

WESTCHESTER COUNTY AIRPORT

MASTER PLAN UPDATE

INTRODUCTION CHAPTER

FINAL REPORT

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PREPARED BY:



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INTRODUCTION

Westchester County Airport (also referred to as HPN or the Airport) and the County of Westchester (the County) are in the process of conducting an Airport Master Plan Update. The Federal Aviation Administration (FAA) describes an Airport Master Plan as “*a comprehensive study of an airport and usually describes the short-, medium-, and long-term development plans to meet future aviation demand.*”¹ According to FAA guidelines in Advisory Circular (AC) 150/5070-6B, a master plan should:²

- Document existing conditions and identify current issues
- Justify proposed development
- Graphically present development and land use plans
- Establish a schedule and financial plan for implementation
- Define projects in enough detail to support environmental evaluations
- Present a plan that addresses the issues and satisfies local, state, and federal regulations
- Set the stage and establish the framework for a continuing planning process

In particular, this Airport Master Plan includes an update of the current Airport Layout Plan (ALP). Proposed development must be shown on an FAA-approved ALP to be eligible for Airport Improvement Program (AIP) funding. FAA approval of the ALP indicates that the existing facilities and proposed development depicted on the ALP conforms to the FAA airport design standards in effect at the time of the approval or that an approved modification to standard has been issued. Such approval also indicates that the FAA finds the proposed development to be safe and efficient.

When completed, the Airport Master Plan Update will provide guidance for the future development of the Airport. A key component of this process is solicitation of stakeholder input. The Master Plan document will play an important role in helping the County of Westchester to define the best role for the future of the Westchester County Airport.

Airport Background

History

Westchester County Airport was constructed on land leased from Westchester County by the federal government in 1942 and 1943 as an air defense satellite base for New York City. In 1944, when the need for fighter planes to defend New York City from enemy attack had passed, the Airport was returned to the County and later opened for civilian use in 1945.

Although the Airport opened in February 1945, it was three years before the first commercial flight operated from Westchester County Airport.

¹ FAA AC 150/5070-6B, Airport Master Plans, May 1, 2007.

² Ibid

Beginning in 1952, the New York Air National Guard (ANG) constructed facilities and maintained a base at the Airport for reserve training and transportation missions. The military presence at HPN ended in 1983 when the unit moved to Stewart Airport.

The County of Westchester is the owner and sponsor of Westchester County Airport. The Airport has been managed by the private operator AvPorts since 1977. AvPorts is a division of Aviation Facilities Company, Inc., which operates numerous airports and airport facilities around the world.

Statement of Airport Policy (Resolution 266-1985)

In October 1985, the County Board of Legislators approved by Resolution a "Statement of Airport Policy" that declared the Board of Legislators' new policy for the use of HPN and provided direction to the County Executive and staff for daily and long-term management of the Airport. The policy statement was also intended to provide information to the general public, airport users and the Airport's neighbors about the role of the Airport in the community and the Board of Legislators' views on balancing competing policy objectives concerning the Airport.

The policy statement approved by Resolution 266-1985 stated that "[t]he airport's capacity, measured in terms of its capability to accept an annual number of aircraft operations, shall not be increased." In addition, it directed the County Executive to review the 1980 Airport Master Plan and to prepare for Board of Legislators review and approval a revised Master Plan and a revised Airport Layout Plan (ALP) within six months. Finally, it outlined a list of criteria with which the revised ALP must comply. The two most significant criteria were that:

- The ALP was to provide for improved passenger terminal area facilities at or near the existing location, and that terminal capacity "shall not be increased beyond the level established in the [Stipulation] authorized by Board Resolution 58-1985" (i.e., 240 passengers per half hour); and,
- The ALP was to contain no provision or contingency for any parallel runways.

The remaining criteria related to issues such as new taxiways, fixed-base operator (FBO) facilities, aircraft rescue and firefighting (ARFF) facilities, approach lighting, parking and roads, maintenance facilities, and water supply.

1986 Master Plan Update

In December 1986, the County completed its review and revision of the 1980 Master Plan, as required by Resolution 266-1985, and published the Master Plan Update. Of the different alternatives originally considered under the 1980 Report, the only one authorized for consideration pursuant to the terms of Resolution 266-1985 was the proposal for a new terminal without a new runway. As a result, the 1986 Master Plan Update developed this concept.

