



GEORGIA

STATEWIDE AVIATION SYSTEM PLAN

SUMMARY REPORT FOR

BUTLER MUNICIPAL AIRPORT



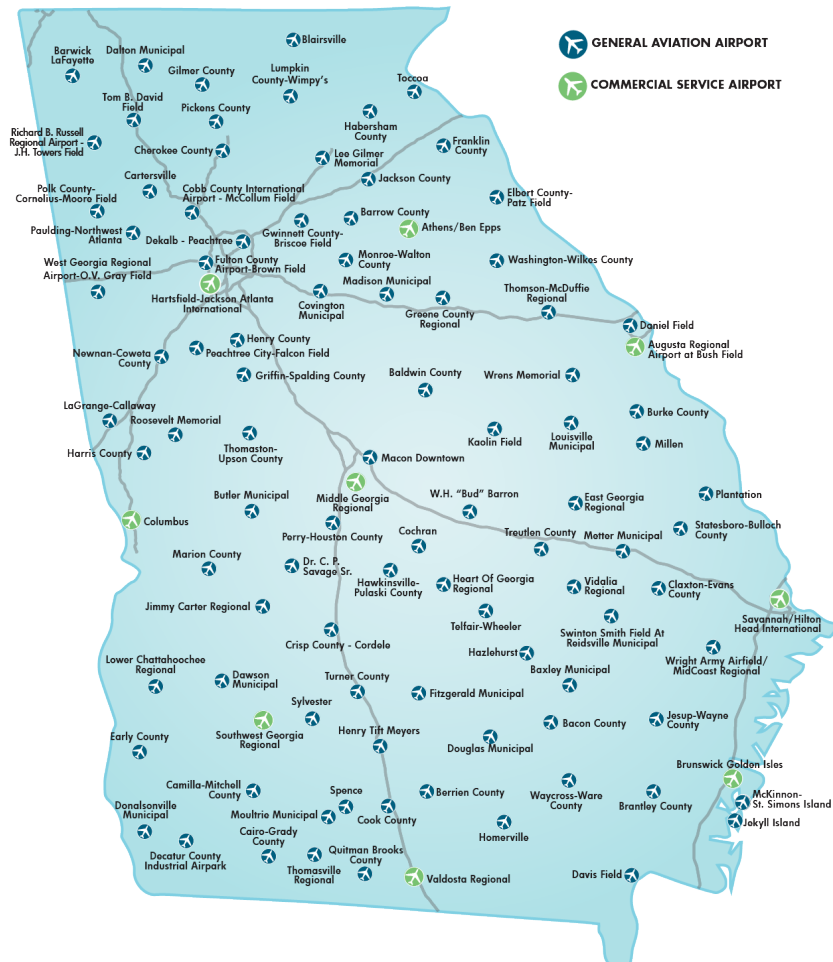
GEORGIA AIRPORTS MEAN BUSINESS

OVERVIEW

The Georgia Department of Transportation, Aviation Programs Office, has recently completed an update to the Georgia Statewide Aviation System Plan (GSASP). This report provides a summary of information from the GSASP and highlights important information from the study as it pertains specifically to Butler Municipal Airport (6A1). This report provides the following:

- » **System Planning Process and Uses for the Plan**
- » **Georgia Airport Levels**
- » **Background Information for the Airport**
- » **Recommended Level for the Airport**
- » **Comparative Performance for the Airport**
- » **Outlook for Aviation Demand**
- » **Other GSASP Efforts**
- » **Local Governments Adjacent to the Airport with Land Use Controls**
- » **Airport Control of Runway Protection Zones**
- » **Airport Report Card and Recommendations**

EXISTING GEORGIA AIRPORT SYSTEM 2017



More information on the Georgia Statewide Aviation System Plan can be obtained from the GDOT Aviation website at www.dot.ga.gov/IS/AirportAid/AviationSystemPlan. In addition to the complete Technical Report, a statewide Executive Summary and Summary Video were also produced to support the GSASP. More information on all GSASP-related products can be obtained from GDOT Aviation by emailing aviationprograms@dot.ga.gov.

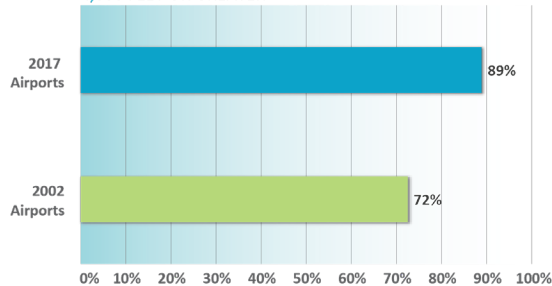
THE SYSTEM PLANNING PROCESS AND USES FOR THE PLAN

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 Butler Municipal 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.

