

GEORGIA AIRPORTS MEAN BUSINESS



# GEORGIA

STATEWIDE AVIATION SYSTEM PLAN

SUMMARY REPORT FOR  
**ATHENS-BEN EPPS  
AIRPORT**



GEORGIA AIRPORTS MEAN BUSINESS





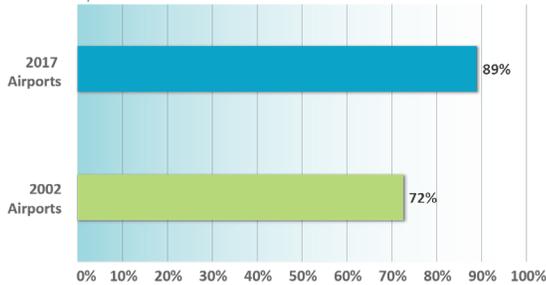
# THE SYSTEM PLANNING PROCESS AND USES FOR THE PLAN

The process used to update the GSASP was consistent with FAA’s Advisory Circular 150/5070-7 - *The Airport System Planning Process*. Ultimately, the GSASP recommendations for Athens-Ben Epps Airport are a blend of projects/actions identified by the system plan and projects related to pavement maintenance and rehabilitation from Georgia’s 2012 Statewide Airfield Pavement Management Study. An update to the Statewide Airfield Pavement Management Study began in 2018; when that analysis is completed, additional projects in the pavement management and maintenance categories will likely be identified for the Airport.

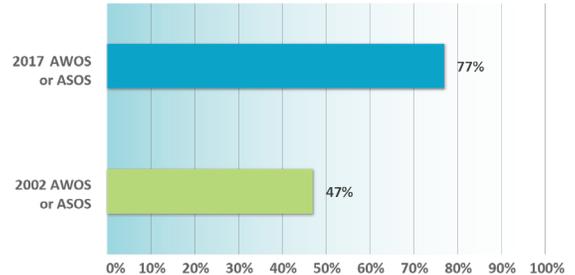
The GSASP is important because it gathers information on current activity, facilities, and services at the 103 study airports. One objective for this update was to provide information showing how the system has changed since the 2002 GSASP was published. As shown in the graphics below, GDOT, FAA, and local investments at system airports have significantly elevated statewide system performance for the measures shown here.

## CHANGES IN GEORGIA AIRPORT SYSTEM PERFORMANCE

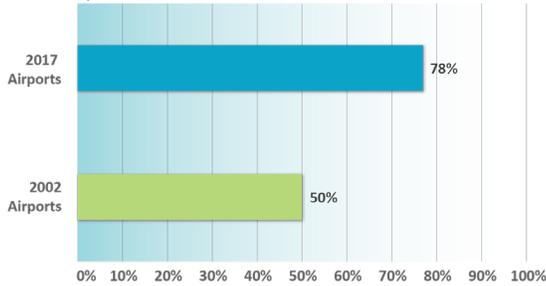
PERCENTAGE OF AIRPORTS WITH A RUNWAY LENGTH OF 4,000 FEET OR GREATER



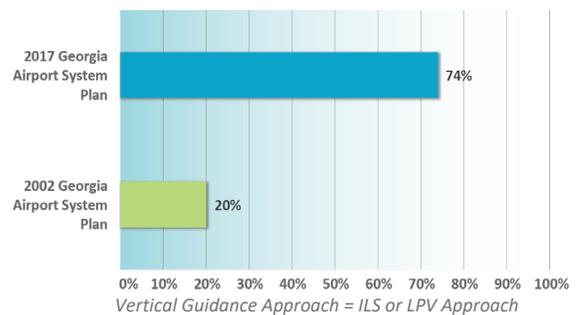
PERCENTAGE OF AIRPORTS WITH WEATHER REPORTING EQUIPMENT



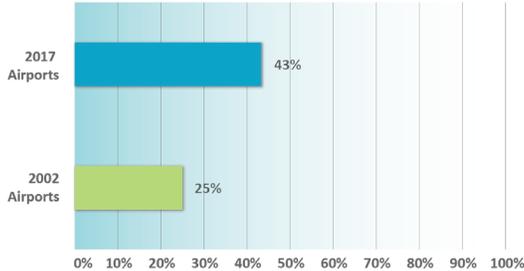
PERCENTAGE OF AIRPORTS WITH A RUNWAY LENGTH OF 5,000 FEET OR GREATER



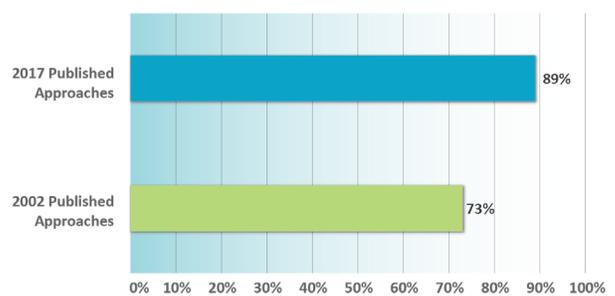
PERCENTAGE OF AIRPORTS WITH A VERTICAL GUIDANCE APPROACH



PERCENTAGE OF AIRPORTS WITH A RUNWAY LENGTH OF 5,500 FEET OR GREATER



PERCENTAGE OF AIRPORTS WITH A PUBLISHED APPROACH



# GEORGIA AIRPORT LEVELS

The Statewide Aviation System Plan was last published in 2002. Since that time, Georgia airports have made significant progress toward meeting the GSASP performance measures. This update to the GSASP reset the bar for future system performance. This included identifying projects for individual airports that are needed to improve system performance in the coming years. It also included evaluating current state system planning levels for all system airports and determining if airport assigned levels should change to improve overall system accessibility and performance. The GSASP update also addressed the need for additional or replacement system airports. Each of the 103 airports was assigned to one of the following levels:

## AIRPORT LEVELS

<b>LEVEL I</b>	<b>Minimum Standard General Aviation Airport:</b> Level I facilities support a reasonable percentage of the general aviation fleet, including small business aircraft. Level I is recognized as the minimum to which airports in the system are recommended to develop. Objectives recommend a minimum runway length of 4,000 feet.
<b>LEVEL II</b>	<b>Business Airport of Local Impact:</b> Level II airports should be capable of accommodating all business and personnel use single- and twin-engine general aviation aircraft and 85% of business jet aircraft. The minimum runway length objective for Level II airports is 5,000 feet.
<b>LEVEL III</b>	<b>Business Airports of Regional Impact:</b> Level III airports are defined as the existing air carrier airports and general aviation airports that have a regional business impact. These airports are recommended to have at least 5,500 feet of runway and precision-like approaches to accommodate 95% of business jet aircraft.

