

## 1. INTRODUCTION

In the winter of 2016, the Georgia Department of Transportation (GDOT) Aviation Programs embarked on a study to update Georgia's Statewide Aviation System Plan (GSASP or the system plan). The State Aviation System Plan was last published in 2002. Since the last GSASP, the state has experienced employment and population growth, and there have been changes in the aviation industry. Examples of industry changes include consolidation of the mainline or network commercial airline carriers. Commercial carriers are also flying airplanes that have higher seating capacities; this means airlines are carrying more passengers on fewer flights. Since the last GSASP, the general aviation industry has experienced limited and even, in some cases, declining growth. The number of single-engine piston aircraft in the active fleet has declined, but with recent growth in the US economy, the business segment of the general aviation industry has experienced resurgence. Changes in technology have also enabled many additional airports in Georgia to have a non-precision instrument approach using Global Satellite Positioning (GPS) equipment. This update to the GSASP reflects changes in the state that have taken place since the last system plan was published, while considering changes in the aviation industry.

The update to the GSASP was accomplished in a series of separate but interrelated steps; these steps are described below and are graphically depicted in **Figure 1-1**.

- **Inventory:** Outreach and on-site visits to 103 study airports were the backbone for the inventory effort. Some of the GSASP's analyses were based on information provided by GDOT. Data from the Federal Aviation Administration (FAA) was also used to support the development of the plan. The system plan's inventory chapter provides information on current facilities, services, and activity. As part of the inventory effort, three additional investigative efforts were undertaken. These efforts included **runway protection zone (RPZ)** analysis, a **land use** control analysis, and an analysis of **through-the-fence (TTF)** operators at study airports.

The first analysis examined the 280 RPZs for all study airports. This effort reviewed all RPZs, identified portions of each RPZ that are currently not under airport control, categorized types of development that are in RPZs not under airport control, and developed estimates of costs that could be incurred to bring all RPZs for the study airports under airport control. Only 30 percent of the 280 RPZs are currently under airport control.

The second investigation included review of 196 local governments (cities and counties) that are adjacent to the Georgia airports. As part of the GSASP, each of the cities/counties was reviewed to determine if they have zoning in place, if they have adopted specific zoning to protect the airport, and if they have enacted height zoning ordinances. Of the 196 counties/cities that are adjacent to the study airports, only 20 percent currently have land use controls in place that are airport-specific.

The inventory effort also included identifying airports that have through-the-fence operators. Airports with TTF operators were identified, then information on the types of activities each operator is engaged in was documented. There are 17 airports that have TTF operations, and just over 30 different TTF operators were identified at these airports. Airports and TTF operators were questioned to determine if they have written operating agreements in place and to ascertain whether the TTF operators are paying fees for their use of public airport facilities.

- **Forecasts:** Most recommendations for airports included in the state airport system are based on the airport's assigned role, but some are based on projected levels of future aviation activity. As part of the GSASP update, 20-year projections of aviation demand were developed for based general aviation aircraft, general aviation operations, commercial enplanements, and commercial aircraft operations.
- **System Evaluation:** Evaluating the Georgia airport system to identify its adequacies and deficiencies helps the state develop a plan that shapes a viable and balanced system of airports. For this update to

the GSASP, a series of performance measures were established. Using a GIS tool, drive-time service areas for the airports were established. Additional GIS analysis was undertaken to determine current accessibility ratings for each of the performance measures. For some measures, past and current system performance was also graphed; this step established an updated system report card. In subsequent planning cycles, the system can be evaluated using the same performance measures to identify changes between reporting cycles. Performance measures used to evaluate the system included accessibility to: airports with scheduled commercial airline service; airports with on-site weather reporting equipment; airports with a precision-like approach; airports with various runway lengths; airports with a published approach; as well as accessibility to any airport.

- **Airport Roles:** GDOT, as part of a prior statewide system plan, established different roles or levels for Georgia airports: airports are assigned to Level III, Level II, or Level I. Airport roles are based on factors such as facilities, activity, services, and market area characteristics. As part of this task, 30-minute accessibility to any airport was examined to determine if there is a need to bring additional airports to the system or to establish new system airports. Further, the system was evaluated to determine whether there are accessibility voids to Level III airports. Recommended changes to the current system were made in accordance with the findings from these reviews.
- **Airport Facilities/Future Airport Performance:** Airports in each of the three levels have established facility/service objectives; these objectives are considered the minimum to which each airport should be developed to enable the airport to meet its assigned level in the state airport system. Existing facilities/services at each airport were compared to the airport's respective objectives to identify needed improvements. System performance, both statewide and by airport level for all objectives, is summarized graphically as part of this step in the planning process. Actions needed at each airport to bring the system into full compliance with all objectives are identified. The results of this evaluation are used to establish a report card for each airport. The airport report cards identify projects and anticipated costs needed to improve the system so that Georgia airports are 100 percent compliant with all development objectives.
- **Recommended Plan:** The final chapter of the system plan update identifies costs to improve the system to meet all airport objectives established by the system plan. Statewide costs to meet the system plan's objectives are summarized in total by airport level and by type of project. GDOT also has a Statewide Airfield Pavement Management Study; this Study identifies needed pavement maintenance and improvement projects for most system airports. The recommended plan summarizes identified pavement-related projects for the study airports. Finally, costs to bring all RPZs at study airports under airport control were estimated.

