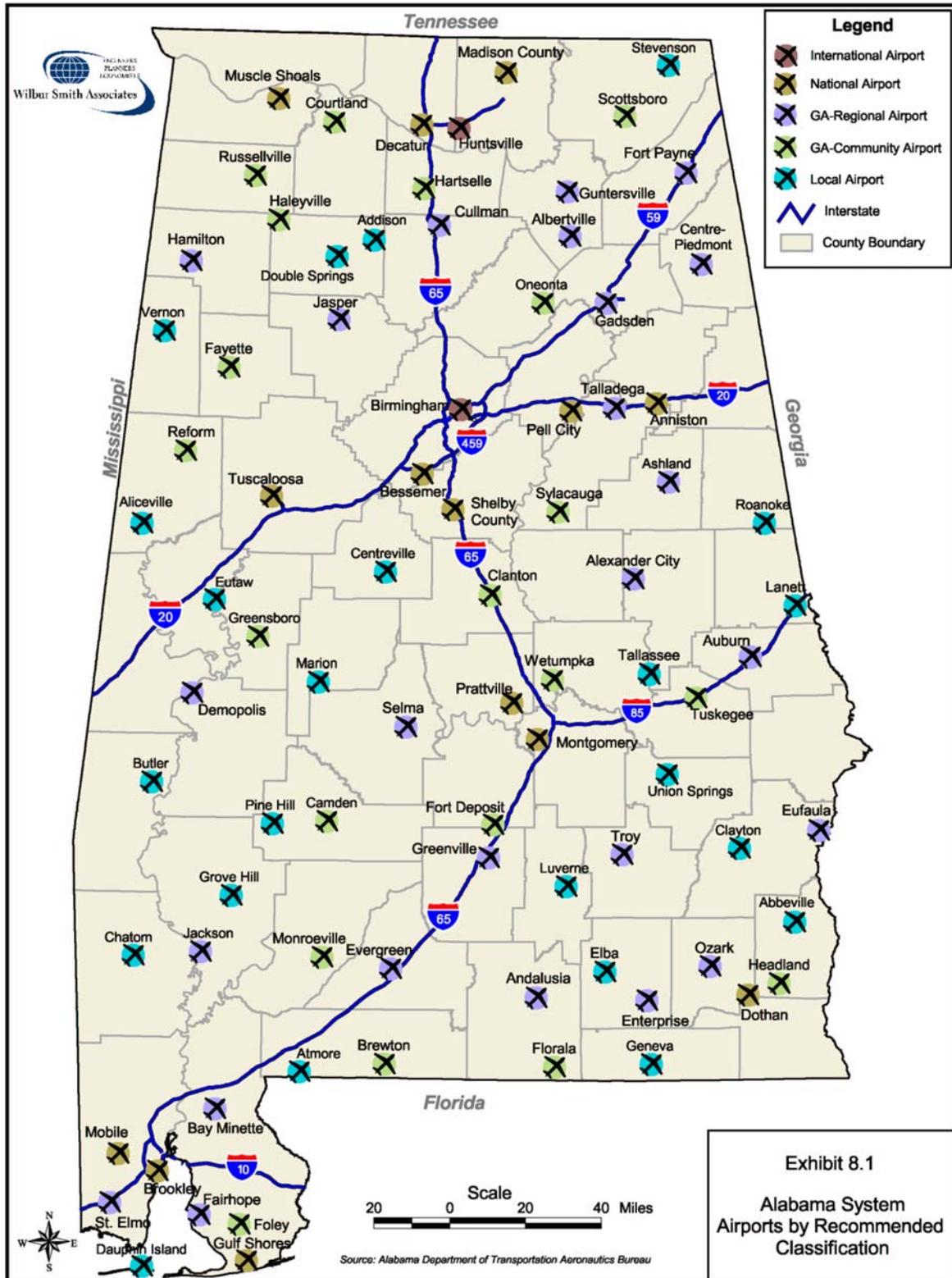
- ❑ To define Alabama's airport system to meet the State's economic and physical needs
- ❑ To identify the overall funding needs of the airport system and initiate practical steps to implement them
- ❑ To identify the economic impact of Alabama's airports and the economic benefit of incremental investment in the aviation system

A summary of how the recommended aviation system meets these three purposes is provided below.

#### A1. Airport System Definition

At the heart of the recommended system is the creation of five distinct functional categories that work together to provide a wide variety of aviation facilities and services across the State. Each category of airport offers a level of access to services and facilities unique to its role in the overall aviation system.

The International airports are Alabama's primary gateway to global passenger and air cargo markets. These International airports, supported by the entire statewide transportation system, have airport specific, demand driven airside, landside, and terminal infrastructure needs. The National airports serve a contributing role in providing the local, regional, and statewide economy with access to and from the national and global economy. The State's air carrier and reliever airports are contained within this classification, as are other airports 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. GA-Regional airports support the local and regional economies and connect them to the State and national economies. GA-Regional airports serve primarily general aviation activity, with a focus on serving business activity including small jet and multiengine aircraft. These airports support the system of National airports and should provide significant coverage to the State's population. GA-Community airports serve a supplemental contributing role for the local economy and 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. Finally, Local airports, while serving a limited contributing role for the local economy, are considered to have local importance, primarily serving recreational and personal flying activities. The recommended aviation system is illustrated in **Exhibit 8.1**.



**A2. Overall Funding Needs**

Previous analyses have shown that in order for the recommended system to function most effectively, specific facilities and services must be provided to match the type of activity that is anticipated to be served based on the airport's role in the recommended system. Facility and service improvements have been identified and costs for these improvements are detailed in this chapter.

**A3. Economic Impact**

As part of the Alabama Statewide Airport System Plan, a detailed analysis of each airport's contribution to Alabama's economic vitality was performed. The analysis showed that one in three people employed in Alabama work for a company that uses general aviation. The study also found that for a recent 12-month period in Alabama, there were 95 locations announced for distributors, manufacturers, headquarters operations, and selected service industries. Each one of these new facilities is located within 17 miles of a general aviation airport, with one in four located near the larger air carrier airports. To determine airport-specific economic impacts, each airport was surveyed, with on-airport (direct) and visitor-related (indirect) expenditures measured. The multiplier effect of these benefits was then calculated to determine the total airport-related impacts. The total economic impact is the sum of all direct, indirect, and multiplier impacts. Impacts are expressed in terms of jobs, payroll, and economic output or spending associated with aviation. In total, Alabama's airport system supports more than 73,100 jobs, is responsible for \$1.8 billion in payroll impacts, and has an economic output of nearly \$4.7 billion.

In addition to economic benefits, Alabama's airports provide a number of critical services for residents including emergency medical flights, police and fire support, traffic reporting, search and rescue operations, wildlife resource management, agricultural operations, military readiness and disaster relief, among others. One of the most important benefits of Alabama's airport system is its support of business activity. Airports are absolutely critical to industrial and economic recruitment efforts, and to the retention and expansion of businesses. The study found that for every dollar that is invested in the aviation system, \$163 is returned to Alabama's economy, supporting the need for continued investment in Alabama's recommended airport system.

**A4. Supporting Goals and Objectives**

While the study had three primary purposes, there were other supporting goals and objectives identified for the Alabama Statewide Airport System Plan including:

- ❑ To increase awareness of the role of aviation in Alabama's transportation system and promote better understanding of the importance and economic value of Alabama's airports
- ❑ To develop a plan that will provide all users of the aviation system with a practical evaluation tool and assist in the systematic improvement of Alabama's airports
- ❑ To demonstrate the economic value of airports to their communities and the State, and to identify how they can be improved to enhance economic development opportunities
- ❑ To evaluate and document current airport facilities and activities

- ❑ To determine the role of each airport within the State aviation system
- ❑ To identify deficiencies in the airport system and recommend solutions to such deficiencies
- ❑ To provide facility needs required for the current and future successes of the aviation system
- ❑ To prepare a financially feasible systemwide capital improvement plan
- ❑ To examine the ability of existing funding processes to support and enhance transportation goals and develop recommendations required for the improvement plan
- ❑ To recommend a system for prioritizing projects for air transportation funding, using economic impact and other appropriate criteria to evaluate development projects
- ❑ To devise a strategic plan that provides a vision for Alabama aviation and a direction for achieving this vision
- ❑ To prepare documentation regarding study findings and recommendations suitable for consideration
- ❑ To ensure support and participation of individuals and organizations having transportation responsibilities or policy-making authority

The supporting goals and objectives established at the outset of the study were referenced during the creation of these functional categories, facilitating the recommended system's ability to fulfill the study's primary purpose. One such supporting goal was to develop a system that enhances economic development in Alabama. The recommended system, with its strengthened National and GA-Regional profile, has improved access to population centers, economic centers, industrial corridors, and significant recreational attractions. Practically every mile of Interstate Highway System and future high priority highway corridor in Alabama is within the 30-minute drive time coverage of a National or GA-Regional airport. In fact, over 98 percent of Alabama's population is within 30 minutes of a recommended system airport. The study took great care to ensure that the areas of the State taking an active role in recruiting economic investment or airport development were provided with the aviation infrastructure demanded by industry. While a strong emphasis was placed on the recommended system's ability to support the economic development initiatives across Alabama, the System Plan also ensures that through access to GA-Community and Local category airports, all general aviation interests such as agricultural, medical, and recreational general aviation activities are also supported.

This study's detailed examination of each airport generated recommendations tables that may be used by aviation stakeholders at the State and local levels for each airport's capital development plan. At the local level, stakeholders can use this plan to better plan airport improvements to meet State licensing standards, FAA design standards, and System Plan performance objectives. At the State level, planning officials can use the recommendations to develop funding priorities and programs that make effective use of State fiscal resources to produce a system that operates at its optimum level of efficiency.

At the outset of the study, meetings were held around the State to gather input regarding Alabama's aviation system. Issues discussed during these meetings such as the importance of airports to the economy, options for funding improvements, airport uses, and support for

local airports were considered in the evaluation process. This outreach process was important in the study's evolution to develop a recommended aviation system that considers the local needs, as well as statewide concerns related to a successful airport system.

A final series of five public information meetings was held prior to the publication of this report. The purpose of these meetings was to provide local airport officials and others with an opportunity to learn about the findings of the Alabama Statewide Airport System Plan study and to offer their final comments on the study. The Aeronautics Bureau did not receive any written comments from the public information meetings.

## **B. Capital Development Costs**

Based on the analysis of the recommended airport system's performance and the demand driven needs of the Air Carrier and International airports, specific projects have been identified for airports in the Alabama system. To develop the recommended airport system with the facilities and services required, it is estimated that a minimum of \$668 million in capital expenditures will be required over the next ten years. These projects will improve the airport system's performance, particularly in the areas of facility and service objectives established as a part of this study. Improving the airport system to meet FAA design standards and State licensing standards, as well as address the capital needs of the four air carrier and two international airports, is also important to the system's ability to perform adequately and to support the economic activity in the State.

It is also important to note that the capital development costs included in the System Plan primarily address infrastructure needs only as they relate to meeting the minimum facility and service objectives for the airport's recommended role. Airports may have justification or need for facilities that are greater than those identified in the System Plan. Consequently, the costs included for the Air Carrier/International airports were identified for each facility in the form of their Capital Improvement Programs (CIP). In addition, certain equipment, replacement of lighting systems, routine maintenance costs, and some other costs have not been identified in this plan. Therefore, it is not reasonable to compare the total costs of an airport's recommended development plan from the System Plan to an airport-specific CIP.

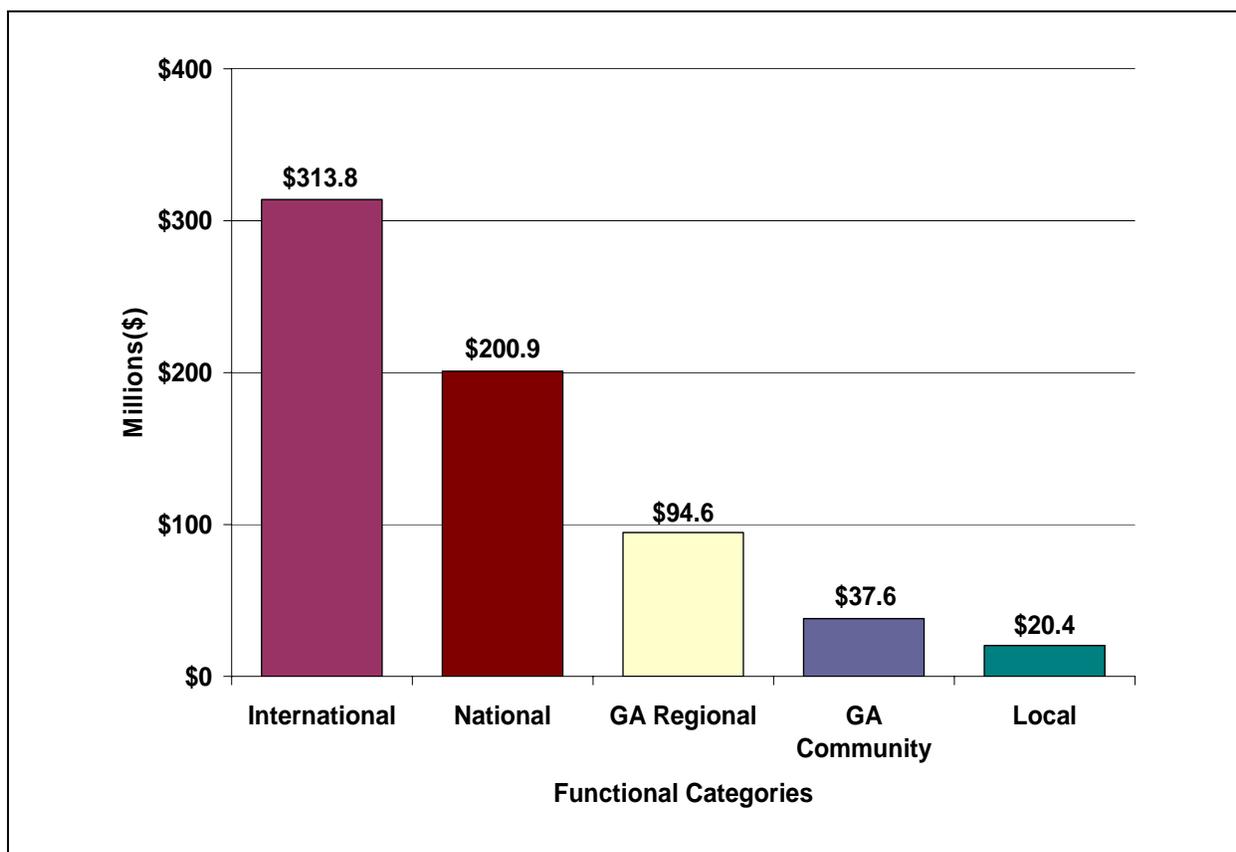
The following sections discuss the recommended system cost distribution and funding allocation.

