

Manassas Regional Airport Master Plan Update



Chapter 1
Introduction/Visioning



RS&H

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Chapter 1 Introduction/Visioning

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CHAPTER 1

INTRODUCTION/VISIONING

1.1 INTRODUCTION

Manassas Regional Airport (HEF or Airport) is a general aviation airport. The City of Manassas oversees the day-to-day operation and management of the Airport. The Airport occupies over 863 acres and is bounded by Prince William Parkway to the east and Nokesville Road (Route 28) to the northwest. The Airport is one of 57 GA airports within the Virginia Department of Aviation (DOAV) Airport System and identified as Reliever Airport, as described in the 2016 Virginia Air Transportation System Plan (VATSP). HEF is the busiest general aviation airport in the Commonwealth of Virginia. The airport is classified in the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems (NPIAS) 2025-2029 Report as a public National Reliever airport. The airport is located thirty miles south of Washington D.C. in the City of Manassas and Prince William County, Virginia.

During the lifecycle of the 2022 Airport Master Plan Update, the airport introduced plans to receive commercial air service during the twenty-year planning period which would result in change of classification in the VATSP and the NPIAS. The introduction of commercial air service to a general aviation airport fundamentally impacts the airport's infrastructure, operational dynamics, funding opportunities, and development strategy. To meet the fundamental requirements for Master Plan approval by the FAA and DOAV, the airport adjusted direction to develop an amended Aviation Activity Forecast incorporating Air Carrier operations and passenger enplanements for the twenty-year planning period. Forecast metrics (e.g. GA operations, military operations, commuter/air taxi operations, and based aircraft) from the initial Aviation Activity Forecast approved in June 2022 were carried into the amended Aviation Activity Forecast chapter. The FAA approved the amended Aviation Activity Forecast in August 2024. The Airport Layout Plan set, associated ALP Narrative chapter, and Implementation & Financial Feasibility chapter include modifications supporting commercial service in alignment with the amended Aviation Activity Forecast chapter. The Inventory & Facility Requirement chapter and Alternatives chapter were developed following approval of the initial Aviation Activity Forecast (approved June 2022). No additional technical analysis for these two chapters to incorporate findings from the amended Aviation Activity Forecast were completed in the Master Plan.

1.2 PURPOSE OF THE STUDY

The purpose of the Master Plan is to establish a long-range development strategy or "blueprint" for the sustained, and fiscally responsible, growth of the Airport through a twenty-year planning period, which seeks to balance airport growth against the need to minimize impacts on the surrounding environment. In doing so, the study focuses on optimizing operations at the Airport, providing flexible options for growth, while identifying possible areas on-airport suitable for new facilities, by performing the following:

- » Aviation Activity Forecasts
- » Inventory of Existing Facilities and Services
- » Facility Requirements (preceded by Demand/Capacity Analyses)
- » Justifiable Alternatives for Facility Improvements
- » Phased Capital Improvement Program
- » Airport Layout Plan Drawing Set

The Master Plan improvements should satisfy projected aviation demand, ensure the safety of airport operations, and be compatible with the environment, community development and other transportation modes. Above all else, the Master Plan must be technically sound, practical and economically feasible.

The airport plans are submitted to the FAA for approval and for FAA's use in evaluating grant requests and other actions involving the Airport. Thus, the Master Plan provides guidance on the priority of airport development projects to be submitted to the FAA for funding. As such, this study will update previous master planning efforts. In general, the Master Plan will develop a framework for Manassas Regional Airport to provide guidance for future airport development in a financially feasible manner, to maximize its safe and efficient use, and to enhance the environmental soundness of the Airport within its environs.

Specifically, the purpose of the Master Plan Update is to:

- » Illustrate through demand forecasts, the growth in activity that is anticipated at HEF.
- » Provide an indication of plans for infrastructure enhancements in light of its continued role.
- » Provide a useful tool for communicating to a broad range of stakeholders including tenants, local government, community groups, and state and federal agencies, to allow them to make well informed decisions.
- » Supplement long-term resource planning for local and regional bodies, particularly in the preparation of local plans and strategies.
- » Establish the key milestones of airport development, carefully triggered by demand, and supported by adequate justification for implementation.
- » Demonstrate the probable costs required over the twenty-year planning period and ensure that the program is financially viable.
- » Enable the City of Manassas and others to assess local social and environmental impacts and provide an opportunity to develop preliminary proposals on how those impacts could be mitigated, as appropriate.
- » Provide a consistent and publicly available vehicle for the continued involvement by government, users, and the general public.