Each airport also has its own capital improvement plan (CIP); current CIPs for each airport were compared to GSASP, Statewide Airfield Pavement Management Study, and RPZ recommendations to determine if any airports have planned projects that will enable them to resolve any noted deficiencies as they relate to system plan objectives. As part of the recommended plan, projects from the GSASP, Statewide Airfield Pavement Management Study, RPZ analysis, and CIPs were reviewed in an attempt to identify and remove any duplicate projects to avoid double-counting financial requirements for the system. The recommended plan identifies estimated five-year and average annual investment needs for the Georgia airports considering projects identified to meet system plan objectives, RPZ mitigation, pavement maintenance, and CIP implementation. It is important to note that airport-specific CIPs present in this report have not been approved or prioritized by GDOT.

Remaining sections of this report provide documentation for each of the elements summarized here.

Georgia is served by a comprehensive system of airports, and the GSASP provides a blueprint to guide the strategic development of the state airport system. The system plan provides GDOT with guidance to help ensure that Georgia is served by a balanced and viable airport system. This update provides key information



that shows how GDOT programs and investment have combined to improve the performance of the state airport system since the 2002 GSASP. The approach to updating the GSASP was performance-based. Employing this type of approach enables the GDOT to understand:

- How the airport system was performing at the time of the 2002 GSASP.
- How the airport system is current performing.
- How the system should be improved in the future to meet statewide transportation and economic objectives.

The 2018 GSASP contains several components, including:

- Update to the Statewide Aviation System Plan.
- Analysis of runway protection zones.
- Investigation to identify local governments that are protecting airport resources.
- Identification of airports with through-the-fence operators.
- Development of an airport layout plan (ALP) for a new system airport north of the Atlanta metro area.
- Identification of technically suitable sites for a replacement airport in southeast Georgia.

Combined, these study efforts are part of the 2018 GSASP update. Documentation on all of the efforts noted here can be obtained from GDOT: <http://www.dot.ga.gov/IS/AirportAid/AviationSystemPlan>. The strategic approach that supported this project helps ensure that Georgia has a system of public-use airports that are conveniently located to meet the needs of commercial aviation, business and corporate users, and personal and recreational flyers.

Communication and outreach were essential underpinnings to the success of this plan. The update to the GSASP started by directly contacting each of the 103 study airports. Each airport was contacted by mail and subsequently visited by a study team member. As part of each airport's visit, information was provided on how airports could stay involved in the study through a project website hosted by GDOT. The system plan is a top-down study whose recommendations must still be implemented from the bottom-up by individual study airports. Therefore, direct communication with study airports was essential to the GSASP's ultimate success.

At the onset of the study, a project Focus Group meeting was held. Individuals representing statewide aviation, transportation, and economic interests comprised the Focus Group. Focus Group representatives provided input on a variety of topics including: infrastructure needs for the Georgia airports; funding challenges that the airports face; community support and understanding of the needs and benefits of the airports (including airport grant assurances related to protection from encroachment); weaknesses and opportunities that currently characterize the state airport system; and the potential for national trends in the aviation industry to impact the Georgia airports.

A Project Advisory Committee was established, and this group met three times over the course of the study to provide input on draft findings and recommendations. The project website enabled interested parties to remain engaged in the GSASP as it unfolded. A mid-project briefing on the system plan update was provided to the Georgia Airports Association. Project webinars enabled all airports and others to learn about study findings; other groups, such as the State Transportation Board, had presentations on final recommendations from the GSASP update.

The primary output from the update to the GSASP is a Technical Report that documents all study analysis, findings, and recommendations. An Executive Summary provides a high-level summary of the much more extensive Technical Report.

An Individual Airport Report was prepared for each study airport. These reports summarize each airport’s specific findings and recommendations from the GSASP, and contain each airport’s Report Card. The Report Cards provide a summary of projects and costs that the airport could anticipate in the next five years. The Individual Airport Reports also provide detailed airport-specific information for the community-based land use compatibility analysis, and the analysis to detail airport control over each RPZ. The Individual Airport Reports are available from GDOT Aviation.

Technical elements that form the GSASP are presented in the following chapters.

FIGURE 1-1: SYSTEM PLANNING PROCESS



Source: Jviation