Consistent with the policy directives in Resolution 266-1985, the Master Plan Update included the following planning parameters:

- Construction of a new passenger terminal that "will be designed to accommodate 240 airline passengers each half-hour, the capacity of the existing terminal, as specified in the February, 1985 Stipulation agreement;"
- Relocation of access roadways and parking for the new terminal;
- Reservation of an area at the north end of the airport for highway or vehicle parking purposes;

- Construction of a new automobile service station;
- Construction of a new taxiway, parallel to Runway 16-34, additional taxiway connections, and additional aircraft holding aprons near the ends of runways;
- Development of new areas for fixed base operations, primarily for light general aviation aircraft;
- Construction of new corporate hangars and offices at two locations, with associated access roads and automobile parking;
- Extension of the aircraft parking apron, and construction of aprons for the new corporate hangars;
- Construction of an additional engine maintenance run up pad;
- Construction of a heated garage for airport maintenance vehicles;
- Construction of a new ARFF training facility;
- Installation of an approach light system for Runway 34;
- Construction of an airport perimeter road for ARFF, service and fuel vehicles; and
- Purchase of certain parcels of adjacent land.

In the intervening 25 years the County has completed most of the projects contemplated by the 1987 Master Plan, including a new terminal, public parking structure and roadway systems, new light general aviation facilities and new taxiways.

1988 Terminal Capacity Agreement (extended in 1994)

In light of the County's plans to build a new terminal, the County and the carriers entered into the 1988 Terminal Capacity Agreement (1988 TCA), the purpose of which was to continue the terms set forth in the *Midway* Stipulation and to continue to apply those same constraints to the new terminal.

In the 1988 TCA, the County and the carriers agreed that “the capacity of the proposed Terminal, to comfortably handle passengers and associated others, is 240 passengers per half hour,” without regard to whether the passengers were enplaning or deplaning. The parties agreed that “the enforcement of the capacity limits and the regulation of air carrier access at HPN will be as set forth in [the *Midway* Stipulation] whether or not that Stipulation be extended, except that the terminal capacity limitation shall expire January 1, 1995 and shall thereafter be reassessed in light of experience and conditions current at that time.”

The parties also agreed that the County would make several amendments to the Airport's technical specifications as previously set forth in an appendix to the *Midway* Stipulation:

- Ramp size would be allocated on the basis of fuselage length rather than wingspan. Henceforth, two gate positions would accommodate aircraft with fuselage lengths over 85 feet and two positions would accommodate aircraft with fuselage lengths under 85 feet.
- Notwithstanding the Airport's runway weight limitation, the County would engage in an 18-month trial period during which it would allow Boeing 737-300's with a maximum gross take-off weight of up to 135,000 pounds.

The 1988 TCA was reviewed and approved by the FAA. It remained in effect through 1994, at which point the County and the carriers reaffirmed the terms and provisions related to the conduct of operations and committed to extend these capacity limits and regulations for an additional ten years, until December 31, 2004.

Resolution 245-2003 (County Policy)

In its Resolution 245-2003, dated October 7, 2003, the County reaffirmed “*its commitment to the community to preserve current limitations on Airport facilities.*”

In particular, the resolution stipulates the following guiding policy of the County:

- To limit the development of the Airport to its current physical capacity, including the weight-bearing capacities of airport pavements and the site footprint;
- To support no increase in the total capacity of the Airport’s runways, taxiways, ramps, gates, hangars, terminal, motor vehicle parking areas, or access roads in order to protect the Community’s fragile environment;
- To ensure that the FAA, the County’s Federal and State Delegations, stakeholders and all other pertinent parties are aware of the County Policy.

Modification of Terminal Capacity Restrictions (2004)

In 2004, following Resolution 245-2003 which reaffirmed the County and the airlines’ desire to extend the terms and provisions contained in the 1994 TCA, the parties once again agreed on a new and revised Terminal Use Agreement (TUA), also known as the Terminal Use Regulation (TUR), with an expiration of December 31, 2014. On December 4, 2014 the County amended the Terminal Use Agreement to exercise the first five-year renewal option for the term January 1, 2015 through December 31, 2019.

As indicated in the Westchester County Code of Ordinances, Sec. 712.462 Westchester County Airport Terminal Use Procedures, the passenger terminal and the terminal ramp are to be utilized for the exclusive use of airlines providing passenger service, and it requires that all passenger service be provided at the terminal. The Code of Ordinances defines airlines as “any person providing Passenger Service in aircraft designed for more than (9) passenger seats, including but not limited to, any air carrier or other operator certificated to provide Passenger Service under Parts 119, 121 or 135 of the Federal Aviation Regulations, Title 14, Code of Federal Regulation.” Furthermore, it defines passenger service as “any air service to or from the Airport for which seats are individually offered or sold to the public or a segment of the public, regardless of whether such individual seats are offered or sold directly by the aircraft operator, a charterer, another Airline, or any other entity.” As stated in the Code of Ordinances, the Terminal Use Procedures are not applicable to activities by Airport users that do not provide passenger service.³

