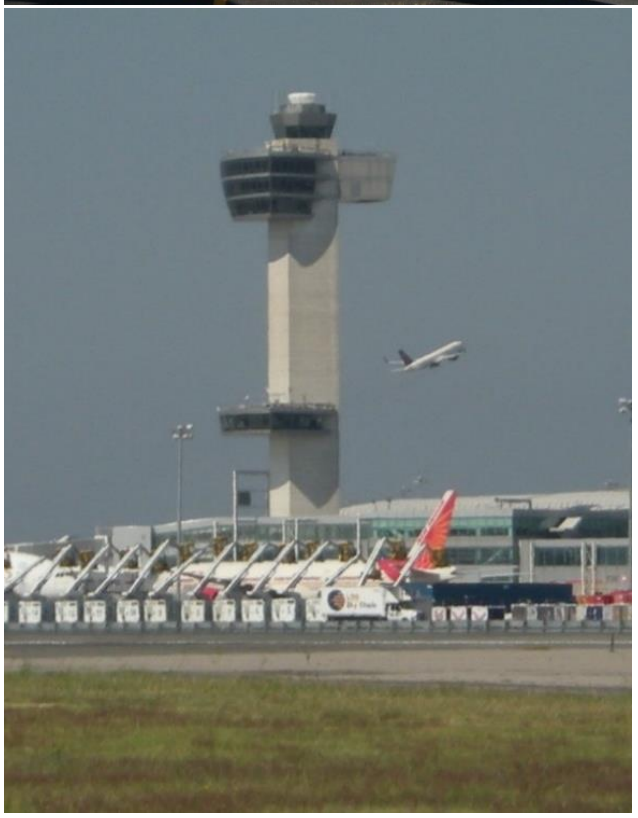

# New York
# State Airport System Plan
# 2018

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

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# New York
# State Airport System Plan
# 2018

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# Acronyms and Abbreviations

| Acronym Abbreviation | Reference |
|---|---|
| AC | Advisory Circular |
| ATCT | Air Traffic Control Tower |
| ARFF | Aircraft Rescue and Fire Fighting |
| ACRP | Airport Cooperative Research Program |
| AFD | Airport Facilities Directory |
| AIP | Airport Improvement Program |
| ALP | Airport Layout Plan |
| ARC | Airport Reference Code |
| ASPU | Airport System Plan Update |
| RNAV | Area Navigation |
| ASOS | Automated Surface Observing System |
| AWOS | Automated Weather Observing System |
| CWO | Contract Weather Observer |
| DOD | Department of Defense |
| DOT | Department of Transportation |
| FAA | Federal Aviation Administration |
| FBO | Fixed Base Operator |
| GA | General Aviation |
| GIS | Geographical Information Systems |
| GPS | Global Positioning System |
| IFR | Instrument Flight Rules |
| ILS | Instrument Landing System |
| LAWRS | Limited Aviation Weather Reporting Stations |
| LPV | Localizer Performance w/ Vertical Guidance |
| NPIAS | National Plan of Integrated Airport Systems |
| NAVAIDS | Navigational Aids |
| NYSDOT | New York State Department of Transportation |
| NextGen | Next Generation |
| PFC | Passenger Facility Charges |
| RPZ | Runway Protection Zone |
| RSA | Runway Safety Area |
| SRE | Snow Removal Equipment |
| SGHAT | Solar Glare Hazard Analysis Tool |
| SASP | State Airport System Plan |
| SAF | Study Advisory Forum |
| TAF | Terminal Area Forecast |
| VOR | Very High Frequency Omni-directional Range |
| VALE | Voluntary Airport Low Emission |
| VFR | Visual Flight Rules |
| VGSI | Visual Glide Slope Indicator |
| WAAS | Wide Area Augmentation System |

Source: Louis Berger

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# New York State Airport System Plan 2018

## Overview – 2018 State Airport System Plan

## A. Background and Purpose of Study

As an integral part of the transportation system, airports in New York State play a critical role in regional economic competitiveness and globally. This role is complemented by the surface modes – roads, railroads, waterways – which ensure safe travels from origin to destination. The airport system in New York is one of the largest in the nation, handling over 100 million passengers per year, according to Federal Aviation Administration (FAA) statistics. Its economic impact is significant and continues to increase. In this context, it is important to understand the system and its needs to formulate planning strategies to maintain and improve the system maximizing available resources.

In accordance with FAA recommendations, the New York State Department of Transportation (NYSDOT) conducted this study in the form of a State Airport System Plan (SASP) to inform future planning activities.

The main purpose of the SASP is to evaluate the current condition of the New York State airport system, determine roles of the state's airports and evaluate these facilities as an integral part of a comprehensive transportation system. Based on this information, NYSDOT and other stakeholders can determine the type, extent, location, timing, and cost of airport improvements needed in New York to establish and maintain a viable, safe, efficient, and effective system of airports.

This approach conforms to the FAA definitions for system planning, as follows:

> The primary purpose of airport system planning is to study the performance and interaction of an entire aviation system to understand the interrelationship of the member airports. (FAA AC 150/5070-7, The Airport System Planning Process, p. 1)
>
> Airport system planning documents the public-use airports (including heliports, seaplane bases, and spaceports) and related facilities that are necessary to meet the current and future air transportation needs of a metropolitan, state, or multi-state area. It provides guidance on how to maximize the system benefits of airport investments and how to align Federal priorities with state and local objectives. (Ibid, p. 2)

Findings from this study can serve as a guide to NYSDOT and the FAA in making informed decisions regarding local airport improvement proposals to consider for review and support.

## B. System Planning Considerations

As the aviation industry changes, along with economic, and practical considerations, planners must ensure that any airport system plan continues to be useful to analyze the system. Accordingly, the SASP should be viewed as a 'living document' subject to ongoing revisions and updates to reflect the latest conditions and planning approaches. The SASP emphasis is to develop a framework foundation for the continued strategic planning, public investment, and

future improvement of public-use airports operating within New York State's varied multimodal transportation system.

A key consideration taken during the development of this plan is the need for input from key stakeholders. The SASP development process included participation and input from state and federal aviation officials, as well as stakeholders from the aviation industry and the public. A Study Advisory Forum (SAF) was convened early in the process to elicit ideas and to review drafts of early reports. The product of this effort, the SASP, will hopefully lead to a better understanding of airport roles and infrastructure investment needs throughout New York's public-use airport system.

Specifically, the strategic approach that was used to conduct the SASP incorporated the following considerations:

- Utilizing proven methods consistent with FAA Advisory Circular No. 150/5070-7, *The Airport System Planning Process*, dated November 10, 2004 and as subsequently amended (if any);
- Establishing future goals for the system;
- Leveraging critical insights, experience and goals from key project stakeholders that can be effectively accessed through use of a Study Advisory Forum;
- Developing a process that is consistent with other established New York statewide plans;
- Establishing performance measures for system evaluation;
- Considering the implications of new technology;
- Benchmarking the adequacy of the current airport system;
- Analyzing recent changes in the National Plan of Integrated Airport Systems (NPIAS), including the current FAA classification review of GA airports;
- Assessing needs related to economic development, air service, air cargo, and multimodal accessibility;
- Determining high-level financial requirements of the airport system and prioritization of future system development;
- Providing an implementation plan to ensure adoption and action as a result of the plan;
- Serving as a dynamic tool to facilitate asset management activities; and
- Providing a method for continuous evaluation of the airport system needs and available resources to meet these needs.

## C. Project Goals

The development of the SASP was based on the following study project goals:

- Identify the airport system that is essential to meet the future commercial service and GA growth;
- Ensure that each airport is appropriately evaluated for inclusion in the FAA NPIAS Category-Role "classification system" and that available information for each airport accurately represents the full assessment its aviation role(s) in the state system of airports;
- Present an overview of the infrastructure cost essential to sustain and improve the system;
- Create performance standards to monitor the system;
- Identify the GA airports that are essential to a vibrant regional transportation system;
- Highlight the significance of general aviation in the economic development of New York; and
- Develop strategies that ensure an economically sustainable airport system.

The fundamental questions to be addressed in this study are:

- Is the existing system of airports sufficient to meet current and expected growth?
- Is the existing GA airport system capable of handling the future general aviation growth?
- Given the limitations of the FAA's Airport Improvement Program (AIP) and other public funding, can the aviation system be sustained and enhanced to meet future growth?

This study addresses and analyzes these issues through a thorough examination of New York's airport system including:

- Developing airport roles, transportation and economic assessments;
- Identifying critical issues;
- Anticipating evolution of GA in New York and surrounding states; and
- Identifying policies, strategies, and public investments that will be necessary to assure a wisely planned and managed GA system through 2026.

The results of this study will help public aviation officials make informed decisions regarding infrastructure investment and other planning priorities, as well as raise awareness of key issues facing the system of airports in the state so they may be logically addressed by public policy makers.

## D. Project Scope

The New York State Airport System Plan analyzes the roles and needs of all public-use airports in the State. For this study, the universe of airports includes all 131-active public-use aviation facilities, including 19-commercial service airports with scheduled airline passenger service, 101-general aviation airports, 5-heliports, and 6-seaplane bases. Private-use airports are not considered in this study since they are not open to the public, except on an emergency basis.

Publicly-owned, but restricted facilities, including military facilities and other government-use-only facilities, are also not included.

The SASP includes specific and general aviation-based goals for the NYSDOT and the state airport system. These goals provide an overview of both NYSDOT's current planning needs and future planning ambitions. The SASP development effort is the ideal platform for reviewing, organizing, and prioritizing those various planning goals. As such, this SASP has been designed to account for these various planning needs such that even if specific planning elements cannot be entirely addressed within this SASP, this planning effort will make efforts to help facilitate them in the future (i.e. through data collection, coordination, etc.). Those elements discussed include the following:

- State Airport System Plan (2008).
- State Airport Economic Impacts Study (2010).
- NYSDOT Airport System Manager (ASM) statewide inventory database.
- Transportation Strategies for a New Age: New York's Transportation Plan for 2030 (long-range comprehensive statewide master plan for transportation).

## E. Summary – Overview

This introduction to the New York SASP presents a summary of the background, purpose and approach of this study as well as project goals. The overview provides a high-level summary of the approach used to analyze the airport system, determine system needs, and to develop and present potential strategies to address these needs. The report consists of the following chapters:

- **Chapter 1 – Vision, Goals, and Performance Measures** presents the underlying guidance and evaluation criteria used in developing the 2018 SASP.
- **Chapter 2 – Airport System Key Issues and Opportunities** identifies national, regional, and state-level developments and considerations facing the aviation industry and airport owners and managers in the state.
- **Chapter 3 – System Inventory** presents the core activity task of the 2018 SASP study. This effort resulted in the development of an up-to-date understanding of the broad spectrum of aviation facilities that constitute the public-use airport system in the state.
- **Chapter 4 – Airport Role and Classification Analysis** describes the methodology utilized in this SASP study to define the distinct and diverse categories of all public-use aviation facilities New York. This state classification system of airports was found to be compatible with the FAA's NPIAS Category – Role classification system, while providing a refined state perspective needed by system planners.
- **Chapter 5 – Forecast of Aviation Demand** describes the recent and anticipated aviation activity of public-use airports in New York.
- **Chapter 6 – System Adequacy** provides an examination of the individual facilities that provide the most tangible contributions to the state airport system. The characteristics of each airport was evaluated and compared to the commensurate performance measures described in Chapter 1.

- **Chapter 7 – Capital Investment** is a historical review of federal and state capital improvement funding to public-use airports in New York. Historical averages and trends were applied to determine estimated capital needs of the airport system for the study's 10-year planning period 2017 – 2026.
- **Chapter 8 – Policy and Implementation Considerations** presents the SASP study-based findings based on the evaluation of the system and its needs. This chapter suggests potential strategies for stakeholders to consider as they develop long-term plans and analyze capital and operational improvement needs of the public-use airport system in the state.

# New York State Airport System Plan 2018

## Chapter 1: Vision, Goals, and Performance Measures

## 1.1 Introduction – Vision, Goals, and Performance Measures

This chapter provides a baseline for evaluating the state's public-use airport system. The Federal Aviation Administration (FAA) defines public-use airports as those that are available for aviation use by the public without a requirement for prior approval of the airport owner of operator. In practical terms, a qualified pilot operating may land at, or take-off from, a public-use airport with an aircraft suitable for the airport without prior permission of the airport owner or manager.

The development of a common vision, goals and Performance Measures are critical first steps in the system planning process. The primary goal of the State Airport System Plan is to capture an appropriate level of data that will enable New York State Department of Transportation (NYSDOT) to make informed decisions related to planning, developing, and improving the state airport system. To reach this goal, project stakeholders established a long-term vision for the New York public-use airport system. Once that system vision was established, specific and individual system goals were identified that will ultimately help guide and direct the state's airport system progress towards its established vision. NYSDOT's vision and mission statement are stated are identified below.

***Mission Statement:***
*"It is the mission of the New York State Department of Transportation to ensure our customers – those who live, work and travel in New York State – have a safe, efficient, balanced and environmentally sound transportation system."*

***Vision:***
*"It is the vision of the New York State Department of Transportation to promote a system of airports which allows for seamless transportation of people and goods in a safe, environmentally, and fiscally responsible manner. New York State airports provide the level of service which makes their role transparent to the traveler, shipper, and all users of the system."*

## 1.2 System Goals

System goals developed for this state airport system plan serve as guiding principles toward developing an efficient and effective system of public-use airports throughout the state. These system goals have been developed to consider the airport system as a vital contributor to the state's comprehensive transportation system and as a supporting portal for local and state economic activity.

New York State's public-use airport system goals established to evaluate and analyze overall system performance are:

- New York will be served by a system of airports that is safe, efficient, and meets applicable FAA design standards.

- New York will be served by a system of airports whose roles are sufficient to meet the current and projected aviation demand within the natural, social, and economic environment.
- New York will be served by a system of airports whose roles and functions are compatible within their communities and the National Plan of Integrated Airport System (NPIAS).
- New York will be served by a system of airports whose infrastructure needs are understood such that projects to sustain and improve the system can be analyzed when developing policies and programs.
- New York will be served by a system of airports that adopts strategies to maintain financial self-sufficiency while contributing to the economic well-being of the state and the local economy.

## 1.3 System Objectives

Performance measures identified in this chapter were used in this plan to determine how individual facilities within the existing system of public-use airports are currently performing. By identifying relevant system objectives and their associated performance measure benchmarks for individual facilities, an overall assessment of the adequacies and deficiencies of New York's public-use airport system was made.

The system objectives selected for this study represent core criteria of the nation's airport/aviation system industry. The New York public-use airport system core objective areas are:

- General Airside Infrastructure
- NAVAIDS (Navigational Aids)
- FAA Design Standards
- Economic
- Environmental
- Security
- Facility Services
- Capacity

### 1.3.1 General Airside Infrastructure

It is vital for New York State system airports to maintain certain infrastructure objectives to maintain their role in the system. The specific airside infrastructure required at each airport depend on its role within the system, with more extensive aircraft facilities and services typically needed at airports that serve larger, more sophisticated aircraft. It is important to note that facility objectives are merely objectives and serve as a minimum or baseline target for airports to strive to serve their role in the New York State public-use airport system.

### 1.3.2 NAVAIDS

Navigational aids (NAVAIDS) are vital to aircraft operational safety and an airport's accessibility (by aircraft) under various operating conditions and weather.

### 1.3.3 FAA Design Standards

One of the most important characteristics of a good airport system is the system's ability to meet applicable airport design and safety standards. Design and safety standards are primarily established by the FAA through a wide variety of advisory circulars, orders, and other directives. While these standards are directly applicable to only those airports included in the NPIAS, the FAA'S safety and design standards are generally accepted as the industry 'norm' since they are primarily based on extensive industry research and analysis that is reasonably applicable to all airports. Discussion relating to NPIAS is presented in ***Chapter 4*** of this report.

### 1.3.4 Economic

New York State airports play a key role in supporting, promoting, and adding tangible value to the economy. Aviation provides the only worldwide transportation network, which makes it essential for global business and tourism. As such, airports play a vital role in facilitating regional economic growth and sustainability. The New York airport system has a substantial economic impact both through its own activities as well as a facilitator of other industries. The contributions include direct, indirect, and induced impacts.

The presence of airports is an indisputable asset to economic growth and diversification. In addition to adequate airport facilities, market areas that airports serve must possess other characteristics that make them candidates for the attraction and retention of various economic development activities. *New York State, Economic Impacts of Aviation* provides additional information relating to the value of the state's airports.

### 1.3.5 Environmental

It is critical for airports in New York State be compatible with both the human and natural environment. For airports, working towards a baseline of environmental stewardship ultimately helps to maintain their long-term viability.

### 1.3.6 Security

The overall airport system and aircraft security is a core focus of the FAA and State of New York intended to provide the safest, most efficient and secure aerospace system to users at the federal, state, and local levels.

### 1.3.7 Facility Services

Aircraft facilities and services provided by individual airports contribute to the vitality of the overall public-use airport system in the state. Desired services at a given airport depend on its respective role within the system, with more extensive facilities and services typically needed at airports that serve larger, more sophisticated aircraft.

The facility and service objectives serve as a minimum or baseline target for airports to strive to meet to fully serve their role in the New York State Airport System. This means that, at

minimum, airports should be encouraged to meet those facility and service objectives established for that individual category. Those airports should also not be limited by those objectives in that airports always have the discretion to exceed those objectives, as required.

### 1.3.8 Capacity

For the purposes of the SASP study, available aircraft storage capacity is an important performance measure for evaluating the economic sustainability of the airport, as well as the ability of the respective facility to contribute aviation services to the airport system In New York.

## 1.4 Airport Performance Measure Benchmarks

Utilizing the aviation industry-based system objectives, this study's benchmarking process involving the Study Advisory Forum identified criteria measures necessary or desirable to move the New York airport system to its established vision and goals. This study's key performance measure benchmarks for individual aviation facilities are summarized in **Table 1-1: Airport Performance Benchmark Elements**. Recommended baseline (minimum facility and service) performance measures utilized in this plan development are detailed in ***Appendix A: Performance Goals and Measures***.

## 1.5 Summary – Vision, Goals, and Performance Measures

The performance goals and measures identified in this chapter will provide the basis of evaluation for all subsequent tasks, serving as the plan's foundation. ***Chapter 6 – System Adequacy*** summarizes the results of the application of these performance criteria to the public-use airport system in New York State and helps understand the system's basic strengths and weaknesses.

**Table 1-1: Airport Performance Benchmark Elements**

| Benchmark | |
|---|---|
| **General Airside Infrastructure** | |
| Airport Reference Code (ARC) | Runway Pavement Condition |
| Primary Runway Length | Taxiway Pavement Condition |
| Primary Runway Width | |
| **NAVAIDs** | |
| Localizer Performance w/ Vertical Guidance (LPV) | Weather Reporting Equipment |
| Localizer Performance (LP) | Visual Glide Slope Indicator (VGSI) |
| Runway Approaches | Precision Instrument Lighting System |
| VHF Omnidirectional Range (VOR) | |
| **FAA Design Standards** | |
| Runway/ Taxiway Separation | Control of Runway Protection Zone (RPZ) |
| Runway Safety Area (RSA) | Unobstructed Approaches (Part 77 Category) |
| Maintain updated ALP | |
| **Economic** | |
| Airport Annual Revenue | Cease of Business in Past 5 years |
| New Business Operating in past 5 years | Airport Capital Improvement Plan (ACIP) |
| **Environmental** | |
| Emergency Response Plan | Local / State Comprehensive Plan |
| Storm Water Pollution Plan | Wildlife Management Plan |
| Vegetation Management Plan | Recycling Plan |
| Comprehensive Solid Waste Plan | |
| **Security** | |
| Security Plan | Security Fencing |
| **Facility Services** | |
| Air Traffic Control Tower | Terminal/ Administration Building |
| Fixed Base Operator (FBO) | Snow Removal Equipment (SRE) |
| Fuel | Aircraft Rescue and Fire Fighting (ARFF) |
| Aircraft Maintenance | |
| **Storage Capacity** | |
| Based Aircraft Hangar Storage | Hangar Waiting List |
| Conventional Aircraft Hangar Storage | |

# New York State Airport System Plan 2018

## Chapter 2: Airport System Key Issues and Opportunities

## 2.1 Introduction

Key issues that affect the public-use airport system vary among national, state, regional, and local concerns and have resultant effects upon public-use airports in a variety of ways. Identification and anticipation of critical and noteworthy issues will contribute to sustaining or strengthening the statewide system of airports

There are several issues known to currently affect the New York State Airport System. This chapter identifies the following key issues that are likely to have notable effects on the public-use airport system in New York:

1. Federal Budget Impacts on Air Traffic Control Towers
2. Capital Funding Needs
3. Wildlife Hazards
4. Airport Revenue – Fuel Sales Tax
5. Land Use Compatibility
6. Local Property Taxes on Smaller Airports
7. Contract Weather Observation Stations
8. Emerging Technologies
9. Sustainable Energy Solutions: Solar Energy Panels

## 2.2 Airport Revenue – Fuel Sales Tax

*Policy and Procedures Concerning the Use of Airport Revenues* is a notice published by the Federal Aviation Administration (FAA) in February of 1999 that requires the owner or operator of any airport receiving federal financial assistance to use airport revenues only for purposes related to the airport. This federal regulation specifies that all revenue, (i.e.; lease income, landing fees, aviation fuel taxes and flowage fees, etc.) accruing to the airport sponsor as a direct result of aviation activity, be directed back into the operation, maintenance and improvement of the airport infrastructure.

The FAA recently amended the policy and published *Proceeds from Taxes on Aviation Fuel* in November 2014 due to '*perceived ambiguity in the regulations*'. This uncertainty most often applies to the sales taxes levied on aviation fuel. The amendment clarified this regulation and required airport sponsors to prepare an action plan regarding the use of their aviation fuel tax revenue by December 2015, and comply with the policy amendment by December 2017. New York State currently receives approximately $8 million in revenue annually from aviation fuel tax.

Numerous types of taxes apply to jet fuel. There's currently a federal jet fuel excise tax applied nationwide. This tax ranges from $0.219 for general aviation and $0.044, for commercial aviation. Additionally, there are state and/or local jet fuel taxes, which vary. In New York State, the effective

rate is currently at $0.07101[2]. New York only taxes fuel estimated to be burned within the state. This is referred to as burn-rate adjustment; the practice significantly reduces the burden of aviation fuel taxes on consumers.

Many states and municipalities maintain compliance with the revenue law by creating a dedicated airport account within their financial accounting system. The account is maintained separately from the general accounts of the state or airport sponsor. This allows independent tracking of all airport related revenues and expenses. New York State implemented its dedicated *aviation purposes account* in 2017 to help ensure airport revenues are expended only on aviation-related expenses. This NYS dedicated fund also provides indication that the various airports within the State of New York's system are meeting the state's and FAA's goals of being as financially self-sustainable as possible.

## 2.3 Capital Funding Needs

Capital funding is a critical issue for many airports as the capital projects required to properly maintain an airport's compliance with FAA's safety regulations can be costly. Fortunately, many public-use airports are eligible for Federal Airport Improvement Program (AIP) funding, along with state grant programs, and local contributions. However, other general aviation (GA) airports in the state that are not eligible for FAA funds must fund their infrastructure repairs and improvements primarily from airport revenues and, to a lesser degree, from the competitive $200 million 5-year New York State Aviation Capital Grant Program. Federal and state funds may not be used for airport operating expenses.

### 2.3.1 AIP Funding

Under the *Airport and Airways Improvement Act*, the Secretary of Transportation is required to develop a national plan for the development of public-use airports. The plan is published as the National Plan of Integrated Airport Systems (NPIAS), which currently identifies public-use airports that are necessary for the safe and efficient operation of a national air transportation system. The 2017-2021 report identified over 3,300 airports nationwide with 87 of those in the State of New York.

An airport's inclusion in the NPIAS is an eligibility prerequisite to receive federal funds from the FAA Airport Improvement Program (AIP). The AIP is a federal grant program that represents a major source of capital funding for airport planning and development. Federal funding of grants for capital improvement projects at eligible public-use airports are based on project priority and the airport's role in the NPIAS.

The AIP provides grant funding through three sources: Entitlements, Discretionary, and State Apportionment. Generally, Entitlement funds for public-use airports with scheduled passenger service (i.e. Passenger Entitlement) that have at minimum 10,000 annual

[2] According to NASAO State Aviation Funding and Organizational Data Report 2015.

enplanements receive $1,000,000 in federal entitlement money yearly. If this threshold is not met, the airport receives $150,000. These grants currently cover approximately 90% of the cost of individual airport capital projects with equal state and local shares of 5% each contributed. Non-Primary Entitlements are based on the 5-year development shown in the FAA's National Plan of Integrated Airport Systems.

After Entitlement funds are appropriated amongst eligible NPIAS airports, remaining monies collected are distributed by the FAA to a Discretionary fund. The first priorities of the discretionary fund are for work the FAA refers to as 'set-aside projects' which are high priority airport noise and Military Airport Program projects. Next, the FAA distributes Discretionary funds for capital improvements based on priority, with projects relating to safety, security, reconstruction, capacity and standards being the highest importance.

State apportionment is a source of funding provided by the FAA for use on airport development projects at non-primary commercial service, general aviation, and reliever airports. These limited annual program amounts are calculated based on each state's total land area and population.

Further discussion and analysis of the federal AIP in New York State is presented in ***Chapter 7: Capital Investment Needs Assessment*** of this SASP report.

### 2.3.2 State Aviation Capital Grant Program

In addition to state appropriations on federal AIP grants (match program), the New York State Department of Transportation (NYSDOT) currently administers a state-sponsored 5-year $200 million capital grant program available to the public-use airports of New York State. According to the Department, '*The goal of this investment program is to help airports stay competitive and provide safe and efficient air services to the state's residents, businesses, and visitors.*'

To be eligible for these state grant funds, under current requirements, an airport must be public-use, listed in the most current State Airport System Plan, have a current Airport Layout Plan (ALP) approved by FAA and NYSDOT, have a current GA Security registration, be registered in the NYS Grants Gateway portal and not be owned or managed by a bi-state authority. Additional information related to this program is available through the NYSDOT.

Further discussion and analysis of the State Aviation Grant Program is presented in ***Chapter 7*** of this report.

## 2.4 Land Use Compatibility

Public-use airports are in varying community settings, however, the commercial service and general aviation (GA) airports that this study focuses on are mostly located in well-settled communities. Space and land use compatibility are familiar challenges for these GA airports. Compatible land use is required as a condition for federally funded facilities intended to protect

the public investment, as specified in FAA's Order 5190.6B, *FAA Airport Compliance Manual*. Successfully ensuring land use compatibility around airports requires proper planning, coordination and communication with stakeholders, (FAA, State DOT, local government, community development organizations, environmental-related groups, and others) to comply with FAA and to establish state and local ordinances that are realistic, protect stakeholder interest and provide the highest level of public safety.

Land use compatibility around airports can be achieved in a variety of ways, depending upon the needs and situation of each airport. Key elements for accomplishing land use compatibility are briefly discussed here.

### 2.4.1 Protecting Airspace at the Local Level

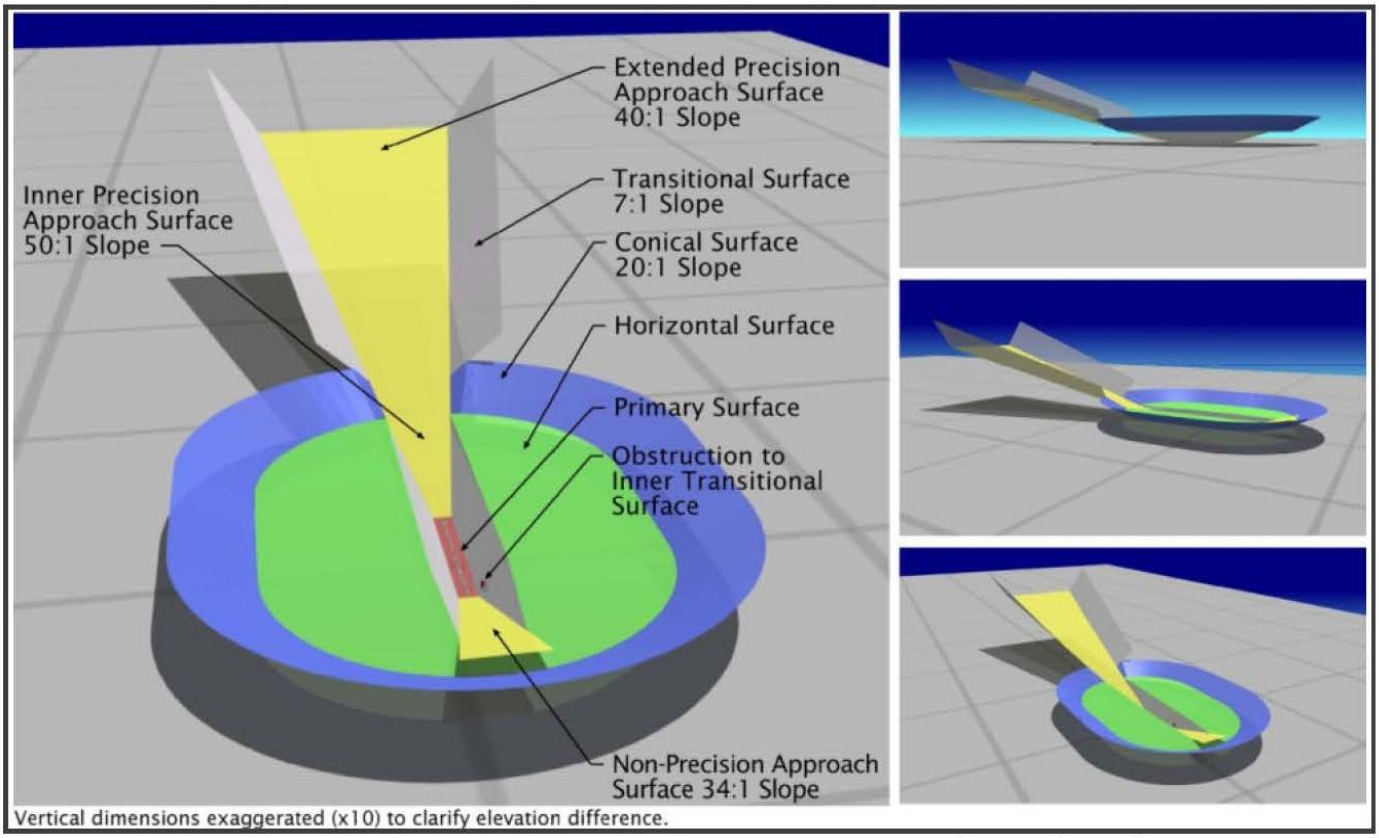
The controlling federal guidance for protecting airspace is **Title 14 Code of Federal Regulations (CFR), Part 77**[3] – *Safe, Efficient Use, and Preservation of the Navigable Airspace* which states that the FAA must be notified (via FAA Form 7460-1, *Noticed of Proposed Construction or Alteration*) prior to the alteration of an existing structure (both man-made and natural) or proposed construction of objects. This regulation applies to all projects on public-use airport property or within an airport's airspace, as well as to adjacent land developments.

The purpose of restricting the height of structures and protecting this air space is to ensure the safe flight path of arriving and departing aircraft while also ensuring the safety of all individuals on the ground. Specific examples of structures that can create aeronautical hazards include buildings, parking garages, cell phone towers, street and exterior property lights, wind turbines, solar panels, construction cranes, and natural features such as trees, hills and mountains. The airport sponsor is responsible to file Form 7460-1 with FAA in a timely manner.

14 CFR Part 77 regulates and protects the airspace within the vicinity of public-use airports. **Figure 2-1** illustrates this protected airspace that include a combination of horizontal and vertical offsets from the runway environment as well as the approach paths of the thresholds of each runway.

[3] www.ecfr.gov/cgi-bin/text-idx?rgn=div5&node=14:2.0.1.2.9

**Figure 2-1: 14 CFR Part 77 Imaginary Surfaces**




Source: http://www.san.org

### 2.4.2 Land Uses Compatible with Aviation and Zoning Ordinances

Land uses that are least compatible with airports result in the congregation of people, attraction of wildlife, the emission of smoke and light, in addition to land uses that contain structures (both man-made and natural) that penetrate protected airspace. If these uses are in the wrong location such as the approach end of a runway, any of them could pose a substantial threat to aircraft, people, and safe airport operations. The limitation of common hazard-generating land uses can help ensure the safety of those in the air as well as on the ground.

Coordination with stakeholders and the implementation of practical zoning regulations prove effective in ensuring compatible land uses near airports. Many states, municipalities and localities have developed airport zoning ordinances to maximize land use compatibility near airports.

The state constitution establishes New York as a Municipal Home Rule Law state. By law and practice, land use policy, zoning, and regulatory control is held at the municipal level (i.e. county, city, town and village)[4]. FAA Advisory Circular AC 150/5190-4A, *A Model Zoning*

[4] New York State, Division of Local Government Services, *Adopting Local Laws in New York State*, Published May 1998.

*Ordinance to Limit Height of Objects around Airports* provides a detailed template for creating airport land use zoning ordinances. FAA recommends the use of this guide when developing land use zoning ordinances near airports.

Airports should also be proactive and good neighbors with their surrounding communities and encourage jurisdictions to enact regulations that protect airports and their airspace. Implementing land use zoning regulations facilitates compliance with FAA's compatibility requirements for developments near protected airspace. FAA encourages the development of local zoning ordinances. According to the *Land Use Compatibility and Airports* guide published by FAA, '…*zoning can be an effective tool to help eliminate or reduce land uses that are not compatible with airports*.' A summation of the Land Use Compatibility and Airports guide's key elements to include when considering the development of zoning ordinances is provided below.

- Prohibit the construction of any structure that allows the congregation of people within the runway safety area and other protected airspace. This includes schools, stores, churches, parking garages, residential homes, theaters, stadiums, etc. This protective measure is not only to safeguard people from potentially being struck by aircraft but also to avoid both air and noise pollution. There are two types of areas to protect for:
  - Runway Safety Areas (RSA), Runway Protection Zones (RPZ), and Runway Object Free Areas (ROFA):

    These areas are primarily two-dimensional in nature and are mostly affected with construction directly adjacent to airport property and near runways. The main purpose of these defined areas is to reduce hazards to humans at ground level.
  - Approach and Departure Surfaces:

    These areas are three-dimensional trapezoidal surfaces extending outwards along the extended runway centerline on an inclined plane. This area is protected to allow the safe passage of aircraft.
- Prevent any facilities from creating an attractant for birds and other wildlife. Removing known food sources, committing to mowing schedules that are proven to reduce birds as well as the removal of or adjusting attractive perching sites on airport property are known to reduce wildlife risks on airports. This topic is further discussed later in this chapter and Advisory Circular (AC) 150/5200-33B, *Hazardous Wildlife Attractants on or Near Airports* provides additional guidance.
- Prohibit any sanitary landfills within 6-miles of any federally obligated, public-use airport. AC 150/5200-33B mentioned above provides additional guidance on the placement of landfills in relation to airports.
- Prohibit land uses that would result in flammable, explosive or hazardous materials within the arrival or departure paths of aircraft.
- Prohibit land uses which result in the emission of smoke, glint or glare that could negatively affect a pilot's vision during landing or take-off.
- Prohibit land uses that could create unshielded electro-magnetic or high energy emissions that could interfere with either ground based or airborne electronics used for the control and/or navigation of aircraft.

### 2.4.3 Navigation Easements

The use of navigation easements (the aviation industry typically refers to these as avigation easements) is ideal when seeking control of an adjacent property's potentially negative impact on the airport or its operations. Navigation easements are used to give airports the right to achieve compatible land use goals by providing control of the airport's airspace above a non-airport owned property. Navigation easements are commonly granted to public-use airports because the airport benefits the general public. The FAA recommends that these legally enforceable documents be prepared by legal counsel to ensure the easement is sufficient to provide the intended property rights. Unless agreed to otherwise, a navigation easement is tied to the land, meaning it is enforceable with all succeeding property owners and provide the airport with the following rights:

- Right of flight at any altitude above acquired surfaces;
- Right to cause noise, vibrations, fumes, dust and fuel particles;
- Prevent construction or growth of all objects above acquired surfaces;
- Right of entry to remove, mark or light any structures above acquired surfaces;
- Prohibit creation of electrical interference or directed lighting or glare from the property; and
- Other rights, as necessary.

Navigation easements are intended to minimize or eliminate the airport's liability for nuisance claims due to noise, fumes, vibrations, etc. as well as minimize or eliminate future penetrations to protected airspace. FAA recommends airports use its *Airport Improvement Program (AIP) Sponsor Guide* when considering implementation of a navigation easement. Section 561 of the document provides a sample navigation easement that is intended to be provided to legal counsel as a guide and starting point.

## 2.5 Federal Budget Impacts on Air Traffic Control Towers

Air traffic controller towers are an integral part of the national airspace system. Tower controllers clear aircraft to takeoff and land on the airport runways, as well as direct the movement of aircraft on the ground. Tower controllers are often the first to know of accidents and other emergencies which occur at or near the airport, and contact first responders when appropriate.

The United States federal budget sequestration in 2013 required automatic spending cuts to specific U.S. government programs as prescribed by the Budget Control Act of 2011. Under sequestration, FAA spending was reduced which led to policy decisions to eliminate hours of service at some Air Traffic Control Towers (ATCT) in New York. In general, several FAA-staffed control towers in upstate New York were slated for shorter hours of operation, thereby providing less radar coverage and navigational support to area pilots.


Ithaca-Tompkins Airport (ITH) Control Tower, Ithaca, NY
Source: www.flickr.com

FAA's sequestration implementation plan of 2013 also identified 149 air traffic control towers nationwide for closure. These control towers are staffed under the FAA *Contract Tower Program* which out-sources air traffic control services to private sector companies in lieu of being staffed by FAA personnel.

Two New York facilities were identified in this contract tower closure proposal: **Ithaca-Tompkins Regional** located near Ithaca and **Griffiss International** near Rome. The Ithaca-Tompkins Airport control tower was the only commercial service tower in New York State that was considered for defunding and closure.

Although Congressional appropriations averted implementation of FAA's proposed ATCT sequestration plan, prospects of closing "contract towers" in New York and other states remains a concern in the long-term.

Aside from continuing to advocate the steady continuation of the FAA-funded *Contract Tower Program,* some states and municipalities have developed contingency plans in the event the federal government reconsiders defunding contract towers in the future. These contingency plans range from:

- Contracting directly with private sector ATC service providers to maintain uninterrupted ATCT service;
- Hiring controllers as state or municipal airport employees and shouldering their long-term costs for payroll, benefits, and retirement; or
- Establishing remotely controlled ATC towers (in the relatively near future) which may have cost savings or extending service hours, particularly at lower activity airports. This emerging remote technology is discussed in ***Section 2.7.2. Remotely Controlled Air Traffic Control*** of this report.

## 2.6 Contract Weather Observers

Timely and accurate weather reporting is a significant component of a safe and efficient aviation system nationwide. Atmospheric and ground surface conditions are vital weather information needed by pilots enroute and on approach to airports. Most of weather reporting at the nation's airports is currently conducted by automated airport weather stations that are typically operated, maintained and controlled by the FAA or the National Weather Service. The most common installations are the Automated Weather Observing System (AWOS) and Automated Surface Observing System (ASOS). Automated weather observing systems are equipped with instrumentation to report accurate wind speed and direction, visibility, precipitation, cloud

coverage and ceiling, temperature and dew point, barometric pressure and altimeter setting, precipitation accumulation, icing, lightning, and more.

In the State of New York, 47 airports currently have automated weather stations which are illustrated in **Figure 3-6: Automated Weather Reporting Equipment**. Of these, 26 airports have ASOS constantly providing reports of surface conditions (i.e. Icing, Freezing Rain, Fog, Mist, Haze, etc.) for enhanced aircraft operational safety.

The FAA augments their ASOS systems with a staffing combination of Contract Weather Observers (CWO) or certified air traffic controllers, referred to as Limited Aviation Reporting Stations (LAWRS). Throughout the U.S. approximately 142 airports have CWO services while approximately 300 airports have LAWRS weather observation. Seven of these CWO staffed airports are in New York State.

The FAA's *Contract Weather Observer (CWO) Program, Transition Plan* published March 15, 2013 outlines the FAA's proposal of transitioning from dedicated CWO personnel to LAWRS certified air traffic controllers as a cost-saving initiative. Under LAWRS, certain air traffic controllers will be required to perform their traditional duties while also conducting manual weather observations currently conducted by CWO (who will be furloughed as part of this program). The *Transition Plan* identifies the seven New York airports slated to converted to the LAWRS program among the initial groups of airports identified. Those seven New York airports are:

- Long Island MacArthur
- Albany International
- Buffalo Niagara International
- Syracuse Hancock International
- Greater Rochester International
- LaGuardia
- John F Kennedy International

The regular CWO program continues to be funded through federal fiscal year 2018. The FAA has not announced any decision to initiate implementation any of the proposed transitions from CWO services to LAWRS. However, a reduction or termination of CWO services remains a concern in the long-term for airport operator, airlines, pilots, and other aviation stakeholders.

## 2.7 Emerging Technologies

We live in a fast-paced world with modern technologies emerging all the time. While not all aviation-related recent technologies can be discussed within the context of this study, three are particularly relevant to the New York State airport system.

### 2.7.1 Satellite-Based Instrument Approach Procedures

Instrument approach procedures enable pilots to maneuver aircraft to a pre-determined area or point near the runway without visual reference to the ground. If the pilot can establish visual contact with the runway environment at this pre-determined area or point, then the landing maneuver is completed visually. If the pilot cannot see the runway environment, a procedure called a "missed approach" is executed. After flying the missed approach, the pilot can either make another attempt to land utilizing the published instrument approach procedure, or divert to another airport having a more precise instrument approach procedure with lower minimums, or where the weather is better.

There are two broad categories of instrument approach procedures, precision and non-precision. A precision approach incorporates lateral and vertical guidance to the runway environment. Prior to the advent of GPS, precision approaches were controlled by radio equipment on the airport called the Instrument Landing System (ILS). With ILS, lateral guidance is provided by the "localizer" and vertical guidance is provided by the "glideslope". Non-precision approaches provide lateral guidance to the airport or runway without vertical guidance. Prior to GPS, many non-precision approaches were designed utilizing a NAVAID called a Very High Frequency Omni-directional Range (VOR). The FAA designed instrument approach procedures that provide guidance from the VOR to the airport or runway without vertical guidance. The published non-precision instrument approach procedure includes step-down altitudes which the pilot is authorized to descend to at some specific point in the procedure. There are other types of non-precision instrument approach procedures, but discussion of these procedures would not be relevant to this analysis.

The FAA development of the satellite-based Global Positioning System (GPS) as an aviation navigational aid was significantly enhanced with the implementation of the Wide Area Augmentation System (WAAS) in the early 2000s. The development WAAS-enabled GPS approach procedures for aircraft navigation is the central part of the FAA's Next Generation (NextGen) initiative designed to '*deliver performance based navigation through more direct routes, decongested skies, and increased efficiencies…*'

WAAS improves navigational system accuracy for certified aircraft enroute and for airport instrument approach procedures over all the continental United States and significant portions of Alaska, Canada and Mexico. WAAS enabled GPS provides for precision instrument approaches with the same accuracy as Category 1 ILS – 200' above the runway. These approaches are called **Localizer Performance with Vertical Guidance** (LPV). Because none of the electronic equipment is ground-based, the expense associated with the purchase, installation, certification, and maintenance of ground-based navigation equipment at the airport is eliminated.

In 2008, the FAA began designing and publishing non-precision instrument approach procedures that use WAAS for horizontal but not vertical guidance. Runway approaches with WAAS lateral guidance have informational quality similar to land-based Localizer accuracy and are referred to as **Localizer Performance** (LP) approaches. LP approach procedures are utilized along runway approaches where obstacles or airport infrastructure limitations

prevent the FAA from publishing a LPV vertically guided precision instrument approach. LP approach minimums for visibility and minimum descent altitude are designed for each respective runway environment and are generally higher than LPV minimums.

In April 2018, the FAA reported a total of 3,898 LPV approach procedures nationwide serving 1,897 airports with 1,135 of these airports being non-ILS airports. In addition, the FAA reported 652 LP approach procedures in the U.S. serving 491 airports. Within New York State, the FAA has 100 LPV approaches at 46 airports and 31 LP approaches at 21 airports.

In total, 54-airports in the state have at least one WAAS-enabled LPV or LP approach procedure. The WAAS-enabled NextGen procedures are certainly a benefit to the New York State airport system and present opportunity by improving accessibility to a greater number of airports. However, detailed aeronautical survey and geodetic control, as well as required infrastructure must be met to further expand the number of public-use airports with FAA designed WAAS-enabled GPS approach procedures. For LPV and/or LP procedures to be developed, the respective paved runway environment must meet FAA criteria similar to a conventional precision approach including, but not limited to: runway width and length (3,200 ft. min), runway lighting, approach lighting, precision markings, and an appropriate "parallel" taxiway at required separation standards. These prerequisite development standards often have substantial costs that remain a concern to airport owners and the state.

A notable consequence of the current broad implementation airports with WAAS-enabled GPS approach procedures is the resultant functional obsolescence of certain ground-based navigational systems. The FAA is underway with the strategic reduction of its nationwide VOR and Distance Measuring Equipment (DME). By 2020, the FAA plans to decommission roughly half of the 967 VOR stations in the US, thereby retaining a "Minimum Operational Network" to provide coverage to all aircraft more than 5,000 feet above the ground.

The FAA considers maintaining the once broad VOR/DME network inefficient and too costly, and therefore not sustainable. The remaining VORs will provide a legacy network for navigation in the event of a widespread satellite navigation outage. In addition to providing enroute navigation, the remaining VORs will create a network of “safe landing airports”, which are within 100 nautical miles of an airport with a VOR or ILS instrument approach procedure.

### 2.7.2 Remotely-Controlled Air Traffic Control

Another emerging technology relevant to states like New York is the possible deployment of remotely-controlled ATC systems within the United States in the coming years. Airports in Europe are fully operational and at least two U.S. airports have FAA testing new combinations of proven technology that allow certified controllers to remotely monitor air traffic and airport ground operations.

This technology incorporates many facets, including high resolution video cameras providing 360-degree live-views of the remote airfield. System components also include high-quality sound recordings, infrared capabilities (which supplements video images in rain, fog or snow),

and thermal sensors that allow a quicker identification people, vehicles, aircraft, and animals that may be within the airport.

Remotely-controlled ATC technology may be initially utilized in lower activity airports, where full-time, dedicated controllers aren't deemed necessary for safe aircraft operations. With this alternative, remotely-located controllers can safely monitor air traffic at two or more, lower activity airports. One anticipated result is that some currently staffed towers may be replaced by remotely-controlled ATC systems. Another possible result is that some un-towered airports might be enhanced by the installation of remotely-controlled ATC systems.

World's first remotely controlled ATCT at Ornskoldsvik Airport, Sweden. Source: Stefan Kalm at Saab AB.

### 2.7.3 Unmanned Aerial Systems

Although the emergence and introduction of Unmanned Aerial Systems (UAS) into the National Airspace has been a 'hot topic' and could potentially cause aviation safety concerns, it was determined at the time of this SASP update analysis to be more of a national issue, not a state or local issue. The subject was considered and discussed, however, will not be presented in this update to New York's State Airport System Plan. FAA Part 107 authorizes the civil use of UAS in the National Airspace System and FAA Notice 7210.891, *Unmanned Aircraft Operations in the National Airspace System* provides guidance relating to policies and procedures regarding the operation of various UAS vehicles and uses.

New York State has one of six nationally designated unmanned aerial systems test facilities selected by the FAA in December of 2013. The test sites were congressionally mandated as part of the FAA Modernization and Reform Act of 2012 to "integrate civil UAS into the national airspace" and will continue to operate until at least February 2017. The **Northeast UAS Airspace Integration Research Alliance** (NUAIR) is the test site manager responsible under FAA supervision for operational control and project management for conducting research on sense and avoid capabilities and integrating UAS into congested Northeast Airspace. Alliance members, including the **New York Griffiss International Airport UAS Test Site** are working with Mohawk Valley Community College to develop training programs for civil and commercial UAS.

## 2.8 Sustainable Energy Solutions: Solar Energy Panels

Electricity-generating solar panel installations are increasingly common near airports given the availability of undeveloped land. The increase can at least in part be attributed to the Voluntary Airport Low Emission (VALE) program, developed by the FAA in 2004 to offset airport emissions. Through the VALE program, airport sponsors can use AIP funds and Passenger Facility Charges (PFCs) to finance solar panel installation projects.

In addition to revenue generating incentives and reduced energy costs over the long-term, solar panels can provide a variety of environmental benefits, demonstrating an airport's environmental stewardship.

Proper design, orientation, and installation of solar panels near airports is critical to safe aircraft operations. In June 2014, the Department of Defense (DoD) issued a memorandum stating that the FAA has determined that glint and glare from solar panel systems could result in ocular impacts to pilots and air traffic controllers. The DoD defines glint as a momentary flash of bright light, while glare is a continuous source of bright light. Additionally, the FAA has provided the Solar Glare Hazard Analysis Tool (SGHAT), to assist in analyzing solar glare occurrences throughout the year as viewed from a specified observation point.

The FAA provides additional guidance on solar panel considerations such as planning, siting, feasibility, design, and permitting in *Technical Guidance for Evaluating Selected Solar Technologies on Airports*, (FAA 2010).

Although New York State airports have not yet utilized the FAA VALE program for solar panels, five airports in the state have funded other qualified projects using the program, as identified below.

- Syracuse Hancock International Airport – Pre-conditioned Air (PCA) and gate power, FY 2013.
- Greater Rochester International Airport – Eight Compressed Natural Gas (CNG) shuttles and CNG station, FY 2008.
- Westchester County Airport – 25 Ground Service Equipment (GSE) and 13 dual-port rechargers, FY 2008.
- Stewart International Airport – Gate power and PCA for seven gates at Main Terminal, FY 2007.
- Albany International Airport – Two CNG shuttle buses and CNG refueling station upgrade, FY 2005.

## 2.9 Wildlife Hazards

The aviation industry is routinely challenged with the reality that wildlife and airplanes do not always coexist well. Specifically, significant ecological areas as well as open spaces next to airports (such as golf courses or farms) can result in wildlife movements within close proximity to the runway environment, potentially placing pilots and passengers in life threatening situations.

Wildlife strikes continue to pose a significant economic and safety risk for civil aviation in New York State. According to *Wildlife Strikes to Civil Aircraft in the United States 1990-2014*, a study published by FAA in July 2015, there were 13,668 reported wildlife strikes to civilian aircraft in the US in 2014, costing millions of dollars' worth of damage. From 1990 to 2013, there were 25 human fatalities attributed to wildlife striking aircraft.


Flock of birds flying directly toward a commercial passenger flight during landing.
Source: FAA

To benefit both the wildlife and safe operations at airports, it is imperative that airport sponsors work with interested stakeholders and agencies to develop means and measures to avoid, minimize, or mitigate habitat. The FAA has identified the threat associated with wildlife strikes as '*probably the most pressing issue we face in the airports world*' (FAA 2012). To address this issue, airport sponsors must assess the wildlife hazards at their airports with the help of a qualified biologist trained in wildlife damage management at airports. The FAA qualifies biologists for these assessments and subsidizes the projects through the Airport Improvement Program (AIP). Airports should consider biologists' recommendations and implement a course of action to reduce the risks posed by wildlife.

To minimize potential aircraft and wildlife conflicts, airports are encouraged to prepare a Wildlife Hazard Assessment (WHA), which determines if the airport needs a Wildlife Hazard Management Plan (WHMP), a detailed ecological study that examines the potential for wildlife hazards. The FAA provides guidance in AC 150/5200-33B – *Hazardous Wildlife Attractants on or Near Airports*, which discusses land use practices having the potential to attract hazardous wildlife and threaten aviation safety. The AC describes the process of conducting WHA's, preparation of WHMP's as well as known hazards that attract wildlife (i.e. landfills, water management facilities, wetlands, golf courses, landscaping, and others).

Generally, wildlife encroachment into air operations areas of airports can be discouraged by taking preventative measures such as the removal of food sources, resting sites and standing water; installation of perimeter fencing and screens for openings such as culverts; and use of porcupine wires and other exclusion devices at potential roosting and nesting sites. Other proven wildlife control strategies relating to the modification of flight schedules, habitat modification and exclusion, and various repellent and harassment techniques are identified in AC 150/5200-33B – *Hazardous Wildlife Attractants on or Near Airports*. Airport Cooperative Research Program (ACRP) Synthesis 52, *Habitat Management to Deter Wildlife at Airports*, and ACRP Synthesis 23, *Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports* also identify useful information relating to the management of wildlife hazards on and near airports.

## 2.10 Local Property Tax on Privately-Owned, Public-Use Airports

National, state, and local governments assess and collect tax revenues to provide funds for a wide range of public services and to address public policy needs. Local governments primarily rely on real property taxes for a largest proportion of their revenue.

In New York State, publicly-owned, public-use airports are usually exempt from property taxes, although airport improvements built or installed by long-term tenants may be subject to payments in lieu of taxes. By comparison, privately-owned, public-use airports in the state are usually assessed real property taxes to the entire airport facility, including land and all improvements, runways, taxiways, hangars, aviation fuel facilities, hangars, support buildings, and related infrastructure.

At typical public-use general aviation airports, the vast portion overall land is not directly involved in revenue production for the facility. The runways, taxiways, fencing, and required vacant clear land do not generate income for airport owners. However, these items are usually fully included in the overall property assessment determined by the local municipal taxing authorities. As a result, real property taxation of privately-owned, public-use airports may be overly burdensome when assessments rely on the depreciated value of big infrastructure items such as runways and taxiways – including the acreage of land on which they exist.

To assist privately-owned, public-use airports with this issue, some states have developed a variety of solutions. One solution is to offer tax exemptions for airport property and improvements which are not income producing. States may also choose to lessen this tax burden by incorporating a decreased assessment or tax rate on the overall airport property. Airports are expensive to operate; any reduction of operating costs, such as tax exemptions or ensuring reduced tax rates will foster a more financially sustainable therefore healthier airport system.

## 2.11 Summary – Airport System Key Issues and Opportunities

Many of the current issues facing the New York State Airport System directly reflect those being experienced nationwide and by other states. These include lack of sufficient funding for airport safety and infrastructure related projects, land use compatibility, as well as potential closure of FAA funded ATCT and Weather Observation Stations. Other issues discussed in this chapter are more state and/or local concerns such as aviation fuel sales and real property taxes, as well as wildlife hazard management. Opportunities relating to NextGen WAAS-enabled GPS approach procedures and energy generating solar panel installations were also presented.

The issues and opportunities presented in this chapter are intended to facilitate meeting the goals outlined in ***Chapter 1: Vision, Goals and Performance Measures***. Most issues and opportunities require on-going updates, attention, as well as resources, therefore presented with suggested action items whenever possible. Some issues and opportunities will be further discussed and analyzed in later sections of this New York State Airport System Plan.

# New York State Airport System Plan 2018

## Chapter 3: System Inventory

## 3.1 Introduction

A fundamental step of any airport system planning process is the data collection of existing infrastructure, operational data, and service conditions. The purpose of this inventory effort is to identify current operating public-use aviation facilities within the state, assess their condition, and define their contributions to statewide system of airports. The inventory for this New York State Airport System Plan (SASP) provides information necessary to understand existing system conditions as well as a foundation for understanding and analyzing the future needs of each airport and the system.

This chapter focuses on the statewide inventory data collection effort. **Table 3-1: New York State Public-Use Airports** is an alphabetical list of the 131-active, public-use aviation facilities in New York State reviewed by this SASP study. The public-use airport system in the state currently includes 19-commercial service airports with scheduled airline passenger service, 101-general aviation airports, 5-heliports, and 6-seaplane bases.

Additional system analyses are presented and discussed in ***Chapter 4: Airport Role and Classification Analysis*** and subsequent chapters of this report.

## 3.2 Inventory Process

The inventory effort gathered general infrastructure and operating data available for all active, public-use facilities in New York State based on readily available published information by the FAA and others. The published data sources included, but are not limited to:

- Federal Aviation Administration (FAA) Form 5010 Airport Master Records;
- FAA Terminal Area Forecasts (TAF);
- FAA Weather Systems Data and NAVAIDS;
- FAA Digital Chart Supplements (formerly Airport/Facility Directory, A/FD);
- FAA Published Instrument Approach Plates; and
- New York State DOT Data Records.

To validate and improve upon the available published facility data, this study included a supplemental inventory data collection effort of New York's more active aviation facilities. This additional data effort included all NPIAS facilities and other facilities understood to be active contributors to the diverse state airport system. Based on the available published airport data, a preliminary ranking of all active, public-use facilities was developed and 97 of the most active and/or developed aviation facilities airports were chosen for supplemental data survey. A copy of this supplemental data survey is found in ***Appendix B: SASP Inventory Survey***.

Data collected by this survey was cross-checked and compared with available published data sources. This effort further ensures that the overall inventory assessment tasks, provided in subsequent sections of this report, best represent the status, roles, and functions of individual facilities within the state airport system. Not all information surveys were returned, while some

others were returned incomplete. Every effort was made to fill in these gaps of information with credible sources which are identified in their respective place in this report.