1.3 VISIONING / EMPHASIS ITEMS

Identification of goals and emphasis items is a crucial step in the master planning process. These elements provide direction for the planning process and form the basis for determining future airport development. Throughout the evaluation process, the goals and emphasis items were consistently referenced to assess development alternatives and recommend a plan of action.

At the onset of the Master Plan team members met with airport staff to initiate the planning process and discuss project goals and emphasis items. Based on these meetings the following goals and emphasis items were established.

- » **Vehicle Access:** Regional improvements to VA State Route 234 and toll lanes on I-66 could attract more business travelers and increase operations at Manassas Regional Airport. RS&H will coordinate with local agencies to integrate these plans into the airport's development.

- » **Multimodal Pedestrian Access:** Proposed VRE improvements at Broad Run Station, including an additional track, will be integrated into the development plan. RS&H will collaborate with VRE and the City of Manassas to enhance connectivity and pedestrian access.
- » **Terminal Area:** The master plan will assess optimal land use for the terminal and surrounding areas, focusing on parking, roadway alignment, apron layout, and future aircraft needs.
- » **FBO Expansion:** Plans will include integrating Chantilly Air's FBO expansion into the airport layout, with guidance on land use, drainage, and future facility growth, revisiting the NE Quadrant Study as needed.
- » **East Side Expansion:** The plan will evaluate the development potential of the last greenfield site, addressing utilities, access, environmental impacts, and floodplain challenges, along with a detailed implementation strategy.
- » **Runway Extension:** A potential extension of Runway 16L-34R will be explored to support increasing corporate aircraft activity, with justification for its inclusion in the capital improvement plan.
- » **Northwest Development Area:** The master plan will review opportunities for development on the West Apron following Dulles Aviation's closure, aligning with the airport's long-term strategy.
- » **ATCT:** Relocation of the Air Traffic Control Tower will be reviewed to ensure it does not penetrate the Part 77 Transitional surface, incorporating the preferred location into the development plan.
- » **Broad Run:** A comprehensive review of Broad Run's flooding impact on the airport's development areas will be conducted, exploring solutions to mitigate environmental impacts.
- » **Southwest Expansion:** The master plan will examine acquiring adjacent land for aeronautical development or Broad Run relocation to enhance future growth potential.
- » **Land Use Review:** The plan will review airport-owned land for potential non-aeronautical revenue, considering the FAA's increased flexibility for such development.
- » **Airport Layout Plan:** An updated ALP will be created, including new imagery, safety-critical data, and an Exhibit A Airport Property Inventory Map.
- » **Sustainability Plan:** The master plan will integrate sustainability initiatives per DOAV's guidelines, focusing on resilience, energy and water conservation, and waste reduction.
- » **Commercial Service:** During the Master Plan, The Airport outlined plans to incorporate commercial air service within the planning period. This change will significantly affect infrastructure, operations, funding opportunities, and the overall development strategy.

1.4 MASTER PLAN PROCESS

The Master Plan elements were conducted in accordance with FAA guidelines established in Advisory Circulars 150/5070-6B, Airport Master Plans, and 150/5300-13A, Airport Design. The Master Plan includes specific elements, with its documentation organized into the following chapters:

- » Aviation Activity Forecast
- » Aviation Activity Forecast Amendment
- » Inventory and Facility Requirements

- » Alternatives Development
- » Implementation & Financial Feasibility Plan
- » Environmental Overview
- » Airport Layout Plan Narrative
- » Airport Layout Plan Set

In addition to the technical reports, the Master Plan includes supporting appendices as follows:

- » Environmental Conditions
- » Runway Length Analysis
- » Sustainability Initiatives
- » Recycling, Reuse, and Waste Reduction Plan
- » Southwest Quadrant Land Acquisition