GEORGIA AIRPORTS MEAN BUSINESS

GEORGIA

STATEWIDE AVIATION SYSTEM PLAN

SUMMARY REPORT FOR

AUGUSTA REGIONAL AIRPORT AT BUSH FIELD

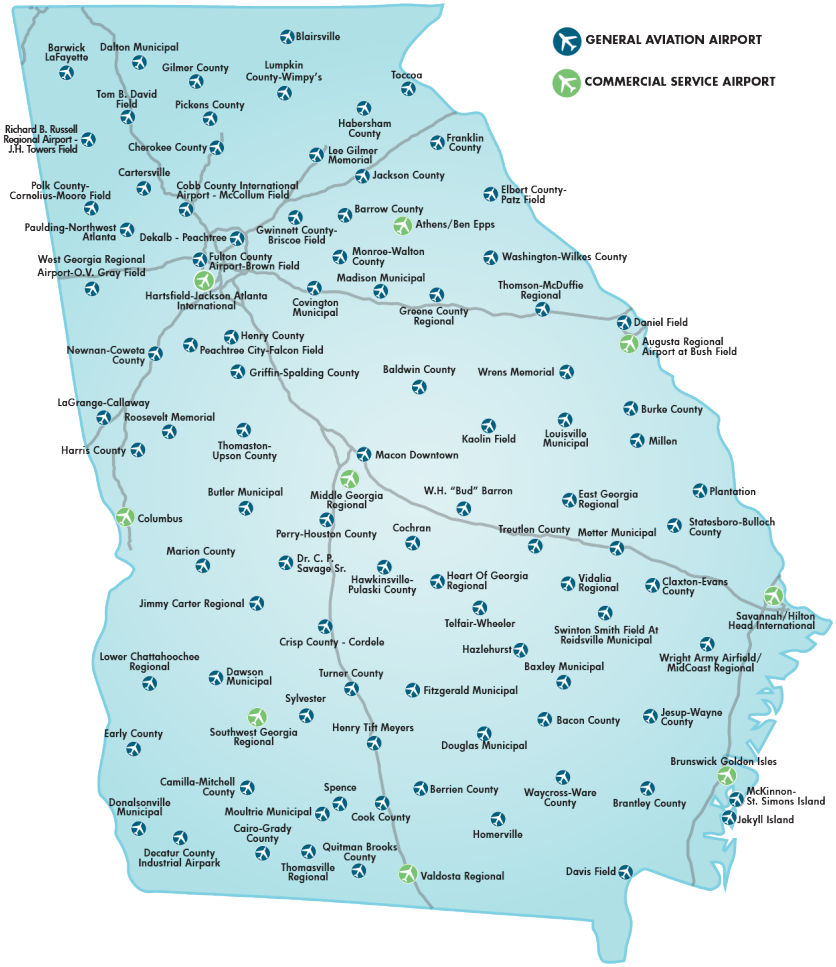
GEORGIA AIRPORTS MEAN BUSINESS

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 Augusta Regional Airport at Bush Field (AGS). 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



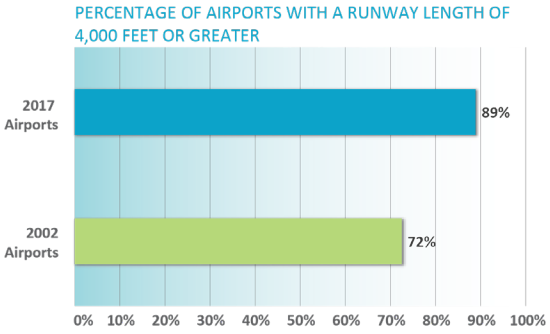
More information on the Georgia Statewide Aviation System Plan can be obtained from the GDOT Aviation website at www.dot.ga.gov/IS/AirportAid/AviationSystemPlan. In addition to the complete Technical Report, a statewide Executive Summary and Summary Video were also produced to support the GSASP. More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

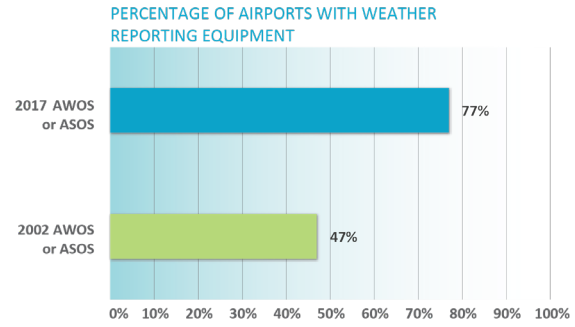
THE SYSTEM PLANNING PROCESS AND USES FOR THE PLAN

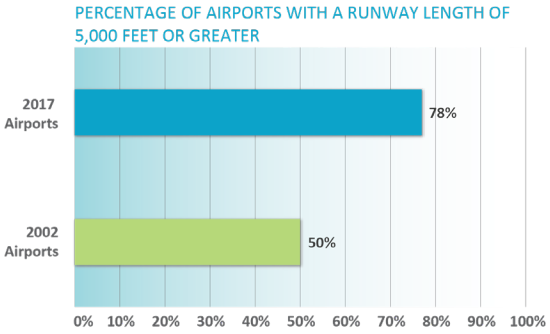
The process used to update the GSASP was consistent with FAA's Advisory Circular 150/5070-7 - *The Airport System Planning Process*. Ultimately, the GSASP recommendations for Augusta Regional Airport at Bush Field are a blend of projects/actions identified by the system plan and projects related to pavement 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.