**Table 3-1: New York State Public-Use Airports (1 of 2)**

| Loc ID | Facility Name | Loc ID | Facility Name |
|---|---|---|---|
| SLK | Adirondack Regional | GFL | Floyd Bennett Memorial |
| 09N | Airhaven | FOK | Francis S Gabreski |
| 1H1 | Airlane Enterprise | 6B4 | Frankfort - Highland |
| 9G3 | Akron | 1I5 | Freehold |
| ALB | Albany International | NY0 | Fulton County |
| D23 | Arcade Tri-County | B04 | Garnseys |
| 1C3 | Argyle | GVQ | Genesee County |
| 23N | Bayport Aerodrome | D52 | Geneseo |
| K16 | Becks Grove | 8G3 | Giermek Executive |
| N25 | Blue Heron | D59 | Gowanda |
| HWV | Brookhaven | N56 | Great Valley |
| 9G0 | Buffalo Airfield | BGM | Greater Binghamton / Edwin A Link Field |
| BUF | Buffalo Niagara International | ROC | Greater Rochester International |
| BQR | Buffalo - Lancaster Regional | 1A1 | Green Acres |
| K27 | Burrello - Mechanicville | 4N7 | Greene |
| IUA | Canandaigua | 1H4 | Greenville - Rainbow |
| OLE | Cattaraugus County - Olean | RME | Griffiss International |
| 1B8 | Chapin Field | 4G2 | Hamburg Inc |
| DKK | Chautauqua County / Dunkirk | VGC | Hamilton Municipal |
| JHW | Chautauqua County / Jamestown | 83K | Harris |
| D51 | Clarence Aerodrome | H43 | Haverstraw Heliport |
| 1B1 | Columbia County | K30 | Heber Airport |
| K23 | Cooperstown - Westville | 85N | Hollands International Field |
| 7N1 | Corning - Painted Post | HTF | Hornell Municipal |
| N03 | Cortland County Airport - Chase Field | POU | Hudson Valley Regional |
| DSV | Dansville Municipal | ITH | Ithaca Tompkins Regional |
| D79 | Dart | JFK | John F Kennedy International |
| JRB | Downtown Manhattan / Wall St Heliport | N89 | Joseph Y Resnick |
| 4B1 | Duanesburg | 20N | Kingston - Ulster |
| 6N5 | East 34th Street Heliport | NY1 | Kline Kill |
| HT0 | East Hampton | N45 | Kobelt |
| 0B8 | Elizabeth Field | LGA | LaGuardia |
| ELM | Elmira-Corning Regional | LKP | Lake Placid |
| 6N6 | Evers Seaplane Base | 5G0 | Le Roy |
| 0G7 | Finger Lakes Regional | 7G0 | Ledgedale Airpark |

| Table 3-1: New York State Public-Use Airports (2 of 2) | | | |
|---|---|---|---|
| **Loc ID** | **Facility Name** | **Loc ID** | **Facility Name** |
| ISP | Long Island MacArthur | 9G5 | Royalton |
| NY9 | Long Lake / Helms Seaplane Base | 7N3 | Sands Point Seaplane Base |
| K03 | Long Lake Sagamore Seaplane Base | 5B2 | Saratoga County |
| OIC | Lt Warren Eaton | SCH | Schenectady County |
| 49N | Lufker | 4B7 | Schroon Lake |
| MAL | Malone - Dufort | K31 | Sharon |
| 1I1 | Marcy Field | N23 | Sidney Municipal |
| MSS | Massena International Airport - Richards Field | 6B9 | Skaneateles Aero Drome |
| 21N | Mattituck | 44N | Sky Acres |
| 4N2 | Middlesex Valley | 46N | Sky Park |
| 93G | Midlakes | 4B0 | South Albany |
| MTP | Montauk | 87N | Southampton Heliport |
| 1E8 | Moores | D91 | Spencerport Airpark |
| 6N7 | New York Skyports Inc Seaplane Base | SWF | Stewart International |
| IAG | Niagara Falls International | MSV | Sullivan County International |
| 0G0 | North Buffalo Suburban | SYR | Syracuse Hancock International |
| OGS | Ogdensburg International | 4B6 | Ticonderoga Municipal |
| N66 | Oneonta Municipal | CZG | Tri-Cities |
| MGJ | Orange County | N72 | Warwick Municipal |
| FZY | Oswego County | ART | Watertown International |
| D82 | Ovid | ELZ | Wellsville Municipal |
| PEO | Penn Yan | JRA | West 30th St Heliport |
| 01G | Perry - Warsaw | HPN | Westchester County |
| 9G6 | Pine Hill | B16 | Whitfords |
| K09 | Piseco | SDC | Williamson - Sodus |
| 1F2 | Plateau Sky Ranch | N82 | Wurtsburo - Sullivan County |
| PBG | Plattsburgh International | | |
| PTD | Potsdam Municipal (Damon Field) | | |
| D88 | Pratt's Eastern Divide | | |
| 5R5 | R & R Aero | | |
| 06N | Randall | | |
| 5B7 | Rensselaer County | | |
| FRG | Republic | | |
| W57 | Round Lake Airport and Seaplane Base | | |
| K21 | Rouses Point Seaplane Base | | |

Source: NYSDOT

## 3.3 New York State Airport System Overview

In 2018 the New York State Airport System consists of 131-active, public-use airports, heliports, and seaplane bases that are the subject of this SASP study. Per FAA guidance, public-use aviation facilities are described as those that are open to the public for aircraft operations and related aviation purposes. In New York, 66 of these facilities are publicly-owned by a governmental entity (i.e. municipality, authority, public benefit corporation, IDA, etc.). Another 65 public-use aviation facilities are privately-owned by individuals and other entities (i.e. corporations, limited partnerships, etc.).

Notably, New York State is also home to 371-active, private-use aviation facilities, including airports, heliports, and seaplane bases; these are listed in ***Appendix C: Private-Use Aviation Facilities***. Per FAA guidance, private-use aviation facilities are those that may only be used by the owner or with the prior permission by the owner or facility operator. Private-use facilities, inherently, do not typically serve a public purpose and are not included in this SASP review. **Figure 3-1** provides a geographically presentation of the widely dispersed private-use aviation facilities in the state.

The information collected during the inventory effort and data collection is summarized within this inventory chapter. **Chapter 1** and **Appendix A** present the wide range of performance criteria and benchmark elements considered for the comprehensive evaluation of the public-use airport system in New York. Pulling from those many valuable benchmark elements, this chapter highlights some of the fundamental key elements that have been used to categorize and more clearly describe the diverse state system of public-use airports.

- Airport Reference Code
- Primary Runways
- Runway Lighting
- Taxiway Types and Lighting
- Runway Approach Procedures
- Airfield Pavement – Primary Runway
- Navigational Aids and Visual Aids
- Aircraft Storage
- Services
- Airport Planning Documents

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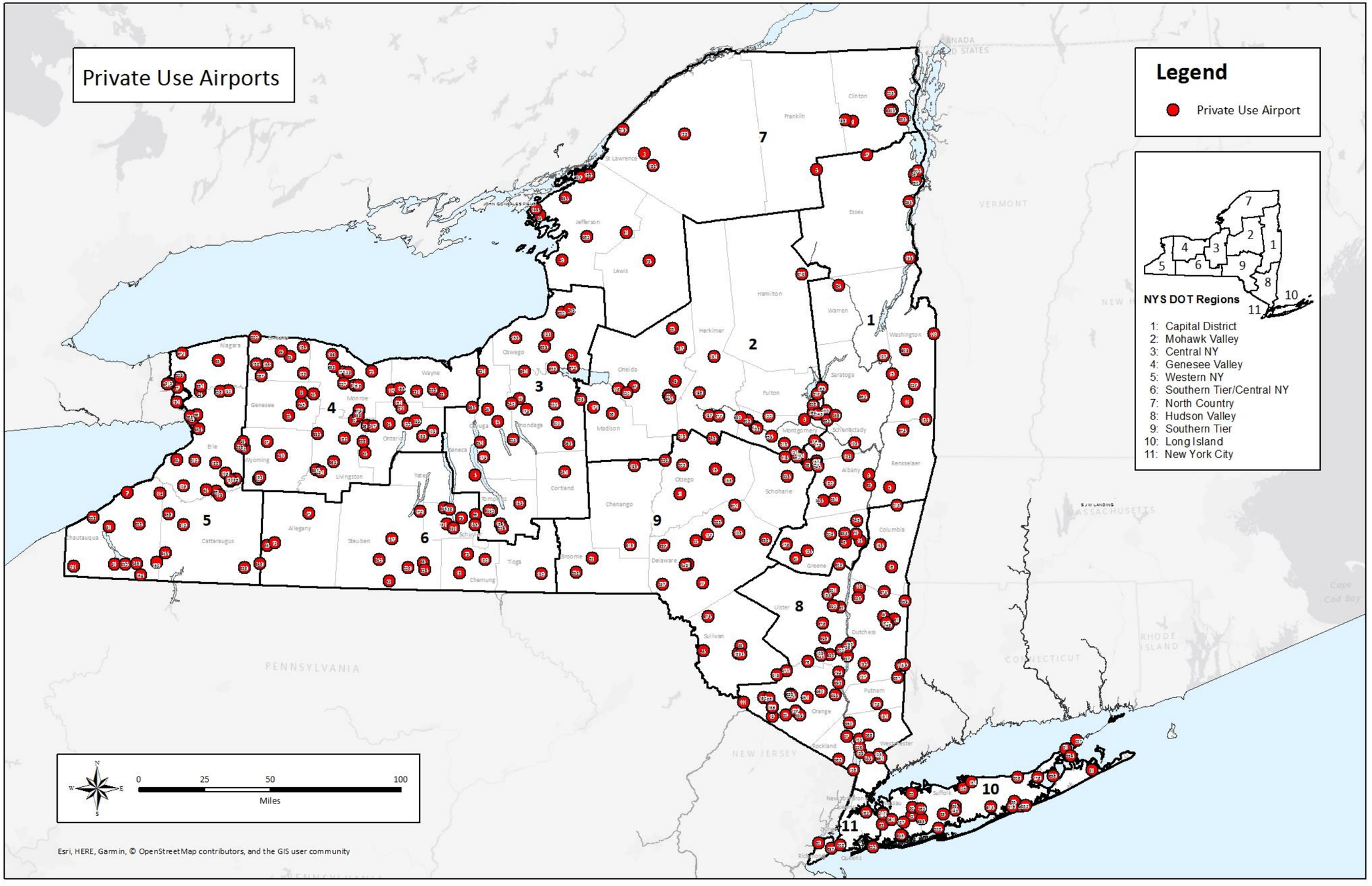
**Figure 3-1: Private-Use Airports**



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## 3.4 Airport Reference Code

*FAA Advisory Circular (AC) 150/5300-13A – Airport Design* establishes a set of airport classifications known as Airport Reference Codes (ARC) to determine airport design criteria relating to the operational and physical characteristics of aircraft intended to operate on a runway or taxiway of an airport. The ARC is comprised of two components relating to design aircraft. These are the Aircraft Approach Category (based on approach speed) and the Airplane Design Group (based on tail height and wingspan), as presented in **Table 3-2: Airport Reference Code.**

**Table 3-2: Airport Reference Code**

| Aircraft Approach Category | | Airplane Design Group | | |
|---|---|---|---|---|
| Category | Approach Speed | Group | Tail Height | Wingspan |
| A | Less than 91 knots | I | 20 feet or less | 49 feet or less |
| B | 91-120 knots | II | 20-29 feet | 49-78 feet |
| C | 121-140 knots | III | 30-44 feet | 79-117 feet |
| D | 141-165 knots | IV | 45-59 feet | 118-170 feet |
| E | 166 knots or more | V | 60-65 feet | 171-213 feet |
| | | VI | 66-80 feet | 214-262 feet |

Source: FAA

**Figure 3-2: Representative Aircraft** provides a graphic depiction of common aircraft samples that represent various ARC's.

## Figure 3-2: Representative Aircraft

| | | | |
|---|---|---|---|
|  | **A-I**<br>Beech Baron 55<br>***Beech Bonanza***<br>Cessna 152<br>Piper Archer<br>Piper Seneca | **C-II, D-II**<br>Bombardier Challenger 600<br>***Cessna Citation X***<br>Gulfstream II, III, IV<br>Hawker 800, 850XP<br>Canadair 600 |  |
|  | **B-I**<br>Beech King Air 100<br>***Cessna 402***<br>Cessna 421<br>Piper Navajo<br>Piper Cheyenne | **C-III, D-III**<br>***Boeing 737 series***<br>Boeing Business Jet<br>Bomb. Global Express<br>DC-9, MD-80<br>Gulfstream V<br>Fokker 70, 100 |  |
|  | **B-II**<br>***Beech Super King Air 200***<br>Cessna 441 Conquest<br>DHC Twin Otter<br>Gulfstream I<br>Jetstream 31 | **C-IV, D-IV**<br>Boeing 757<br>***Boeing 767***<br>DC-8-70<br>DC-10<br>L-1011<br>MD-11 |  |
|  | **A-III, B-III**<br>DHC Dash 7<br>***DHC Dash 8***<br>Convair 580<br>ATR 72<br>British Aerospace ATP<br>DC-3 | **E-V**<br>Boeing 747<br>***Boeing 777***<br>Boeing 787 |  |

Sources: NYSDOT, Louis Berger and photos from Flickr.com.
Note 1: Aircraft in bold and italics are graphically depicted in each section.
Note 2: Boeing 747-8 and Airbus A380 are rated **F-VI**

Airport Reference Code (ARC) data is most often provided by FAA-approved Airport Layout Plans (ALP), typically for NPIAS airports that have received federal Airport Improvement Program capital grants. For this SASP study, ARC information was available for the primary runways at the 81-active, public-use airports and is provided in **Table 3-3: Airport Reference Code Summary**. The statewide system currently supports small A-I aircraft up to large F-VI aircraft.

**Table 3-3: Airport Reference Code (ARC) Summary**

| Airport Reference Code (Primary Runways) | Number of System Airports | Percentage of System Airports |
|---|---|---|
| A-I | 7 | 8.8% |
| A-II | 1 | 1.2% |
| B-I | 28 | 34.6% |
| B-II | 23 | 28.4% |
| C-II | 3 | 3.7% |
| C-III | 3 | 3.7% |
| C-IV | 4 | 4.9% |
| D-II | 5 | 6.2% |
| D-III | 3 | 3.7% |
| D-IV | 2 | 2.5% |
| E-V | 1 | 1.2% |
| F-VI | 1 | 1.2% |

Sources: NYSDOT and Louis Berger

## 3.5 Primary Runways

Runways are prepared surfaces intended for the landing and take-off of aircraft. Runway designs vary based upon several factors, including aircraft performance characteristics of the most demanding type of aircraft intended to regularly use the surface. Runway length and the type of navigational aids for access in poor visibility affect the type of aircraft an airport can serve. Runway length is one of the most critical factors when determining the aircraft operating parameters of an airport.

The width of a runway is based on FAA design standards in *AC 150/5300-13A, Airport Design*, which considers the wingspan and approach speed of the most demanding type of aircraft anticipated to use the airport as discussed in the **Section 3.4**. In airport planning terms, this most demanding aircraft is referred to as the critical aircraft. The longer, wider, and stronger a runway, the larger the aircraft it can accommodate.

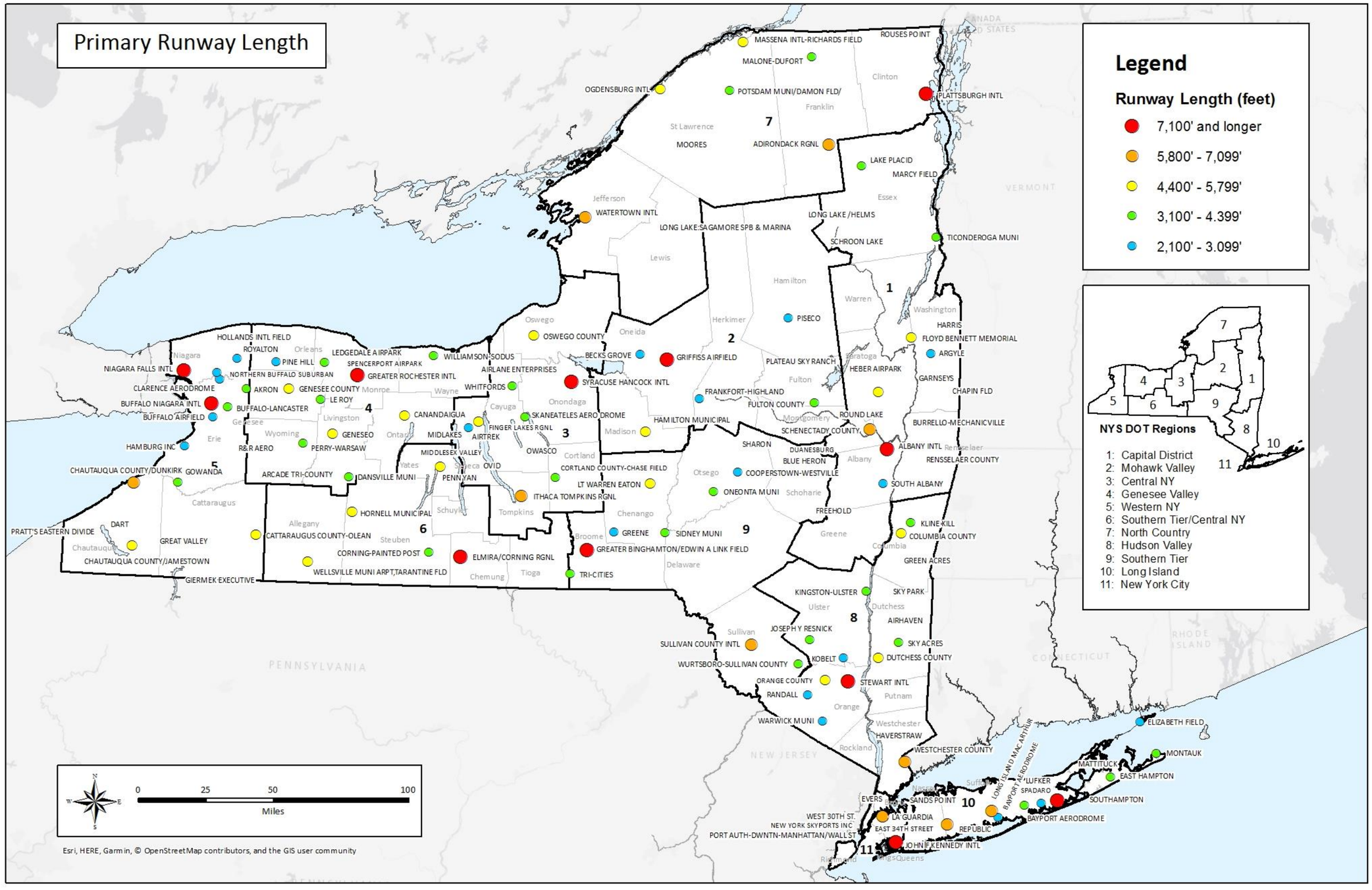
**Table 3-4 Summary of Primary Runway Length** provides a breakdown of reported primary runway lengths reviewed by this study of public-use system of airports in New York State. Analysis of the system's available runway length is critical in determining the ability of the system to accommodate distinct types of aircraft.

| Table 3-4: Summary of Primary Runway Length | | | |
|---|---|---|---|
| **Primary Runway Length** | **Number of System Airports** | **Percentage of System Airports** | **Representative ARCs** |
| 7,100’ and longer | 12 | 13.5% | F-VI, E-V, D-IV, D-III, C-III |
| 5,800’ – 7,099’ | 11 | 12.4% | D-III, D-II, C-IV, C-III |
| 4,400’ – 5,799’ | 18 | 20.2% | D-II, C-III, C-II, B-II |
| 3,100’ – 4,399’ | 28 | 31.5% | B-II, B-I |
| 1,800’ – 3,099’ | 20 | 22.5% | B-II, B-I, A-I |
| Total | 89 | | |

Sources: NYSDOT and Louis Berger

**Figure 3-3: Primary Runway Length** geographically identifies the New York airport system by runway length

**Figure 3-3: Primary Runway Length**



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## 3.6 Runway Lighting

Runway lighting is used to define the edges of a runway during nighttime and low visibility conditions. Runway lighting is classified into three types of systems based upon illumination intensity and level of control: High Intensity Runway Lighting (HIRL), Medium Intensity Runway Lighting (MIRL), and Low Intensity Runway Lighting (LIRL). HIRL systems offer pilots the greatest lighting intensity and control, while LIRL systems only have a single illumination setting.

**Table 3-5: Summary of Primary Runway Lighting** identifies the primary runway lighting available at New York's airports.

**Table 3-5: Summary of Primary Runway Lighting**

| Primary Runway Lighting | Number of System Airports | Percentage of System Airports |
|---|---|---|
| High Intensity Runway Lighting (HIRL) | 33 | 25% |
| Medium Intensity Runway Lighting (MIRL) | 45 | 34% |
| Low Intensity Runway Lighting (LIRL) | 9 | 7% |
| Non-Standard | 2 | 2% |
| No Runway Lighting | 42 | 32% |
| Total Public-Use Airports | 131 | |

Source: Louis Berger

## 3.7 Taxiway Types and Lighting

Taxiways are used to connect runways with other airfield areas. They provide entry and exit access points for aircraft from a runway, and increases the safety of operations by limiting the time aircraft remain on the runway. The types of taxiways include: full parallel, partial parallel, connector, and turnaround. Full parallel taxiways extend the entire length of a runway, providing aircraft access to each runway end, and reduce runway crossings. The FAA recognizes full parallel taxiways as part of basic airport design. Partial parallel taxiways typically extended parallel to the runway from a ramp or terminal area to a single runway end and connector taxiways provide direct access to the runway from an aircraft apron area without a parallel taxiway.

Taxiway lighting is utilized to illuminate the edge of taxiways in nighttime and low-visibility conditions. Taxiway lighting systems offer varying ranges of illumination intensity and level of control, similar to runway lighting systems. Three types of standard taxiway lighting systems are found throughout the aviation system: High Intensity Taxiway Lighting (HITL), Medium Intensity Taxiway Lighting (MITL), and Low Intensity Taxiway Lighting (LITL). HITL systems offer the

greatest range of illumination intensity control, while LITL systems are equipped with a single illumination setting.

**Table 3-6: Summary of Taxiway Lighting**, identifies the taxiway lighting available at New York's airports.

| Table 3-6: Summary of Taxiway Lighting | | |
|---|---|---|
| **Primary Runway Length** | **Number of System Airports** | **Percentage of System Airports** |
| High Intensity Taxiway Lighting (HITL) | 2 | 1.5% |
| Medium Intensity Taxiway Lighting (MITL) | 66 | 50.4% |
| Non-Standard | 6 | 4.6% |
| No Taxiway Lighting | 57 | 43.5% |
| Total Public-Use Airports | 131 | |

Source: Louis Berger

## 3.8 Runway Approach Procedures

FAA-published flight procedures and certified equipment are navigational tools which provide pilots with enroute navigation and guidance for conducting instrument approaches for specific runways at selected airports. The FAA is continuously developing, editing, or improving its regulations, flight procedures, and equipment performance requirements for enhanced navigational safety of the national airspace and for individual airports.

Runways provide maximum utility when they can be safely used by approaching aircraft in less than ideal weather conditions. Pilot visibility of the runway environment is directly impacted by weather conditions. The degree of pilot visibility is described in terms of the distance to see and identify prominent unlighted objects during daylight periods, as well as prominent lighted objects at night. To land safely during periods of limited visibility, pilots must be able to see the runway or associated lighting at a certain distance above the runway. If the runway environment cannot be identified at the established decision altitude or minimum descent altitude, FAA regulations do not authorize pilots to land on that runway. If the visibility is less than the published minimums, the pilot is required to execute a missed approach.

During instances of low visibility and/or inclement weather, specialized navigational instruments are used by pilots for safe and effective guidance to locate and follow the appropriate instrument approach procedure that will provide the best opportunity to achieve the decision altitude or the minimum descent altitude and recognize the intended runway environment.

Instrument approach procedures published by the FAA are grouped into two categories, precision and non-precision. Precision approaches provide vertical guidance, also referred to as the glideslope in addition to lateral guidance. In addition to instrument runways, there are visual runways which do not require any specialized instrumentation to complete the landing maneuver.

**Precision Approaches** are instrument approaches which provide the most accurate guidance to a point above the runway called the decision altitude. The Instrument Landing System (ILS) described in Chapter 2 provides Localizer (lateral) and Glideslope (vertical) guidance from ground-based equipment located on the airport.

The FAA publishes an instrument approach procedure, referred to as an "approach plate" for each ILS approach to provide the pilot with the information necessary to conduct the approach during operations in instrument meteorological conditions. Several categories of ILS exist which incorporate decision altitudes of 200 feet above the runway or less and less than half mile visibility.

Localizer Performance with Vertical Guidance (LPV) are precision instrument approaches which utilize WAAS enabled GPS, as discussed in Chapter 2. LPV approaches can achieve the same minimums as Cat 1 ILS approaches, a decision altitude 200 feet above the runway and ½ mile visibility.

**Non-Precision Approaches** provide lateral guidance only (no glideslope) to pilots executing these published instrument approach procedures. NPA navigational equipment has traditionally been ground-based. The following navigational aids (NAVAIDs) have included:

- VOR - VHF Omnidirectional Range,
- NDB - Non-Directional Beacon,
- RNAV - Area Navigation including standard GPS (non-WAAS),
- LNAV - Lateral Navigation, and
- LOC - Localizer.

In 2008, the FAA began designing and publishing instrument approach procedures that use WAAS for horizontal but not vertical guidance. Runway approaches with WAAS lateral guidance have informational quality similar to land-based Localizer accuracy and are referred to as Localizer Performance (LP) approaches. LP approach procedures are utilized along runway approaches where obstacles or airport infrastructure limitations prevent the FAA from publishing a LPV precision instrument approach. LP approach minimums for visibility and minimum descent altitude are designed for each respective runway environment and are generally higher than LPV minimums.

**Visual Approaches** are runway approaches for which there are no published instrument approach procedures. Pilots intending to land on such runways are required to follow FAA Visual Flight Rules (VFR). These are a comprehensive set of regulations under which a pilot operates an aircraft in weather conditions generally clear enough to allow the pilot to see and avoid

obstructions and other aircraft visually, and maintain adequate separation from clouds to avoid conflict with aircraft which may emerge from the clouds while operating under Instrument Flight Rules (IFR). Specifically, the weather must be better than basic VFR weather minima, as specified in the Federal Aviation Regulations (FARs).

**Table 3-7: Summary of Primary Runway Approaches** identifies the number of system airports with the primary runway approach types.

**Table 3-7: Summary of Primary Runway Approaches**

| Primary Runway Approach | Number of System Airports | Percentage of System Airports |
|---|---|---|
| ILS | 29 | 22% |
| LPV | 46 | 34% |
| LP | 22 | 16% |
| Non-Precision | 24 | 18% |
| Visual | 65 | 49% |

Source: www.FAA.gov

**Figure 3-4: Primary Approach Type** identifies whether system airports have precision or non-precision approaches.

**Figure 3-5: Primary Approach Coverage Areas** identifies airports with 20-mile non-precision approach buffers and 30-mile precision instrument approaches. Applying these industry standard nautical mile service areas represents a measure of air access coverage and accessibility to New York State system airports. This evaluation is essential because airport performance is based upon its location relative to existing and prospective users. Drive times and distances from system airports represent service areas for the New York system, where aviation services are available to aircraft owners, operators and passengers.

**Figure 3-4: Primary Approach Type**

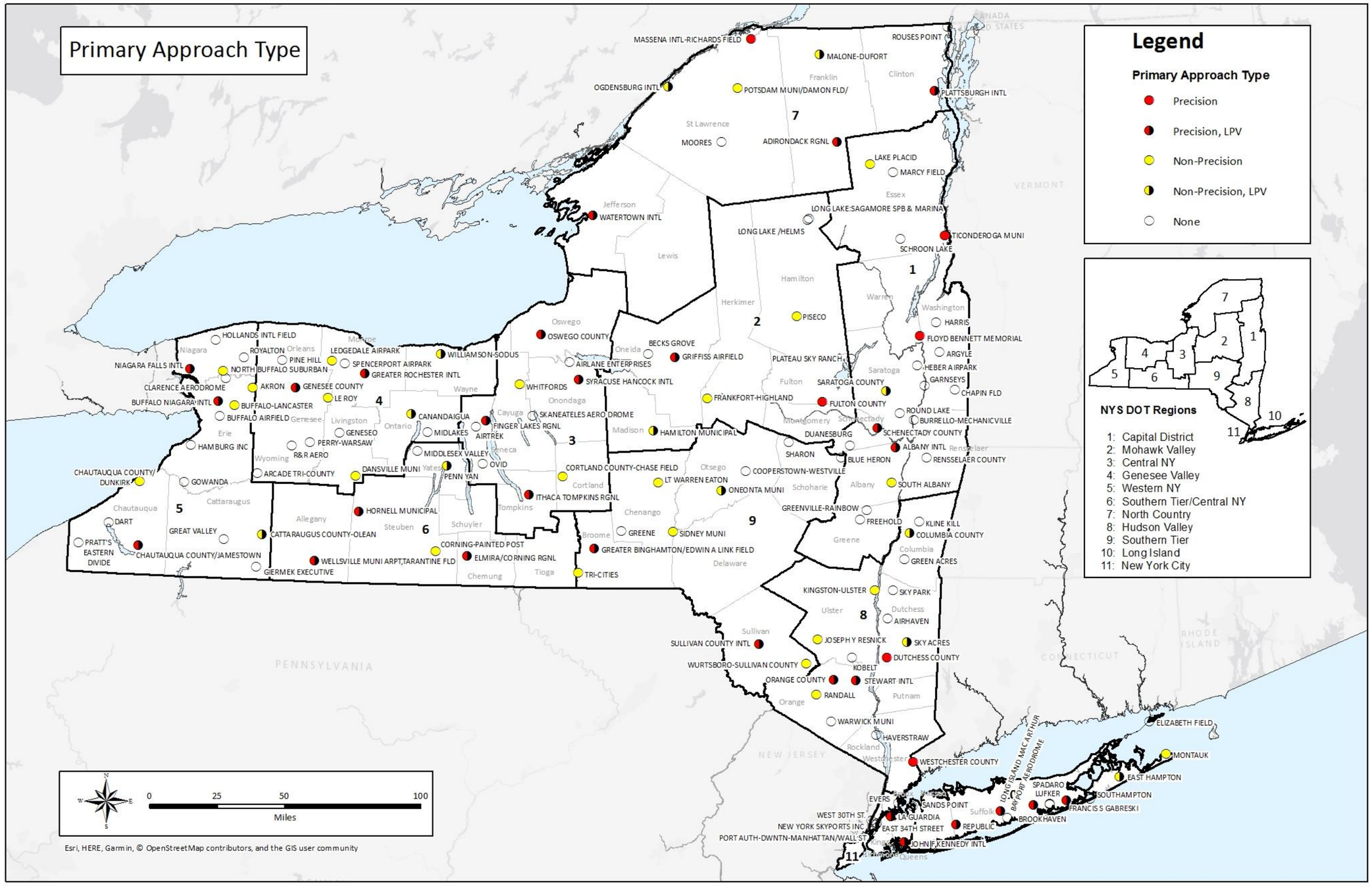

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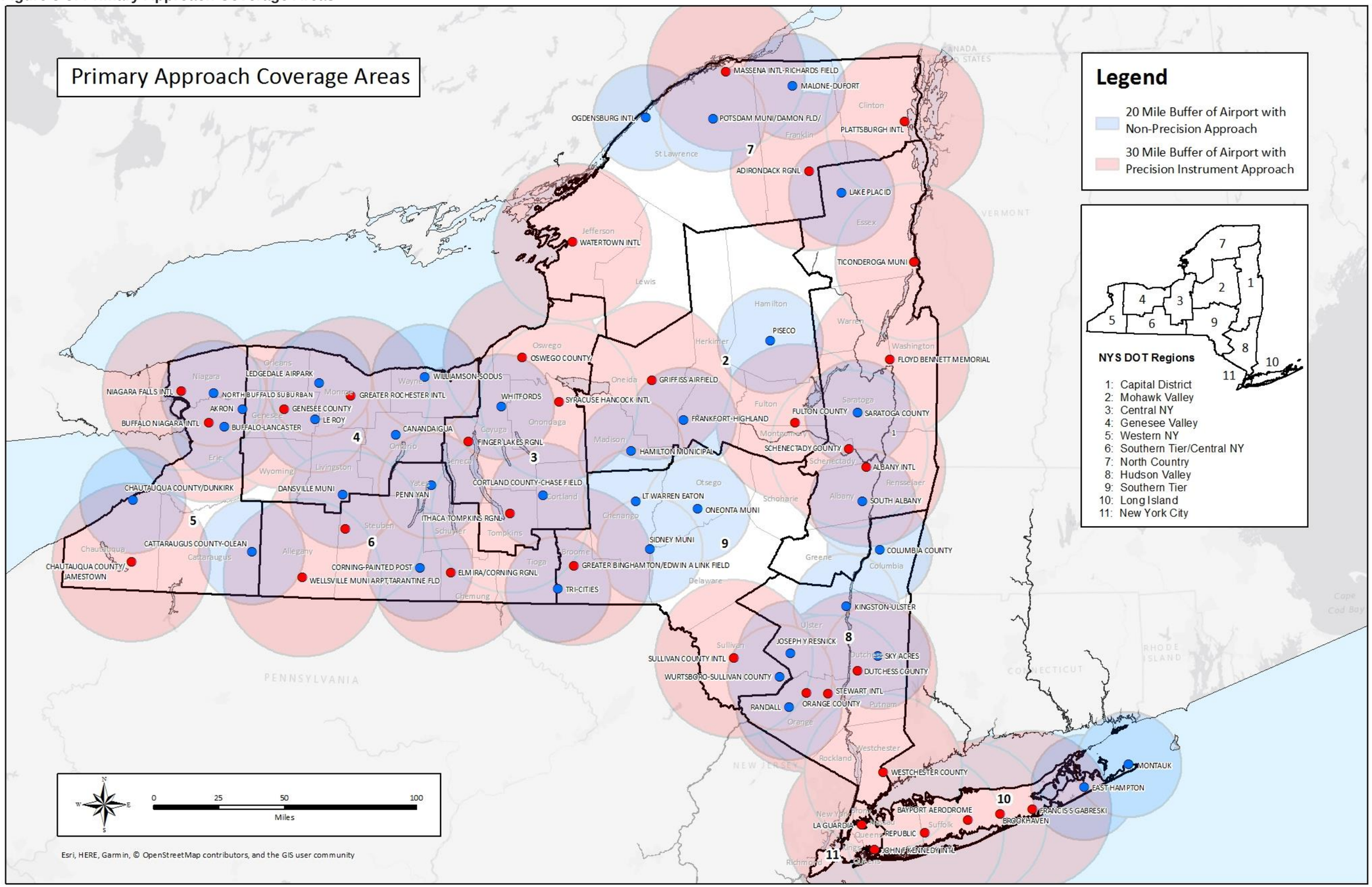
**Figure 3-5: Primary Approach Coverage Areas**



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## 3.9 Airfield Pavement – Primary Runway

Pavement condition is a critical measure of airport performance and directly impacts safety. To assist in understanding the condition of pavements in the New York State airport system, an objective method of visual inspection provided through the inventory survey was used. The pavement conditions identified are based on visual pavement inspections and preliminary *FAA Form 5010 Airport Master Record* findings of the current conditions. Form 5010 pavement conditions include FAA inspection comments for Part 139 airports and NYSDOT inspection comments for General Aviation airports. Overall preliminary findings indicate that primary use runways in the New York System of airports generally have good pavement conditions, as shown in **Table 3-8: Summary of Airfield Pavement Conditions**.

**Table 3-8: Summary of Airfield Pavement Conditions**

| Airfield Pavement Condition | Number of System Airports | Percentage of System Airports |
|---|---|---|
| Fair | 12 | 9% |
| Good | 93 | 71% |
| Excellent | 20 | 15% |
| Water* (Seaplane Bases) | 6 | 5% |
| Total Public-Use Airports | 131 | |

Sources: Airport Representatives and FAA Form 5010
*Water indicates sea plane bases

## 3.10 Navigational Aids and Visual Aids

Ground based navigational aids (NAVAIDs) equipment assist pilots in navigation by helping them determine position and by providing course information, while visual aids are physical features provided at airports to help pilots identify the airport and wind conditions. Key NAVAIDs and Visual Aids are discussed below.

### 3.10.1 Vertical Guidance Slope Indicator

Vertical Guidance Slope Indicator (VGSI) is a navigational aid that gives vertical guidance to the runway touchdown zone. The Visual Approach Slope Indicator (VASI) is a system of lights on the side of an airport runway that provides visual descent glideslope information during approach. Precision Approach Path Indicator (PAPI) consists of either 2-box or 4-box sets of lights in a line perpendicular to the runway similar to VASI systems.

### 3.10.2 Runway End Identifier Lights (REILs)

Runway End Identifier Lights (REIL) provide identification of the approach end of a runway.

### 3.10.3 Rotating Beacon

A rotating beacon assists pilots in locating the airport at night and during periods of low visibility.

### 3.10.4 Wind Indicators

Wind indicators provide wind direction information to pilots, and are often lighted for night operations.

### 3.10.5 Weather Reporting Equipment

Automated weather reporting systems provide pilots with weather related information needed for flight planning. The most common types of weather reporting systems are Automated Weather Observing Systems (AWOS) and Automated Surface Observation Systems (ASOS). The two systems have sophisticated electronic sensors designed to carefully measure meteorological conditions. The systems then broadcast the results of collected data over a specific VHF. While these systems are very similar, ASOS provides some additional capabilities such as weather forecasting. **Figure 3-6: Automated Weather Reporting Equipment** depicts the location of the 50-airports in New York State that have AWOS and ASOS equipment installed. ***Appendix D: Automated Weather Stations and Features*** lists the installation type by airport.

**Table 3-9: Navigational Aids Summary** summarizes the various NAVAIDs available at New York's 131-active, public-use airports.

**Table 3-9: Navigational Aids Summary**

| Primary Runway Approach | Number of System Airports | Percentage of System Airports |
|---|---|---|
| VASI | 61 | 47% |
| PAPI | 15 | 11% |
| REIL | 67 | 51% |
| Rotating Beacon | 70 | 53% |
| Wind Indicator | 122 | 93% |
| ASOS | 27 | 21% |
| AWOS | 20 | 15% |

Sources: FAA, Airport Representatives and Louis Berger

## 3.11 Aircraft Storage

Aircraft storage ranges from enclosed hangars that provide protection from environmental elements to uncovered tie-downs designed for aircraft parking, servicing, and loading and unloading passengers and cargo. Aircraft storage needs vary from one airport to another based upon the types and sizes of based aircraft and airport user needs. Aircraft storage contributes to the financial health of the state airport system because revenue is generated through hangar storage and tie-down fees.

**Table 3-10: Aircraft Storage Summary** identifies the percentage of New York public-use system airports with sufficient or insufficient based aircraft and conventional hangars to meet the owner's stated needs. This information is subjective as it is based solely on the opinion of the airport representative who completed the airport inventory survey and is not based on any particular planning criteria.

| Table 3-10: Aircraft Storage Summary | | |
|---|---|---|
| **Status** | **Based Aircraft Hangar** | **Conventional Hangar** |
| Sufficient | 32% | 31% |
| Not Sufficient | 30% | 29% |
| Unreported | 34% | 36% |

Sources: Airport Representatives and Louis Berger

## 3.12 Services

New York State's airport system offers a wide range of aviation services that vary based upon the role of the airport, the level of aviation activity, and the needs of the users. Data was collected regarding services that are considered important to meet the needs of the aviation system. **Table 3-11: Summary of Services and Accommodations** identifies key characteristics of New York's 131-active public-use airports.

| Table 3-11: Summary of Services and Accommodations | | |
|---|---|---|
| **Aircraft Maintenance Services** | **Number of System Airports** | **Percentage of System Airports** |
| Aircraft Maintenance Services | 70 | 53% |
| Air Traffic Control Tower | 22 | 17% |
| Jet A Fuel | 50 | 38% |
| 100LL Fuel | 76 | 58% |
| Terminal and/or Fixed Base Operator (FBO) | 56 | 42% |
| Ground Transportation | 35 | 27% |
| Restrooms | 69 | 53% |
| U.S. Customs and Border Protection Inspections | 29 | 22% |
| Restaurant, Concessions or Vending | 42 | 32% |

Sources: NYSDOT, Airport Representatives, and Louis Berger

**Figure 3-7** illustrates the geographic location of aircraft maintenance and repair services. **Figure 3-8** presents fuel availability (and type) across the state.

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**Figure 3-6: Automated Weather Reporting Equipment**

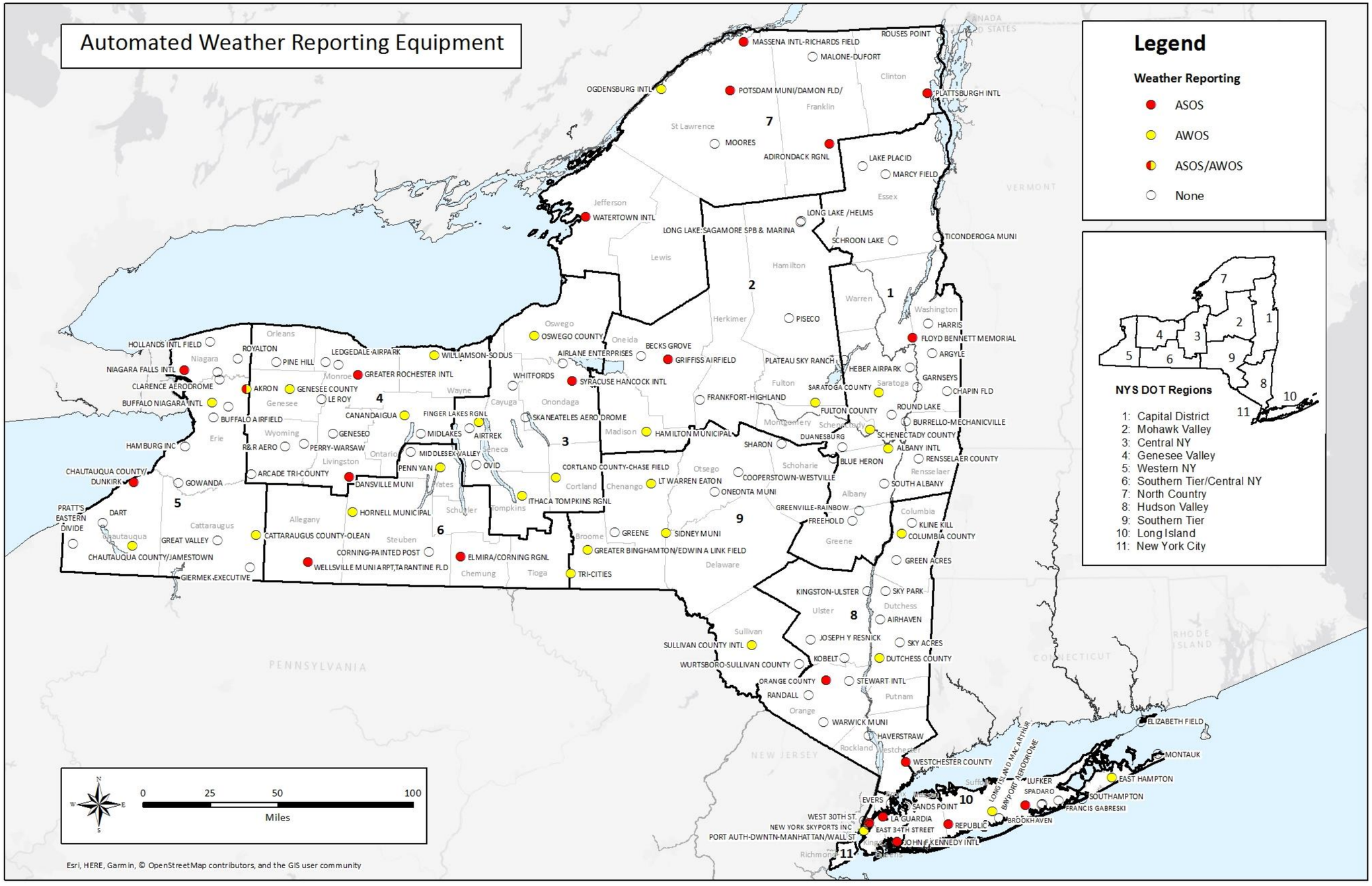

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**Figure 3-7: Aircraft Maintenance and Repair Services**

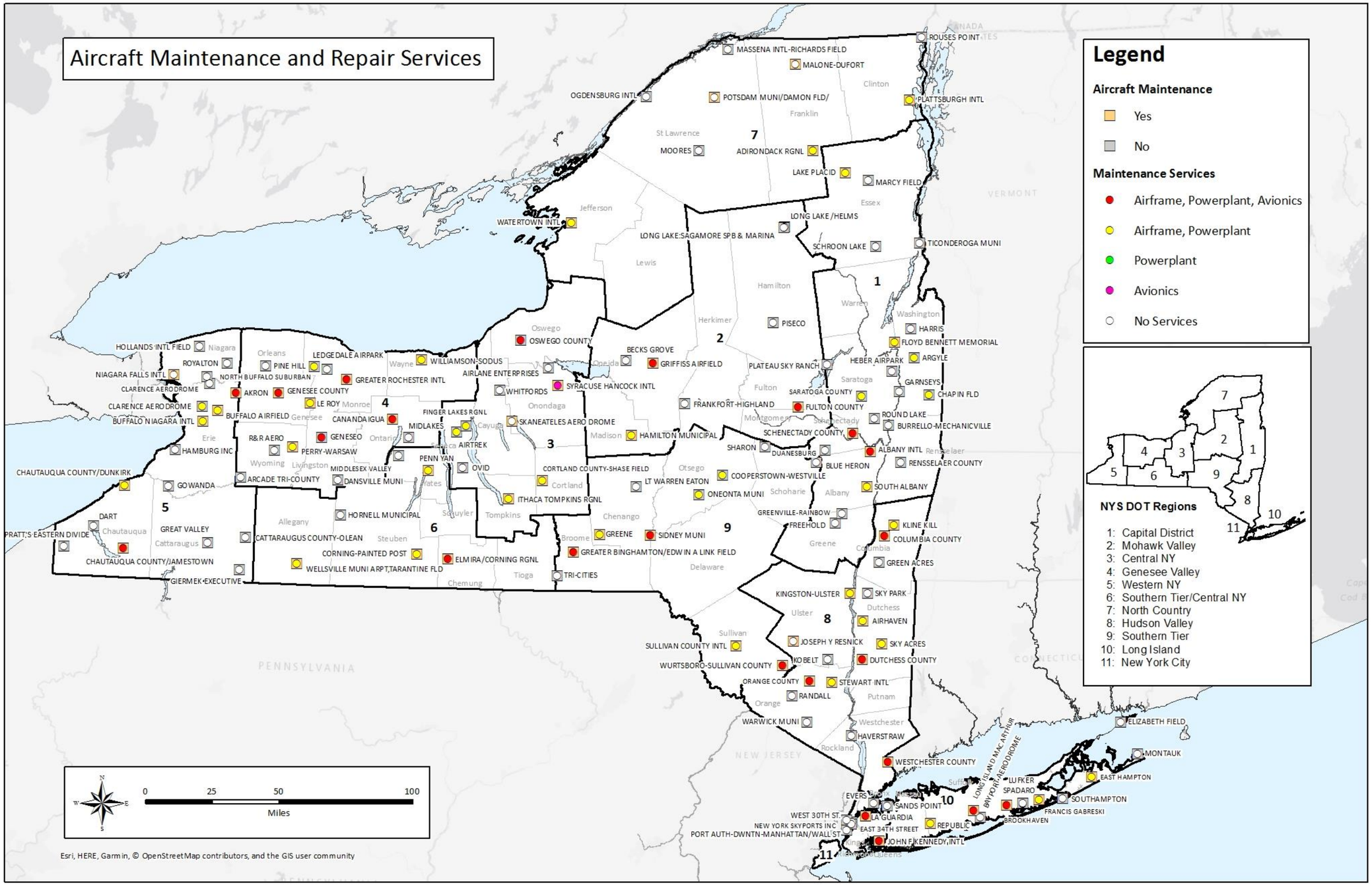

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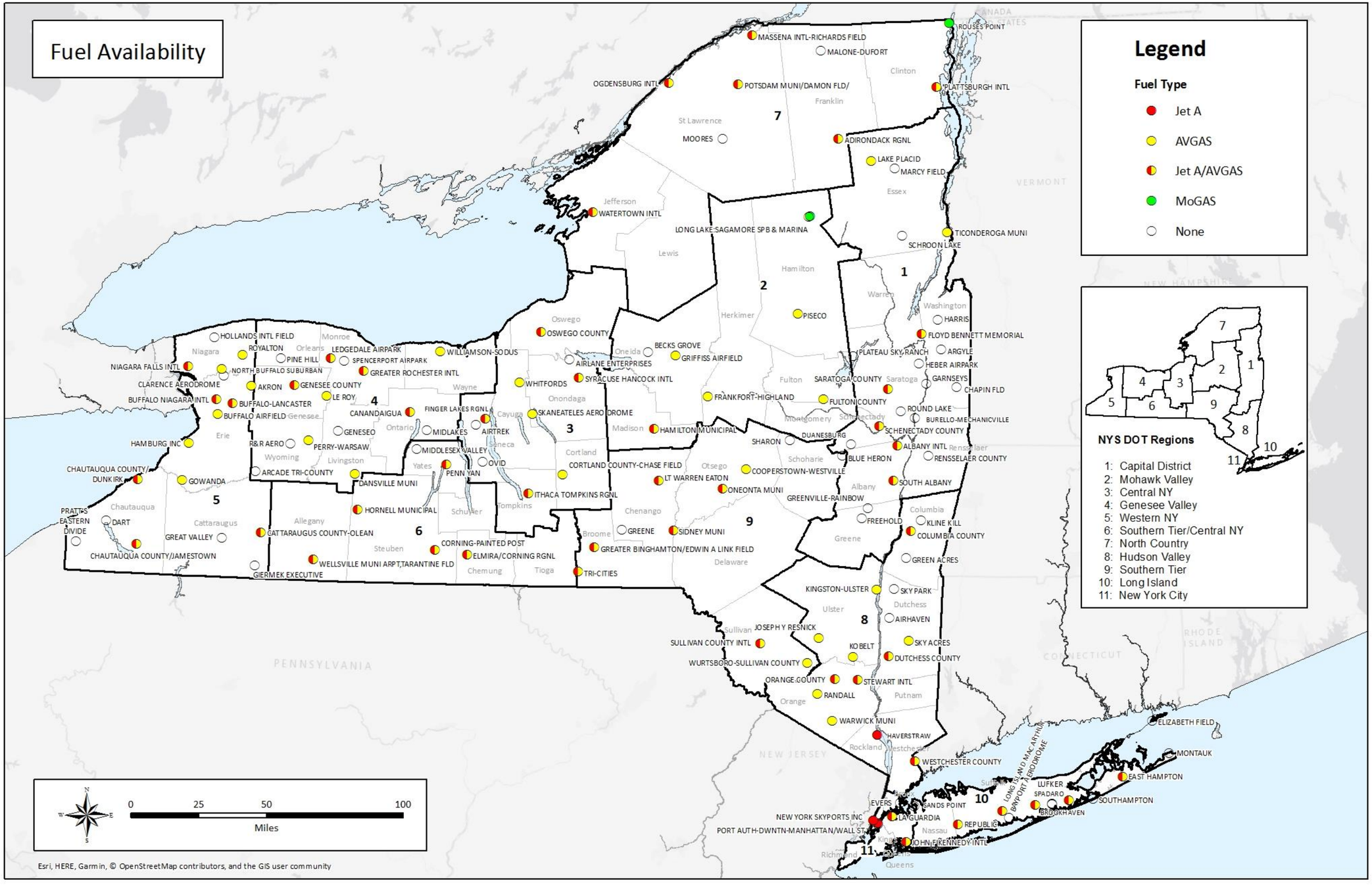
**Figure 3-8: Fuel Availability**



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## 3.13 Airport Planning Documents

Planning on a local level provides guidance for future development, protects investments in infrastructure, and helps to ensure the safety and reliability of an airport. **Table 3-12: Summary of Planning Documents** identifies the planning documents for which individual system airports or the FAA have reported to the NYSDOT for the purposes of this SASP study.

**Table 3-12: Summary of Planning Documents**

| Planning Documents Reported | Number of System Airports | Percentage of System Airports |
|---|---|---|
| Airport Layout Plan* | 75 | 57% |
| Emergency Response Plan | 53 | 40% |
| Storm Water Pollution Prevention Plan | 60 | 46% |
| Vegetation Management Plan | 19 | 15% |
| Wildlife Hazard Management Plan | 33 | 25% |
| Local Comprehensive Plan | 51 | 39% |
| Security Plan | 66 | 50% |

Sources: Airport Representatives and Louis Berger

*All federally-obligated airports are required to maintain an up-to-date Airport Layout Plan (ALP)

## 3.14 Summary – System Inventory

The inventory element of the system planning process is a fundamental part of developing a blueprint for the future development of New York State's airport system. By cataloging key airport facilities and services at the state system of public-use airports, a baseline has been established which will be used to develop the subsequent chapters of this system plan update. This comprehensive collection of data has been developed to assist airport officials, airport sponsors, and the New York State DOT to identify areas for improvement and determine the future allocation of resources, as they become available, to meet the goals and objectives of the system.

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# New York State Airport System Plan 2018

## Chapter 4: Airport Role and Classification Analysis

## 4.1 Introduction

The Federal Aviation Administration's (FAA) nationwide classification system of public-use airports has limited applicability in describing the various mixture of public-use general aviation facilities in New York. What is needed is a state-level perspective of the aviation contributions of each public-use facility to more clearly define its respective role in the state airport system. This state-level understanding is a prerequisite to ensuring that long-term public policies of general aviation facilities within the state are reflective of the diverse state airport system.

The National Plan of Integrated Airport Systems (NPIAS) classification system is based primarily on the distinction of commercial service versus general aviation to determine the national role of a given public-use airport. Although satisfactory for FAA nationwide perspective, this classification system does not provide a comprehensive picture of each airport's role with respect to factors such as population, economic needs, geography, and accessibility, nor does it take into consideration the types of aviation activity occurring at each airport.

This chapter provides an overview of New York's efforts to identify and present a clear understanding of public-use system of general aviation facilities in the state. Identification of each airport's contribution to the state airport system was performed. The resultant state classification system of public-use airports was then compared to corresponding NPIAS classification system and related FAA ASSET studies.

## 4.2 2008 SASP Airport Roles and Categories

The 2008 New York State Airport System Plan identified 18 commercial airports with scheduled airline service, 70 general aviation airports, and 5 heliports, for a total of 93 facilities placed in the following categories:

- Commercial Service – Primary
- Commercial Service – Other
- Commercial Service – GA
- General Aviation – Reliever
- General Aviation – Other

The 2008 plan also classified the system airports into three designated roles primarily based on available runway length. The three distinct roles included: Large Business, Medium Business, and Small Business.

- The Large Business standards included at least 5,000 feet of usable runway length and offering a full complement of infrastructure and amenities that can meet a wide range of advanced business and corporate users.
- The Medium Business standards consisted of mid-sized general aviation airports with less than 5,000 feet but at least 4,200 feet of paved runway, and

- the Small Business airports consisted of basic general aviation airports with a usable runway length between 3,000 and 4,199 feet.

## 4.3 2018 State Airport Roles and System Classification

The New York State airport system currently includes 131-active public-use airports, including: 19-commercial service airports with scheduled airline passenger service, 101-general aviation airports, 5-heliports, and 6-seaplane bases. In addition to these public-use airports, New York State also has 371-active private-use facilities which were not included analyzed as part of this study as they are not open to the public for aviation purposes.

NYSDOT undertook an in-depth, comprehensive analysis to categorize the state's active public-use airports to develop a clear understanding of each facility's state-level role and function within the system. The result was a classification system of five (5) categories that accurately groups the airports based on key factors relating to types of service, type of aviation activity, as well as economic needs, geography, etc. as they relate to the State of New York.