A map of the recommended levels for airports in the Georgia system is shown on the next page. For the most part, after a thorough review of the existing system, current roles are unchanged. System plan recommendations include one new Level III airport, one airport upgraded from Level II to Level III, and two new Level II replacement airports. It is important to note that the identified level for each airport is the airport’s minimum recommendation; an airport’s actual facilities are determined by the airport owner or owners.

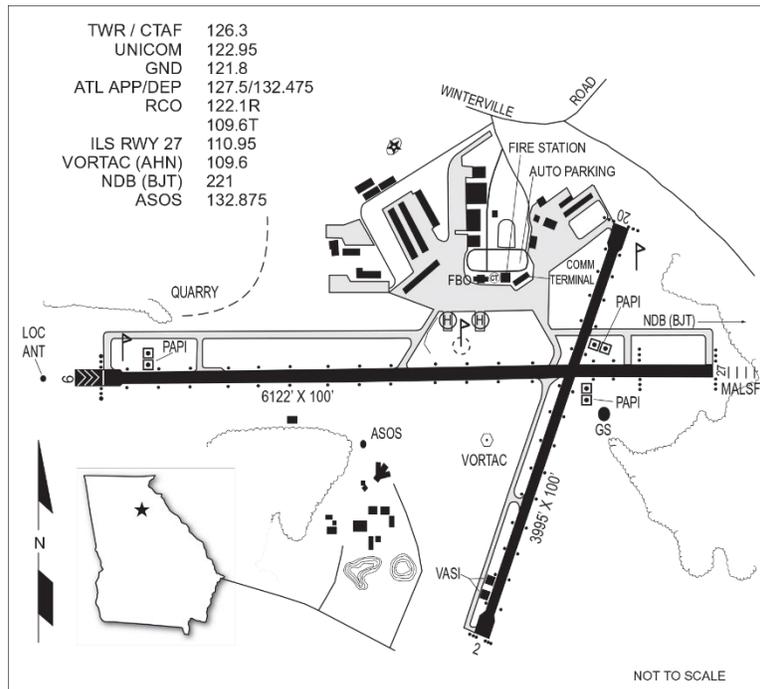


# BACKGROUND INFORMATION FOR ATHENS-BEN EPPS AIRPORT

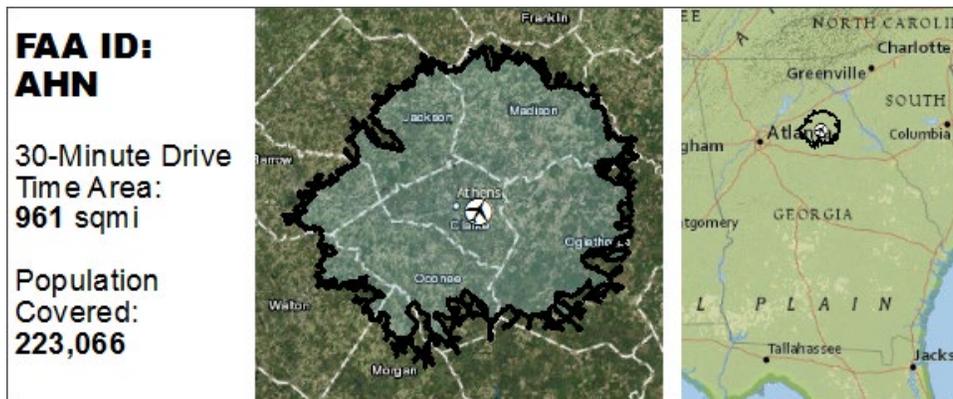
The Athens/Ben Epps Airport is located in Clarke County in northeastern Georgia approximately 60 miles east of Atlanta and 98 miles northwest of August. The primary highway access to the Airport from the southeast and northwest is via US Highway 78. Other highways in the vicinity are US Highways 29, 129, and 441.

The Airport, situated on 425 acres, is owned and operated by Clarke County. The Airport accommodates a variety of aviation-related activities including commercial service, corporate/business jets, police/law enforcement, shipping of just-in-time, aerial photography/surveying, and recreational flying.