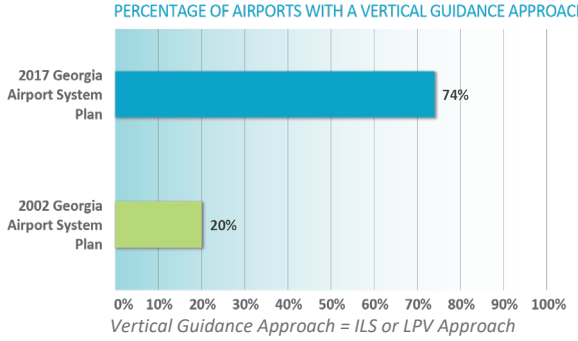
The GSASP is important because it gathers information on current activity, facilities, and services at the 103 study airports. One objective for this update was to provide information showing how the system has changed since the 2002 GSASP was published. As shown in the graphics below, GDOT, FAA, and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

CHANGES IN GEORGIA AIRPORT SYSTEM PERFORMANCE

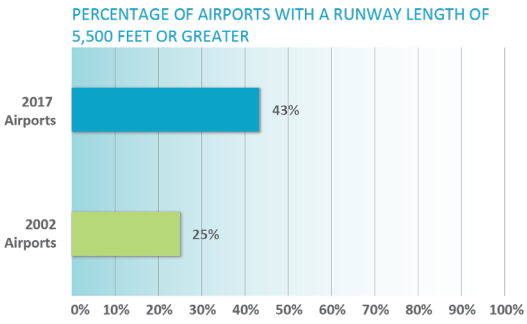


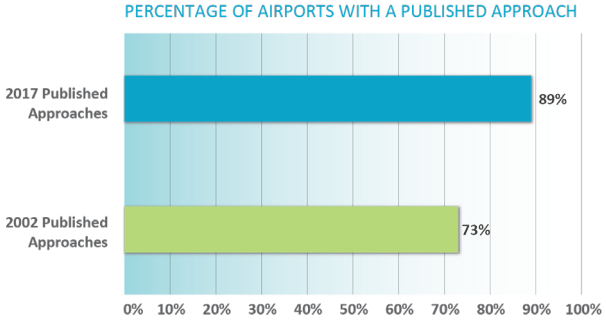






Vertical Guidance Approach = ILS or LPV Approach





GEORGIA AIRPORT LEVELS

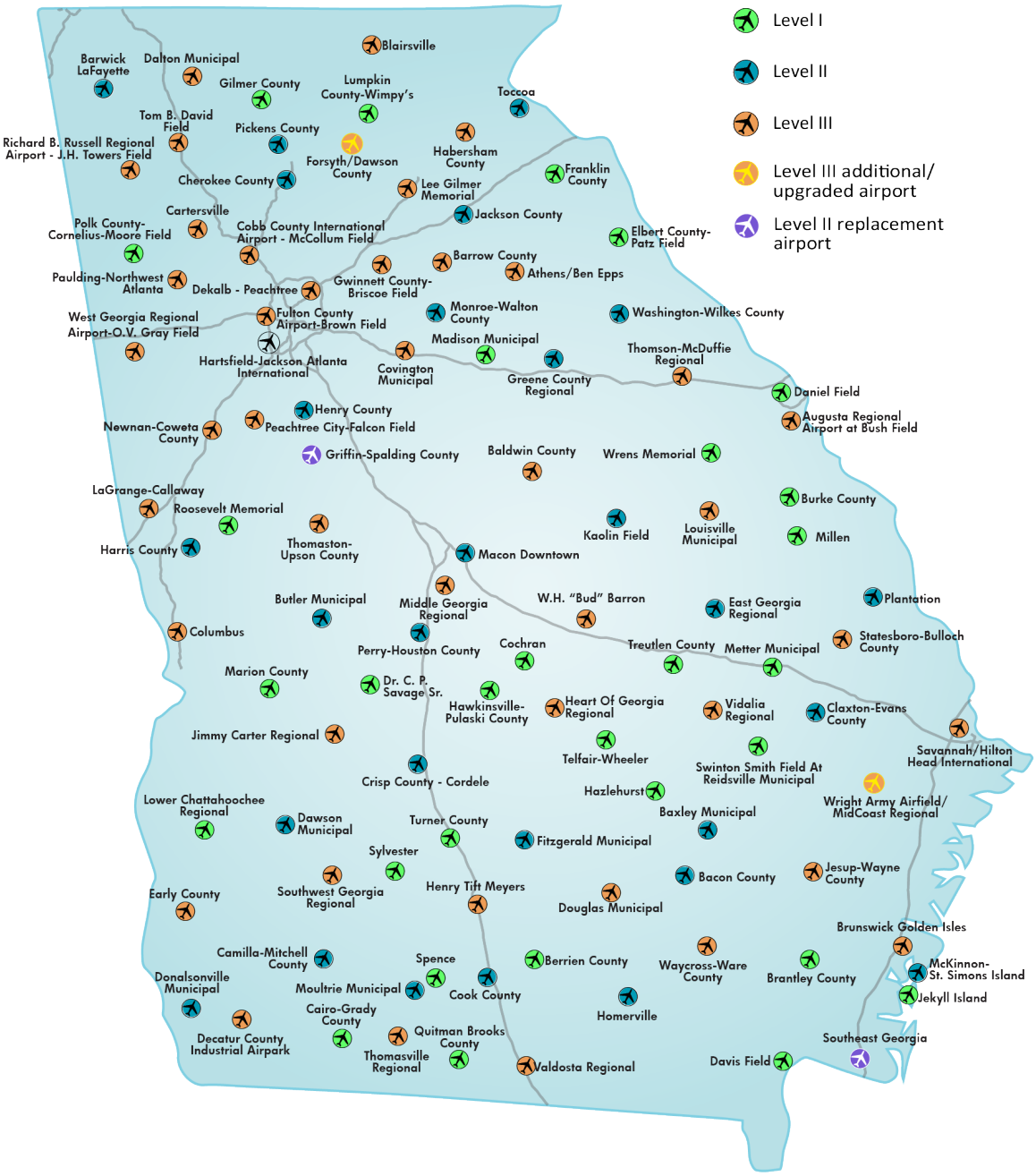
The Statewide Aviation System Plan was last published in 2002. Since that time, Georgia airports have made significant progress toward meeting the GSASP performance measures. This update to the GSASP reset the bar for future system performance. This included identifying projects for individual airports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