The five NYS classification categories and corresponding criteria factors of the State Airport System are described in **Table 4-1: New York State Airport Classification System** and listed as:

1. National / Commercial Service
2. Regional / Corporate Business
3. Local / Community Business
4. Local / General Aviation
5. Basic / General Aviation

**Table 4-1: New York State Airport Classification System**

| NYS Category | Role / Function | Summary | Principal Factors | 2018 |
|---|---|---|---|---|
| 1 | **National / Commercial Service** | Public-Use Airports with FAA Part 139 Certification that host scheduled commercial passenger air carrier service for National, International, and/or Interstate markets. | Part 139 Certificated Airports that host scheduled commercial air carrier service for National, International, or Regional markets. | **19** |
| 2 | **Regional / Corporate Business** | Public-Use Airports that:<br>• Promote regional economic activities;<br>• Connect state, regional, and national economies; and<br>• Provide specialized services and access for general aviation commercial aircraft, including most contemporary business aircraft. | Part 139 Certificated Airports that do not host scheduled commercial air carrier service;<br>or<br>Airports with a paved primary runway and:<br>➢ Instrument Landing System approach; or<br>➢ Active Control Tower.<br>or<br>Heliports with at least 20 Daily Flight Operations. | **16** |
| 3 | **Local / Community Business** | Public-Use Airports that:<br>• Directly serve local markets and employers,<br>• Provide a comprehensive set of select aviation services to transient and based aircraft, and/or<br>• Have a vibrant level of flight operations and based aircraft. | Airports with a paved primary runway, 100LL aviation fuel, and:<br>➢ Jet-A aviation fuel; or<br>➢ Major Repair services (airframe or powerplant); or<br>➢ Based Aircraft of 20 or more and at least 20 Daily Flight Operations. | **34** |
| 4 | **Local / General Aviation** | Public-Use Airports that provide:<br>• Select aviation services to both transient and based aircraft,<br>• Aviation access to rural or remote locations, and/or<br>• Airports with an active level of local flight operations and based aircraft. | Airports with:<br>➢ FAA Part 135 or 136 Operations; or<br>➢ 100LL aviation fuel; or<br>➢ Major Repair services (e.g. airframe, powerplant); or<br>➢ Seasonal Local Significance; or<br>➢ Based Aircraft of 10 or more and at least 14 Daily Flight Operations. | **26** |
| 5 | **Basic / General Aviation** | Public-Use Airports with mostly local operations of a type similar to Club, Sport, or Personal flying purposes. | Airports that have less than 10 Based Aircraft or less than 14 Daily Flight Operations and do not have:<br>➢ 100LL aviation fuel or<br>➢ Major Repair services (e.g. airframe, powerplant). | **36** |
| | | | **TOTAL** | **131** |

**Source:** NYSDOT

Each of the 131-active public-use general aviation facilities in New York were examined for the respective category factors listed in **Table 4-1**. Factor data was obtained from: FAA published information, publicly-available commercial data, New York State aviation facility inventory, and information collected by the NYSDOT 2015 airport survey were used to assign each of the active facilities to the most relevant system category.

The results of these individual facility assignments are presented in **Tables 4-2** through **4-6**.

**Figure 4-1** provides a geographic representation of the New York State public-use airport classification system.

**Table 4-2: New York State Airport Classification System – Category 1**

| | Category 1 National / Commercial Service | LOC ID | 100LL | Jet A | Airframe / Power Plant Repairs | Daily Ops |
|---|---|---|---|---|---|---|
| 1 | Adirondack Regional | SLK | Yes | Yes | MA / MA | 17 |
| 2 | Albany International | ALB | Yes | Yes | MA / MA | 194 |
| 3 | Buffalo Niagara International | BUF | Yes | Yes | MA / MA | 317 |
| 4 | Chautauqua County / Jamestown | JHW | Yes | Yes | MA / MA | 95 |
| 5 | Elmira-Corning Regional | ELM | Yes | Yes | MA / MA | 58 |
| 6 | Greater Binghamton Airport | BGM | Yes | Yes | MA / MA | 43 |
| 7 | Greater Rochester International | ROC | Yes | Yes | MA / MA | 230 |
| 8 | Ithaca Tompkins Regional | ITH | Yes | Yes | MA / MA | 107 |
| 9 | John F Kennedy International | JFK | Yes | Yes | MA / MA | 1,213 |
| 10 | LaGuardia | LGA | Yes | Yes | MA / MA | 1,012 |
| 11 | Long Island MacArthur | ISP | Yes | Yes | MA / MA | 311 |
| 12 | Massena International - Richards Field | MSS | Yes | Yes | MA / MA | 25 |
| 13 | Niagara Falls International | IAG | Yes | Yes | MA / MA | 61 |
| 14 | Ogdensburg International | OGS | Yes | Yes | MA / MA | 13 |
| 15 | Plattsburgh International | PBG | Yes | Yes | MI / - | 29 |
| 16 | Stewart International | SWF | Yes | Yes | MA / MA | 112 |
| 17 | Syracuse Hancock International | SYR | Yes | Yes | MA / MA | 165 |
| 18 | Watertown International | ART | Yes | Yes | MA / MA | 120 |
| 19 | Westchester County | HPN | Yes | Yes | MA / MA | 433 |

**Sources:** NYSDOT, FAA Form 5010 Airport Master Record.
**Repair:** MA – Major, MI – Minor
**Daily Operations** based on 2016 FAA Terminal Area Forecast data

**Table 4-3: New York State Airport Classification System – Category 2**

| | Category 2 Regional / Corporate Business | LOC ID | 100LL | Jet A | Airframe / Power Plant Repairs | Daily Ops |
|---|---|---|---|---|---|---|
| 1 | Brookhaven | HWV | Yes | Yes | MA / MA | 165 |
| 2 | Downtown Manhattan / Wall St Heliport | JRB | | Yes | | 159 |
| 3 | East 34th Street Heliport | 6N5 | | Yes | | 76 |
| 4 | East Hampton | HTO | Yes | Yes | MA / MA | 69 |
| 5 | Floyd Bennett Memorial | GFL | Yes | Yes | MA / MA | 74 |
| 6 | Francis S Gabreski | FOK | Yes | Yes | MA / MA | 161 |
| 7 | Genesee County | GVQ | Yes | Yes | MA / MA | 110 |
| 8 | Griffiss International | RME | Yes | Yes | MA / MA | 74 |
| 9 | Hudson Valley Regional | POU | Yes | Yes | MA / MA | 205 |
| 10 | Orange County | MGJ | Yes | Yes | MA / MA | 329 |
| 11 | Oswego County | FZY | Yes | Yes | MA / MA | 56 |
| 12 | Republic | FRG | Yes | Yes | MA / MA | 529 |
| 13 | Saratoga County | 5B2 | Yes | Yes | MA / MA | 106 |
| 14 | Schenectady County | SCH | Yes | Yes | MI / MA | 154 |
| 15 | Sullivan County International | MSV | Yes | Yes | MA / MI | 61 |
| 16 | West 30th St Heliport | JRA | | Yes | | 48 |

**Sources:** NYSDOT, FAA Form 5010 Airport Master Record.
**Repair:** MA – Major, MI – Minor
**Daily Operations** based on 2016 FAA Terminal Area Forecast data

**Table 4-4: New York State Airport Classification System – Category 3**

| | Category 3 Local / Community Business | LOC ID | 100LL | Jet A | Airframe / Powerplant Repairs | Daily Ops | Based A/C |
|---|---|---|---|---|---|---|---|
| 1 | Akron | 9G3 | Yes | | MA / MA | 139 | 44 |
| 2 | Buffalo Airfield | 9G0 | Yes | Yes | MA / MA | 150 | 27 |
| 3 | Buffalo - Lancaster Regional | BQR | Yes | | MI / MA | 123 | 64 |
| 4 | Canandaigua | IUA | Yes | Yes | MA / MA | 59 | 32 |
| 5 | Cattaraugus County - Olean | OLE | Yes | Yes | | 70 | 18 |
| 6 | Chautauqua County / Dunkirk | DKK | Yes | Yes | MA / MA | 86 | 43 |
| 7 | Columbia County | 1B1 | Yes | Yes | MA / MI | 52 | 25 |
| 8 | Corning - Painted Post | 7N1 | Yes | Yes | MA / MI | 24 | 42 |
| 9 | Cortland County - Chase Field | N03 | Yes | | MA / MA | 46 | 43 |
| 10 | Dansville Municipal | DSV | Yes | | MI / MI | 131 | 13 |
| 11 | Finger Lakes Regional | 0G7 | Yes | Yes | MA / MA | 35 | 16 |
| 12 | Fulton County | NY0 | Yes | | MA / MI | 30 | 35 |
| 13 | Hamburg Inc | 4G2 | Yes | | MI / MI | 32 | 26 |
| 14 | Hamilton Municipal | VGC | Yes | Yes | MA / MA | 47 | 36 |
| 15 | Hornell Municipal | HTF | Yes | Yes | | 54 | 9 |
| 16 | Joseph Y Resnick | N89 | Yes | | MI / MI | 16 | 28 |
| 17 | Kingston - Ulster | 20N | Yes | | MA / MA | 21 | 33 |
| 18 | Kobelt | N45 | Yes | | | 41 | 25 |
| 19 | Lake Placid | LKP | Yes | Yes | MA / MA | 32 | 20 |
| 20 | Le Roy | 5G0 | Yes | | MI / MI | 40 | 27 |
| 21 | Ledgedale Airpark | 7G0 | Yes | Yes | MA / MA | 44 | 36 |
| 22 | Lt Warren Eaton | OIC | Yes | Yes | | 47 | 12 |
| 23 | Oneonta Municipal | N66 | Yes | Yes | MA / MA | 59 | 6 |
| 24 | Penn Yan | PEO | Yes | Yes | MA / MA | 52 | 22 |
| 25 | Perry - Warsaw | 01G | Yes | | MA / MA | 39 | 18 |
| 26 | Potsdam Municipal Damon | PTD | Yes | Yes | MA / MA | 16 | 14 |
| 27 | Sidney Municipal | N23 | Yes | Yes | MA / MA | 21 | 27 |
| 28 | Skaneateles Aero Drome | 6B9 | Yes | | | 24 | 28 |
| 29 | Sky Acres | 44N | Yes | | MA / MA | 132 | 119 |
| 30 | South Albany | 4B0 | Yes | Yes | MA / MA | 78 | 46 |
| 31 | Tri-Cities | CZG | Yes | Yes | | 17 | 42 |
| 32 | Wellsville Municipal | ELZ | Yes | Yes | MA / MA | 25 | 19 |
| 33 | Williamson - Sodus | SDC | Yes | | MA / MA | 72 | 77 |
| 34 | Wurtsburo–Sullivan County | N82 | Yes | | MA / MA | 191 | 15 |

**Sources:** NYSDOT, FAA Form 5010 Airport Master Record.
**Repairs**: MA- Major, MI- Minor
**Daily Operations** based on 2016 FAA Terminal Area Forecast data or latest 5010 Airport Master Record.
**Based Aircraft (A/C)** listed in FAA National Based Aircraft Inventory as of 4/27/2017 or latest 5010 Airport Master Record.

**Table 4-5: New York State Airport Classification System – Category 4**

| | Category 4 Local/ General Aviation | LOC ID | Rwy | Fuel | Airframe / Power-Plant Repairs | Seasonal Signif-icance | Daily Ops | Based A/C |
|---|---|---|---|---|---|---|---|---|
| 1 | Airhaven | 09N | T | | MA / MA | | 0.5 | 3 |
| 2 | Argyle | 1C3 | T | | MA / MA | | 55 | 29 |
| 3 | Bayport Aerodrome | 23N | T | | | | 28 | 73 |
| 4 | Becks Grove | K16 | A | | | | 17 | 11 |
| 5 | Clarence Aerodrome | D51 | T | | | | 27 | 22 |
| 6 | Cooperstown-Westville | K23 | T | 100LL | MA / MA | | 7 | 24 |
| 7 | Duanesburg | 4B1 | A | 100LL | | | 2 | 0 |
| 8 | Elizabeth Field | 0B8 | A | | | YES | 6 | 2 |
| 9 | Frankfort - Highland | 6B4 | A | 100LL | | | 32 | 0 |
| 1 | Geneseo | D52 | T | | | | 20 | 19 |
| 1 | Gowanda | D59 | T | 100LL | | | 10 | 5 |
| 1 | Greene | 4N7 | T | | MA / MA | | 8 | 9 |
| 1 | Haverstraw Heliport | H43 | - | Jet A | | | 6 | 3 |
| 1 | Kline Kill | NY1 | T | | MA / MA | | 2 | 39 |
| 1 | Long Lake / Helms SPB | NY9 | - | 100LL | MI / MI | YES | 6 | 3 |
| 1 | Malone - Dufort | MAL | A | 100LL | | | 23 | 13 |
| 1 | Montauk | MTP | A | | | | 83 | 6 |
| 1 | New York Skyports Inc SPB | 6N7 | - | | | YES | 4 | 0 |
| 1 | North Buffalo Suburban | 0G0 | A | 100LL | | | 9 | 0 |
| 2 | Pine Hill | 9G6 | A | | | | 17 | 10 |
| 2 | Piseco | K09 | A | 100LL | | | 8 | 2 |
| 2 | Randall | 06N | A | 100LL | | | 61 | 15 |
| 2 | Royalton | 9G5 | A | 100LL | | | 16 | 39 |
| 2 | Ticonderoga Municipal | 4B6 | A | 100LL | | | 30 | 6 |
| 2 | Warwick Municipal | N72 | A | 100LL | | | 12 | 48 |
| 2 | Whitfords | B16 | A | 100LL | | | 16 | 20 |

**Sources:** NYSDOT, FAA Form 5010 Airport Master Record.
**Runways:** T – Turf, A – Asphalt, G – Gravel
**Repairs:** MA – Major, MI – Minor
**Seasonal Local Significance:** Facility with a significant seasonal increase of flight operations that directly serve the immediate locale.
**Daily Operations** based on 2016 FAA Terminal Area Forecast data or latest 5010 Airport Master Record.
**Based Aircraft (A/C**) listed in FAA National Based Aircraft Inventory as of 4/27/2017 or latest 5010 Airport Master Record.

**Table 4-6: New York State Airport Classification System – Category 5**

| | Category 5 Basic / General Aviation | LOC ID | Rwy | Fuel | Airframe / Power-Plant Repairs | Daily Ops | Based A/C |
|---|---|---|---|---|---|---|---|
| 1 | Airlane Enterprises | 1H1 | T | | | 1 | 1 |
| 2 | Arcade Tri-County | D23 | T-G | | | 5 | 3 |
| 3 | Blue Heron | N25 | T | | | 0.5 | 0 |
| 4 | Burrello - Mechanicville | K27 | A-G | | | 3 | 3 |
| 5 | Chapin Field | 1B8 | T | | MI / MI | 3 | 21 |
| 6 | Dart | D79 | T | | | 2 | 37 |
| 7 | Evers SPB | 6N6 | W | | | 0.2 | 1 |
| 8 | Freehold | 1I5 | A | | MI / MI | 6 | 0 |
| 9 | Garnseys | B04 | T | | | 3 | 3 |
| 10 | Giermek Executive | 8G3 | T | | | 1 | 3 |
| 11 | Great Valley | N56 | T | | | 21 | 7 |
| 12 | Green Acres | 1A1 | T | | MI / MI | 5 | 6 |
| 13 | Greenville - Rainbow | 1H4 | T | | | 2 | 1 |
| 14 | Harris | 83K | T | | | 0 | 1 |
| 15 | Heber Airpark | K30 | A | | | 31 | 7 |
| 16 | Hollands International Field | 85N | T | | | 7 | 1 |
| 17 | Long Lake Sagamore SPB | K03 | - | | | 0.1 | 1 |
| 18 | Lufker | 49N | T | | | 7 | 25 |
| 19 | Marcy Field | 1I1 | T | | | 0.3 | 1 |
| 20 | Mattituck | 21N | A | | | 1.4 | 8 |
| 21 | Middlesex Valley | 4N2 | T | | MI / MI | 7 | 11 |
| 22 | Midlakes | 92G | T | | MI / MI | 0.4 | 3 |
| 23 | Moores | 1E8 | T | | | 10 | 7 |
| 24 | Ovid | D82 | A-G | MoGas | | 7 | 3 |
| 25 | Plateau Sky Ranch | 1F2 | T | | | 9 | 8 |
| 26 | Pratt's Eastern Divide | D88 | T | | | 0 | 10 |
| 27 | R & R Aero | 5R5 | T | | | 2 | 6 |
| 28 | Rensselaer County | 5B7 | A | | | 2 | 0 |
| 29 | Round Lake Airport and SPB | W57 | T | | | 5 | 8 |
| 30 | Rouses Point SPB | K21 | - | MoGas | | 0.1 | 0 |
| 31 | Sands Point SPB | 7N3 | - | | | 0.1 | 0 |
| 32 | Schroon Lake | 4B7 | A | | | 2 | 1 |
| 33 | Sharon | K31 | T | | | 4 | 1 |
| 34 | Sky Park | 46N | A | | | 0 | 0 |
| 35 | Southampton Heliport | 87N | - | | | 1 | 0 |
| 36 | Spencerport Airpark | D91 | T | | | 0.5 | 3 |

**Sources:** NYSDOT, FAA Form 5010 Airport Master Record.
**Runways**: T – Turf, A – Asphalt, G – Gravel **Repairs**: MA – Major, MI – Minor
**Daily Operations** based on 2016 FAA Terminal Area Forecast data or latest Form 5010 Airport Master Record.
**Based Aircraft (A/C)** listed in FAA National Based Aircraft Inventory as of 4/27/2017 or latest Form 5010.

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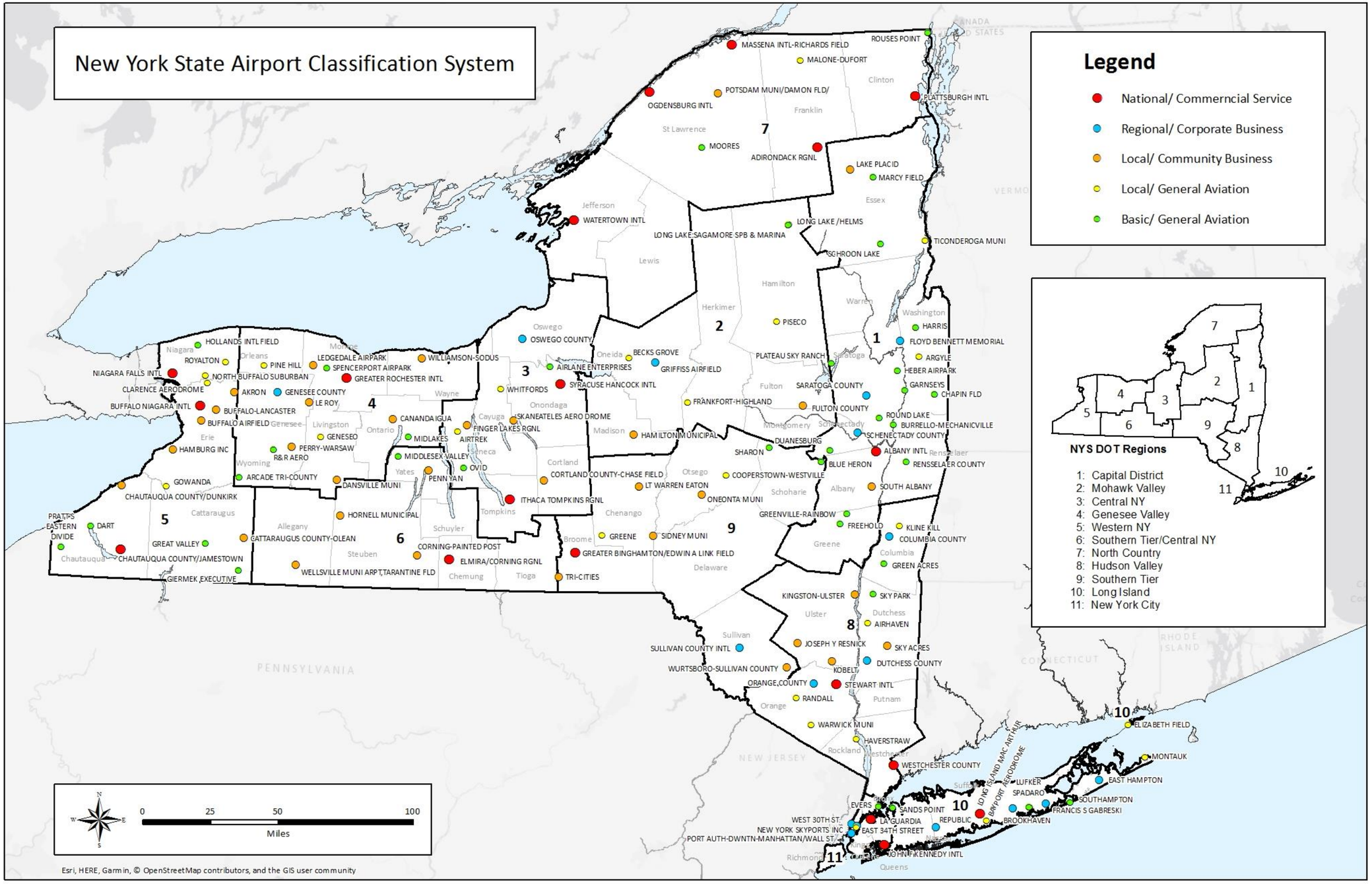
**Figure 4-1: New York State Airport Classification System**



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## 4.4 National Plan of Integrated Airport Systems

Under the *Airport and Airways Improvement Act*, the Secretary of Transportation is required to develop a national plan for the development of public-use airports. The plan is published as the *National Plan of Integrated Airport Systems* (NPIAS), which currently identifies over 3,300 public-use airports that are significant to the nation's air transportation system and therefore eligible to receive federal grants under the Airport Improvement Program act (AIP).

The NPIAS consists of airports that are necessary for a safe and efficient integrated national system of airports. The current 2017-2021 NPIAS groups all listed airports into two main classifications, Primary and Non-primary, and seven NPIAS categories as shown in **Table 4-7.**

**Table 4-7: NPIAS Airport Classification and Categories**

| Airport Classification | Hub Type (Percentage of Annual Passenger Boardings) | NPIAS Category |
|---|---|---|
| **Primary** Publicly-owned airports having more than 10,000 passenger boardings each year **§47102(16)** | **Large:** 1% or more | **Large Hub** |
| | **Medium:** At least 0.25%, but less than 1% | **Medium Hub** |
| | **Small:** At least 0.05%, but less than 0.25% | **Small Hub** |
| | **Non-hub:** More than 10,000, but less than 0.05% | **Non-hub Primary** |
| **Non-primary** | **Non-hub:** Publicly-owned airports having at least 2,500 passengers and no more than 10,000 | **Non-primary Commercial Service** |
| | *Not Applicable* (No Commercial Service) | **Reliever §47102(23)** |
| | | **General Aviation §47102(8)** |

Sources: NYSDOT and FAA

Primary airports are defined as publicly-owned, public-use airports receiving scheduled air carrier service with 10,000 or more enplaned passengers per year. Primary airports are further grouped into four NPIAS "hub" categories of: **Large**, **Medium**, **Small**, and **Non-hub** primary as measured by passenger enplanements.

- **Non-primary Commercial Service** are defined as publicly-owned airports having scheduled passenger service with between 2,500 and 9,999 enplaned passengers per year. Facilities assigned to this category are further grouped into one of five "non-primary" NPIAS Roles of *National*, *Regional*, *Local*, *Basic*, and *Unclassified*.
- **Reliever** airports are general aviation airports that have been designated by the FAA to relieve congestion by attracting slower-moving general aviation traffic away from congested commercial service (primary) airports in metropolitan areas. Facilities assigned to this category are further grouped into one of five "non-primary" NPIAS Roles of *National*, *Regional*, *Local*, *Basic*, and *Unclassified*.
- **General aviation** airports are included in the NPIAS based on current activity measures (e.g. number and type of based aircraft, and volume and type of flights). Facilities assigned to this category are further grouped into one of five "non-primary" NPIAS Roles of *National*, *Regional*, *Local*, *Basic*, and *Unclassified*.

The 2017-2021 NPIAS includes the FAA assigned categories and roles for 86 of the 131-active, public-use aviation facilities in New York State. Facilities are listed in **Table 4-8: New York State NPIAS Airports** consist of 16-active, Primary airports and 70-active, Non-primary facilities, summarized as:

Primary (16)

- Commercial service airports with NPIAS categories of **Large Hub** (2), **Medium Hub** (1), **Small Hub** (5), and **Non-hub** (8) airports.

Non-Primary (70)

- **Non-primary Commercial Service** (4 total) airports with NPIAS role of *Regional*.
- **Reliever** (5 total) airports with NPIAS roles identified as *Regional* (4) and *Local* (1).
- **General Aviation** (34 total) airports with NPIAS roles identified as *Regional* (12), *Local* (16), and *Basic* (6).
- **General Aviation** (27 total) facilities with NPIAS role identified as *Unclassified* and consisting of publicly-owned airports (2), publicly-owned heliports (4), and privately-owned airports (21).

## Table 4-8: New York State NPIAS Airports

# New York

| City | Airport | LocID | Owner-ship | Hub | Role | Category | | Current Aircraft | | 2017-2021 Dev Estimate |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Current | Year 5 | Enplaned | Based | |
| Akron | Akron | 9G3 | PR | | Unclassified | R | R | 0 | 46 | $0 |
| Albany | Albany International | ALB | PU | S | | P | P | 1,210,825 | 95 | $15,239,407 |
| Batavia | Genesee County | GVQ | PU | | Regional | R | R | 1 | 58 | $9,652,590 |
| Bayport | Bayport Aerodrome | 23N | PU | | Local | GA | GA | 0 | 37 | $850,000 |
| Binghamton | Greater Binghamton/Edwin A Link Field | BGM | PU | N | | P | P | 82,625 | 30 | $20,289,955 |
| Brockport | Ledgedale Airpark | 7G0 | PR | | Unclassified | R | R | 0 | 37 | $0 |
| Buffalo | Buffalo Airfield | 9G0 | PR | | Unclassified | R | R | 0 | 27 | $0 |
| Buffalo | Buffalo Niagara International | BUF | PU | M | | P | P | 2,378,469 | 34 | $46,776,031 |
| Canandaigua | Canandaigua | D38 | PU | | Local | R | R | 18 | 31 | $3,920,172 |
| Corning | Corning-Painted Post | 7N1 | PU | | Local | GA | GA | 0 | 24 | $1,925,892 |
| Cortland | Cortland County-Chase Field | N03 | PU | | Regional | GA | GA | 2 | 37 | $3,189,445 |
| Dansville | Dansville Municipal | DSV | PU | | Local | GA | GA | 8 | 24 | $1,828,000 |
| Duanesburg | Duanesburg | 4B1 | PR | | Unclassified | GA | GA | 0 | 0 | $0 |
| Dunkirk | Chautauqua County/Dunkirk | DKK | PU | | Local | GA | GA | 7 | 38 | $2,142,722 |
| East Hampton | East Hampton | HTO | PU | | Regional | GA | GA | 234 | 110 | $733,522 |
| East Moriches | Spadaro | 1N2 | PR | | Unclassified | R | R | 0 | 16 | $0 |
| Ellenville | Joseph Y Resnick | N89 | PU | | Local | GA | GA | 0 | 28 | $2,876,147 |
| Elmira/Corning | Elmira/Corning Regional | ELM | PU | N | | P | P | 159,136 | 48 | $24,285,380 |
| Endicott | Tri-Cities | CZG | PU | | Local | GA | GA | 0 | 42 | $2,050,556 |
| Farmingdale | Republic | FRG | PU | N | | P | P | 12,559 | 507 | $33,205,656 |
| Fishers Island | Elizabeth Field | 0B8 | PU | | Basic | GA | GA | 60 | 2 | $1,468,000 |
| Freehold | Freehold | 1I5 | PR | | Unclassified | GA | GA | 0 | 0 | $0 |
| Fulton | Oswego County | FZY | PU | | Regional | GA | GA | 2 | 72 | $7,491,386 |
| Gasport | Royalton | 9G5 | PR | | Unclassified | GA | GA | 0 | 39 | $0 |
| Glens Falls | Floyd Bennett Memorial | GFL | PU | | Regional | GA | GA | 19 | 52 | $20,811,141 |
| Hamilton | Hamilton Municipal | VGC | PU | | Local | GA | GA | 26 | 35 | $4,923,334 |
| Hornell | Hornell Municipal | HTF | PU | | Basic | GA | GA | 0 | 9 | $1,011,800 |
| Hudson | Columbia County | 1B1 | PU | | Regional | GA | GA | 6 | 26 | $6,064,165 |
| Ithaca | Ithaca Tompkins Regional | ITH | PU | N | | P | P | 89,501 | 60 | $6,103,800 |
| Jamestown | Chautauqua County/Jamestown | JHW | PU | | Regional | CS | CS | 3,222 | 29 | $8,657,748 |
| Johnstown | Fulton County | NY0 | PU | | Local | GA | GA | 0 | 33 | $9,646,825 |
| Kingston | Kingston-Ulster | 20N | PR | | Unclassified | R | R | 4 | 34 | $0 |
| Lake Placid | Lake Placid | LKP | PU | | Local | GA | GA | 4 | 20 | $3,136,357 |
| Lancaster | Buffalo-Lancaster Regional | BQR | PR | | Unclassified | R | R | 0 | 65 | $0 |
| Le Roy | Le Roy | 5G0 | PR | | Unclassified | R | R | 0 | 27 | $0 |
| Lockport | North Buffalo Suburban | 0G0 | PR | | Unclassified | GA | GA | 0 | 0 | $0 |
| Malone | Malone-Dufort | MAL | PU | | Basic | GA | GA | 0 | 13 | $2,003,193 |
| Massena | Massena International-Richards Field | MSS | PU | | Regional | CS | CS | 4,553 | 9 | $7,541,654 |
| Middletown | Randall | 06N | PR | | Unclassified | R | R | 0 | 15 | $0 |
| Millbrook | Sky Acres | 44N | PR | | Regional | R | R | 4 | 123 | $3,164,444 |
| Montauk | Montauk | MTP | PR | | Unclassified | R | R | 31 | 7 | $0 |
| Montgomery | Orange County | MGJ | PU | | Regional | GA | GA | 2 | 144 | $22,131,498 |
| Monticello | Sullivan County International | MSV | PU | | Local | GA | GA | 20 | 35 | $12,114,340 |
| New York | Downtown Manhattan/Wall St | JRB | PU | | Unclassified | GA | GA | 0 | 0 | $0 |
| New York | East 34th Street | 6N5 | PU | | Unclassified | GA | GA | 27 | 0 | $0 |
| New York | John F Kennedy International | JFK | PU | L | | P | P | 26,244,928 | 0 | $151,301,509 |
| New York | Laguardia | LGA | PU | L | | P | P | 13,535,372 | 0 | $435,867,319 |
| New York | Long Island MacArthur | ISP | PU | S | | P | P | 646,171 | 233 | $32,736,134 |
| New York | New York Skyports Inc | 6N7 | PU | | Unclassified | GA | GA | 0 | 0 | $0 |
| New York | West 30th St | JRA | PU | | Unclassified | GA | GA | 0 | 0 | $0 |
| Newburgh | Stewart International | SWF | PU | N | | P | P | 158,556 | 156 | $182,274,943 |
| Niagara Falls | Niagara Falls International | IAG | PU | N | | P | P | 111,212 | 83 | $37,462,980 |
| Norwich | Lt Warren Eaton | OIC | PU | | Basic | GA | GA | 8 | 10 | $2,524,167 |
| Ogdensburg | Ogdensburg International | OGS | PU | | Regional | CS | CS | 5,507 | 7 | $9,572,306 |
| Olean | Cattaraugus County-Olean | OLE | PU | | Local | GA | GA | 0 | 19 | $2,304,500 |

**National Plan of Integrated Airport Systems (2017-2021)** **A-1**

## New York

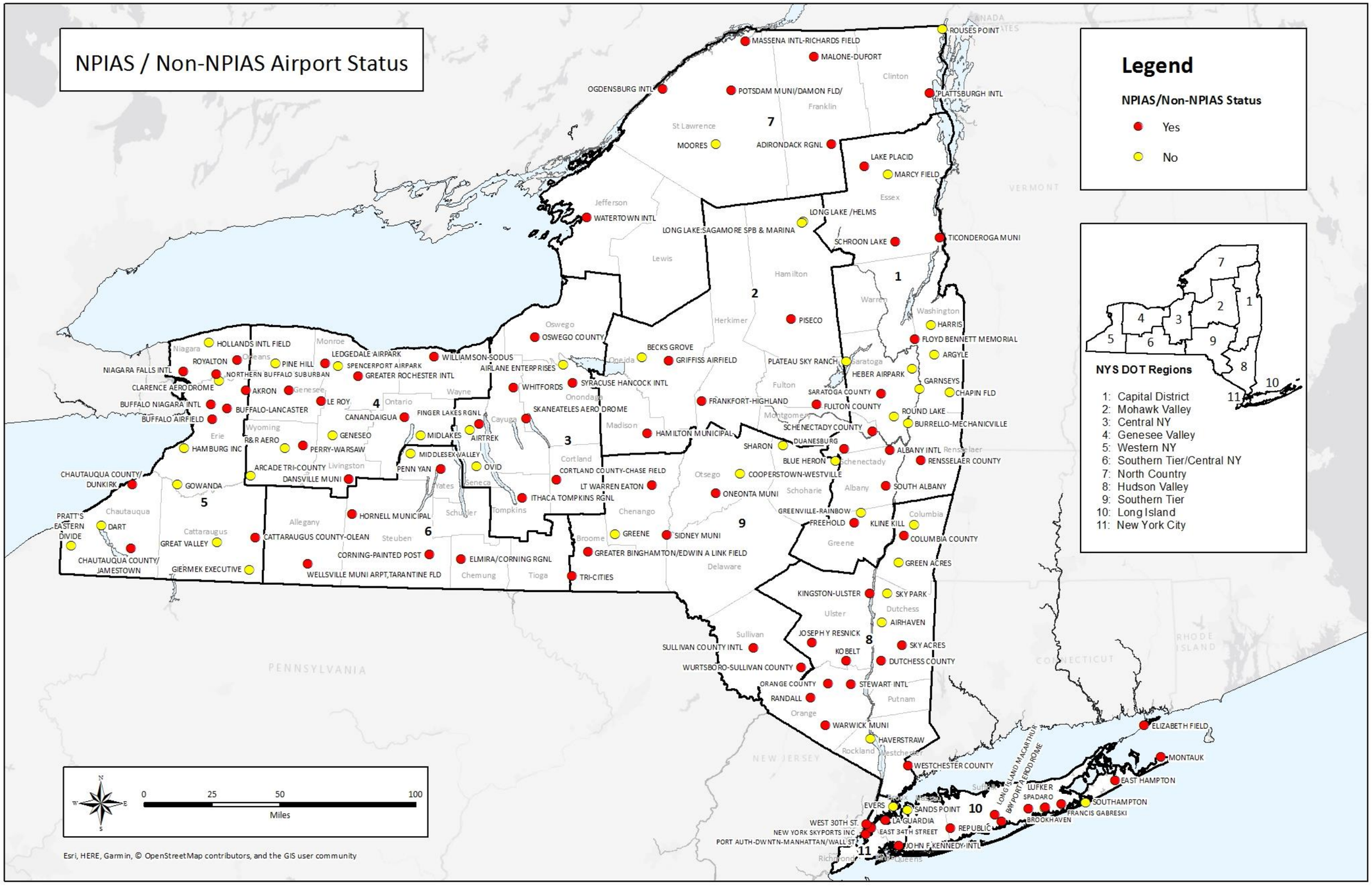
| City | Airport | LocID | Owner-ship | Hub | Role | Category | | Current Aircraft | | 2017-2021 Dev Estimate |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Current | Year 5 | Enplaned | Based | |
| Oneonta | Oneonta Municipal | N66 | PU | | Basic | GA | GA | 7 | 6 | $5,425,000 |
| Penn Yan | Penn Yan | PEO | PU | | Regional | GA | GA | 199 | 24 | $3,347,000 |
| Perry | Perry-Warsaw | 01G | PU | | Local | GA | GA | 0 | 21 | $3,983,056 |
| Piseco | Piseco | K09 | PU | | Basic | GA | GA | 0 | 2 | $2,008,500 |
| Plattsburgh | Plattsburgh International | PBG | PU | N | | P | P | 139,676 | 40 | $39,036,547 |
| Potsdam | Potsdam Municipal/Damon Field | PTD | PU | | Regional | GA | GA | 0 | 15 | $3,360,261 |
| Poughkeepsie | Dutchess County | POU | PU | | Regional | GA | GA | 12 | 118 | $14,246,205 |
| Red Hook | Sky Park | 46N | PR | | Unclassified | GA | GA | 0 | 0 | $0 |
| Rochester | Greater Rochester International | ROC | PU | S | | P | P | 1,173,933 | 82 | $36,768,422 |
| Rome | Griffiss International | RME | PU | | Regional | GA | GA | 232 | 61 | $30,761,133 |
| Saranac Lake | Adirondack Regional | SLK | PU | | Regional | CS | CS | 5,141 | 18 | $8,292,590 |
| Saratoga Springs | Saratoga County | 5B2 | PU | | Regional | GA | GA | 45 | 53 | $5,448,013 |
| Schenectady | Schenectady County | SCH | PU | | Regional | R | R | 14 | 87 | $13,934,455 |
| Schroon Lake | Schroon Lake | 4B7 | PU | | Unclassified | GA | GA | 0 | 1 | $0 |
| Seneca Falls | Finger Lakes Regional | 0G7 | PU | | Local | GA | GA | 1 | 16 | $2,925,716 |
| Shirley | Brookhaven | HWV | PU | | Regional | R | R | 0 | 202 | $7,096,551 |
| Sidney | Sidney Municipal | N23 | PU | | Local | GA | GA | 0 | 25 | $3,825,000 |
| Skaneateles | Skaneateles Aero Drome | 6B9 | PR | | Unclassified | GA | GA | 12 | 26 | $0 |
| South Bethlehem | South Albany | 4B0 | PR | | Unclassified | GA | GA | 0 | 47 | $0 |
| Stormville | Stormville | N69 | PR | | Unclassified | GA | GA | 0 | 0 | $0 |
| Syracuse | Syracuse Hancock International | SYR | PU | S | | P | P | 987,169 | 56 | $38,990,182 |
| Syracuse | Syracuse Suburban | 6NK | PR | | Unclassified | R | R | 0 | 0 | $0 |
| Ticonderoga | Ticonderoga Municipal | 4B6 | PU | | Unclassified | GA | GA | 5 | 6 | $0 |
| Troy | Rensselaer County | 5B7 | PR | | Unclassified | GA | GA | 0 | 0 | $0 |
| Utica/Frankfort | Frankfort-Highland | 6B4 | PR | | Unclassified | GA | GA | 0 | 0 | $0 |
| Wallkill | Kobelt | N45 | PR | | Unclassified | R | R | 0 | 26 | $0 |
| Warwick | Warwick Municipal | N72 | PU | | Local | GA | GA | 0 | 48 | $0 |
| Watertown | Watertown International | ART | PU | N | | P | P | 19,307 | 32 | $27,088,684 |
| Weedsport | Whitfords | B16 | PR | | Unclassified | R | R | 0 | 22 | $0 |
| Wellsville | Wellsville Municipal Airport,Tarantine Field | ELZ | PU | | Local | GA | GA | 84 | 19 | $7,943,648 |
| Westhampton Beach | Francis S Gabreski | FOK | PU | | Regional | GA | GA | 146 | 93 | $6,812,272 |
| White Plains | Westchester County | HPN | PU | S | | P | P | 756,189 | 295 | $36,542,778 |
| Williamson/Sodus | Williamson-Sodus | SDC | PR | | Unclassified | R | R | 2 | 73 | $0 |
| Wurtsboro | Wurtsboro-Sullivan County | N82 | PR | | Unclassified | R | R | 0 | 0 | $0 |

**National Plan of Integrated Airport Systems (2017-2021)** **A-2**

Inclusion in the NPIAS for public-use airports is a prerequisite for being eligible to receive airport development, infrastructure, and maintenance funding from the FAA through the AIP. This federal aviation grant program provides funding grants to public agencies, and in some limited cases to private owners and entities, for the planning and development of public-use airports included in the NPIAS. AIP funding, which currently provides 90% of the cost of an eligible project with some exceptions, is a vital component of any public-use airport's development funding program.

**Figure 4-2: NPIAS / Non-NPIAS Airport Status** identifies the 86-active facilities in New York recognized in the 2017-2021 NPIAS.

**Figure 4-2: NPIAS / Non-NPIAS Airport Status**



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## 4.5 FAA ASSET Study

In 2013, the FAA completed phase II (ASSET 2) of the **General Aviation Airports: A National Asset** (ASSET) study that documents the findings from the in-depth review of the 497 facilities that could not be categorized in the FAA's original ASSET report. This in-depth analysis, highlights the pivotal role GA airports play in our society, economy, and the aviation system. The study also aligned the GA airports into four categories---national, regional, local, and basic, based on their existing activity levels**.**

The ASSET study has some general impacts on the state system planning efforts; the ASSET classes provide a common basis of comparison among other states, and the ASSET study confirms the benefits that general aviation airports contribute to the state and regional economies. The ASSET'S initial impacts on the state system planning efforts include the potential for conflict when state system plans adopt a different airport classification structure. In comparison to the ASSET study, this state system plan can address airport developmental needs in greater detail; states have avoided using "unclassified" as a category in favor of designations such as "community".

## 4.6 Comparing NPIAS and 2018 State Roles

The New York State airports' NPIAS role as well as their state determined role are compared in **Table 4-9: Comparison of NPIAS Roles to State Role Categories**.

| Table 4-9: Comparison of NPIAS Roles to State Role Categories | | | | |
|---|---|---|---|---|
| LOC ID | Facility | NPIAS | | NYS Role Category |
| | | Role | Service Category | |
| SLK | Adirondack Regional | Regional | CS | 1 |
| ALB | Albany International | Small Hub | Primary | 1 |
| BUF | Buffalo Niagara International | Medium Hub | Primary | 1 |
| JHW | Chautauqua County / Jamestown | Regional | CS | 1 |
| ELM | Elmira / Corning Regional | Non-Hub | Primary | 1 |
| BGM | Greater Binghamton Airport / Edwin A Link Field | Non-Hub | Primary | 1 |
| ROC | Greater Rochester International | Small Hub | Primary | 1 |
| ITH | Ithaca Tompkins International | Non-Hub | Primary | 1 |
| JFK | John F Kennedy International | Large Hub | Primary | 1 |
| LGA | LaGuardia | Large Hub | Primary | 1 |
| ISP | Long Island MacArthur | Small Hub | Primary | 1 |
| MSS | Massena International – Richards Field | Regional | CS | 1 |
| IAG | Niagara Falls International | Non-Hub | Primary | 1 |
| OGS | Ogdensburg International | Regional | CS | 1 |
| PBG | Plattsburgh International | Non-Hub | Primary | 1 |
| SWF | Stewart International | Non-Hub | Primary | 1 |
| SYR | Syracuse Hancock International | Small Hub | Primary | 1 |
| ART | Watertown International | Non-Hub | Primary | 1 |
| HPN | Westchester County | Small Hub | Primary | 1 |
| HWV | Brookhaven | Regional | Reliever | 2 |
| JRB | Downtown Manhattan / Wall St Heliport | Unclassified | GA | 2 |
| POU | Dutchess County | Regional | GA | 2 |
| 6N5 | East 34th Street Heliport | Unclassified | GA | 2 |
| HTO | East Hampton | Regional | GA | 2 |
| GFL | Floyd Bennett Memorial | Regional | GA | 2 |
| FOK | Francis S Gabreski | Regional | GA | 2 |
| GVQ | Genesee County | Regional | Reliever | 2 |
| RME | Griffiss International | Regional | GA | 2 |
| MGJ | Orange County | Regional | GA | 2 |
| FZY | Oswego County | Regional | GA | 2 |
| FRG | Republic | Non-Hub | Primary | 2 |
| 5B2 | Saratoga County | Regional | GA | 2 |
| SCH | Schenectady County | Regional | Reliever | 2 |
| MSV | Sullivan County International | Local | GA | 2 |
| JRA | West 30th St Heliport | Unclassified | GA | 2 |

**Table 4-9: Comparison of NPIAS Roles to State Role Categories**

| LOC ID | Facility | NPIAS | | NYS Role Category |
|---|---|---|---|---|
| | | Role | Service Category | |
| 9G3 | Akron | Unclassified | Reliever | 3 |
| BQR | Buffalo – Lancaster Regional | Unclassified | Reliever | 3 |
| 9G0 | Buffalo Airfield | Unclassified | Reliever | 3 |
| IUA | Canandaigua | Local | Reliever | 3 |
| OLE | Cattaraugus County – Olean | Local | GA | 3 |
| DKK | Chautauqua County / Dunkirk | Local | GA | 3 |
| 1B1 | Columbia County | Regional | GA | 3 |
| 7N1 | Corning – Painted Post | Local | GA | 3 |
| N03 | Cortland County Airport – Chase Field | Regional | GA | 3 |
| DSV | Dansville Municipal | Local | GA | 3 |
| 0G7 | Finger Lakes Regional | Local | GA | 3 |
| NY0 | Fulton County | Local | GA | 3 |
| 4G2 | Hamburg Inc | | | 3 |
| VGC | Hamilton Municipal | Local | GA | 3 |
| HTF | Hornell Municipal | Basic | GA | 3 |
| N89 | Joseph Y Resnick | Local | GA | 3 |
| 20N | Kingston – Ulster | Unclassified | Reliever | 3 |
| N45 | Kobelt | Unclassified | Reliever | 3 |
| LKP | Lake Placid | Local | GA | 3 |
| 5G0 | Le Roy | Unclassified | Reliever | 3 |
| 7G0 | Ledgedale Airpark | Unclassified | Reliever | 3 |
| OIC | Lt Warren Eaton | Basic | GA | 3 |
| N66 | Oneonta Municipal | Basic | GA | 3 |
| PEO | Penn Yann | Regional | GA | 3 |
| 01G | Perry – Warsaw | Local | GA | 3 |
| PTD | Potsdam Municipal Airport (Damon Field) | Regional | GA | 3 |
| N23 | Sidney Municipal | Local | GA | 3 |
| 6B9 | Skaneateles Aero Drome | Unclassified | GA | 3 |
| 44N | Sky Acres | Regional | Reliever | 3 |
| 4B0 | South Albany | Unclassified | GA | 3 |
| CZG | Tri-Cities | Local | GA | 3 |
| ELZ | Wellsville Municipal Airport, Tarantine Field | Local | GA | 3 |
| SDC | Williamson – Sodus | Unclassified | Reliever | 3 |
| N82 | Wurtsburo – Sullivan County | Unclassified | Reliever | 3 |

| Table 4-9: Comparison of NPIAS Roles to State Role Categories | | | | |
|---|---|---|---|---|
| LOC ID | Facility | NPIAS | | NYS Role Category |
| | | Role | Service Category | |
| 09N | Airhaven | | | 4 |
| 1C3 | Argyle | | | 4 |
| 23N | Bayport Aerodrome | Local | GA | 4 |
| K16 | Becks Grove | | | 4 |
| D51 | Clarence Aerodrome | | | 4 |
| K23 | Cooperstown – Westville | | | 4 |
| 4B1 | Duanesburg | Unclassified | GA | 4 |
| 0B8 | Elizabeth Field | Basic | GA | 4 |
| 6B4 | Frankfort – Highland | Unclassified | GA | 4 |
| D52 | Geneseo | | | 4 |
| D59 | Gowanda | | | 4 |
| 4N7 | Greene | | | 4 |
| H43 | Haverstraw Heliport | | | 4 |
| NY1 | Kline Kill | | | 4 |
| NY9 | Long Lake / Helms SPB | | | 4 |
| MAL | Malone - Dufort | Basic | GA | 4 |
| MTP | Montauk | Unclassified | Reliever | 4 |
| 6N7 | New York Skyports Inc SPB | Unclassified | GA | 4 |
| 0G0 | North Buffalo Suburban | Unclassified | GA | 4 |
| 9G6 | Pine Hill | | | 4 |
| K09 | Piseco Municipal | Basic | GA | 4 |
| 06N | Randall | Unclassified | Reliever | 4 |
| 9G5 | Royalton | Unclassified | GA | 4 |
| 4B6 | Ticonderoga Municipal | Unclassified | GA | 4 |
| N72 | Warwick Municipal | Local | GA | 4 |
| B16 | Whitfords | Unclassified | Reliever | 4 |

| Table 4-9: Comparison of NPIAS Roles to State Role Categories | | | | |
|---|---|---|---|---|
| LOC ID | Facility | NPIAS | | NYS Role Category |
| | | Role | Service Category | |
| 1H1 | Airlane Enterprises | | | 5 |
| D23 | Arcade Tri-County | | | 5 |
| N25 | Blue Heron | | | 5 |
| K27 | Burrello – Mechanicville | | | 5 |
| 1B8 | Chapin Field | | | 5 |
| D79 | Dart | | | 5 |
| 6N6 | Evers SPB | | | 5 |
| 1I5 | Freehold | Unclassified | GA | 5 |
| B04 | Garnseys | | | 5 |
| 8G3 | Giermek Executive | | | 5 |
| N56 | Great Valley | | | 5 |
| 1A1 | Green Acres | | | 5 |
| 1H4 | Greenville – Rainbow | | | 5 |
| 83K | Harris | | | 5 |
| K30 | Heber Airpark | | | 5 |
| 85N | Hollands International Field | | | 5 |
| K03 | Long Lake Sagamore SPB | | | 5 |
| 49N | Lufker | | | 5 |
| 1I1 | Marcy Field | | | 5 |
| 21N | Mattituck | | | 5 |
| 4N2 | Middlesex Valley | | | 5 |
| 92G | Midlakes | | | 5 |
| 1E8 | Moores | | | 5 |
| D82 | Ovid | | | 5 |
| 1F2 | Plateau Sky Ranch | | | 5 |
| D88 | Pratt's Eastern Divide | | | 5 |
| 5R5 | R & R Aero | | | 5 |
| 5B7 | Rensselaer County | Unclassified | GA | 5 |
| W57 | Round Lake Airport and SPB | | | 5 |
| K21 | Rouses Point SPB | | | 5 |
| 7N3 | Sands Point SPB | | | 5 |
| 4B7 | Schroon Lake | Unclassified | GA | 5 |
| K31 | Sharon | | | 5 |
| 46N | Sky Park | Unclassified | GA | 5 |
| 87N | Southampton Heliport | | | 5 |
| D91 | Spencerport Airpark | | | 5 |

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# New York State Airport System Plan 2018

## Chapter 5: Forecast of Aviation Demand

## 5.1 Introduction

This chapter presents the forecasts of aviation demand for the New York State Airport System Plan as recommended by the Federal Aviation Administration (FAA). The FAA recommends the forecasts and inventories for airports be updated every five years. The forecasts identify aviation demand projections over a 10-year period. To develop the most reasonable forecasts possible, it is vital to have a solid understanding of current and historic airport operations, and industry trends within the New York aviation market.

A key step of the airport system planning process is establishing a forecast of operations (aircraft operation is defined as either one takeoff or one landing), enplanements, and based aircraft activity at each facility in the system plan. The purpose of the forecasting effort is to identify the current trends and project future growth at the individual facility level, to assist future planning efforts. The set of aviation demand forecasts developed for this forecast document utilize multiple FAA-approved methodologies and growth scenarios in accordance with the guidance provided in FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*.

The assumptions, methodologies, and data used to create the forecast scenarios vary for each of the airport categories identified below and are discussed later in this chapter.

- National / Commercial Service
- Regional / Corporate Business
- Local / Community Business
- Local / General Aviation

The forecast effort gathered general airfield data available for the facilities noted in previous chapters of this report. Historical operations, enplanement and based aircraft data was gathered over a ten-year period (2004 – 2014) from sources that included:

- FAA Form 5010 Airport Master Record;
- FAA Terminal Area Forecasts (TAFs);
- FAA Traffic Flow Management System Counts (TFMSC);
- New York State DOT Data / Records.

Based on established growth rates from these data sources, current market trends, and other qualitative data, this chapter presents realistic forecast scenarios for the system airports identified in State Role Categories 1-4, described in ***Section 4.2: 2018 State Airport Roles and System Classification***. In some cases where data for aircraft operations was not available, an FAA approved methodology was used. Operations Per Based Aircraft (OPBA) forecasts involve a relatively straightforward forecasting methodology which determines a specific number of annual operations conducted by each aircraft based at the airport. This methodology is often used at non-towered airports, where historical annual operations are not easily obtainable. In accordance with the FAA's *Field Formulation of the National Plan of Integrated Airport Systems* FAA Order 5090.3C methodologies, general aviation airport activity is most commonly forecasted using the OPBA methodology. As such, the OPBA forecast methodology was used for these and subsequent categories of facilities.

## 5.2 Historical Activity

To establish future aviation activity trends in the State, historical data was first analyzed to determine the baseline level from which all projections are derived. At the time of this evaluation, the most recent full year of available data was 2014. Therefore, for the purposes of this forecast, 2014 was identified as the baseline year from which all forecasts will be projected. For the 10-year forecast, data from the previous five-years (2009-2014) were considered as the historical activity from which future evaluations would be based. Most of the common indicators of aviation (operations, passengers, and based aircraft) have shown a decrease in activity over the historical five-year period and the annual average level of these indicators have been erratic. These trends can be attributed to the different and changing demands on types of air travel, as well as other fluctuating market factors (aviation fuel prices, tax persuasions, etc.).

Some of the market factors that had the largest effect on the aviation industry in New York were influenced by the downturn in the economy between the years 2007 and 2009. This downturn resulted in decreased activity at the statewide level, particularly based aircraft totals, recreational general aviation activity, and fuel sales. This is also a national trend as the cost of aircraft acquisition and maintenance has well exceeded inflation, and personal aircraft use, flight training, and recreational flying has declined.

The impact in New York can also be partially attributed to recreational aircraft owners storing aircraft in neighboring tax-friendly states. Previously, the State of New York had in place a sales and use tax for all general aircraft based in the State and were fully taxable up to a rate of 8.875%. This was a once-occurring tax assessment that resulted in a quantitative impact, decreasing based aircraft in the State. This led to some aircraft owners choosing to base aircraft in neighboring, more tax friendly states. Effective September 1, 2015, a new State Law (N.Y. Tax Law § 1115(a) (21-a)) provided aircraft owners with a tax exemption from state and local sales and use tax. This exemption was instituted on the premise that the residual benefit of the economic impact (e.g., revenue and jobs) outweighed the one-time sales tax. The result has already shown an uptick in returning based aircraft in specific areas of the state.

Economic and population growth at the state level in the past four years, however, have driven incremental growth in commercial passenger totals. As a result, the most recent commercial operational growth remained relatively stable with modest growth, particularly in the major airport markets (JFK and LaGuardia), though these disproportionally impact the overall growth rates of the state.

For the purposes of this forecast, readily available information was used to determine historical activity levels. Data sources, including the New York State Department of Transportation (NYSDOT) data, FAA TAF, and the FAA 5010 Master records were used to determine baseline levels. **Table 5-1: National / Commercial Service Airport Historical Operations** provides the operations, based aircraft, and passenger enplanements, which were used in this study. Due to incomplete data sets for many of the facilities included in this forecast, the NYSDOT historical data was not used in the forecasts. Where applicable, FAA TAF data was used to determine both

historical and baseline activity. Not all 99 airports included in this forecast update are included in the NPIAS, and therefore have no TAF data. In this case, it was determined that the most accurate data readily available was the airport 5010 Form data, and as such, was used to supplement TAF data when necessary. For this effort information and data statistics were collected from the FAAs Form 5010 *Airport Master Record*, which is derived from airport safety inspections.

The following tables show historical five-year operations and based aircraft trends for the four airport categories identified in ***Chapter 4: Airport Role and Classification Analysis***, (National / Commercial Service, Regional / Corporate Business, Local / Community Business, and Local / General Aviation). Each summarize operations (and enplanements for commercial service facilities) and based aircraft by category for calendar years 2009 and 2014 with the associated average annual growth rate (AAGR) for the five-year historical time frame.

**Table 5-1** shows historical activity trends for the National / Commercial Service facilities (Category 1) in the SASP. These airports make up the busiest category in the state system. This is also the only category with scheduled air carrier services, and thus passenger enplanements are included. Attributed to significant instability in the overall airline industry, the commercial facilities in New York have experienced variable activity in the past ten years.

| Table 5-1: Category 1 - National / Commercial Service Airport Historical Operations | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| LOC ID | Facility Name | Operations | | | Based Aircraft | | | Passenger Enplanements | | |
| | | 2009 | 2014 | AAGR | 2009 | 2014 | AAGR | 2009 | 2014 | AAGR |
| SLK | Adirondack Regional | 8,100 | 6,262 | -5.02% | 19 | 18 | -1.08% | 4,649 | 5,147 | 2.06% |
| ALB | Albany International | 93,575 | 72,341 | -5.02% | 93 | 95 | 0.43% | 1,312,415 | 1,200,254 | -1.77% |
| BUF | Buffalo Niagara International | 132,612 | 120,184 | -1.95% | 40 | 34 | -3.20% | 2,662,038 | 2,425,809 | -1.84% |
| JHW | Chautauqua County/Jamestown | 33,574 | 34,042 | 0.28% | 20 | 29 | 7.71% | 3,443 | 3,638 | 1.11% |
| ELM | Elmira / Corning Regional | 35,454 | 22,016 | -9.09% | 57 | 48 | -3.38% | 112,102 | 152,824 | 6.39% |
| BGM | Greater Binghamton Airport | 21,738 | 17,089 | -4.70% | 34 | 30 | -2.47% | 98,722 | 86,558 | -2.60% |
| ROC | Greater Rochester International | 107,199 | 88,893 | -3.68% | 75 | 82 | 1.80% | 1,278,705 | 1,180,241 | -1.59% |
| ITH | Ithaca Tompkins Regional | 43,319 | 39,526 | -1.82% | 60 | 60 | 0.00% | 107,907 | 91,594 | -3.22% |
| JFK | John F Kennedy International | 431,364 | 425,620 | -0.27% | 0 | 0 | 0.00% | 22,797,168 | 25,908,734 | 2.59% |
| LGA | LaGuardia | 358,995 | 370,375 | 0.63% | 0 | 0 | 0.00% | 10,935,010 | 13,324,196 | 4.03% |
| ISP | Long Island MacArthur | 164,272 | 115,068 | -6.87% | 243 | 233 | -0.84% | 951,597 | 657,237 | -7.13% |
| MSS | Massena International Airport | 9,040 | 9,191 | 0.33% | 15 | 10 | -7.79% | 3,175 | 4,531 | 7.37% |
| IAG | Niagara Falls International | 37,575 | 19,806 | -12.02% | 67 | 83 | 4.38% | 17,441 | 108,021 | 44.01% |
| OGS | Ogdensburg International | 2,656 | 1,508 | -10.70% | 8 | 7 | -2.64% | 1,950 | 5,490 | 23.00% |
| PBG | Plattsburgh International | 12,898 | 11,048 | -3.05% | 36 | 40 | 2.13% | 65,669 | 145,251 | 17.21% |
| SWF | Stewart International | 45,187 | 40,209 | -2.31% | 80 | 156 | 14.29% | 196,346 | 160,157 | -3.99% |
| SYR | Syracuse Hancock International | 93,853 | 61,377 | -8.14% | 93 | 56 | -9.65% | 1,032,110 | 988,540 | -0.86% |
| ART | Watertown International | 50,450 | 49,948 | -0.20% | 30 | 32 | 1.30% | 2,020 | 19,559 | 57.47% |
| HPN | Westchester County | 171,510 | 152,878 | -2.27% | 326 | 295 | -1.98% | 929,710 | 739,517 | -4.47% |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

**Table 5-2** illustrates historical trends for the Regional / Corporate Business Service facilities (Category 2) in the SASP. These facilities have no scheduled air carrier/air taxi service and primarily serve business general aviation. Similar to the National facilities, these airports have decreases in activity, though to a lesser extent than the larger facilities.