## AIRPORT DIAGRAM



## 30-MINUTE DRIVE TIME SERVICE AREA AND POPULATION



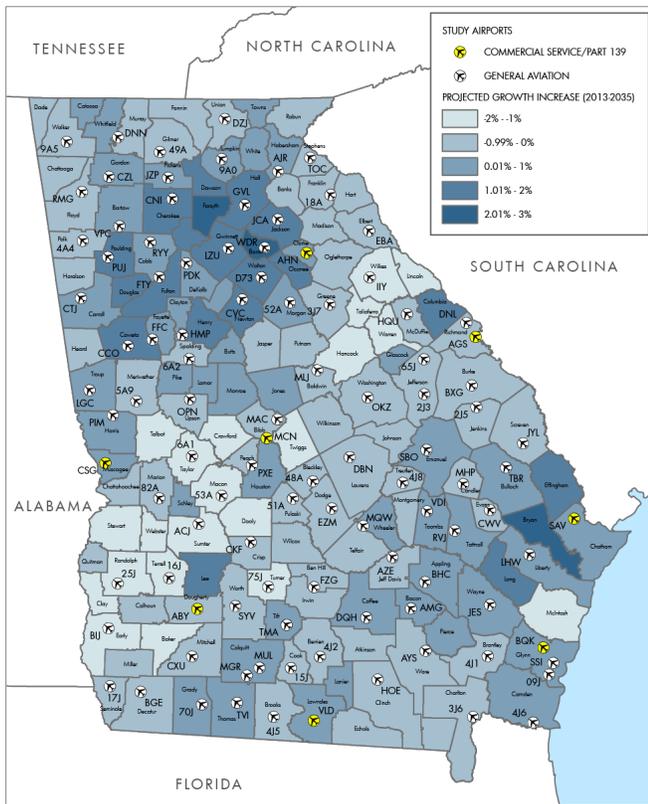
Source: Moffatt & Nichol

Assigned levels for Georgia airports consider the characteristics of the area the airport serves. Analysis for the GSASP was conducted using a geographic information system (GIS) and a 30-minute drive time for each airport. The county's population growth rate is expected to be average, while employment growth is expected to be just above the state average. Georgia's projected average annual rate of growth for population is between 0.5% and 1.49%; for employment, the average is between 0.998% and 1.39%.

Clarke County	
<b>Projected Population Growth</b>	
2013*	121,265
2035	143,334
2013-2035	0.76%
<b>Projected Employment Growth</b>	
2015*	89,602
2035	123,314
2015-2035	1.61%

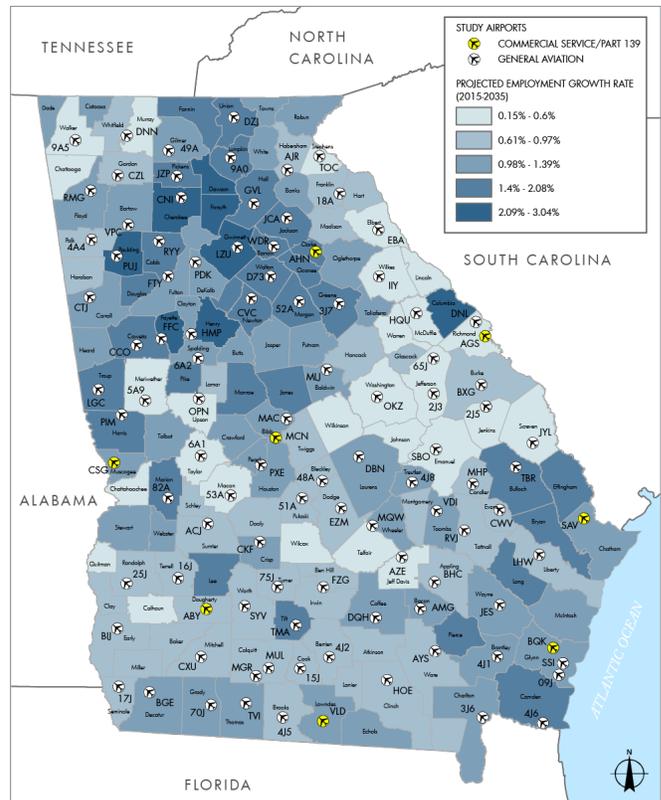
\*Reported as current

## PROJECTED POPULATION GROWTH



Source: Georgia Governor's Office of Planning and Budget, 2015 Series

## PROJECTED EMPLOYMENT GROWTH



Source: Woods & Poole, 2017

## RECOMMENDED LEVEL FOR ATHENS-BEN EPPS AIRPORT

Athens-Ben Epps Airport has been assigned to Level III within the Georgia airport system. As a Level III airport, the GSASP has identified certain facilities and services that should ideally be in place at the Airport. These objectives are considered the “minimums” to which the Airport should be developed. Based on local needs/justification, it is quite possible that the Airport could exceed its minimum development objectives established in the GSASP. Athens-Ben Epps Airport’s specific objectives, as they pertain to the Airport’s Level III role in the state airport system, are listed below.

### OBJECTIVES FOR LEVEL III – BUSINESS AIRPORTS OF REGIONAL IMPACT

#### Airside Facilities

- » **Runway Length:** Minimum 5,500 feet
- » **Runway Width:** 100 feet
- » **Taxiway:** Full parallel
- » **Lighting Systems:** HIRL for precision approaches and commercial service airports; MITL and approach lights
- » **Approach:** Precision
- » **NAVAIDS/Visual aids:** Rotating beacon, segmented circle and wind cone, PAPIs, others as required for non-precision/precision approach
- » **Weather Reporting:** AWOS or ASOS
- » **Runway Pavement Strength:** 30,000 pounds single-wheel/120,000 pounds dual-wheel
- » **Airfield Signage:** Runway hold position, location, and guidance signs
- » **Fencing:** Entire airport

#### General Aviation Facilities

- » **Hangared Aircraft Storage:** 70% of based aircraft fleet
- » **Apron Parking/Storage:** 30% of based aircraft fleet plus an additional 75% for transient aircraft
- » **Terminal/Administration:** 2,500 square feet minimum of public use space including restrooms, conference area, and pilots’ lounge
- » **Auto Parking:** One space for each based aircraft plus an additional 50% for visitors/employees

#### Services

- » **Fuel:** AvGas and/or Jet fuel
- » **FBO:** Full service
- » **Maintenance:** Full service
- » **Rental Cars:** Available

## COMPARATIVE PERFORMANCE ATHENS-BEN EPPS AIRPORT

One objective for the system plan update was to show how airports in the state have changed since the plan was last prepared in 2002. The following chart shows how facilities and services at Athens-Ben Epps Airport performed against system plan objectives between 2002 and 2017. Objectives are listed on the previous page and in the Report Card. It is worth noting that in some instances data collection efforts in 2002 versus 2017 were not identical, making it difficult to compare changes.