- B1. Total Airport System Costs
- B2. International Airport Cost Summary
- B3. National Airport Cost Summary
- B4. GA-Regional Airport Cost Summary
- B5. GA-Community Airport Cost Summary
- B6. Local Airport Cost Summary
- B7. NPIAS and Non-NPIAS Cost Summary
- B8. Total Cost Summary

**B1. Total Airport System Costs**

All 84 publicly owned public use airports included in the Alabama airport system have been examined to determine the needed facilities and services to reach the requirements set for each airport role category and the demand driven capital needs identified in the Air Carrier and International airports’ CIP. As previously mentioned the total cost for all recommended projects is approximately \$667 million. **Exhibit 8.2** illustrates the cost for each category of recommended projects identified by the System Plan.

**Exhibit 8.2**  
**Recommended Projects Costs by Category**



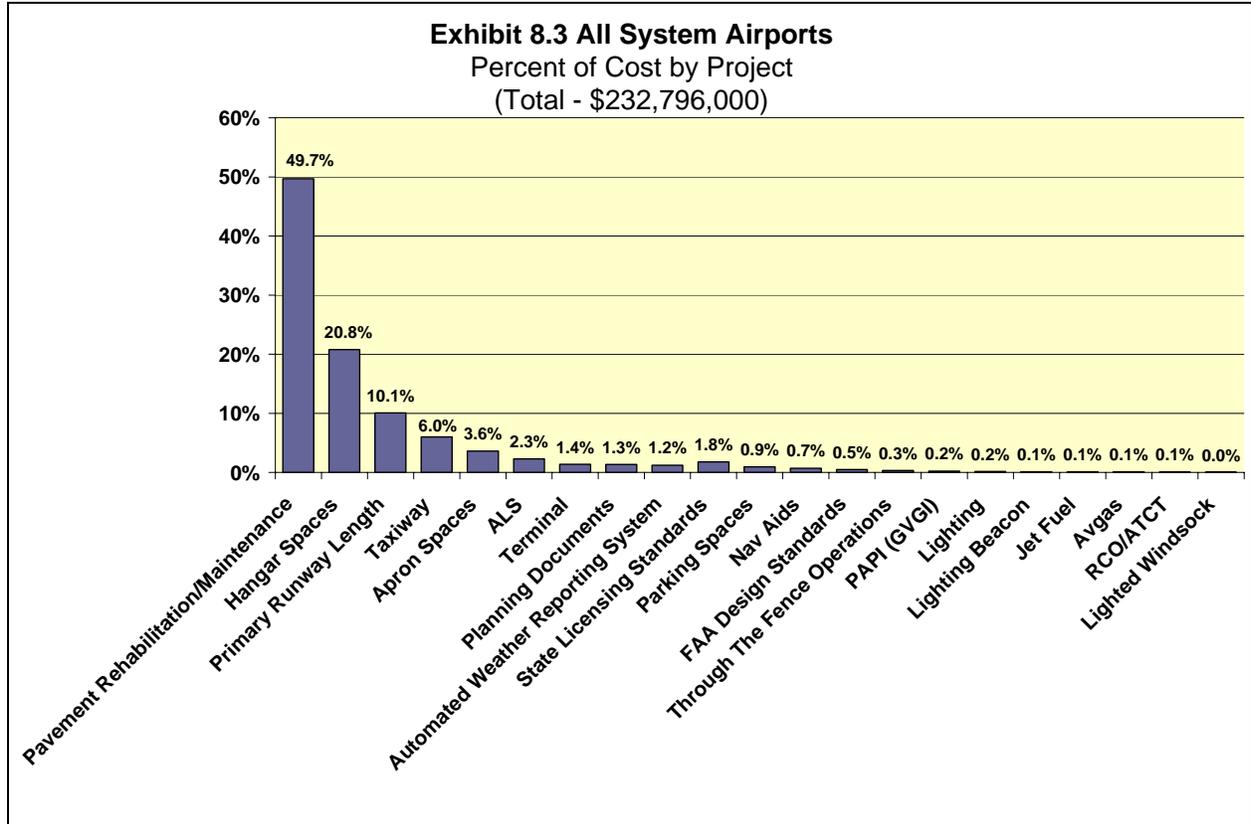
**Table 8.1** presents the costs by project type for the recommended airport system. This table represents the cost associated with bringing all system airports to the recommended system level of service. Table 8.1 does not include the cost associated with the Air Carrier and International airport capital improvement programs. The most costly projects over the 10-year planning period include pavement rehabilitation/maintenance and hangars, which together account for over 70 percent of the total project costs.

**Table 8.1**  
**All Airports Recommended Projects**

All System Airports			
Recommended Project Description	Project Cost	Number of Projects	Percent of Projects Cost by Category
Pavement Rehabilitation/Maintenance	\$115,668,000	76	49.7%
Hangar Spaces	\$48,358,000	39	20.8%
Primary Runway Length	\$23,470,000	12	10.1%
Taxiway	\$13,939,000	19	6.0%
Apron Spaces	\$8,404,000	16	3.6%
ALS	\$3,387,000	35	2.3%
Terminal	\$3,177,000	7	1.4%
Planning Documents	\$3,115,000	124	1.3%
Automated Weather Reporting System	\$2,858,000	14	1.2%
State Licensing Standards	\$2,760,000	21	1.8%
Parking Spaces	\$2,191,000	28	0.9%
Nav Aids	\$1,666,000	9	0.7%
FAA Design Standards	\$1,145,000	15	0.5%
Through The Fence Operations	\$750,000	4	0.3%
PAPI (GVGI)	\$533,000	13	0.2%
Lighting	\$365,000	4	0.2%
Lighting Beacon	\$290,000	5	0.1%
Jet Fuel	\$290,000	5	0.1%
Avgas	\$232,000	4	0.1%
RCO/ATCT	\$126,000	7	0.1%
Lighted Windsock	\$72,000	6	0.0%
<b>Total Recommended Projects Cost <sup>(1)</sup></b>	<b>\$232,796,000</b>	<b>463</b>	<b>100.0%</b>

<sup>(1)</sup> Does Not Include Air Carrier/International Airports' Capital Improvement Program Projects and Costs.

**Exhibit 8.3** illustrates project cost percentage by project type. Exhibit 8.3 does not include the cost associated with the Air Carrier and International airport capital improvement programs.



Support tables containing cost summaries for the entire system and each classification by airport can be found in the form of the Chapter Eight Support Data at the end of the chapter.

The prioritization of these projects is key to the development of the recommended system. Since the FAA is the primary funding source for the majority of the projects it is important to understand the FAA national priority rating system. The following is a summary of the nation priority rating system as identified in FAA Advisory Circular 150-5100.39A by purpose, component, and type of federally eligible project:

**Purpose**

- Safety/Security
- Special Programs
- Planning/Reconstruction/Environment
- Capacity
- Standards

**Component**

- Runway
- Taxiway
- Equipment
- Planning
- Homes/Land/Public Buildings

**Type**

- Construction/Obstruction Removal/ARFF Vehicles
- Runway/Taxiway Signs/Master Plan
- Lighting/Runway Safety Area/State Planning
- Noise Plan/Instrument Approach Aide
- Security Improvements/Extension/Expansion

**B2. International Airports Cost Summary**

As discussed earlier the Alabama’s International airports must be able to respond to market demands. The costs presented in **Table 8.2** represent projects required to maintain and strengthen the strategic market position of Alabama’s International airports. The costs include Landside, Airside, and Terminal Capital Improvement projects as identified in each airport’s CIP. These demand driven costs are beyond the costs associated with the System Plan benchmark requirements for these facilities. As stated previously, in order to realize International as the highest category, the System Plan does require that at a minimum the two international facilities meet the National level benchmarks. These System Plan requirement costs are also shown below in Table 8.2.

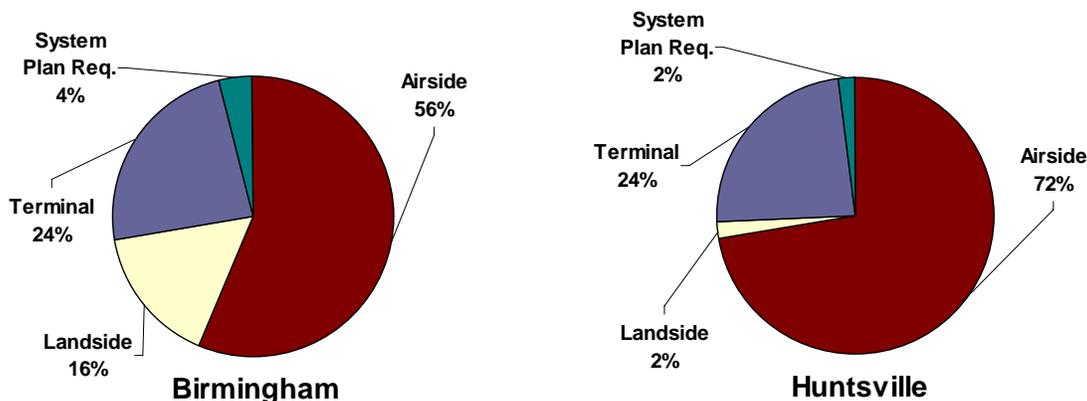
**Table 8.2**  
**International Airport CIP/System Plan Recommended Projects**

<b>International Airports - CIP/System Plan Project Costs</b>	
Airside	\$200,018,319
Landside	\$26,000,000
Terminal	\$77,615,544
System Plan Requirements	\$10,205,000
<b>Total International Airports CIP/System Plan Projects Cost</b>	<b>\$313,838,863</b>

Source: Birmingham and Huntsville Airport

The pie charts in **Exhibit 8.4** illustrate the percent share of Birmingham’s and Huntsville’s cost programmed for airside, landside, and terminal improvements over the life of their CIPs. Also included in the exhibit totals are the System Plan recommended projects required to meet the National benchmarks. The CIPs/System Plan projects for each International airport are presented in the tables found in the Chapter Eight Support Data.

**Exhibit 8.4**  
**International Airport CIP/System Plan Projects**



Source: Birmingham and Huntsville Airport

**B3. National Airport Performance Summary**

After examining the entire aviation system's recommended projects and costs, it is beneficial to investigate each classification of airports individually to understand how the distribution of projects and costs affects the entire system. In Chapter 7, projects were recommended for each airport to enable them to effectively contribute to Alabama System of Airports. **Table 8.3** shows the number of each type of project recommended to meet this State System Plan's goals.

**Table 8.3**  
**National Airport Performance Scores**

<b>Benchmarks</b>	<b>Goal</b>	<b>Number of Airports</b>	<b>% of Airports Meeting Goals</b>
ARC	86%	10	71%
Runway Length	93%	12	86%
Runway Width	100%	11	79%
Taxiway	100%	13	93%
Nav aids	79%	9	64%
Visual Aids	86%	8	57%
Lighting	100%	14	100%
Services	100%	11	79%
Support Infrastructure	100%	14	100%
Licensing	100%	12	86%
FAA Design Standards	100%	13	93%
Hangars	100%	3	21%
Apron	100%	12	86%
Terminal	100%	14	100%
Auto Parking	100%	7	50%
Planning Documents	100%	14	100%
<i>Average</i>	<b>97%</b>		<b>79%</b>

The Recommended National Airports are:

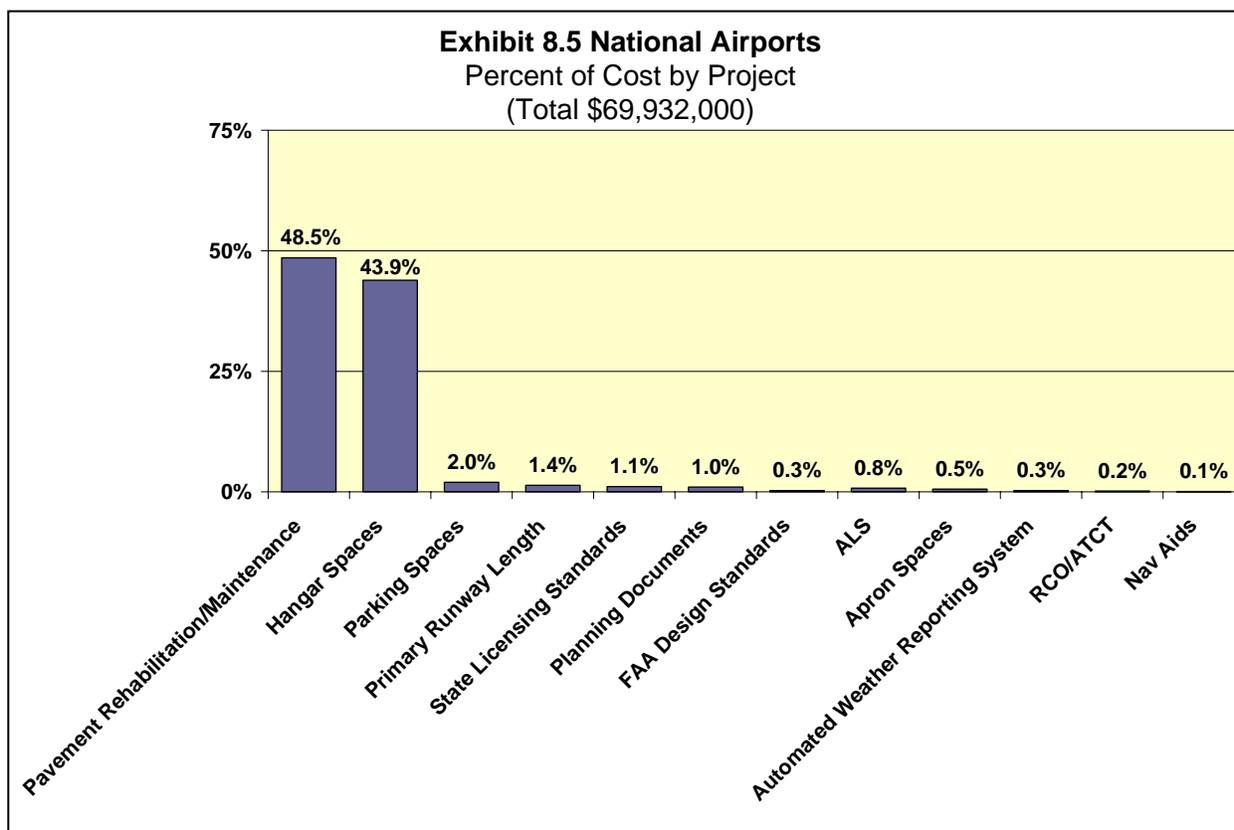
Anniston	Mobile
Bessemer	Montgomery
Brookley	Muscle Shoals
Decatur	Pell City
Dothan	Prattville
Gulf Shores	Shelby County
Madison County	Tuscaloosa

**B3.1 National Airports Cost Summary**

To develop the recommended airport system of National airports with the facilities and services required, it is estimated that just under \$70 million in capital expenditures will be required over the next ten years. The National airports' costs by project are summarized in **Table 8.4** and illustrated in **Exhibit 8.5**.