**Table 5-2: Category 2 - Regional / Corporate Business Service Airport Historical Operations**

| LOC ID | Facility Name | Operations | | | Based Aircraft | | |
|---|---|---|---|---|---|---|---|
| | | 2009 | 2014 | AAGR | 2009 | 2014 | AAGR |
| HWV | Brookhaven | 135,100 | 60,100 | -14.96% | 255 | 255 | 0.00% |
| JRB | Downtown Manhattan / Wall St Heliport | 57,984 | 57,984 | 0.00% | 0 | 0 | 0.00% |
| 6N5 | East 34th Street Heliport | 26,175 | 27,755 | 1.18% | 0 | 0 | 0.00% |
| HTO | East Hampton | 31,612 | 25,080 | -4.52% | 89 | 97 | 1.74% |
| GFL | Floyd Bennett Memorial | 34,150 | 25,500 | -5.67% | 45 | 56 | 4.47% |
| FOK | Francis S. Gabreski | 46,607 | 62,806 | 6.15% | 101 | 147 | 7.80% |
| GVQ | Genesee County | 40,000 | 40,000 | 0.00% | 48 | 53 | 2.00% |
| RME | Griffiss International | 50,217 | 34,266 | -7.36% | 69 | 63 | -1.80% |
| POU | Hudson Valley Regional | 56,844 | 78,156 | 6.58% | 117 | 133 | 2.60% |
| MGJ | Orange County | 120,000 | 120,000 | 0.00% | 170 | 144 | -3.27% |
| FZY | Oswego County | 20,550 | 20,550 | 0.00% | 68 | 69 | 0.29% |
| FRG | Republic | 171,248 | 194,415 | 2.57% | 467 | 507 | 1.66% |
| 5B2 | Saratoga County | 38,550 | 38,550 | 0.00% | 70 | 65 | -1.47% |
| SCH | Schenectady County | 68,500 | 56,361 | -3.83% | 94 | 96 | 0.42% |
| MSV | Sullivan County International | 35,700 | 25,880 | -6.23% | 46 | 40 | -2.76% |
| JRA | West 30th St Heliport | 18,877 | 17,429 | -1.58% | 0 | 0 | 0.00% |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

Table 5-3 shows historical five-year operations and based aircraft trends for the Local / Community Business Service facilities (Category 3) in the SASP. These are exclusively general aviation facilities, supporting smaller municipalities. Unlike the preceding two categories, there has been a degree of growth, though it is unstable and varies at the individual facility level. Furthermore, information related to historical aviation activity was not available for all facilities. Consequently, the 2014 totals from 5010 reports are listed when this is the case.

**Table 5-3: Category 3 - Local / Community Business Service Airport Historical Operations (1 of 2)**

| LOC ID | Facility Name | Operations | | | Based Aircraft | | |
|---|---|---|---|---|---|---|---|
| | | 2009 | 2014 | AAGR | 2009 | 2014 | AAGR |
| 9G3 | Akron | 50,900 | 50,900 | 0.00% | 54 | 50 | -1.53% |
| 9G0 | Buffalo Airfield | 55,000 | 55,000 | 0.00% | 32 | 25 | -4.82% |
| BQR | Buffalo - Lancaster Regional | 45,000 | 45,000 | 0.00% | 33 | 69 | 15.90% |
| IUA | Canandaigua | 21,600 | 21,600 | 0.00% | 45 | 38 | -3.32% |
| OLE | Cattaraugus County - Olean | 25,550 | 25,550 | 0.00% | 19 | 15 | -4.62% |
| DKK | Chautauqua County / Dunkirk | 31,625 | 26,005 | -3.84% | 38 | 31 | -3.99% |
| 1B1 | Columbia County | 19,200 | 19,200 | 0.00% | 32 | 28 | -2.64% |
| 7N1 | Corning-Painted Post | 9,025 | 9,025 | 0.00% | 27 | 28 | 0.73% |
| N03 | Cortland County - Chase Field | 16,989 | 16,989 | 0.00% | 39 | 46 | 3.36% |
| DSV | Dansville Municipal | 48,050 | 48,050 | 0.00% | 43 | 36 | -3.49% |
| 0G7 | Finger Lakes Regional | 8,465 | 8,465 | 0.00% | 29 | 28 | -0.70% |
| NY0 | Fulton County | 9,700 | 11,200 | 2.92% | 36 | 34 | -1.14% |
| 4G2 | Hamburg Inc | N/A | * 12,000 | 0.00% | N/A | * 29 | 0.00% |
| VGC | Hamilton Municipal | 17,310 | 17,310 | 0.00% | 40 | 43 | 1.46% |
| HTF | Hornell Municipal | N/A | * 19,902 | 0.00% | N/A | * 9 | 0.00% |
| N89 | Joseph Y Resnick | 5,900 | 5,900 | 0.00% | 27 | 32 | 3.46% |

| Table 5-3: Category 3 - Local / Community Business Service Airport Historical Operations (2 of 2) | | | | | | | |
|---|---|---|---|---|---|---|---|
| LOC ID | Facility Name | Operations | | | Based Aircraft | | |
| | | 2009 | 2014 | AAGR | 2009 | 2014 | AAGR |
| 20N | Kingston - Ulster | 8,000 | 8,000 | 0.00% | 48 | 35 | -6.12% |
| N45 | Kobelt | 15,000 | 15,000 | 0.00% | 36 | 26 | -6.30% |
| LKP | Lake Placid | 20,000 | 12,000 | -9.71% | 7 | 19 | 22.10% |
| 5G0 | Le Roy | 14,660 | 14,660 | 0.00% | 19 | 19 | 0.00% |
| 7G0 | Ledgedale Airpark | 16,100 | 16,100 | 0.00% | 38 | 34 | -2.20% |
| OIC | Lt Warren Eaton | 17,300 | 17,300 | 0.00% | 14 | 11 | -4.71% |
| N66 | Oneonta Municipal | 21,600 | 21,600 | 0.00% | 9 | 8 | -2.33% |
| PEO | Penn Yan | 19,200 | 19,200 | 0.00% | 37 | 30 | -4.11% |
| 01G | Perry - Warsaw | 14,500 | 14,500 | 0.00% | 14 | 24 | 11.38% |
| PTD | Potsdam Municipal (Damon Field) | 6,000 | 6,000 | 0.00% | 15 | 16 | 1.30% |
| N23 | Sidney Municipal | 7,800 | 7,800 | 0.00% | 33 | 29 | -2.55% |
| 6B9 | Skaneateles Aero Drome | 9,108 | 9,108 | 0.00% | 13 | 24 | 13.05% |
| 44N | Sky Acres | 48,300 | 48,300 | 0.00% | 43 | 38 | -2.44% |
| 4B0 | South Albany | 24,100 | 28,500 | 3.41% | 51 | 48 | -1.21% |
| CZG | Tri-Cities | 18,599 | 6,500 | -18.96% | 52 | 46 | -2.42% |
| ELZ | Wellsville Municipal Airport | 9,350 | 9,350 | 0.00% | 16 | 21 | 5.59% |
| SDC | Williamson Sodus | 26,536 | 26,536 | 0.00% | 74 | 77 | 0.80% |
| N82 | Wurtsboro - Sullivan County | 70,000 | 70,000 | 0.00% | 97 | 23 | -25.01% |

Sources: FAA Form 5010 Airport Master Record, * Denotes data from 5010 Airport Master Records
FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

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**Table 5-4** (following) illustrates historical ten-year operations and based aircraft trends for the Local / General Aviation facilities (Category 4) in the SASP. At these smaller facilities, operations include light general aviation traffic typically conducted by individual aircraft owners. This category of airports has experienced the most significant decreases in aviation activity in the past decade. With the decline in the economy, and cost of living increases, recreational aviation activity has taken the largest hit in the State of New York, as evidenced by being the only area of aviation in the state with a decrease in based aircraft.

**Table 5-4: Category 4 - Local / General Aviation Airport Historical Operations (1 of 2)**

| LOC ID | Facility Name | Operations | | | Based Aircraft | | |
|---|---|---|---|---|---|---|---|
| | | 2009 | 2014 | AAGR | 2009 | 2014 | AAGR |
| 09N | Airhaven | N/A | * 200 | 0.00% | N/A | * 3 | 0.00% |
| 1C3 | Argyle | N/A | ** 7,750 | 0.00% | N/A | 31 | 0.00% |
| 23N | Bayport Aerodrome | 10,250 | 10,250 | 0.00% | 45 | 40 | -2.33% |
| K16 | Becks Grove | N/A | * 6,050 | 0.00% | N/A | * 11 | 0.00% |
| D51 | Clarence Aerodrome | N/A | * 10,000 | 0.00% | N/A | * 22 | 0.00% |
| K23 | Cooperstown-Westville | N/A | 2,400 | 0.00% | N/A | * 30 | 0.00% |
| 4B1 | Duanesburg | N/A | N/A | 0.00% | N/A | N/A | 0.00% |
| 0B8 | Elizabeth Field | 2,125 | 2,125 | 0.00% | 6 | 3 | -12.94% |
| 6B4 | Frankfort - Highland | 11,880 | 11,980 | 0.17% | 6 | 0 | -100.00% |
| D52 | Geneseo | N/A | * 7,500 | 0.00% | N/A | * 21 | 0.00% |
| D59 | Gowanda | N/A | * 3,600 | 0.00% | N/A | * 5 | 0.00% |
| 4N7 | Greene | N/A | * 3,000 | 0.00% | N/A | * 9 | 0.00% |
| H43 | Haverstraw Heliport | N/A | * 2,200 | 0.00% | N/A | * 3 | 0.00% |
| NY1 | Kline Kill | N/A | * 900 | 0.00% | N/A | * 39 | 0.00% |
| NY9 | Long Lake / Helms Seaplane Base | N/A | * 2,200 | 0.00% | N/A | * 3 | 0.00% |

**Table 5-4: Category 4 - Local / General Aviation Airport Historical Operations (2 of 2)**

| LOC ID | Facility Name | Operations | | | Based Aircraft | | |
|---|---|---|---|---|---|---|---|
| | | 2009 | 2014 | AAGR | 2009 | 2014 | AAGR |
| MAL | Malone - Dufort | 8,700 | 8,700 | 0.00% | 14 | 14 | 0.00% |
| MTP | Montauk | 30,361 | 30,361 | 0.00% | 16 | 11 | -7.22% |
| 6N7 | New York Skyports Inc Heliport | 1,000 | 1,010 | 0.20% | 0 | 0 | 0.00% |
| 0G0 | North Buffalo Suburban | 3,600 | 3,600 | 0.00% | 31 | 0 | -100.00% |
| 9G6 | Pine Hill | N/A | * 6,500 | 0.00% | N/A | * 11 | 0.00% |
| K09 | Piseco | 3,150 | 3,150 | 0.00% | 2 | 2 | 0.00% |
| 06N | Randall | 22,500 | 22,500 | 0.00% | 40 | 34 | -3.20% |
| 9G5 | Royalton | 6,100 | 6,100 | 0.00% | 43 | 3 | -41.29% |
| 4B6 | Ticonderoga Municipal | 11,000 | 11,200 | 0.36% | 12 | 10 | -3.58% |
| N72 | Warwick Municipal | 5,000 | 4,500 | -2.09% | 57 | 47 | -3.78% |
| B16 | Whitfords | 6,100 | 6,100 | 0.00% | 32 | 31 | -0.63% |

Sources: FAA Form 5010 Airport Master Record, * Denotes data from 5010 Airport Master Records.
FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.
** Denotes application of OPBA at 250 to estimate operations total, as discussed later in this chapter.

**Table 5-5** summarizes the historical based aircraft counts by facility category while **Table 5-6** summarizes operations (and commercial enplanements) over the five-year historical time frame.

**Table 5-5: Summary of Historical Based Aircraft by Airport Category**

| Airport Category | 2009 | 2014 | AAGR | Growth |
|---|---|---|---|---|
| National / Commercial Service | 1,296 | 1,308 | 0.18% | 0.93% |
| Regional / Corporate Business | 1,639 | 1,725 | 1.03% | 5.25% |
| Local / Community Business | 1,110 | 1,031 | -1.47% | -7.12% |
| Local / General Aviation | 354 | 257 | -6.20% | -27.40% |
| **Total** | **4,399** | **4,321** | **-0.36%** | **-1.77%** |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

**Table 5-6: Summary of Historical Activity by Airport Category**

| Airport Category | 2009 | 2014 | AAGR | Growth |
|---|---|---|---|---|
| National / Commercial Service | | | | |
| **Enplanements** | 42,512,177 | 47,207,298 | 2.12% | 11.04% |
| **Operations** | 1,853,371 | 1,657,381 | -2.21% | -10.57% |
| Regional / Corporate Business | 952,114 | 884,832 | -1.46% | -7.07% |
| Local Community Business | 730,467 | 713,048 | -0.48% | -2.38% |
| Local / General Aviation | 127,866 | 127,676 | -0.03% | -0.15% |
| **Total Operations** | **2,948,932** | **3,069,398** | **0.80%** | **4.09%** |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT.

## 5.3 Future Activity Demand Forecasts

To determine the facility and infrastructure sizing requirements necessary to adequately accommodate the current and future activity demand in the state, forecasts of annual commercial and general aviation aircraft operations, along with passenger enplanements have been developed. The most basic indicator of activity demand for an airport is the number of annual operations (takeoff or landing) on the airfield. It is the number of projected operations that will drive airfield sizing requirements, facility requirements and expansion, landside infrastructure and contributions to the local economy. For commercial facilities, the number of annual enplaned passengers is the most basic indicator of demand for commercial service activity. Forecast enplanements will drive the need for passenger terminal and landside requirements. An increase in passenger activity has a direct effect on operations, terminal facility sizing requirements, and access to different markets.

Several FAA-approved forecast methodologies and statistical analyses are presented to provide a base range of potential activity levels. From these forecasts, a "Summary Forecast" has been developed that represents the most likely projection of future activity based on existing data and current trends. This forecast will then serve as the baseline on which future system plan decisions will be based.

It should be noted that a 2015 NYSDOT survey of all public-use airports in the State of New York was conducted to determine the current level of operations, based aircraft, and passengers at the various facilities. However, based on incomplete data sets, and the lack of responses, this data is considered statistically unreliable and therefore was not used for future projections. Rather, the information that was received was used for validation in comparison to existing data sets.

### 5.3.1 Based Aircraft

Based aircraft at general aviation airports play a vital role in the economic success of an airport. As with the aircraft operations, based aircraft at an airport provides a steady revenue stream by means of aircraft storage leasing, fuel purchases, etc. Thus, the more based aircraft using an airport, the more effective that airport would be expected to be in generating revenue. To develop an estimated projection of based aircraft in the State of New York, aviation industry practice is to consider several key indicator sources including: the FAA Terminal Area Forecast (TAF), State socioeconomic factors (i.e. population, income, etc.), and regulatory factors associated with aircraft ownership.

Variables such as socioeconomic growths, aviation industry trends, fleet transitions, and regional market fluctuations were considered. Of the multiple sources evaluated in terms of projecting based aircraft, only the TAF took each variable into consideration and individually projected based aircraft growth for each facility listed in the NPIAS. As the number of based aircraft has decreased in the State, while population, income, and employment have shown small increases, projections using socioeconomic data have an inverse (i.e., negative) relationship. A time trend forecast was also rejected due to a negative trend. With the limited amount of readily available data, and the incomplete data sets from the airport survey, the TAF was identified as the most statistically reliable source.

Employing the TAF assumes that based aircraft in the state will grow at the FAA projected national rates and maintain their respective share of fleet and operations throughout the forecast period. The growth rates associated with the TAF were applied to the baseline aircraft counts and extrapolated through the forecast period. This methodology represents a relatively conservative approach to projecting this type of activity.

### 5.3.2 Operations – National / Commercial Service Airports

National / Commercial Service Airports are typically the largest facilities in the State, and are the only facilities with scheduled commercial service operations, and active passenger enplanements. In terms of economic vitality, these facilities are the largest revenue generators in the state. For these busiest facilities, based aircraft, total operations and passenger enplanement were evaluated.

As John F. Kennedy International Airport (JFK) and LaGuardia International Airport (LGA) are substantially busier than all others in the system plan, the level of passenger and operational activity from these airports would disproportionately skew the overall growth of the state. Inclusion with other airports would likely result in unrealistic projections. Therefore, these two facilities were considered outliers and analyzed separately from the remaining facilities.

The market share methodology is a common FAA forecasting technique for determining both operations and enplanements at commercial service facilities. This methodology is based on a top-down relationship between national, regional, and local forecasts of future activity. The market share approach is well-suited for projecting future activity on a state-wide level encompassing several facilities in various markets and catchment areas.

The market share methodology uses the aggregate, national level forecast of commercial activity identified in the FAA's 2015 TAF to derive forecasts for the state based on the commercial market share. This forecast assumes that facilities in the state will maintain their current level, or static market share, of commercial enplanements and operations relative to national and state activity projections throughout the planning period. The Static Market Share forecast identified in **Table 5-7: Category 1 - National / Commercial Service Airport Forecasted Operations** is considered the conservative; lower range of potential commercial activity based on the projected less than one percent AAGR of 0.6% for the forecast.

| Table 5-7: Category 1 - National / Commercial Service Airport Forecasted Operations | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOC ID | Facility Name | Based Aircraft | | | | Operations | | | | Passenger Enplanements | | | |
| | | 2015 | 2020 | 2025 | AAGR | 2015 | 2020 | 2025 | AAGR | 2015 | 2020 | 2025 | AAGR |
| SLK | Adirondack Regional | 18 | 18 | 18 | 0.00% | 6,198 | 6,360 | 6,524 | 0.51% | 5,063 | 5,539 | 5,997 | 1.71% |
| ALB | Albany International | 96 | 107 | 101 | 0.51% | 71,603 | 73,474 | 75,370 | 0.51% | 1,180,609 | 1,291,704 | 1,398,519 | 1.71% |
| BUF | Buffalo Niagara International | 32 | 33 | 119 | 13.92% | 118,957 | 122,067 | 125,216 | 0.51% | 2,386,105 | 2,610,637 | 2,826,517 | 1.71% |
| JHW | Chautauqua County / Jamestown | 29 | 29 | 29 | 0.00% | 33,695 | 34,575 | 35,467 | 0.51% | 3,578 | 3,915 | 4,239 | 1.71% |
| ELM | Elmira / Corning Regional | 48 | 55 | 62 | 2.59% | 21,791 | 22,361 | 22,938 | 0.51% | 150,323 | 164,468 | 178,068 | 1.71% |
| BGM | Greater Binghamton Airport | 30 | 35 | 37 | 2.12% | 16,915 | 17,357 | 17,804 | 0.51% | 85,141 | 93,153 | 100,856 | 1.71% |
| ROC | Greater Rochester International | 82 | 82 | 82 | 0.00% | 87,986 | 90,286 | 92,615 | 0.51% | 1,160,924 | 1,270,167 | 1,375,200 | 1.71% |
| ITH | Ithaca Tompkins Regional | 60 | 64 | 69 | 1.41% | 39,123 | 40,145 | 41,181 | 0.51% | 90,095 | 98,573 | 106,724 | 1.71% |
| JFK | John F Kennedy International | 0 | 0 | 0 | 0.00% | 427,486 | 455,156 | 476,075 | 1.08% | 26,796,543 | 29,744,009 | 32,232,324 | 1.86% |
| LGA | LaGuardia | 0 | 0 | 0 | 0.00% | 369,424 | 387,324 | 387,324 | 0.47% | 13,780,774 | 15,296,579 | 16,576,256 | 1.86% |
| ISP | Long Island MacArthur | 239 | 273 | 309 | 2.60% | 113,894 | 116,871 | 119,886 | 0.51% | 646,480 | 707,314 | 765,803 | 1.71% |
| MSS | Massena International Airport | 10 | 11 | 12 | 1.84% | 9,097 | 9,335 | 9,576 | 0.51% | 4,457 | 4,876 | 5,279 | 1.71% |
| IAG | Niagara Falls International | 83 | 87 | 91 | 0.92% | 19,604 | 20,116 | 20,635 | 0.51% | 106,253 | 116,251 | 125,865 | 1.71% |
| OGS | Ogdensburg International | 7 | 7 | 7 | 0.00% | 1,493 | 1,532 | 1,571 | 0.51% | 5,400 | 5,908 | 6,397 | 1.71% |
| PBG | Plattsburgh International | 40 | 43 | 48 | 1.84% | 10,935 | 11,221 | 11,511 | 0.51% | 142,874 | 156,318 | 169,244 | 1.71% |
| SWF | Stewart International | 157 | 161 | 166 | 0.56% | 39,799 | 40,839 | 41,892 | 0.51% | 157,536 | 172,360 | 186,613 | 1.71% |
| SYR | Syracuse Hancock International | 56 | 56 | 56 | 0.00% | 60,751 | 62,339 | 63,947 | 0.51% | 972,360 | 1,063,859 | 1,151,832 | 1.71% |
| ART | Watertown International | 32 | 32 | 32 | 0.00% | 49,438 | 50,731 | 52,039 | 0.51% | 19,239 | 21,049 | 22,790 | 1.71% |
| HPN | Westchester County | 296 | 304 | 312 | 0.53% | 151,318 | 155,273 | 159,279 | 0.51% | 727,413 | 795,863 | 861,674 | 1.71% |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT.

Market share percentages for operations and enplanements for National / Commercial service facilities were calculated by using the following methodology:

- Calculate base year statewide operations and enplanements for commercial service facilities combined.
- Apply current activity level for both operations and enplanements to state totals to determine the market share percentage (%) for each individual facility.
- Apply the market share percentage to the total operation and enplanement projections for the state to calculate future activity levels.
- Calculate total operations and enplanements for categorical summaries.

### 5.3.3 Operations – Other Airport Categories

The remaining State Role Categories 2, 3 and 4 are facilities that do not host commercial passenger activity, but rather handle corporate and general aviation type services. However, these airports vary widely in the services offered, therefore were categorized separately based on the clientele of each facility. Although some facilities in Category 2 – Regional / Corporate Business have staffed air traffic control towers, the remaining 73 facilities are non-towered and many are not listed in the NPIAS. Therefore, for the purposes of this forecast, Category 2 - 4 facilities are considered similar in overall nature and their respective future activity will be forecast with the same methodology.

**Operations Per Based Aircraft** (OPBA) forecasts involve a relatively straightforward forecasting methodology which determines a specific number of annual operations conducted by each aircraft based at the airport. This methodology is often used at non-towered airports, where historical annual operations are not easily obtainable. In accordance with the *FAA Order 5090.3C* methodologies, general aviation airport activity is most commonly forecasted using the OPBA methodology. As such, the OPBA forecast methodology was used for these and subsequent categories of facilities.

When the number of operations is unavailable, the FAA recommendation includes an annual OPBA aircraft values of:

- 250 operations for rural general aviation airports,
- 350 operations for general aviation airports with a higher level of itinerant traffic, and
- 450 operations for busier reliever-type facilities with substantial itinerant and business-related operations.

According to FAA, these factors generate a reasonable estimate of total operations. For example, at a rural general aviation airport with 50-based aircraft, when the OPBA methodology is applied, the 250-operational value is applied to calculate the total airport operational level of 12,500 operations.

The first component of this methodology involved developing a forecast of based aircraft (***Section 5.3.1***). To accomplish this task, annual growth projections provided in the FAA TAF were used to derive the number of based aircraft for each facility throughout the forecast

period. The second step designates the OPBA value for each facility. This baseline was then applied to the based aircraft growth projections which is the calculated projected operations for the remainder of the forecast period.

This step-by-step methodology is summarized as:

- Determine existing based aircraft counts for each facility.
- Calculate future based aircraft growth using FAA TAF growth projections.
- Apply FAA OPBA aircraft value associated with facility type (i.e., SASP airport category).
- Project future operations by applying OPBA value to future based aircraft growth to derive projected operations.

**A. Regional / Corporate Business Airports (Category 2)**

The Regional / Corporate Business airport category is a unique combination of airports that provide a variety of services. Each facility in the category is classified as a general aviation facility, however six of the facilities listed in the category provide active air traffic control services with a tower at the airport. As such, this category of airports applies the same methodology however with two separate variables.

Towered facilities typically record and track the number of operations at the airport, as such, the data provided is more accurate than data sets for non-towered facilities. This allows for a more accurate representation of an OPBA value to project future operations, rather than assigning a forecasting value. Therefore, for the purposes of this forecast, future projected operations at towered facilities listed in the Regional/Business airports category were calculated by determining the current OPBA activity level and applying the identified OPBA to based aircraft growth projections through the forecast period.

For non-towered facilities in this category, FAA guidance recommends a 350 OPBA aircraft value is applicable 350 for “busier general aviation airports with more itinerant traffic (Regional / Corporate Business). Therefore, an activity level of 350 OPBA was applied to the based aircraft forecast on non-towered facilities within this category to generate a realistic estimate for operations, with a static growth rate applied through the 10-year forecast period.

**Table 5-8: Category 2 - Regional / Corporate Business Service Airport Forecasted Operations** outlines the results of this methodology for based aircraft and operational projections throughout the forecast period.

| Table 5-8: Category 2 - Regional / Corporate Business Service Airport Forecasted Operations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Loc ID | Facility Name | Based Aircraft | | | | Operations | | | |
| | | 2015 | 2020 | 2025 | AAGR | 2015 | 2020 | 2025 | AAGR |
| HWV | Brookhaven | 244 | 244 | 244 | 0.00% | 85,400 | 85,400 | 85,400 | 0.00% |
| JRB | Downtown Manhattan | 0 | 0 | 0 | 0.00% | 57,984* | 57,984* | 57,984* | 0.00% |
| 6N5 | East 34th Street Heliport | 0 | 0 | 0 | 0.00% | 27,755* | 27,755* | 27,755* | 0.00% |
| HTO | East Hampton | 88 | 88 | 88 | 0.00% | 22,753 | 22,753 | 22,753 | 0.00% |
| GFL | Floyd Bennett Memorial | 56 | 57 | 58 | 0.35% | 19,600 | 19,950 | 20,300 | 0.35% |
| FOK | Francis S Gabreski | 145 | 145 | 145 | 0.00% | 61,951 | 61,951 | 61,951 | 0.00% |
| GVQ | Genesee County | 52 | 52 | 52 | 0.00% | 18,200 | 18,200 | 18,200 | 0.00% |
| RME | Griffiss International | 63 | 63 | 63 | 0.00% | 34,266 | 34,266 | 34,266 | 0.00% |
| POU | Hudson Valley Regional | 121 | 123 | 125 | 0.33% | 71,104 | 72,280 | 73,455 | 0.33% |
| MGJ | Orange County | 143 | 143 | 143 | 0.00% | 50,050 | 50,050 | 50,050 | 0.00% |
| FZY | Oswego County | 69 | 69 | 69 | 0.00% | 24,150 | 24,150 | 24,150 | 0.00% |
| FRG | Republic | **530** | **538** | **545** | **0.28%** | **203,235** | **206,302** | **208,987** | **0.28%** |
| 5B2 | Saratoga County | 60 | 60 | 60 | 0.00% | 21,000 | 21,000 | 21,000 | 0.00% |
| SCH | Schenectady County | 100 | 100 | 100 | 0.00% | 58,709 | 58,709 | 58,709 | 0.00% |
| MSV | Sullivan County International | 41 | 41 | 41 | 0.00% | 14,350 | 14,350 | 14,350 | 0.00% |
| JRA | West 30th St Heliport | 0 | 0 | 0 | 0.00% | 17,429* | 17,429* | 17,429* | 0.00% |

Sources: FAA Form 5010 Airport Master Record, * Denotes data from 5010 reports
FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

**B. Local / Community Business Airports (Category 3)**

At typical Community Business airports, based aircraft drive operations, as there are significantly fewer itinerant operations than in the larger categories, thus utilizing based aircraft forecast and the operations per based aircraft is a more accurate reflection of activity. TAF data for these facilities typically projects static growth rates and is limited in availability. In the manner of the non-towered airports with the Regional category, the OPBA aircraft value of 350 was considered a more accurate statistic associated with this type or airport due to itinerant traffic levels (Local / Community Business). As such, this aircraft value was applied to the based aircraft projections for each facility in this category to calculate future operational forecasts.

**Table 5-9: Category 3 - Local / Community Business Forecasted Operations** shows the results of the based aircraft projections and the operations forecast for Local / Community Business airports.

**C. Local / General Aviation Airports (Category 4)**

Similar to Local / Community Business Airports, activity at these facilities is driven by based aircraft as they are largely recreational facilities supporting private, individual aircraft owners with local and recreational flight operations. Due to a lack of TAF data for these facilities few itinerant operations, the 5010 Master Record data was heavily supplemented in this category, followed by applying the FAA OPBA aircraft value of 250, “for rural general aviation airports with little itinerant traffic”, against based aircraft forecast to estimate total and future operations.

**Table 5-10: Category 4 - Local / General Aviation Forecasted Operations** depict the results of the based aircraft and operations forecasts for Local / General Aviation airports.

| Table 5-9: Category 3 - Local / Community Business Forecasted Operations (1 of 2) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LOC ID | Facility Name | Based Aircraft | | | | Operations | | | |
| | | 2015 | 2020 | 2025 | AAGR | 2015 | 2020 | 2025 | AAGR |
| 9G3 | Akron | 49 | 49 | 49 | 0.00% | 17,150 | 17,150 | 17,150 | 0.00% |
| 9G0 | Buffalo Airfield | 27 | 27 | 27 | 0.00% | 9,450 | 9,450 | 9,450 | 0.00% |
| BQR | Buffalo - Lancaster Regional | 56 | 56 | 56 | 0.00% | 19,600 | 19,600 | 19,600 | 0.00% |
| IUA | Canandaigua | 33 | 33 | 33 | 0.00% | 11,550 | 11,550 | 11,550 | 0.00% |
| OLE | Cattaraugus County - Olean | 14 | 14 | 14 | 0.00% | 4,900 | 4,900 | 4,900 | 0.00% |
| DKK | Chautauqua County / Dunkirk | 39 | 39 | 39 | 0.00% | 13,650 | 13,650 | 13,650 | 0.00% |
| 1B1 | Columbia County | 26 | 26 | 26 | 0.00% | 9,100 | 9,100 | 9,100 | 0.00% |
| K23 | Cooperstown-Westville | 30 | 30 | 30 | 0.00% | 10,500 | 10,500 | 10,500 | 0.00% |
| 7N1 | Corning-Painted Post | 24 | 24 | 24 | 0.00% | 8,400 | 8,400 | 8,400 | 0.00% |
| N03 | Cortland County - Chase Field | 47 | 47 | 47 | 0.00% | 16,450 | 16,450 | 16,450 | 0.00% |
| DSV | Dansville Municipal | 34 | 34 | 34 | 0.00% | 11,900 | 11,900 | 11,900 | 0.00% |
| 0G7 | Finger Lakes Regional | 26 | 26 | 26 | 0.00% | 9,100 | 9,100 | 9,100 | 0.00% |
| NY0 | Fulton County | 33 | 33 | 33 | 0.00% | 11,550 | 11,550 | 11,550 | 0.00% |
| 4G2 | Hamburg Inc | 29 | 29 | 29 | 0.00% | 10,150 | 10,150 | 10,150 | 0.00% |
| VGC | Hamilton Municipal | 41 | 41 | 41 | 0.00% | 14,350 | 14,350 | 14,350 | 0.00% |
| HTF | Hornell Municipal | 19 | 19 | 19 | 0.00% | 6,650 | 6,650 | 6,650 | 0.00% |
| N89 | Joseph Y Resnick | **33** | **34** | **34** | **0.21%** | **11,674** | **11,800** | **11,927** | **0.21%** |
| 20N | Kingston - Ulster | 34 | 34 | 34 | 0.00% | 11,900 | 11,900 | 11,900 | 0.00% |
| N45 | Kobelt | 26 | 26 | 26 | 0.00% | 9,100 | 9,100 | 9,100 | 0.00% |
| LKP | Lake Placid | 21 | 21 | 21 | 0.00% | 7,350 | 7,350 | 7,350 | 0.00% |

continued

| Table 5-9: Category 3 - Local / Community Business Forecasted Operations (2 of 2) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LOC ID | Facility Name | Based Aircraft | | | | Operations | | | |
| | | 2015 | 2020 | 2025 | AAGR | 2015 | 2020 | 2025 | AAGR |
| 5G0 | Le Roy | 25 | 25 | 25 | 0.00% | 8,750 | 8,750 | 8,750 | 0.00% |
| 7G0 | Ledgedale Airpark | 34 | 34 | 34 | 0.00% | 11,900 | 11,900 | 11,900 | 0.00% |
| OIC | Lt Warren Eaton | 11 | 11 | 11 | 0.00% | 3,850 | 3,850 | 3,850 | 0.00% |
| N66 | Oneonta Municipal | 8 | 8 | 8 | 0.00% | 2,800 | 2,800 | 2,800 | 0.00% |
| PEO | Penn Yan | 30 | 30 | 30 | 0.00% | 10,500 | 10,500 | 10,500 | 0.00% |
| 01G | Perry - Warsaw | 22 | 22 | 22 | 0.00% | 7,700 | 7,700 | 7,700 | 0.00% |
| PTD | Potsdam Municipal (Damon Field) | 14 | 14 | 14 | 0.00% | 4,900 | 4,900 | 4,900 | 0.00% |
| N23 | Sidney Municipal | 27 | 27 | 27 | 0.00% | 9,450 | 9,450 | 9,450 | 0.00% |
| 6B9 | Skaneateles Aero Drome | 15 | 15 | 15 | 0.00% | 5,250 | 5,250 | 5,250 | 0.00% |
| 44N | Sky Acres | **39** | **39** | **40** | **0.25%** | **13,650** | **13,650** | **14,000** | **0.25%** |
| 4B0 | South Albany | 48 | 48 | 48 | 0.00% | 16,800 | 16,800 | 16,800 | 0.00% |
| CZG | Tri-Cities | 47 | 47 | 47 | 0.00% | 16,450 | 16,450 | 16,450 | 0.00% |
| ELZ | Wellsville Municipal Airport | 21 | 21 | 21 | 0.00% | 7,350 | 7,350 | 7,350 | 0.00% |
| SDC | Williamson - Sodus | 67 | 67 | 67 | 0.00% | 23,450 | 23,450 | 23,450 | 0.00% |
| N82 | Wurtsboro - Sullivan County | 35 | 35 | 35 | 0.00% | 12,250 | 12,250 | 12,250 | 0.00% |

Sources: FAA Form 5010 Airport Master Record, * Denotes data from 5010 reports
FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

| Table 5-10: Category 4 - Local / General Aviation Forecasted Operations (1 of 2) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LOC ID | Facility Name | Based Aircraft | | | | Operations | | | |
| | | 2015 | 2020 | 2025 | AAGR | 2015 | 2020 | 2025 | AAGR |
| 09N | Airhaven | 3 | 3 | 3 | 0.00% | 750 | 750 | 750 | 0.00% |
| 1C3 | Argyle | 31 | 31 | 31 | 0.00% | 7750 | 7750 | 7750 | 0.00% |
| 23N | Bayport Aerodrome | 40 | 40 | 40 | 0.00% | 10000 | 10000 | 10000 | 0.00% |
| K16 | Becks Grove | 11 | 11 | 11 | 0.00% | 2750 | 2750 | 2750 | 0.00% |
| D51 | Clarence Aerodrome | 22 | 22 | 22 | 0.00% | 5500 | 5500 | 5500 | 0.00% |
| 4B1 | Duanesburg | 0 | 0 | 0 | 0.00% | 800 | 800 | 800 | 0.00% |
| 0B8 | Elizabeth Field | 2 | 2 | 2 | 0.00% | 500 | 500 | 500 | 0.00% |
| 6B4 | Frankfort- Highland | 0 | 0 | 0 | 0.00% | 11,980* | 11,980* | 11,980* | 0.00% |
| D52 | Geneseo | 21 | 21 | 21 | 0.00% | 5250 | 5250 | 5250 | 0.00% |
| D59 | Gowanda | 5 | 5 | 5 | 0.00% | 1250 | 1250 | 1250 | 0.00% |
| 4N7 | Greene | 9 | 9 | 9 | 0.00% | 2250 | 2250 | 2250 | 0.00% |
| H43 | Haverstraw Heliport | 3 | 3 | 3 | 0.00% | 750 | 750 | 750 | 0.00% |
| NY1 | Kline Kill | 39 | 39 | 39 | 0.00% | 9750 | 9750 | 9750 | 0.00% |
| NY9 | Long Lake / Helms Seaplane Base | 3 | 3 | 3 | 0.00% | 750 | 750 | 750 | 0.00% |
| MAL | Malone - Dufort | 14 | 14 | 14 | 0.00% | 3500 | 3500 | 3500 | 0.00% |
| MTP | Montauk | 9 | 9 | 9 | 0.00% | 2250 | 2250 | 2250 | 0.00% |
| 6N7 | New York Skyports Inc Seaplane Base | 0 | 0 | 0 | 0.00% | 1,010* | 1,010* | 1,010* | 0.00% |
| 0G0 | North Buffalo Suburban | 0 | 0 | 0 | 0.00% | 3,600* | 3,600* | 3,600* | 0.00% |

Sources: FAA Form 5010 Airport Master Record, * Denotes data from 5010 reports
FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

continued

| Table 5-10: Category 4 - Local / General Aviation Forecasted Operations (2 of 2) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LOC ID | Facility Name | Based Aircraft | | | | Operations | | | |
| | | 2015 | 2020 | 2025 | AAGR | 2015 | 2020 | 2025 | AAGR |
| 9G6 | Pine Hill | 11 | 11 | 11 | 0.00% | 2750 | 2750 | 2750 | 0.00% |
| K09 | Piseco Municipal | 2 | 2 | 2 | 0.00% | 500 | 500 | 500 | 0.00% |
| 06N | Randall | 19 | 19 | 19 | 0.00% | 4,750 | 4,750 | 4,750 | 0.00% |
| 9G5 | Royalton | 3 | 3 | 3 | 0.00% | 750 | 750 | 750 | 0.00% |
| 4B6 | Ticonderoga Municipal | 11 | 11 | 11 | 0.00% | 2,750 | 2,750 | 2,750 | 0.00% |
| N72 | Warwick Municipal | **44** | **45** | **46** | **0.41%** | **10,975** | **11,204** | **11,438** | **0.41%** |
| B16 | Whitfords | 31 | 31 | 31 | 0.00% | 7,750 | 7,750 | 7,750 | 0.00% |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.
* Denotes data from 5010 Airport Master Record.

## 5.4 Summary – Forecast of Aviation Demand

Several variables have influenced growth of airports at the categorical level and for individual facilities. As reflected in the tables below, current forecasts yield positive projected growth for the next 10 years, concentrated in the larger airports, with basically static conditions at the smaller facilities. This modest growth has been attributed to population increases and economic development in New York State, as well as positive trends across the aviation industry. An ongoing rise in population, as well as continued economic growth across the board will continue to push this expansion of air travel and recreational activity in the state, along with the continued effort of prioritizing the aviation industry in the State. The smaller facilities may continue to struggle with activity as their market is personal flying, and the pilot population is decreasing.

As previously discussed, the recently passed aircraft tax exemption is expected to have a positive impact on the overall growth of the non-commercial activity in the New York State aviation system, including a potential increase in based aircraft. The demand may stimulate based aircraft accommodations such as fuel sales, business services, and hangar facilities. A goal of this tax reform is progressive aviation growth, enhanced facilities, and better accessibility overall, which will continue to be a driving factor of economic success in New York State.

**Table 5-11: Summary of Based Aircraft Forecast by Airport Category** shows based aircraft forecasts.

**Table 5-11: Summary of Based Aircraft Forecast by Airport Category**

| Airport Category | 2015 | 2020 | 2025 | Growth Rate | AAGR |
|---|---|---|---|---|---|
| National / Commercial Service | 1,318 | 1,401 | 1,487 | **12.82%** | 1.28% |
| Regional / Corporate Business | 1,712 | 1,723 | 1,733 | **1.23%** | 0.12% |
| Local / Community Business | 1,084 | 1,085 | 1,086 | **0.18%** | 0.02% |
| Local / General Aviation | 364 | 365 | 366 | **0.55%** | 0.05% |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

**Table 5-12: Summary of Forecast Activity by Airport Category** shows operations forecasts, as well as enplanements for the National / Commercial Service category.

| Table 5-12: Summary of Forecast Activity by Airport Category | | | | | |
|---|---|---|---|---|---|
| **Airport Category** | **2015** | **2020** | **2025** | **Growth Rate** | **AAGR** |
| National / Commercial | | | | | |
| **Enplanements** | 48,421,167 | 53,622,543 | 58,100,197 | 19.99% | 1.99% |
| **Operations** | 1,649,505 | 1,717,361 | 1,760,849 | 6.75% | 0.68% |
| | | | | | |
| **Operations** | | | | | |
| Regional / Corporate Business | 684,769 | 689,362 | 693,571 | 1.29% | 0.13% |
| Local / Community Business | 390,724 | 390,850 | 391,327 | 0.15% | 0.02% |
| Local / General Aviation | 90,975 | 91,204 | 91,438 | 0.51% | 0.05% |
| **Total Operations** | **2,815,973** | **2,888,777** | **2,937,165** | **4.30%** | **0.43%** |

Sources: FAA Form 5010 Airport Master Record, FAA Terminal Area Forecast, FAA TFMSC, NYSDOT, CHA.

While the forecast growth summarized in these tables may be considered modest, it is stable, which indicates a solid foreseeable stance for the air travel industry in New York State.

# New York State Airport System Plan 2018

## Chapter 6: System Adequacy

## 6.1 Introduction

The preceding chapters in this report presented and discussed key elements related to the public-use aviation system in the State of New York. This included the identification and evaluation of existing facilities and services provided, and determined roles for the five categories of airports in the system:

- National / Commercial Service
- Regional / Corporate Business
- Local / Community Business
- Local / General Aviation
- Basic / General Aviation

This also included established system goals and performance measures; and identified the existing and future passenger and operational activity levels throughout the state. For the purposes of this study effort and as noted in ***Section 4.3: 2018 State Airport Roles and System Classification*** of this report, the system contributions of Basic / General Aviation (Category 5) airports were considered limited and, therefore, not reviewed in this system adequacy chapter.

This state airport system adequacy evaluation is intended to be a high-level or overview analysis to understand basic strengths and weaknesses in the airport system and to provide supporting information to assist with determining future statewide system needs. This chapter will provide information as to the adequacy of the system and identify specific airport or system deficiencies. The intent is to provide a basis for developing a balanced, viable, effective, and efficient system of general aviation and commercial airports.

The goal of the system adequacy evaluation is to identify individual airport compliance with relevant performance criteria to improve each facility's contribution to the overall state airport system. While meeting these performance measures may not be required by any statute or regulation, these measures provide guidance on characteristics each airport should consider attaining to best fulfill its system role and meet the needs of its current and potential users.

## 6.2 System Adequacy Overview

The existing aviation system adequacy will be evaluated through each performance measure and guided by the five study goals, identified in ***Chapter 1: Vision, Goals, and Performance Measures***.

For the purposes of system adequacy, four principal areas were evaluated. These include:

- Critical performance criteria
- Access to scheduled air service and general aviation airports
- Airport/Aviation funding
- General aviation requirements

The process for evaluating the performance of the existing system involves multiple steps. The initial step is measuring each airport against baseline facility and service objectives presented in ***Appendix A: Performance Goals and Measures***.

The approach of this system adequacy evaluation is to apply the performance measures on an airport-by-airport basis, by airport category, and for the system-as-a-whole. The performance measures are used to evaluate the facilities, services, and other factors important to preserving the airport system. Summarizing the assessments of each individual airport will provide information as to whether the airport meets appropriate performance objectives for the system and identifies improvement needs.

Detailed results of the performance criteria data collection by individual airport are listed in ***Appendix E: Airport Performance Criteria Compliance***. System needs categorized by aviation system objective and NYS airport category are listed in ***Appendix F: System Needs by System Objective and Airport Category***.

## 6.3 Performance Criteria Evaluation

This evaluation draws upon the inventory data presented in ***Chapter 3***, validates the state of airport facilities and services, and identifies which relevant performance criteria are not fully met. As presented in ***Section 3.2 Inventory Process***, this SASP study was based on available published facility data, as well as a supplemental data collection effort of New York's more active aviation facilities. A preliminary ranking of all 131-active public-use facilities was developed and 97 of the most active and/or developed aviation facilities airports were chosen for supplemental data survey. The survey request involved airport infrastructure, based aircraft, operational data, airport services, existing improvement plans, related airport studies, and more.

Although all facilities chosen for the supplemental survey acknowledged this requested data collection effort, some responses were incomplete, while others were not returned. Additional data collection was made to fill-in resultant information gaps using credible sources identified in ***Chapter 3***. Despite this diligence, some criteria data was not obtainable. In those circumstances, this unreported (or unknown) data is labeled as "Unreported" in this report.

**Figures 6-1** through **Figure 6-24** graphically present the comparative evaluation of system adequacy. These summaries assist with identifying where necessary improvements to performance may be necessary or warranted.

The following sections of this chapter describe the performance criteria evaluations along with the respective graphical report card performance summaries for each individual system role category.

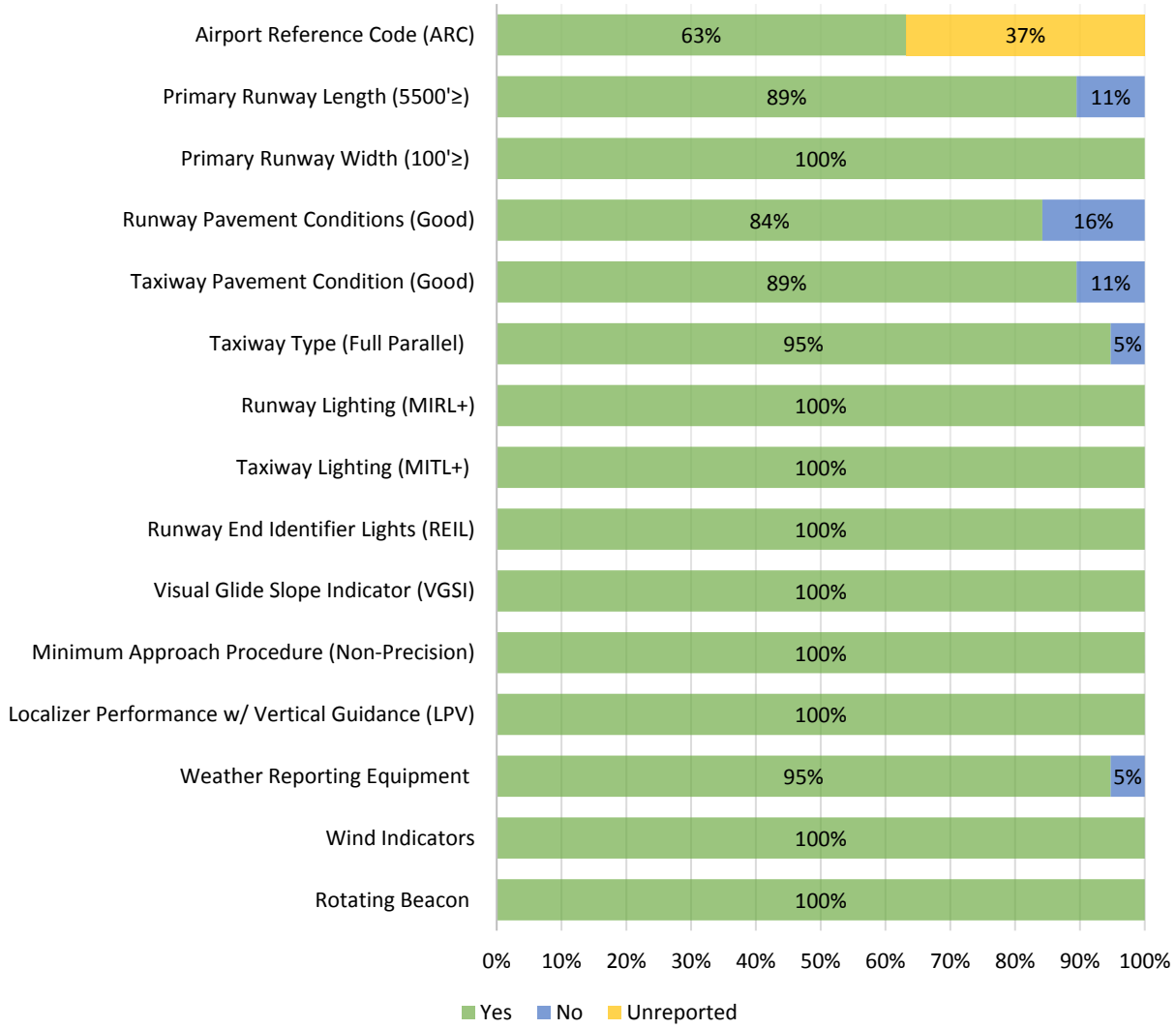
### 6.3.1 General Airside Infrastructure

It is vital for New York State system airports to maintain certain infrastructure objectives to maintain their role in the system. The specific infrastructure required at each airport depends on its role within the system. Typically, more extensive facilities and services are required at airports that serve larger, and/or more sophisticated aircraft.

**Figures 6-1 through 6-4** provide the results of the infrastructure evaluation for each airport category. These results are then summarized to determine the current general airside infrastructure and NAVAIDs system adequacy within each role category and facility objectives as well as the overall system's performance.

**Figure 6-1**

**Category 1 - National / Commercial Service: General Airside Infrastructure and NAVAIDs**



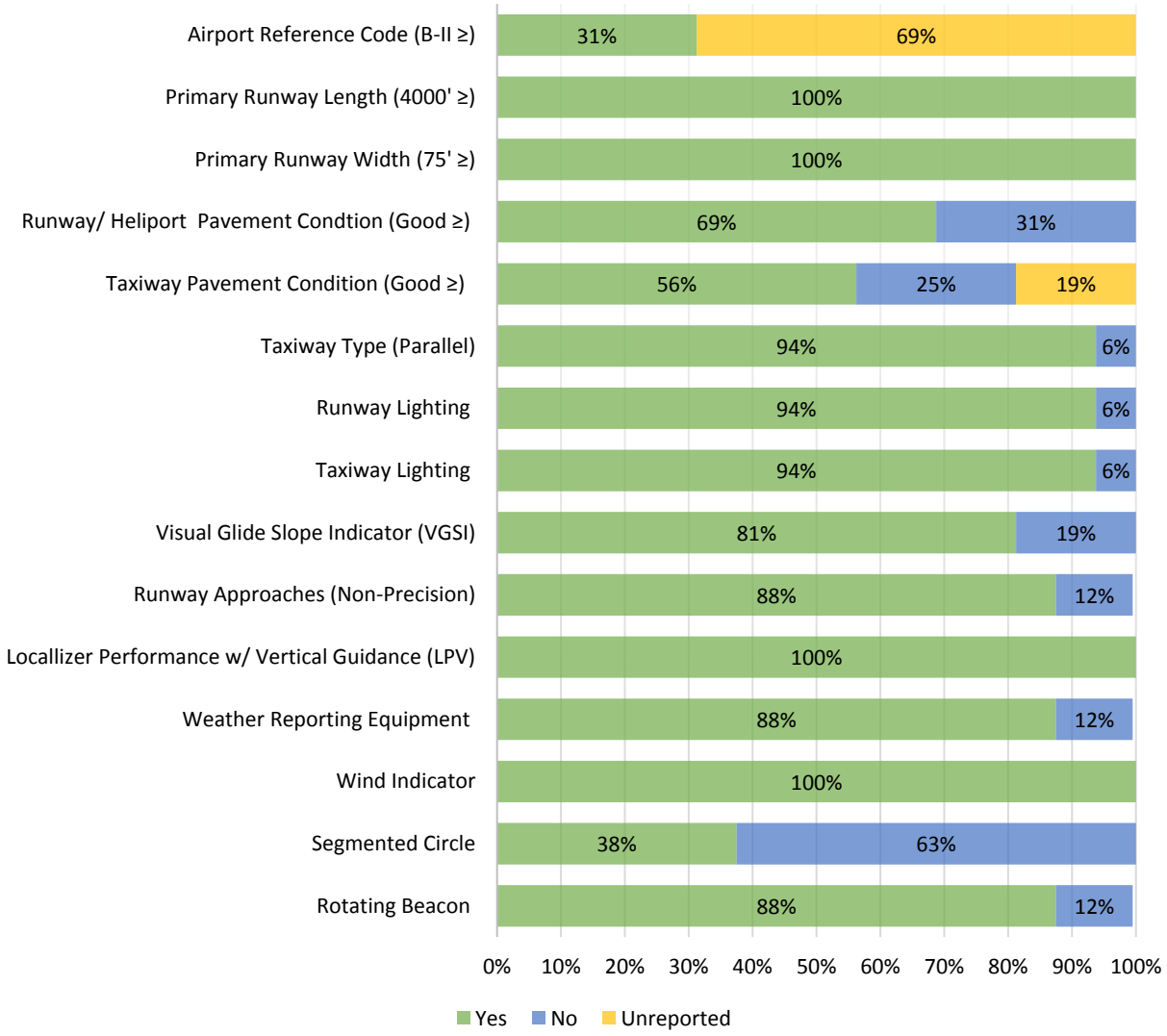

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-1** displays the results of the infrastructure and navigational aid evaluation for the Category 1 - National / Commercial Service airports (19) included in the SASP. Based on the results of the survey and evaluation, the report card depicts overall adequacy within each specified critical performance criteria clearly. As such, in the National / Commercial service category, areas that show need for improvement include runway length and airfield pavement conditions. These areas provide adequate safety and operational efficiency.

**Figure 6-2**

**Category 2 - Regional / Corporate Business: General Airside Infrastructure and NAVAIDs**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-2** displays the results of the general airside evaluation for the Category 2 -Regional / Corporate Business facilities (13 airports, 3 heliports). Based on the results of the evaluation, there are several areas where improvements could help this group of airports meet the critical performance criteria. For example, 63% of airports do not have a segmented circle on the

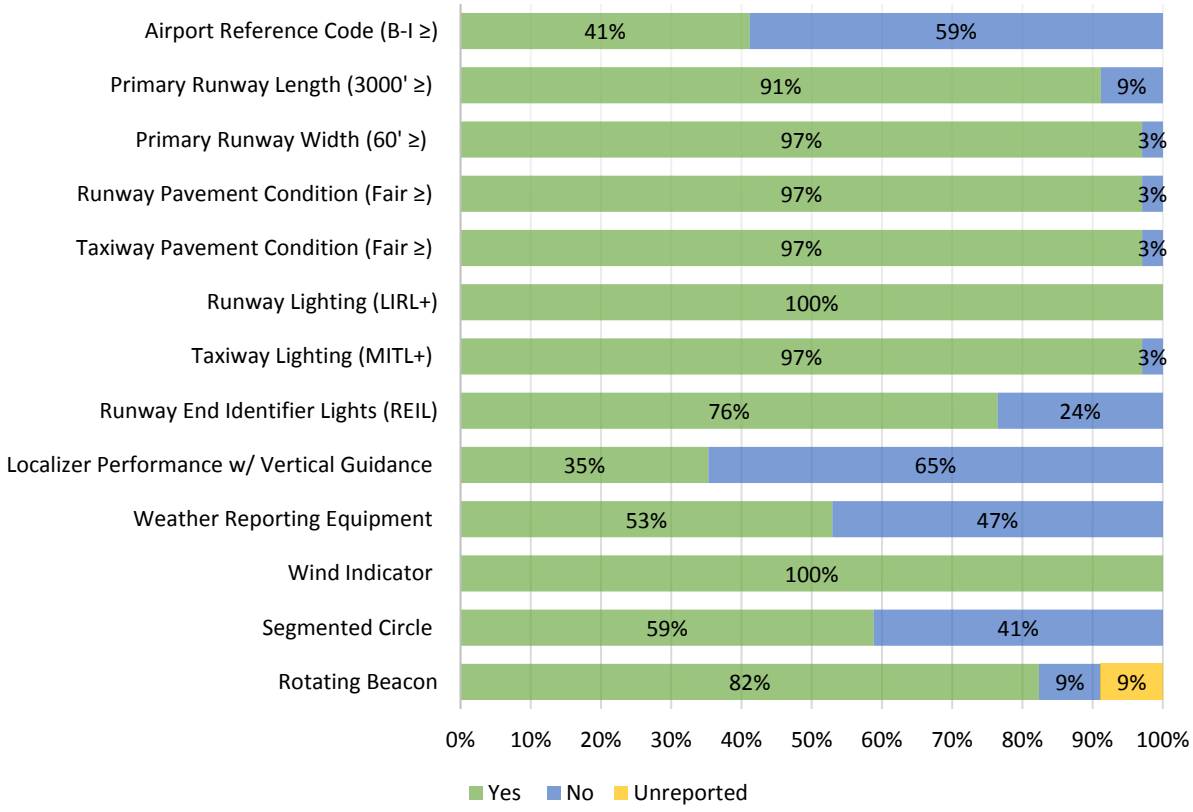
airport which is a low-cost navigational aid for pilots unfamiliar with the subject airport. nearly 1 in 5 facilities (19%) do not have an installed Visual Guide Slope Indicator while 12% are not equipped with a rotating beacon or automated weather reporting systems. These airfield systems can provide critical operational safety of the airports for all pilots and would be likely targets for improvements across the state system of public-use airports.