### FACILITY/SERVICE COMPARISON - 2002 VS 2017

Facility or Service	2002 Actual	2017 Actual
<b>Runway Length</b>	5,522 feet	6,122 Feet
<b>Runway Width</b>	100 feet	100 Feet
<b>Taxiway</b>	Parallel	Full Parallel
<b>Primary Runway PCI</b>	74	60
<b>Primary Runway Safety Area</b>	1,000 Feet x 500 Feet	1,000 Feet x 500 Feet
<b>Runway to Taxiway Separation</b>	Yes	300 Feet
<b>Lighting System</b>		
– Runway	MIRL	MIRL
– Taxiway	MITL	MITL
<b>Approach Lighting System</b>	No	MALSF
<b>Approach Type</b>	Precision	Precision (ILS)
<b>Weather Reporting</b>	Yes	ASOS
<b>Navigational Aids</b>		
– Rotating Beacon	Rotating Beacon	Rotating Beacon
– VGSIs	PAPI	PAPIs/PAPIs
– Segmented Circle	Segmented Circle	Segmented Circle
– Wind Cone	Not Collected in 2002	Wind Cone
<b>Airfield Signage</b>	Not Collected in 2002	Hold Position, Location, Guidance
<b>Fencing</b>	Not Collected in 2002	Full Perimeter
<b>Hangared Aircraft Storage</b>	57	120
<b>Apron Parking/Storage</b>	70	80
<b>General Aviation Terminal/Administration</b>	9,460 Sq Ft	7,000 Sq Ft w/Restrooms, Conference Area, Pilots' Lounge
<b>General Aviation Auto Parking</b>	181	209
<b>Fuel</b>	AvGas and JetA	AvGas and JetA
<b>FBO</b>	Yes	Full Service
<b>Maintenance</b>	Not Collected in 2002	Full Service
<b>Rental Cars</b>	Not Collected in 2002	On-Site

## OUTLOOK FOR AVIATION DEMAND

While most development objectives for Athens-Ben Epps Airport are driven by role rather than demand, it is still important to have a general sense of how activity (based aircraft and annual operations) at the Airport could change in the coming years. The following table shows projections for the Airport developed as part of the GSASP. Forecast methodologies used in the GSASP included analysis of historic growth, FAA trends, and county-specific projections of population and employment. Since the Airport has been without consistent commercial service, no commercial operations or enplanement forecast were included. It is worth noting that demand projections developed as part of a state aviation system plan tend to be far more conservative than demand projections developed as part of an individual airport master plan or Airport Layout Plan (ALP) report. Statewide, the average annual compound rate of growth for both based aircraft and annual general aviation operations is expected to be 0.54%.

### ATHENS-BEN EPPS AIRPORT PROJECTIONS OF AVIATION DEMAND

	Based Aircraft	Annual General Aviation Operations
2016 Actual	92	33,485
2020	94	34,200
2025	96	35,100
2035	102	37,100

Note: While the Airport continues to be classified as a Commercial airport in the Georgia system, at the time of the GSASP there were no scheduled commercial carriers operating at the Airport. As a result, projections of commercial enplanements and operations were not developed as part of the GSASP.

Following the completion of Georgia's last statewide aviation system plan, the cost of acquiring and maintaining a general aviation plane, the cost to secure a private pilot's license, competing opportunities for allocation of disposable income, along with increases in the cost of aviation fuel, have all contributed to a contraction in general aviation demand.

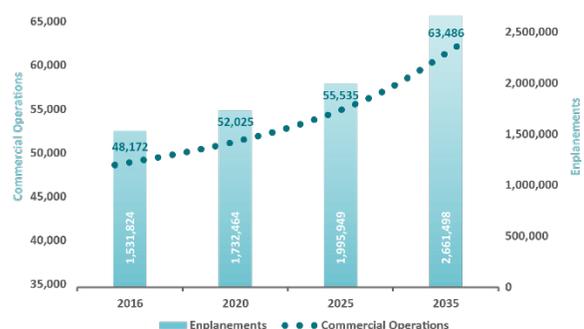
Recent economic recovery and increased use of general aviation as a tool to improve business efficiency have helped to stabilize the general aviation industry. For most airports in Georgia, however, anticipated growth in general aviation demand will be modest at best. The graphs below show statewide projections of based aircraft and annual general aviation operations for the 103 study airports as they were developed in the GSASP update, as well as commercial aviation operations and enplanements for Georgia's commercial airports.

### STATEWIDE PROJECTIONS OF:

#### BASED AIRCRAFT AND ANNUAL GENERAL AVIATION OPERATIONS



#### COMMERCIAL AVIATION OPERATIONS AND ENPLANEMENTS



## OTHER GSASP EFFORTS

As part of the GSASP, additional efforts were included to determine how well the existing system is currently performing. This additional research included the following:

- » **A land use and zoning inventory**
- » **Investigation to determine airport control of runway protection zones (RPZs)**
- » **An inventory of through-the-fence operators**

A summary of statewide findings for each of these studies is below, followed by airport-specific results for each of these three areas of analysis.

- » **Land Use and Zoning:** According to FAA grant assurance #21, airports in the federal system should take appropriate steps to promote compatible land use in the airport environs. Study research indicates that there are at least 196 local governments in Georgia that border one of the system airports. According to study findings, only 40 of these municipalities currently have airport-specific land use zoning in place.
- » **RPZ Control:** The FAA encourages all airports in the federal airport system to have control through acquisition or land use planning/zoning over their RPZs; the RPZ is the area designated off each airport runway end to help promote safety. There are 280 RPZs for all study runways. While most of these RPZs are under partial airport control, study research determined that only 84 out of the 280 RPZs are under control. An estimated \$332 million is needed to bring all RPZs at system airports under control.
- » **Through-the-Fence Operations:** The FAA discourages airports in the federal system from allowing off-airport businesses to have access to an airport's runway facilities. When an off-airport business does have access to an airport's airfield facilities, these businesses are typically referred to as through-the-fence operators. Only 17 of 103 airports in the Georgia system have any type of through-the-fence operator.