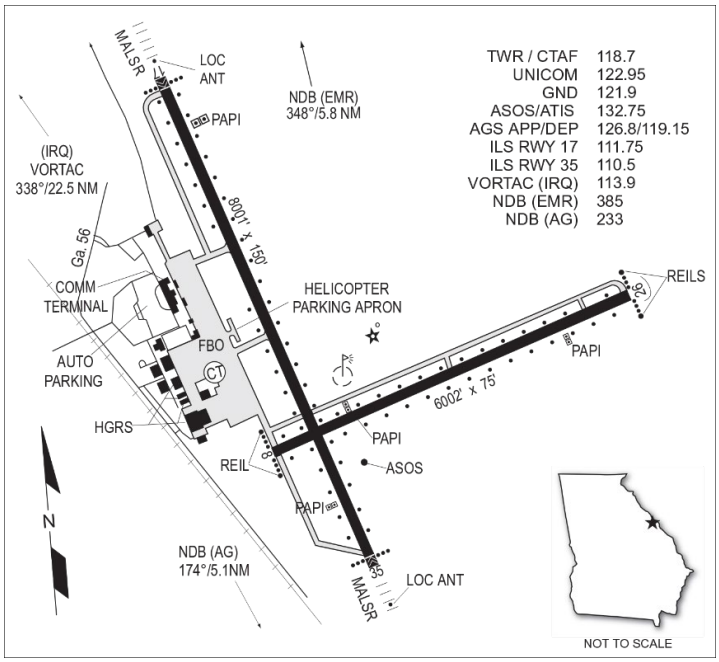
Source: Jviation

BACKGROUND INFORMATION FOR AUGUSTA REGIONAL AIRPORT AT BUSH FIELD

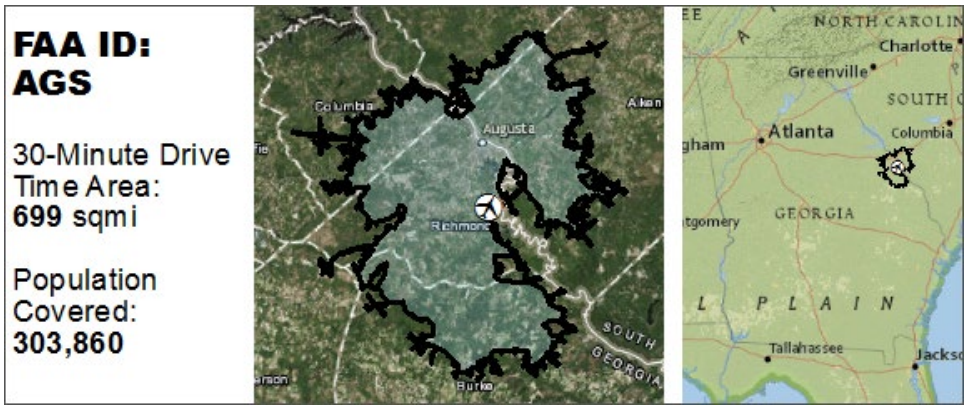
Augusta Regional Airport at Bush Field is located in Richmond County in the eastern part of Georgia approximately 130 miles north of Savannah and 150 miles east southeast of Atlanta. Highway access to the Airport from the north and south is via Georgia Highway 56 and from the east and west is via I-520. Other highways in the vicinity include Interstate 20 and US Highways 1, 25, and 78.

The Airport, situated on 1,411 acres, is owned and operated by the City of Augusta. The Airport accommodates a variety of aviation-related activities including commercial service, corporate/business jets, recreational flying, agricultural spraying, shipping of just-in-time, police/law enforcement, prisoner transport, and aerial photography/surveying.

AIRPORT DIAGRAM



30-MINUTE DRIVE TIME SERVICE AREA AND POPULATION



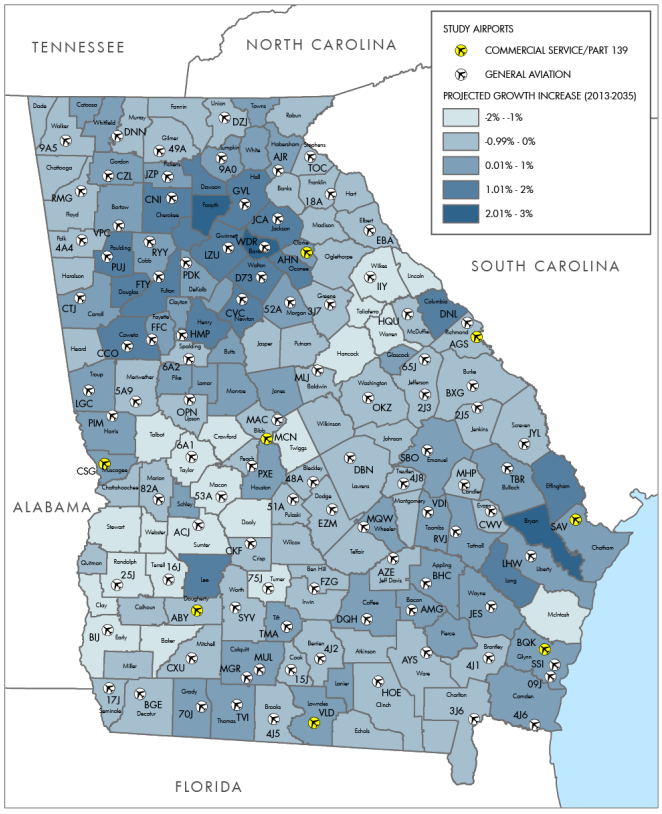
Source: Moffatt & Nichol

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 just below average, while employment growth is 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%.