**Table 8.4**  
**National Airport Recommended Projects**

Recommended Projects	Priority	Estimated Cost	Number of Projects	Airports
Primary Runway Length	1	\$968,000	2	Madison, Shelby County
ALS	1	\$538,000	3	Pell City, Prattville, Shelby County
Nav aids	1	\$50,000	1	Pratville
Automated Weather Reporting System	1	\$202,000	1	Pratville
State Licensing Standards	1	\$777,000	2	Pell City, Prattville
FAA Design Standards	1	\$200,000	1	Decatur
Pavement Rehabilitation/Maintenance	2	\$33,933,000	10	All but Dothan, Mobile, Montgomery, Muscle Shoals (These projects included in their CIP)
Serv RCO/ATCT	3	\$126,000	7	Bessemer, Gulf Shores, Madison, Muscle Shoals, Pell City, Prattville, Shelby County
Hangar Spaces	3	\$30,688,000	13	Anniston, Bessemer, Brookley, Decatur, Gulf Shores, Madison, Mobile, Montgomery, Muscle Shoals, Pell City, Prattville, Shelby County, Tuscaloosa
Planning Documents	3	\$700,000	28	All
Apron Spaces	4	\$373,000	2	Anniston, Muscle Shoals
Auto Parking Spaces	4	\$1,377,000	7	Bessemer, Decatur, Gulf Shores, Madison, Pell City, Prattville, Shelby County
<i>Totals</i>		<i>\$69,932,000</i>	<i>77</i>	



The National classification includes 14 airports with a total of 77 recommended projects. Of those projects, the majority are pavement rehabilitation/maintenance and hangar projects for a total of over \$64 million. Of the total for all projects at the National airports (\$69.9 million), pavement projects make up approximately 49 percent and hangar projects constitute almost 44 percent. As hangar unit construction is one of the more expensive aviation facility projects, on average, the recommendations for projects at this level serve mostly as a capacity issue addressing the current deficiency and growth for the planning period to 2020.

**B3.1.1 National Airports Capital Improvement Planning**

Funding and other practical constraints require that the improvements recommended for the Airport System's National airports be accomplished over time. **Table 8.5** below recommends a phased construction of the projects over three planning periods. The projects have been phased into Phase I (0 to 3 years), Phase II (4 to 6 years), and Phase III (7 to 10 years). A priority for each type of project was established in accordance with the priority rating system originally developed by the ALDOT Aeronautics Bureau, (ALDOT's project rating system is discussed more thoroughly in section D3) and evenly distributed funding requirements over a 10 year period. Additional details explaining the application of priority ratings are included in footnotes to Table 8.5.

**Table 8.5**  
**National Airport Priority System**

<b>Priority</b>	<b>Estimated Cost</b>	<b>Phase I Year 0-3</b>	<b>Phase II Year 4-6</b>	<b>Phase III Year 7-10</b>
<b>One</b>	\$2,735,000	\$2,735,000		
<b>Two</b>				
<b>Two-Poor</b>				
<b>Two-Fair</b>	\$1,692,000	\$1,692,000		
<b>Two-Good</b>	\$32,241,000	\$9,672,300	\$9,672,300	\$12,896,400
<b>Three</b>	\$31,514,000	\$9,454,200	\$9,454,200	\$12,605,600
<b>Four</b>	\$1,750,000	\$525,000	\$525,000	\$700,000
<b>Totals</b>	<b>\$69,932,000</b>	<b>\$24,078,500</b>	<b>\$19,651,500</b>	<b>\$26,202,000</b>

- Priority One projects are all funded in Phase I.
- Priority Two pavement projects listed as fair will all be funded in Phase I. Priority Two pavement projects listed as "good" will be funded 30 percent in Phase I, 30 percent in Phase II and 40 percent in Phase III.
- Priority Three and Four projects will be funded 30 percent in Phase I, 30 percent in Phase II and 40 percent in Phase III.

As is the case with Alabama's international airports, Alabama's Air Carrier airports have capital improvement needs above and beyond the recommended system benchmarks set for the National functional category. Table 8.4 and Exhibit 8.5 represent the cost associated with meeting the recommended system plan benchmarks for National airports. The cost data summarized in **Table 8.6** represents the cost associated with the four National Air Carrier airports' projects and associated costs in their Capital Improvement Programs.

**Table 8.6**  
**National/Air Carrier Airports**  
**CIP Costs Summary**

<b>Air Carrier - Capital Improvement Program Costs</b>	
Airside	\$81,164,015
Landside	\$12,811,765
Terminal	\$36,961,338
<b>Total Air Carrier CIP Cost</b>	<b>\$130,937,118</b>

**B4. General Aviation (GA)-Regional Airports Performance Summary**

In Chapter 7, projects were recommended for each airport to enable them to effectively contribute to Alabama System of Airports. **Table 8.7** shows the number of each type of project recommended to meet this State System Plan's goals.

**Table 8.7**  
**GA-Regional Airport Performance Summary**

Benchmarks	Goal	Number of Airports	% of Airports Meeting Goals
ARC	100%	20	80%
Runway Length	92%	19	76%
Runway Width	100%	24	96%
Taxiway	100%	21	84%
Nav aids	100%	22	88%
Visual Aids	100%	21	84%
Lighting	100%	25	100%
Services	100%	7	28%
Support Infrastructure	100%	21	84%
Licensing	100%	25	100%
FAA Design Standards	100%	23	92%
Hangars	100%	8	32%
Apron	100%	20	80%
Terminal	100%	20	80%
Auto Parking	100%	7	28%
Planning Documents	100%	25	100%
<i>Average</i>			<i>100%</i>
			<i>77%</i>

The Recommended General Aviation Regional Airports are:

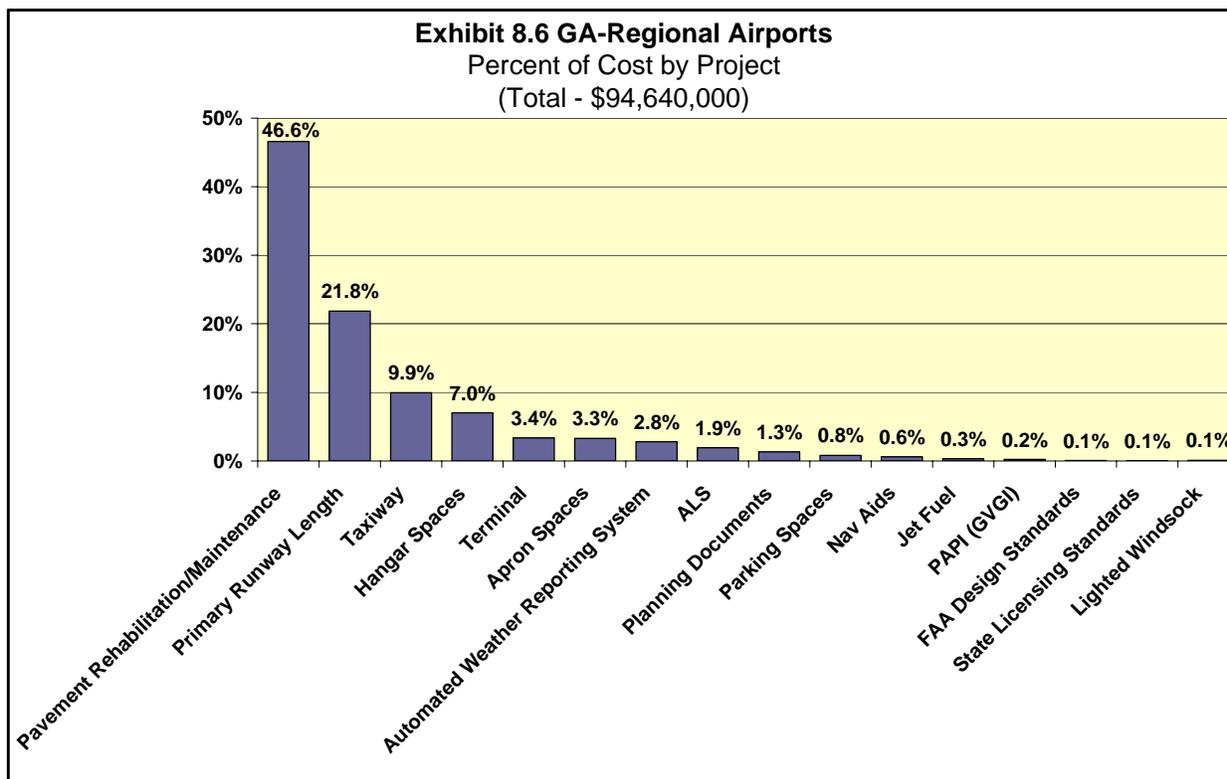
Albertville	Eufaula	Jasper
Alexander City	Evergreen	Ozark
Andalusia	Fairhope	Piedmont
Ashland	Fort Payne	Selma
Auburn	Gadsden	St. Elmo
Bay Minette	Greenville	Talladega
Cullman	Guntersville	Troy
Demopolis	Hamilton	
Enterprise	Jackson	

**B4.1 General Aviation (GA)-Regional Airports Cost Summary**

The GA-Regional classification of airports in Alabama's aviation system constitutes 25 airports. To develop the recommended airport system of GA-Regional airports with the facilities and services required, it is estimated that approximately \$94.6 million in capital expenditures will be required over the next ten years. The GA-Regional airports' costs by project are summarized in **Table 8.8**.

**Table 8.8**  
**GA-Regional Airport Recommended Projects**

Recommended Projects	Priority	Estimated Costs	Number of Projects	Airports
Lighted Windsock	1	\$12,000	1	Jackson
State Licensing Standards	1	\$50,000	2	Demopolis, Greenville
FAA Design Standards	1	\$75,000	1	Jackson
Pavement Rehabilitation/Maintenance	2	\$44,112,000	25	All
Primary Runway Length	3	\$20,675,000	7	Ashland, Evergreen, Fairhope, Ozark, Piedmont, Guntersville, St. Elmo
Taxiway	4	\$9,416,000	7	Ashland, Bay Minette, Eufala, Fairhope, Jackson, Ozark, Piedmont
Nav Aid	4	\$404,000	2	Ashland, Jackson
PAPI (GVGI)	4	\$205,000	5	Ashland, Demopolis, Fairhope, Hamilton, St. Elmo
ALS	4	\$1,805,000	19	Albertville, Alexander City, Andulsia, Ashland, Bay Minette, Cullman, Demopolis, Enterprise, Eufala, Evergreen, Fairhope, Fort Payne, Gadsden, Greenville, Guntersville, Hamilton, Jackson, Ozark, St. Elmo
Planning Documents	4	\$1,250,000	50	All
Serv Jet Fuel	5	\$290,000	5	Ashland, Bay Minette, Jackson, Piedmont, St. Elmo
Hangar Spaces	5	\$6,649,000	17	Ashland, Auburn, Bay Minette, Cullman, Demopolis, Enterprise, Fairhope, Fort Payne, Gadsden, Greenville, Guntersville, Hamilton, Jackson, Ozark, Piedmont, St. Elmo, Troy
Apron Spaces	5	\$3,107,000	6	Cullman, Enterprise, Fort Payne, Piedmont, St. Elmo, Troy
Terminal	5	\$3,177,000	7	Ashland, Auburn, Bay Minette, Demopolis, Jackson, Piedmont, Selma
Auto Parking Spaces	5	\$757,000	18	Albertville, Alexander City, Ashland, Enterprise, Eufala, Fairhope, Fort Payne, Gadsden, Greenville, Guntersville, Hamilton, Jackson, Jasper, Ozark, Selma, St. Elmo, Talledega, Troy
Automated Weather Reporting System	6	\$2,656,000	13	Ashland, Bay Minette, Demopolis, Enterprise, Fairhope, Guntersville, Hamilton, Jackson, Jasper, Ozark, Piedmont, Selma, St. Elmo
<i>Totals</i>		<i>\$94,640,000</i>	<i>185</i>	



**Exhibit 8.6** illustrates this data and provides an examination of the recommended project cost and distribution with respect to GA-Regional classification airports. Runway length projects constitute only 7 of the 186 recommended projects but represent 22 percent of the total cost of all projects at this level, a total of \$20.7 million. As stated previously, all airports at this level are in the NPIAS, and of the higher cost projects (i.e. runway length, taxiway, and pavement rehabilitation/maintenance), all are eligible for up to 90 percent federal funding. Auto parking projects are also numerous at the GA-Regional level in order to realize the existing deficiency and projected growth to the year 2020. Again, these projects are not eligible for federal funding and have to be shouldered by the State and local sponsors.