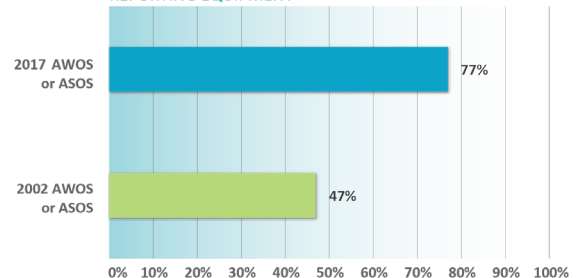
The GSASP is important because it gathers information on current activity, facilities, and services at the 103 study airports. One objective for this update was to provide information showing how the system has changed since the 2002 GSASP was published. As shown in the graphics below, GDOT, FAA, and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

CHANGES IN GEORGIA AIRPORT SYSTEM PERFORMANCE

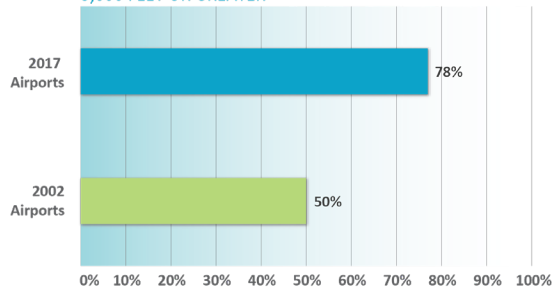
PERCENTAGE OF AIRPORTS WITH A RUNWAY LENGTH OF 4,000 FEET OR GREATER



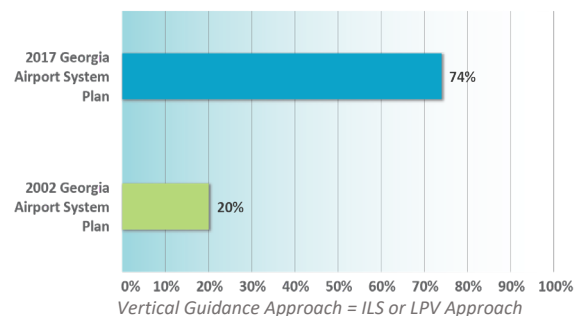
PERCENTAGE OF AIRPORTS WITH WEATHER REPORTING EQUIPMENT



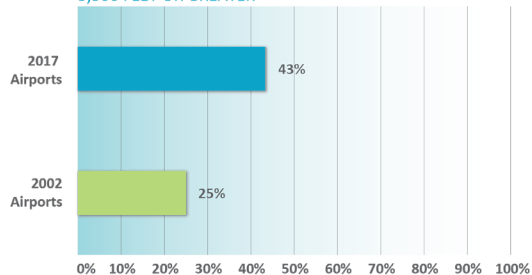
PERCENTAGE OF AIRPORTS WITH A RUNWAY LENGTH OF 5,000 FEET OR GREATER



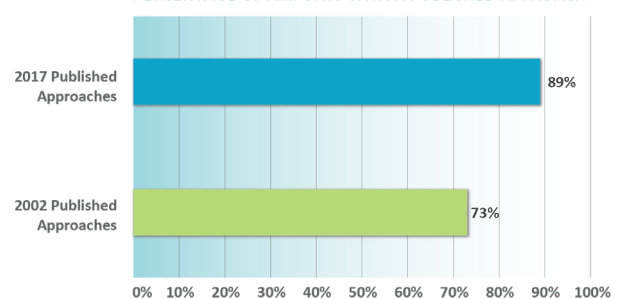
PERCENTAGE OF AIRPORTS WITH A VERTICAL GUIDANCE APPROACH



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



PERCENTAGE OF AIRPORTS WITH A PUBLISHED APPROACH



GEORGIA AIRPORT LEVELS