Richmond County	
Projected Population Growth	
2013*	202,003
2035	210,056
2013-2035	0.18%
Projected Employment Growth	
2015*	144,394
2035	160,938
2015-2035	0.54%

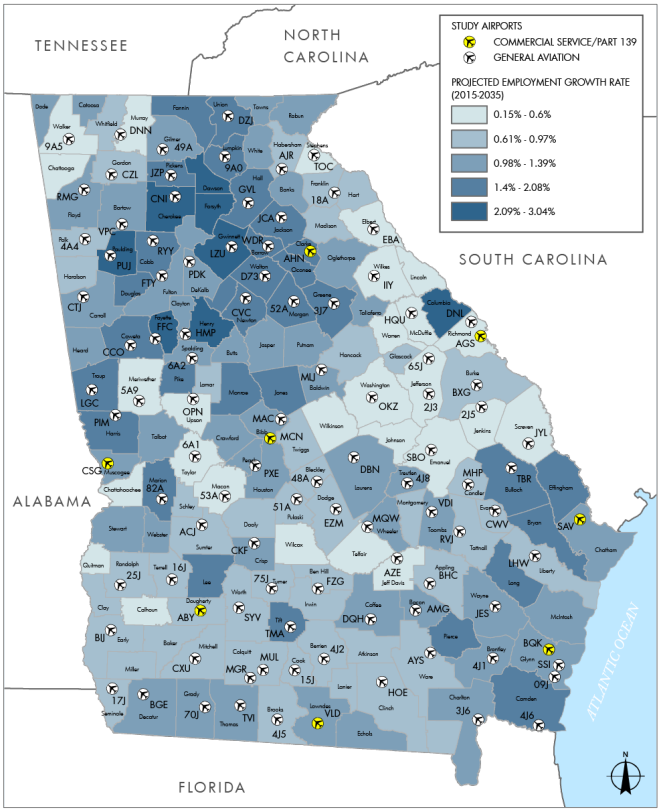
*Reported as current

PROJECTED POPULATION GROWTH



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

PROJECTED EMPLOYMENT GROWTH



Source: Woods & Poole, 2017

RECOMMENDED LEVEL FOR AUGUSTA REGIONAL AIRPORT AT BUSH FIELD

Augusta Regional Airport at Bush Field 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. Augusta Regional Airport at Bush Field'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
AUGUSTA REGIONAL AIRPORT AT BUSH FIELD

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 Augusta Regional Airport at Bush Field 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	8,001 feet	8,001 Feet
Runway Width	150 feet	150 Feet
Taxiway	Parallel	Full Parallel
Primary Runway PCI	75	100
Primary Runway Safety Area	1,000 Feet x 500 Feet	1,000 Feet x 500 Feet
Runway to Taxiway Separation	Met Standards	400 Feet
Lighting System		
– Runway	HIRL	HIRL
– Taxiway	MITL	MITL
Approach Lighting System	Yes	MALSR
Approach Type	Precision	Precision (ILS)
Weather Reporting	Yes	ASOS
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	Hold Position, Location, Guidance
Fencing	Not Collected in 2002	Full Perimeter
Hangared Aircraft Storage	10	10
Apron Parking/Storage	12	38
General Aviation Terminal/Administration	11,078 Sq Ft	11,078 Sq Ft w/Restrooms, Conference Area, Pilots' Lounge
General Aviation Auto Parking	30	146
Fuel	AvGas and JetA	AvGas and JetA
FBO	Yes	Full Service
Maintenance	Not Collected in 2002	Full Service
Rental Cars	Not Collected in 2002	On-Site

OUTLOOK FOR AVIATION DEMAND

While most development objectives for Augusta Regional Airport at Bush Field 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%.

AUGUSTA REGIONAL AIRPORT AT BUSH FIELD PROJECTIONS OF AVIATION DEMAND

	Enplanements*	Commercial Service Operations*	Based Aircraft	Annual General Aviation Operations
2016 Actual	279,105	9,998	13	15,124
2020	303,299	10,349	13	15,400
2025	336,511	10,804	14	15,900
2035	414,244	11,776	14	16,700

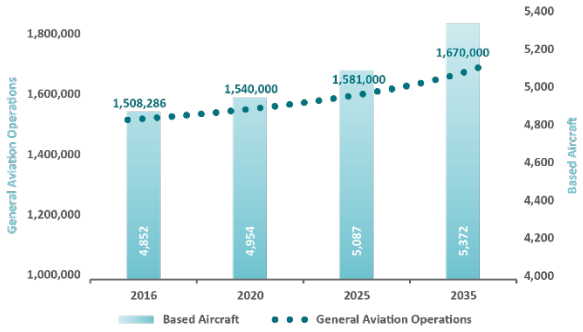
* Average annual rate of growth in enplanements is 2.1%, and the average annual rate of growth for commercial operations 0.9%.

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.