**B4.1.1 General Aviation (GA)-Regional Airports Capital Improvement Planning**

Funding and other practical constraints require that the improvements recommended for the Airport System's Regional airports be accomplished over time. **Table 8.9** below recommends a phased construction of the projects over three planning periods. The projects have been phased into Phase I (0 to 3 years), Phase II (4 to 6 years), and Phase III (7 to 10 years). A priority for each type of project was established in accordance with the priority rating system originally developed by the ALDOT Aeronautics Bureau, (ALDOT's project rating system is discussed more thoroughly in section D3) and evenly distributed funding requirements over the 10 year period. Additional details explaining the application of priority ratings are included in footnotes to Table 8.9.

**Table 8.9**  
**GA-Regional Airport Priority System**

<b>Priority</b>	<b>Estimated Cost</b>	<b>Phase I Year 0-3</b>	<b>Phase II Year 4-6</b>	<b>Phase III Year 7-10</b>
<b>One</b>	\$137,000	\$137,000		
<b>Two</b>				
<b>Two-Poor</b>				
<b>Two-Fair</b>	\$9,353,000	\$9,353,000		
<b>Two-Good</b>	\$34,759,000		\$17,379,000	\$17,380,000
<b>Three</b>	\$20,675,000	\$10,337,500	\$5,168,750	\$5,168,750
<b>Four</b>	\$13,080,000	\$3,924,000	\$3,924,000	\$5,232,000
<b>Five</b>	\$13,980,000	\$4,194,000	\$4,194,000	\$5,592,000
<b>Six</b>	\$2,656,000	\$796,800	\$796,800	\$1,062,400
<b>Totals</b>	<b>\$94,640,000</b>	<b>\$28,742,300</b>	<b>\$31,462,550</b>	<b>\$34,435,150</b>

- Priority One projects are all funded in Phase I.
- Priority Two pavement projects listed as fair will all be funded in Phase I. Priority Two pavement projects listed as "good" will be funded 50 percent in Phase II and 50 percent in Phase III.
- Priority Three, Four, Five, and Six Projects will be funded 30 percent in Phase I, 30 percent in Phase II, and 40 percent in Phase III.

**B5. General Aviation (GA)-Community Airports Performance Summary**

In Chapter 7, projects were recommended for each airport to enable them to effectively contribute to Alabama System of Airports. **Table 8.10** shows the number of each type of project recommended to meet this State System Plan's goals.

**Table 8.10**  
**GA-Community Airport Performance Summary**

Benchmarks	Goal	Number of Airports	% of Airports Meeting Goals
ARC	100%	17	85%
Runway Length	90%	15	75%
Runway Width	100%	20	100%
Taxiway	70%	9	45%
Nav aids	100%	14	70%
Visual Aids	100%	12	60%
Lighting	100%	20	100%
Services	100%	10	50%
Support Infrastructure	100%	5	25%
Licensing	100%	13	65%
FAA Design Standards	100%	12	60%
Hangars	100%	17	85%
Apron	100%	14	70%
Terminal	100%	12	60%
Auto Parking	100%	18	90%
Planning Documents	100%	14	70%
<i>Average</i>	<b>98%</b>		<b>69%</b>

The Recommended General Aviation Community Airports are:

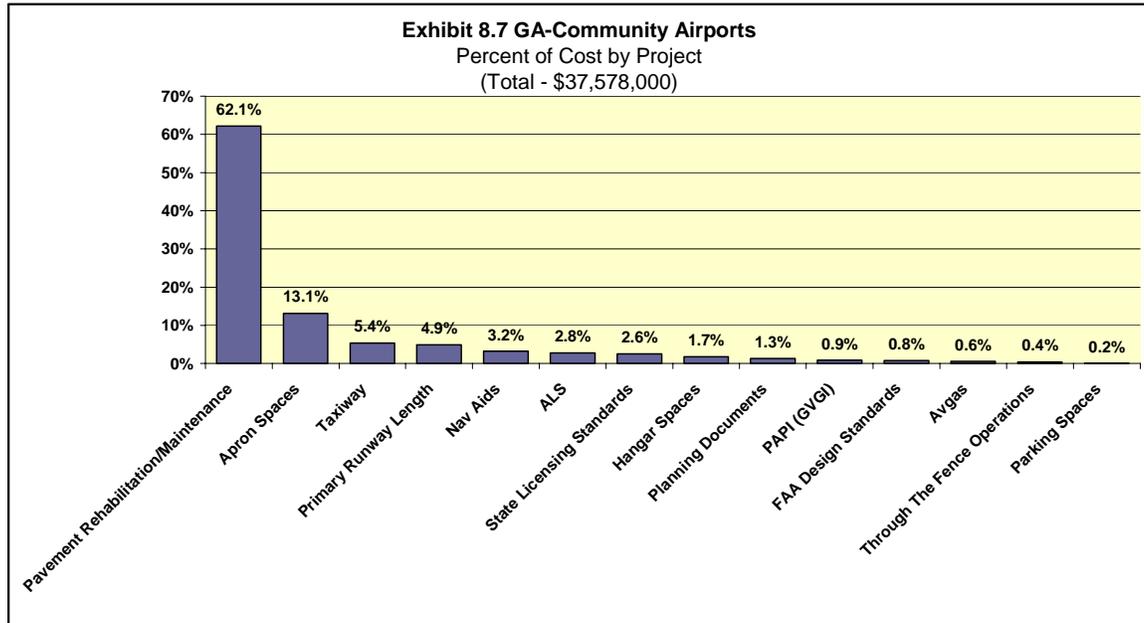
Brewton	Haleyville	Tuskegee
Camden	Hartselle	Wetumpka
Clanton	Headland	
Courtland	Monroeville	
Fayette	Oneonta	
Floralá	Reform	
Foley	Russellville	
Fort Deposit	Scottsboro	
Greensboro	Sylacauga	

**B5.1 General Aviation (GA)-Community Airports Cost Summary**

The total number of recommended projects at this level is 106, with a total cost of \$37.6 million. This represents only 17 percent of the cost for all listed projects for the GA facilities in the entire State aviation system. The GA-Community airports' costs by project are summarized in **Table 8.11**. **Exhibit 8.7** displays the cost distribution for the GA-Community classification.

**Table 8.11**  
**GA-Community Airport Recommended Projects**

Recommended Projects	Priority	Estimated Cost	Number of Projects	Airports
State Licensing Standards	1	\$961,000	6	Camden, Clanton, Hartselle, Headland, Scottsboro, Wetumpka
FAA Design Standards	1	\$300,000	5	Camden, Clanton, Fayette, Greensboro, Oneonta
Pavement Rehabilitation	2	\$23,352,000	20	All
Taxiway	3	\$2,035,000	5	Clanton, Florala, Greensboro, Haleyville, Hartselle
Nav Aid	3	\$1,212,000	6	Camden, Fort Deposit, Headland, Oneonta, Russellville, Scottsboro
PAPI (GVGI)	3	\$328,000	8	Courtland, Florala, Fort Deposit, Greensboro, Oneonta, Russellville, Scottsboro, Wetumpka
ALS	3	\$1,044,000	12	Brewton, Clanton, Courtland, Florala, Foley, Haleyville, Hartselle, Monroeville, Russellville, Sylacauga, Tuskegee, Wetumpka
Primary Runway Length	4	\$1,827,000	3	Florala, Greensboro, Wetumpka
Planning Documents	4	\$500,000	20	All
Apron Spaces	5	\$4,924,000	8	Foley, Haleyville, Hartselle, Monroeville, Oneonta, Russellville, Scottsboro, Wetumpka
Hangar Spaces	6	\$656,000	5	Camden, Fayette, Moroeville, Russellville, Tuskegee
Auto Parking Spaces	6	\$57,000	3	Camden, Scottsboro, Wetumpka
Serv Avgas	6	\$232,000	4	Camden, Florala, Fort Deposit, Oneonta
Through The Fence Operations	6	\$150,000	2	Clanton, Monroeville
<i>Totals</i>		<i>\$37,578,000</i>	<i>107</i>	



As shown, pavement rehabilitation projects represent the largest cost, at over 62 percent of the cost of all projects recommended for GA-Community airports. Additionally, apron spaces are another type of project that ranks high both number of projects and cost that is eligible for federal funding. In fact, all of the top seven project types that lead the distribution list for GA-Community airports are eligible for federal funding.

**B5.1.1 General Aviation (GA)-Community Airports Capital Improvement Planning**  
Funding and other practical constraints require that the improvements recommended for the Airport System's community airports be accomplished over time. **Table 8.12** below recommends a phased construction of the projects over three planning periods. The projects have been phased into Phase I (0 to 3 years), Phase II (4 to 6 years), and Phase III (7 to 10 years). A priority for each type of project was established in accordance with the priority rating system originally developed by the ALDOT Aeronautics Bureau, (ALDOT's project rating system is discussed more thoroughly in section D3) and evenly distributed funding requirements over a 10 year period. Additional details explaining the application of priority ratings are included in footnotes to Table 8.12.

**Table 8.12**  
**GA-Community Airport Priority System**

Priority	Estimated Cost	Phase I Year 0-3	Phase II Year 4-6	Phase III Year 7-10
<b>One</b>	\$1,261,000	\$1,261,000		
<b>Two</b>				
<b>Two-Poor</b>				
<b>Two-Fair</b>	\$3,088,000	\$3,088,000		
<b>Two-Good</b>	\$20,264,000		\$10,132,000	\$10,132,000
<b>Three</b>	\$4,619,000	\$2,309,500	\$1,154,750	\$1,154,750
<b>Four</b>	\$2,327,000	\$2,227,000	\$50,000	\$50,000
<b>Five</b>	\$4,924,000	\$492,400	\$1,969,600	\$2,462,000
<b>Six</b>	\$1,095,000	\$109,500	\$438,000	\$547,500
<b>Totals</b>	<b>\$37,578,000</b>	<b>\$9,487,400</b>	<b>\$13,744,350</b>	<b>\$14,346,250</b>

- Priority One projects are all funded in Phase I.
- Priority Two pavement projects listed as fair will be funded in first phase. Priority Two pavement projects listed as "good" will be funded 50 percent in Phase II and 50 percent in Phase III.
- Priority Three projects will be funded 50 percent in Phase I, 25 percent in Phase II, and 25 percent in Phase III.
- Priority Four runway length projects will be funded in Phase I. Priority Four planning documents will be funded in Phase I, if over five years old, the remaining will be funded in Phase II and III.
- Priority Five and Six projects will be funded 10 percent in Phase I, 40 percent in Phase II, and 50 percent in Phase III.

**B6. Local Airport Performance Summary**

In Chapter 7, projects were recommended for each airport to enable them to effectively contribute to Alabama System of Airports. **Table 8.13** shows the number of each type of project recommended to meet this State System Plan’s goals.

**Table 8.13**  
**Local Airport Performance Summary**

<b>Benchmarks</b>	<b>Goal</b>	<b>Number of Airports</b>	<b>% of Airports Meeting Goals</b>
ARC	100%	23	100%
Runway Length	100%	23	100%
Runway Width	100%	23	100%
Taxiway	70%	8	35%
Lighting	100%	19	83%
Services	100%	5	22%
Support Infrastructure	100%	15	65%
Licensing	100%	9	39%
FAA Design Standards	100%	7	30%
Planning Documents	100%	15	65%
<i>Average</i>	<i>97%</i>		<i>64%</i>

The Recommended General Aviation Local Airports are:

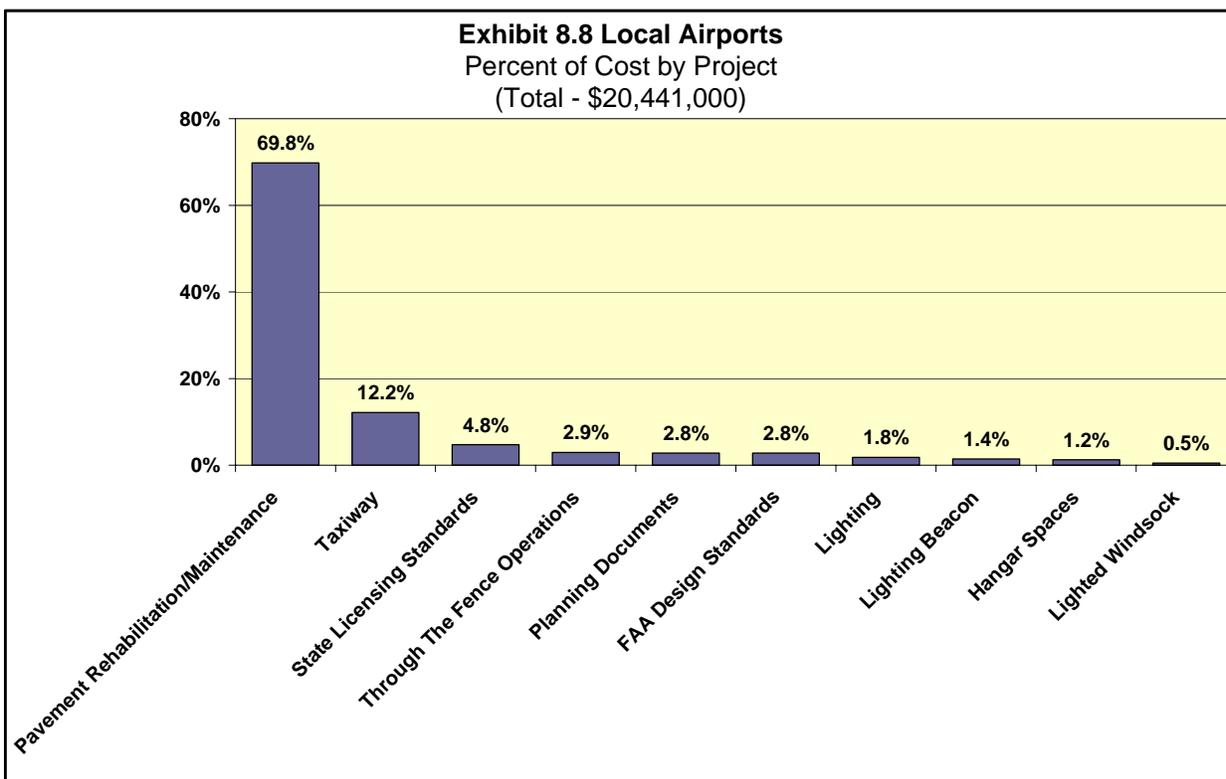
Abbeville	Dauphin Island	Marion
Addison	Double Springs	Pine Hill
Aliceville	Elba	Roanoke
Atmore	Eutaw	Stevenson
Butler	Geneva	Tallassee
Centreville	Grove Hill	Union Springs
Chatom	Lanett	Vernon
Clayton	Luverne	

**B6.1 General Aviation (GA) - Local Airports Cost Summary**

The Local classification is comprised of 23 aviation facilities with 13 included in the NPIAS. This functional level has the lowest total for recommended projects at \$20.4 million for 89 projects. The Local airports' costs by project are summarized in **Table 8.14. Exhibit 8.8** reveals the percent distribution of project dollars recommended by type.