The new 2004 Terminal Use Agreement included modifications of certain operational matters at the Airport. In particular, a new set of Technical Specifications and Procedural Requirements have been included in the Laws of Westchester County and were submitted to the FAA for review and approval. As stated in Sec. 712.462 of the Code of Ordinances, “All Airlines shall comply with the Technical Specifications and Procedural Requirements as issued by the Commissioner from time to time.”⁴ Upon review of the updated Technical Specifications and Procedural Requirements in June 2004, the FAA stipulated that these use requirements were compliant with the provisions of the Airport Improvement Program (AIP) and nothing in the proposed actions by the County was found inconsistent with the Airport’s grant assurances.

³ Westchester County, New York- Code of Ordinances, Sec. 712.462 Westchester County Airport Terminal Use Procedures, Codified through Local Law No. 8-2016, Enacted September 27, 2016.

⁴ Ibid

The following Technical Specifications and Procedural Requirements are the ones currently in use at the Westchester County Airport:

- **Terminal Ramp Capacity**

“A maximum of four aircraft may be scheduled to use the Terminal Ramp at any given time. Two positions may be scheduled for aircraft with a maximum overall length of 107 feet or less and two positions may be scheduled for aircraft with a maximum overall length of 130 feet.”

- **Maximum Aircraft Length**

“The maximum overall length for any aircraft using the Terminal Ramp is 130 feet.”

- **Maximum Wingspan**

“The maximum wingspan for any aircraft using the Terminal Ramp is 115 feet.”

- **Maximum Take Off Weight**

“No aircraft with a certificated maximum gross takeoff weight in excess of 120,000 pounds shall land, take off, or use the Airport without prior permission of the Airport Manager. The Airport Manager shall grant prospective permission for a designated number of daily operations by aircraft in excess of 120,000 pounds maximum gross takeoff weight if he or she finds on the basis of acceptable engineering data that such operations, along with all other permitted or anticipated operations, would not shorten the 20-year design life of any potentially affected airport pavement. Upon request, such prior permission may be granted prospectively to a Qualified Airline so long as its operations are consistent with its Ramp Allocations. In no event shall the Airport Manager grant permission for operation by any aircraft with a certificated maximum gross takeoff weight in excess of 180,000 pounds.”

In order to ensure competition and promote efficiency of operations, Westchester County Airport is required by Sec. 712.462 of the Code of Ordinances to allocate available terminal ramp and terminal building capacity for half-hour increments by means of a lottery system. A lottery is held on a quarterly basis and airlines select terminal ramp slots and passenger allocations that were lost or not used by other airlines that had received an allocation in a previous lottery. The lottery system works in that airlines select slots and allocations in a random order, and each airline can select up to four slots or allocations in each round of selection.⁵

For the purposes of determining an airline’s compliance with its passenger allocations for any half hour period, the County is to utilize a calendar month average. To determine whether an airline underutilizes its passenger allocations and whether an adjustment is called for, the County is to utilize a three calendar month average. In the calculation of these averages, data for the following holiday periods specified in Sec. 712.462 of the Code of Ordinances should not be included:

⁵ Westchester County Airport, Memorandum to Federal Aviation Administration, “History of Use Restrictions at Westchester County Airport,” March 16, 2004.

- Christmas/New Year from December 20 through January 5
- The Presidents' Day holiday from three days before Presidents' Day through three days following Presidents' Day
- Easter from five days prior to Easter through the fifth day following Easter
- Memorial Day from three days before Memorial Day through three days after Memorial Day
- July Fourth, from July 1 through July 7
- Labor Day, from three days prior to Labor Day through three days after Labor Day
- Thanksgiving from five days prior to Thanksgiving through five days after Thanksgiving

Airport Current Role

Over the past 20 years, the Airport has been improved to serve commercial, corporate and general aviation operations, and to enhance the attractiveness of the County of Westchester as a place to live and do business. As stated in the FAA National Plan of Integrated Airport Systems (NPIAS) 2013-2017, Westchester County Airport is a small hub airport, along with 73 other airports nationwide. Small hubs are defined as airports that enplane 0.05 percent to 0.25 percent of total U.S. passenger enplanements. This group of airports accounts for eight percent of all enplanements in the country. In 2012, Westchester County Airport was ranked 22nd in terms of annual enplanements for small hub airports in the U.S. and 4th in the State of New York.