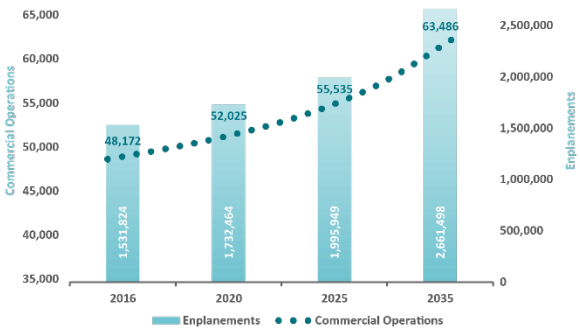
Recent economic recovery and increased use of general aviation as a tool to improve business efficiency have helped to stabilize the general aviation industry. For most airports in Georgia, however, anticipated growth in general aviation demand will be modest at best. The graphs below show statewide 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 AUGUSTA REGIONAL AIRPORT AT BUSH FIELD 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 Augusta Regional Airport at Bush Field 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 AUGUSTA REGIONAL AIRPORT AT BUSH FIELD

Type of Control	Local Governments Adjacent to the Airport	
	City of Augusta	Richmond County
Adopted Land Use Ordinance	Yes	Yes
Adopted Height Zoning Ordinance	Yes	Yes
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.**

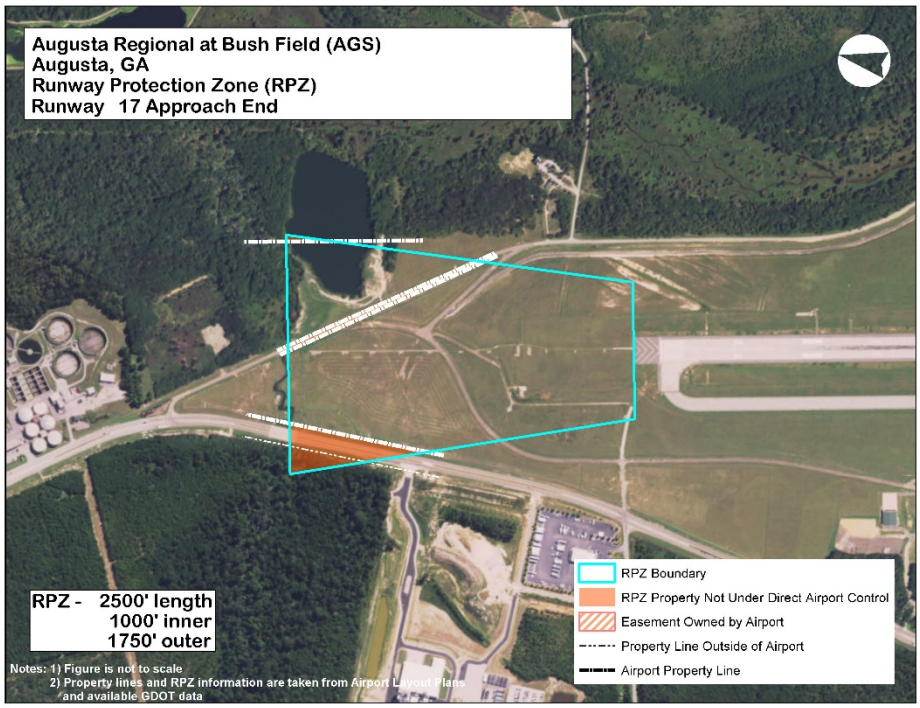
As indicated through the GSASP analysis, the cost to bring all portions of the Airport's RPZs under Airport control is estimated to be **$4,374,673**. Airports are highly encouraged to gain control over RPZs to prevent incompatible land uses.

AUGUSTA REGIONAL AIRPORT AT BUSH FIELD RPZ CONTROL

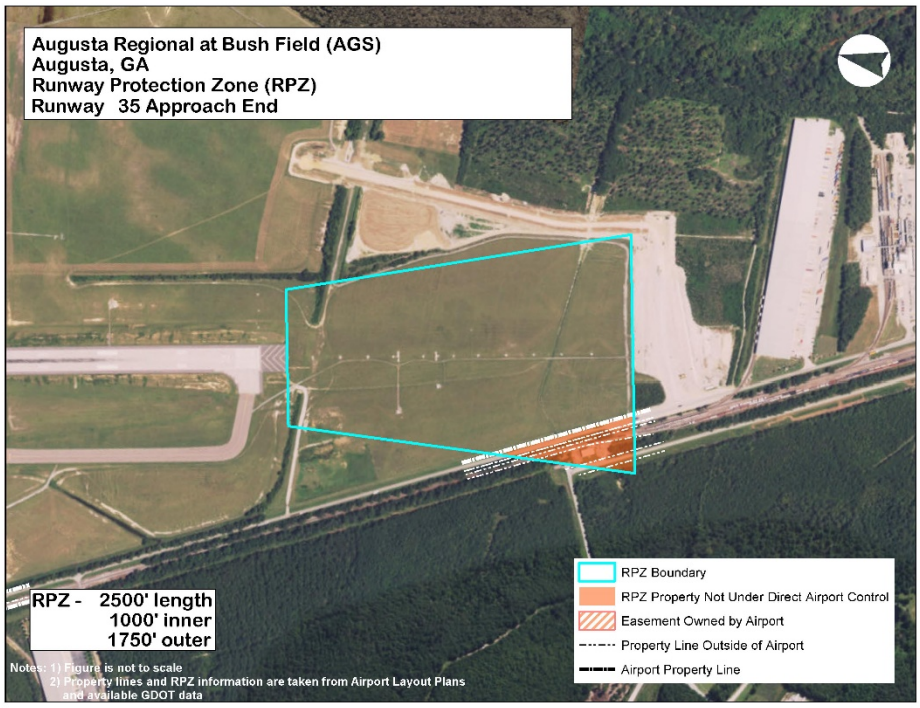
	Runway			
	17	**35**	**8**	**26**
Identified Land/Property Acquisitions				
Total Acres Outside Airport Control	**6**	**6**	**13**	**9**
– Urban Acres	6	6	13	9
– Rural Acres	0	0	0	0
Associated Costs				
Property Acquisition Costs				
– Urban Land Acquisition Costs*	$30,000	$1,500,000	$65,000	$45,000
– Rural Land Acquisition Costs*	-	-	-	-
– Residential Property Acquisition Costs	-	-	-	-
– Commercial Property Acquisition Costs	-	$1,000,000	-	-
Relocation Costs				
– Paved Road Relocation Costs	$731,792	$478,556	-	$128,440
– Unpaved Road Relocation Costs	-	-	-	-
– Railroad Relocation Costs	-	$218,379	$177,505	-
Subtotal	$761,792	$3,196,936	$242,505	$173,440
Total	**$4,374,673**			