Airport-specific findings for these tasks, as applicable, follow.

## LOCAL GOVERNMENTS ADJACENT TO ATHENS-BEN EPPS AIRPORT WITH LAND USE CONTROLS

Having land use and activities around airports that are compatible with aircraft operations is imperative from a safety standpoint. Airports that accept state and/or federal grants are obligated to take steps to promote compatible land use and activities in the environs of their airport. For the GSASP analysis, airports identified local governments in the environs of their airport. It is likely that the local governments identified by the Airport are the primary local governments adjacent to the Airport, but it is possible that if the Airport’s extended safety and control surfaces designated by the FAA were considered, there could be additional local governments (beyond those reported here) that are in the airport environs.

Research was undertaken for local governments identified during the GSASP to determine if the local governments are taking steps to establish compatible land use and protect the operating environments for airports throughout the state. Local governments adjacent to Georgia airports were investigated to determine the following:

- » **Has the local government adopted land use zoning controls?**
- » **Does the local government have an airport specific overlay zone or district?**
- » **Does the local government have a land use map that shows the location of the airport?**
- » **Has the local government adopted height restriction zoning around the airport?**

The following table shows local governments adjacent to Athens-Ben Epps Airport and summarizes the status of land use controls for each. Local governments and airports throughout Georgia need to work together to help ensure airports are protected from incompatible land uses and from the encroachment of obstacles that pose a height hazard to safe airport operations.

### LAND USE CONTROL SUMMARY FOR ATHENS-BEN EPPS AIRPORT

Type of Control	Local Governments Adjacent to the Airport	
	City of Athens	Clarke County
Adopted Land Use Ordinance	Yes	Yes
Adopted Height Zoning Ordinance	Yes	Yes
Land Use Map	Yes	Yes
Airport Overlay Zone/District	Yes	Yes

Model ordinances to control land use and the height of objects in the airport environs are available on the GDOT website: [www.dot.ga.gov/IS/AirportAid/AviationSystemPlan](http://www.dot.ga.gov/IS/AirportAid/AviationSystemPlan).

## AIRPORT CONTROL OF RUNWAY PROTECTION ZONES

A review of all RPZs was undertaken as part of the GSASP update. The RPZ is an FAA-designated safety zone off the end of each active runway; the size of the RPZ for each runway end is established by FAA guidelines and varies by the type of approach (visual, non-precision, precision) to the runway end. FAA standards indicate that all airports should have control over each RPZ either through fee simple ownership of the land within the RPZ or through avigation easements. Statewide, 84 (30%) of the 280 RPZs at all study airports are reported as under airport control.

As part of the GSASP analysis, categories were established for types of use within the RPZs at Georgia airports. Once these categories were identified, additional analysis was undertaken to identify potential costs by category that could be incurred to bring all RPZs under airport control. The analysis included the following:

- » **Areas of the Airport’s RPZ that are not fully under Airport control.**
- » **Types of use(s) and/or development in the uncontrolled portions of the Airport’s RPZs.**
- » **Estimated cost to bring uncontrolled RPZ areas under Airport control.**

As indicated through the GSASP analysis, the cost to bring all portions of the Airport’s RPZs under Airport control is estimated to be **\$9,597,112**. Airports are highly encouraged to gain control over RPZs to prevent incompatible land uses.

### ATHENS-BEN EPPS AIRPORT RPZ CONTROL

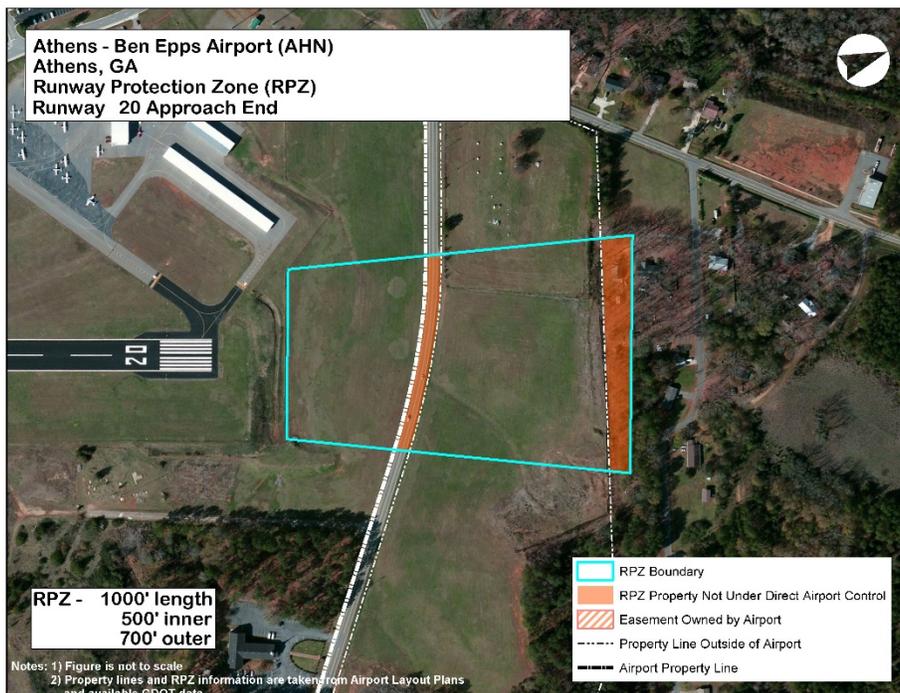
	Runway			
	2	20	9	27
<b>Identified Land/Property Acquisitions</b>				
<b>Total Acres Outside Airport Control</b>	<b>7</b>	<b>2</b>	<b>26</b>	<b>7</b>
– Urban Acres	7	2	26	7
– Rural Acres	0	0	0	0
<b>Associated Costs</b>				
<b>Property Acquisition Costs</b>				
– Urban Land Acquisition Costs*	\$105,000	\$30,000	\$390,000	\$1,750,000
– Rural Land Acquisition Costs*	-	-	-	-
– Residential Property Acquisition Costs	\$125,000	\$125,000	\$500,000	-
– Commercial Property Acquisition Costs	\$4,000,000	-	\$1,000,000	\$1,000,000
<b>Relocation Costs</b>				
– Paved Road Relocation Costs	\$154,830	\$138,968	-	\$240,530
– Unpaved Road Relocation Costs	-	-	\$37,784	-
– Railroad Relocation Costs	-	-	-	-
<b>Subtotal</b>	<b>\$4,384,830</b>	<b>\$293,968</b>	<b>\$1,927,784</b>	<b>\$2,990,530</b>
<b>Total</b>	<b>\$9,597,112</b>			

