

GREENVILLE-SPARTANBURG INTERNATIONAL AIRPORT



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AIRPORT MASTER PLAN UPDATE
CHAPTER 1: INTRODUCTION



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1. Introduction

As the owner, sponsor and operator of the Greenville-Spartanburg International Airport (GSP or Airport), it is the desire of the Greenville-Spartanburg Airport District (District), to evaluate the airport through preparation of an airport master plan, to assure that the airport and its environs are safe and efficient, and to evaluate the growing needs of the airport users and the aviation needs of surrounding communities. This report documents the findings, conclusions and recommendations developed in the 2017 Master Plan for GSP and is intended to support future decision making of the District.

This introduction provides general background information about the Greenville-Spartanburg International Airport, summarizes broad goals and objectives of the master plan, provides a concise review of previous prepared studies which have bearing on this master plan, and describes the organization of the technical document.

1.1. AIRPORT BACKGROUND

1.1.1. Airport History

GSP opened on October 15, 1962, replacing Greenville Downtown Airport and Spartanburg Downtown Airport as the primary airline destination in the region and becoming the first non-military airport in the country to be equipped with a runway centerline lighting system. Throughout the 1970s and 80s, GSP expanded its presence in the national airspace system and developed its air carrier terminal and cargo facilities. The runway was lengthened twice in the 1990s to its present length of 11,001 feet. To honor the tireless work to establish the airport and his decades of service to GSP, the airfield was named for Mr. Roger Milliken in 2004 – Greenville Spartanburg International Airport – Roger Milliken Field.

Because of GSP's proximity to large hub airports in nearby Atlanta and Charlotte, the Airport has struggled in the past to attract and retain a variety of air carriers and city pair options. Over the last decade, however, more demand for air services from GSP have been realized and addressed. Allegiant Air began flights to Florida in 2006, and in 2011 Southwest Airlines began service to five cities. In 2011 GSP received an ANNIE Award from Airline and Airport News & Analysis for being the fastest-growing small airport in the United States. In 2012, the Airport contributed over \$817 million to the upstate economy. This number grew to \$947 million in 2017 according to South Carolina Aeronautics Commission's 2018 Economic Impact Technical Report. Today, the five airlines serving GSP, providing direct flights to 14 destinations, and the regular scheduled cargo services continue to advance the economic prosperity of the region by providing a safe, convenient, user-friendly and cost competitive air transportation system connecting the region with the nation and world.

1.1.2. Airport Role

Greenville-Spartanburg International Airport is designated by the FAA as a publicly owned, public-use facility. Under the Airport and Airways Improvement Act, the Secretary of Transportation is



required to publish a national plan for the development of public-use airports. This plan is published as the National Plan of Integrated Airport Systems (NPIAS) and includes all commercial service, reliever (high capacity general aviation airports in metropolitan areas), and select general aviation airports.

The most recent NPIAS (2017-2021) identifies GSP as one of 382 Primary commercial service airports in the United States, and further classifies the Airport as one of 72 Small Hub facilities in the national airspace system indicating the Airport receives between 0.05 to 0.25 percent of the annual U.S. commercial enplanements. Based on a review of anticipated airport capital improvement projects eligible for federal funding participation, the NPIAS report identifies over \$35 million in development cost for GSP through 2021.

The South Carolina Aviation System Plan (SCASP) identifies GSP as one of six commercial service airports in the state enplaning over 1 million passengers and over 21 million pounds of cargo in 2016.

1.1.3. Greenville-Spartanburg Airport Commission

The Greenville-Spartanburg Airport Commission is the governance body of the Greenville-Spartanburg Airport District which owns and operates the Greenville-Spartanburg International Airport. The Commission is comprised of six members who are appointed by the Governor of South Carolina and includes three members residing in Spartanburg County and three from Greenville County, all requiring majority recommendation from their respective county's legislative delegation. Members of the Commission serve for a term of six years and no term limits exist.

1.1.4. Airport Strategy

The GSP Strategic Business Plan 2014-2020 outlines the District's current key management framework and maps out a specific set of strategies that serve to guide the District in successfully delivering core aviation services necessary for the region's economic growth and prosperity. The GSP strategic business plan is updated regularly to ensure a flexible and resilient process over time, focused on a cycle of continuous self-assessment and course correction.