**Table 8.14  
Local Airport Recommended Projects**

Recommended Projects	Priority	Estimated Cost	Number of Projects	Airports
Lighting Beacon	1	\$290,000	5	Addison, Eutaw, Grove Hill, Lanette, Pine Hill
Lighted Windsock	1	\$60,000	5	Addison, Aliceville, Grove hill, Luverene, Pine Hill
State Licensing Standards	1	\$972,000	12	Aliceville, Atmore, Chatom, Dauphin, Double Springs, Geneva, Grove Hill, Lanette, Pine Hill, Stevenson, Tallsee, Union Springs
FAA Design Standards	1	\$570,000	8	Aliceville, Atmore, Butler, Elba, Eutaw, Grove Hill, Pine Hill, Vernon
Pavement Rehabilitation	2	\$14,271,000	21	All but Abbeville and Addison
Taxiway	3	\$2,488,000	8	Abbeville, Butler, Chatom, Eutaw, Genva, Lanette, Stevenson, Union Springs
Lighting	3	\$365,000	4	Addison, Chatom, Euataw, Pine Hill
Planning Documents	3	\$575,000	23	All
Hangar Spaces	4	\$250,000	1	Abbeville
Through The Fence Operations	5	\$600,000	2	Centreville, Vernon
<i>Totals</i>		<i>\$20,441,000</i>	<i>89</i>	



As with the previous categories, an important project type that is recommended for 21 facilities at the Local level is pavement rehabilitation/maintenance. It constitutes almost 70 percent of the total recommended Local airport projects, at a cost of \$14.3 million. Over the course of the planning period for the System Plan, all airports will require a planning document project. It is recommended that all 23 airports have an Airport Layout Plan (ALP) or Master Plan to include a capital improvement plan (CIP) prepared in order to meet this requirement.

In addition, taxiway projects account for 12.2% of the total project costs for Local facilities. At almost \$2.5 million for eight taxiway projects, this is one of the more expensive items being examined at this level.

**B6.1.1 General Aviation (GA)-Local Airports Capital Improvement Planning**

Funding and other practical constraints require that the improvements recommended for the Airport System's Local airports be accomplished over time. **Table 8.15** below recommends a phased construction of the projects over three planning periods. The projects have been phased into Phase I (0 to 3 years), Phase II (4 to 6 years), and Phase III (7 to 10 years). A priority for each type of project was established in accordance with the priority rating system originally developed by the ALDOT Aeronautics Bureau, (ALDOT's project rating system is discussed more thoroughly in section D3) and evenly distributed funding requirements over a 10 year period. Additional details explaining the application of priority ratings are included in footnotes to Table 8.15.

**Table 8.15**  
**Local Airport Priority System**

<b>Priority</b>	<b>Estimated Cost</b>	<b>Phase I Year 0-3</b>	<b>Phase II Year 4-6</b>	<b>Phase III Year 7-10</b>
<b>One</b>	\$1,892,000	\$1,892,000		
<b>Two</b>				
<b>Two-Poor</b>	\$2,054,000	\$2,054,000		
<b>Two-Fair</b>	\$3,454,000	\$3,454,000		
<b>Two-Good</b>	\$8,763,000		\$4,381,500	\$4,381,500
<b>Three</b>	\$3,428,000	\$640,000	\$1,494,000	\$1,294,000
<b>Four</b>	\$250,000			\$250,000.00
<b>Five</b>	\$600,000			\$600,000
<b>Totals</b>	<b>\$20,441,000</b>	<b>\$8,040,000</b>	<b>\$5,875,500</b>	<b>\$5,675,500</b>

- Priority One projects are all funded in Phase I.
- Priority Two pavement projects listed as poor or fair will all be funded in Phase I. Priority Two pavement projects listed as "good" will be funded 50 percent in Phase II and 50 percent in Phase III.
- Priority Three planning documents over five years old will be funded 50 percent in Phase II and Phase III. The planning documents under five years old will be funded 100 percent in Phase III. Lighting is funded 100 percent in Phase I. Taxiway projects are funded 50 percent in Phase II and III.
- Priority Four hangar projects are all funded in Phase III.
- Priority Five projects are all funded in Phase III.

**B7. NPIAS and Non-NPIAS Cost Summary**

With all needs of the airports in the Alabama recommended airport system identified, the funding sources and their respective allocations were considered. It should first be determined whether the airport is part of the NPIAS and consequently eligible for federal funding. It is important to note, however, that all projects at airports included in the NPIAS are not necessarily eligible for federal funding. In addition, the use of FAA federal grants as part of the Airport Improvement Program (AIP) at any airport requires local matches from State and/or sponsor/owner sources.

Some of a NPIAS airport's projects are eligible for federal funding participation with the local share typically being split equally by the State and local authorities. These types of projects include projects that:

- ❑ Preserve or enhance safety, security, or capacity of the national air transportation system
- ❑ Reduce noise or mitigate noise impacts resulting from an airport
- ❑ Furnish opportunities for enhanced competition between or among air carriers

All other projects slated for a NPIAS airport will have to be funded by either State or local authorities. Furthermore, all non-NPIAS airport projects are anticipated to be funded by State or local sources, with as much as 50 percent of the cost being eligible for State funding.

All National and GA-Regional airports are included in the NPIAS, and all but one of the GA-Community airports, Fort Deposit, are also NPIAS facilities. The Local classification contains 15 NPIAS airports. The eight remaining non-NPIAS facilities are as follows:

- ❑ Addison
- ❑ Double Springs
- ❑ Eutaw
- ❑ Luverne
- ❑ Pine Hill
- ❑ Stevenson
- ❑ Union Springs
- ❑ Vernon

Exhibit 8.9\* provides data concerning the funding allocation for the 73 NPIAS airports and the 11 non-NPIAS airports in the Alabama aviation system.

Exhibit 8.9 Total Funding Allocation (NPIAS & Non-NPIAS)  
Cost by Source



\*Funding assumptions based on 90% federal, 5% State, and 5% Local.

Exhibit 8.9 shows that the 73 airports in the NPIAS account for over \$225.3 million in project costs associated with system plan benchmark projects. These are broken down with 68 percent or \$152.3 million of that total eligible for federal funding, 16 percent or \$36.5 million from the State, and 16 percent or \$36.5 million coming from local sponsors. All 11 non-NPIAS airports in the system require \$7.2 million in funding for all of the recommended projects. Based on existing eligibility, it is anticipated that \$3.6 million will be needed from the State and \$3.6 million from local sponsors to meet the funding requirements.

It is important to point out the large difference between the total projects cost for NPIAS and non-NPIAS airports. More importantly, the fact that only 11 percent of the airports are non-NPIAS, and that all but one are classified as Local, is significant. Furthermore, the majority of Alabama’s airport system airports are included in the NPIAS, is an exceptional detail. Thus, the large amount of federal funding in proportion to the State and local allocations is of great benefit to the system as a whole.

**B8. Total Cost Summary**

Funding and other practical constraints require that the improvements recommended for the Airport System be accomplished over time. **Table 8.16** below recommends a phased construction of all recommended projects for all categories over three planning periods. The projects have been phased into Phase I (0 to 3 years), Phase II (4 to 6 years), and Phase III (7 to 10 years). A priority for each type of project was established in accordance with the priority rating system originally developed by the ALDOT Aeronautics Bureau, (ALDOT's project rating system is discussed more thoroughly in section D3) and evenly distributed funding requirements over a 10 year period. Additional details explaining the application of priority ratings are included in footnotes to Table 8.12.

**Table 8.16**  
**Total System Plan Funding by Category and Phase**

System Categories	Estimated Cost	Phase I Year 0-3	Phase II Year 4-6	Phase III Year 7-10
<b>International*</b>	\$10,205,000	\$3,061,500	\$3,061,500	\$4,082,000
<b>National</b>	\$69,932,000	\$24,078,500	\$19,651,500	\$26,202,000
<b>GA-Regional</b>	\$94,640,000	\$28,742,300	\$31,462,550	\$34,435,150
<b>GA-Community</b>	\$37,578,000	\$9,487,400	\$13,744,350	\$14,346,250
<b>GA-Local</b>	\$20,441,000	\$8,040,000	\$5,875,500	\$6,525,500
<b>Totals</b>	\$232,796,000	\$73,409,700	\$73,795,400	\$85,590,900

\*Includes hangars and planning documents per system plan requirements that were not included in the airports' CIP.

**Table 8.17** presents a summary of the total recommended costs with resource allocations for federal, State, and local totals for each project type. This also includes the CIP costs for the two international airports and the four air carrier airports in the National category. To develop the recommended airport system airports with the facilities and services required, it is estimated that approximately \$493 million in federal funding, \$87.1 million in State capital resources, and \$87.1 million in local participation will be required.

**Table 8.17\***  
**Funding Allocation for Recommended Projects-All Airports**

<b>Total Funding Allocation (NPIAS &amp; Non-NPIAS)</b>				
<b>Recommended Benchmark Project Description</b>	<b>Project Cost</b>	<b>FAA Allocation</b>	<b>State Allocation</b>	<b>Local Allocation</b>
Primary Runway Length	\$23,470,000	\$21,123,000	\$1,173,500	\$1,173,500
Taxiway	\$13,939,000	\$11,705,400	\$1,116,800	\$1,116,800
Nav Aids	\$1,666,000	\$1,317,600	\$174,200	\$174,200
PAPI (GVGI)	\$533,000	\$442,800	\$45,100	\$45,100
ALS	\$3,387,000	\$3,048,300	\$169,350	\$169,350
Lighting	\$365,000	\$89,100	\$137,950	\$137,950
Lighting Beacon	\$290,000	\$52,200	\$118,900	\$118,900
Windsock	\$72,000	\$21,600	\$25,200	\$25,200
Automated Weather Reporting System	\$2,858,000	\$2,572,200	\$142,900	\$142,900
Jet Fuel	\$290,000	\$0	\$145,000	\$145,000
Avgas	\$232,000	\$0	\$116,000	\$116,000
RCO/ATCT	\$126,000	\$0	\$63,000	\$63,000
State Licensing Standards	\$2,760,000	\$2,308,500	\$225,750	\$225,750
FAA Design Standards	\$1,145,000	\$1,030,500	\$57,250	\$57,250
Hangar Spaces	\$48,358,000	\$0	\$24,179,000	\$24,179,000
Apron Spaces	\$8,404,000	\$7,563,600	\$420,200	\$420,200
Terminal	\$3,177,000	\$0	\$1,588,500	\$1,588,500
Parking Spaces	\$2,191,000	\$0	\$1,095,500	\$1,095,500
Pavement Rehabilitation/Maintenance	\$115,668,000	\$98,743,500	\$8,462,250	\$8,462,250
Through The Fence Operations	\$750,000	\$0	\$375,000	\$375,000
Planning Documents	\$3,115,000	\$2,556,000	\$279,500	\$279,500
<b>Total Recommended Projects Cost</b>	<b>\$232,796,000</b>	<b>\$152,574,300</b>	<b>\$40,110,850</b>	<b>\$40,110,850</b>
<b>Air Carrier</b>	<b>Total Cost</b>	<b>FAA Allocation</b>	<b>State Allocation</b>	<b>Local Allocation</b>
Airside	\$81,164,015	\$73,047,614	\$4,058,201	\$4,058,201
Landside	\$12,811,765	\$600,300	\$6,105,733	\$6,105,733
Terminal	\$36,961,338	\$30,727,401	\$3,116,968	\$3,116,968
<b>Total Air Carrier CIP Cost</b>	<b>\$130,937,118</b>	<b>\$104,375,315</b>	<b>\$13,280,902</b>	<b>\$13,280,902</b>
<b>International Airports</b>	<b>Total Cost</b>	<b>FAA Allocation</b>	<b>State Allocation</b>	<b>Local Allocation</b>
Airside	\$200,018,319	\$180,016,487	\$10,000,916	\$10,000,916
Landside	\$26,000,000	\$0	\$13,000,000	\$13,000,000
Terminal	\$77,615,544	\$56,106,490	\$10,754,527	\$10,754,527
<b>Total International Airports CIP Cost</b>	<b>\$303,633,863</b>	<b>\$236,122,977</b>	<b>\$33,755,443</b>	<b>\$33,755,443</b>
<b>Total All Projects Cost</b>	<b>\$667,366,981</b>	<b>\$493,072,592</b>	<b>\$87,147,195</b>	<b>\$87,147,195</b>

\*Funding assumptions based on 90% federal, 5% State, and 5% Local.