Note: \* The urban vs. rural classification for property acquisition costs generally followed the Georgia Urbanized Areas as presented in GDOT’s “Statewide Functional Classification and Urban Area Boundary Update” from February 2014. The land use definitions were further defined by observations of characteristics around each airport.

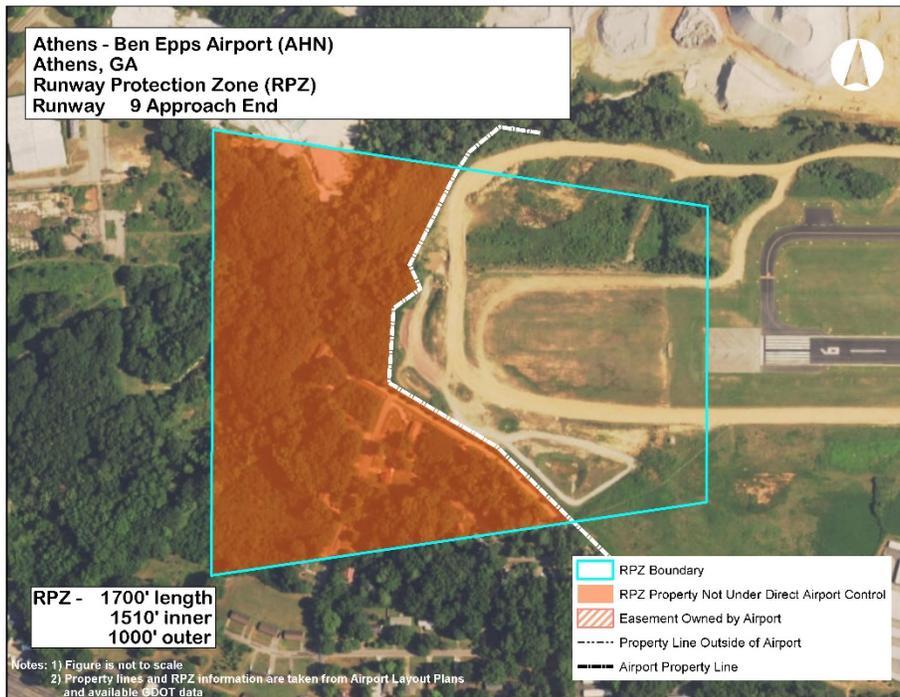
## ATHENS-BEN EPPS AIRPORT RPZ – RUNWAY 2 APPROACH END



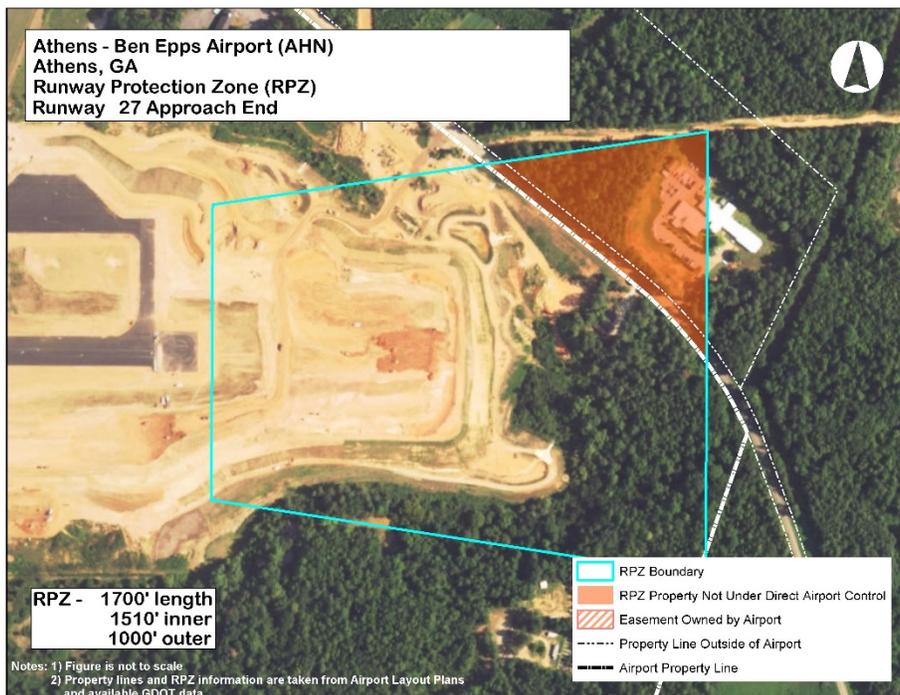
## ATHENS-BEN EPPS AIRPORT RPZ – RUNWAY 20 APPROACH END



## ATHENS-BEN EPPS AIRPORT RPZ – RUNWAY 9 APPROACH END



## ATHENS-BEN EPPS AIRPORT RPZ – RUNWAY 27 APPROACH END



## AIRPORT REPORT CARD AND RECOMMENDATIONS

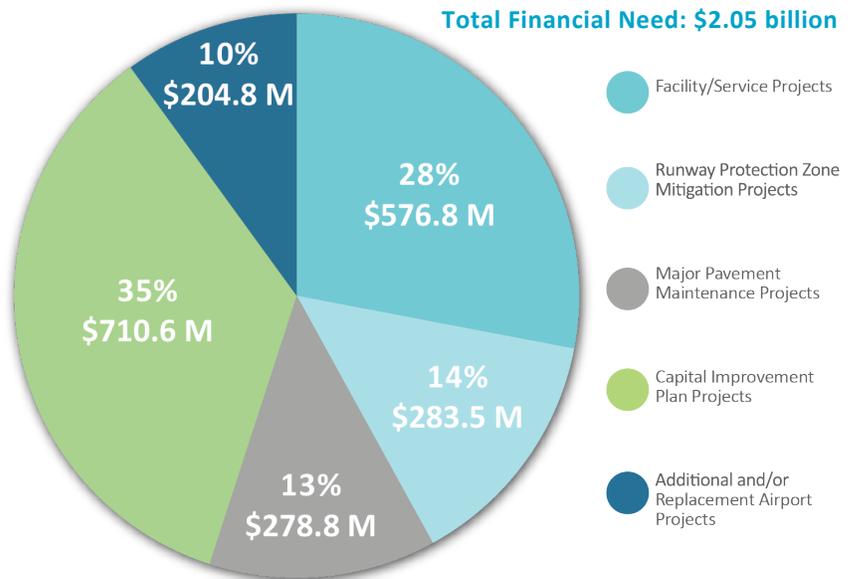
This report provides information on GSASP facility/service objectives associated with a Level III airport in the state airport system. The Report Card on the following pages shows Athens-Ben Epps Airport’s ability to meet its objectives. If the Airport does not meet an objective, an estimated cost to enable the Airport to meet the objective was developed. The GSASP also reviewed the Airport’s current capital improvement plan (CIP), as submitted to GDOT; while the GSASP identified costs to meet system plan objectives, CIP costs to meet local airport development goals are also included in the Report Card.

Pavement projects identified for the Airport in the 2012 Statewide Airfield Pavement Management Study that have not yet been completed are also shown in the Airport’s Report Card. The Airport’s pavement projects were compared to the projects from the system plan and the Airport’s CIP to avoid duplication. An update to GDOT’s Statewide Airfield Pavement Management Study is underway and expected to be complete in early 2019.

The GSASP identified that over the next five years, an estimated \$1.34 billion will be needed to maintain and improve all commercial and general aviation airports in Georgia to their system plan recommendations; an additional \$710.6 million will be needed to meet the additional goals of local communities. Sources for the total financial need of \$2.05 billion are shown in the pie chart below.

### AREAS OF FINANCIAL NEED TO MAINTAIN AND IMPROVE THE GEORGIA AIRPORT SYSTEM

The GSASP focuses on recommendations and costs to implement needs identified in the study. The Report Cards also include airport CIPs to enable airports to understand the potential costs to meet both GSASP and local development objectives. Of the \$2.05 billion financial need, 35% is related to locally developed CIPs.