Additionally, all 13-airports in this category have FAA-published Localizer Performance with Vertical Guidance (LPV) flight procedure approaches. This is a notable and desirable characteristic of the state system as LPV approaches provide highly accurate navigational guidance to pilots similar to Instrument Landing Systems (ILS) typically installed at busier commercial passenger service airports.

For an airport to provide safe and sufficient airfields, visual and navigational aids that assist pilots in operational safety are essential tools for airfield operations. In addition, maintaining safe and sufficient facilities is a vital aspect in airport growth in attracting new aviation-related activity.

**Figure 6-3**

**Category 3 – Local / Community Business: General Airside Infrastructure and NAVAIDs**



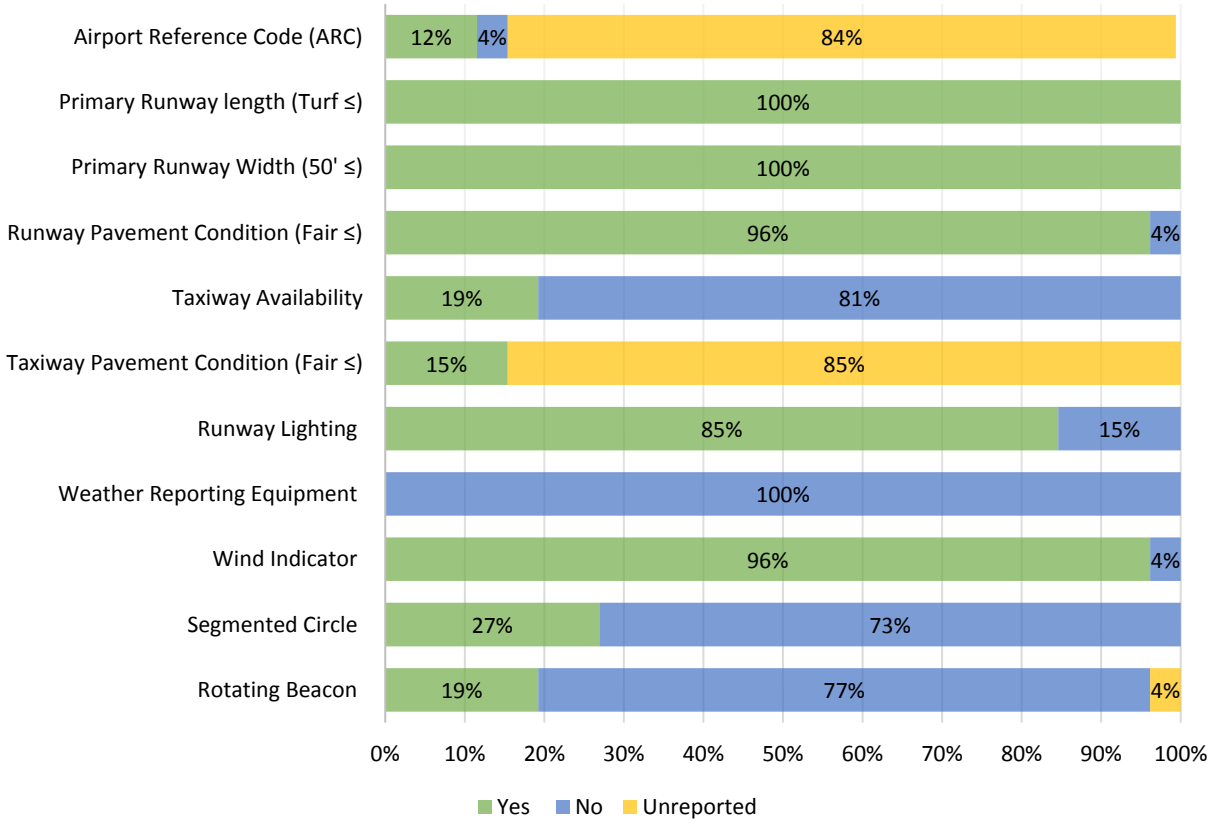

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-3** displays the results of the general airside evaluation for the Category 3 - Local / Community Business airports (34). Based on the results of the evaluation, there are critical areas that need improvements to address performance needs and comply with the critical performance criteria, not only set forth within the performance criteria for this study, but to maintain safe and efficient operations.

Only 34% of the airports in this category have an active LPV approach procedure, a proportion below the performance criteria desired for these airports. This category of airports also has 41% without Segmented Circles, 24% without REILs, and 47% without automated weather reporting systems. Taken together, these deficiencies limit the overall performance adequacy of airports within this category.

Navigational aids, airport lighting, and weather equipment are critical flying tools necessary for airfields where the airfield users are predominantly recreational pilots. For an airport to provide safe and sufficient airfields, visual and navigational aids that assist pilots in operational safety are vital tools for airfield operations.

**Figure 6-4**
**Category 4 – Local / General Aviation: General Airside Infrastructure and NAVAIDs**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-4** displays the results of the general airside evaluation for the Category 4 - Local / General Aviation airports (26). Contrary to top three airport role categories, precision and non-precision instrument approaches are not vital to the overall system adequacy of these airports. However, conventional navigational aids that assist the pilot to increase operational safety are necessary and desired components for all airports. As such, Local / General Aviation airports included in the SASP show an increased need in these areas.

Airport lighting and visual aids within this category fall well short of the performance criteria developed for these airports. Currently, Segmented Circles (68%) and Rotating Beacons (79%), limit the performance adequacy of airports within this category.

### 6.3.2 FAA Design Standards

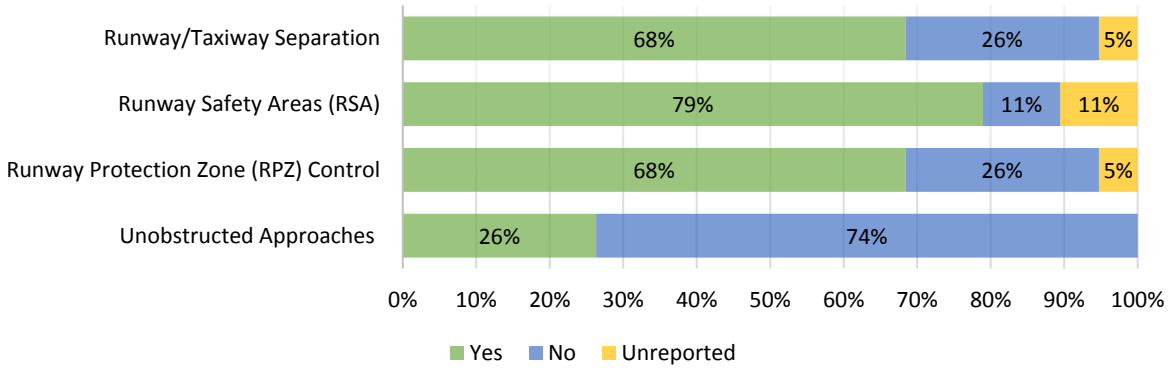
One of the most important characteristics of an adequate statewide airport system is the system's ability to meet applicable airport design and safety standards. Design and safety standards are primarily established by the FAA through a wide variety of advisory circulars, orders, and other directives. FAA design and safety standards are a set of minimum standards, guidelines, or recommendations that must be met to obtain federal funding for improvement projects at facilities listed in the National Plan of Integrated Airport Systems (NPIAS). These standards were developed to maintain operational safety at NPIAS airports for all aviation activity.

Airports not included in the NPIAS are not required to meet FAA safety and design standards. However, FAA's safety and design standards are generally accepted as the aviation industry's recommended standards and good practices as they are primarily based on extensive industry research and analysis that is reasonably applicable to most airports. Thus, for the purposes of this study, the goals chosen for these critical performance criteria are consistent with FAA standards and therefore will be applied to all categories of airports included in this study.

**Figures 6-5 through 6-8** provide the results of the design standards evaluation of benchmark elements presented in **Appendix A** for each airport category.

**Figure 6-5**

**Category 1 - National / Commercial Service: FAA Design Standards**

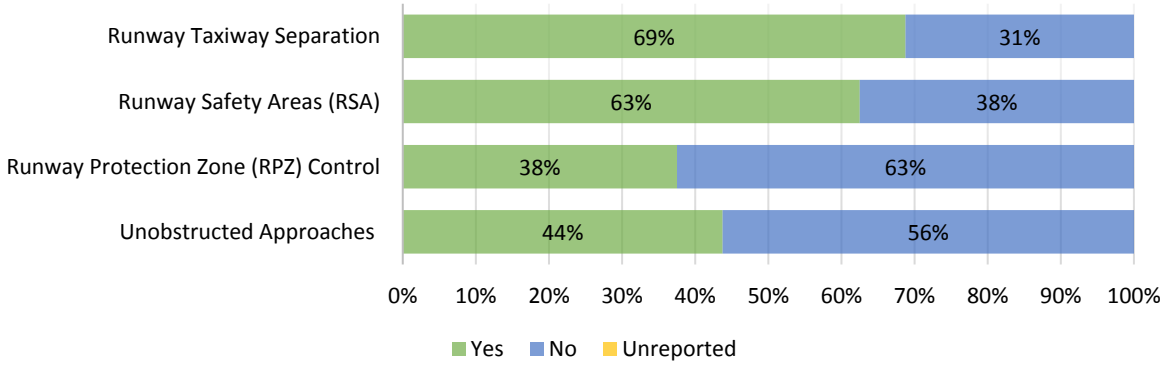



Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-5** displays the results of the FAA Design Standards evaluation for the Category 1 - National / Commercial service airports. Based on the results of the evaluation, there are several areas in which improvements would address performance needs and assist with complying with critical performance criteria. For example, only 26% of airports have clear (unobstructed) approaches to all runways; that is, 74% of these airports have at least one runway approach that has a known obstruction. Several areas of FAA design standards (RSA and RPZ safety requirements, runway/taxiway separations requirements, etc.) are not met which limits the system adequacy for these airports.

**Figure 6-6**

**Category 2 - Regional / Corporate Business: FAA Design Standards**

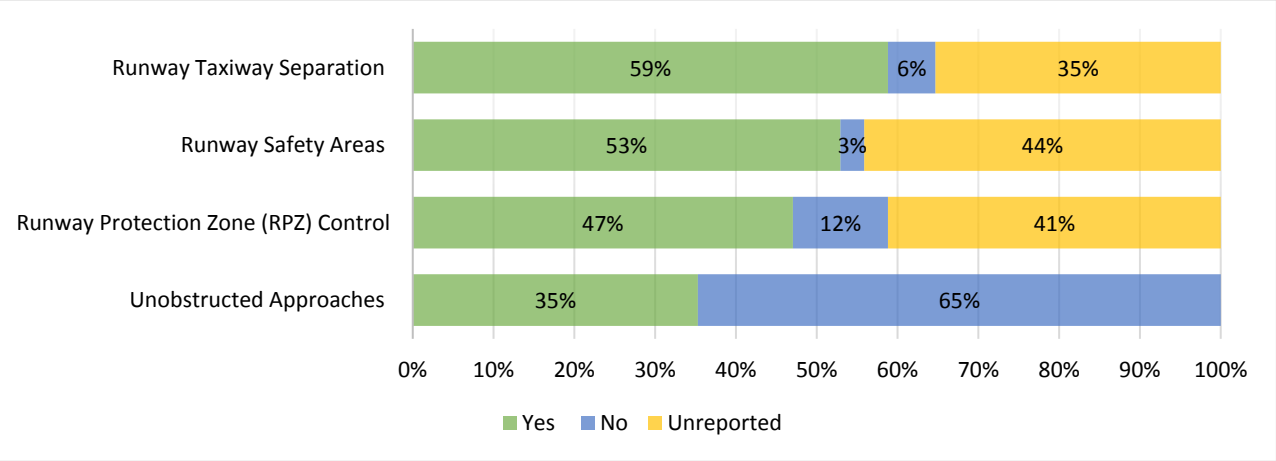



Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-6** displays the results of the FAA Design Standards evaluation for the Category 2 - Regional / Corporate Business service airports. Based on the results of the evaluation, there are several areas where improvements could address performance needs and assist with complying with critical performance criteria. For example, only 44% of these airports reported none of their runways were obstructed. Conversely, 56% of the airports in this category have

at least one known obstructed runway approach. FAA standards for RSA and RPZ were reportedly achieved at only 63% and 38%, respectively, by this category of airports.

**Figure 6-7**
**Category 3 - Local / Community Business: FAA Design Standards**

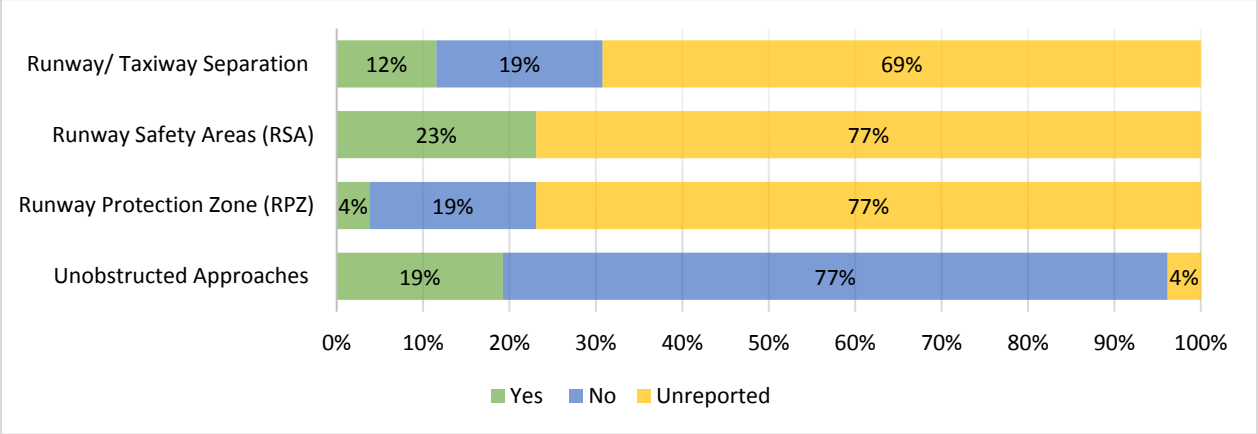



Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-7** displays the results of the FAA Design Standards evaluation for the Category 3 - Local / Community Business service airports. Based on the results of data collection and research, limited reporting cooperation impacted the evaluation results for this category of airports. A principal factor in the limited reporting is that 32% of these airports are "Unclassified" in the NPIAS (**Table 4-9**) and thus are not eligible for the wide-range of FAA improvement funds. As a result, these owners tend to restrict their capital improvement expenditures to airfield and hangar improvements, rather than off-site approaches and safety areas.

Available data identified several areas where improvements could address performance needs and assist with obtaining with critical performance criteria, particularly with unobstructed approaches.

**Figure 6-8**
**Category 4 - Local General Aviation: FAA Design Standards**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-8** displays the results of the FAA Design Standards evaluation for the Category 4 - Local / General Aviation service facilities (26 total). Based on the results of data collection and research, limited reporting cooperation impacted the evaluation results for this category of airports. An influential factor in the limited reporting is that only 19% of these airports are listed in the NPIAS (**Table 4-9**) and eligible for the wide-range of FAA improvement funds. As a result, the majority facility owners in this category tend to restrict their capital improvement expenditures to airfield and hangar improvements, rather than off-site approaches and safety areas.

Based on the results of the evaluation, each of the performance criteria need improvement to meet the system adequacy needs of this category.

### 6.3.3 Economic Objectives

New York State airports play a key role in supporting, promoting, and adding tangible value to the economy. Aviation provides one of the most efficient transportation networks making it essential for global business and tourism. New York State is the home to the most influential financial districts in the world and as such plays a vital role in facilitating economic growth and sustainability throughout the state. The New York State public-use airport system has a substantial economic impact both through its own activities as well as a facilitator of other industries. The contributions include direct, indirect, and induced impacts.

For this SASP goal category, the economic growth is examined through the following measures:

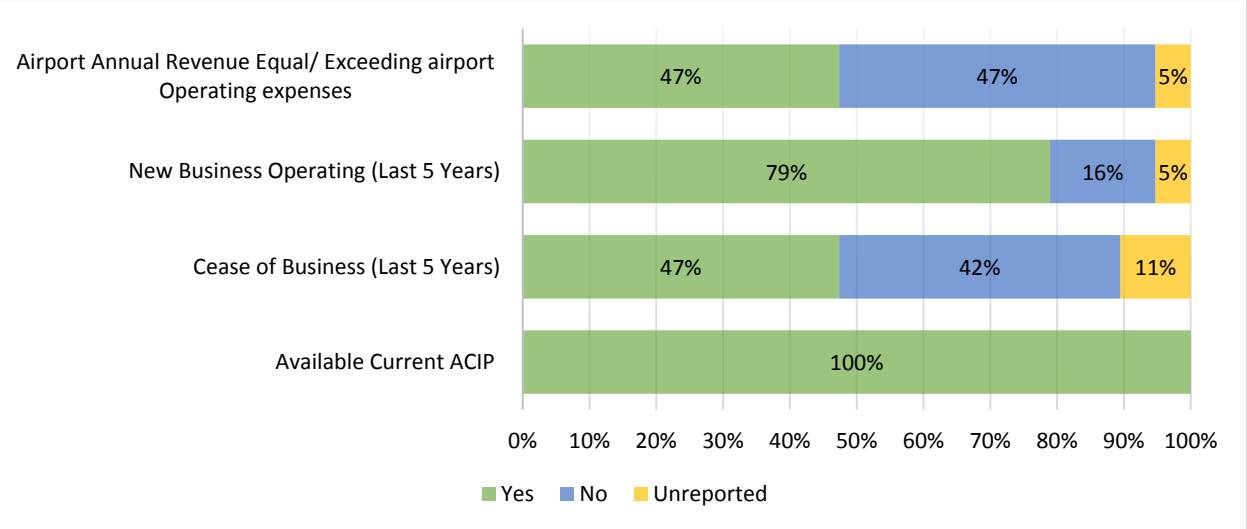
- System airports with revenue equaling or exceeding operating expenses
- New businesses operating at the airport in the last five years
- Current businesses that have ceased operations or relocated off-site during the past five years (Identified in Airport Inventory survey)
- Updated Airport Capital Improvement Plan (ACIP)

The presence of airports is an indisputable asset to economic growth and diversification for the local community as well as the respective regional area. These airports provide direct (e.g. employment payroll), indirect (expenditures by visitors and employees), and induced (local business generated specifically because of an airport's presence) benefits that support their local communities. The economic impact of airports on the local communities by providing jobs, business development opportunities, and indirect impacts strengthens economic vitality in those communities. In addition to adequate airport facilities, market areas that airports serve must possess other characteristics that make them candidates for the attraction and retention of various economic development activities.

The **New York State Economic Impacts of Aviation** report published in 2010 for the New York State Department of Transportation (NYSDOT) provides additional information relating to the value of the State's airports. According to data collected at that time, the aviation industry contributed over $50 billion in annual economic activity in New York State and almost 400,000 state residents worked in aviation or aviation-related industries. To further define the economic impact, the study outlined that aviation generates $18 billion in payroll and $4.5 billion in state and local tax revenue annually. As evidenced by these numbers, the economic impact of aviation in New York State is significant.

The data in **Figures 6-9 through 6-12** provide the results of the economic evaluation for each airport category. These results are then summarized to determine the current economic status associated with system adequacy within each role category and facility objectives as well as the overall system's performance.

**Figure 6-9**
**Category 1 - National / Commercial Service: Economic**



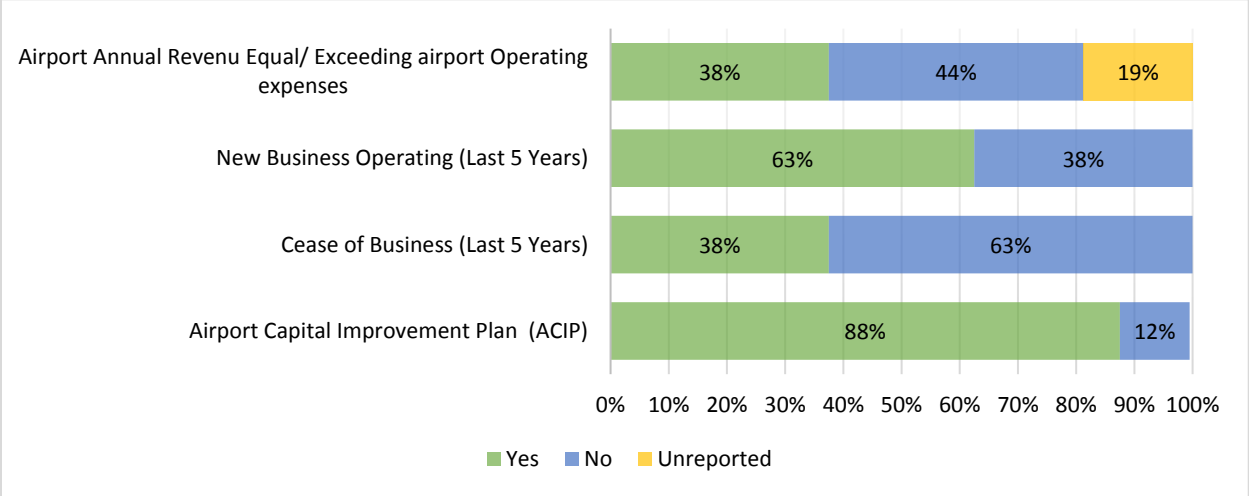

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

The economic vitality of airports is paramount to the overall health of the SASP. As such, various areas of airport administration and management in terms of revenue and expenses were

evaluated as part of this study **Figure 6-9** displays the results of this study's economic evaluation for the Category 1 - National / Commercial service airports.

According to the evaluation, 47% of National / Commercial service airports operational expenses equal or exceed the annual revenue generation with 79% of Category 1 airports attracting new businesses in the past 5 years prior to the survey. These opportunities, should they be addressed, have a residual effect on each performance criteria. By focusing on these aspects of the system plan, the likelihood of increasing the performance in other categories increases.

**Figure 6-10**
**Category 2 - Regional Corporate Business: Economic**

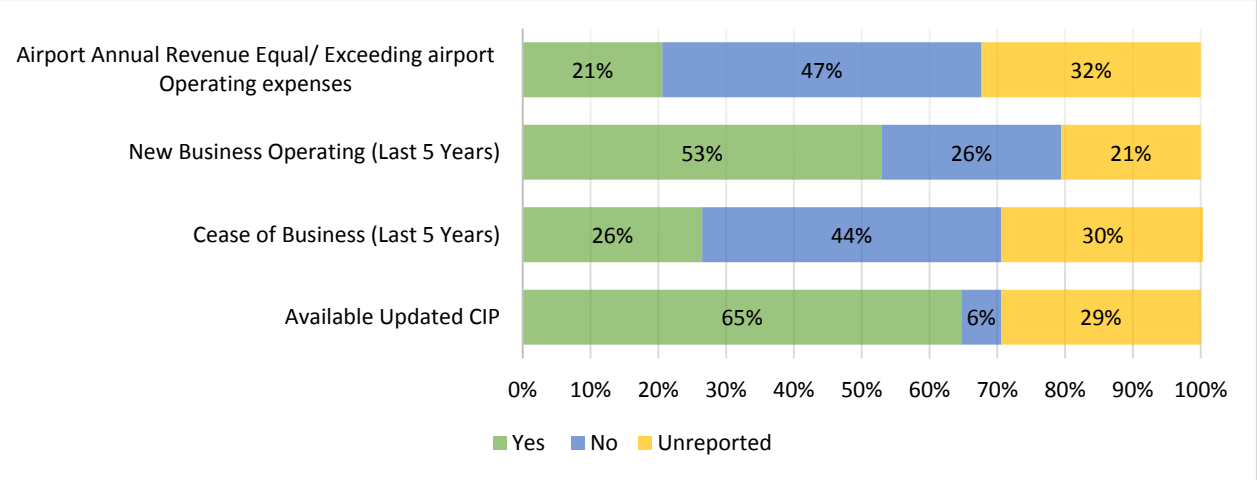



Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-10** displays the results of the economic evaluation for the Category 2 - Regional / Corporate Business service airports.

Within the economic criteria, 63% of Regional / Corporate Business airports report new business operating within the past 5 years prior to the survey, however only 38% of airports report their annual revenues meet or exceed the airports operating expenses. This indicates that revenue generating opportunities related to facility services are either not available or are not at a level which can contribute significant impacts to the economic success of the airport.

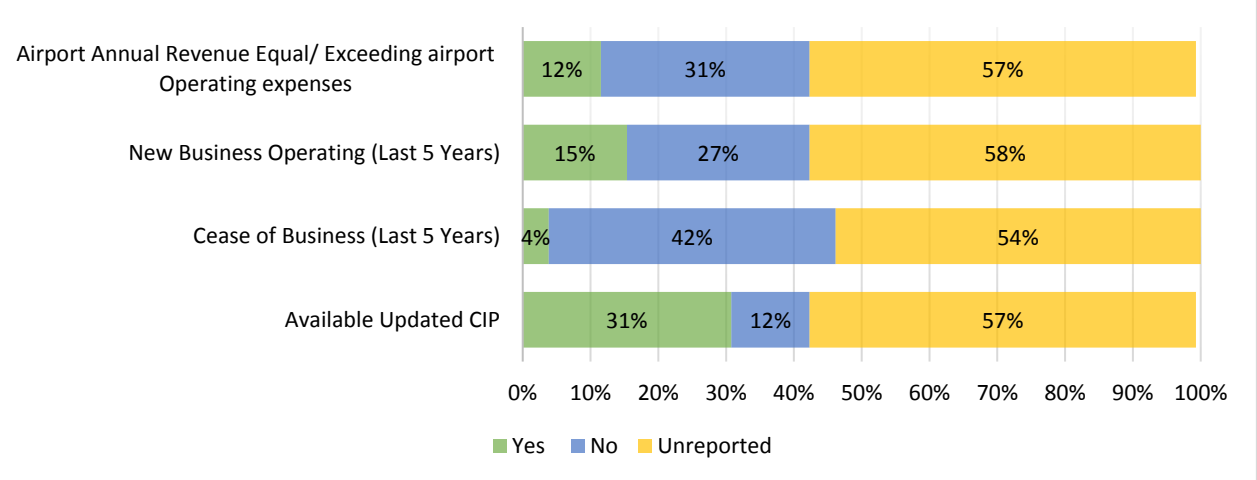
**Figure 6-11**
**Category 3 - Local / Community Business: Economic**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-11** displays the results of the economic evaluation for the Category 3 - Local / Community Business airports. An influential factor in the limited reporting is that 32% of these airports are "Unclassified" in the NPIAS (**Table 4-9**) and thus are not eligible for the wide-range of FAA improvement funds. As a result, these facilities tend not to prepare FAA recommended 5-year Capital Improvement Programs (CIP), a prerequisite to the federal AIP capital program.

**Figure 6-12**
**Category 4 - Local / General Aviation: Economic**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-12** displays the results of the economic evaluation for the Category 4 - Local / Community Business airports. An influential factor in the limited reporting is that only 19% of these airports are listed in the NPIAS (**Table 4-9**) and eligible for the wide-range of FAA

improvement funds. As a result, these facilities tend not to prepare FAA recommended 5-year Capital Improvement Programs (CIP), a prerequisite to the federal AIP capital program.

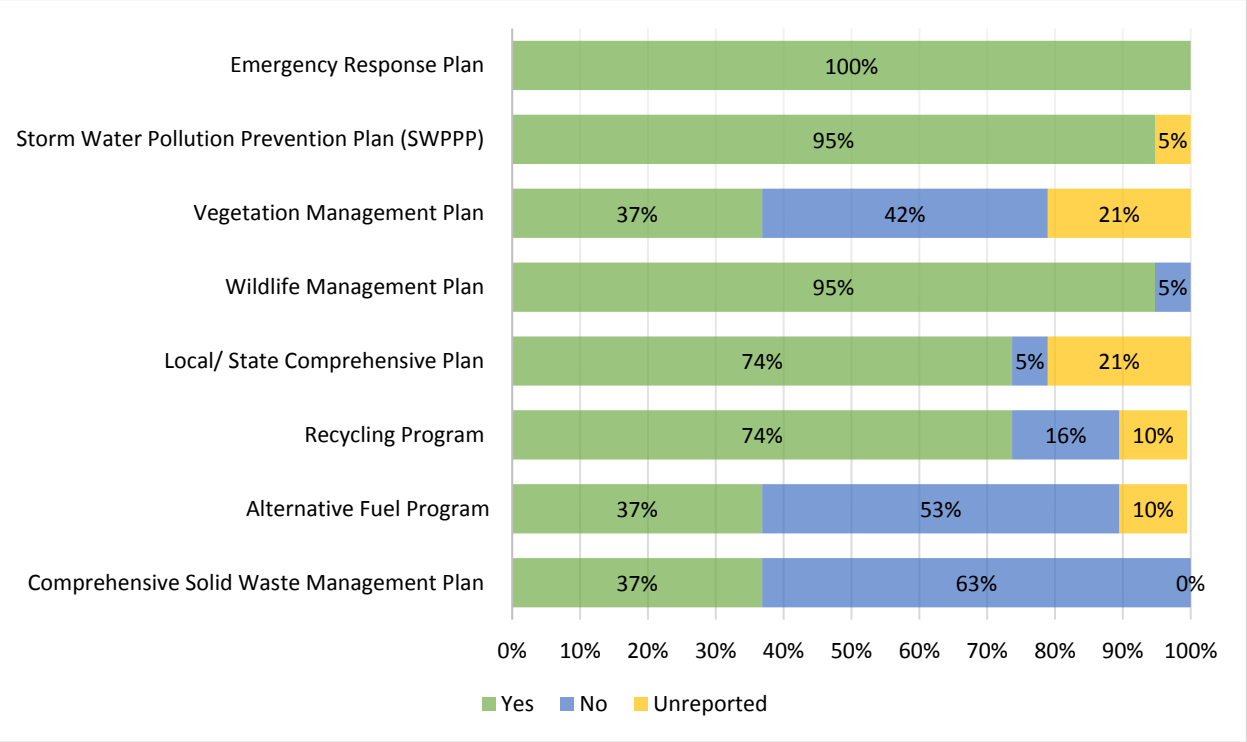
### 6.3.4 Environmental Compliance

As part of the FAA's ongoing environmental planning efforts, airports that receive federal funding from the AIP program have been responsible for developing their facilities in accordance with the National Environmental Policy Act (NEPA) and environmental requirements set forth by the Army Corps of Engineers (USACE). Based on these guidelines, implementing environmentally responsible policies and procedures will have a positive effect on the environment. As such, it is critical for airports in New York State to be compatible with both the human and natural environment. Additionally, airports working towards a sustainable goal of incorporating environmental stewardship ultimately supports the airports' long-term viability.

Several performance criteria have been identified to measure an airport's progress towards protecting the environment and preserving natural resources. Included in the criteria are such initiatives as solid waste and recycling management plans, stormwater and water conservation measures, wildlife management programs, and other environmental programs. These initiatives can have a positive impact on areas in the vicinities of airports, but can also provide a tangible benefit to the operation and maintenance costs at airports. For example, a solid waste and recycling plan can reduce costs by revenue generation from recycled materials pulled directly from the solid waste stream, such programs would also contribute to lessening regional environmental impacts by reducing the amount of solid waste contribution to local landfills associated with traditional waste disposal.

**Figures 6-13 through 6-16** provide the results of the environmental evaluation for each airport category. These results are then summarized to determine the current environmental stewardship within each airport category to determine system adequacy as well as the overall system's performance.

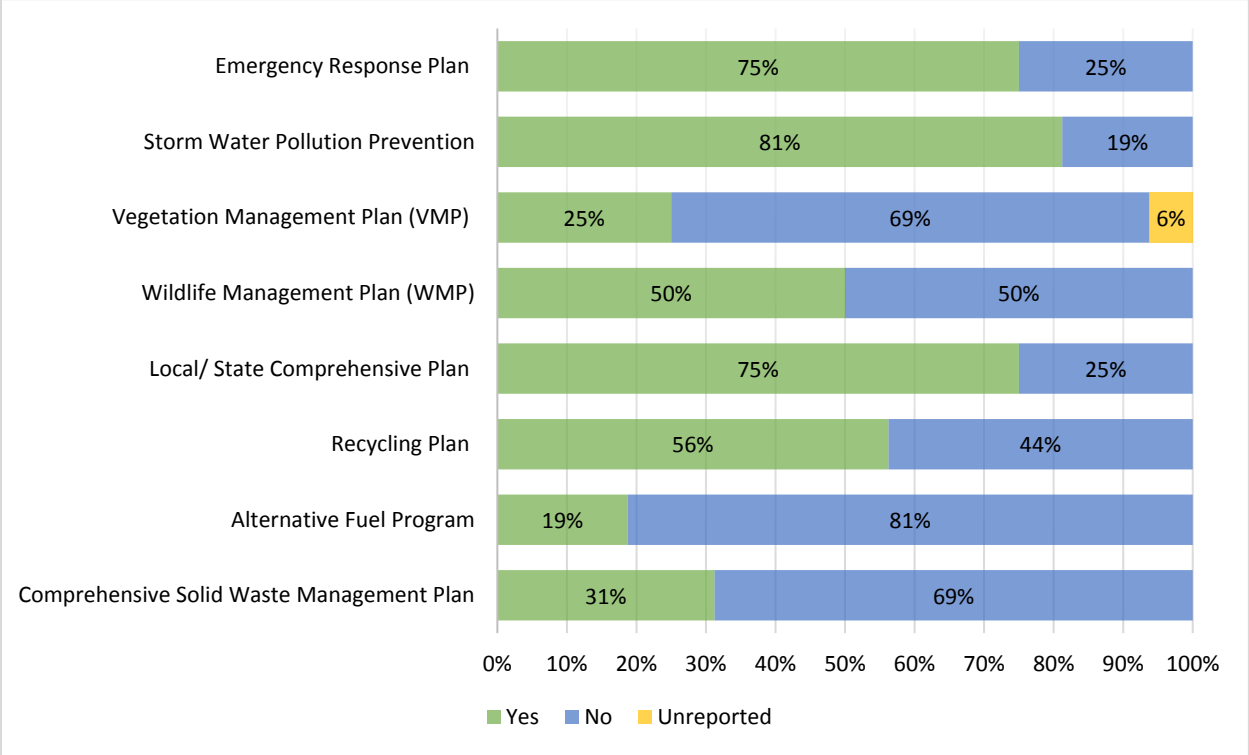
**Figure 6-13**
**Category 1 - National / Commercial Service: Environmental**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-13** displays the results of the general airside evaluation for the Category 1 - National / Commercial Service airports. Environmentally, comprehensive solid waste management plans are only available at 37% of airports within this category. However, 74% of these airports report having a recycling plan. Such programs have a tremendous impact on local and regional communities by reducing the waste stream and reducing environmental impacts. In turn, the reduction of the solid waste stream may have a residual impact on operational expenses as in some cases the recycled materials pulled directly from the solid waste stream may provide additional revenue generation.

**Figure 6-14**
**Category 2 - Regional Corporate Business: Environmental**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

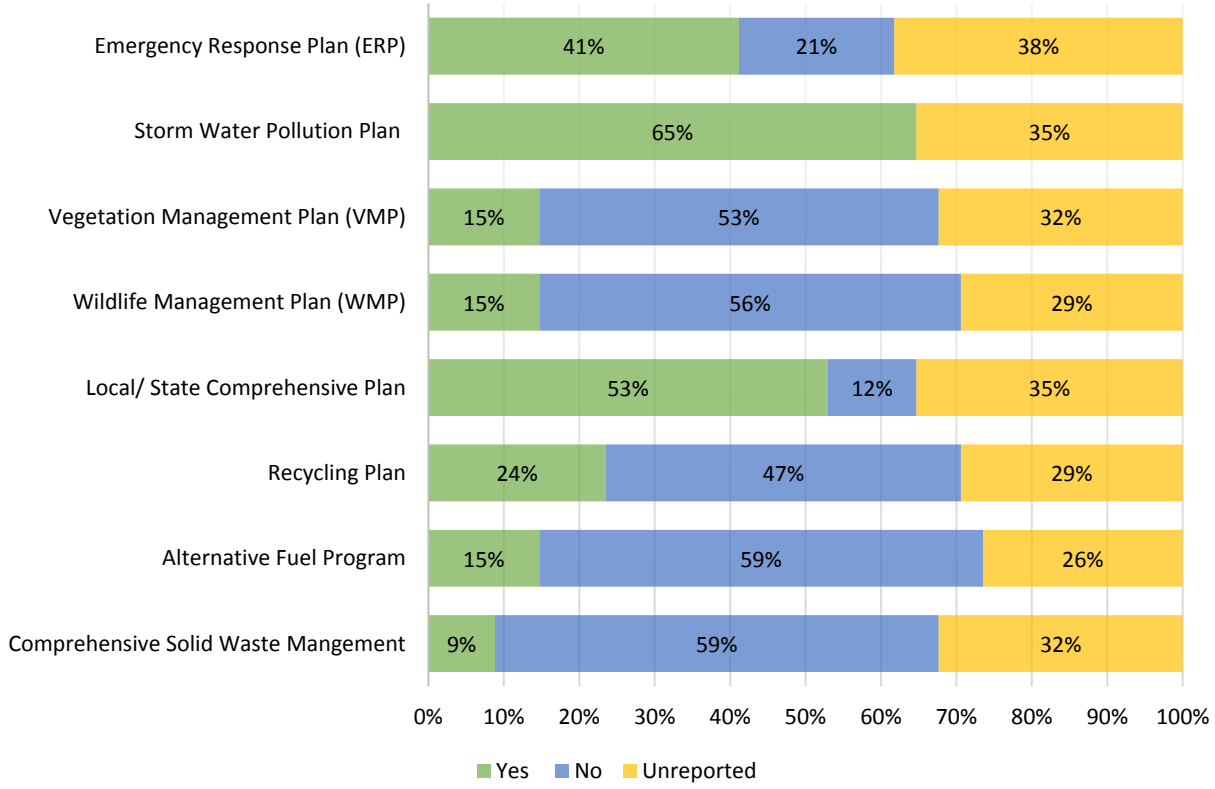
**Figure 6-14** displays the results of the environmental evaluation for the Category 2 - Regional / Corporate Business Service airports. As mentioned previously, environmental compliance is not critical to the economic success of an airport, however actively engaging in environmentally responsible practices is of critical importance to airports included in the SASP.

Environmentally comprehensive solid waste management plans are available at only 31% of the Regional Corporate Business airports. Similarly, only 56% of airports in this category report having a recycling plan.

Based on the results of the evaluation there are several areas within the remaining two categories for Local/Corporate Business and Local / General Aviation where improvements could address performance needs and assist with complying with the desired environmental performance criteria.

**Figure 6-15**

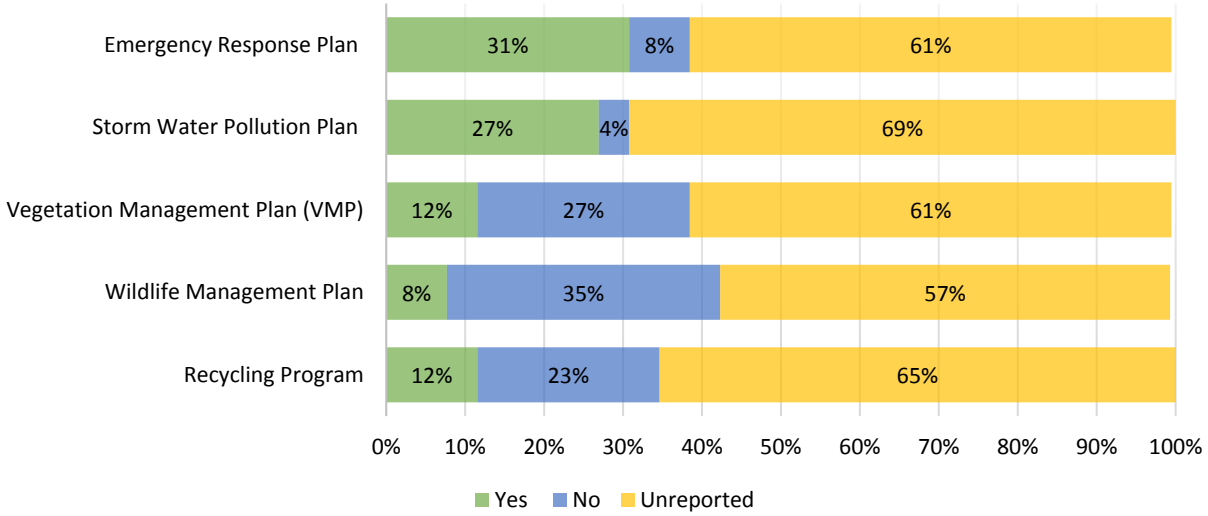
**Category 3 - Local / Community Business: Environmental**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-15** displays the results of the environmental evaluation for the Category 3 - Local / Community Business airports.

**Figure 6-16**
**Category 4 - Local / General Aviation: Environmental**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-16** displays the results of the environmental evaluation for the Category 4 - Local / General Aviation airports.

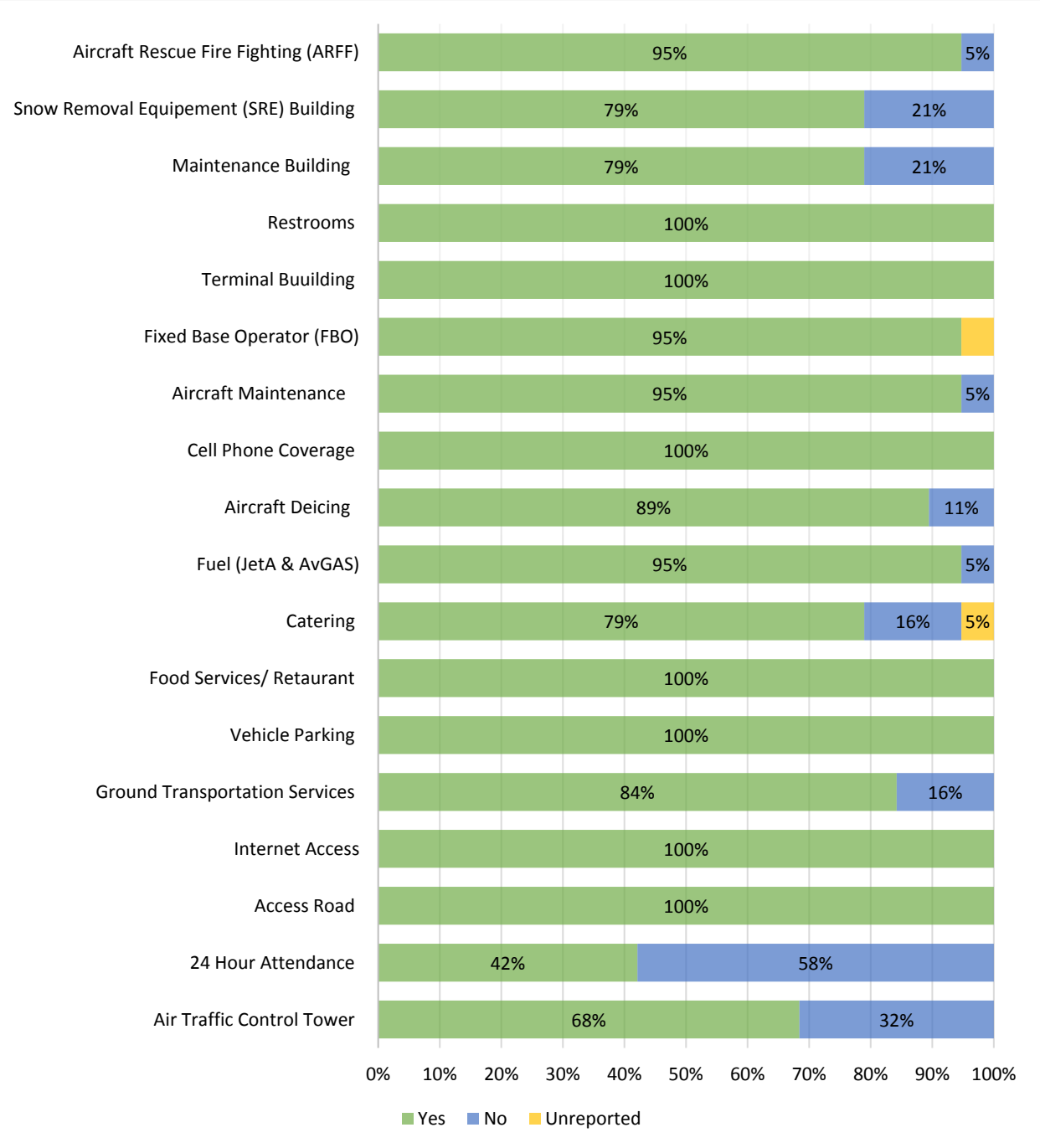
### 6.3.5 Facility Services

For New York State airports to completely fulfill their identified roles in the system, the minimum facility and service objectives established for each role category should be met by those respective airports. The specific facilities and services required at each airport depend on its role within the statewide system, with more comprehensive facilities and services typically needed at airports that serve larger narrow and wide-body aircraft.

The facility and service objectives are targets and serve as a minimum or baseline for airports to fully serve their respective role category in the New York State public-use airport system. Airports should not be limited by the objectives identified here and are encouraged to exceed the objectives if possible. Airports in the system that show a propensity for growth make the entire system more viable by providing a model for growth at similar facilities.

**Figures 6-17 through 6-20** provide the results of the facility services evaluation for each airport system category. These results are then summarized to determine the current level of system adequacy for services provided within each airport category and facility objectives as well as the overall system's performance.

**Figure 6-17**
**Category 1 - National / Commercial Service: Facility Service**

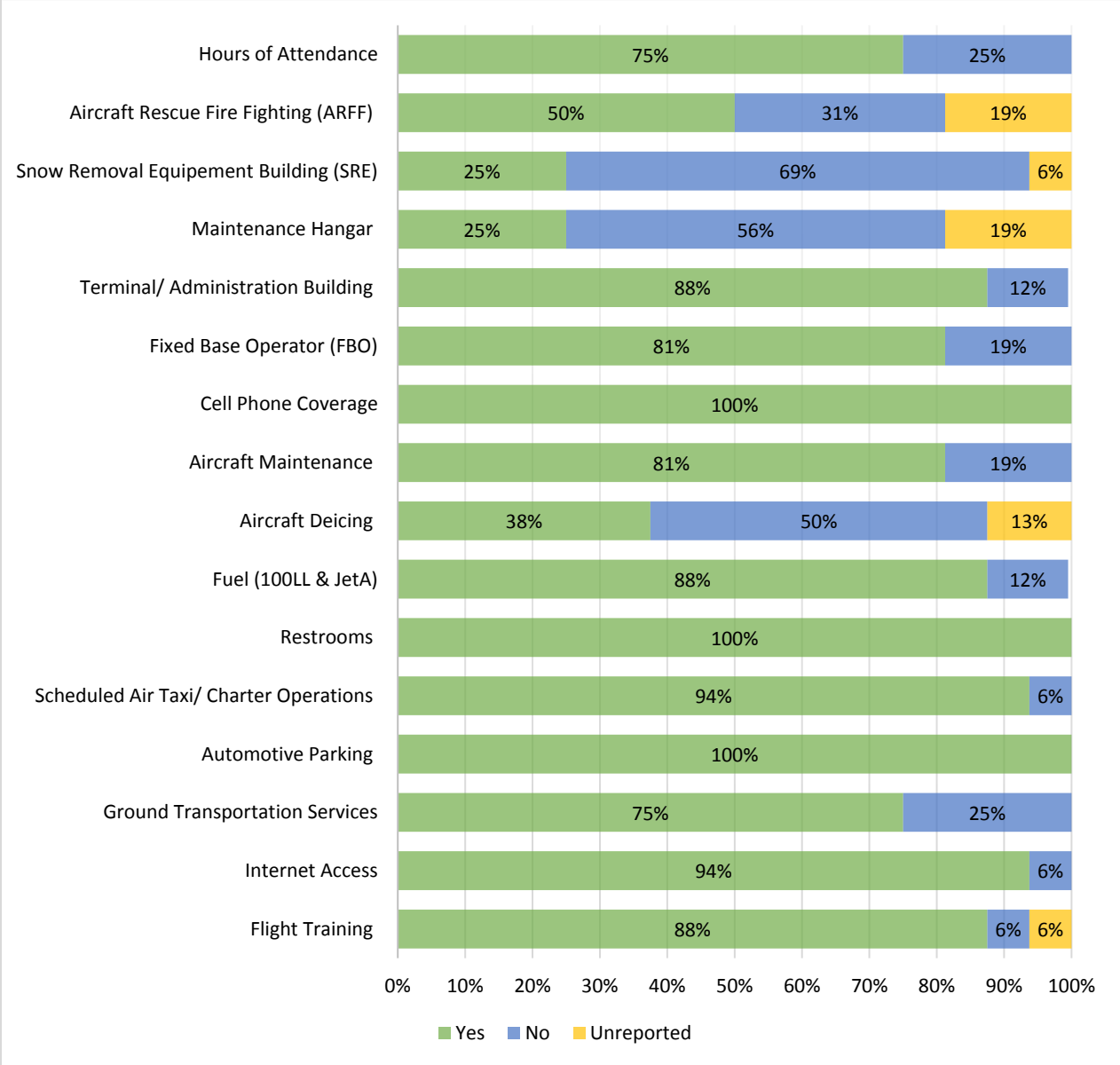



Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-17** displays the results of the facility services evaluation for the National / Commercial Service airports that are directly related to economic growth and infrastructure development at airports. Access to these services (e.g. aviation fuel, fixed base operator, airspace control, vehicle parking, etc.) have a vital role in activity levels at airports and influence the likelihood of a private or corporate aircraft owner basing their aircraft at airports,

which in-turn would contribute to increased revenue-generating opportunities. In addition, access to aircraft maintenance facilities is also a factor that has a tangible impact on activity levels and the number of based aircraft. Category 1 facilities that incorporate all these services provide a higher quality experience for pilots flying both locally and transiently

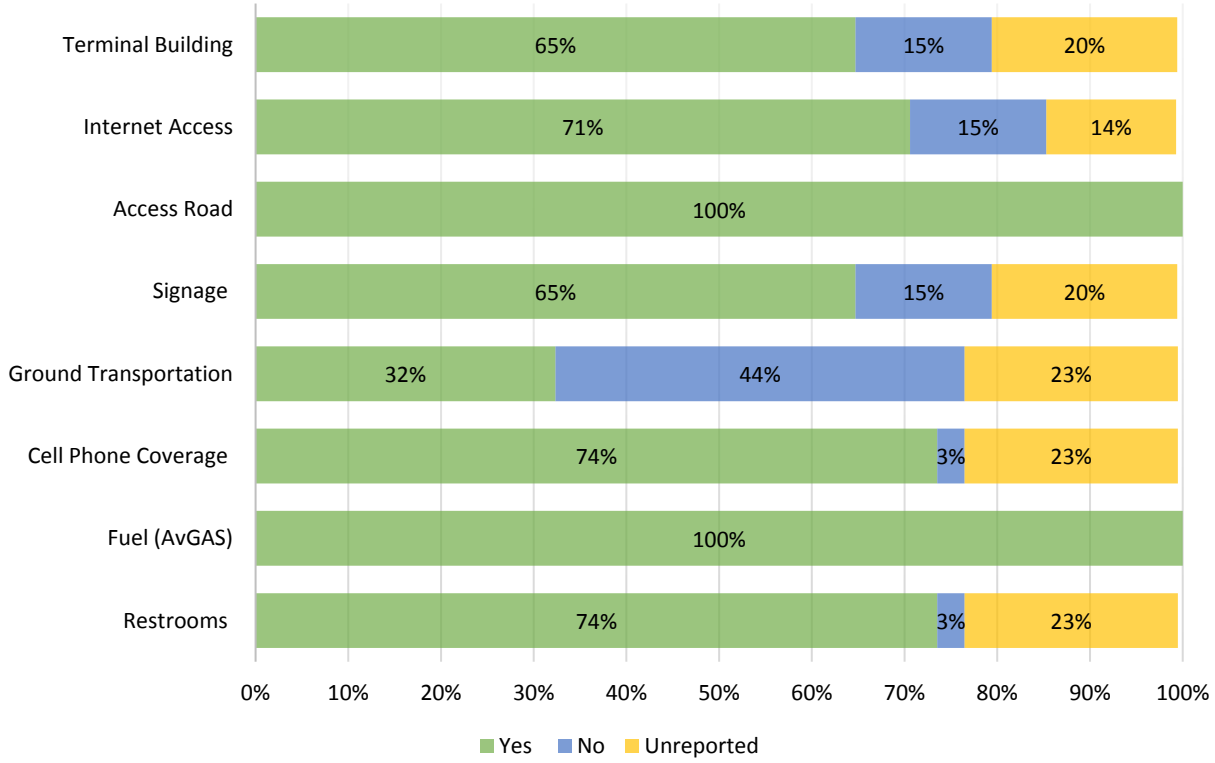
**Figure 6-18**
**Category 2 - Regional / Corporate Business: Facility Service**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-18** displays the results of the facility services evaluation for the Category 2 - Regional / Corporate Business airports. These indicators suggest criteria that are candidates for improving the vitality of these airports.

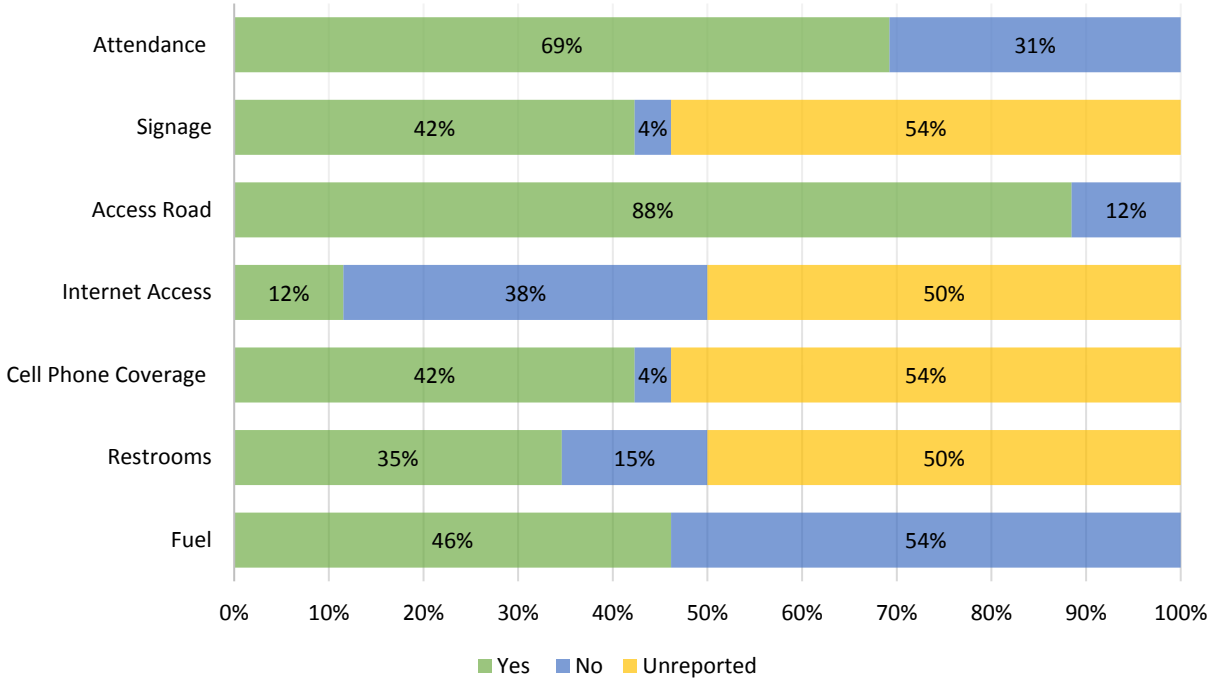
**Figure 6-19**
**Category 3 – Local / Community Business: Facility Service**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-19** displays the results of the facility services evaluation for the Category 3 - Local / Community Business Service airports. By providing adequate support systems, along with enhanced facility services, pilots are more likely to utilize these airports based on convenience and level of service.