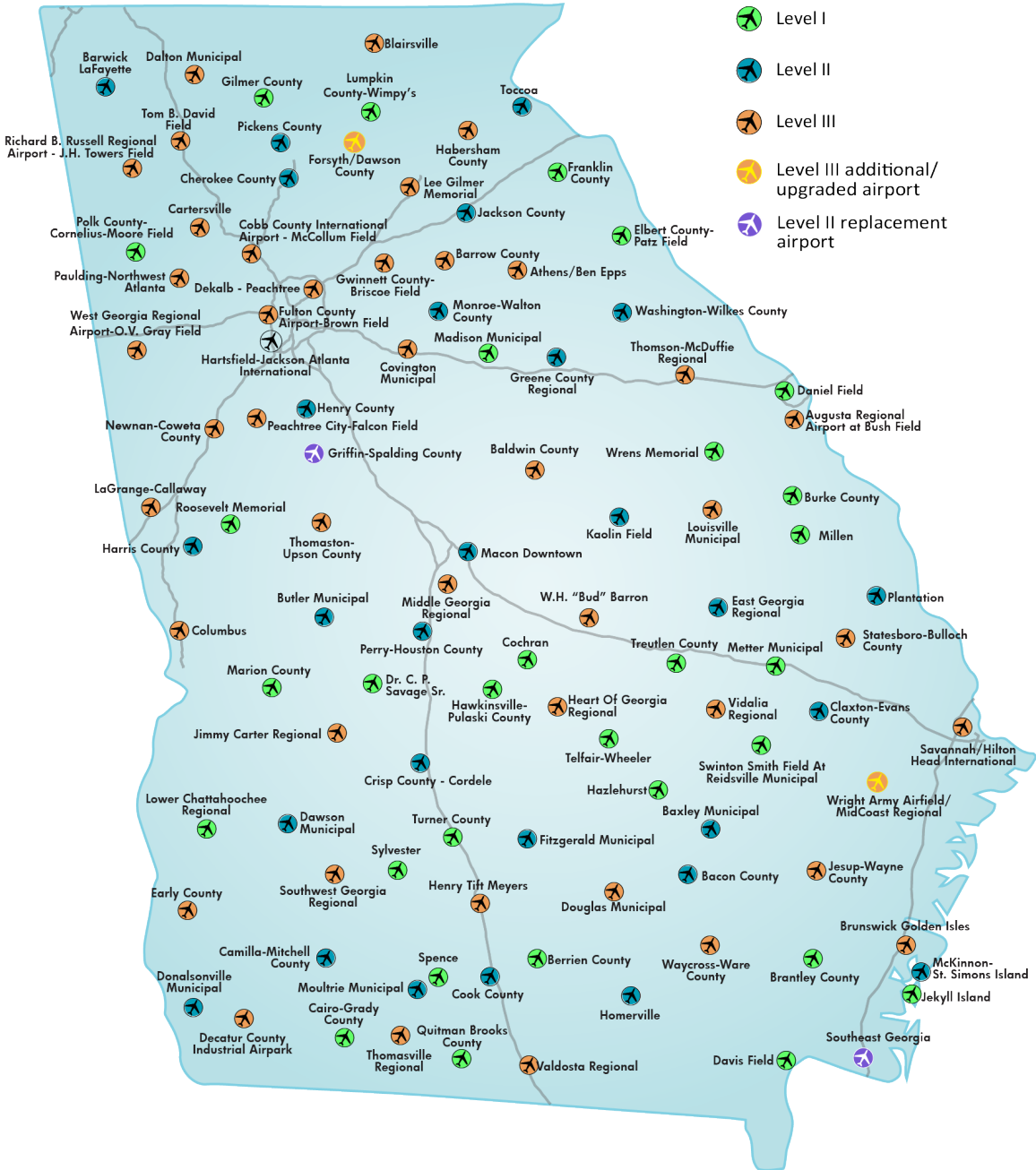
The Statewide Aviation System Plan was last published in 2002. Since that time, Georgia airports have made significant progress toward meeting the GSASP performance measures. This update to the GSASP reset the bar for future system performance. This included identifying projects for individual airports 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

LEVEL I	Minimum Standard General Aviation Airport: 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.
LEVEL II	Business Airport of Local Impact: 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.
LEVEL III	Business Airports of Regional Impact: 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.

RECOMMENDED LEVELS FOR GEORGIA AIRPORTS



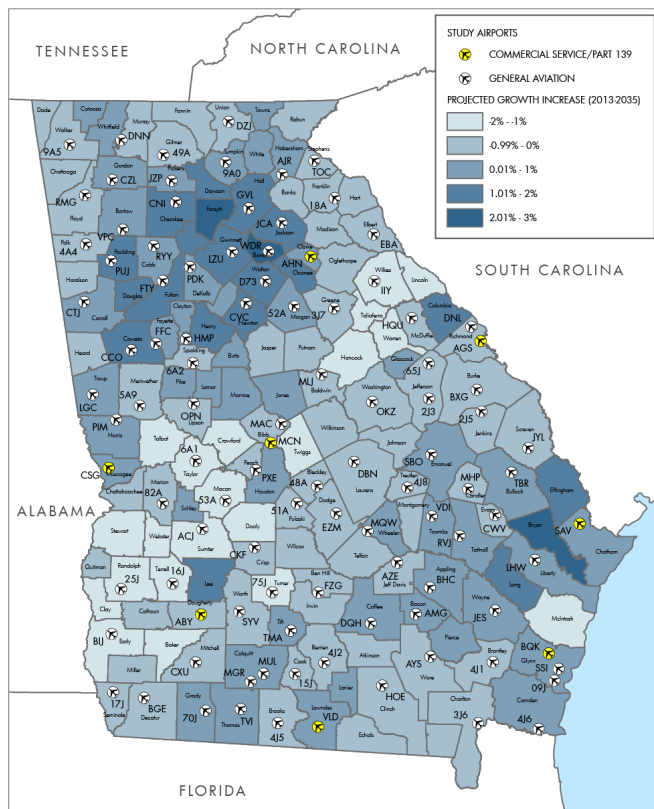
Source: Jvation

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 as well as the employment growth rate are expected to be low compared to 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%.