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.

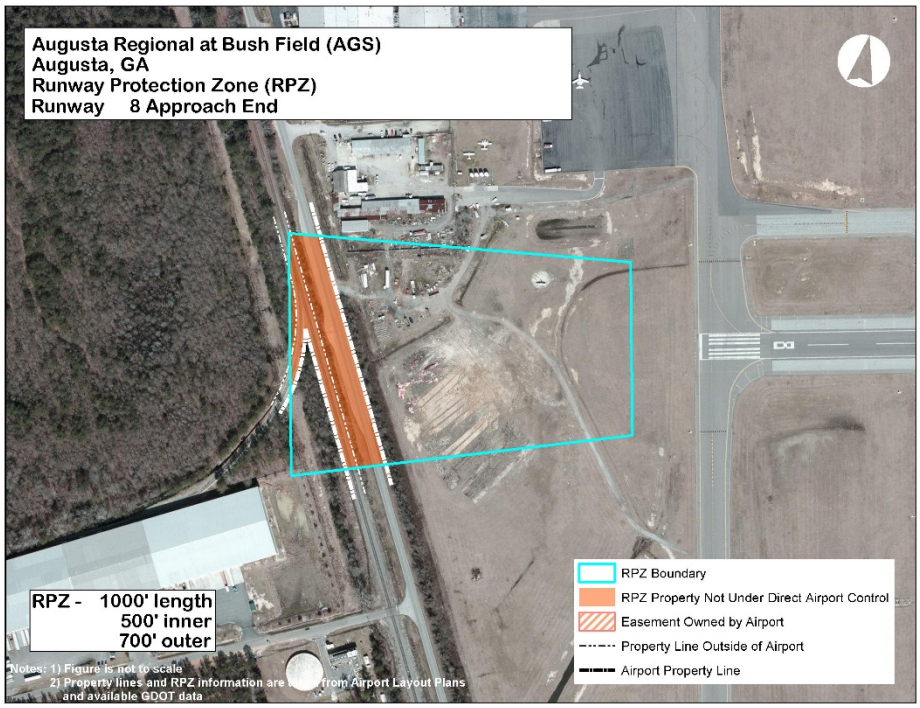
AUGUSTA REGIONAL AIRPORT AT BUSH FIELD
RPZ – RUNWAY 17 APPROACH END



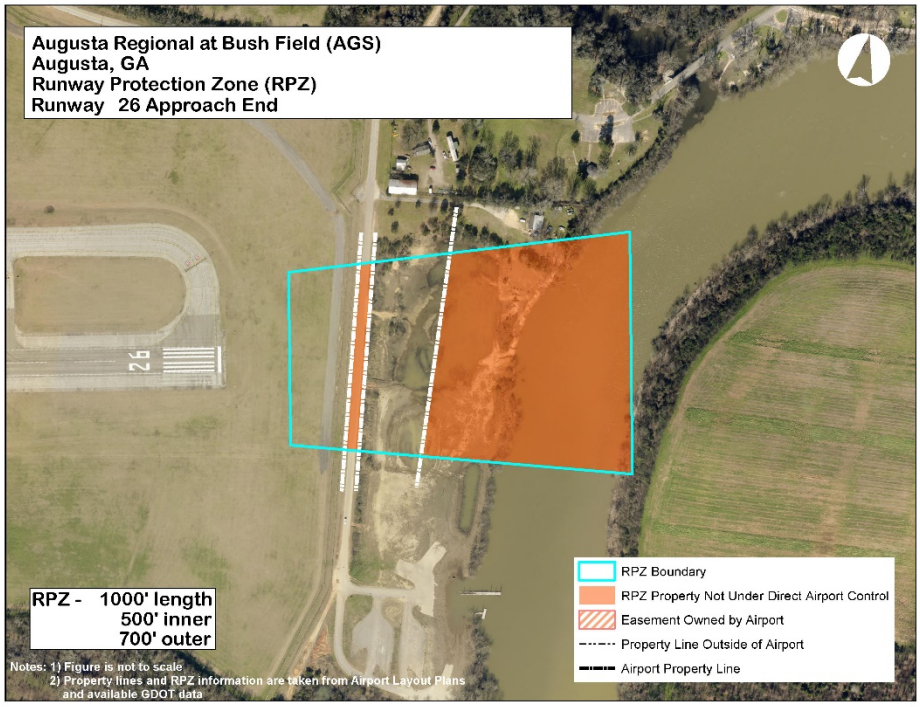
AUGUSTA REGIONAL AIRPORT AT BUSH FIELD
RPZ – RUNWAY 35 APPROACH END



AUGUSTA REGIONAL AIRPORT AT BUSH FIELD
RPZ – RUNWAY 8 APPROACH END



AUGUSTA REGIONAL AIRPORT AT BUSH FIELD
RPZ – RUNWAY 26 APPROACH END



AIRPORT REPORT CARD AND RECOMMENDATIONS

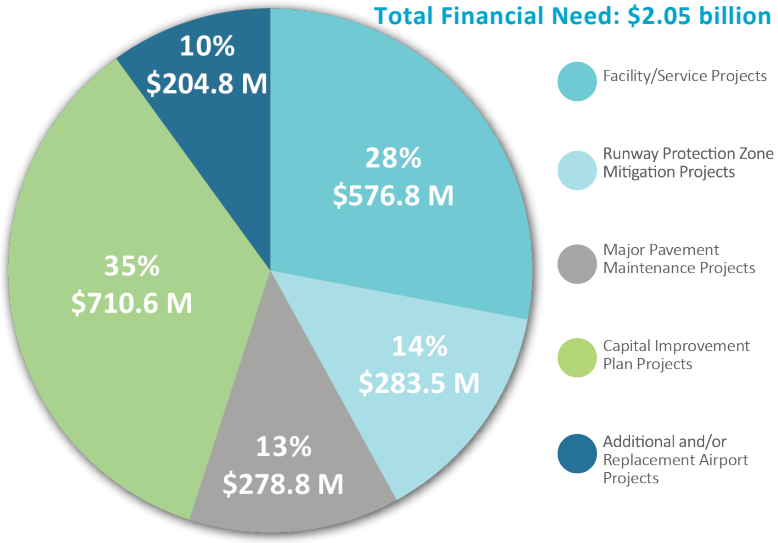
This report provides information on GSASP facility/service objectives associated with a Level III airport in the state airport system. The Report Card on the following pages shows Augusta Regional Airport at Bush Field's ability to meet its objectives. If the Airport does not meet an objective, an estimated 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 **$105,171,580**. On average over the next five years, **$21,034,316** 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 **$269,632,600** in annual economic impact. When the Airport's annual need (**$21,034,316**) is compared to its annual benefit (**$269,632,600**), it is clear that the Airport is well worth the investment.

The Report Card for Augusta Regional Airport at Bush Field, developed as part of the system plan, is shown on the following pages.

Augusta Regional Airport at Bush Field Report Card

AIRPORT NAME: Augusta Regional Airport at Bush Field	**CITY:** Augusta, Georgia
COUNTY: Richmond County	**AIRPORT CODE:** AGS

Augusta Regional Airport at Bush Field Report Card					