**Figure 6-20**
**Category 4 - Local/ General Aviation: Facility Service**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-20** displays the results of the facility services evaluation for the Category 4 - Local / General Aviation airports. Successful airports in the category can be attributed directly to the airfield infrastructure and facility services provided at the airport. Based aircraft and fuel sales are critical to the sustainability of these Category 4 airports. To increase the demand for hangar space and fuel sales, airports must provide adequate services at the airport. For example, small aircraft owners are more likely to base their aircraft at airports that offer the most in terms of facility services and convenience.

### 6.3.6 Hangar Capacity and Anti-Terrorism Security

This section identifies performance criteria for two additional critical areas related to an effective state airport system – specifically, hangar capacity and aviation anti-terrorism security. At first glance, it may appear that the two are disparate considerations. However, both are interrelated for contributing to the success, utility, and security of individual airports and the statewide system of public-use airports in New York.

Based on national anti-terrorism security issues since September 11, 2001, overall airport and aircraft security is an important consideration at the Nation's various airports. The core focus of the FAA and the federal Transportation Security Administration (TSA) is to provide the safest, most efficient and secure aerospace system to users at the federal, state, and local levels. The **TSA Security Guidelines for General Aviation Airports**, May 2004, established

several key recommendations that promote safety and security at public-use, as well as private-use airports.

The TSA's key security recommendations for general aviation airports in the state were codified with the implementation of New York Transportation Law, Article 2, Section 14-1 Airport Security. This state statute requires most general aviation facilities to register with the NYSDOT every three years and provide an up-to-date airport security plan for ensuring and maintaining the safety and security of each airport on behalf of its surrounding community, region, and state. A security plan outlines airport security and aircraft access controls for each respective airport. An effective security plan defines and organizes communication linkages between airport managers, tenants, local law enforcement representatives, government officials, emergency responders, and others with an inherent need for airport security.

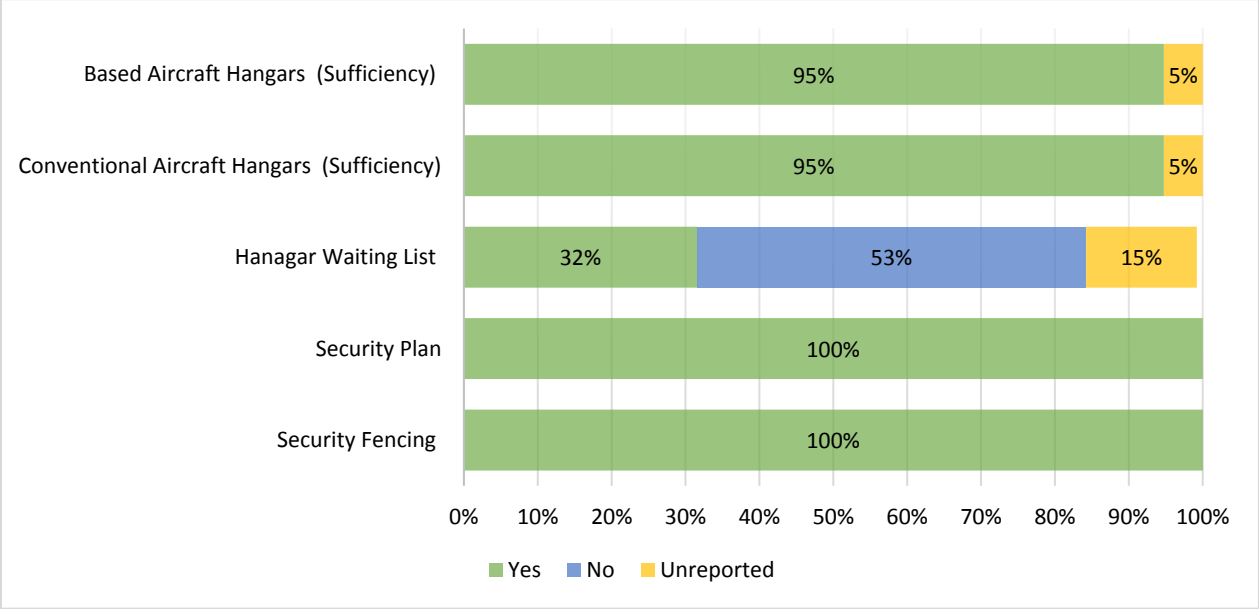
Hangar capacity is an important functional and economic consideration at general aviation airports. Revenue from hangar leases and fuel sales are the primary means of revenue generation for many airports. Hangar availability to safely and securely store aircraft long-term (based aircraft) and short-term (itinerant aircraft) is often the primary sustainability factor for airports, particularly for the wide-range of general aviation facilities in the state. The storage of aircraft in an enclosed environment significantly improves the security of access to aircraft, as well as reduces the harmful effects of weather on the condition and integrity of aircraft equipment. Hangar storage of aircraft is a lead contributor to airport revenue, aircraft usage, and aircraft security.

The most tangible indicator of growth at an airport is the increase in aviation activity and tenants. Tenants include aircraft owners who rent or own hangar storage facilities in which to store their aircraft. The most common and effective indicator of whether available hangar capacity (for aircraft storage) is sufficient to accommodate demand is whether there is vacant hangar space or a hangar waiting list of aircraft owners.

Hangar capacity issues also extend to system planning levels in that it is not just overall capacity that is of importance, but also whether that capacity is properly distributed within the statewide system. Limited availability of hangar capacity can present problems to the system, its airports, and their surrounding communities. For example, an excess of hangar capacity can lower the market value of storage leases and thus, have negative impact on revenue generation for the airport. Conversely, a deep under-supply of available hangar storage capacity may lead to owner's choosing, by necessity, to base their aircraft at airports in other local communities. Similarly, airports with available hangar capacity would be expected to have relatively few aircraft stored at exposed, tie-down parking areas which potentially offers less aircraft security.

**Figures 6-21 through 6-24** provide the results of the hangar capacity and security evaluation for each airport category. These results are then summarized to compare performance measures that identify the ability of New York State's airport system to meet current hangar capacity demand and inadequacies and FAA safety and security requirements.

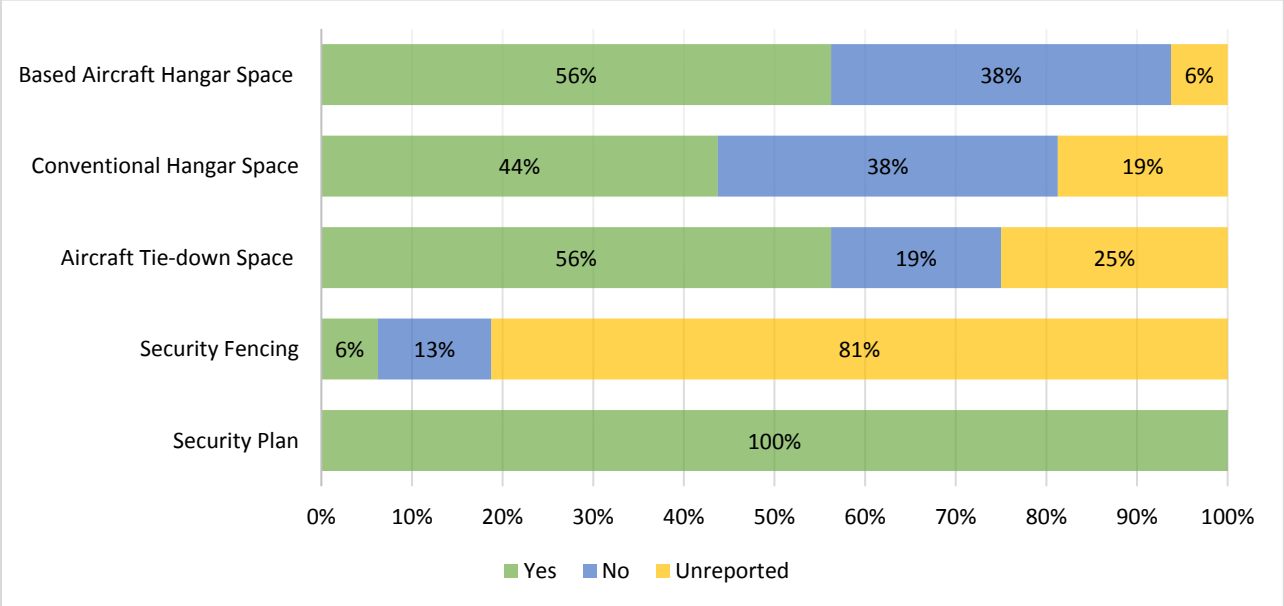
**Figure 6-21**
**Category 1 - National / Commercial Service: Hangar Capacity and Security**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-21** displays the results of the Hangar Capacity and Security evaluation for the Category 1 - National / Commercial Service airports.

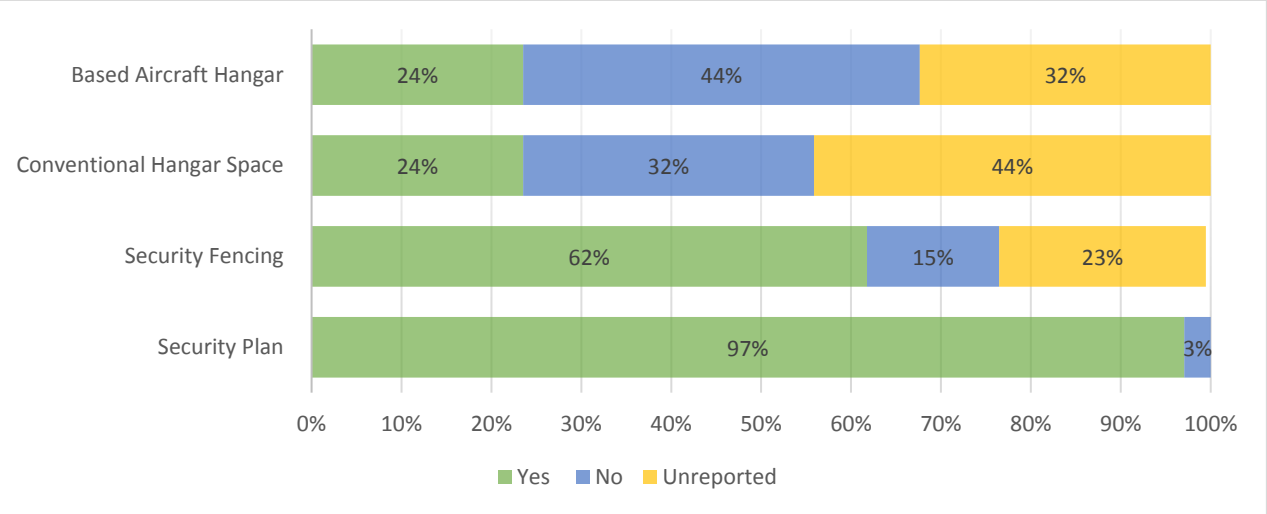
**Figure 6-22**
**Category 2 - Regional / Corporate Business: Hangar Capacity and Security**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

Often, hangar storage and aircraft storage and parking are the main revenue generators besides fuel on General Aviation airports. Having excess capacity, and the means to generate the demand to justify more hangar capacity is a main driver for growth at smaller airports identified in the SASP. **Figure 6-22** displays the results of the Hangar Capacity and Security evaluation for the Category 2 - Regional / Corporate Business airports.

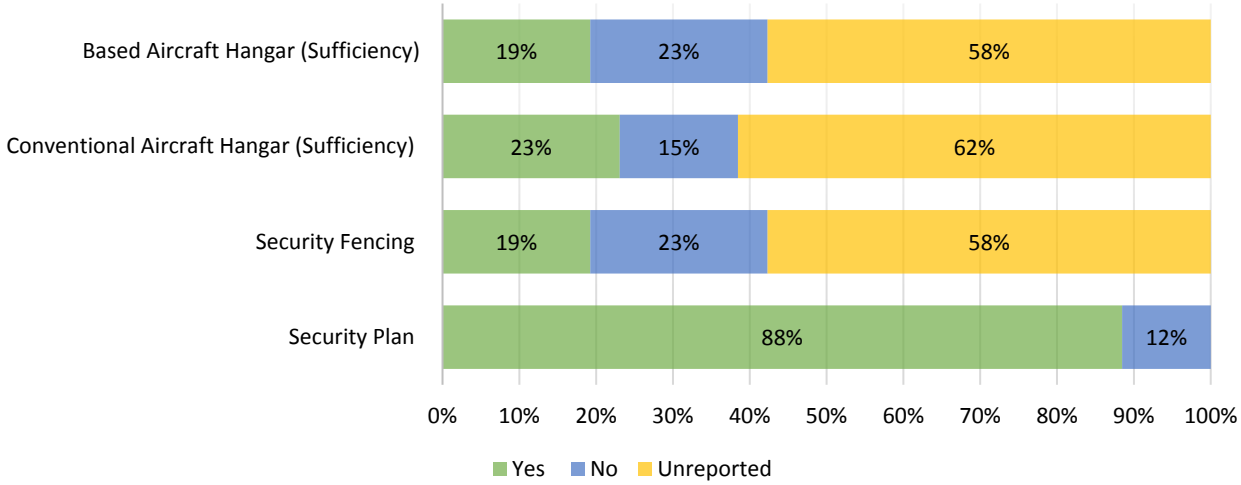
**Figure 6-23**
**Category 3 - Local / Community Business: Hangar Capacity and Security**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-23** displays the results of the Hangar Capacity and Security evaluation for the Category 3 - Local / Community Business airports.

**Figure 6-24**
**Category 4 - Local / General Aviation: Hangar Capacity and Security**




Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.
Note: The criteria shown correspond to the respective performance measure data received and listed in Appendix E.

**Figure 6-24** displays the results of the Hangar Capacity and Security evaluation for the Local / General Aviation airports. Additionally, only 18% and 21% have sufficient Based Aircraft and Conventional Hangar capacity for Category 4 - Local / General Aviation airports.

## 6.4 Weather Reporting Systems

As discussed in ***Section 3.12.5 Weather Reporting Equipment*** and listed in ***Appendix D***, automated weather reporting systems provide real-time observation of temperature, precipitation, wind, sky cover, visibility, and atmospheric pressure and are used by pilots to plan and prepare their flight plan route of travel from origin to destination. **Table 6-1: Weather Reporting Equipment by Airport Role / Function** lists 50-installed automated weather reporting systems at the four role / function categories included in this study of the state public-use airport system.

**Table 6-1** is a summary of installed automated weather reporting equipment listed by airport Role/Function. The proportion of these facilities with installed weather stations, listed by category are:

- National / Commercial Service - 95%,
- Regional / Corporate Business - 88%,
- Local / Community Business - 53% and,
- Local / General Aviation - 0%.

**Table 6-1: Weather Reporting Equipment by Airport Role / Function**

| Weather Station | Facility Name | LOC ID | Role / Function | |
|---|---|---|---|---|
| ASOS | Adirondack Regional | SLK | National / Commercial Service | |
| ASOS | Albany International | ALB | National / Commercial Service | |
| ASOS | Buffalo Niagara International | BUF | National / Commercial Service | |
| AWOS IIIP/T | Chautauqua County / Jamestown | JHW | National / Commercial Service | |
| ASOS | Elmira-Corning Regional | ELM | National / Commercial Service | |
| ASOS | Greater Binghamton / Edwin A Link Field | BGM | National / Commercial Service | |
| ASOS | Greater Rochester International | ROC | National / Commercial Service | |
| AWOS IIIP/T | Ithaca Tompkins Regional | ITH | National / Commercial Service | |
| ASOS | John F Kennedy International | JFK | National / Commercial Service | |
| ASOS | LaGuardia | LGA | National / Commercial Service | **19** |
| ASOS | Long Island MacArthur | ISP | National / Commercial Service | |
| ASOS | Massena International-Richards Field | MSS | National / Commercial Service | |
| ASOS | Niagara Falls International | IAG | National / Commercial Service | |
| AWOS IIIP/T | Ogdensburg International | OGS | National / Commercial Service | |
| ASOS | Plattsburgh International | PBG | National / Commercial Service | |
| | Stewart International | SWF | National / Commercial Service | |
| ASOS | Syracuse Hancock International | SYR | National / Commercial Service | |
| ASOS | Watertown International | ART | National / Commercial Service | |
| ASOS | Westchester County | HPN | National / Commercial Service | |
| ASOS | Brookhaven | HWV | Regional / Corporate Business | |
| AWOS IIIP/T | Downtown Manhattan / Wall St Heliport | JRB | Regional / Corporate Business | |
| | East 34th Street Heliport | 6N5 | Regional / Corporate Business | |
| AWOS IIIP/T | East Hampton | HTO | Regional / Corporate Business | |
| ASOS | Floyd Bennett Memorial | GFL | Regional / Corporate Business | |
| ASOS | Francis S Gabreski | FOK | Regional / Corporate Business | |
| AWOS IIIP/T | Genesee County | GVQ | Regional / Corporate Business | |
| ASOS | Griffiss International | RME | Regional / Corporate Business | **16** |
| ASOS | Hudson Valley Regional | POU | Regional / Corporate Business | |
| ASOS | Orange County | MGJ | Regional / Corporate Business | |
| ASOS | Oswego County | FZY | Regional / Corporate Business | |
| ASOS | Republic | FRG | Regional / Corporate Business | |
| AWOS III | Saratoga County | 5B2 | Regional / Corporate Business | |
| AWOS III | Schenectady County | SCH | Regional / Corporate Business | |
| AWOS IIIP/T | Sullivan County International | MSV | Regional / Corporate Business | |
| | West 30th St Heliport | JRA | Regional / Corporate Business | |
| | Akron | 9G3 | Local / Community Business | |
| | Buffalo Airfield | 9G0 | Local / Community Business | **34** |
| | Buffalo - Lancaster Regional | BQR | Local / Community Business | |
| AWOS IIIP | Canandaigua | IUA | Local / Community Business | |

| Weather Station | Facility Name | LOC ID | Role / Function | |
|---|---|---|---|---|
| AWOS IIIP | Cattaraugus County - Olean | OLE | Local / Community Business | |
| ASOS | Chautauqua County / Dunkirk | DKK | Local / Community Business | |
| AWOS III | Columbia County | 1B1 | Local / Community Business | |
| | Corning-Painted Post | 7N1 | Local / Community Business | |
| AWOS III | Cortland County - Chase Field | N03 | Local / Community Business | |
| ASOS | Dansville Municipal | DSV | Local / Community Business | |
| AWOS III | Finger Lakes Regional | 0G7 | Local / Community Business | |
| AWOS III * | Fulton County | NY0 | Local / Community Business | |
| | Hamburg Inc | 4G2 | Local / Community Business | |
| AWOS IIIP * | Hamilton Municipal | VGC | Local / Community Business | |
| AWOS IIIP | Hornell Municipal | HTF | Local / Community Business | |
| | Joseph Y Resnick | N89 | Local / Community Business | |
| | Kingston - Ulster | 20N | Local / Community Business | |
| | Kobelt | N45 | Local / Community Business | |
| | Lake Placid | LKP | Local / Community Business | |
| | Le Roy | 5G0 | Local / Community Business | |
| | Ledgedale Airpark | 7G0 | Local / Community Business | |
| AWOS III | Lt Warren Eaton | OIC | Local / Community Business | |
| AWOS IIIP | Oneonta Municipal | N66 | Local / Community Business | |
| ASOS | Penn Yan | PEO | Local / Community Business | |
| | Perry - Warsaw | 01G | Local / Community Business | |
| AWOS III | Potsdam Municipal (Damon Field) | PTD | Local / Community Business | |
| AWOS IIIP | Sidney Municipal | N23 | Local / Community Business | |
| | Skaneateles Aero Drome | 6B9 | Local / Community Business | |
| | Sky Acres | 44N | Local / Community Business | |
| | South Albany | 4B0 | Local / Community Business | |
| AWOS III | Tri-Cities | CZG | Local / Community Business | |
| ASOS | Wellsville Municipal Airport, Tarantine Field | ELZ | Local / Community Business | |
| AWOS III * | Williamson Sodus | SDC | Local / Community Business | |
| | Wurtsboro - Sullivan County | N82 | Local / Community Business | |
| | Airhaven | 09N | Local / General Aviation | |
| | Argyle | 1C3 | Local / General Aviation | |
| | Bayport Aerodrome | 23N | Local / General Aviation | |
| | Becks Grove | K16 | Local / General Aviation | |
| | Clarence Aerodrome | D51 | Local / General Aviation | |
| | Cooperstown – Westville | K23 | Local / General Aviation | **26** |
| | Duanesburg | 4B1 | Local / General Aviation | |
| | Elizabeth Field | 0B8 | Local / General Aviation | |
| | Frankfort - Highland | 6B4 | Local / General Aviation | |
| | Geneseo | D52 | Local / General Aviation | |
| | Gowanda | D59 | Local / General Aviation | |

| Weather Station | Facility Name | LOC ID | Role / Function | |
|---|---|---|---|---|
| | Greene | 4N7 | Local / General Aviation | |
| | Haverstraw Heliport | H43 | Local / General Aviation | |
| | Kline Kill | NY1 | Local / General Aviation | |
| | Long Lake / Helms Seaplane Base | NY9 | Local / General Aviation | |
| | Malone - Dufort | MAL | Local / General Aviation | |
| | Montauk | MTP | Local / General Aviation | |
| | New York Skyports Inc Seaplane Base | 6N7 | Local / General Aviation | |
| | North Buffalo Suburban | 0G0 | Local / General Aviation | |
| | Pine Hill | 9G6 | Local / General Aviation | |
| | Piseco Municipal | K09 | Local / General Aviation | |
| | Randall | 06N | Local / General Aviation | |
| | Royalton | 9G5 | Local / General Aviation | |
| | Ticonderoga Municipal | 4B6 | Local / General Aviation | |
| | Warwick Municipal | N72 | Local / General Aviation | |
| | Whitfords | B16 | Local / General Aviation | |
| **50** | **Total** | | | **95** |

Non-FAA *

The combined proportion of all 95-airports in these four categories are 53% with automated weather systems and 47% without such equipment. Among the 65-airports in the top three role categories, 77% have automated weather systems, while 23% do not. Those airports without installed systems most often have real-time access to weather reporting systems at nearby airports. ***Figure 3-6: Automated Weather Reporting Equipment***, depicts the location of airports with weather reporting facilities shows broad geographic coverage of automated weather reporting and adequate coverage throughout the state. ASOS/AWOS facilities are noticeably absent in sparsely populated areas occupied by small private airfields in the Adirondack and Catskill mountain regions.

## 6.5 Access to Public-Use Airports

Accessibility to commercial passenger service airports is an important indicator in measuring aviation system performance. Evaluating the relationship between airport location, estimated service areas in nautical miles (nm), and the percentage of the general population covered by airport service areas is a key indicator of airport system performance. Accessibility can be measured by determining the percentage of the State's population in proximity to significant airports for interstate travel, and population to key airports for intrastate and recreational activity.

New York State is served by 19-airports designated as National / Commercial service. Among these commercial airports the level of airline service varies considerably. JFK International Airport and LaGuardia Airport are the two of the busiest airports in the United States and are classified in the NPIAS as Large Hubs providing direct flights to hundreds of domestic and international locations. Conversely, Chautauqua County-Jamestown, Massena International, Ogdensburg

International, Plattsburgh International, Adirondack Regional, and Watertown International Airports have federally subsidized Essential Air Service (EAS) with only relatively few scheduled flights daily or throughout the week. It is important to note however, that in the nation's deregulated airline environment, the privately-owned commercial airlines determine where and when scheduled airline service is provided.

In accordance with FAA guidance for Airport System Planning, one of the primary objectives when conducting a State Airport System Plan is to evaluate the overall balance of the system. According to FAA Order 5090.3C: Field Formulation of the National Plan of Integrated Airport Systems, certain types of facilities should be distributed according to established requirements. The airports should be convenient and accessible to a reasonable number of system users. This evaluation considers several service area benchmarks that identify the passenger accessibility of airports both from the ground and the air. In turn, these access benchmarks review the geographic coverage of National / Commercial, Regional/Business, and the remaining GA airports using various highway drive times.

Most airport customers base their travel on convenience and proximity which results in shorter drive times to the airport they select for their arrivals and departures on scheduled carriers, on-demand charter carriers, business, and recreational activities. However, it is not uncommon for visitors and residents of New York to drive more than one hour to the airport they choose (based on convenience, flight availability, flight costs, travel time, etc.). Therefore, several benchmarks were evaluated to assess the overall service area coverage of each airport category in relation to the accessibility to the local and regional populations. The service area coverage helps to determine the ability of the airport system to meet the needs of various users and to better understand the role that each airport plays in the system. Other benchmarks analyzed in this section provide the relationship of intermodal transportation access to regional airports, such as regional and commercial service.

The system adequacy of access to commercial service airports was determined using geographical information system (GIS) mapping and evaluation. The approximate GIS drive times reported in this section were developed using posted speed limits. These evaluation drive times do not reflect congestion or travel delays that might occur due to possible construction, inclement weather conditions, and/or traffic accidents. The GIS mapping results of this system adequacy analysis are provided in ***Appendix G: Airport Service Areas***.

Service areas reviewed in conjunction with the drivetime access and geographic coverage include the following airport access analyses:

**Figure G-1:** 30-Minute Service Areas of Category 1 – National / Commercial Service airports

**Figure G-2**: 60-Minute Service Areas of Category 1 – National / Commercial Service airports

**Figure G-3:** 90-Minute Service Areas of Category 1 – National / Commercial Service airports

**Figure G-4:** 30-Minute Service Areas of Category 2 – Regional / Corporate Business airports

**Figure G-5:** 60-minute Service Areas of Category 2 – Regional / Corporate Business airports

**Figure G-6:** 30-Minute Service Areas of Category 3 – Local / Community Business airports

**Figure G-7:** 30-Minute Service Areas of Category 4 – Local / General Aviation airports

**Figure G-8:** Intermodal Connectivity to Category 1 – National / Commercial Service airports, which illustrates the relationship between air transportation, ground, and passenger rail for commercial passenger service airports in the state.

**Table 6-2** outlines the percentage of population with 30, 60, and 90 nautical mile (NM) surface travel time (service areas) and percentage of population to Category 1 - National / Commercial service airports. Also listed are the respective service areas and population percentages for Category 2 - Regional / Corporate Business airports and combined general aviation (i.e., Category 3 - Local / Community Business, and Category 4 - Local / General Aviation.

**TABLE 6-2: Percent of Population in Proximity to Airports**

| Surface Travel Time | Percentage of Population |
|---|---|
| **National / Commercial Service Airports** | |
| 30 Nautical Miles | 84.16% |
| 60 Nautical Miles | 96.88% |
| 90 Nautical Miles | 99.99% |
| **Regional / Corporate Business Airports** | |
| 30 Nautical Miles | 84.82% |
| 60 Nautical Miles | 95.8% |
| **Community Business / General Aviation** | |
| 30 Nautical Miles | 98.42% |

Sources: US Census Bureau Population Statistics, CHA.

Overall, the evaluation results indicate there is adequate coverage of the general population among all categories of airports in the State of New York. Approximately 85% of the population is within 30 nautical miles of a National / Commercial service airport. For commercial service airports, the bulk of the population outside of the 30nm service area reside in the Mohawk Valley, Capital District, and Hudson Valley regions. However, these areas are covered within the 60nm service areas, thus resulting in longer drive times for travelers to scheduled airline passenger

service. Conversely, the percentage of the population that remains outside of the 30nm service areas for the Regional / Corporate Business category reside primarily within the Central New York, Southern Tier, and North Country regions of the State of New York.

**Table 6-2** summarizes that 85% of the population is within 30 nautical miles of a Regional / Corporate Business service airport and that 98% of the state's population is within 30 nautical miles of a Community Business / General Aviation airport.

This proximity access analysis indicates the current geographic distribution of system airports provides broad and convenient access to the vast majority of residents of the state. These convenient access coverages across New York do not generally support consideration of developing additional public-use airports in any of the four state role categories analyzed in this statewide study.

## 6.6 Summary – System Adequacy

This chapter is an overview of the comparison analysis of the reported infrastructure and aviation services of public-use airports in the state to this study's system objectives and performance measures. This overview presentation is supplemented with additional information found in ***Appendix F: System Needs by System Objective and Airport Category*** and ***Appendix G: Airport Service Areas***.

Review of the analysis results of the four role categories of public-use airports included in this study, several trends in the critical performance criteria evaluation reveal the need to enhance and improve the overall adequacy of the public-use airport system in New York. These trends include:

- Navigational aid improvements (LPV procedures, on-airport navigational aids, weather reporting systems),
- Infrastructure improvements (e.g. obstructed approaches, runway and taxiway safety improvements),
- Increase in the opportunities for airports to develop new revenue generation (hangar capacity, fuel and maintenance services, etc.), and
- Environmental sustainability.

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# New York State Airport System Plan 2018

## Chapter 7: Capital Investment

## 7.1 Introduction

This chapter includes an assessment of the approximate, future capital investment needs of the public-use airport system in New York State. This assessment is based upon analysis of current, near-term, capital improvement plan information provided by individual airports and extrapolated for a future 10-year planning period. While the chapter provides a high-level estimate of the aggregate funding required for the entire New York State airport system, the objective of the assessment is to identify the portion of funding needs that would be contributed by New York State. The goal is that the capital investment needs assessment will serve as a planning tool for New York State in determining future state funding priorities for the years 2017 to 2026.

As discussed in ***Chapter 2: Airport System Key Issues and Opportunities***, securing funding for capital improvement projects is a critical issue for many airports. Airports are generally unable to fund capital improvement projects with airport-generated revenue without assistance from a combination federal, state, and local funding sources.

### 7.1.1 Overview - Federal Funding

The most significant capital resource available is the FAA Airport Improvement Program (AIP) which provides capital funding for planning, design, and construction of infrastructure, support systems, and safety projects at public-use airports included in the National Plan of Integrated Airport Systems (NPIAS).[5] As discussed in ***Section 4.4 National Plan of Integrated Airport Systems***, the NPIAS identifies airports that the FAA considers necessary for a safe and efficient integrated national system of airports.

Facilities listed in the NPIAS that meet or satisfy relevant criteria are eligible for AIP capital grants. The federal grant does not cover the entirety of eligible project costs but rather a fixed percentage based upon an airport's classification in the NPIAS.[6] The federal share typically covers 75% of eligible project costs for Large and Medium Hub primary airports, and 90% of eligible project costs for Small Hub and Non-hub Primary airports, as well as for Non-primary commercial service, reliver, and general aviation airports.[7] The non-federal share of AIP eligible project costs are typically covered by a combination of state, local, and airport owner/sponsor funds. As demand for AIP funding has historically exceeded availability, the FAA distributes funds to eligible projects based upon national priorities, which may diverge from the respective state-determined priorities, like those of New York State.

The FAA's current 2017-2021 NPIAS lists 86 public-use airports in New York State by Category and Role. Of these, 59-listed airports have met or exceeded minimum NPIAS eligibility criteria. These AIP grant eligible airports represent 45% of the 131-active public-use airports in the state. Alternatively, the remaining 72-airports in the state system were not considered by the FAA to be integral to the national airport system.

[5] FAA, Airport Improvement Program (AIP), 6/16/2017 www.faa.gov/airports/aip/

[6] The NPIAS airport categorization criteria are described in further detail in Chapter 4: Airport Role and Classification Analysis.

[7] FAA, Airport Improvement Program Handbook, FAA Order 5100.38D

The remaining 27-airports listed by the FAA in the NPIAS as "Unclassified" indicate that these facilities do not meet NPIAS eligibility criteria and are not eligible for the full-range of AIP funding. By FAA policy, Non-primary airports that are not classified as National, Regional, Local, or Basic (a.k.a. Unclassified) airports in the latest edition of the FAA Asset report are only eligible for:

- a project to rehabilitate the airport's primary runway at a frequency not to exceed 10 years,
- a one-time project to remove obstructions from each end of the primary runway, and
- runway maintenance projects allowed per 49 USC § 47102(3)(H).

In cases where there is extraordinary justification, other projects may be considered.

Several of these 27-unclassified airports in New York have previously received federal AIP funding but are no longer eligible due to one or more factors, such as a decline in aviation activity or other changes affecting their airport role. While unclassified airports are not currently eligible for typical AIP funding, they may be considered for funding if they are able to meet minimum NPIAS criteria in the future.[8] By FAA policy, unclassified airports will be evaluated by the FAA for possible removal from future editions of the NPIAS.

In addition to AIP, other federal programs have sometimes been used to fund airport capital improvement projects across the nation. These initiatives have included federal economic stimulus programs, as well as U.S. Department of Homeland Security funds support airport security capital improvements.

Another major source of capital funding is the Passenger Facility Charge (PFC) program which is administered by the FAA and enables designated commercial service airports to collect fees per enplaned passenger. Public-use airports that enplane 2,500 or more annual passengers may apply to the FAA for authorization to implement PFC fees. If authorization is received, an airport would be able to collect PFC fees at the local level to fund FAA-approved capital projects. The use of locally-collected PFC revenue is regulated by the FAA and must meet project eligibility requirements outlined by the federal agency. In some cases, PFC funds may be authorized to be used by airports in combination with the federal share of AIP grants to fund an approved project.[9]

### 7.1.2 Overview - State Funding

The primary state-level funding mechanism for airport capital improvement projects is the State Aviation Capital Grant Program administered by the New York State Department of Transportation. This program is currently funded through a 5-year $200 million allocation established by the governor and the State Legislature. The State Aviation Capital Grant Program was authorized through the Airport Improvement and Revitalization Act of 1999, with the purpose of revitalizing of public-use airports through funding projects for which sufficient

[8] FAA, ASSET 2: In-Depth Review of the 497 Unclassified Airports, March 2014.

[9] Federal Aviation Administration, FAA Home, Airports, Central Region, Passenger Facility Charge, www.faa.gov/airports/central/pfc/pfc_overview/

federal capital assistance or non-federal matching funding is not available. Under current requirements, to be eligible for the State Aviation Capital Grant Program, an airport must be public-use, included in the SASP, have a current GA registration, and have a current and approved Airport Layout Plan (ALP).[10] Airports operated by a bi-state authority are not eligible. Funding set-asides have been made in the past for the Aviation Capital Grant Program through New York State's 2005 Transportation Bond Act.

The New York State Multi-Modal Program is a transportation capital improvement program that may be used to fund airport-related project costs of construction, reconstruction, improvement, reconditioning, and preservation of municipal airports, privately-owned airports, and aviation capital facilities. This program is used to fund projects for which federal funding is not available and whose service life is at least 10 years. These projects must be consistent with an approved ALP to be eligible for funding under this capital program.

## 7.2 Assessment Process

For this study, a request was sent to public-use facilities in the New York State airport system for their most current Airport Capital Improvement Plans (ACIPs). An ACIP is a planning tool that is typically prepared by an airport sponsor for a 5-year period and identifies future capital improvement needs and includes a proposed financing plan. To be considered for federal AIP funding, an airport must prepare and submit an ACIP to the FAA for concurrence. The FAA utilizes the individual airport ACIPs to develop aggregate FAA regional capital programs, which then inform the development of the national ACIP. This FAA-prepared national ACIP serves as the basis for the distribution of federal AIP grants among states and among airport types.

The New York State Department of Transportation (NYSDOT) request for current ACIP information went out to all known, active, public-use airports in the state. This data request was conducted in 2016 at which time 134-airports were contacted. Since then, one airport has closed, and two others converted to Private-use only; none of these provided ACIP information. This capital investment data collection effort provides the opportunity to assess the capital investments needed to sustain the whole New York State airport system. While some of these public-use airports have not been identified by the FAA as integral to the national airport system, they may have desirable characteristics and system contributions from a state-level perspective.

A total of 53-airports provided ACIP information that was sufficiently complete for use throughout this capital investment assessment. A list of airports that provided complete ACIP information can be found in ***Appendix H: ACIP Data Received by Airport***. **Table 7-1** provides a summary of ACIPs received by state airport role category.

[10] New York State Department of Transportation, Aviation Bureau, FAQS, https://www.dot.ny.gov/divisions/operating/opdm/aviation/faqs

| Table 7-1: ACIP Count by Airport Category | |
|---|---|
| **Airport Category[1]** | **ACIP Count** |
| Category 1 National/ Commercial Service (19) | 16 |
| Category 2 Regional/ Corporate Business (16) | 10 |
| Category 3 Local/ Community Business (34) | 22 |
| Category 4 Local/ General Aviation (26) | 5 |
| Category 5 Basic/ General Aviation (36) | 0 |
| **Total (131)** | **53** |

Source: DY Consultants.
Note 1: Values in parenthesis are the total number of New York State airports in each category.

The 53-airports that provided complete ACIP information are included among the 87 New York State airports listed in the most current NPIAS. Of these 53 responding airports, 10 are listed as Unclassified in the NPIAS and are therefore not currently eligible for AIP funding, but may have received funding in the recent past and may be considered for funding in the future should they improve to meet NPIAS minimum criteria in the future.

A further distinction in this assessment process is that the three Port Authority of New York and New Jersey (PANYNJ) airports in the state are not eligible for grants through the State Aviation Capital Grant Program or for state matching grants for the non-federal for AIP projects. However, future capital improvement information is provided for these facilities (i.e. John F. Kennedy International Airport, LaGuardia Airport, and Stewart International Airport) in ***Section 7.4 PANYNJ Airports Capital Program***.

As summarized in **Table 7-1**, ACIPs were collected for all Category 1 airports eligible for New York State matching grants for the non-federal share of AIP and for grants through the State Aviation Capital Grant Program. Category 2 and Category 3 public-use airports had a combined return rate with 62% providing complete ACIP information. Meanwhile, Category 4 and Category 5 airports were notably underrepresented in the dataset due to most of these airports being ineligible for the federal AIP program, the driving force (incentive) for developing and maintaining current ACIPs.

The near-term ACIP data collected from 53-airports was extrapolated to arrive at an estimate for the capital investment needs for the entire 10-year planning period. This analysis did not include an engineering assessment of the submitted capital improvement project costs. Airports provided near-term ACIPs for a range of 5-year periods within the planning period of 2017 to 2026. The years 2017 to 2019 were selected as the basis for the extrapolation because these were the years for which the most comprehensive ACIP data was received for the future planning period. Since near-term ACIPs were collected for 53 out of the 87 New York State airports that are listed in the most recent NPIAS, the capital investment needs totals for the years 2017 to 2019 were adjusted to account for the incomplete data.

Annual averages for federal, state, and local funding needs were calculated from the adjusted ACIP data collected for the years 2017 to 2019. These averages were used to estimate the future

capital investment needs for the years 2020 to 2026, for which insufficient ACIP data was available.

## 7.3. State Supported Capital Programs

A review of historical funding allocations for the years 2008 to 2016 and an assessment of future capital investment needs for the years 2017 through 2026 was conducted for the New York State airport system. For the purposes of this study effort, the analysis of historical funding allocations to New York State airports was limited to those funding programs that involved a state-supported share of funding.

To account for future capital funding needs for the three PANYNJ airports in the state, a summary of the capital program planned by the PANYNJ for the period of 2017 to 2026 is described in ***Section 7.4 PANYNJ Airports Capital Program***.

### 7.3.1 Historical State Funding Allocations

To understand patterns in funding sources and project types, a review of historical state funding allocations for New York State airports for the years 2008 to 2016 was conducted as part of the capital investment needs assessment. The historical funding allocations analysis was based upon aviation capital program grant history data provided by the New York State Department of Transportation.[11] Over the 9-year period, more than $1.2 billion in federal, state, and local funding was allocated for capital improvement projects for public-use airports in New York, excluding PANYNJ airports. This funding was provided through a variety of federal and state programs, many of which involved a local funding share. The funding included the current $200 million 5-year allocation for the State Aviation Capital Grant Program.

In the year 2016, there was a significant increase in funding allocations distributed to New York State airports from state-level sources when compared to the other eight years. This can be attributed to the Upstate Airport Economic Development and Revitalization Competition, an initiative proposed by Governor Andrew M. Cuomo in 2016. Due to the exceptional level of funding observed in the year 2016, an annual average was computed for the years 2008 to 2015 to remove the outlier year. Over the period of 2008 to 2015, an average of over $118 million in federal, state, and local funding was allocated to capital improvement projects each year, as shown in **Table 7-2**.

[11] Aviation capital program grant history data was provided by the New York State Department of Transportation for the years 2008 through 2014 in April 2015, and for the years 2015 through 2016 in May 2017. This data was exported from the New York State airport database (ASM).

| Table 7-2: Aviation Capital Program Funding History | | | | |
|---|---|---|---|---|
| New York State Airports 2008-2016, Non-PANYNJ Airports | | | | |
| Year | FAA | State | Local | Total |
| 2008 | 102,698,000 | 24,178,000 | 50,447,000 | 177,323,000 |
| 2009 | 91,058,000 | 19,104,000 | 5,999,000 | 116,160,000 |
| 2010 | 95,233,000 | 3,238,000 | 3,237,000 | 101,708,000 |
| 2011 | 94,601,000 | 3,346,000 | 3,346,000 | 101,293,000 |
| 2012 | 85,846,000 | 5,175,000 | 5,142,000 | 96,163,000 |
| 2013 | 101,244,000 | 12,794,000 | 36,889,000 | 150,927,000 |
| 2014 | 83,184,000 | 13,402,000 | 6,396,000 | 102,982,000 |
| 2015 | 79,660,000 | 15,331,000 | 5,548,000 | 100,539,000 |
| 2016[1] | 123,407,000 | 160,513,000 | 47,781,000 | 331,701,000 |
| **Total** | **856,932,000** | **257,080,000** | **164,785,000** | **1,278,796,000** |
| Funding Share | 67% | 20% | 13% | - |
| Annual Average (2008 to 2016) | 95,215,000 | 28,564,000 | 18,309,000 | 142,088,000 |
| Annual Average (2008 to 2015 Only) | 91,691,000 | 12,071,000 | 14,625,000 | 118,387,000 |

Sources: New York State Department of Transportation; DY Consultants.

Note 1: The significant increase in state-level funding allocations in the year 2016 can be attributed to the Upstate Airport Economic Development and Revitalization Competition, an initiative proposed by Governor Andrew M. Cuomo in 2016. Two annual averages were computed, one including the year 2016 and one excluding the year 2016, to account for the significant increase of state-level funding allocations for the year 2016.

Over the 9-year assessment period (2009 – 2016), the FAA provided the largest share of funding for capital improvement projects in New York State, accounting for 67% of the total funds. For the same period, local funding accounted for 13%, and state funding accounted for 20%. Category 1 airports received the largest share of funding allocations at 72% of total, as shown in **Table 7-3**. The next largest shares were received by Category 2 and Category 3 airports, at 16% and 10% of total capital funds, respectively. Category 4 and Category 5 airports received a nominal share of funding, accounting for less than 2% of total allocations combined for the 9-year period.

| Table 7-3: Share of Aviation Capital Program Funding by Airport Category | | |
|---|---|---|
| New York State Airports 2008-2016, Non-PANYNJ Airports | | |
| Airport Category | Total | Share of Total Funding |
| Category 1 National / Commercial Service | 922,019,000 | 72% |
| Category 2 Regional / Corporate Business | 210,926,000 | 16% |
| Category 3 Local / Community Business | 126,716,000 | 10% |
| Category 4 Local / General Aviation | 17,028,000 | 1% |
| Category 5 Basic / General Aviation | 829,000 | <1% |
| **Total[1]** | **1,278,796,000** | |

Sources: New York State Department of Transportation; DY Consultants.
Note 1: Due to $1,278,000 in project costs that were not assigned to a specific category, the total in the table exceeds the sum of the category totals.

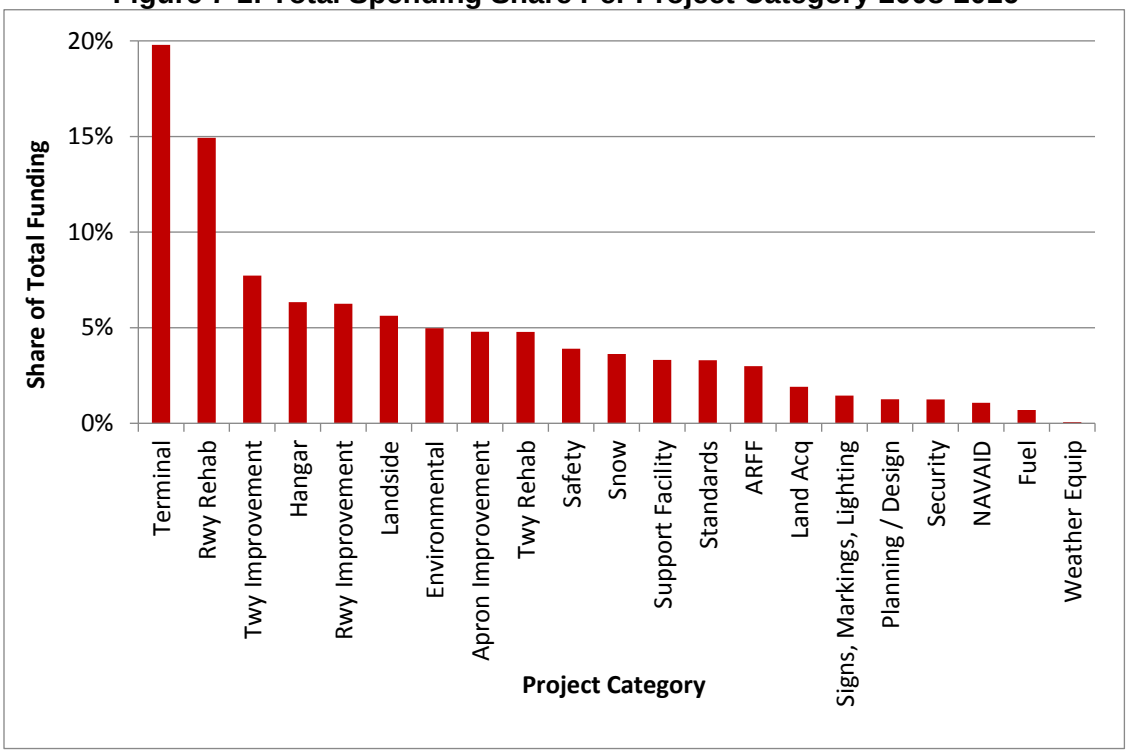
Historically, a variety of federal and state programs provided funding to New York State airports for capital improvement projects, shown in **Table 7-4**. Of the total aviation capital program funding allocated to New York State airports during the 9-year period, AIP grants (federal, state, and local combined), accounted for approximately $894 million or 70% of the total allocations. Over the same period, approximately $257 million in state funds were distributed across all categories of aviation capital programs listed in **Table 7-4**.

| Table 7-4: Program Type Funding History | | | | | |
|---|---|---|---|---|---|
| New York State Airports 2008-2016, Non-PANYNJ Airports | | | | | |
| Program Type | Federal Funds | State Funds | Local Funds | Total | Funding Share |
| AIP | 818,146,000 | 39,627,000 | 36,412,000 | 894,184,000 | 70% |
| Federal Stimulus (ARRA) | 13,406,000 | - | - | 13,406,000 | 1% |
| Other Federal[1] | 10,478,000 | 153,704,000 | 41,022,000 | 205,204,000 | 16% |
| State Programs [2] | 14,903,000 | 63,750,000 | 87,353,000 | 166,005,000 | 13% |
| **Total** | **856,933,000** | **257,080,000** | **164,787,000** | **1,278,800,000** | **-** |

Sources: New York State Department of Transportation; DY Consultants.
Note 1: The Other-Federal category represents a single awarded project funded and administered by the U.S. Department of Homeland Security for airport security capital improvements.
Note 2: The State funded programs include the following categories from the New York State Department of Transportation aviation capital programs database: AIR 99, Business, CFA, MM2000, Security, and Member Item.

The capital improvement projects that received New York State funding during the 9-year period were assigned project categories using keywords from the project descriptions. **Figure 7-1** represents the percentage of total funding allocated to each of the 21-project categories during this period. The project categories that received the greatest share of funding were terminal, runway, and taxiway-related capital improvements.

**Figure 7-1: Total Spending Share Per Project Category 2008-2016**




Sources: New York State Department of Transportation; DY Consultants
Exclusive of PANYNJ airports.

### 7.3.2 Future State Supported Funding Needs

As described in ***Section 7.2 Assessment Process*** the near-term ACIPs collected from individual airports serve as the basis for the 10-year future capital needs assessment for the New York State airport system for 2017 to 2026. As ACIPs are typically prepared for 5-year periods, most airports did not provide ACIP information for the entire 10-year period. Thus, the years 2017 to 2019 represent the period for which the most comprehensive ACIP data was received from the airports. These three years were therefore used to calculate an annual average for capital investment needs at the federal, state, and local funding levels.

Of the 87-airports in New York listed in the most current NPIAS, 53-airports responded by providing near-term unconstrained ACIP information. Data collected from these responding airports alone would not fully capture the extent of future statewide capital investment needs. To provide a more comprehensive statewide estimation, the annual totals for the years 2017 to 2019 were adjusted for each state airport role category by funding source (federal, state, or local). This adjustment reasonably assumed that non-responding NPIAS airports have funding needs equal to the average funding need of responding airports within their respective airport category.

This adjustment was applied to the Category 2, Category 3, and Category 4 airports to account for the fact that during the data collection process, near-term ACIPs were not received from all NPIAS listed airports in each of the categories. No adjustment was needed for the Category 1 airports because near-term ACIP data was collected for all 16 eligible for state

capital improvement funding. Category 5 airports did not provide any near-term ACIP data and therefore no adjustment was possible for this category.

The total near-term funding needs anticipated by the airports for the years 2017 to 2019 is expected to exceed $751 million, as shown in **Table 7-5**. This high-level assessment does not include an analysis of constrained funding scenarios imposed by factors such as limited funding resources, delays imposed by environmental review and permitting, and policy decisions, among others.

The total annual average funding requested for the period amounted to over $250 million, surpassing the approximately $118 million in total annual average funding allocations made in 2008 to 2015 (see ***Section 7.3.1 Historical State Funding Allocations***). This may in part be attributed to the fact that funding needs have historically surpassed funding availability, as well as the fact that the dataset utilized for the historical funding analysis excluded PFC-funded projects, while the ACIP data collected for the future capital investment needs analysis included projects that may be funded with PFC revenue.

**Table 7-5: Near-Term Capital Investment Needs**

**New York State Airports 2017-2019, Non-PANYNJ Airports**

| Year | Federal Funds | State Funds | Local Funds | Total |
|---|---|---|---|---|
| 2017 | 140,654,000 | 17,138,000 | 93,341,000 | 251,133,000 |
| 2018 | 194,525,000 | 16,597,000 | 22,177,000 | 233,299,000 |
| 2019 | 141,138,000 | 15,359,000 | 110,275,000 | 266,773,000 |
| Total | 476,317,000 | 49,094,000 | 225,794,000 | 751,204,000 |
| **Annual Average** | **158,772,000** | **16,365,000** | **75,265,000** | **250,401,000** |

Sources: ACIP data collected from individual airports; DY Consultants.

The annual average capital investment needs for the federal, state, and local funding categories for the 2017 to 2019 period were used as estimates for 2020 through 2026, as insufficient ACIP information was received for these out-years. The straightforward adjustment consisted of applying the annual average capital investment needs for the period of 2017 to 2019 as a constant to represent capital investment needs for each the remaining years through 2026 to arrive at the 10-year total. The adjusted state funded capital investment needs projection for the full 2017 through 2026 period is summarized in **Table 7-6: 10-Year Capital Investment Needs**.

| Table 7-6: 10-Year Capital Investment Needs | | | | |
|---|---|---|---|---|
| New York State Airports 2017-2026, Non-PANYNJ Airports | | | | |
| Year | Federal Funds | State Funds | Local Funds | Total |
| 2017 | 140,654,000 | 17,138,000 | 93,341,000 | 251,133,000 |
| 2018 | 194,525,000 | 16,597,000 | 22,177,000 | 233,299,000 |
| 2019 | 141,138,000 | 15,359,000 | 110,275,000 | 266,773,000 |
| 2020 | 158,772,000 | 16,365,000 | 75,265,000 | 250,401,000 |
| 2021 | 158,772,000 | 16,365,000 | 75,265,000 | 250,401,000 |
| 2022 | 158,772,000 | 16,365,000 | 75,265,000 | 250,401,000 |
| 2023 | 158,772,000 | 16,365,000 | 75,265,000 | 250,401,000 |
| 2024 | 158,772,000 | 16,365,000 | 75,265,000 | 250,401,000 |
| 2025 | 158,772,000 | 16,365,000 | 75,265,000 | 250,401,000 |
| 2026 | 158,772,000 | 16,365,000 | 75,265,000 | 250,401,000 |
| **Total** | **1,587,721,000** | **163,649,000** | **752,648,000** | **2,504,012,000** |

Sources: ACIP data collected from individual airports; DY Consultants.
Note: For years 2020-2026, annual averages developed from 2017-2019 data were used for all funding categories due to gaps in data available. Federal, State and Local funds shares are illustrative and based on historical average shares.

The resultant total unconstrained capital investment needs for the public-use airport system in New York (excluding PANYNJ airports) are estimated at $2.5 billion over the 10-year period of 2017 to 2026. To satisfy these unconstrained future capital investment needs, all levels of government will need to work cooperatively in resource planning and programming, subject to actual appropriations on a yearly basis.

## 7.4 Future PANYNJ Airport Capital Program

The PANYNJ operates three commercial service airports in the state that primarily serve the downstate New York metropolitan area; these are John F. Kennedy International Airport (JFK), LaGuardia Airport (LGA), and Stewart International Airport (SWF). As state aviation capital improvement funds are prohibited for use at these facilities, the Port Authority has sole responsibility for capital improvement program planning and development of these airports. These three airports provide significant contributions to the overall airport system in the State such that their anticipated capital improvement needs are included in this study. As requested by the NYSDOT, the PANYNJ provided their estimated airport capital improvement needs in the state for the 10-year planning period 2017 through 2026. The PANYNJ anticipated capital program is summarized in **Table 7-7**.

| Table 7-7: Port Authority of New York and New Jersey 2017-2026 Forecast Capital Program by Airport[1] | | | | |
|---|---|---|---|---|
| **Year** | **JFK** | **LGA** | **SWF** | **Total** |
| 2017 | 182,193,000 | 704,771,000 | 6,801,000 | 893,765,000 |
| 2018 | 569,539,000 | 788,160,000 | 4,085,000 | 1,361,784,000 |
| 2019 | 648,699,000 | 972,801,000 | 33,660,000 | 1,655,160,000 |
| 2020 | 804,025,000 | 1,082,629,000 | 67,620,000 | 1,954,274,000 |
| 2021 | 887,126,000 | 941,404,000 | 73,266,000 | 1,901,796,000 |
| 2022 | 640,054,000 | 761,570,000 | 86,654,000 | 1,488,278,000 |
| 2023 | 298,479,000 | 279,509,000 | 121,579,000 | 699,567,000 |
| 2024 | 202,663,000 | 53,321,000 | 147,093,000 | 403,077,000 |
| 2025 | 162,778,000 | 51,603,000 | 176,326,000 | 390,707,000 |
| 2026 | 158,363,000 | 52,572,000 | 209,211,000 | 420,146,000 |
| **Total** | **4,553,919,000** | **5,688,340,000** | **926,295,000** | **11,168,554,000** |

Sources: The Port Authority of New York and New Jersey, Report P6- List of Projects by Facility, Print Date May 10, 2017 data; DY Consultants.
Note 1: Values represent the 2017-2026 Forecast columns of the Port Authority of New York and New Jersey data referenced in the source. Forecast spending is subject to change.

The PANYNJ airport capital program forecast includes various AIP and other airport improvement projects, as well as two large, ongoing, multi-year (principally 2017 – 2023) initiatives known as the John F. Kennedy International Airport Redevelopment and the LaGuardia Redevelopment Program. For the three PANYNJ airports in the state, the total estimated capital program for the 10-year period is $11.2 billion.

## 7.5 Future Combined ACIP – State Supported and PANYNJ

Over the 10-year planning period of 2017 to 2026, the unconstrained capital investment needs for the New York State funding eligible airport system is approximately $2.5 billion, per **Table 7-6**. Over the concurrent period, the PANYNJ unconstrained needs for their New York airports are approximately $11.2 billion, per **Table 7-7**. The combined 10-year anticipated airport capital investment needs of eligible public-use airports in the state total $13.7 billion as summarized in **Table 7-8: Airport Capital Improvement Program State and PANYNJ Anticipated Needs**.

| Table 7-8: Airport Capital Improvement Program State Eligible and PANYNJ Anticipated Needs | | | |
|---|---|---|---|
| Year | State | PANYNJ | Total |
| 2017 | 251,133,000 | 893,765,000 | 1,144,898,000 |
| 2018 | 233,299,000 | 1,361,784,000 | 1,595,083,000 |
| 2019 | 266,773,000 | 1,655,160,000 | 1,921,933,000 |
| 2020 | 250,401,000 | 1,954,274,000 | 2,204,675,000 |
| 2021 | 250,401,000 | 1,901,796,000 | 2,152,197,000 |
| 2022 | 250,401,000 | 1,488,278,000 | 1,738,679,000 |
| 2023 | 250,401,000 | 699,567,000 | 949,968,000 |
| 2024 | 250,401,000 | 403,077,000 | 653,478,000 |
| 2025 | 250,401,000 | 390,707,000 | 641,108,000 |
| 2026 | 250,401,000 | 420,146,000 | 670,547,000 |
| **Total** | **2,504,012,000** | **11,168,554,000** | **13,672,566,000** |

## 7.6 Summary – Airport Capital Investment Needs

This chapter presented an assessment of the approximate, future capital investment needs of the public-use airport system in New York State. This effort was based upon analysis of current, near-term, capital improvement plan information provided by individual airports and then extrapolated for a 10-year planning period 2017 through 2016. A total of $13.4 billion of unconstrained capital improvements during the 10-year planning period is anticipated. The PANYNJ represents 82% of these future needs.