Taylor County	
Projected Population Growth	
2013*	8,464
2035	7,128
2013-2035	-0.78%
Projected Employment Growth	
2015*	2,802
2035	3,090
2015-2035	0.49%

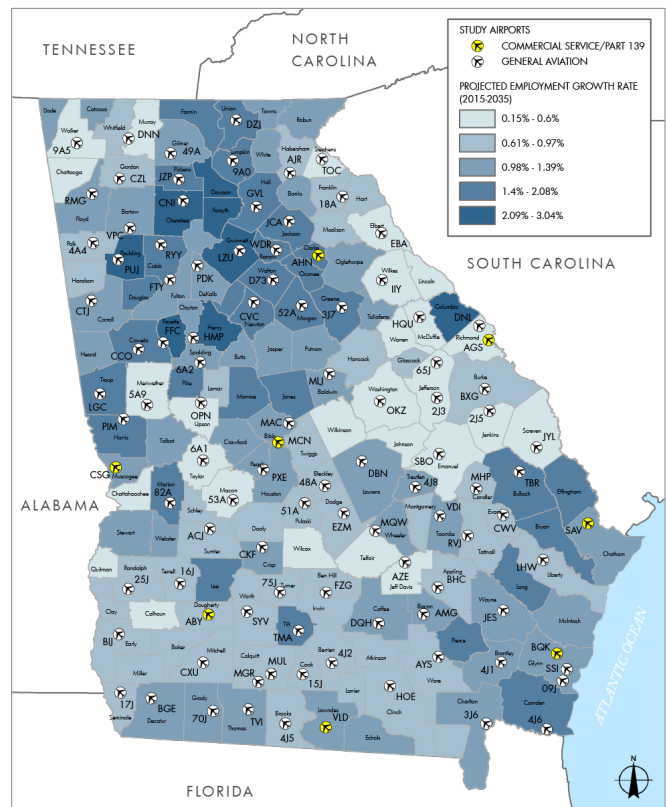
*Reported as current

PROJECTED POPULATION GROWTH



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

PROJECTED EMPLOYMENT GROWTH



Source: Woods & Poole, 2017

RECOMMENDED LEVEL FOR BUTLER MUNICIPAL AIRPORT

Butler Municipal Airport has been assigned to Level II within the Georgia airport system. As a Level II 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. Butler Municipal Airport’s specific objectives, as they pertain to the Airport’s Level II role in the state airport system, are listed below.

OBJECTIVES FOR LEVEL II – BUSINESS AIRPORTS OF LOCAL IMPACT

Airside Facilities

- » **Runway Length:** Minimum 5,000 feet
- » **Runway Width:** 100 feet
- » **Taxiway:** Full parallel
- » **Lighting Systems:** MIRL and MITL
- » **Approach:** Non-precision
- » **NAVAIDS/Visual aids:** Rotating beacon, segmented circle and wind cone, PAPIs, others as required for non-precision approach
- » **Weather Reporting:** AWOS or ASOS
- » **Runway Pavement Strength:** 20,000 pounds single-wheel/50,000 pounds dual-wheel
- » **Airfield Signage:** Runway hold position, location, and guidance signs
- » **Fencing:** Entire airport

General Aviation Facilities

- » **Hangared Aircraft Storage:** 60% of based aircraft fleet
- » **Apron Parking/Storage:** 40% of based aircraft fleet plus an additional 50% for transient aircraft
- » **Terminal/Administration:** 1,500 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:** Limited service
- » **Rental Cars:** Available

COMPARATIVE PERFORMANCE BUTLER MUNICIPAL 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 Butler Municipal 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
Runway Length	4,000 feet	5,002 Feet
Runway Width	75 feet	75 Feet
Taxiway	No	Turnaround on RW 18
Primary Runway PCI	100	80
Primary Runway Safety Area	300 Feet x 150 Feet	300 Feet x 150 Feet
Runway to Taxiway Separation	Not Applicable	240 Feet
Lighting System		
– Runway	MIRL	MIRL
– Taxiway	Not Applicable	None
Approach Type	Visual Only	LPV
Weather Reporting	None	AWOS
Navigational Aids		
– Rotating Beacon	Rotating Beacon	Rotating Beacon
– VGSI	PAPI	PAPIs/PAPIs
– Segmented Circle	Segmented Circle	Segmented Circle
– Wind Cone	Not Collected in 2002	Wind Cone
Airfield Signage	Not Collected in 2002	None
Fencing	Not Collected in 2002	Partial
Hangared Aircraft Storage	8	13
Apron Parking/Storage	16	39
General Aviation Terminal/Administration	None	None
General Aviation Auto Parking	15	21
Fuel	None	AvGas
FBO	Yes	Full Service
Maintenance	Not Collected in 2002	Full Service
Rental Cars	Not Collected in 2002	None

OUTLOOK FOR AVIATION DEMAND

While most development objectives for Butler Municipal 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. 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%.