Westchester County Airport provides commercial service to air passengers in the greater New York metropolitan area. In 2005, discount airlines began serving the Airport. This introduced low cost transportation to recreational destinations in addition to the cities that had previously been the business focus for commercial service. In 2012, approximately 1.8 million passengers passed through the main terminal on about 34,000 commercial flights, directly to and from business and recreational destinations. Flight destinations are limited, however, by types of aircraft that can use the Airport.

More than 70 businesses are located at the Airport, including airlines, FBOs, car rental agencies and other aviation services, such as food service, freight forwarding and airline support. The significance of the Airport to area commerce is in many ways defined by its business clientele. Prominent corporate and institutional organization airport users include Citigroup Corporate Aviation, IBM Corporation, JP Morgan Chase, McGraw-Hill Companies, PepsiCo Inc., and Phillip Morris Inc.

The Airport's economic impact, as detailed in Table I, was measured through surveys that revealed 4,946 full and part-time jobs and more than \$500 million in direct expenditures. Including indirect expenditures, the total impact for Westchester County Airport was \$735.9 million, supporting 6,328 jobs.⁶

⁶ New York Statewide Airport Economic Impacts Study, May 2011.

Table I: Employment & Economic Impact Induced by Westchester County Airport

Type	Direct	Indirect	Total
Employment	4,946	1,382	6,328
Income	251,026,700	83,111,500	334,138,200
Output	500,089,600	235,790,000	735,879,600
State and Local Taxes			72,056,200

Source: New York Statewide Airport Economic Impacts Study, May 2011

As one of the most active business aviation facilities in the nation, the Airport had approximately 74,000 corporate and charter operations in 2012.⁷

Need for a Master Plan Update

Since the last Master Plan Update, the Airport has maintained a significant role in the economic vitality of Westchester County and it remains one of the County's most important facilities. The various airport improvements as well as changes that have occurred in the aviation industry and technology warrant the preparation of a new Airport Master Plan Update. Included among these changes are the following:

- Post 9-11 security measures and requirements have placed additional demands on airport operations as well as a demand for space at the Airport and within the terminal building in particular.
- The introduction of low-cost commercial flights from the Airport has changed the composition of its terminal users, significantly increasing the number of leisure travelers over business travelers.
- Changes in aircraft technology driven in part by FAA requirements and initiatives have altered the impact of the Airport on surrounding communities and will require changes in airport infrastructure.

In addition, the County has implemented an Airport Environmental Management System (AEMS) that has been independently certified to the ISO 14001 standard and is implementing projects to better protect the environment.

In light of these developments, the County has determined that it was an appropriate time to prepare a new Master Plan that would provide the framework necessary to guide future Airport use.

Airport Vision Statement

The new Master Plan Update has been prepared in accordance with the current County policy regarding the Airport. Its recommendations aim to meet the County's vision for the Airport and to fulfill the needs of the Westchester County community. The following vision statement was developed by the County to guide the Airport Master Plan study process:

“Westchester County Airport (HPN) shall continue to remain an asset to the region, being a comfortable and convenient air transportation facility. Through the direction of the Westchester County Executive, the

⁷ Airport Monitor, Westchester County Airport

Airport staff shall operate, maintain and preserve a high-quality and eco-friendly commercial and general aviation facility with a holistic management approach to enhance:

1. *Safety, operational efficiency and economic viability of the airport;*
2. *Regional economic growth, integrating sustainability principles and practices into the airport's long-term business strategy and day-to-day operations;*
3. *Development of airport infrastructure with conservative and responsible use of our natural resources to meet the needs of business and leisure air transportation needs of the region; and*
4. *Our social responsibilities to our local and regional communities while balancing the needs of our community and our operators.”*

Master Plan Process

Consultant Team

Westchester County appointed a team of experienced consultants led by DY Consultants to prepare the Airport Master Plan Update. The team includes the following firms:

Table II: Team of Consultants	
Firm	Area of Expertise
DY Consultants	Aviation Consulting including Engineering, Planning and Environmental Services
VHB Engineering, Surveying And Landscape Architecture, P.C.	Environmental Management/Wetlands Delineation, Aviation Forecast
LiRo Engineers, Inc	Storm Water Management
Frasca & Associates, LLC.	Financial Planning
SimWright Inc.	GIS Data Collection and Management, FAA AGIS Portal
Dolph Rotfeld Engineering, P.C	Civil Engineering
Roy D. McQueen and Associates, LTD	Pavement Engineering, Technology, Testing, and Research

Solicitation of Stakeholder Input

The involvement of stakeholders and consideration of their concerns and feedback throughout the master planning process was an important element of preparation of the new Master Plan Update. A public involvement program was launched at the outset of the study with the purpose of encouraging discussion with the general public and airport stakeholders to identify mutually agreeable improvements for the Airport.