Actions Needed to Meet Facility and Service Objectives					
	Actual	**Minimum Objective**	**Objective Met**	**Improvement Needed**	**Estimated Cost**
Runway Length	8,001 Feet	5,500 Feet	Yes	-	-
Runway Width	150 Feet	100 Feet	Yes	-	-
Taxiway	Full Parallel	Full Parallel	Yes	-	-
Primary Runway PCI	100	70 or Greater	Yes	-	-
Primary Runway Safety Area	1,000 Feet x 500 Feet	1,000 Feet x 500 Feet	Yes	-	-
Runway to Taxiway Separation	400 Feet	400 Feet	Yes	-	-
Lighting System					
– Runway	HIRL	HIRL	Yes	-	-
– Taxiway	MITL	MITL	Yes	-	-
– Approach Lighting System	MALSR	ALS	Yes	-	-
Approach Type	Precision (ILS)	Precision	Yes	-	-
Weather Reporting	ASOS	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	Hold Position, Location, Guidance	Hold Position, Location, and Guidance	Yes	-	-
Fencing	Full Perimeter	Full Perimeter	Yes	-	-
Hangared Aircraft Storage	10	70% of Based Aircraft Fleet	Yes	-	-
Apron Parking/Storage	38	30% of Based Aircraft Fleet Plus an Add'l 75% for Transient Aircraft	Yes	-	-
General Aviation Terminal/Administration	11,078 Sq Ft w/Restrooms, Conference Area, Pilots' Lounge	2,500 Square Feet of Public Use Space Including Restrooms, Conference Area, and Pilots' Lounge	Yes	-	-
General Aviation Auto Parking	146	1 Space for Each Based Aircraft Plus an Add'l 50% for Visitors/Employees	Yes	-	-
Fuel	AvGas and Jet A	AvGas and/or Jet Fuel	Yes	-	-
FBO	Full Service	Full Service	Yes	-	-
Maintenance	Full Service	Full Service	Yes	-	-
Rental Cars	On-Site	Available	Yes	-	-
			Estimated SASP Facility/Service Project Cost		***$0***