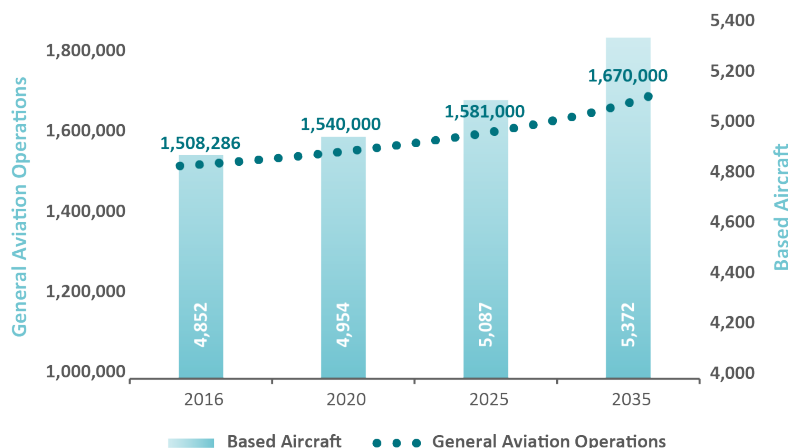
BUTLER MUNICIPAL AIRPORT PROJECTIONS OF AVIATION DEMAND

	Based Aircraft	Annual General Aviation Operations
2016 Actual	11	3,022
2020	11	3,100
2025	12	3,200
2035	12	3,300

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 graph below shows statewide projections of based aircraft and annual general aviation operations for the 103 study airports as they were developed in the GSASP update.

STATEWIDE PROJECTIONS OF BASED AIRCRAFT AND ANNUAL GENERAL AVIATION OPERATIONS



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 BUTLER MUNICIPAL 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 Butler Municipal 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 BUTLER MUNICIPAL AIRPORT

Type of Control	Local Governments Adjacent to the Airport	
	City of Butler	Taylor County
Adopted Land Use Ordinance	No	No
Adopted Height Zoning Ordinance	No	No
Land Use Map	Yes	Yes
Airport Overlay Zone/District	No	No

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.

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.**

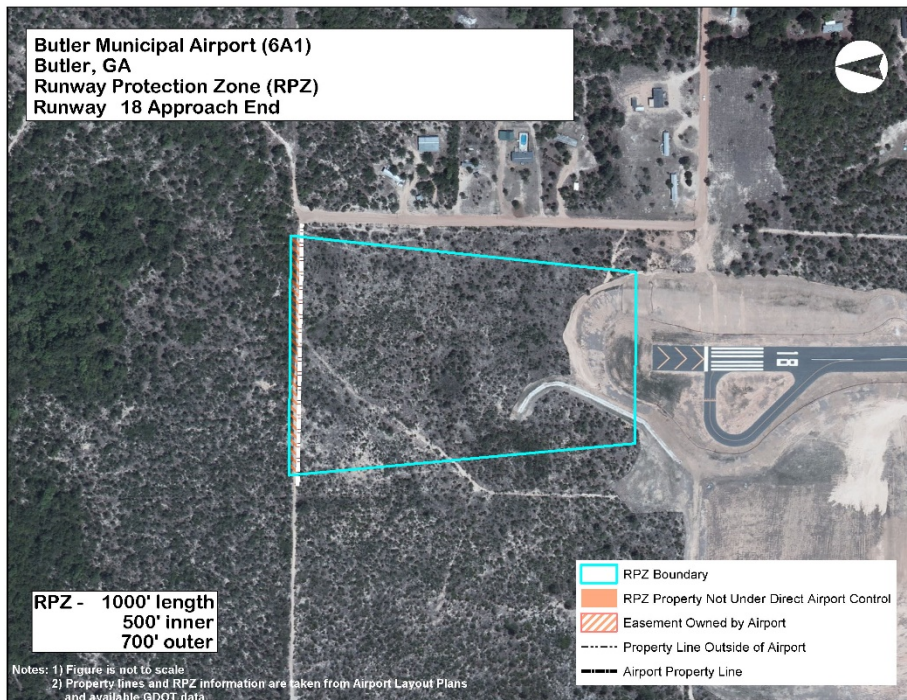
As indicated through the GSASP analysis, the cost to bring all portions of the Airport's RPZs under Airport control is estimated to be **\$513,547**. Airports are highly encouraged to gain control over RPZs to prevent incompatible land uses.