Mission and Vision

Since GSP was built over a half-century ago, the Airport has benefited from consistent leadership and commitment to the foundations provided by the Airport's mission and visions statements, as outlined below:

**Airport
Mission:**

To advance the economic prosperity of the region by providing a safe, convenient, user-friendly and cost-competitive air transportation system connecting the region with the nation and world.

Airport Vision:

Serve as the region's global transportation hub and economic catalyst by providing best-in-class infrastructure and service.

1.2. KEYS TO A SUCCESSFUL MASTER PLAN

An airport master plan study is needed to address key issues, objectives and goals pertinent to the airport's development over a 20-year planning period. The FAA recommends an airport update its master plan every seven to ten years. GSP's previous master plan was completed in 2003. The Greenville-Spartanburg Airport Master Plan Update (Study) was initiated in early 2017. The Study analyzes existing and future operations at the airport to determine future development needs.

The Study provides new forecasts of aviation demand, identifies physical improvements required to accommodate future demand, and promotes land use recommendations necessary to protect the airport and its environs. Additionally, a capital improvement plan, pavement management plan, Airport GIS (AGIS) Survey and revised Airport Layout Plan (ALP) drawing set will be produced as final deliverables for the Study.

1.2.1. Master Plan Goals and Objectives

The overarching goal of this study is to determine how GSP can best position itself to continue to provide for safe, reliable and efficient aeronautical operations, accommodate growing and changing aeronautical demands, and ensure regional economic success. To simplify and clarify this broad goal several specific goals and objectives were identified for this study. These include:

Goal #1 – Provide an airport that is safe and reliable

Objectives:

- Protect FAA mandated safety areas and object free areas.
- Ensure that facilities meet the demands of the most demanding aircraft making regular use of the facilities.
- Minimize obstructions to air navigation.

Goal #2 – Maintain or enhance the efficient operation of the Airport.

Objectives:

- Plan airfield and airport facilities that accommodate aircraft operational demand and aircraft fleet mix within and beyond the planning horizon.
- Plan airport facilities that accommodate passenger demand within and beyond the planning horizon.
- Promote opportunities to capitalize on new infrastructure and future growth areas.



Goal #3 – Provide a long-term development plan which minimizes negative environmental impacts.

Objectives:

- Identify the major environmental issues of concern.
- Minimize potential environmental impacts through responsible development planning.
- Provide a facility that minimizes adverse effects on intangible environmental concerns.
- Consider the noise sensitivity of nearby neighborhoods and seek to minimize noise impacts.

Goal #4 – Enhance the long-term fiscal sustainability of the Airport.

Objectives:

- Maximize the business effectiveness of the Airport.
- Consider the Airport's role as a local and regional economic asset.
- Identify and seek to expand upon synergies with Greenville and Spartanburg Counties and the City of Greer.
- Consider the Airport's relationship to major industry in the region.

Goal #5 – Develop the airport to support local and regional economic goals while accommodating new opportunities or shifts in development patterns.

Objectives:

- Develop an airport layout plan that easily integrates with existing and proposed transportation infrastructure.
- Provide a highly graphical, easily understood master plan and airport layout plan set to enable the District to clearly communicate the Airport's development initiatives with funding partners and stakeholders.
- Pre-position the Airport to benefit from a broad range of funding sources including state and federal agencies.

Goal #6 – Engage Airport stakeholders in the visioning and planning process and communicate externally.

Objectives:

- Establish and meet regularly with stakeholder groups as part of the planning process.
- Provide a forum for stakeholders to discuss future planning needs of the Airport.
- Integrate the contributions of the stakeholders into the master plan and airport layout plan.
- Provide information to the public through a variety of mediums including social media and website development.

Goal #7 – Facilitate long-term Airport development strategies through thoughtful land use planning.

Objectives:

- Validate the highest and best use of airport properties.
- Prescribe a long-range airport land use plan.
- Depict a long-range airport development plan through the airport layout plan.

1.3. REVIEW OF EXISTING STUDIES

To support the effort of updating the Greenville-Spartanburg Airport Master Plan and ALP drawings, several previously developed studies and reports pertaining to the Airport and its surroundings were referenced. These following sections identify and discuss the most substantive elements of these studies.