**C. Funding Review**

In general, funding for infrastructure development projects at the recommended system airports can be obtained from the following major sources: federal, state, local, or private funds. These sources are discussed in the following sections.

- C1. Current Federal Funding
- C2. Current State Funding
- C3. Local and Private Funding

**C1. Current Federal Funding**

The FAA, in the form of Airport Improvement Program (AIP) grants, distributes federal funds back to the nation’s airport system from the Aviation Trust Fund. The Aviation Trust Fund, in its present general form, was originally established in 1970 and has since been amended on numerous occasions. The purpose of the Aviation Trust Fund is to establish a source of funds, collected only from the users of the nation’s airport system that can be used to fund airport improvements at system airports. The current AIP legislation provides both entitlement funds (enplanement, cargo, and apportionment) and discretionary funds for projects that are eligible according to FAA Order 5100.38B, “Airport Improvement Handbook.” General types of projects that are eligible to be funded with AIP grants include those projects that:

- Preserve or enhance safety, security, or capacity of the national air transportation system
- Reduce noise or mitigate noise impacts resulting from an airport
- Furnish opportunities for enhanced competition between or among air carriers

**Table 8.18** presents total AIP funding for the fiscal years 1996 through 2002.

**Table 8.18**  
**Historical AIP Funding (Billions)**

	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
<i>Total AIP Funding</i>	\$1.38	\$1.46	\$1.50	\$1.95	\$1.85	\$3.20	\$3.30

Source: FAA Airports Financial Assistance Division

One of the major sources of funds for the Aviation Trust Fund is a ticket tax levied on each scheduled service airline ticket sold in the U.S. This ticket tax ensures that the users of the nation’s aviation system are responsible for funding its improvements.

Some airports with scheduled service receive grant funds each fiscal year based on the number of passengers that they enplaned the prior calendar year. These are referred to as “enplanement” entitlement funds. Air Carrier airports are given entitlement funding based on a graduated methodology developed by the FAA that equates to a lower per enplanement entitlement for the airport as that airport’s total enplanement level increases. This process is used to offset funding disparity, to the extent possible, that results from the vastly different

levels of enplanements that occur at U.S. airports, from less than 10,000 enplanements per year at small airports to tens of millions of enplanements at major hub airports. With AIR-21, discussed in a subsequent section, the minimum passenger entitlement for Primary airports (those airports enplaning at least 10,000 passengers per year) was increased from \$500,000 to \$1 million, in years where the appropriation is greater than or equal to \$3.2 billion. If the appropriation does not reach the \$3.2 billion level, the minimum passenger entitlement for Primary airports is \$650,000. Very large airports are capped in terms of entitlement funds based on whether or not they charge a passenger facility charge (PFC) and the amount of the PFC.

Scheduled service airports can also receive cargo funding based on the landed weight of cargo aircraft. This cargo entitlement is also calculated based on a graduated methodology similar to the enplanement entitlement methodology described above. In addition, federal AIP apportionment funds are available to each state's eligible general aviation airports. The FAA allocates funds for general aviation airports in each state based on a formula that considers the size and population of the State. General aviation airports compete for these funds based on the priority of each project.

Airports also compete for federal discretionary funds, which are awarded based on priority ratings given to each potential project by the FAA. The prioritization process ensures that the most important and most beneficial projects are the first to be completed, given the availability of adequate discretionary funds.

As a general rule, airport projects that are related to non-revenue producing facilities, such as airfield improvements and land acquisition, can be eligible for up to 90 percent federal funding. Only those airports deemed as being crucial to the national system, those airports included in the National Plan of Integrated Airport Systems (NPIAS), are eligible for federal funding. It is important to note, however, that all projects at airports included in the NPIAS are not necessarily eligible for federal funding. In addition, the use of federal AIP funds at any airport requires local matches from State and/or sponsor/owner sources.

It is also important to note that federal funding is limited to development that is justified to meet aviation demand according to FAA standards. Each airport development project, including those recommended in the System Plan, will be subject to eligibility and justification requirements in the normal AIP funding process.

On April 5, 2000, the Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century (AIR-21) was passed. The three-year AIR-21 legislation is complex and contained a number of changes from previous Airport Improvement Program (AIP) budget authorizations undertaken in conjunction with the Aviation Trust Fund. New procedures for distributing funds to the nation's airports were developed in AIR-21, and a number of AIP procedures were revised or amended. The result of the AIR-21 legislation was that the resources available for airport improvement and development projects at U.S. airports were significantly increased. In addition to providing for a significant increase in federal funds available for airport improvement projects at primary air carrier airports, AIR-21 outlined

new procedures that provided states and smaller general aviation airports with dramatic increases in funding that can be used, and/or saved or “bankrolled” to support important projects at smaller general aviation airports.

**Table 8.19** presents a comparison of the FY 2000 (October 1999 through September 2000) AIP budget and the FY 2001 AIR-21 budget. As the table shows, significant increases were seen in all areas of funding.

**Table 8.19**  
**Comparison of FY 2000 and 2001 (AIR-21) AIPs**

Fund Category	FY 2000 AIP	FY 2001 AIP (AIR-21)
Entitlements	\$1,100,512,335	\$2,004,840,795
Small Airport Fund	\$142,204,990	\$274,936,625
Discretionary Set-Asides	\$231,147,417	\$355,758,049
Other Discretionary	\$377,135,258	\$564,464,531
<b>TOTAL</b>	<b>\$1,851,000,000</b>	<b>\$3,200,000,000</b>

Source: House Transportation and Infrastructure Committee Staff

As shown in Table 8.17, the AIP funds available to support airport projects at U.S. airports increased from approximately \$1.85 billion to approximately \$3.2 billion in fiscal year 2001. The major funding changes identified in AIR-21 are summarized below:

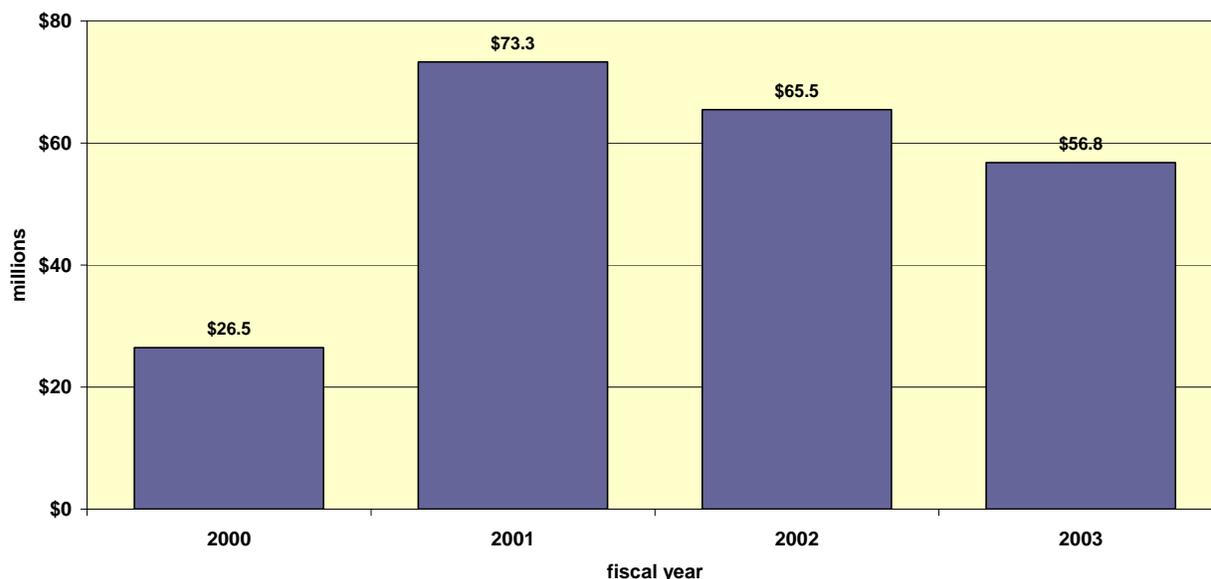
- ❑ Minimum passenger entitlement for Primary airports (those airports enplaning at least 10,000 passengers per year) was increased from \$500,000 to \$1 million.
- ❑ Total entitlement amounts for cargo activity (only airports with over 100 million pounds of gross landed weight annually) increased from 2.5 percent of AIP funding to 3 percent.
- ❑ When the AIP level is authorized at \$3.2 billion or more, states’ apportionment increases to 20 percent of the budget, or approximately \$640 million at the \$3.2 billion level. A general aviation entitlement program was implemented in which general aviation airports received the lesser of \$150,000 or 1/5<sup>th</sup> of the most recently published estimates of five-year costs contained in the NPIAS. The total of these general aviation entitlements are subtracted from the overall state apportionment dollars for that fiscal year and the remaining amount is apportioned to each state.
- ❑ The maximum Passenger Facility Charge (PFC) was increased from \$3.00 per enplanement to \$4.50 per enplanement. Large and medium hub airports that increase their PFC to \$4.50 forego 75 percent of their federal passenger entitlement monies and must meet a variety of specific provisions identified in AIR-21.

The changes described above have a significant impact on total funding available at the federal level, increasing the AIP budget from approximately \$1.85 billion to \$3.2 billion in

FY 2001. Full funding of the FY 2002 AIP at \$3.3 billion was attained upon the signing of the FY 2002 Transportation Appropriations Bill in December 2001. As of September 2002, FY 2003 AIP appropriations had not been authorized; however, the Senate Appropriations Committee had approved the FY 2003 Transportation Spending Bill with full funding of the AIP program at \$3.4 billion.

AIR-21 is a multi-year plan that includes fiscal years 2001 through 2003. This is important because it allows individual airports and states to plan for airport improvements over the three-year period, instead of the single-year periods included in previous AIP authorizations. Because of this change, airports have been able to implement multi-year development plans that had previously been impossible because of uncertainty about future funding levels. In addition, general aviation airport entitlements can be saved over the three-year period to allow these smaller airports to “bankroll” their apportionment for use on major projects. In general, these new AIR-21 provisions allow the ALDOT Aeronautics Bureau to implement a multi-year development plan at individual airports and for the system of airports, and therefore, gives the ALDOT Aeronautics Bureau greater ability to meet not only airport-specific improvement goals, but also system wide goals.

**Exhibit 8.10 Federal Funding to Alabama Airports**  
Millions per Fiscal Year



**Exhibit 8.10** illustrates the federal funding distribution to Alabama airports from FY 2000 through FY 2003. This graph clearly shows the significant increase in funding from FY 2000 to FY 2001 to Alabama airports which is directly related to AIR-21. The graph also shows a decline in overall funding to Alabama airports from FY 2001 to FY 2003. The decline in funding can be attributed to congressional earmarked dollars for Alabama airports written into the original AIR-21 legislation and distributed over the first few years of the program. The \$56.8 million dollars realized in FY 2003 is more representative of a “normal” level of funding under AIR-21 and its subsequent reauthorization.