When the Airport’s system plan projects are considered, no additional costs are anticipated at this time. When the Airport’s CIP is included, the total need is estimated at \$43,272,112. On average over the next five years, \$8,654,422 will be needed on an annual basis to maintain and improve the Airport. GDOT’s last statewide economic impact study, completed in 2012, shows that the Airport is responsible for an estimated \$20,646,900 in annual economic impact. When the Airport’s annual need (\$8,654,422) is compared to its annual benefit (\$20,646,900), it is clear that the Airport is well worth the investment.

The Report Card for Athens-Ben Epps Airport, developed as part of the system plan, is shown on the following pages.

## Athens-Ben Epps Airport Report Card

<b>AIRPORT NAME:</b> Athens-Ben Epps Airport	<b>CITY:</b> Athens, Georgia
<b>COUNTY:</b> Clarke County	<b>AIRPORT CODE:</b> AHN

Athens-Ben Epps Airport Report Card					
Actions Needed to Meet Facility and Service Objectives					
	Actual	Minimum Objective	Objective Met	Improvement Needed	Estimated Cost
<b>Runway Length</b>	6,122 Feet	5,500 Feet	Yes	-	-
<b>Runway Width</b>	100 Feet	100 Feet	Yes	-	-
<b>Taxiway</b>	Full Parallel	Full Parallel	Yes	-	-
<b>Primary Runway PCI</b>	60	70 or Greater	Yes	Project Completed in 2013	-
<b>Primary Runway Safety Area</b>	1,000 Feet x 500 Feet	1,000 Feet x 500 Feet	Yes	-	-
<b>Runway to Taxiway Separation</b>	300 Feet	300 Feet	Yes	-	-
<b>Lighting System</b>					
– Runway	MIRL	HIRL	No	Install HIRL*	-
– Taxiway	MITL	MITL	Yes	-	-
– Approach Lighting System	MALSF	ALS	Yes	-	-
<b>Approach Type</b>	Precision (ILS)	Precision	Yes	-	-
<b>Weather Reporting</b>	ASOS	AWOS or ASOS	Yes	-	-
<b>Navigational Aids</b>					
– Rotating Beacon	Rotating Beacon	Rotating Beacon	Yes	-	-
– VGSIs	PAPIs/PAPIs	PAPIs	Yes	-	-
– Segmented Circle	Segmented Circle	Segmented Circle	Yes	-	-
– Wind Cone	Wind Cone	Wind Cone	Yes	-	-
<b>Airfield Signage</b>	Hold Position, Location, Guidance	Hold Position, Location, and Guidance	Yes	-	-
<b>Fencing</b>	Full Perimeter	Full Perimeter	Yes	-	-
<b>Hangared Aircraft Storage</b>	120	70% of Based Aircraft Fleet	Yes	-	-
<b>Apron Parking/Storage</b>	80	30% of Based Aircraft Fleet Plus an Add'l 75% for Transient Aircraft	Yes	-	-
<b>General Aviation Terminal/Administration</b>	7,000 Sq Ft w/Restrooms, Conference Area, Pilots' Lounge	2,500 Square Feet of Public Use Space Including Restrooms, Conference Area, and Pilots' Lounge	Yes	-	-
<b>General Aviation Auto Parking</b>	209	1 Space for Each Based Aircraft Plus an Add'l 50% for Visitors/Employees	Yes	-	-
<b>Fuel</b>	AvGas and Jet A	AvGas and/or Jet Fuel	Yes	-	-
<b>FBO</b>	Full Service	Full Service	Yes	-	-
<b>Maintenance</b>	Full Service	Full Service	Yes	-	-
<b>Rental Cars</b>	On-Site	Available	Yes	-	-
<b>Estimated SASP Facility/Service Project Cost***</b>					<b>\$0</b>