BUTLER MUNICIPAL AIRPORT RPZ CONTROL

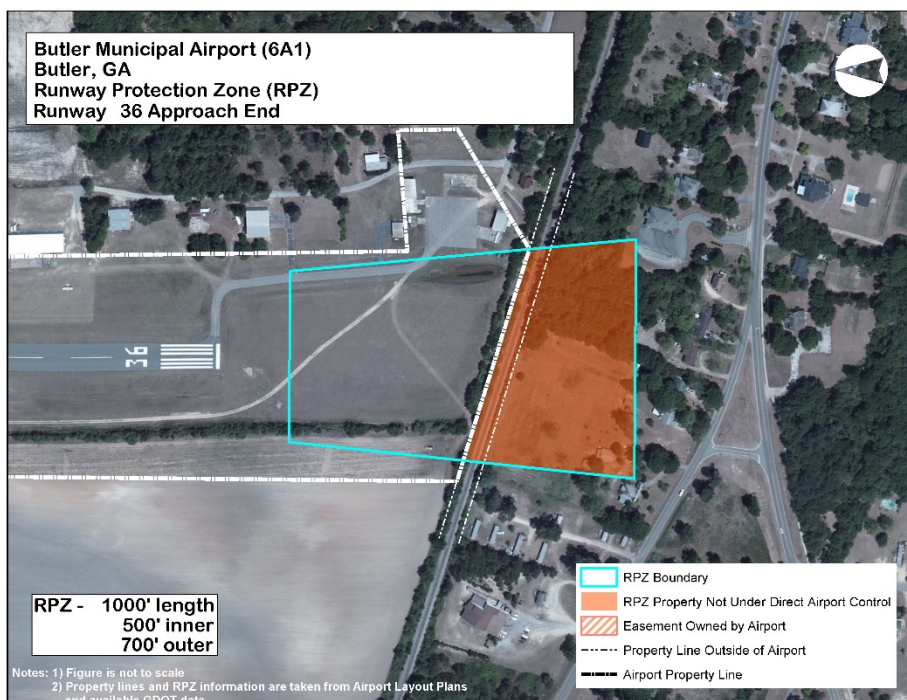
	Runway			
	18	36	24	6
<i>Identified Land/Property Acquisitions</i>				
Total Acres Outside Airport Control	0	7	3	4
– Urban Acres	0	0	0	0
– Rural Acres	0	7	3	4
<i>Associated Costs</i>				
Property Acquisition Costs				
– Urban Land Acquisition Costs*	-	-	-	-
– Rural Land Acquisition Costs*	-	\$35,000	\$2,700	\$3,600
– Residential Property Acquisition Costs	-	\$125,000	-	-
– Commercial Property Acquisition Costs	-	-	-	-
Relocation Costs				
– Paved Road Relocation Costs	-	-	-	\$115,898
– Unpaved Road Relocation Costs	-	-	-	-
– Railroad Relocation Costs	-	\$124,530	-	\$106,820
Subtotal	-	\$284,530	\$2,700	\$226,317
Total		\$513,547		

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.