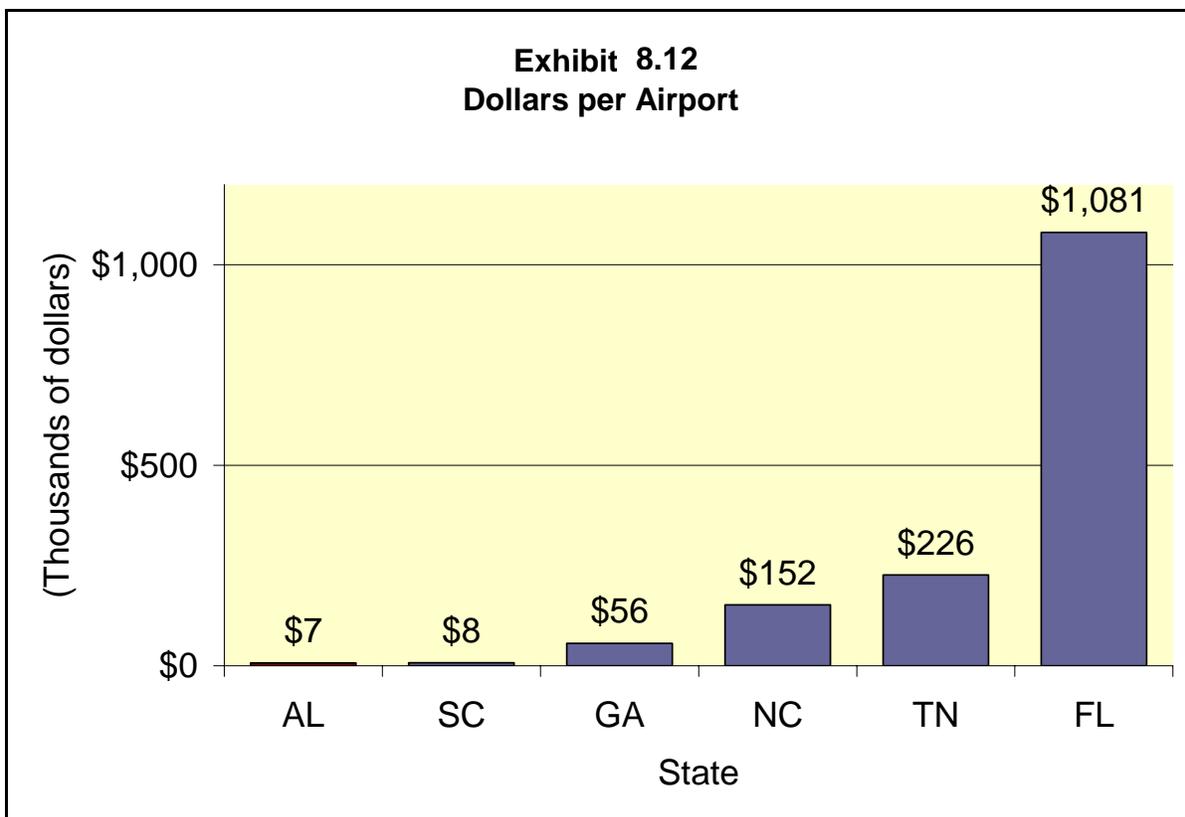
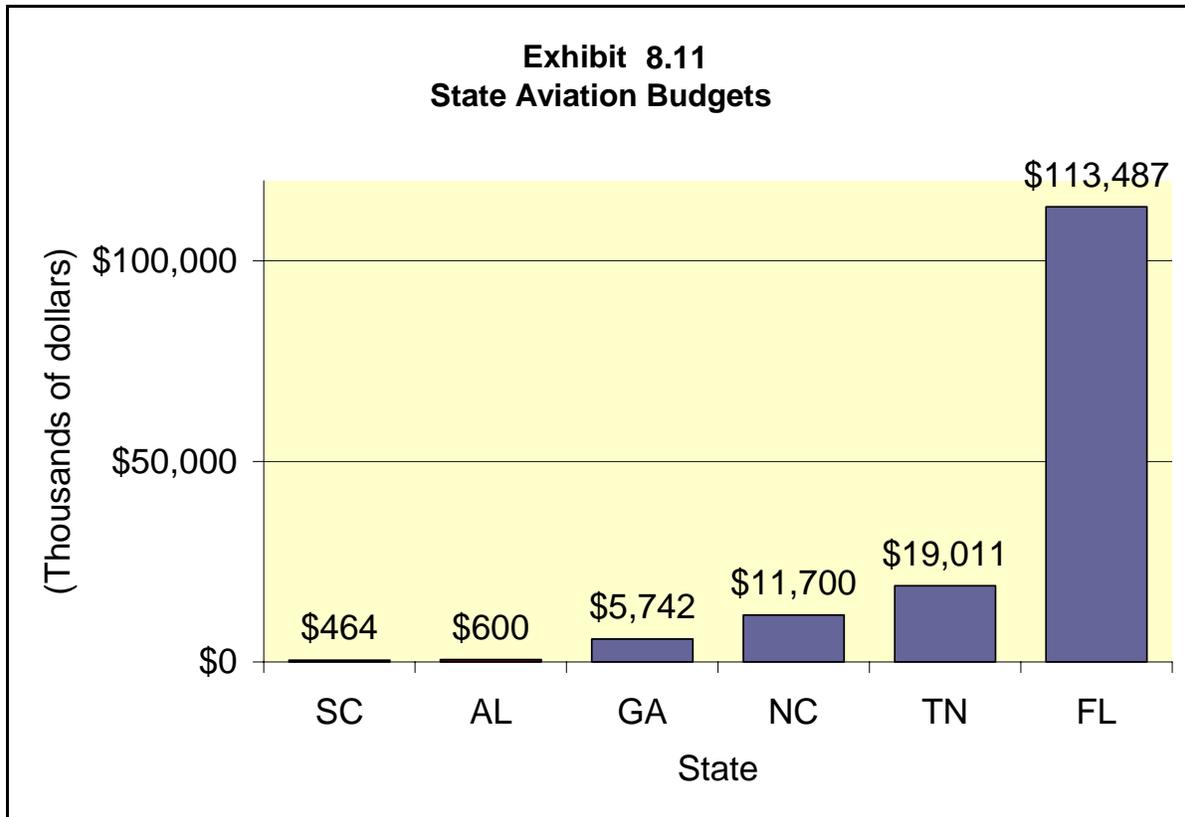
**C2. State Funding**

The Alabama Department of Transportation's Aeronautics Bureau administers Alabama's Airport Improvement Funding Assistance Program. This program was established to provide financial assistance to the State's publicly owned airports for the planning, engineering, and construction of airfield facilities. The program is also authorized to provide funding assistance to local airport sponsors for land acquisition associated with airport expansion and obstruction removal.

The State program is comprised of two funding sources:

- Airport Development Fund (ADF)
- Surplus Military Fields Fund (SMFF)

These funding sources provide the budget for the Aeronautics Bureau and the entire State aviation system. In order to determine how well this system stands on a national/regional level, we can compare Alabama's spending to other States in the FAA Southern Region. **Exhibits 8.11** and **8.12** display a summary of Alabama and surrounding states' aviation budgets and dollars spent per eligible airport, respectively. Both exhibits show that Alabama ranks among the lowest in the southeast region in terms of total State aviation budget and funding per eligible airport.



A large component of the ADF revenue is provided by taxes collected from aviation fuel sales. Many states levy a tax on jet fuel and aviation gasoline (avgas), the fuel used by most small single and twin engine aircraft. In Alabama, this tax is an excise tax, a tax imposed on special commodities. In 2003, the excise tax on jet fuel is one cent per gallon and on avgas, three cents per gallon. However, fuel tax rates can be adjusted yearly by the Alabama Department of Revenue. The revenue generated by the State-levied excise tax on the sale of aviation fuels is the ADF's only legislatively appropriated revenue source and is capped at \$600,000. If tax receipts exceed \$650,000, the rate goes down; if tax receipts fall below \$550,000, the tax rate goes up.

Because tax rates are adjusted according to volume, when more aviation fuels are sold, the tax on fuels decline. In an economic downturn, the sale of aviation fuels often decline, but the tax rate may increase to achieve tax receipts of \$600,000.

Alabama offers an extremely favorable tax rate for end users of aviation fuel. Both jet fuel and avgas tax rates are the lowest in the southeast region. Other states levy either an excise tax on gallons of fuel sold or a sales tax on the amount paid. **Table 8.20** compares Alabama and neighboring states' tax rates on jet fuels.

**Table 8.20**  
**Comparison of Tax Rates on Jet Fuel**

State	Tax Rate	Per Unit	Type of Tax
Alabama	\$0.01	gallon	excise
Florida	\$0.06	gallon	excise
Mississippi	\$0.05	gallon	excise
Tennessee <sup>1</sup>	\$0.01	gallon	excise
Tennessee	4.5%	amount paid	sales
Arkansas	4.6%	amount paid	sales
Georgia	4.0%	amount paid	sales
Louisiana	4.0%	amount paid	sales

<sup>1</sup> Tennessee levies both an excise and sales tax on aviation fuels.

Source: 2001 NBAA State Aviation Tax Report

**Table 8.21** examines what Alabama might have received in fuel tax revenues during 2002 if Alabama had aviation fuel tax rates similar to neighboring states. This exercise applies two assumptions to each State’s tax rates:

1. Total gallons of jet fuel sold = 56,481,141. (This is the amount sold in Alabama during 2002.)
2. Average price of jet fuel = \$.714/gallon (This is the average price of jet fuel in 2002 as reported to the Air Transport Association by the U.S. majors, nationals and large regional carriers.)

**Table 8.21**  
**What if Alabama Had a Different Tax Rate for Jet Fuel?**

Using Tax	
Rates From:	Estimated Tax Receipt
Alabama	\$564,811
Florida	\$2,965,260
Mississippi	\$2,259,246
Tennessee	\$4,073,985
Arkansas	\$1,865,148
Georgia	\$1,613,101
Louisiana	\$1,613,101

If there is the political will to change the tax rate on aviation fuels, there is certainly reasonable room to increase the excise tax on jet fuel.

The SMFF receives its funds through the asset management of the State’s surplus military airfields that are currently or formally owned by the State. One of the primary priorities for the distribution of these funds is to fulfill the ALDOT Aeronautics Bureau’s goal of having Alabama’s entire system of airports meet State and federal design standards.

The Alabama Airport Project Sponsor’s Handbook states that the, “The Surplus Military Fields Fund (SMFF) is the only other source of funds available for the state’s airport improvement grant program. This fund is derived from the monies generated from surplus military airfields that either are currently or formerly owned by the state. Specifically, monies in the SMFF are derived from land sale or lease proceeds, agricultural leases, airport user fees, oil and mineral rights sales, and interest earned from investments of the principal amounts. The principal and interest of the SMFF must be expended and accounted for according to strict procedures required by FAA. Only the interest generated by the SMFF is awarded as grants to eligible airports for eligible projects.

It is the intent of the Alabama Department of Transportation that ultimately all of Alabama’s publicly owned, public use airports will meet the Federal Aviation Administration’s airport design standards. Assisting airports to meet this goal will take time. It is the department’s intent to assist in meeting this goal through the airport improvement funding assistance program.

The Alabama Airport Improvement Funding Assistance Program is a reimbursement type program that aids publicly owned airport operators with the payment of costs associated with planning and constructing various airport facilities and the acquisition of land for airport expansion or obstruction clearance. The primary goal of this program is to improve the safety and functional capability of the state's airport system by providing matching grants to individual airport sponsors. To serve this goal, the Alabama Department of Transportation has adopted the following general policies regarding the application and use of state matching funds for qualified airport improvement projects.

**Matching Ratio.** ALDOT will award grants based on 50% of the total cost of the project or one half local match on FAA funded projects.

**Local Matching Requirement.** ALDOT airport improvement grants must be matched with a local cash contribution. "In-kind" matching of state airport improvement grants will not be counted toward the airport owner's 50% matching share.

**Annual Grant Application Cycle.** An annual grant application cycle has been adopted to better synchronize the ALDOT airport grant program with that of the FAA. An annual cycle also facilitates the planning of airport projects and will achieve a higher degree of certainty regarding ALDOT's participation and funding support.

**Project Start-up Prior to Request.** ALDOT will not accept grant requests for construction projects started prior to the date of the request. Also, ALDOT will not enter into a grant agreement to pay for a project that is started prior to the date of the grant agreement entered into between the airport sponsor and the state.

**Land Acquisition.** Grant requests for land acquisition must be supported by an appraisal performed by a qualified land appraiser.

**Project Supervision.** All airport construction projects with an estimated cost of \$20,000 or more must be planned (drawings, plans, specifications, estimates, etc.) and supervised by a professional engineer in compliance with section 34-11-10 of the Code of Alabama 1975.

**Periodic Payments.** Periodic payments will be made by ALDOT as work progresses on an ALDOT or FAA assisted airport improvement project. Requests for payment must be supported by documentation prepared and certified by a licensed professional engineer. "

### **C3. Local and Private Funding**

Local public airport sponsors such as counties, cities, and authorities are responsible for associated airport development costs that remain after federal and State shares have been applied. Historically, in Alabama, the Local share of federally funded projects has been 5 percent after the 5 percent State share and the 90 percent federal share were applied.

Airport authorities operate many Alabama airports. These authorities are independent from the city or county government in raising capital for improvement projects. These authorities can condemn property and issue bonds with no approval from the city or county that created them.

Local government funding of airport development projects is derived from the following sources:

- General Fund Revenues
- Bond Issues
- Airport-Generated Revenues
- Public-Private Partnerships

Of these, general fund revenues and limited revenues generated by airports are by far the most common funding sources. General obligation bonds are primarily used by commercial service airports. Revenue bonds supported by airport generated revenues are seldom used because most general aviation airports do not earn enough money to pay operating expenses and the debt service of capital funding requirements.

*C3.1 General Fund Revenues* – The amount of general fund support of airport improvement projects varies by airport and is based upon the local tax base, priority of the development project, historical funding trends, and, of course, local attitudes concerning the importance of aviation.

*C3.2 Bond Issues* – Airport authorities have the ability (Code of Alabama 1977, 4-3-51) to:

- Issue interest-bearing revenue bonds payable from the limited sources hereinafter referred to;
- Pledge for payment of such bonds any revenues and funds from which such bonds are made payable

A city or county operates some airports with no airport authority. For these airports, bond issues funding the local share of airport development projects must compete with bond issues for other types of community improvements, such as schools, highways, and sewer systems. As with the general fund apportionment, bond issues supporting airport development depend greatly on the priority assigned to such projects by the local community.

*C3.3 Airport-Generated Revenues* – Airport-generated revenues for general aviation airports are those revenues associated with goods and services that the airport provides. After expenses, net revenues can be used to pay the local share of capital improvement projects. Historically, most general aviation airports have not been able to realize enough revenue to completely cover their expenses and, therefore, operate at a deficit. As a result, general aviation airports have not expected to generate revenues to fund the local share.

General Aviation Airports must be strongly encouraged to develop reasonable leases, assessments, and changes to the right to use the airport in order to help them become more financially self sufficient. Leases for FBO operations, hangars, land, etc. should be fair but based on market values. Fuel flowage fees, if used as a means to generate revenue, should also be determined based on fair market value keeping in mind competing prices.

Air carrier airports, in most cases, do generate enough revenue to cover expenses and realize profits to fund the local share of capital improvement projects. These revenue sources

typically come from landing fees, space rentals, auto parking, and fees and commissions on gross sales.

Another recently enacted means for air carrier airports to generate revenue for eligible capital improvement projects is the implementation of a Passenger Facility Charge (PFC). The PFC program is part of the Aviation Safety and Capacity Expansion Act of 1990, enacted November 5, 1990. The ruling under this act requires the U.S. Department of Transportation to issue regulations under which a public agency may be authorized to impose an airport passenger facility charge of up to \$4.50/enplaned passenger at a air carrier airport it controls. The proceeds from such PFCs are to be used to finance eligible airport-related projects. PFC-generated revenue can be used to pay all or part of the allowable costs of an approved project; it may be used to pay debt service and financing costs incurred on that portion of a bond issued to carry out approved projects; it may be used in combination with airport grant funds to accomplish an approved project; or it may be used to meet the non-federal share of the cost of projects funded under the federal airport grant program.

*C3.4 Public-Private Partnerships* – A final source of funds for airport development is the private sector. At publicly owned airports, as of 2003, items such as storage and maintenance hangars, fuel systems, and pay parking lots are not eligible for federal grant funding because they are revenue-producing sources, which can generate rental income for the airport. If a local airport sponsor does not wish to undertake the responsibility of financing, constructing, and managing hangar construction, a fixed-base operator is likely to build these facilities provided that he or she has the long-term lease agreement and the financial market allows the project to be economically feasible. Another example of public-private funding for airport capital improvements is where local industry or individual airport users/stakeholders contribute capital resources for physical improvements or operating cost. This scenario occurs in smaller communities with a large corporate presence.