\* Project is included in major maintenance & rehabilitation project cost estimate for Runway 09/27.

\*\*\* No additional costs at this time.

### Athens-Ben Epps Airport Report Card

#### Runway Protection Zone Mitigation Projects

Runway End	Estimated Land Cost	Estimated Residential/Commercial Property Cost	Estimated Road Cost	Estimated Railroad Cost	Total Estimated Cost
– RW 02	\$105,000	\$4,125,000	\$154,830	No Action	\$4,384,830
– RW 09	\$390,000	\$1,500,000	\$37,784	No Action	\$1,927,784
– RW 20	\$30,000	\$125,000	\$138,968	No Action	\$293,968
– RW 27	\$1,750,000	\$1,000,000	\$240,530	No Action	\$2,990,530
					<b>Estimated RPZ Mitigation Project Costs \$9,597,112</b>

#### Major Pavement Maintenance Projects Planned

	Project Description	Estimated Cost
<b>Runway 09/27</b>	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)**	\$5,650,000
<b>Runway 02/20</b>	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)**	\$5,115,000
<b>Taxiways</b>	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)**	\$7,535,000
<b>Apron</b>	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)**	\$1,600,000
		<b>Estimated Major Pavement Project Costs \$19,900,000</b>

#### Capital Improvement Plan (CIP) Projects Planned 2018-2022

Program Year	Project Type	Project Description	Estimated Cost
2018	Plans & Studies	Update Master Plan	\$400,000
2019	Terminal Buildings	Commercial Terminal - Baggage Claim / Car Rental Build Out	\$1,000,000
2019	Auto Parking & Ground Access	New Parking Lot	\$875,000
2020	Safety	Runway 09 Displaced Threshold Improvements (Design)	\$125,000
2021	Land Acquisition & Easements	Avigation Easement Acquisition and Obstruction Mitigation - Runway 02/20 (16 Parcels)	\$500,000
2021	Apron	Expand East Terminal Apron (Design)	\$50,000
2021	Safety	Runway 09 Displaced Threshold Improvements (Construction)	\$4,750,000
2022	Apron	Apron Paving Project	\$1,000,000
2022	Land Acquisition & Easements	Avigation Easement Acquisition and Obstruction Mitigation - Runway 09/27 (32 Parcels)	\$650,000
2022	Apron	Expand East Terminal Apron (Construction)	\$750,000
2022	Apron	Partial Parallel Taxiway B Improvements and Construct Additional Terminal Area Apron (Construction)	\$3,450,000
2022	Apron	Partial Parallel Taxiway B Improvements and Construct Additional Terminal Area Apron (Design)	\$225,000
			<b>Estimated CIP Project Costs \$13,775,000</b>
			<b>Total Estimated Project Costs \$43,272,112</b>

\*\* Estimated project cost is derived from Airport's recent 5-year CIP.

## GLOSSARY OF ACRONYMS

ALP: Airport Layout Plan	LIRL: Low-Intensity Runway Lighting
ALS: Approach Lighting System	LITL: Low-Intensity Taxiway Lighting
ALSF: ALS with Sequenced Flashers	LPV: Lateral Precision Performance with Vertical Guidance
ASOS: Automatic Surface Observation System	MALS: Medium-Intensity Approach Lighting System
ATCT: Air Traffic Control Tower	MALSF: MALS with Sequenced Flashers
AvGas: Aviation Gasoline	MALSRL: MALS with Runway Alignment Indicator Lights
AWOS: Automated Weather Observation System	MIRL: Medium-Intensity Runway Lighting
CAGR: Compound Annual Growth Rate	MITL: Medium-Intensity Taxiway Lighting
CATEX: Categorical Exclusion	MoGas: Motor Gasoline
CIP: Capital Improvement Plan	NAVAIDs: Navigational Aids
DBE: Disadvantaged Business Enterprise	PAPI: Precision Approach Path Indicator
DME: Distance Measuring Equipment	PCI: Pavement Condition Index
FBO: Fixed Base Operator	PFC: Passenger Facility Charge
FIDS: Flight Information Display System	REIL: Runway End Indication Lights
GA: General Aviation	RNAV: Area Navigation
GIS: Geographic Information System	RPZ: Runway Protection Zone
GSASP: Georgia Statewide Aviation System Plan	RSA: Runway Safety Area
HIRL: High-Intensity Runway Lighting	sqmi: Square Miles
HITL: High-Intensity Taxiway Lighting	VASI: Visual Approach Slope Indicator
ILS: Instrument Landing System	VGSI: Visual Glideslope Indicator
Jet A: Jet Fuel	VOR: Very High Frequency (VHF) Omni-Directional Range
LF: Linear Feet	WHMP: Wildlife Hazard Management Plan



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