1.3.1. Previous Airport Master Plan

The 2003 Airport Master Plan Update represents the most significant Airport specific planning study for GSP in recent years. Over the last 15 years many of the recommendations made from this plan have been implemented, including the rehabilitation of Runway 4-22 and renovation of the terminal building and passenger apron area. The concept of a second parallel runway and expansion of industrial aviation developments identified in the 2003 Master Plan will be reevaluated as part of this study.

1.3.2. Terminal Area Study and Wingspan

In 2010 GSP prepared a terminal area study to update requirements for the GSP terminal based on up-to-date enplanement models, new requirements and technologies, and anticipated developments in the aviation industry. This study resulted in a conceptualized program which would eventually become GSP's terminal improvement project named Wingspan. The overall goal of the \$127 million Wingspan project was to increase capacity, improve efficiency, incorporate safety processes, integrate sustainable practices, and positively impact the economic landscape. Wingspan was accomplished in 60 months. Over that time, the Airport rebuilt the central core area of the terminal, remodeled the baggage claim and gate concourse areas, increased concession availability and restructured the security check-in. The terminal opening celebration was held in May of 2017, though some terminal apron work is still on-going.

1.3.3. Landscape Master Plan

In 2016 GSP engaged in a comprehensive landscape management and master planning effort focused on creating and maintaining a unique and high-quality landscape across the Airport campus and providing Airport staff with data and direction to make informed landscape management and aesthetically-focused decisions. Through the process of this planning initiative GSP thoughtfully reviewed the existing airport landscape environment, developed improvements for individual landscape elements, and established standards and guidelines for successful implementation and maintenance of their landscape development objectives, including:

- Improvements to the terminal landscape
- Improve safety and health of the GSP campus
- Enrich the arrival experience
- Extend the GSP brand
- Promote GSP's commitment to the landscape



1.3.4. Master Land Use and Commercial Development Study

In 2013 GSP prepared a comprehensive campus-wide land use plan with site development concepts for specific areas on and/or adjacent to the Airport. The goal of this effort was to create a unified framework for future development, generate a strategic land development approach and provide the District with the knowledge and tools necessary to make informed land management and growth management decisions. This was accomplished across a three-volume report which independently focus on the following elements:

- Market & Highest Best Use Analysis
- Land Use Planning & Development
- Implementation Plan & Financial Analysis

Greenville-Spartanburg's Master Land Use and Commercial Development Study illustrated a variety of opportunities for the District to provide both aviation-use and aviation compatible non-aviation use properties on-campus and prescribed a number of strategic initiatives to begin to encourage such development and realize its benefits.

1.3.5. I-85 Corridor Analysis and Widening Project

In 2012 the South Carolina Department of Transportation (SCDOT) identified congestion problems throughout multiple interstate highways, including segments within Interstate 85 (I-85). As a critical transportation route between Greenville and Spartanburg as well as Charlotte and Atlanta, a corridor analysis was conducted and a highway widening initiative was developed thereafter. The I-85 Corridor Study focused on 22 miles of the highway from the White Horse Road (US 25) to Fort Prince Boulevard (SC 129) connections to identify solutions for current and future capacity needs. Alternatives range from travel demand management techniques to operational and capacity-based initiatives. Since the completion of the Study, SCDOT has initiated several improvement projects to respond to the capacity needs of I-85 and continues to monitor opportunities for improvement along the corridor.

Across the course of this master plan's planning horizon (2040), several I-85 improvements are likely to occur around airport property, specifically between the I-85 and Route 101 interchange to the east and the I-85 and Route 14 interchange to the west. Specifically, the I-85 and Aviation Parkway interchange is anticipated to be improved with a new northbound on-ramp in the future to improve traffic flow.

1.4. CONCLUSION

The following chapters will provide a detailed review of existing airport conditions and activity levels, forecast 20-years of operational activity while considering multiple plausible scenarios, determine future facility requirement needs, score and rank alternative development considerations, and provide a multi-year capital improvement program indented to support executive level decision making. Additionally, this plan will inform the development of an Airport Layout Plan (ALP) drawing set used to communicate the Airport's regulatory compliance and outline its future development initiatives to the Federal Aviation Administration and SCDOT.