#### **D. Supporting Policy Review**

The role of the ALDOT Aeronautics Bureau is to provide services and funding to public airport sponsors, including the inspection and licensing of airports. In 2000, Alabama's Aeronautics Bureau became part of the Alabama Department of Transportation. As part of Act 2000-220, which made this change, the Aeronautics Bureau also gained the authority to act as the agent for sponsors to receive federal grants. This authority is referred to as channeling. Because the participating airport sponsors must submit applications for Federal Aviation Administration (FAA) funding assistance to the Bureau, who processes the requests and distributes the funding, the channeling authority of the Aeronautics Bureau is a part of the payment process. The channeling authority affects all of Alabama's publicly owned general aviation airports and the air carrier airports with less than 10,000 annual enplanements.

According to the Code of Alabama 1975, 23-1-357(c), 23-1-359 the Alabama Department of Transportation has the authority to inspect and issue license annually to Alabama's public airports. The Aeronautics Bureau of the Alabama Department of Transportation is guided by the Administrative Code Chapter 60-X-3, *Procedure and Requirements for Construction and Licensing of Airports*. The Administrative Code defines "the procedures and minimum safety standards that

shall govern the inspection, licensing and closure of airports by the Alabama Department of Transportation Aeronautics Bureau.” The code addresses construction standards and requirements, license categories, minimum requirements for an operating license, airport closure procedures, and prohibited activities. For the most part Alabama minimum standards are in line with the FAA guidelines. Since the FAA’s design standards are based on providing a safe and efficient environment for aircraft operations it is recommended that the Aeronautics Bureau review its minimum operating requirement to ensure that they are inline with FAA regulation.

The System Plan has identified a recommended system of airports including facility standards and needs. In order for the recommended system to be implemented, a significant level of funding will be required. If the existing funding mechanisms continue, full development of the recommended system may not be possible. In fact, not only is the implementation of this plan at stake, but if a more adequate funding scenario is not realized, there is a real risk of accruing substantial additional expenses associated with the rehabilitation of Alabama’s airports. Stated differently, historically the cost of inaction exponentially increases as airports are left to deteriorate over time. The following sections provide a review of existing policies of the Aeronautics Bureau as they relate to implementation of the recommended system and a number of possible changes, which may be beneficial.

#### **D1. Application and Use of State Matching Funds**

The Alabama Airport Improvement Funding Assistance Program is the State’s current program that provides monies to airport sponsors for planning, facility construction, and land acquisition. As previously noted, the primary goal of this program is to “improve the safety and functional capability” of the airport system. Some of the policies of the current program’s application include:

- ❑ Grant awards are based on 50 percent of the total cost of the project or one half of the local match on FAA funded projects. This is the maximum grant amount.
- ❑ Grant awards require a 50 percent local cash contribution.
- ❑ The grant application cycle is annual.
- ❑ Grants cannot be awarded to projects that are underway prior to the date of the grant request.
- ❑ Grant requests for land acquisition must have an appraisal by a qualified land appraiser for consideration.
- ❑ All airport construction projects that are greater than \$20,000 must be planned and supervised by a professional engineer.
- ❑ Grant requests by sponsors that have an outstanding grant (one issued more than two years prior to the request) must complete the project or request cancellation of the outstanding grant.
- ❑ All sponsors must have a current operating license for the airport or the grant must be for correcting the safety deficiencies.

Other policies that could be considered as part of Alabama’s grant program process include:

- ❑ Requirement that the airport either currently meets or that the project addresses FAA airport design standards (in addition to the requirement that the airport meet the State’s licensing standards)
- ❑ Resource allocation by airport functional category established in the System Plan
- ❑ Additional resource allocation by project type
- ❑ Limit of the number of active grants that can be underway

Of these other policies, the resource allocation may best enhance the implementation of the System Plan’s recommendations. By allocating the available funding to the five airport classifications established as part of the System Plan, the system as a whole can be improved. Typically, when airport projects are rated in terms of priority, projects at larger airports receive a higher priority due to the factors that are used to evaluate them. This process means that the smaller airports are less likely to receive funding unless there is a significant safety issue that outweighs other projects at large airports. By allocating the funding by airport classification, airports that are similar in function can compete against each other in the funding process, leaving the projects to be the more definitive reason for the receipt of funding.

In addition to allocation by airport classification, the ALDOT Aeronautics Bureau may decide that certain project types should be the focus of funding in different years. Therefore, consideration of a further resource allocation that focuses on improving a certain facet of the aviation system may be needed. For example, the ALDOT Aeronautics Bureau may decide that the State could benefit from substantial development of automated weather reporting systems and that development of these systems should be a high priority. A certain percentage of the allocation could be allotted to automated weather reporting systems to ensure that this facet of the aviation system is being addressed, whether or not the priority rating system identifies it as a high priority. Other aviation programs have used this resource allocation for programs such as land acquisition, general aviation terminal buildings, and weather reporting systems.

## **D2. Eligible Projects**

As part of the Alabama Airport Project Sponsor’s Handbook, prepared by the Aeronautics Bureau, airport projects eligible for state funding are summarized. There are eight categories that are used to define the capital improvement projects in which Alabama provides funding. They are as follows:

- ❑ Safety projects – 50 percent
- ❑ Airside improvements and enhancements – 50 percent
- ❑ Landside improvements and enhancements – 50 percent
- ❑ Planning and engineering services – 50 percent
- ❑ FAA-sponsored projects – 50 percent of Local Match
- ❑ Heliport construction – 50 percent – maximum of \$15,000
- ❑ Emergency projects – 50 percent
- ❑ Hangar development – 50 percent

This list of eligible projects is extensive; however, it is important to note that the list does not include general maintenance and operation. Funding is currently not provided by Alabama either in the form of a grant or loan for these items. Similar programs that address these items are offered by other states and are discussed in a subsequent section.

### **D3. Priority Rating System**

The ALDOT Aeronautics Bureau employs a priority rating system to evaluate the annual grant requests submitted by airport sponsors. The current system was developed to objectively review the merits of each airport project, with an emphasis on projects that improve the safety of the system through compliance with minimum airport safety standards.

The priority rating system uses three general categories to evaluate each project:

- ❑ Project type
- ❑ Airport usage
- ❑ Sponsor responsibility

Under project type, nine categories are used to describe the projects with points associated with each project description. The nine categories are:

- ❑ Runways
- ❑ Taxiways
- ❑ Aircraft parking aprons
- ❑ Landside access/improvements
- ❑ Land acquisition
- ❑ Other infrastructure
- ❑ Terminal/hangar area development
- ❑ Planning and engineering studies
- ❑ Lighting and navigation aids

Points ranging from 40 to 1 are used to rank the project types within each category, based on the project's contribution to safety, capacity, and enhancement of the airport system.

In terms of airport usage, the number of based aircraft is used to award points to the airport project. If a project is deemed necessary to meet an economic development need, additional points are awarded to the project.

The final category examines sponsor responsibility. This category reviews licensing compliance, airport minimum standards (in terms of availability of rules and regulations for airport operations), the enactment of height zoning, status of the project within the current capital improvement plan (CIP), and adoption of a pavement maintenance management program as factors in assigning points to each airport project.

This three-pronged system is similar to priority rating systems used by other aviation agencies as they evaluate aviation needs and funding. The priority rating system will also

evaluate the project to ensure development is consistent with state system plan.

The need for other potential enhancements to the priority rating system will depend on whether the ALDOT Aeronautics Bureau decides to allocate its resources among the five airport classifications. If the resource allocation between classifications is made, further consideration of airport usage or other airport-specific factors may not be as important. In terms of the project type, consideration may be given to whether or not the project helps the airport meet its recommended role in the System Plan in terms of facility and service objectives. This factor could be used as an additional bonus criterion in the point award process.

#### **D4. Other State Programs**

Alabama's Aeronautics Bureau operates with a small budget compared to other state aviation agencies. As such, the ALDOT Aeronautics Bureau has limited resources available to assist in the maintenance and development of airports. With this limited funding, it is difficult for the ALDOT Aeronautics Bureau to make significant improvements in the State's aviation system. The majority of the funding for the State's aviation program is used to match federal grants that are awarded. In addition to these federal matching grants, the State also provides matching grants for non-FAA eligible projects.

A review of other funding sources and programs used in other state aviation agencies was conducted and is summarized below. This review should not be considered wholly comprehensive, but it does present information on programs that could be considered to enhance Alabama's future airport funding.

*D4.1 Hangar Programs* – Several states use a revolving loan program to assist airports with hangar development. These programs provide low interest or interest-free loans to airport sponsors for building new hangars. The loans are paid back into the fund over short periods (five to ten years), and these funds continue to revolve as other airports apply for loans and the loans continue to be repaid. This program usually requires an up front appropriation to initiate the program. Florida's Department of Transportation provides hangar grants up to 50 percent to airport sponsors to propagate the development of hangar facilities. As previously noted, hangars provide an opportunity for airports to generate revenue as well as additional demand that can help to sustain the operating costs of the airports. While new federal legislation may list hangars as a federally eligible project, the priority rating for these projects may make a hangar program relevant.

*D4.2 Pavement Programs* – Airport pavements represent one of the most significant investments in the aviation system. As such, it is imperative that the pavements be maintained to high standards to prolong the useful life. Alabama implemented a pilot program for pavement maintenance in 1999 that was considered successful. This pilot program could be considered for permanent inclusion in Alabama's airport funding program if sufficient monies were available. Other states use a set-aside for airport pavement preservation wherein a certain percentage of their available funding is dedicated to pavement preservation. In addition to pavement preservation, some state agencies offer marking

and/or crack sealing programs for airports. The marking program operated by Nebraska is one in which the State owns the equipment and actually marks the airports at a lower cost. The airport sponsor pays the Nebraska Department of Aeronautics to conduct the marking but at a significantly reduced rate.

*D4.3 Fuel Storage* – Another means for airport revenue generation is fuel sales. To assist airport sponsors with the installation, improvement or increase in fuel storage capacity, some states offer a fuel storage loan program. These programs provide low or interest-free loans to airport sponsors to engineer, purchase, and install fueling systems at up to 50 percent of the cost of the project.

*D4.4 Terminal Buildings* – Alabama’s existing State grant program allows for funding of general aviation terminal buildings. Terminal building costs that are for public use or publicly accessible areas are eligible up to a maximum of \$250,000. Under the existing priority rating system, terminal buildings receive such a low priority that they typically do not get funded. Other state aviation agencies offer similar programs, but use resource allocation methods wherein a certain percentage is dedicated to terminal building development.

It is important to note that all of these programs require additional funding. Alabama’s current funding structure and program application is such that, with the increased level of FAA funding provided as part of AIR-21, much of the State’s airport funding has been meeting the matching monies for FAA grants. There has been little remaining funding to initiate new programs that require large start-up costs.

## **E. Summary**

The Alabama Statewide Airport System Plan’s recommended plan presents the findings and conclusions of the study. The study has recommended an airport classification system based on each airport’s role in the system. After initial analyses of the existing system, recommendations for upgrading airports to a higher classification role were noted. The recommendations for upgrading an airport’s role were based on the review of the following:

- Accessibility to land area and population
- Accessibility for pilots
- Accessibility for registered aircraft
- Location of industrial parks
- Location of economic centers
- Air cargo activity and locations of cargo-related businesses
- Location of significant recreational centers
- Planned highway improvements

Capital costs for the Alabama aviation system were estimated at approximately \$667 million based on development of the recommended system. These costs include improving facilities and services at the airports, as well as addressing FAA design standards and State licensing standards and pavement preservation. Also, these costs include the demand driven facilities included in the Capital

Improvement Programs for the International airports and Air Carrier airports in the National category. Much of these costs are eligible for federal and State funding, but a significant amount will also need to be born by the local airport sponsors or private individuals.

It is intended that the recommendations contained in this study are not to replace airport-specific recommendations that result from more detailed airport master planning. Furthermore, having these recommendations in the System Plan does not necessarily obligate the Alabama Department of Transportation (ALDOT) Aeronautics Bureau to provide funding for the noted improvements. Recommendations from the System Plan are intended to provide general guidance to the ALDOT Aeronautics Bureau in terms of the types of projects that could be considered to help the airport meet system goals.

A review of Alabama's existing aviation policies revealed that there are several opportunities for enhancement that could help to support the recommendations from the System Plan. These include resource allocation of funding by airport classification, inclusion of a new factor (meets System Plan recommendation) in the priority rating system, linking multi-year projects and rating them as a single project, and consideration of other funding mechanisms such as hangar loan programs used by other states. These opportunities should be considered by the ALDOT Aeronautics Bureau for potential implementation to advance the airport system toward the goals established as part of this study. In order for the recommended system to be implemented, a significant level of funding will be required. If the existing funding mechanisms continue, full development of the recommended system may not be possible.

This plan should be informally reviewed and analyzed annually for the re-examination of performance goals and airport's functional classifications. It is recommended that this planned be funded every several years to perform a formal update. Airports should be allowed to change functional classifications as they continue to expand or adequate justification is established. Airports should work with the Aeronautics Bureau to update planning documents on a regular basis.

This system plan is unique. The airport system established in these recommendations was crafted with the system's ability to support and encourage economic development as its cornerstone. This system of airports seeks to provide a high level of access not only to the State's population centers and interstate industrial corridors, but it also focused on the future. The recommended airport system was designed to support growing population centers and areas that have traditionally supported aviation and understand its importance in the overall economic landscape.

Another significant aspect of this ten year plan is how it levels the playing field for airports to compete for funding at the State level. This plan recognizes the vital role of each functional category in the overall system and has made recommendations for creative methods to fund airports across all categories and project priorities. This airport system utilizes a ten year plan, which if nurtured, will yield an unprecedented level of access to aviation and all the benefits that come with a healthy airport system.