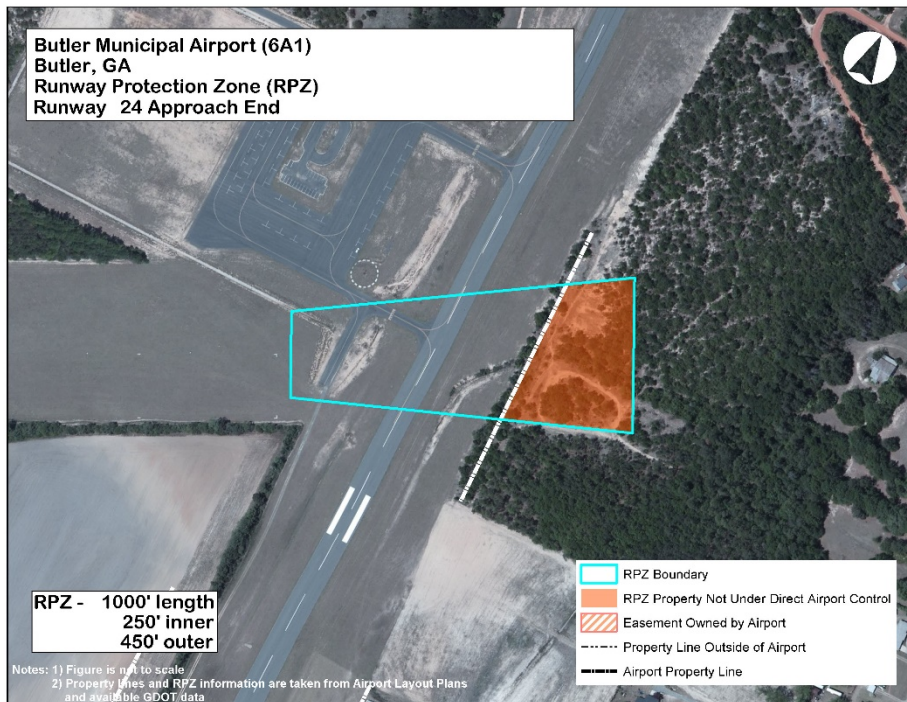
BUTLER MUNICIPAL AIRPORT RPZ – RUNWAY 18 APPROACH END



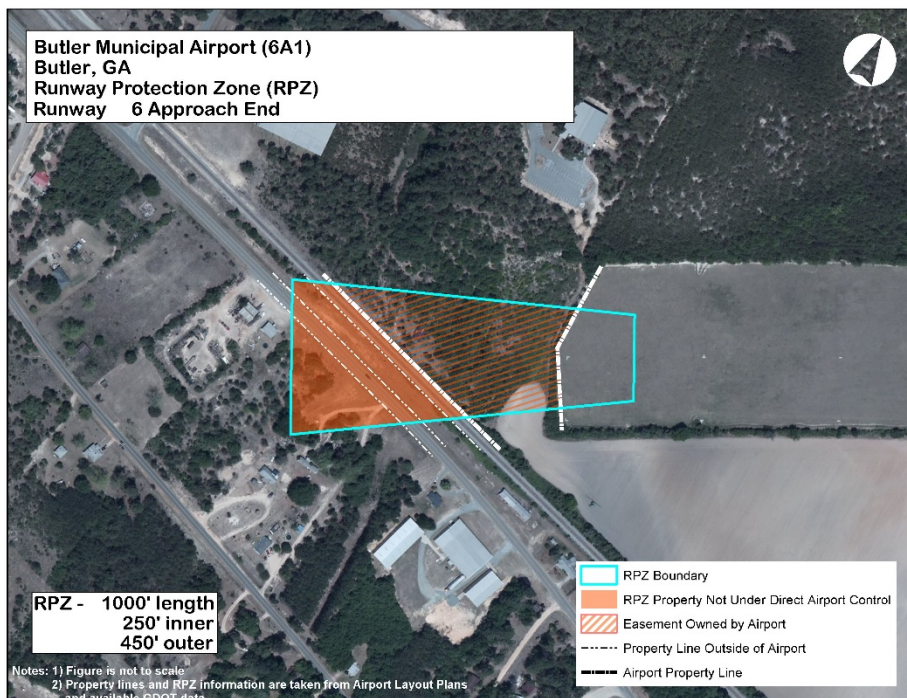
BUTLER MUNICIPAL AIRPORT RPZ – RUNWAY 36 APPROACH END



BUTLER MUNICIPAL AIRPORT RPZ – RUNWAY 24 APPROACH END



BUTLER MUNICIPAL AIRPORT RPZ – RUNWAY 6 APPROACH END



AIRPORT REPORT CARD AND RECOMMENDATIONS

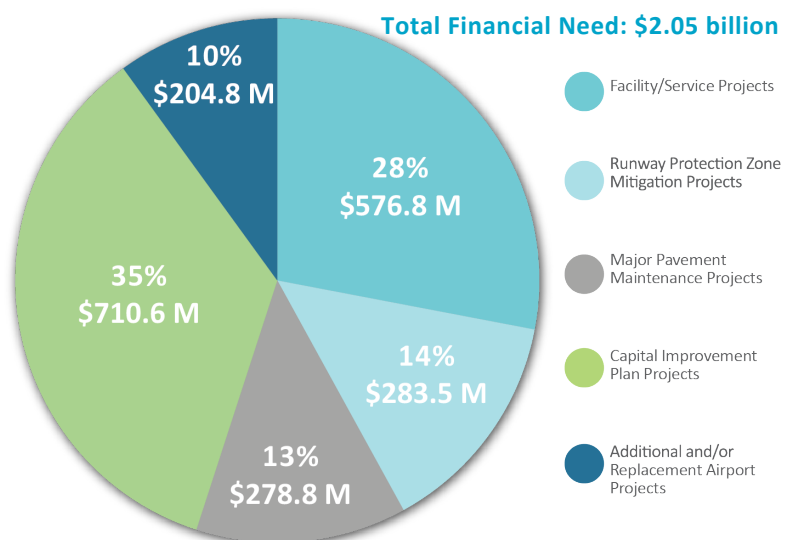
This report provides information on GSASP facility/service objectives associated with a Level II airport in the state airport system. The Report Card on the following pages shows Butler Municipal Airport's ability to meet its objectives. If the Airport does not meet an objective, an estimated cost to 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, it is estimated that a total of **\$8,395,000** will be needed over the next five years. When the Airport's CIP is included, the total need is estimated at **\$11,218,881**. On average over the next five years, **\$2,243,776** 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 **\$1,324,600** in annual economic impact. An airport's economic impact is only one measure of its value to the community: airports are important to attracting and retaining economic development. Investing in airport infrastructure can help with business attraction, making airports worth the investment.

The Report Card for Butler Municipal Airport, developed as part of the system plan, is shown on the following pages.