Master Plan Phases and Report

The Airport Master Plan Update process follows the guidelines established by the Federal Aviation Administration (FAA). The Master Plan Update Report includes the following chapters, each of them related to a phase of the study:

Chapter 1 Inventory and Description of Existing Conditions

This chapter describes the current state of facilities and operations at the airport as a baseline for future development. Information that has been collected includes airport history, historical operations data, physical facilities, regional setting, surrounding land uses, environmental setting, and local socioeconomic and demographic data.

Chapter 2 Environmental Overview

This chapter provides the environmental setting of the Airport by using FAA and New York State Environmental Quality Review Act (SEQRA) guidance. The findings will be used to evaluate the potential environmental impacts of development alternatives as part of the master planning process.

Chapter 3 Aviation Forecast

This chapter presents the forecast of future aviation demand at the Airport for a 5, 10, and 20 year outlook. The FAA recommends maintaining flexibility in the forecast by including multiple demand scenarios in each planning horizon.

Chapter 4 Demand Capacity Analysis and Facility Requirements

This chapter assesses the ability of the existing airport facilities to accommodate projected demand. By comparing the demand for future facilities with existing facilities, it is possible to identify future projects that may be considered in the Master Plan Update and their approximate timing. Facility requirements are the basis for the development of alternatives. Circumstances requiring new or expanded facilities include, but are not limited to⁸:

- Capacity shortfalls
- Enhanced Transportation Security Administration (TSA) requirements
- Updated regulatory standards to eliminate existing modifications to standards
- Changes to the airport sponsor's strategic vision for the Airport
- The outdated condition, arrangement, or functionality of existing facilities

Chapter 5 Alternatives Development and Evaluation

This chapter provides alternatives for meeting the facility requirements identified in Chapter 4. The strategic vision of the airport sponsor is essential in guiding an organized approach to identifying alternatives. Following the development of alternatives, this chapter utilizes an iterative method to evaluate the broad range of alternatives in order to identify and recommend a preferred alternative. The preferred alternative is described in detail, and includes a preliminary analysis of potential impacts from an environmental and storm water and drainage perspective.

⁸ FAA, AC 150/5070-6B, Airport Master Plans, FAA, May 1, 2007

Chapter 6 Airport Layout Plan Drawing Set Description

The purpose of this chapter is to describe in details the contents of each drawing included in the ALP set. An ALP creates a blueprint for airport development and typically depicts the existing airport facilities and proposed facility improvements. An approved ALP is necessary for the airport to receive federal financial assistance and to be able to collect Passenger Facility Charges (PFC).

Chapter 7 Facilities Implementation Plan

This chapter provides an implementation plan for the findings and recommendations of the planning effort in a financially feasible manner. A capital improvement plan (CIP) reflects all development projects associated with the preferred alternative in terms of schedule, scope, and costs. The chapter also includes a plan for phasing the individual projects that are necessary to implement the preferred alternative.

Chapter 8 Sustainability Baseline Assessment and Sustainability Initiatives

This chapter provides an overview of existing sustainability performance at the Airport and outlines a sustainability vision statement which serves as the basis for the development of measurable objectives to improve the Airport's sustainability performance. The results of the sustainability basement assessment were utilized to develop a sustainability program for the Airport that identifies specific initiatives that can be implemented to achieve the Airport's vision and objectives in this area.

Chapter 9 Public Involvement Program

The purpose of this chapter is to give an overview of the various forms of public engagement that were utilized throughout the master planning process, the types of groups that were engaged, and the subject matter that was discussed. The public involvement efforts included meetings, workshops, and questionnaires designed to provide information on the study process as well as to answer questions and solicit input from stakeholders and the general public.

Appendices

The appendices provide supplementary information in support of the analyses conducted for the Master Plan Update. In addition to presenting technical analyses, the appendices also provide documentation of the public involvement program utilized throughout the master planning process.

Addendum 1

The purpose of this Addendum is to provide a response to comments received from the general public during the public hearing and public comment period in July and August 2017.

Addendum 2

The purpose of this Addendum is to provide the results of the Pavement Management Study submitted by DY Consultants and Roy D. McQueen & Associates, Ltd. (RDM) in April 2014. The objective of the study was to evaluate the functional condition of existing airfield pavements, and identify both short-term and long-term maintenance for airfield pavements. The pavement inspection was conducted in April 2013.