While the chapter provides a high-level estimate of the combined funding anticipated for the entire New York State public-use airport system, the objective of this assessment was to identify the portion of funding needs that would be supported by New York State. The anticipated $2.5 billion of capital investment needs at state supported airports represent 18% of the statewide future needs.

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# New York State Airport System Plan 2018

## Chapter 8: Policy and Implementation Considerations

## 8.1 Introduction

The previous chapters of the New York State Airport System Plan (SASP) followed an analytical process designed to document the performance of the State's airport system and identify future needs. The strategic planning process focused on the following areas of the state airport system:

- An inventory of the system and classification of airports based on the current attributes of the airport system for each major service category: National / Commercial service, regional corporate business, Local / Community business, Local / General aviation, and Basic / General aviation,
- Benchmarks in each category of service and goals for performance in infrastructure, operations, design standards, and the environment,
- Performance of the airports against those goals and identification of opportunities for enhancement,
- Forecast of airport demand through 2025 with respect to based aircraft, operations, and passenger enplanements, and
- Identification of capital planning needs of airports in the system.

The plan development process affirmed the importance of the airport system to the function of the State's transportation network and to the State's economy, and identified opportunities for investment to address important needs and enhance system performance.

The geographic coverage of the State's commercial and general aviation airport system remains robust. However, commercial service flight frequency and service levels vary by location; these factors are dependent on national and international economic trends and the market decisions of private carriers. In local business and general aviation, continued flat demand poses challenges for both public and private operators and owners. The State has the opportunity to leverage federal, state and local funding streams to focus investment programs to prioritize to goals which promote airport capacity, safety, and state-of-good-repair needs. Targeted tax incentives, like the sales tax exemption for GA aircraft implemented in 2016, can be useful tools in attracting aviation activity to the State and competing with neighboring states which offer similar benefits.

This chapter summarizes the findings of the strategic planning effort and outlines recommended policies and actions to support the function and performance of this vital aspect of the State's infrastructure.

## 8.2 Key Findings

The New York State Airport System provides vital transportation connections and services which greatly benefit the State's residents and visitors. As a measure of accessibility to air services, a sizeable proportion of the State's population is within 30 to 60 minutes of a National / Commercial service airport and many other population and economic centers are served by important regional and community business airports. General Aviation airports also provide important connections

and services to communities throughout the State. Key findings from the SASP assessment support the importance of these connections.

### 8.2.1 Economic Impact

A 2017 study by the Port Authority of New York and New Jersey (PANYNJ) estimated total annual economic benefits of over $64 billion from activity at its three New York airports, JFK, LaGuardia, and Stewart International ($93 billion adding Newark, which serves the NY/NJ metropolitan area). New York City metropolitan airports constitute a great percentage of the overall economic activity generated by airports. Separately, while an update of the 2010 *New York State Economic Impacts of Aviation* is underway by NYSDOT, that report estimated a total economic impact of over $50 billion in annual economic activity at the time and almost 400,000 state residents worked in aviation or aviation-related industries. According to that report , aviation generated $18 billion in payroll and $4.5 billion in state and local tax revenue annually. These figures illustrate the importance of the aviation industry to the State in generating income, providing jobs, and contributing to the tax base of the communities it serves.

### 8.2.2 Global Competitiveness

The maintenance and improvement of the airports' current system, especially National / Commercial service and regional corporate business segments, are critical to the State's competitiveness in a global economy.

### 8.2.3 Growth in Demand

The airport system in New York State will continue to experience growth in demand and activity (for additional detail see ***Chapter 5***). The National / Commercial service segment is expected to grow at the most rapid pace with average annual growth in passenger enplanements of 1.84% through 2025, and growth in operations of 0.66% per year. The outlook for Regional / Corporate business services and local segments is mixed with key airports anticipated to see growth in operations of 0.30% while other airports will remain flat—overall operations are expected to grow at a rate of 0.13% per year for regional and 0.05 for local.

### 8.2.4 System Coverage

An analysis of access time conducted for this study (see ***Section 6.3***) indicates that the geographic coverage of the system remains substantial. Important findings include:

**a.** Service coverage across all non-commercial airport categories is greater than 95% and is anticipated to be adequate for the foreseeable future.

**b.** Approximately 85% of the State's population is covered with the 30 nautical mile service areas of National / Commercial service airports. The largest portion of the population not covered resides in the upstate region, where population densities are generally lower and distances between population and employment centers are greater.

**c.** While commercial airline service is generally available, and within reasonable driving distance, to most of the population, the provision of service, frequency, and destinations served is a market-based decision of the commercial aviation industry. Public funds (federal, state, local) can be used to assist through the prioritization of funding to promote maintenance of capacity, safety, and state of good repair which can in turn make airports more attractive when promoting themselves to airlines.

### 8.2.5 Capital Needs

The system adequacy assessment presented in **Chapter 6** in combination with the system capital investment assessment discussed in **Chapter 7** revealed important and pressing capital needs of the New York State Airport System. The key findings are as follows.

**a.** General Airside Infrastructure: System Objective 1.3.1 - Nearly all airports in the system, rate the width of the runway as adequate and the condition of the runway as fair to good. The condition of taxiway pavement is more problematic, particularly for Regional, Local / Community, and Local / General Aviation segments.

**b.** NAVAIDS: System Objective 1.3.2 - Visual and landing aids are a key component of airside infrastructure impacting airport capacity, operational performance, and safety. The system adequacy review pointed out the percentage of airports in the Local / Community Business and Local/GA category meeting all visual airport and landing aid objectives is less than 40%.

There are geographic gaps of installed weather reporting systems affecting the operational safety of the public-use system of airports. The percentage of public-use airports in the system that do not host weather reporting systems such as Automated Weather Observing Systems (AWOS) and Automated Surface Observation Systems (ASOS) are:

- National / Commercial Service: 5%;
- Regional / Corporate Business: 12%;
- Local / Community Business: 47%; and
- Local / General Aviation: 100%).

**c.** FAA Design Standards: System Objective 1.3.3 - A common theme emerging from the system performance survey and review of capital plans conducted for the SASP is that many airports in the system do not meet FAA Design Standards criteria. The aspect of deficiencies in standards that cuts across all services categories is obstructed approaches. The percentage of public-use airports in the system that do not meet the FAA guidance for unobstructed approaches to runways is considerable:

- National / Commercial Service: 74%;
- Regional / Corporate Business: 56%;

- Local / Community Business: 65%; and
- Local / General Aviation: 77%).

**d.** Economic: System Objective 1.3.4 – Overall, airport revenue generating opportunities are not at a level that provide significant contribution to the economic sustainability of public-use airports. The percentage of airports with annual revenues equal to, or exceeding, operating expenses are only:

- National / Commercial Service: 47%;
- Regional / Corporate Business: 38%;
- Local / Community Business: 21%; and
- Local / General Aviation: 12%).

These low rates of economic sufficiency indicate that revenue generating opportunities related to airports services and aircraft usage are either not available or are not at a level that can contribute to the success of airports in the state system.

**e.** Environmental: System Objective 1.3.5 - The percentage of airports in all categories that do not meet the environmental performance criteria related to solid waste and recycling programs is approximately 40% indicating a need for further evaluation to decrease the amount of solid waste to local landfills. Environmental compliance and green initiatives are important factors in making airports sustainable from an economic and development perspective. In addition to helping preserve natural resources, airports can benefit from reduced operational costs and avoidance of additional expenses due to contamination, spills, etc.

**f.** Security: System Objective 1.3.6 – Security is broadly characterized as control-of-access to unattended (parked-stored) aircraft. Indoor storage and airport security fencing are known deterrents to unauthorized access, particularly in combination. The 19-National / Commercial Service airports in the state system each have security fencing that meets federal requirements. The remaining public-use airports have considerably less coverage reported to this study:

- Regional / Corporate Business: 6%
- Local / Community Business: 62%
- Local / General Aviation: 19%

**g.** Facility Services: System Objective 1.3.7 - Over 30% of airports in the Local / General Aviation category do not have fuel service. For most airports in this category, fuels sales generate the majority of the revenue, and the lack of this service may also impair the ability of the airport to make the most of its available capacity.

**h.** Capacity: System Objective 1.3.8 - The percentage of airports in the Local / Community Business category which do not have adequate based aircraft and

conventional hangar space is over 40%; this impairs the ability of these airports to make the most of their capacity and other airside infrastructure.

### 8.2.6 Funding Requirements

Dependable and sufficient funding streams are essential to implement necessary capital improvements to keep the system operating in an efficient and safe manner. However, this study finds that sufficient funding for short- and long-term capital projects will remain a challenge for the foreseeable future. As outlined in Chapter 7, the total annual average investment needs funding for the non PANYNJ system in the near-term (through 2019) amounted to over $250 million (**Table 7-5**), far surpassing the approximately $118 million (**Table 7-2**) recent federal, state, and local funding allocations made from 2008 to 2016.

The approximate, 10-year aggregate, unconstrained future capital improvement needs of the non-PANYNJ New York State airport system is estimated at $2.5 billion (**Table 7-6**) in total funds. Including PANYNJ airports, the total needs increase to about $13.7 billion. To meet this unconstrained need, funding in all levels of government will require increases from current levels. (see ***Section 7.3.2: Future State Supported Funding Needs***).

**a.** Of the four major airport categories, the Local / General Aviation category (Category 4) has received approximately $780,000 in funding in the past three years. this represents about 1.2% of the total State grant program. Approximately 19% of airports in this category received funding in past three years. These airports are a basic part of the system and provide access to many local emergency services. The levels of funding reflect the limited success rate in obtaining grants vs. larger airports which can draw on more significant resources to prepare and submit applications.

**b.** In the past three years, the percentage of airports in the remaining three categories have received more consistent assistance. Approximately half of these airports received NYS aviation capital grants:

- National / Commercial Service: 47%;
- Regional / Corporate Business: 44%; and
- Local / Community Business: 50%.

**c.** As evidenced by weak or lessening usage demand (see **Tables 5-5 and 5-6**) in several categories of the state airport system, a broad range of airports are now in a position where revenue does not meet annual operating expenses. These trends may be due to the continuing decline in the pilot population nationwide, the effects of the downturn in the economy in the last decade, insurance requirements, etc. This distressing condition has been exacerbated by a reported increase in business cessation at system airports in the past five years. In various locations, there is a critical need for new aviation services and airport business development with a focus on revenue generation (see **Figures 6-9 through 6-12**).

### 8.2.7 Challenging Environment for GA and Privately-Owned Airports

General Aviation airports are an important element of the air transportation system These airports provide access to rural communities and can serve as relievers to commercial service airports in metropolitan areas when traffic at the commercial service airports reach certain levels. In keeping with a national trend, and as reflected in the SASP demand forecast, general aviation and small commercial service airports, in some locations, are experiencing stagnant usage demand (see **Tables 5-5 and 5-6**). These airports are more likely to operate at a deficit and depend on federal Airport Improvement Program (AIP) and state funding for capital improvements. The stagnant market conditions and funding gaps identified in the SASP are also of particular importance to privately owned airports serving small communities. Policy and investment initiatives for these airports can be in important element of a long-standing strategy of federal, state, and local governments to maintain airport access to communities throughout the State and to serve business aircraft needs, including corporate jets, which represent a large economic stimulus for local communities.

## 8.3 General Recommendations

The needs and opportunities identified in the development of the SASP can serve as the starting point for developing recommendations for specific policies and funding priorities to be considered in long-range planning activities at all levels of government.

### 8.3.1 Multimodal Solution

A core recommendation is that improvements to the aviation system must continue to be adequately considered as integral to developing the State's multimodal transportation systems. As airports do not operate in a vacuum, consideration of all modes of transportation in funding decisions can result in policies that improve communities as a whole, rather than limiting benefits to specific transportation modes. Airport projects must be considered in metropolitan planning efforts to ensure coordination of goals.

**8.3.2 Priority Needs Focus** – The evaluation of system adequacy suggested several investment needs that have been the subject of underinvestment in the past or are rising to the level of critical needs for the future. These areas include:

- Compliance with FAA design standards for unobstructed approaches;
- Taxiway improvements and funding for lifecycle runway maintenance;
- Visual airport and landing aids including technology for Localizer Performance with Vertical guidance (LPV) and automated weather reporting systems, such as AWOS;
- Small airport hangar space, tie-down space, and fuel service infrastructure.

Creation of a prioritization system for a discretionary funding program in each category above could ensure that available funds are channeled to the priorities that have the most potential to improve present conditions.

### 8.3.3 Preservation of Service Focus

One potential approach for enhancing or maintaining commercial airline service would involve prioritization of the capital investment needs outlined in this report to assist those airports where state funding would make the greatest difference in the availability of service (areas that would otherwise be underserved). A recent example of a targeted grant competition program is the Upstate Airport Economic Development and Revitalization program with $200 million in funding for individual initiatives to enhance capacity and improve customer experience. The SASP suggests several criteria for consideration in competitive funding programs. State funding could be provided where:

- Funding for a capital need would preserve or attract service;
- Area served by the airport does not have ready access to passenger, business, or GA services at another airport within reasonable driving distance;
- Federal funding or local/private funding is available and a match would expedite and improvement;
- Federal funding is not available.

### 8.3.4 Tax Credit Policy

As of September 2015, the State of New York exempted general aviation aircraft and machinery or equipment to be installed on general aviation aircraft from state and local sales taxes. Stakeholders should continue to promote similar policy changes and highlight these needs to appropriate legislative and executive bodies.

### 8.3.5 Partnering for the Future of Aviation

NYSDOT should continue to work with state and national organizations to ensure that adequate federal funding is available for airport capital improvements and for programs that help smaller communities, such as Essential Air Service[12] and the Small Community Air Service Development Program.[13]

## 8.4 Implementation Considerations

To ensure timely implementation of the general strategies outlined, this section presents a discussion of implementation considerations and a plan for the packaging of strategies into an actionable program. Recommendations for near and medium term strategic actions include the following and are presented in the order of their expected impact on the enhancement of the airport system.

### 8.4.1 *Upstate Airport Economic Development Program Extension*

This competitive grant program initiated in 2016, has successfully provided funds for major airport capital projects at airports providing critical passenger and business services to the

[12] The Essential Air Service (EAS) is a federal program which guarantees that small communities which were served by certificated air carriers before airline deregulation maintain a minimal level of scheduled air service.

[13] The Small Community Air Service Development Program (SCASDP) is a federal grant program designed to help small communities address air service and airfare issues.

upstate region where the market areas are smaller and densities and distances between activity centers is greater. The program prioritizes investment that will produce results in enhancing or retaining service and improving customer experience. The SASP suggests evaluating the lessons learned from the initial grant awards and developing a plan for the size and evaluation criteria for an extension of the program to future fiscal years.

### 8.4.2 Landing and Weather Aid Improvement Program

The review of existing airport conditions conducted for the SASP highlighted the need for further investment in the appropriate level of landing aids and weather services at all classes of airports in the state system. Particular needs included LPV and AWOS technology adoption at all airports and the installation of visual aids (e.g., rotating beacons and segmented circles) at regional and local facilities. To properly distinguish and prioritize these needs, two separate grant pools for technology solutions for all airports and visual solutions for local and regional airports could be established.

- ***Application grant pool for landing aid and weather technology adoption*:** This program would include funding for studies and capital investment funds for acquisition and installation of the systems. The program would prioritize applications by the number of operations served and stated safety and operations improvements that would result.
- ***Application grant pool for visual aids*:** This program would fund improvements such as localizer, rotating beacons, segmented circles and other visual aids contributing to operational safety at Regional and Local Business Service airports and General Aviation airports. The program would prioritize applications by the number of operations served and stated safety and operations improvements that would result.

### 8.4.3 Regional and Local Airport Capacity and Service Enhancement Grants

The research conducted for the SASP indicated that regional and local airport services are at the greatest risk due to market conditions and funding shortfalls. A potential initiative aimed at mitigating this risk would involve the development of a competitive grant program aimed at capital investments that fund “missing link” type improvements that have been causes of lost business or impediments to growth. Examples include expansion of hangar and tie-down space, installation of fuel service infrastructure, and terminal and taxiway improvements. The program would accept applications on a competitive basis in annual rounds and would prioritize applications by the number of potential new operations served and stated revenue and service improvements that would result. To promote geographic diversity and benefits grant pools could be further allocated on a regional basis or applications could be prioritized toward airports that are the sole and critical source of service in small markets. Although not expected to require a high dollar value of appropriations commitment this program could promote the retention and enhancement of service at facilities at risk.

### 8.4.4 Airport Approach Improvement Initiative

The issue of non-compliance with FAA design guidelines for unobstructed approaches emerged as a concern for all airport segments in the airport survey and review of capital plans conducted for the SASP. To address this issue airport stakeholders (owners, local, state, and

federal governments) could explore development of a multi-step program to study the issue and fund improvements. Potential steps for implementation include:

- ***Initiation of a Statewide Approach Obstruction Study*.** This study would evaluate the extent of approach obstructions in each airport segment and prioritize those locations where obstructions pose an impediment to safety, reliability, or the expansion and enhancement of service. The study would be used to establish the need for and the potential size of a dedicated grant program for remediation. Given the potential complexity of the issues at individual locations this initial study is expected to be an important step in addressing the scope of the issue and options for solutions.
- ***Invitation grant program for individual airport airspace studies***. Stakeholders could agree on a programmatic approach to fund more detailed airport specific studies for those locations identified as priorities in the statewide study. This program could be warranted based on the findings of the initial report.
- ***Application grant program to fund projects to correct obstructions*.** Once funds from any available sources are identified, stakeholders could work to implement a funding program to address the deficiencies noted in the previous steps. Grant funds could be used for property acquisitions, utility relocations, and other activities associated with airspace and approach enhancements. The federal AIP continues to fund Obstruction Removal initiatives for eligible public-use airports.

### 8.4.5 Tax Abatement Program

In an effort to assist privately-owned, public-use airports with issues of cost and competitiveness, some states have developed solutions related to property tax relief. One solution is to offer tax exemptions for airport property, which provides the greatest level of expense reduction. States may also choose to lessen this tax burden by incorporating a decreased rate on airport property. Airports are expensive to operate; any reduction of operating costs, such as tax exemptions or ensuring reduced rates will foster a more financially sustainable therefore healthier airport system.

State legislation is being considering which would allow cities and towns in New York to pass a local law or resolution, subject to permissive referendum, to allow a real property tax exemption for privately-owned, public-use airports.

To facilitate better understanding of the potential benefits of granting this authority to municipalities, NYSDOT could initiate discussions with relevant stakeholders to research the following initiatives.

- ***Application grant program for individual property tax abatement studies***: One potential impediment for adoption of this authority is uncertainty surrounding the benefits and the lost revenue associated with abatements, exemptions, or reduced rates. The State could consider the adoption of a grant program to fund studies to be conducted by local tax and real estate experts on behalf of local governments to aid in the decision-making process and gather the information necessary for a public referendum.

- ***Outreach and Assistance Program***: Municipalities and stakeholders may not be fully aware of the existence of this authority and the process for implementation. Potential activities to be considered would involve the development of educational materials, outreach sessions, or a resource webpage or hotline desk to provide information and promote the use of the authority.

#### 8.4.6 Encourage Local and Federal Environmental Enhancements

Solid waste, wildlife management, and related opportunities for resource impact mitigation and enhancement continue to be areas of need not just for airports, but for communities as a whole. NYSDOT can work with local, state, and federal stakeholders to identify opportunities for the development of airport resource management plans.

The targeted investment programs presented here in **Section 8.4 Implementation Considerations** have the potential to serve as starting points for addressing the needs identified in this report. The continuation or establishment of grant programs which target funds to specific uses, airport classes, or disadvantaged locations can enhance the competitive position of New York airports vis-à-vis airports in neighboring states. Maintaining aviation facilities in a state of good repair will ensure that the State continues to attract economic activity and revenue.

## 8.5 Summary – Policy and Implementation Considerations

The aviation system is of considerable importance to New York State, generating billions in annual activity and generating high-paying jobs. Proven economic impact models show that investments in the transportation sector produce secondary benefits which broadly accrue to the state's residents and businesses. Some investments also enhance the safety of the traveling public – a benefit that is measured in much more than dollars and cents. The system continues to experience growth in demand and activity, and is supported by continued funding from state-level grants as well as local and private funds, and the federal AIP grant scheme.

One positive aspect of the aviation system in the United States is that it is self-supported - those who use the system pay for its maintenance and improvements. Service coverage in New York is high, with levels of 85% for National / Commercial Service airports and greater than 95% for non-commercial passenger service Regional, Community, and General Aviation airports. Recent tax incentives for general aviation also support the New York State aviation system.

The recommendations presented in this chapter and summarized in **Table 8-1** respond to the unmet needs and important opportunities to maintain and enhance system performance identified at the outset of the SASP development process. The analysis presented in this report shows that there are unmet needs in various areas of airport performance. While the system overall is safe and efficient, continuing investments are needed to maintain, and make improvements to, this level of service.

The State has an opportunity to leverage efforts of all levels of government, and the private sector, to address critical needs of the airport system. The cooperation of all interested stakeholders will

be critical to ensuring adequate levels of funding are provided to airports. Airports in turn will need to ensure that their planning/capital programs address the most critical needs first, but with a view to always enhancing services and increasing service.

With the advent of emerging technologies, the traveling public will expect better use of that advanced technology, more efficient passenger processing at the airport, better on-time deliveries, and affordable options for traveling. These are the challenges that will face airports today and tomorrow.

**Table 8-1: Summary of System Needs and Implementation Considerations**

| System Need | Implementation Considerations |
|---|---|
| Compliance with FAA design standards for unobstructed approach. | Establish an Airport Approach Improvement Program to initial fund and conduct a study of statewide needs, then fund individual studies, and, as appropriate, capital programs. |
| Airside facilities improvements including runway and taxiway lifecycle maintenance improvements. | Extend the Upstate Airport Economic Development Program to provide competitive grants for major improvements with a focus on critical upstate facilities. |
| Airport visual and landing aids (e.g. LPV/LP approaches, VASI, AWOS, etc.) at smaller, public-use airports. | Establish a Landing and Weather Aid Improvement Program with two separate pools of funding to promote 1) acquisition and installation of LPV/LP, VASI, and AWOS, and 2) visual aids at smaller airports. |
| Environmental compliance (e.g., solid waste, wildlife management, vegetative management plans, etc.). | Establish an Environmental Management Planning grant pool to fund worthy resource management planning studies. |
| Other facility needs (hangar and tie-down space, fuel service facilities, etc.) | Establish a Regional and Local Airport Capacity and Service Enhancement Grant pool to fund improvements with the potential to retain or enhance service and revenue at critical local airports. |
| Capital program funding shortfalls | Extend the Upstate Airport Economic Development Program and consider implementation of other targeted grant programs recommended here. |
| Preservation of service at regional and local airports for business and general aviation | Extend the Upstate Airport Economic Development Program and consider implementation of other targeted grant programs recommended here. |
| Facilitation of improvements and service retention at small, privately-owned airports. | Research benefits of a tax abatement program through study funding, education, and outreach. |

# New York State Airport System Plan 2018

## Appendices

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# Appendix A

## Performance Goals and Measures

## Category 1 – National / Commercial Service Performance Goals and Measures

| Category 1 - Benchmark | Criteria |
|---|---|
| **General Airside Infrastructure** | |
| Airport Reference Code (ARC) | Minimum of C-II Airport Reference Code (ARC) |
| Air Traffic Control Tower | Airport currently have an operational Air Traffic Control Tower |
| Primary Runway Length | Minimum of 5,500’ Primary Runway Length |
| Primary Runway Width | Minimum of 100’ Primary Runway Width |
| Runway Pavement Condition | Airport maintain “good” runway pavement conditions |
| Taxiway Pavement Condition | Airport maintain “good” taxiway pavement conditions |
| Taxiway Type | Maintain a full parallel taxiway |
| Runway Lighting | At least a MIR/ HIRL |
| Taxiway Lighting | At least a MITL |
| **NAVAIDs** | |
| Localizer Performance w/ Vertical Guidance (LPV) | The highest precision GPS instrument approach capability |
| Runway Approaches | Maintain minimum of Non-Precision approach |
| Runway End Identifier Lights (REIL) | Available at both ends of the Primary Runway or (ILS) |
| Visual Glide Slope Indicator (VGSI) | Available at both ends of the Primary Runway or (ILS) |
| Wind Indicator | Maintain an operating Wind Indicator |
| Weather Reporting Equipment | Provide on-site weather reporting and flight planning |
| Rotating Beacon | Maintain an operating rotating beacon |
| **FAA Design Standards** | |
| Runway/ Taxiway Separation | Meets FAA Design Standards |
| Runway Safety Area (RSA) | Meets FAA Design Standards |
| Runway Protection Zone (RPZ) | Meets FAA Design Standards |
| Unobstructed Approaches | Clear approaches to all runways (Part 77 Category) |
| **Economic** | |
| Airport Annual Revenue | Airport revenue equal or exceed airport operating expenses |
| New Business Operating in past 5 years | Has the airport attained new business in the past 5 years |
| Cease of Business in past 5 years | Have airport business ceased or relocated in past 5 years |
| Airport Capital Improvement Plan (ACIP) | Available current Airport Capital Improvement Plan |

| | |
|---|---|
| **Environmental** | |
| Airport Emergency Plan | Available current Airport Emergency Plan (AEP) |
| Storm Water Pollution Plan | Available current Storm Water Pollution Plan (SWPP) |
| Vegetation Management Plan | Available current Vegetation Management Plan (VMP) |
| Wildlife Management Plan | Available current Wildlife Management Plan (WMP) |
| Local / State Comprehensive Plan | The local comprehensive plan currently state approved, consistent with state plan |
| Recycling Program | Available current Recycling Program |
| Alternative Fuel Equipment | Availability of "Green Alternative Equipment" |
| Comprehensive Solid Waste Plan | Available current Comprehensive Solid Waste Plan |
| **Security** | |
| Perimeter Fencing | Available full perimeter fencing |
| Security Plan | Available current Security Plan |
| **Facility Services** | |
| Attendance | Is the airport attended 24 hours a day |
| Access Road | Availability of a functional access road to the airport |
| Internet Access | Availability for internet access |
| Ground Transportation Services | Ability to access system airports from the ground |
| Vehicle Parking | Adequate vehicle parking |
| Catering | Availability for aircraft food catering services |
| Restrooms | Availability of restroom services |
| Food Services (Restaurant) | Availability restaurant of food services |
| Fuel | Availability of AvGas and Jet-A fuel |
| Deicing | Availability of aircraft deicing operations |
| Aircraft Maintenance | Availability for aircraft maintenance |
| Cell Phone Coverage | Adequate cell phone coverage |
| Fixed Base Operator (FBO) | Available enhanced or basic FBO service |
| Terminal/Administration Building | Available terminal/ administration building |
| Snow Removal Building (SRE) | Available Snow Removal Building (SRE) |
| Aircraft Rescue and Fire Fighting (ARFF) Building | Available ARFF Building |
| **Capacity** | |
| Based Aircraft Hangar Storage | Adequate based hangar storage |
| Conventional Aircraft Hangar Storage | Adequate conventional hangar storage |
| Hangar Waiting List | Adequate space to accommodate future demand |

**Category 2 - Regional/ Corporate Business Performance Goals and Measures**

| Category 2 - Benchmark | Criteria |
|---|---|
| **General Airfield Infrastructure** | |
| Airport Reference Code (ARC) | Minimum of B-II Airport Reference Code (ARC) |
| Primary Runway Length | Minimum of 4000' Primary Runway Length |
| Primary Runway Width | Minimum of 75' Primary Runway Width |
| Runway Pavement Condition | Airport maintain "Good" runway pavement conditions |
| Taxiway Pavement Condition | Airport maintain "Good" taxiway pavement conditions |
| Taxiway Type | Minimum of a Partial Parallel Taxiway |
| Runway Lighting | MIRL/ HIRL |
| Taxiway Lighting | MITL/ HITL |
| **NAVAIDs** | |
| Localizer Performance w/ Vertical Guidance (LPV) | The highest precision GPS instrument approach capability |
| Runway End Identifier Lights (REIL) | Available at both ends of the Primary Runway or (ILS) |
| Visual Glide Slope Indicator (VGSI) | Available at both ends of the Primary Runway or (ILS) |
| Wind Indicator | Maintain an operating Wind Indicator |
| Weather Reporting Equipment | Provide on-site weather reporting and flight planning |
| Rotating Beacon | Maintain an operating rotating beacon |
| Runway Approaches | Maintain minimum of Non-Precision approach |
| Segmented Circle | Maintain a segmented circle |
| **FAA Design Standards** | |
| Runway Taxiway Separation | Meets FAA Design Standards |
| Runway Safety Area (RSA) | Meets FAA Design Standards |
| Runway Protection Zone (RPZ) | Control over Runway Protection Zone (RPZ) |
| Unobstructed Approaches | Clear approaches to all runways (Part 77 Category) |
| **Economic** | |
| Revenue | Revenue equals/ exceeds operating expenses |
| New Business Operating in past 5 years | Has the airport attained new business in the past 5 years |
| Cease of Business in past 5 years | Have airport business ceased or relocated in past 5 years |
| Airport Capital Improvement Plan (ACIP) | Available current Airport Capital Improvement Plan |
| **Environmental** | |
| Airport Emergency Plan | Available current Airport Emergency Plan (AEP) |
| Storm Water Pollution Plan | Available current Storm Water Pollution Plan (SWPP) |
| Vegetation Management Plan | Available current Vegetation Management Plan (VMP) |
| Wildlife Management Plan | Available current Wildlife Management Plan (WMP) |
| Recycling Program | Available current Recycling Program |
| Alternative Fuel Equipment | Availability of "Green Alternative Equipment" |
| Comprehensive Solid Waste Plan | Available current Comprehensive Solid Waste Plan |
| Local/ State Comprehensive Plan | The local comprehensive plan currently state approved, consistent with state plan |

| | |
|---|---|
| **Security** | |
| Perimeter Fencing | Available full perimeter fencing |
| Security Plan | Available current Security Plan |
| **Facility Services** | |
| Attendance | Standard Business Hours, after hours on call |
| Fixed Base Operator (FBO) | Available enhanced or basic FBO service |
| Terminal/Administration Building | Available terminal/ administration building |
| Flight Training | Availability for flight training |
| Scheduled Air Taxi/ Charter | Availability for air taxi/ charter operations |
| Internet Access | Availability for internet access |
| Snow Removal Equipment Building (SRE) | Available SRE Building |
| Aircraft Rescue Fire Fighting (ARFF) | Available ARFF Building |
| Aircraft Maintenance | Availability for aircraft maintenance |
| Aircraft Deicing | Availability of aircraft deicing operations |
| Aircraft Lavatory Services | Availability of aircraft lavatory disposal |
| Fuel | Availability of AvGAS and Jet-A fuel |
| Ground Transportation Services | Ability to access system airports from the ground |
| Cell Phone Coverage | Adequate cell phone coverage |
| Food Services | Available restaurant/ vending machine |
| Restrooms | Availability of restroom services |
| Access Road | Available access road |
| Adequate Signage | Adequate airport signage |
| **Capacity** | |
| Based Aircraft Hangar Storage | Adequate hangar storage |
| Conventional Hangar Space | Adequate hangar storage |

## Category 3 - Local / Community Business Performance Goals and Measures

| Category 3 - Benchmark | Criteria |
|---|---|
| **General Airfield Infrastructure** | |
| Airport Reference Code (ARC) | Minimum of B-I Airport Reference Code (ARC) |
| Primary Runway Length | Minimum of 3000' Primary Runway Length |
| Primary Runway Width | Minimum of 60' Primary Runway Width |
| Runway Pavement Condition | Airport maintain "fair" runway pavement conditions |
| Taxiway Pavement Condition | Airport maintain "fair" taxiway pavement conditions |
| Runway Lighting | At least a LIRL |
| Taxiway Lighting | At least a MITL |
| **FAA Design Standards** | |
| Runway Taxiway Separation | Meets FAA Design Standards |
| Runway Safety Area (RSA) | Meets FAA Design Standards |
| Runway Protection Zone (RPZ) | Meets FAA Design Standards |
| Unobstructed Approaches | Clear approaches to all runways (Part 77 Category) |
| **NAVAIDs** | |
| Localizer Performance w/ Vertical Guidance | The highest precision GPS instrument approach capability |
| Runway End Identifier Lights (REIL) | Runways equipped with REIL |
| Wind Indicator | Maintain an operating Wind Indicator |
| Weather Reporting Equipment | Provide on-site weather reporting and flight planning |
| Rotating Beacon | Maintain an operating rotating beacon |
| Segmented Circle | Maintain a segmented circle |
| **Economic** | |
| Revenue | Revenue equals/ exceeds operating expenses |
| New Business Operating in past 5 years | Has the airport attained new business in the past 5 years |
| Ceased Business Operations or Relocated | Has the airport experienced loss of business in the past 5 years? |
| Airport Capital Improvement Plan (ACIP) | Available current Airport Capital Improvement Plan |
| **Facility Services** | |
| Terminal Building | Available Terminal Building/ Administration Building |
| Restrooms | Availability of restroom services |
| Fuel | Availability of AvGAS fuel |
| Cell Phone Coverage | Adequate cell phone coverage |
| Internet Access | Availability for internet access |
| Access Road | Available access road |
| Signage | Adequate Signage |
| Ground Transportation | Availability for ground transportation services |

| | |
|---|---|
| **Facility Services** | |
| Terminal Building | Available Terminal Building/ Administration Building |
| Restrooms | Availability of restroom services |
| Fuel | Availability of AvGas fuel |
| Cell Phone Coverage | Adequate cell phone coverage |
| Internet Access | Availability for internet access |
| Access Road | Available access road |
| Signage | Adequate Signage |
| Ground Transportation | Availability for ground transportation services |
| **Environmental** | |
| Airport Emergency Plan | Available current Airport Emergency Plan (AEP) |
| Storm Water Pollution Plan | Available current Storm Water Pollution Plan (SWPP) |
| Vegetation Management Plan | Available current Vegetation Management Plan (VMP) |
| Wildlife Management Plan | Available current Wildlife Management Plan (WMP) |
| Local/ State Comprehensive plan | Available current Local State Comprehensive Plan |
| Recycling Program | Available current Recycling Program |
| Alternative Fuel Equipment | Alternative Fueling Equipment Capabilities |
| Comprehensive Solid Waste Plan | Available current Comprehensive Solid Waste Plan |
| **Capacity** | |
| Based Aircraft Hangar Storage | Adequate based aircraft hangar storage |
| Conventional Hangar Space (sufficiency) | Adequate hangar capacity for conventional aircraft |
| **Security** | |
| Perimeter Fencing | Available partial perimeter fencing |
| Security Plan | Available current security plan |

## Category 4 – Local / General Aviation Performance Goals and Measures

| Category 4 - Benchmark | Criteria |
|---|---|
| **General Airfield Infrastructure** | |
| Airport Reference Code (ARC) | Minimum of B-I Airport Reference Code (ARC) |
| Primary Runway Length | Minimum of *turf* runways |
| Primary Runway Width | Minimum of 50' Primary Runway Width |
| Runway Pavement Condition | Airport maintain "fair" runway pavement conditions |
| Taxiway Pavement Condition | Airport maintain "fair" taxiway pavement conditions |
| **NAVAIDs** | |
| Wind Indicator | Maintain an operating Wind Indicator |
| Weather Reporting Equipment | Availability for on-site weather reporting |
| Rotating Beacon | Maintain an operating Rotating Beacon |
| Segmented Circle | Maintain a Segmented Circle |
| Runway Approaches | Maintain minimum of *Visual* approach |
| Runway Lighting | Minimum of LIRL |
| **FAA Design Standards** | |
| Runway/Taxiway Separation | Meets FAA Design Standards |
| Runway Safety Area (RSA) | Meets FAA Design Standards |
| Runway Protection Zone (RPZ) | Meets FAA Design Standards |
| Unobstructed Approaches | Clear approaches to all runways (Part 77 Category) |
| **Economic** | |
| Revenue | Revenue equals/ exceeds operating expenses |
| New Business Operating in past 5 years | Has the airport attained new business in the past 5 years |
| Ceased Business Operations or Relocated | Airport experienced loss of business in the past 5 years? |
| Airport Capital Improvement Plan (ACIP) | Available current Airport Capital Improvement Plan |
| **Environmental** | |
| Airport Emergency Plan | Available current Airport Emergency Plan (AEP) |
| Storm Water Pollution Plan | Available current Storm Water Pollution Plan (SWPP) |
| Vegetation Management Plan | Available current Vegetation Management Plan (VMP) |
| Wildlife Management Plan | Available current Wildlife Management Plan (WMP) |
| Recycling Program | Available current Recycling Program |
| **Facility Services** | |
| Attendance | Part-time attendance |
| Restrooms | Available restrooms |
| Fuel | Available AvGas fuel |
| Cell Phone Coverage | Adequate cell phone coverage |
| Internet Access | Availability for internet access |
| Access Road | Available access road |
| Signage | Adequate Signage |
| **Capacity** | |
| Based Aircraft Hangar (sufficiency) | Adequate hangar capacity for based aircraft |
| Aircraft Tie-down Space | Adequate aircraft tie-down space |
| **Security** | |
| Perimeter Fencing | Available partial perimeter fencing |
| Security Plan | Available current security plan |

# Appendix B

## SASP Inventory Survey

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| A. GENERAL AIRPORT CONTACT INFORMATION | |
|---|---|
| 1) Airport Name: Click here to enter text. | 2) 3-letter Identifier: Click here to enter text. |
| ***Survey Completed by (Name):*** Click here to enter text.. | |
| **2) Title/Position/Organization**: Click here to enter text. | |
| **3) Phone Number**: Click here to enter text. | |
| **4) Email:** Click here to enter text. | |
| **5) Airport Manager** | Click here to enter text. |
| **6) Airport Ownership (Name & Public or Private)** | Click here to enter text. |
| **7) Airport Owner Address** | Click here to enter text. |
| **8) Airport Mailing Address** | Click here to enter text. |
| **9) City** | Click here to enter text. |
| **10) County** | Click here to enter text. |
| **11) Zip Code** | Click here to enter text. |
| **12) Elevation** | Click here to enter text. |
| **13) Airport Hours Attended** | Click here to enter text. |
| **14) Unicom or CTAF Frequency** | **Unicom**: Click here to enter text. **CTAF**: Click here to enter text. |

| B. AIRPORT INFRASTRUCTURE: AIRSIDE | | | | | |
|---|---|---|---|---|---|
| **Control Tower** | | | | | |
| **1)** Yes ☐ No ☐ FAA or Contract Tower: Contract ☐ FAA☐ | | | | | |
| **2) Current FAA-designated Airport Reference Code (ARC):** Click here to enter text. | | | | | |
| **Runway/Taxiway** | **Primary** | **Secondary** | **Other** | **Other** | **Other** |
| **3) Orientation (e.g. 16/34)** | Click here | Click here to | Click here to enter | Click here to | Click here to |
| **4) Length/Width (e.g. 5000' x** | Click here | Click here to | Click here to enter | Click here to | Click here to |
| **5) Taxiway Type**[14] | Click here | Click here to | Click here to enter | Click here to | Click here to |
| **6) Typical Taxiway Width** | Click here | Click here to | Click here to enter | Click here to | Click here to |
| **7) Declared Distances**: Click here to enter text. | | | | | |
| **8) Reason for Declared Distances:** Click here to enter text. | | | | | |
| **9) Displaced Threshold** (Dist. In ft.) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| **10) Reason for Displaced Threshold**: Click here to enter text. | | | | | |
| **11) Runway Safety Area (RSA) Compliance Check (Y, N, UK= Unknown)** | Y ☐ N☐UK☐ | Y ☐ N☐ UK☐ | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| **12)** If no to question above, which ends do not comply? And why? Click here to enter text. | | | | | |
| **13) Notes:** Click here to enter text. | | | | | |
| **14) Airport acreage?** Click here to enter text. | | | | | |

| Lighting/NAVAIDs | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Runway/Taxiway** | **Primary Runway** | | **Secondary Runway** | | **Other** | | **Other** | | **Other** | |
| **15) Runway Ends** | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| **16) Runway Lighting**[15] | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| **17) PAPI or VASI** – which Runway end(s)[16] | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

[14] Full Parallel taxiway, Partial Parallel, Connector, Turnaround, or None

[15] HIGH, MED, LOW for Runways, Please note if lighting is non-standard

[16] Precision Approach Path Indicator (PAPI), Visual Approach Slope Indicator (VASI) **IDENTIFY WHICH RUNWAY END**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **18) REIL**[17] (Check **Yes** or **No** for each Runway end) | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ | Yes☐ No ☐ |
| **19) Approach Lighting System**[18] (MALS, MALSR, MALSF, ALSF, etc.) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| **20) Taxiway Lighting**[19] | Click here to enter text. | | Click here to enter text. | | Click here to enter text. | | Click here to enter text. | | Click here to enter text. | |

| **21) What is the best available published instrument approach procedure the airport offers?** | | | | | |
|---|---|---|---|---|---|
| **Runway End** | **Precision** | **Non-Precision** | **Visual** | **None** | |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | |
| **22) Are there any current obstructions impacting approaches to any runway ends?** | | | | **Yes☐** | **No ☐** |

**Additional comments/ Notes:** Click here to enter text.

| NAVAIDs | YES | NO | Operating Schedule |
|---|---|---|---|
| **23) Rotating Beacon** Check (**Yes** or **No**) | ☐ | ☐ | Click here to enter text. |
| **24) Wind Indicator** (Check **Yes** or **No**) | ☐ | ☐ | Lighted? Yes ☐ No ☐ |
| **25) Segmented Circle** | ☐ | ☐ | |
| **26) Weather Reporting Equip**. (Check **Yes** or | ☐ | ☐ | Which Type? ASAS☐ AWOS ☐ OTHER ☐ |

**27) Other Navigational Aids?**

| Runway | Runway End | Instruments | Lowest Approach |
|---|---|---|---|
| **Primary Runway** | Click here to | Click here to enter text. | Click here to enter text. |
| **Secondary Runway** | Click here to | Click here to enter text. | Click here to enter text. |
| **Other Runway** | Click here to | Click here to enter text. | Click here to enter text. |
| **Other Runway** | Click here to | Click here to enter text. | Click here to enter text. |

**28) Does the airport have land ownership covering easements over the RPZ's for each runway end**?
**Yes** ☐ **No** ☐ **Some Easements** ☐ **Unknown** ☐ If **No,** please explain: Click here to enter text.

[17] Runway End Identifier Lights (REIL)
[18] Provide basic means to transition from instrument flight to visual flight for landing. Medium Intensity Approach Lighting System with Runway Alignment Lights (MALSR)
[19] MED, LOW, REFL (Reflectors), Please note if lighting is non-standard

**29) Based on the airport's current Airport Reference Code (ARC) and approach minima, are FAA separation standards being met for the following?**

| Separation Criteria | YES | NO | Separation Distance (ft.) |
|---|---|---|---|
| **30)** Runway Centerline to Parallel Taxiway Centerline (Check **Yes** or **No**) | ☐ | ☐ | Click here to enter text. |
| **31)** Runway Centerline to Aircraft Parking Area (Check **Yes** or **No**) | ☐ | ☐ | Click here to enter text. |
| **32)** Taxiway\Taxi- lane Centerline to Fixed or Moveable Object (Check **Yes** or **No**) | ☐ | ☐ | Click here to enter text. |

| AIRCRAFT HANGAR CAPACITY | | | | |
|---|---|---|---|---|
| **Hangar Capacity** | **Sufficient** | **Insufficient** | **≈ % Occupied** | **Total Square Footage** |
| | | | | |
| **33) Based Aircraft T Hangar Space** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |
| **34) Based Aircraft Conventional Hangar Space** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |
| **35) Portables Hangar/ other** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |
| **36) Transient Hangar Space** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |
| **37) Total Hangars** | Click here to enter text. | | | |
| **38) Hangar Waiting List Space** | Yes ☐ | No ☐ | # Of Aircraft on list Click here to enter text. | |
| **39) Aircraft Apron Parking Waiting** | Yes ☐ | No ☐ | # Of Aircraft on list Click here to enter text. | |

| AIRCRAFT PARKING CAPACITY | | | | |
|---|---|---|---|---|
| **Aprons/ Tie-down Capacity** | **Sufficient** | **Insufficient** | **≈ % Occupied** | **Sq. FT (est.)** |
| **40) Total Tie Downs** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |
| **41) Transient** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |
| **42) Based** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |
| **43) Transient Hangar** | ☐ | ☐ | Click here to enter text. | Click here to enter text. |

**Please provide any additional notes/ comments on hangar or aircraft tie-down capacity.** Click here to enter text.
**Please complete this section to the best of your ability.**

| PAVEMENT CONDITIONS | | | | | | |
|---|---|---|---|---|---|---|
| **44) Runway Designation** | **Fail[20]** | **Poor [21]** | **Fair[22]** | **Good[23]** | **Excellent[24]** | **Comments** |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| **45) Taxiway Designation** | **Fail** | **Poor** | **Fair** | **Good** | **Excellent** | **Comments** |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| **46) Apron Location** | **Fail** | **Poor** | **Fair** | **Good** | **Excellent** | **Comments** |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |
| Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | Click here to enter text. |

**Please provide any additional notes/ comments on runway pavements**. Click here to enter text.

[20] **Fail**: Pavements over 30 years old, unable to support current fleet mix and/or operations. Pavement is in extremely deteriorated condition. Numerous areas of instability. Majority of section showing structural deficiency.
[21] **Poor**: Pavements between 20-30 years old, frost heaving, seasonal or isolated areas of failure. Areas of instability, marked evidence of structural deficiency, large crack patterns.
[22] **Fair**: Visible cracking along the majority of pavement but still supports regular operations throughout all seasons. Generally stable with minor areas of structural weakness evident. Deformation more pronounced and easily noticed.
[23] **Good**: Able to support operations throughout all seasons with some cracking. Minor amounts of patching and deformation may be present
[24] **Excellent**: Constructed in the last 5 years or no issues of concern. Structure is stable. No cracking, patching or deformation evident.

| C. AIRPORT INFRASTRUCTURE: LANDSIDE | | | |
|---|---|---|---|
| **Terminal Building/ Passenger Services** | **YES** | **NO** | **Unknown** |
| **1) Does the Airport have a Terminal building?** (Check **Yes** or **N** | ☐ | ☐ | ☐ |
| **2) Terminal space adequately sufficient?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **3) Terminal Building Condition?** (Check one) | Excellent ☐ Good ☐ Fair ☐ Poor ☐ | | ☐ |
| **4) Date Constructed/ Rehabilitated?** | Click here to enter text. | | ☐ |
| **5) Approximate Square footage?** | Click here to enter text. | | ☐ |
| **6) Does the Airport Have a restaurant?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **7) Internet/ WIFI Access** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **8) Cell phone Coverage** (Check one, **Strong, Moderate, Weak)** | Strong ☐ Moderate ☐ Weak ☐ | | ☐ |
| **9) Restaurant/ Vending Machines?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **10) Catering** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **11) Public Restrooms?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **12) Pilot Lounge?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **13) Conference Room?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **14) Flight Planning Room?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **ARFF Building** | **YES** | **NO** | **Unknown** |
| **15) Does the Airport have an ARFF Building?** (Check **Yes** or **No** | ☐ | ☐ | ☐ |
| If **Yes**, hours of operation: Click here to enter text. | | | |
| **16) Does the Airport have an agreement with surrounding towns/ cities to provide emergency response (Mutual aid agreement)?** (Check **Yes** or **No**) | ☐ | ☐ | ☐ |
| **Equipment Buildings** | **YES** | **NO** | **Unknown** |
| **17) Does the Airport have a SRE building?** | ☐ | ☐ | ☐ |
| **18) Does the Airport have adequate space for SRE equipment** | ☐ | ☐ | ☐ |
| **19) Does the Airport have an adequate Maintenance building** | ☐ | ☐ | ☐ |
| **20) Has the airport adopted any equipment utilizing "Green Alternatives"? (E.g. electric; hybrid; low emission; natural gas; etc.)**<br><br>**Explain**: Click here to enter text. | ☐ | ☐ | ☐ |

| Airport Fueling | Av Gas | Jet A |
|---|---|---|
| 21) What types of fuel does the Airport provide? | ☐ | ☐ |
| 22) What is the storage capacity? (in gallons) | Click here to enter text. | Click here to enter text. |
| 23) Who operates and controls the fuel farm(s)? | Click here to enter text. | Click here to enter text. |
| | YES | NO |
| 24) Are fueling services offered 24 hours a day? | ☐ | ☐ |
| 25) If not, what are the hours that aircraft fueling is available? | Click here to enter text. | |
| 26) Does the Airport have active underground fuel storage? | ☐ | ☐ |

| Access Roadway | |
|---|---|
| 27) Security Fencing | Complete☐ Partial ☐ |
| 28) Adequate Signage | Yes ☐ No ☐ |
| 29) Who's responsible for Mx Capital Improvement? | Click here to enter text. |
| 30) Notes | Click here to enter text. |

| D. AIRPORT SERVICES & ACCOMODATIONS | | |
|---|---|---|
| Service | YES | NO |
| 1) Full Services Fixed Base Operator (FBO) How many: Click here to ent | ☐ | ☐ |
| 2) Courtesy car | ☐ | ☐ |
| 3) Car Rental | ☐ | ☐ |
| 4) Crew car | ☐ | ☐ |
| 5) On-site Intermodal Transportation Services | Bus ☐ Taxi ☐ Train/Light Rail ☐ | |
| 6) Flight Instruction | ☐ | ☐ |
| 7) Aircraft Rentals | ☐ | ☐ |
| 8) Aircraft Sales | ☐ | ☐ |
| 9) Airport/ Area Flying Club | ☐ | ☐ |
| 10) Aircraft Maintenance | ☐ | ☐ |
| 11) Airframe Repairs | ☐ | ☐ |
| 12) Power Plant Repairs | ☐ | ☐ |
| 13) Avionics Repair Shop | ☐ | ☐ |
| 14) Self-Serve Fueling | ☐ | ☐ |
| 15) Aircraft Deicing | ☐ | ☐ |
| 16) Aircraft Lavatory Disposal | ☐ | ☐ |
| 17) Customs Capabilities | ☐ | ☐ |

| E. ENVIRONMENTAL COMPLIANCE & POLICY | | | |
|---|---|---|---|
| | YES | NO | UK |
| 1) Compliance with current EPA's SPCC (Spill Prevention, Spill Control, Spill Countermeasure) requirements | ☐ | ☐ | ☐ |
| 2) Compliance with current EPA's SWPPP (Storm water pollution prevention plan) requirements. | ☐ | ☐ | ☐ |
| 3) Formal Recycling Program procedures. | ☐ | ☐ | ☐ |
| 4) Land Use and Zoning Compatibility | ☐ | ☐ | ☐ |

**Please indicate which of the following studies, plans or policies have been completed or implemented at the airport, estimate the completion date for each.**

| F. EXISTING AIRPORT PLANS | | | | |
|---|---|---|---|---|
| | YES | NO | Unknown | Last Updated |
| 1) Airport Master Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 2) Airport Layout Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 3) Capital Improvement Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 4) Business Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 5) Airport Economic Study or Impact Assessment | ☐ | ☐ | ☐ | Click here to enter text |
| 6) Airport Minimum Standards | ☐ | ☐ | ☐ | Click here to enter text |
| 7) Airport Rules and Regulation Policy | ☐ | ☐ | ☐ | Click here to enter text |
| 8) Aeronautical Obstruction Survey | ☐ | ☐ | ☐ | Click here to enter text |
| 9) Obstruction/ Approach Analysis | ☐ | ☐ | ☐ | Click here to enter text |
| 10) Airport Noise Study (Part 150) | ☐ | ☐ | ☐ | Click here to enter text |
| 11) Airport Noise Contours | ☐ | ☐ | ☐ | Click here to enter text |
| 12) Established Airport Noise Abatement Procedures | ☐ | ☐ | ☐ | Click here to enter text |
| 13) Wildlife Management Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 14) Wildlife Hazardous Management Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 15) Airport Security Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 16) Airport Emergency Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 17) Snow and Ice Control Plan/ Winter Operations Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 18) Airport Pavement Management Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 19) Is the Airport recognized in local/ State comprehensive plans and/or transportation plans | ☐ | ☐ | ☐ | Click here to enter text |
| 20) Environmental Assessment/ Environmental Impact Statement | ☐ | ☐ | ☐ | Click here to enter text |
| 21) Vegetation Management Plan (VMP) | ☐ | ☐ | ☐ | Click here to enter text |
| 22) Comprehensive Solid Waste Management Plan | ☐ | ☐ | ☐ | Click here to enter text |
| 23) Wetland Delineation | ☐ | ☐ | ☐ | Click here to enter text |

| G. MISCELLANOUS | | | |
|---|---|---|---|
| | **YES** | **NO** | **UK** |
| **1) Does your Airport have an outreach program that promotes aviation?** (I.e. Young Eagles, open houses, etc.) If **YES**, please describe: Click here to enter text. | ☐ | ☐ | ☐ |
| **2) Does your Airport host an air show or fly-in?** Annual☐ Biennial ☐ Time of year held (month)? Click here to enter text. Approximate Attendance: Click here to enter text. | ☐ | ☐ | ☐ |
| **3) Is your Airport a member of the local chamber of commerce?** | ☐ | ☐ | ☐ |
| **4) Is there Airport land available for future development?** | ☐ | ☐ | ☐ |
| **a.** If **YES**: Are there utilities available to the site? | ☐ | ☐ | ☐ |
| **b.** Is this land depicted on the approved Airport Layout Plan (ALP)? | ☐ | ☐ | ☐ |
| **c.** Approximate area for future development: _ Click here to enter text._ | | | |
| **5) What factors may limit or restrict the future growth of your Airport?** | | | |
| **a.** Physical Factors | ☐ | ☐ | ☐ |
| **b.** Environmental Factors | ☐ | ☐ | ☐ |
| **c.** Financial Factors | ☐ | ☐ | ☐ |
| **6) In your opinion, how likely is new private development at the Airport over the next 10 years?** | Imminent ☐ Likely ☐ Unlikely ☐ Unknown ☐ | | |
| **7) Does the airport have an established or developable industrial park abutting or in proximity to the Airport?** | ☐ | ☐ | ☐ |
| **a. If so, does the industrial park have access to the airfield?** **Approximate Acreage:** Click here to enter text. | ☐ | ☐ | ☐ |

**Additional explanation**: Click here to enter text.

| H. AIRCRAFT OPERATIONS & HISTORICAL DATA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Aircraft** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** |
| **1) Single-engine Piston** | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. |
| **2) Multi-engine Piston** | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. |
| **3) Jet** | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. |
| **4) Helicopter** | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. |
| **5) Total** | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. | Click he to ente text. |
| **Operations** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** |
| **6) Air Carrier** | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to |
| **7) Regional/Commuter** | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to |
| **8) Air Taxi** | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to |
| **9) General Aviation (Local)** | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to |
| **10) General Aviation (Itinerant)** | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to |
| **11) Military** | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to |
| **12) Total** | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to | Click here to |

**Sources:** Airport Records ☐ FAA 5010 ☐ FAA TAF ☐ ATADs ☐

**In your opinion does the above data accurately depict the airport level operations?** YES ☐ NO ☐

If **No**, in your opinion, are actual operations higher or lower than what is reported? Higher ☐ Lower ☐

**Please select what best describe the type and frequency of airport operations at the airport**

| I. AIRCRAFT OPERATIONS ACTIVITY TYPES | | | | | | |
|---|---|---|---|---|---|---|
| **Operation** | **Airport Based** | **Regularly[25]** | **Occasionally[26]** | **Rarely[27]** | **Never** | **Seasonal?[28]** |
| **1) Flight Training Operations** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **2) Law Enforcement Aircraft Operati** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **3) Military Operations/ Training** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **4) Emergency Medical Aircraft Opera (Life Flight/ Medical EVAC., Organ Tr etc.** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **5) Angel Flight** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **6) Agricultural Aircraft Operations** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **7) Air Carrier** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **8) Air Taxi or Aircraft Charter** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **9) Air Cargo Operations** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **10) Power line or Pipeline Control Operations** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **11) Skydiving Operations** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **12) Glider Operations** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **13) Aerial Photography** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **14) Other**: Click here to enter text. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