Butler Municipal Airport Report Card

AIRPORT NAME: Butler Municipal Airport	CITY: Butler, Georgia
COUNTY: Taylor County	AIRPORT CODE: 6A1

Butler Municipal Airport Report Card					
Actions Needed to Meet Facility and Service Objectives					
	Actual	Minimum Objective	Objective Met	Improvement Needed	Estimated Cost
Runway Length	5,002 Feet	5,000 Feet	Yes	-	-
Runway Width	75 Feet	100 Feet	No	Widen Runway 25 Feet	\$3,500,000
Taxiway	Turnaround on RW 18	Full Parallel	No	Add Full Parallel Taxiway	\$3,500,000
Primary Runway PCI	80	70 or Greater	Yes	-	-
Primary Runway Safety Area	300 Feet x 150 Feet	300 Feet x 150 Feet	Yes	-	-
Runway to Taxiway Separation	240 Feet	240 Feet	Yes	Construct Parallel Taxiway to Meet Standard*	-
Lighting System					
– Runway	MIRL	MIRL	Yes	-	-
– Taxiway	None	MITL	No	Install MITL	\$470,000
Approach Type	LPV	Non-Precision	Yes	-	-
Weather Reporting	AWOS	AWOS or ASOS	Yes	-	-
Navigational Aids					
– Rotating Beacon	Rotating Beacon	Rotating Beacon	Yes	-	-
– VGSI	PAPIs/PAPIs	PAPIs	Yes	-	-
– Segmented Circle	Segmented Circle	Segmented Circle	Yes	-	-
– Wind Cone	Wind Cone	Wind Cone	Yes	-	-
Airfield Signage	None	Hold Position, Location, and Guidance	No	Add RW Hold Signs, Location Signs, and Guidance Signs	\$220,000
Fencing	Partial	Full Perimeter	No	Add 1,500 LF Fencing	\$150,000
Hangared Aircraft Storage	13	60% of Based Aircraft Fleet	Yes	-	-
Apron Parking/Storage	39	40% of Based Aircraft Fleet Plus an Add'l 50% for Transient Aircraft	Yes	-	-
General Aviation Terminal/Administration	None	1,500 Square Feet of Public Use Space Including Restrooms, Conference Area, and Pilots' Lounge	No	Add 1,500 Sq Ft of Terminal with Restroom, Conference Area, and Pilots' Lounge**	\$555,000
General Aviation Auto Parking	21	1 Space for Each Based Aircraft Plus an Add'l 50% for Visitors/Employees	Yes	-	-
Fuel	AvGas	AvGas and/or Jet Fuel	Yes	-	-
FBO	Full Service	Full Service	Yes	-	-
Maintenance	Full Service	Available	Yes	-	-
Rental Cars	None	Available	No	Offer Availability to Rental Car	No fixed cost needed
		Estimated SASP Facility/Service Project Cost			\$8,395,000

* Estimated project cost is included in a related project's estimated cost.

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

Butler Municipal 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 06	\$3,600	No Action	\$115,898	\$106,820	\$226,317
– RW 18	No Action	No Action	No Action	No Action	\$0
– RW 24	\$2,700	No Action	No Action	No Action	\$2,700
– RW 36	\$35,000	\$125,000	No Action	\$124,530	\$284,530
		Estimated RPZ Mitigation Project Costs			\$513,547
Major Pavement Maintenance Projects Planned					
	Project Description				Estimated Cost
Runway 18/36	Global Preventative (e.g. Surface Treatment to Entire Pavement)**				\$350,000
Runway 18/36	Local Preventative (e.g. Crack Sealing or Patching)				\$40,886
Taxiways	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)				\$104,476
Apron	Local Preventative (e.g. Crack Sealing or Patching)				\$6,972
		Estimated Major Pavement Project Costs			\$502,334
Capital Improvement Plan (CIP) Projects Planned 2018-2022					
Program Year	Project Type	Project Description			Estimated Cost
2018	Fuel	Acquire Jet A Fuel Truck			\$25,000
2018	Hangars	Construct 10-Bay T-Hangar Building			\$540,000
2018	Other Bldgs	Construct Temporary Trailer for FBO			\$25,000
2018	Safety	Remove Obstruction to Runway Approach and Primary Surfaces			\$225,000
2019	Plans & Studies	Conduct Airport Layout Planning Update + Aeronautical Survey			\$95,000
2019	Plans & Studies	Conduct DBE & SBE Update (FY2019, FY2020, FY2021)			\$9,000
2020	Taxiways	Design 12-Bay T-Hangar Taxilane			\$25,000
2021	Taxiways	Construct 12-Bay T-Hangar Taxilane + CA/CI Services			\$400,000
2021	Other/Misc.	Design And Install Airport Entrance Sign			\$5,000
2022	Plans & Studies	Conduct DBE and SBE Update (FY2021, FY2022, FY2023)			\$9,000
2022	Hangars	Construct 12 Bay T-Hangar Building + CA/CI Services			\$450,000
		Estimated CIP Project Costs			\$1,808,000
	Total Estimated Project Costs				\$11,218,881

** 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	MALSR: 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

PREPARED BY:
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FOR MORE INFORMATION CONTACT:
GEORGIA DEPARTMENT OF TRANSPORTATION, AVIATION PROGRAMS
600 W. PEACHTREE ST. | ATLANTA, GA 30303