Augusta Regional Airport at Bush Field 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 08	$65,000	No Action	No Action	$177,505	$242,505
– RW 17	$30,000	No Action	$731,792	No Action	$761,792
– RW 26	$45,000	No Action	$128,440	No Action	$173,440
– RW 35	$1,500,000	$1,000,000	$478,556	$218,379	$3,196,936
				Estimated RPZ Mitigation Project Costs	***$4,374,673***
Major Pavement Maintenance Projects Planned					
	Project Description				**Estimated Cost**
Runway 08/26	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)*				$8,500,000
Runway 17/35	Global Preventative (e.g. Surface Treatment to Entire Pavement)				$17,029
Taxiways	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)				$1,164,267
Taxiways	Global Preventative (e.g. Surface Treatment to Entire Pavement)				$14,058
Taxiways	Local Preventative (e.g. Crack Sealing or Patching)				$196,576
Apron	Major Maintenance & Rehabilitation (e.g. Mill & Overlay, Overlay, or Reconstruction)*				$16,760,000
				Estimated Major Pavement Project Costs	***$26,651,930***
Capital Improvement Plan (CIP) Projects Planned 2018-2022					
Program Year	**Project Type**	**Project Description**			**Estimated Cost**
2018	Runways	Remarking Runway 17/35			$300,000
2018	Utilities & Drainage	Design and Construct Access Control System			$750,000
2018	Plans & Studies	Drainage Master Plan			$150,000
2018	Utilities & Drainage	Construct New Electrical Vault			$750,000
2018	Equipment	Acquire - Lighted Runway Closure X's			$60,000
2018	Auto Parking & Ground Access	Rehabilitate Existing Long-Term Parking Lot			$1,200,000
2018	Utilities & Drainage	Construct - Airport Ditch Enclosure Phase 2			$770,000
2018	Utilities & Drainage	Construct - Airport Ditch Enclosure Phase 1			$1,309,090
2018	Other/Misc.	Design and Construct Exit Toll Booth Canopy			$250,000
2018	Security	Design and Construct FIDS and PA System			$500,000
2018	Hangars	Design and Construct GA Hangar Replacement			$8,947,080
2018	Apron	Design Apron Expansion SE of Runway Intersection			$734,122
2018	Taxiways	Design East Side Twy Extension for Apron SE of Runway Intersection			$629,118
2018	Apron	Design North Cargo Ramp Expansion			$400,000
2018	Other-Buildings	Design Rental Car Quick Turn Around Facility			$650,000
2018	Other-Buildings	Design and Construct Renovate Cargo Bldg to Maintenance Facility			$250,000
2018	Auto Parking & Ground Access	Design and Construct Access Road Improvements			$1,000,000
2018	Other-Buildings	Design and Construct Parking Lot Bus Shelters			$150,000
2018	Terminal Buildings	Design and Construct Terminal Restroom Improvements			$400,000
2018	Plans & Studies	Airport Zoning Ordinance Update			$145,287
2018	Utilities & Drainage	Rehabilitate Runway 17/35 Electrical System			$60,000
2019	Apron	Construct - Apron Expansion SE of Runway Intersection			$13,120,230
2019	Apron	Construct - North Cargo Ramp Expansion Phase I			$2,000,000

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

Augusta Regional Airport at Bush Field Report Card			
Program Year	**Project Type**	**Project Description**	**Estimated Cost**
2019	Taxiways	Construct East Side Taxiway Extension for Apron SE of Runway Intersection	$10,722,380
2019	Other-Buildings	Construct - Rental Car Quick Turn Around Area	$6,350,000
2019	Other/Misc.	Design/Construct - 2 Jet Bridges	$2,600,000
2019	Auto Parking & Ground Access	Design/Construct East Side Airport Facilities Entrance Road	$1,091,610
2019	Utilities & Drainage	Design/Construct Runway 08/26 & TW E Electrical	$540,000
2020	Fuel	Design/Construct - Relocation of Fuel Farm	$1,500,000
2020	Auto Parking & Ground Access	Design/Construct Perimeter Service Road	$1,838,860
2020	Lighting, NAVAIDs & Signage	Design/Construct - TW Lighting and Signs To LED	$600,000
2020	Lighting, NAVAIDs & Signage	Design/Construct Wind cones	$70,000
2021	Apron	Construct - N Cargo Ramp Expansion - Phase II	$2,000,000
2021	Other-Buildings	Design - ARFF Station Replacement/Relocation	$675,000
2021	Other-Buildings	Design - Maintenance Facility Replacement (6,000 Sf Bldg)	$225,600
2021	Other-Buildings	Design/Construct - Fire Training Center	$1,000,000
2022	Other-Buildings	Construct ARFF Station Replacement	$7,425,000
2022	Other-Buildings	Construct - Maintenance Facility Replacement	$2,481,600
2022	Hangars	Design - Eastside Hangar Development - Phase 1	$500,000
		Estimated CIP Project Costs	***$74,144,977***
		Total Estimated Project Costs	**$105,171,580**

GLOSSARY OF ACRONYMS

ALP: Airport Layout Plan

ALS: Approach Lighting System

ALSF: ALS with Sequenced Flashers

ASOS: Automatic Surface Observation System

ATCT: Air Traffic Control Tower

AvGas: Aviation Gasoline

AWOS: Automated Weather Observation System

CAGR: Compound Annual Growth Rate

CATEX: Categorical Exclusion

CIP: Capital Improvement Plan

DBE: Disadvantaged Business Enterprise

DME: Distance Measuring Equipment

FBO: Fixed Base Operator

FIDS: Flight Information Display System

GA: General Aviation

GIS: Geographic Information System

GSASP: Georgia Statewide Aviation System Plan

HIRL: High-Intensity Runway Lighting

HITL: High-Intensity Taxiway Lighting

ILS: Instrument Landing System

Jet A: Jet Fuel

LF: Linear Feet

LIRL: Low-Intensity Runway Lighting

LITL: Low-Intensity Taxiway Lighting

LPV: Lateral Precision Performance with Vertical Guidance

MALS: Medium-Intensity Approach Lighting System

MALSF: MALS with Sequenced Flashers

MALSR: MALS with Runway Alignment Indicator Lights

MIRL: Medium-Intensity Runway Lighting

MITL: Medium-Intensity Taxiway Lighting

MoGas: Motor Gasoline

NAVAIDs: Navigational Aids

PAPI: Precision Approach Path Indicator

PCI: Pavement Condition Index

PFC: Passenger Facility Charge

REIL: Runway End Indication Lights

RNAV: Area Navigation

RPZ: Runway Protection Zone

RSA: Runway Safety Area

sqmi: Square Miles

VASI: Visual Approach Slope Indicator

VGSI: Visual Glideslope Indicator

VOR: Very High Frequency (VHF) Omni-Directional Range

WHMP: Wildlife Hazard Management Plan

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