**15) On average how many fuel deliveries has the airport received annually (assumes 8,000-gallon capacity)?**

| AIRPORT FUEL HISTORY | | |
|---|---|---|
| **Year** | **AvGAS** | **Jet A** |
| 2014 | Click here to enter text. | Click here to enter text. |
| 2013 | Click here to enter text. | Click here to enter text. |
| 2012 | Click here to enter text. | Click here to enter text. |
| 2011 | Click here to enter text. | Click here to enter text. |
| 2010 | Click here to enter text. | Click here to enter text. |
| 2009 | Click here to enter text. | Click here to enter text. |
| 2008 | Click here to enter text. | Click here to enter text. |
| 2007 | Click here to enter text. | Click here to enter text. |
| 2006 | Click here to enter text. | Click here to enter text. |
| 2005 | Click here to enter text. | Click here to enter text. |
| 2004 | Click here to enter text. | Click here to enter text. |

**Additional Comments**: Click here to enter text.

[25] **Regularly:** Occurs multiple times weekly
[26] **Occasionally:** Occurs a few times monthly
[27] **Rarely:** Occurs a few times annually
[28] **Seasonal:** Occurs more often during a single season

| J. AIRPORT FINANCIAL QUESTIONNAIRE | | | | | |
|---|---|---|---|---|---|
| | YES | NO | UK | Verified | Revised |
| 1) Does the airport annual revenue equal or exceed the airport operating expenses? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2) Airport Revenue Trend (Last 5 years) | Growing ☐ Declining ☐ Unchanged☐ | | | | |
| 3) Over the past 5 years has the airport experienced any new businesses operating at the airport? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4) Over the past 5 years have any on-airport businesses ceased operations or relocated off site? | ☐ | ☐ | ☐ | ☐ | ☐ |
| How are the following airport activities funded? | | | | | |
| 5) Airfield vegetation management/mowing | Funded by the Airport ☐<br>Not Funded by the Airport ☐<br>Partially Funded by the Airport ☐ | | | | |
| 6) Airport Snow Removal | Funded by the Airport ☐<br>Not Funded by the Airport ☐<br>Partially Funded by the Airport ☐ | | | | |
| 7) Maintenance of Airfield lighting/signage | Funded by the Airport ☐<br>Not Funded by the Airport ☐<br>Partially Funded by the Airport ☐ | | | | |
| **Comments:** Click here to enter text. | | | | | |

# Appendix C

## Private-Use Aviation Facilities

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| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| ADIRONDACK AIRPARK ESTATES | Airport | NY17 | 16095.92*A | 44-36-33.1600N | 073-51-28.5100W |
| ADIRONDACK MEDICAL CENTER | Heliport | NY36 | 16097.01*H | 44-20-40.0000N | 074-08-33.0000W |
| AIRY-ACRES | Airport | 6NY3 | 15478.1*A | 42-38-33.4300N | 076-43-43.8400W |
| ALEXANDER FARM | Airport | NY82 | 15178.15*A | 42-34-50.2890N | 073-36-58.4180W |
| ALEXANDER'S EAST | Heliport | 5NK2 | 16408.01*H | 40-48-03.2760N | 072-39-28.0908W |
| ALSTAR NORTH | Heliport | 22NK | 15157.01*H | 42-28-35.4987N | 079-19-26.7456W |
| AMAR | Heliport | 0NY2 | 00521.01*H | 41-13-53.2488N | 074-02-51.4278W |
| AMCH | Heliport | NK64 | 14789.3*H | 42-39-13.4400N | 073-46-32.1700W |
| AMSTERDAM AIRFIELD | Airport | NY87 | 15253.*A | 42-57-45.2660N | 074-15-13.4750W |
| ANTHONSON | Airport | NY28 | 15509.*A | 43-04-48.2700N | 076-24-34.6700W |
| APEX | Airport | 65NK | 15994.4*A | 42-43-46.2720N | 074-09-50.4610W |
| ARCHDALE MEADOWS | Airport | NY63 | 15349.5*A | 43-03-12.0000N | 073-28-42.0000W |
| ARNOT OGDEN HOSPITAL | Heliport | 3NK9 | 15203.01*H | 42-06-03.2670N | 076-49-31.8440W |
| ATHENS EMERGENCY MED-EVAC | Heliport | 57NY | 14827.01*H | 42-17-14.0000N | 073-50-43.0000W |
| AUBURN COMMUNITY HOSPITAL | Heliport | NY12 | 14834.01*H | 42-56-27.2390N | 076-33-47.7890W |
| AUGUST FIELD | Airport | NK17 | 15279.81*A | 43-12-33.7000N | 073-34-54.1600W |
| AURORA | Balloonport | NY80 | 16235.5*B | 42-41-47.0000N | 078-34-09.0000W |
| B FLAT FARM | Airport | 3NK8 | 15090.01*A | 42-08-26.0000N | 073-36-43.0000W |
| B/G | Heliport | 3NK7 | 15302.*H | 42-25-29.2860N | 074-27-03.5280W |
| BASHER FIELD | Airport | NY00 | 16104.*A | 42-34-00.2220N | 078-33-22.0810W |
| BASSETT | Heliport | 3NK2 | 15087.01*H | 42-41-21.0444N | 074-55-17.0322W |
| BASTEK | Heliport | NK95 | 15947.4*H | 41-19-15.3400N | 074-30-15.5720W |
| BEDSONS LAND BASE | Airport | 52NY | 15428.1*A | 42-55-50.2270N | 077-38-38.9980W |
| BEL-AIRE FARMS | Heliport | NY46 | 14803.01*H | 41-50-57.1482N | 073-35-55.7520W |
| BELMONT PARK | Heliport | 4NY9 | 15209.1*H | 40-42-52.3680N | 073-42-37.4710W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| BENBYRE FARM | Heliport | 2NY8 | 14797.*H | 41-48-12.3350N | 074-10-58.5250W |
| BENNETTS | Airport | 0NY0 | 15818.*A | 43-42-00.2330N | 073-58-58.4760W |
| BENT-WING | Airport | 59NY | 15587.01*A | 43-13-50.2040N | 078-41-24.1170W |
| BERDICK FIELD | Airport | 0NK0 | 14999.*A | 42-20-02.2250N | 078-47-27.1160W |
| BERTRAND CHAFFEE HOSPITAL | Heliport | 2NK6 | 16242.01*H | 42-30-30.2220N | 078-39-29.0920W |
| BETHANY AIRPARK | Airport | 8NK4 | 14896.3*A | 42-56-36.0000N | 078-08-18.0000W |
| BISTRIANS | Heliport | 4NY5 | 15167.01*H | 40-59-15.3600N | 072-10-24.2820W |
| BLOECHER FARM | Airport | 92NY | 16256.8*A | 42-45-07.2160N | 078-27-41.0730W |
| BLUEBERRY FIELD | Airport | 7NK6 | 16282.01*A | 42-17-30.0000N | 075-04-00.0000W |
| BONEBENDER | Airport | 41NY | 15227.02*A | 44-18-44.6000N | 073-23-05.6000W |
| BOONVILLE INC | Airport | 1NK7 | 14918.*A | 43-28-00.2470N | 075-14-58.6060W |
| BREEZY MEADOWS | Heliport | 29NY | 14984.01*H | 44-05-16.8000N | 076-16-09.0000W |
| BUFFALO GENERAL HOSPITAL | Heliport | 56NK | 14954.22*H | 42-54-02.7900N | 078-51-57.1400W |
| BUMBLEBEE | Heliport | 9NY0 | 16191.2*H | 41-23-30.2784N | 74-28-20.2008W |
| BYRON AIRPARK | Airport | 2NY4 | 14961.61*A | 43-04-25.5000N | 078-03-00.0000W |
| CABLEVISION BETHPAGE | Heliport | 6JY8 | 14897.02*H | 40-45-34.8300N | 073-29-47.4100W |
| CALVERTON EXECUTIVE AIRPARK | Airport | 3C8 | 14971.*A | 40-54-54.3540N | 072-47-30.8630W |
| CAMILLUS | Airport | NY25 | 14972.*A | 43-05-07.0000N | 076-17-33.8000W |
| CAMPBELL FIELD | Airport | 85NK | 15995.1*A | 42-09-15.2200N | 079-00-59.1500W |
| CAMPIS | Airport | 7NY0 | 15535.*A | 41-41-25.6500N | 075-00-44.3700W |
| CARTER FLIGHT PARK | Ultralight Base | NY67 | 15625.01*U | 42-59-35.0400N | 075-54-42.0000W |
| CARTER'S | Heliport | 25NY | 16011.2*H | 40-48-26.5638N | 072-43-17.4252W |
| CATALANO AIRFIELD | Airport | 1NK6 | 16433.95*A | 44-25-25.1680N | 073-44-58.5060W |
| CATSKILL REGIONAL MEDICAL CENTER | Heliport | 3NK1 | 15381.*H | 41-42-33.3220N | 074-44-09.5830W |
| CATSKILL VALLEY AIRPARK | Airport | 2NY0 | 16205.7*A | 42-16-50.3110N | 073-57-10.4710W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| CAYUGA MEDICAL CENTER | Heliport | NY32 | 15487.04*H | 42-28-10.0000N | 076-32-10.0000W |
| CEC | Heliport | 6NK9 | 15634.8*H | 43-10-38.0000N | 075-13-40.0000W |
| CHANNEL 12 NEWS WOODBURY | Heliport | NY75 | 16461.*H | 40-48-16.9000N | 073-29-22.6000W |
| CHAUTAUQUA LAKE AIRPARK | Airport | 65NY | 15658.*A | 42-17-02.2080N | 079-26-38.1670W |
| CHENANGO BRIDGE | Airport | 1NK8 | 14903.*A | 42-11-30.2730N | 075-50-28.6980W |
| CIRCLE K RANCH | Airport | NY65 | 14934.71*A | 43-08-14.2620N | 074-06-58.4680W |
| CLEARVIEW | Heliport | 87NY | 15174.11*H | 40-49-35.2000N | 072-44-45.4000W |
| CLICHE COVE | Seaplane Base | 00NK | 14882.01*C | 44-48-42.7000N | 073-22-11.3000W |
| CLOVERDALE FARM | Airport | NY91 | 15944.*A | 42-59-38.5000N | 075-42-10.0000W |
| CMC ATLANTIC LLC | Heliport | 9NY5 | 15908.1*H | 40-46-23.8000N | 072-57-37.9000W |
| COBBLE HILL | Airport | 49NK | 14829.*A | 42-47-35.9000N | 078-17-31.8000W |
| COCHRAN | Airport | NY92 | 15632.5*A | 42-26-18.3000N | 076-05-19.7000W |
| COLONIAL | Airport | NY24 | 15801.*A | 43-07-40.2000N | 078-58-12.1510W |
| COUNTRYMAN'S LANDING STRIP | Airport | NK01 | 14992.*A | 43-59-58.2440N | 075-36-17.6940W |
| COVE NECK | Heliport | 2NK2 | 15107.7*H | 40-53-01.3540N | 073-29-28.4400W |
| COYE FIELD | Airport | 30NY | 14975.8*A | 42-45-00.2320N | 077-33-28.9770W |
| CREEKSIDE | Airport | NY95 | 15423.*A | 42-54-58.2300N | 077-22-56.9570W |
| CUBA MEMORIAL HOSPITAL | Heliport | 37NY | 15121.012*H | 42-13-15.2400N | 078-15-59.0520W |
| CULVER AIRFIELD | Airport | 7NY4 | 15659.*A | 42-25-30.2610N | 076-42-53.8210W |
| CURTIS | Airport | NY62 | 16316.81*A | 43-08-40.2030N | 075-32-53.3970W |
| D'AMICO | Airport | NY13 | 15601.*A | 43-05-30.2300N | 076-59-25.8840W |
| DEER RUN | Airport | NY74 | 15108.1*A | 42-19-25.3060N | 073-52-23.4600W |
| DELAWARE VALLEY HOSPITAL | Heliport | 16NK | 16344.01*H | 42-09-44.4800N | 075-07-40.9000W |
| DEWITT | Heliport | NY21 | 16380.*H | 43-12-52.7688N | 077-31-22.9578W |
| DI STEFANO AIRPARK | Airport | 3NY4 | 15260.01*A | 42-55-19.2610N | 074-37-36.5130W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| DODGE (COPPOLA) WHEELER | Airport | NK53 | 16259.*A | 42-12-20.2690N | 076-46-13.8330W |
| DON KICHOTE | Airport | 21NK | 15720.*A | 42-33-10.0000N | 075-11-28.0000W |
| DON'S | Heliport | 27NY | 16340.41*H | 41-37-17.3300N | 074-14-32.5300W |
| DUFLO | Airport | NY10 | 15748.5*A | 43-50-33.2480N | 075-25-50.6650W |
| EAGLE NEST | Seaplane Base | NY61 | 14914.1*C | 43-50-24.34920N | 074-29-42.9576W |
| EAGLE RIDGE | Airport | NK09 | 14960.1*A | 42-24-20.2620N | 076-49-13.8410W |
| EASTERN LONG ISLAND | Heliport | NK48 | 15347.7*H | 41-06-35.0000N | 072-21-36.0000W |
| ELK CREEK | Airport | 47NY | 14923.*A | 42-02-42.0000N | 077-21-00.0000W |
| ELLENVILLE REGIONAL HOSPITAL | Heliport | | | 41-43-56.4162N | 074-22-43.8528W |
| ENGINEERS | Airport | NK82 | 15085.1*A | 43-18-57.2490N | 076-00-53.7100W |
| ERIE COUNTY MEDICAL CENTER | Heliport | 6NK5 | 14954.03*H | 42-55-30.5970N | 078-49-57.5034W |
| ESSEX BOATWORKS | Seaplane Base | NY83 | 15227.*C | 44-18-00.1840N | 073-20-58.4590W |
| EVANS AIRWAYS | Airport | 4NK3 | 15230.*A | 42-40-11.2434N | 078-58-10.6422W |
| EVERGREEN MOUNTAIN | Heliport | NY54 | 16413.*H | 42-11-34.0000N | 074-19-36.0000W |
| FAIRBANK FARMS | Airport | NY89 | 15491.1*A | 42-04-48.2040N | 079-23-29.1770W |
| FAXTON ST LUKES HEALTHCARE - ST LUKES CAMPUS | Heliport | NK34 | 16308.13*H | 43-05-46.2500N | 075-16-34.5970W |
| FISHER | Airport | 95NY | 16337.4*A | 42-47-21.2160N | 078-28-35.0760W |
| FLYING F | Airport | 78NY | 15930.01*A | 43-04-53.0000N | 078-46-46.0000W |
| FLYING K | Airport | 6NK8 | 15864.12*A | 43-00-33.2238N | 075-38-23.2836W |
| FOSTER FARM | Airport | 80NY | 16096.6*A | 40-55-23.0000N | 072-16-42.0000W |
| FOUR SEASONS | Airport | 19NY | 16005.*A | 42-24-22.2390N | 077-57-39.0100W |
| FOX HOLLOW | Heliport | 54NY | 16355.06*H | 41-18-09.7812N | 074-23-06.3672W |
| FREEPORT | Heliport | 58NY | 15271.*H | 40-39-02.0000N | 073-34-04.4630W |
| GAINES VALLEY AVIATION | Airport | NY06 | 14791.*A | 43-17-47.2090N | 078-12-50.0770W |
| GALWAY | Airport | NY37 | 15279.58*A | 43-00-33.2700N | 074-05-28.4600W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| GAR FIELD | Airport | 7NY1 | 15225.51*A | 42-45-48.2690N | 074-16-42.4660W |
| GARDINER | Airport | 5NY5 | 15281.*A | 41-40-30.9600N | 074-08-53.6800W |
| GE MANAGEMENT DEVELOPMENT INSTITUTE | Heliport | NK78 | 15873.8*H | 41-11-16.3800N | 073-52-05.8100W |
| GENERAL ELECTRIC R&D CENTER | Heliport | NK61 | 16118.01*H | 42-49-37.2760N | 073-52-28.4410W |
| GENTZKE AERONAUTICAL PARK | Airport | NY40 | 15423.5*A | 42-36-38.2200N | 078-35-44.0860W |
| GIBRALTAR | Heliport | NK58 | 15353.12*H | 42-43-57.2478N | 078-50-17.8224W |
| GILLETTE FIELD | Airport | | | 43-13-32.3004N | 077-50-28.7910W |
| GINNA SMOKY POINT | Heliport | | | 43-16-30.4854N | 077-18-30.9054W |
| GLENS FALLS HOSPITAL | Heliport | 10NK | 15309.02*H | 43-18-26.4100N | 073-38-46.3600W |
| GRACE'S LANDING | Airport | NY48 | 16211.*A | 42-20-17.2970N | 074-44-56.5600W |
| GRAMMAR | Airport | NK76 | 15293.*A | 42-52-57.0000N | 077-03-06.0000W |
| GRANVILLE | Airport | 01NK | 15322.*A | 43-25-22.9182N | 073-16-05.9586W |
| GRAY ROAD | Airport | | | 42-44-10.0314N | 074-04-08.2128W |
| GREENVILLE MOUNTAIN | Heliport | 4NY3 | 15979.5*H | 41-22-33.5316N | 074-36-47.7684W |
| GREIG FARM | Airport | 9NK4 | 16009.03*A | 42-01-27.5500N | 073-51-22.6500W |
| GRUND FIELD | Airport | NY55 | 15488.2*A | 42-26-50.2610N | 076-35-48.8020W |
| GUTHRIE CORNING HOSPITAL | Heliport | 8NY4 | 15100.7*H | 42-08-05.0000N | 076-58-14.0000W |
| H & H AVIATION SERVICE INC | Heliport | NK65 | 15250.5*H | 42-29-00.2150N | 079-04-39.1360W |
| HAMMERSLEY HILL | Heliport | 5NK7 | 15910.*H | 41-35-40.3300N | 073-33-21.4500W |
| HANSEN | Heliport | 02NY | 15157.51*H | 43-07-57.2460N | 075-39-19.6550W |
| HARRIS HILL Gliderport | Gliderport | 4NY8 | 15208.*G | 42-07-15.2670N | 076-54-03.8580W |
| HARVS | Airport | 4NK5 | 15605.*A | 43-07-14.2400N | 077-21-56.3300W |
| HAWKS FIELD | Airport | 8NY8 | 16307.08*A | 43-02-55.4700N | 075-17-32.4300W |
| HEALTH ALLIANCE MARY'S AVENUE | Heliport | 6NY9 | 15524.3*H | 41-55-15.3320N | 073-59-58.4990W |
| HEALTH SCIENCES CENTER UNV HOSPITAL | Heliport | 13NY | 16252.3*H | 40-54-27.3540N | 073-06-58.3920W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| HEDGE HOP FIELD | Airport | NK27 | 16242.*A | 42-29-20.2240N | 078-38-05.0900W |
| HEMLOCK RUN | Airport | 64NY | 16371.01*A | 42-22-00.6800N | 076-55-31.0100W |
| HENDERSHOT | Airport | 34NY | 15415.*A | 43-17-24.3100N | 077-49-38.3600W |
| HENDRICKS FIELD | Airport | NK16 | 15319.11*A | 44-22-05.2210N | 075-24-08.7700W |
| HENION PRIVATE FIELD | Airport | NK72 | 15487.3*A | 42-22-34.2630N | 076-31-56.7920W |
| HICKORY ACRES | Airport | NY88 | 15260.1*A | 42-53-00.2620N | 074-41-28.5200W |
| HIDDEN HILLS RANCH | Airport | NY33 | 15907.08*A | 43-06-33.6014N | 077-14-21.0369W |
| HIGH ACRES | Airport | 85NY | 16104.1*A | 42-34-42.2220N | 078-31-12.0770W |
| HIGH BANKS FARM LANDING AREA | Airport | 1NY4 | 16095.9*A | 44-37-03.1610N | 073-54-39.5190W |
| HIGH VIEW TOO | Heliport | 2NY2 | 15037.05*H | 41-20-58.8000N | 074-19-59.4000W |
| HILLTOP AIRPORT | Airport | 3NY9 | 15062.81*A | 42-39-52.0000N | 078-40-23.0000W |
| HILLTOP HELIPORT | Heliport | NY30 | 15713.21*H | 41-40-08.3230N | 074-45-26.5850W |
| HINES FIELD | Airport | 9NY7 | 15943.02*A | 43-01-58.2660N | 074-09-03.4690W |
| HISERTS AIRPARK INC | Airport | 3NY7 | 15220.*A | 42-59-03.8200N | 074-31-09.9600W |
| HOGAN | Airport | NY05 | 15225.5*A | 42-46-53.2680N | 074-19-32.4730W |
| HOP HOUSE AIRPARK | Airport | 11NK | 15260.03*A | 42-54-50.0000N | 074-36-42.0000W |
| HOPEWELL AIRPARK | Airport | 90NY | 14978.2*A | 42-55-10.2300N | 077-14-34.0000W |
| HUNTER MOUNTAIN | Airport | 97NY | 15467.*A | 42-14-03.3130N | 074-14-15.5160W |
| HUNTINGTON EMERGENCY HELISTOP | Heliport | 1NK9 | 15469.*H | 40-53-02.3530N | 073-25-22.4320W |
| HURLBUT FIELD | Airport | NY07 | 14982.*A | 44-32-45.0000N | 075-09-40.0000W |
| HUT HAVEN | Seaplane Base | 77NY | 16435.*C | 43-20-15.7200N | 076-43-36.2100W |
| IWAN AIRFIELD | Airport | 7NY8 | 14805.52A | 42-57-49.0000N | 074-07-31.0000W |
| JERRY PHIBBS | Airport | NK43 | 14789.5*A | 42-45-16.9900N | 073-55-15.0700W |
| JOHN GONZALES FIELD | Airport | NY69 | 14984.*A | 44-07-12.1860N | 076-18-04.7860W |
| JOHNSON | Airport | NY50 | 15943.03*A | 42-59-30.0000N | 074-08-10.0000W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| JOHNSON LANDING STRIP | Airport | 11NY | 15690.14*A | 41-49-09.0800N | 073-38-35.6100W |
| JOLAMTRA LANDING AREA | Airport | 23NY | 14860.1*A | 42-16-47.2610N | 077-20-23.9290W |
| KAYUTAH LAKE | Airport | 2NY9 | 14798.*A | 42-22-12.2640N | 076-43-20.8230W |
| KENNEDY AIRFIELD | Airport | 9NY4 | 15516.5*A | 42-06-03.0000N | 079-04-54.5400W |
| KERMIZIAN | Airport | 0NY3 | 15851.4*A | 43-18-50.2470N | 074-55-55.5640W |
| KEYSA | Airport | NY79 | 14908.*A | 42-35-48.2220N | 078-20-25.0570W |
| KING STREET | Heliport | 0NK7 | 14823.11*H | 41-06-09.0000N | 073-43-34.0000W |
| KLAVERACK | Airport | 04NY | 15457.11*A | 42-15-44.3130N | 073-41-46.4390W |
| KLENAWICUS AIRFIELD | Airport | NY03 | 16175.11*A | 41-04-16.0896N | 072-19-36.9366W |
| KNAPP | Airport | 6NK0 | 16120.*A | 42-35-45.0000N | 074-49-14.0000W |
| KNOWLESVILLE | Airport | NY01 | 15530.*A | 43-13-15.2100N | 078-18-54.0820W |
| KOLO'S | Airport | | | 42-23-31.9308N | 077-15-04.3410W |
| LAKESIDE | Heliport | 70NY | 15684.04*H | 41-25-19.3900N | 074-34-17.3100W |
| LAKESTONE FARM | Airport | NY11 | 15605.01*A | 43-02-07.2270N | 077-18-28.9480W |
| LAKEVIEW SHOCK INCARCERATION CENTER | Heliport | NY99 | 14936.6*H | 42-24-26.2070N | 079-26-26.1650W |
| LAKEVILLE | Airport | NY15 | 15544.3*A | 42-49-35.2270N | 077-42-52.0000W |
| LANDMARK PLAZA | Heliport | 2NK8 | 16433.5*H | 40-46-55.3650N | 073-49-32.4830W |
| LASKA | Airport | 3NK4 | 15491.3*A | 42-01-40.2090N | 079-11-39.1720W |
| LEWIS FIELD | Airport | NY66 | 14934.72*A | 43-07-48.7338N | 074-07-30.1008W |
| LEWIS LANDING | Airport | NK79 | 16191.7*A | 41-24-24.0000N | 074-31-59.0000W |
| LIFENET 7-2 GLEN | Heliport | | | 42-52-56.7186N | 074-20-48.5592W |
| LIGHTNING TREE FARM | Heliport | 4NK7 | 15690.12*H | 41-49-54.3300N | 073-39-34.4500W |
| LINUO AMERICAN CAMPUS | Heliport | 3NK3 | 15434.03*H | 41-32-01.3360N | 073-50-01.4830W |
| LITTLE FALLS EMS | Heliport | NK14 | 15572.2*H | 42-02-27.1638N | 074-50-11.9898W |
| LONG ACRE FARMS | Airport | 23NK | 15605.02*A | 43-06-45.0000N | 077-18-45.0000W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| LOUCKS | Airport | 25NK | 15365.*A | 42-26-10.2500N | 077-07-55.8900W |
| LUTHER | Airport | NK51 | 15038.1*A | 43-01-45.2410N | 075-50-43.6840W |
| M & M AIRFIELD | Airport | NY53 | 16040.18*A | 43-11-01.6500N | 075-24-04.5800W |
| MANITOU FIELD | Airport | 91NY | 16239.5*A | 43-11-44.2210N | 077-44-53.0230W |
| MARCELLUS | Airport | NK71 | 15634.*A | 43-00-40.2370N | 076-20-58.7530W |
| MARIAVILLE AERODROME | Airport | 8NY5 | 15148.1*A | 42-49-13.2700N | 074-08-53.4600W |
| MASON AIRWAY | Airport | 9NY6 | 16282.*A | 42-19-29.2990N | 074-59-10.5840W |
| MASSARO | Heliport | 96NY | 14990.5*H | 41-22-58.0000N | 073-44-18.0000W |
| MATCH MATE | Airport | NK74 | 14834.2*A | 42-44-40.2530N | 076-39-48.8070W |
| MATEJKA FIELD | Airport | NK54 | 15225.*A | 42-10-36.2680N | 076-38-27.8120W |
| MAXSON AIRFIELD | Airport | 89NY | 14795.2*A | 44-18-44.9706N | 075-53-58.7934W |
| MAYNARDS | Airport | 56NY | 15516.*A | 43-19-31.2110N | 078-02-59.0610W |
| MD1 | Ultralight Base | 08NY | 15684.02*A | 41-22-02.1252N | 074-31-08.1372W |
| MEDICAL CENTER (Nassau University Medical Center) | Heliport | 0NK4 | 15398.01*H | 40-43-33.3620N | 073-33-13.4550W |
| MEDINA MEMORIAL HOSPITAL | Heliport | NY90 | 15660.02*H | 43-13-19.7300N | 078-23-50.5900W |
| MEERWARTH | Airport | 6NK2 | 16430.*A | 42-57-02.0000N | 073-20-05.0000W |
| MERKLE | Airport | NK87 | 15046.39*A | 43-03-49.5036N | 078-36-41.1768W |
| MESMER AIRPORT | Airport | NY49 | 15800.05*A | 42-59-34.0000N | 078-59-11.0000W |
| MEXICO AIRDROME | Airport | NY96 | 15670.*A | 43-25-36.2490N | 076-11-37.7370W |
| MIDHUDSON REGIONAL HOSPITAL OF WESTCHESTER MEDICAL CENTER | Heliport | NK96 | 15989.22*H | 41-43-07.3360N | 073-55-38.4930W |
| MISTER DOG | Seaplane Base | 8NK8 | 14916.9*C | 43-33-54.0000N | 073-36-31.0000W |
| MOHAWK AIR PARK | Airport | 27NK | 16130.4*A | 43-06-47.9400N | 075-02-40.0800W |
| MOHAWK AVIATION CENTER | Airport | NY23 | 15705.*A | 42-59-15.2550N | 074-57-59.5570W |
| MORIN | Airport | 7NK7 | 16176.5*A | 42-42-19.0000N | 075-31-55.0000W |
| MOSES LUDINGTON HOSPITAL | Heliport | 69NY | 16277.2*H | 43-50-57.5000N | 073-26-11.1000W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| MOUNTAIN FRESH FARM | Heliport | 8NY2 | 15692.*H | 41-41-05.3360N | 073-59-36.5020W |
| MOUNTAIN TOP | Airport | NY02 | 15126.5*A | 42-29-15.9300N | 074-46-44.9900W |
| MOUNTAIN VIEW AIRPARK | Airport | 4NY0 | 14882.2*A | 44-40-08.1550N | 073-32-46.4920W |
| MT VIEW | Heliport | NY43 | 16111.*H | 42-09-23.8300N | 073-59-56.4000W |
| MURPHY FIELD | Airport | 06NY | 14834.02*A | 42-50-15.4392N | 076-26-19.2480W |
| MURPHYS LANDING STRIP | Airport | 0NY7 | 15943.*A | 43-02-15.2650N | 074-11-03.4720W |
| NASSAU COUNTY POLICE | Heliport | 8NY9 | 14897.*H | 40-44-44.0262N | 073-29-26.5086W |
| NELLIS FIELD | Airport | NY20 | 15260.*A | 42-57-47.7030N | 074-40-59.4948W |
| NENO | Airport | NY18 | 15487.*A | 42-26-55.2610N | 076-37-00.8050W |
| NETTIES PLACE | Airport | NK83 | 15994.41*A | 42-42-36.2710N | 074-13-25.4670W |
| NEVERLAND | Airport | NY76 | 14999.01*A | 42-18-56.4000N | 078-53-43.2000W |
| NEW SALEM AERODROME | Airport | 74NY | 15236.5*A | 43-00-20.2200N | 077-17-28.9600W |
| NEW YORK STATE D E C INDIAN LAKE | Heliport | 6NK6 | 15474.*H | 43-46-05.0000N | 074-15-48.0000W |
| NEW YORK STATE POLICE (Auburn) | Heliport | 0NY6 | 14834.*H | 42-55-42.2400N | 076-36-55.8000W |
| NIAGARA FALLS MEMORIAL PARKING RAMP | Heliport | NK77 | 15800.02*H | 43-05-38.2000N | 079-03-04.1590W |
| NINE MILE POINT | Heliport | | | 43-31-08.6730N | 076-24-10.8930W |
| NORTH FORK | Airport | 8NY3 | 14784.*A | 42-16-07.2400N | 075-33-35.0000W |
| NORTH SHORE UNIVERSITY HOSPITAL | Heliport | 7NY3 | 15620.21*H | 40-46-41.1000N | 073-42-06.8000W |
| NORTH SHORE UNIVERSITY HOSPITAL Nr 2 | Heliport | 6NK3 | 15620.22*H | 40-46-30.7700N | 073-41-59.4100W |
| NORTHWAY | Airport | NY97 | 15725.*A | 44-40-00.1550N | 073-33-58.4940W |
| NY STATE POLICE - TROOP T | Heliport | NK33 | 14789.2*H | 42-37-00.2860N | 073-46-58.4370W |
| NYPD AIR OPERATIONS (FLOYD BENNETT FIELD) | Heliport | NY22 | 15791.*H | 40-35-26.5668N | 073-52-46.5060W |
| OAK RIDGE | Airport | NY16 | 15177.*A | 43-05-54.2280N | 077-10-54.9250W |
| OCONNOR HOSPITAL | Heliport | | | 42-16-05.6388N | 074-55-01.5780W |
| OISHEI CHILDRENS HOSPITAL | Heliport | 1NY2 | 14954.lO*H | 42-54-03.6900N | 078-52-04.3600W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| OLD FORGE | Airport | NK26 | 15855.*A | 43-43-30.6600N | 074-58-34.3800W |
| OLD FORT FARM | Airport | 50NY | 15397.3*A | 42-48-52.2300N | 077-34-23.9820W |
| OLD ORCHARD AIRPARK | Airport | 2NK9 | 15700.*A | 41-39-28.9400N | 074-04-37.7100W |
| OLD PORT ROYAL | Airport | 6NY1 | 15100.*A | 42-06-44.2794N | 077-05-35.2746W |
| OLD RHINEBECK | Airport | NY94 | 16014.1*A | 41-58-11.4000N | 073-51-52.4000W |
| OLEAN GENERAL | Heliport | 5NK4 | 15857.01*H | 42-05-30.0000N | 078-25-40.0000W |
| ONE POLICE PLAZA | Heliport | NK39 | 15782.1*H | 40-42-44.1864N | 074-00-06.2748W |
| ONEIDA LAKE STRIP | Airport | 8NY7 | 15864.15*A | 43-10-08.6000N | 75-42-20.6000W |
| ONONDAGA COUNTY SHERIFFS DEPARTMENT | Heliport | NK55 | 14972.01*H | 43-05-06.2400N | 076-17-13.4450W |
| ORANGE POULTRY FARM | Airport | 4NY1 | 15037.*A | 41-19-40.3380N | 074-19-28.5470W |
| ORANGE REGIONAL MEDICAL CENTER | Heliport | 6NY0 | 15684.05*H | 41-26-31.8100N | 074-22-00.1200W |
| OSWEGO COUNTY HELIPORT AT PULASKI | Heliport | 05NY | 15992.01*H | 43-33-07.2500N | 076-05-24.7240W |
| OWASCO | Airport | 92NK | 15718.5*A | 42-44-11.7950N | 076-29-11.2050W |
| OWEGO | Heliport | NK49 | 15887.03*H | 42-06-10.2670N | 076-13-16.7510W |
| PALISADES CONFERENCE CENTER | Heliport | 7NY7 | 15871.*H | 41-01-07.3500N | 073-55-03.4900W |
| PAPP AIRPARK | Airport | 16NY | 15251.9*A | 43-15-06.8200N | 073-33-47.3600W |
| PARADISE | Airport | NY42 | 16007.*A | 43-13-12.2400N | 076-41-23.8210W |
| PARKERS LANDING | Heliport | NK38 | 15281.1*H | 41-39-16.3360N | 074-08-25.5220W |
| PECONIC BAY MEDICAL CENTER | Heliport | | | 40-56-06.2556N | 072-40-25.2660W |
| PHILLIPSBURG LANDING | Heliport | NY93 | 15684.03*H | 41-25-56.4000N | 074-21-54.6000W |
| POOLSBROOK AERODROME | Airport | NY72 | 15625.*A | 43-04-20.2410N | 075-56-18.7000W |
| PORT JERVIS FIRE DEPARTMENT | Heliport | NY08 | 15979.4*H | 41-22-37.3370N | 074-40-33.5850W |
| POTOCZAK | Airport | NK19 | 15046.4*A | 43-03-40.2080N | 078-39-41.1070W |
| POUGHKEEPSIE MAIN PLANT | Heliport | 9NY9 | 15989.23*H | 41-39-00.3360N | 073-56-58.4960W |
| PRIVATE SEALANES - JAMAICA BAY | Seaplane Base | NK30 | 14939.03*C | 40-36-19.2000N | 073-54-08.4000W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| QUAKER VALLEY FARM | Heliport | 13NK | 15910.02*H | 41-35-51.0000N | 073-31-53.4000W |
| RABBIT LANE | Airport | NY31 | 15945.9*A | 43-13-25.2450N | 076-22-07.7600W |
| RAINBOW AIR | Heliport | NK80 | 15800.03*H | 43-05-20.2000N | 079-03-44.1600W |
| RANDALL'S ROOST | Airport | NY34 | 14971.73*A | 42-09-44.0100N | 077-25-39.0600W |
| RE-DUN FIELD | Airport | 17NK | 16005.3*A | 42-27-25.0000N | 076-57-03.0000W |
| REGENERON CAMPUS | Heliport | NK40 | 15821.7*H | 41-06-46.1100N | 073-51-46.2200W |
| REISS GAME FARM | Airport | 75NY | 15857.2*A | 42-07-08.0466N | 078-18-45.3636W |
| RICHLAND AIRPARK | Airport | 1NY3 | 16017.*A | 43-34-22.2250N | 076-02-25.7100W |
| RIDGE | Heliport | 26NK | 15366.8*H | 41-25-19.0000N | 074-14-51.0000W |
| RIDGE ROAD WEST | Airport | 7NK4 | 16239.52*A | 43-13-21.2100N | 077-48-38.0300W |
| RIDGEVIEW | Airport | 55NY | 15491.2*A | 42-04-55.2060N | 079-18-44.1760W |
| RITCHIE AIRFIELD | Airport | 28NK | 15049.6*A | 44-11-13.0000N | 076-04-35.0000W |
| RIVEREDGE AIRPARK | Airport | 19NK | 15009.11*A | 43-14-38.0000N | 076-09-10.0000W |
| ROBINS ISLAND SOUTH | Heliport | NY45 | 16210.5*H | 40-57-46.0000N | 072-27-24.0000W |
| ROCHESTER GENERAL HOSPITAL | Heliport | | | 43-11-35.6094N | 77-35-16.0944W |
| ROSE FIELD | Airport | 2NK3 | 15873.5*A | 41-09-06.0700N | 072-15-59.6640W |
| ROXBURY RUNWAY | Airport | 1NK0 | 16049.*A | 42-17-50.3040N | 074-32-53.5460W |
| RUSSELL | Airport | NY51 | 14977.*A | 42-52-12.2650N | 074-29-57.4960W |
| S J M LANDING | Heliport | 32NY | 16357.*H | 41-25-47.5782N | 074-12-57.8520W |
| SAFE FLIGHT INSTRUMENT CORP | Heliport | NK84 | 16433.01*H | 41-04-53.6664N | 073-42-46.8108W |
| SAMARITAN MEDICAL CENTER | Heliport | 60NY | 16367.02*H | 43-58-20.0000N | 075-54-30.0000W |
| SARATOGA - NYRA OKLAHOMA COURSE | Heliport | | | 43-04-41.4654N | 073-45-48.5706W |
| SARATOGA HOSPITAL | Heliport | 7NK2 | 16100.21*H | 43-05-09.9100N | 073-48-07.0600W |
| SARATOGA MEDICAL PARK | Heliport | 8NK3 | 16100.23*H | 42-58-23.5400N | 073-48-16.8000W |
| SAVANNAH | Airport | 46NY | 16112.*A | 43-01-07.6800N | 076-45-39.6000W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| SCHOELLIG | Airport | | | 42-40-57.6978N | 075-07-54.0366W |
| SCHUYLER | Airport | NY29 | 16370.2*A | 42-27-07.2590N | 076-54-41.8580W |
| SCOTT'S SKY RANCH | Airport | NY70 | 15726.61*A | 42-38-56.0000N | 077-55-13.0000W |
| SEATUCK COVE | Heliport | 1NY1 | 15178.01*H | 40-49-00.3800N | 072-43-50.8100W |
| SECRET SPOT | Airport | 3NK5 | 15957.02*A | 44-37-00.0000N | 073-27-55.0000W |
| SEVEN GULLIES | Airport | 0NK3 | 15351.*A | 42-41-45.2290N | 077-47-32.0000W |
| SEVENTH LAKE | Seaplane Base | NK15 | 15476.5*C | 43-44-34.0000N | 074-45-43.0000W |
| SHEELEY'S FARM | Airport | NK08 | 15412.*A | 41-49-54.3340N | 074-07-47.5170W |
| SHERWOOD FARM | Airport | 7NY6 | 15500.*A | 42-53-37.2790N | 073-30-28.4120W |
| SILVERNAILS FIELD | Airport | 82NY | 15279.51*A | 42-00-05.0000N | 073-40-16.0000W |
| SIX PONDS | Airport | 3NY6 | 15148.01*A | 42-50-28.2600N | 074-10-43.4600W |
| SKYVIEW | Airport | 84NY | 16052.*A | 42-59-10.2260N | 077-36-44.9980W |
| SLATE HILL | Heliport | 2NY6 | 15684.01*H | 41-22-32.3472N | 074-30-51.7644W |
| SMITH FIELD (Cambria Airfield) | Airport | | | 43-11-38.7702N | 78-47-57.7494W |
| SMITHS LAND BASE | Airport | 53NY | 15428.11*A | 42-57-30.2270N | 077-36-56.9960W |
| SNYDER'S LAKE | Seaplane Base | NK13 | 16471.*C | 42-39-30.2850N | 073-38-18.4210W |
| SOMERS | Heliport | NY44 | 16202.*H | 41-19-01.3390N | 073-40-47.4680W |
| SOUTH BUFFALO MERCY HOSPITAL | Heliport | 8NY6 | 14954.04*H | 42-50-50.0000N | 078-48-42.0000W |
| SOUTH CAIRO | Airport | 4NY7 | 16205.72*A | 42-19-45.0000N | 073-57-39.0000W |
| SOUTH DAYTON | Airport | NY27 | 16208.*A | 42-22-15.2180N | 079-00-34.1370W |
| SOUTH QUAKER | Heliport | 5NK8 | 15910.01*H | 41-31-37.0000N | 073-34-50.0000W |
| SPAUDLING AERODROME | Airport | 28NY | 14995.*A | 42-18-22.4202N | 079-13-41.6964W |
| SPRING LAKE FIRE DEPARTMENT | Heliport | 09NY | 15524.21*H | 41-55-25.7514N | 074-02-33.9720W |
| ST BERNARD FIELD | Airport | 94NY | 16296.*A | 42-49-30.2470N | 076-41-28.8140W |
| ST ELIZABETH HOSPITAL | Heliport | 71NY | 16308.12*H | 43-04-56.0000N | 075-15-56.5940W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| ST LUKES CORNWALL HOSPITAL | Heliport | 84NK | 15101.*H | 41-26-04.5000N | 074-02-28.0000W |
| ST LUKES CORNWALL HOSPITAL-NEWBURGH | Heliport | 8NK5 | 15749.2*H | 41-30-12.4100N | 074-00-53.1800W |
| ST MARYS HOSPITAL ELEVATED | Heliport | NK50 | 14805.51*H | 42-57-16.4160N | 074-12-59.0256W |
| STAFFORD | Airport | 20NY | 16247.01*A | 43-00-32.0000N | 078-02-35.0000W |
| STANTON | Airport | NY35 | 15769.*A | 41-45-09.0606N | 074-06-54.4854W |
| STATE POLICE TROOP K | Heliport | 7NY5 | 15690.11*H | 41-46-58.1766N | 073-45-09.6840W |
| STATEN ISLAND UNIVERSITY HOSPITAL | Heliport | NY52 | 16248.6*H | 40-35-03.1446N | 074-04-59.7612W |
| STRIP IN THE WOODS | Airport | 18NY | 16465.*A | 42-00-59.3300N | 074-02-56.5020W |
| STRONG MEMORIAL HOSPITAL | Heliport | 2NY5 | 16034.01*H | 43-07-20.2240N | 077-37-22.0440W |
| SUNSIDE | Airport | 74NK | 16205.73*A | 42-19-38.0000N | 074-03-47.0000W |
| SUNTIME | Airport | 8NK6 | 16401.5*A | 42-42-47.0000N | 075-10-06.0000W |
| SUSQUEHANNA | Heliport | 9NY3 | 15887.02*H | 42-05-50.2670N | 076-13-28.7520W |
| T & C ACRES | Airport | 12NY | 16016.20*A | 42-53-02.5000N | 074-55-52.8400W |
| TALMAGE FIELD | Airport | 03NY | 16026.12*A | 40-57-30.3540N | 072-43-00.3540W |
| TAMARACK ACRES | Airport | 38NK | 15352.*A | 42-59-30.2400N | 074-09-11.5000W |
| TECH CITY PROPERTIES | Heliport | 6NY8 | 15524.2*H | 41-58-24.3310N | 073-59-50.4970W |
| TETZ LANDING | Heliport | NK23 | 14911.01*H | 41-32-55.2000N | 074-28-11.0000W |
| THE MORICHES BAY | Heliport | 51NK | 15174.13*H | 40-47-57.6000N | 072-45-46.8000W |
| THE PINES | Airport | NY64 | 14934.7*A | 43-06-10.2630N | 074-09-18.4710W |
| THE RANCH | Airport | 3NY0 | 15018.*A | 42-49-38.2670N | 074-24-14.4840W |
| THIBERT FIELD | Airport | 68NK | 15725.5*A | 44-34-02.5800N | 075-38-18.0000W |
| THOMAS E PERDUE (Massena Memorial Hospital) | Heliport | NK75 | 15647.01*H | 44-56-12.2640N | 074-54-32.7810W |
| TIGER PAW AERODROME | Airport | 35NK | 15600.*A | 43-22-15.1800N | 078-24-51.9000W |
| TILDEN | Airport | NK24 | 15716.*A | 42-20-50.2640N | 076-52-43.8520W |
| TLI | Heliport | NK90 | 15873.81*H | 41-08-42.3430N | 073-52-06.4880W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| TOGGENBURG FARMS | Airport | 5NK1 | 15748.1*A | 43-06-40.2300N | 077-03-13.8900W |
| TOM N' JERRY | Airport | NK05 | 15123.5*A | 42-21-17.2640N | 076-30-57.7900W |
| TOMAHAWK HILLS | Airport | 5NY1 | 15668.*A | 42-23-59.2910N | 074-54-22.5730W |
| TOWNER FARM | Airport | 2NY7 | 14783.3*A | 42-07-17.2650N | 077-12-40.9120W |
| TRACY FIELD | Airport | 4NK2 | 15349.51*A | 43-08-42.8400N | 073-25-10.7400W |
| TREICHLER FARM | Airport | 5NK9 | 16337.28*A | 42-45-42.0000N | 078-29-46.0000W |
| TROOP A HEADQUARTERS | Heliport | 22NY | 14858.3*H | 43-01-52.8666N | 078-11-11.4468W |
| TROOP B HEADQUARTERS | Heliport | NK11 | 16095.91*H | 44-18-04.6578N | 074-04-46.7250W |
| TROOP E | Heliport | 31NY | 14978.3*H | 42-57-29.3754N | 077-20-30.5298W |
| TURNBULL | Airport | 48NY | 14909.20*A | 42-53-44.3300N | 077-23-49.0600W |
| TURNING STONE RESORT & CASINO | Heliport | 45NY | 16316.82*H | 43-06-38.0500N | 075-35-37.1700W |
| TUSCARORA PLATEAU | Airport | 3NK6 | 16293.*A | 42-38-13.2290N | 077-53-02.0060W |
| UHS CHENANGO MEMORIAL HOSPITAL | Heliport | 9NK2 | 15836.24*H | 42-32-31.9000N | 075-31-36.5000W |
| ULSTER HEIGHTS KINGDOM | Heliport | NY14 | 15201.21*H | 41-45-18.0000N | 074-27-31.0000W |
| ULTRALIGHT FLIGHT FARM | Ultralight Base | NK89 | 15709.*U | 42-17-30.2660N | 077-03-28.8850W |
| ULTRALIGHT PORT | Ultralight Base | 67NY | 15573.*U | 42-17-56.93940N | 078-47-22.2066W |
| UNITY HOSPITAL | Heliport | 55NK | 16030.33*H | 43-11-34.0000N | 077-42-13.0000W |
| UPSTATE MEDICAL UNIVERSITY HOSPITAL | Heliport | 75NK | 16267.24*H | 43-02-32.3600N | 076-08-21.7000W |
| VALLEYVIEW | Airport | | 16368.*A | 42-55-17.2510N | 075-24-50.6190W |
| VAMC | Heliport | 26NY | 15820.5*H | 40-53-28.5900N | 073-18-32.5300W |
| VASILE FIELD | Airport | NY60 | 14882.1*A | 44-45-45.1460N | 073-33-33.4950W |
| VASSAR HOSPITAL | Heliport | 01NY | 15989.24*H | 41-41-32.6700N | 073-56-12.5400W |
| VIRGIL EXCAVATION | Heliport | NY39 | 16030.3*H | 43-07-51.3798N | 077-43-59.6598W |
| WAGSTAFF | Heliport | 1NK4 | 16410.*H | 40-41-12.3580N | 073-18-15.4280W |
| WALLS | Airport | NY19 | 15198.*A | 43-02-35.5272N | 076-27-39.0672W |

| Facility Name | Type | Loc ID | FAA Site # | Latitiude | Longitude |
|---|---|---|---|---|---|
| WALTER'S FIELD | Airport | 42NY | 15167.6*A | 42-40-08.4000N | 076-03-22.2000W |
| WANDERVOGEL | Gliderport | NY77 | 15130.2*G | 42-43-05.2720N | 074-09-48.4620W |
| WAYNE DELP | Airport | 33NY | 16401.7*A | 42-23-58.2990N | 073-51-58.4560W |
| WCA HOSPITAL | Heliport | 4NK0 | 15491.01*H | 42-05-31.9986N | 079-13-53.2920W |
| WEISS AIRFIELD | Airport | 00NY | 16401.12*A | 42-53-47.1006N | 077-29-41.5494W |
| WEST TOWNSHIP | Airport | 6NY4 | 15531.*A | 42-42-01.2730N | 074-09-18.4640W |
| WESTCHESTER MEDICAL CENTER | Heliport | 7NK8 | 16312.*H | 41-05-05.6400N | 073-48-19.2100W |
| WESTCHESTER RESCO | Heliport | 2NK4 | 15916.1*H | 41-16-38.3380N | 073-56-25.4990W |
| WESTFIELD MEMORIAL HOSPITAL | Heliport | 9NY2 | 16406.11*H | 42-19-46.2080N | 079-34-14.1690W |
| WESTHAMPTON BEACH | Heliport | 5NK3 | 16408.02*H | 40-48-04.5144N | 072-39-30.0666W |
| WESTMORELAND | Airport | 49NY | 16175.*A | 41-03-20.4192N | 072-21-37.7490W |
| WESTPORT | Airport | 12NK | 16424.*A | 44-09-30.1900N | 073-25-58.4560W |
| WESTWIND FARM | Airport | 0NK2 | 15023.*A | 42-58-45.6270N | 074-01-15.9816W |
| WHITE BIRCH FIELD | Airport | NK68 | 15368.*A | 42-03-05.1120N | 075-18-59.7600W |
| WILSON MEMORIAL REGIONAL MEDICAL CENTER | Heliport | 9NY1 | 15495.*H | 42-06-48.2700N | 075-57-30.7120W |
| WINCHELL MOUNTAIN | Airport | 41NK | 15819.*A | 41-56-52.0000N | 073-31-05.0000W |
| WINDY'S | Heliport | 14NY | 15663.*H | 40-47-51.3300N | 073-25-04.3900W |
| WOODFORD AIRFIELD | Airport | 4NK4 | 15232.*A | 42-49-38.0000N | 076-01-33.0000W |
| WYETH AYERST | Heliport | NY47 | 15912.*H | 41-04-39.0000N | 074-01-29.0000W |
| YORKTOWN HELIPAD | Heliport | 7NY9 | 16476.*H | 41-12-43.0000N | 073-48-12.0000W |
| ZELAZNY | Airport | 88NY | 16173.*A | 43-09-28.2110N | 078-21-30.0810W |

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# Appendix D

## Automated Weather Stations and Features

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| SASP | Automated Airport Weather Stations | | | | | |
|---|---|---|---|---|---|---|
| Category | ID | Location | County | Type | Frequency | Phone |
| 1 | KSLK | Adirondack Regional | Franklin | ASOS | 124.175 | (518) 891-6696 |
| 1 | KALB | Albany International | Albany | ASOS | **ATIS** - 120.45 | (518) 464-6423 |
| 2 | KHWV | Brookhaven Airport | Suffolk | ASOS | 119.625 | (631) 399-7095 |
| 1 | KBUF | Buffalo Niagara International | Erie | ASOS | **ATIS** - 135.35 | (716) 635-0532 |
| 3 | KDKK | Chautauqua County / Dunkirk | Chautauqua | ASOS | 119.275 | (716) 366-7664 |
| 3 | KDSV | Dansville Municipal Airport | Livingston | ASOS | 118.325 | (585) 335-2380 |
| 2 | KPOU | Dutchess County Airport | Dutchess | ASOS | **ATIS** - 126.75 | (845) 462-0648 |
| 1 | KELM | Elmira - Corning Regional Airport | Chemung | ASOS | **ATIS** - 125.475 | (607) 796-0065 |
| 2 | KGFL | Floyd Bennett Memorial Airport | Warren | ASOS | 119.925 | (518) 743-1728 |
| 2 | KFOK | Francis S Gabreski Airport | Suffolk | ASOS | 119.925 | (631) 288-0588 |
| 1 | KBGM | Greater Binghamton | Broome | ASOS | **ATIS** - 128.15 | (607) 729-8335 |
| 1 | KROC | Greater Rochester | Monroe | ASOS | **ATIS** - 124.825 | (585) 235-7322 |
| 2 | KRME | Griffiss International | Oneida | ASOS | **ATIS** - 118.7 | (315) 334-4360 |
| 1 | KJFK | John F. Kennedy International | Queens | ASOS | **ATIS** - 128.725 | (718) 656-0956 |
| 1 | KLGA | LaGuardia Airport | Queens | ASOS | **ATIS** - 125.95 | (718) 672-6317 |
| 1 | KISP | Long Island MacArthur Airport | Suffolk | ASOS | **ATIS** - 128.45 | (631) 471-0690 |
| 1 | KMSS | Massena International | Saint Lawrence | ASOS | 128.075 | (315) 764-0481 |
| 1 | KIAG | Niagara Falls International | Niagara | ASOS | **ATIS** - 120.8 | (716) 297-6984 |
| 2 | KMGJ | Orange County Airport | Orange | ASOS | 119.275 | (845) 457-1486 |
| 2 | KFZY | Oswego County Airport | Oswego | ASOS | 119.275 | (315) 598-8773 |
| 3 | KPEO | Penn Yan Airport | Yates | ASOS | 121.175 | (315) 536-4102 |
| 1 | KPBG | Plattsburgh International | Clinton | ASOS | 133.525 | (518) 324-5207 |
| 2 | KFRG | Republic Airport | Nassau | ASOS | **ATIS** - 126.65 | (631) 752-8129 |
| 1 | KSYR | Syracuse Hancock International | Onondaga | ASOS | **ATIS** - 124.225 | (315) 455-3444 |
| 1 | KART | Watertown International | Jefferson | ASOS | 133.525 | (315) 639-4002 |
| 3 | KELZ | Wellsville Municipal | Allegany | ASOS | 119.275 | (585) 593-0203 |
| 1 | KHPN | Westchester County Airport | Westchester | ASOS | **ATIS** - 133.8 | (914) 288-0216 |
| 3 | K1B1 | Columbia County Airport | Columbia | AWOS III | 133.525 | (518) 828-2577 |
| 3 | KN03 | Cortland County - Chase Field | Cortland | AWOS III | 133.225 | (607) 753-9784 |
| 3 | 0G7 | Finger Lakes Regional Airport | Seneca | AWOS III * | 120.0 | (315) 568-5362 |
| 3 | NY0 | Fulton County Airport | Fulton | AWOS III | 119.275 | (845) 457-1486 |
| 3 | KOIC | Lt Warren Eaton Airport | Chenango | AWOS III | 119.025 | (607) 336-8583 |
| 3 | KPTD | Potsdam Municipal Airport | Saint Lawrence | AWOS III | 118.325 | (315) 265-6106 |
| 2 | K5B2 | Saratoga County Airport | Saratoga | AWOS III | 132.025 | (518) 884-9289 |
| 2 | KSCH | Schenectady County Airport | Schenectady | AWOS III | 119.275 | (518) 399-6586 |
| 3 | KCZG | Tri-Cities Airport | Broome | AWOS III | 119.075 | (607) 785-2926 |
| 3 | SDC | Williamson-Sodus Airport | Wayne | AWOS III * | 124.2 | (315) 483-6171 |
| 3 | KD38 | Canandaigua Airport | Ontario | AWOS IIIP | 118.675 | (585) 396-5861 |
| 3 | KOLE | Cattaraugus County-Olean Airport | Cattaraugus | AWOS IIIP | 118.375 | (716) 557-2001 |
| 3 | VGC | Hamilton Municpal Airport | Madison | AWOS IIIP * | 119.425 | (315) 824-1825 |
| 3 | KHTF | Hornell Municipal Airport | Steuben | AWOS IIIP | 118.475 | (607) 324-9138 |
| 3 | KN66 | Oneonta Municipal Airport | Otsego | AWOS IIIP | 119.575 | (607) 643-0253 |
| 3 | KN23 | Sidney Municipal Airport | Delaware | AWOS IIIP | 118.275 | (607) 561-2333 |
| 1 | KJHW | Chautauqua County / Jamestown | Chautauqua | AWOS IIIP/T | 118.425 | (716) 664-6005 |
| 2 | KJRB | Downtown Manhattan - Wall Street Heliport | New York | AWOS IIIP/T | 128.175 | (212) 425-1534 |
| 2 | KHTO | East Hampton Airport | Suffolk | AWOS IIIP/T | 118.075 | (631) 537-2527 |
| 2 | KGVQ | Genesee County Airport | Genesee | AWOS IIIP/T | 127.525 | (585) 343-6369 |
| 1 | KITH | Ithaca Tompkins Regional Airport | Tompkins | AWOS IIIP/T | 125.175 | (607) 257-2390 |
| 1 | KOGS | Ogdensburg International | Saint Lawrence | AWOS IIIP/T | 118.525 | (315) 393-8982 |
| 2 | KMSV | Sullivan County International | Sullivan | AWOS IIIP/T | 134.025 | (845) 583-5056 |

Source: http://www.faa.gov/air_traffic/weather/asos/?state=NY * Non-FAA Date: 5/2/2018

**ASOS** The **Automated Surface Observing System** (**ASOS**) is operated and controlled cooperatively in the United States by the FAA, NWS, and DoD. After many years of research and development, the deployment of **ASOS** units began in 1991 and was completed in 2004.

**AWOS** The **Automated Weather Observing System** (**AWOS**) is operated and controlled by the FAA.
**Some AWOS** units are operated by state or local governments and others by private agencies.

FAA - Federal Aviation Administration, NWS - National Weather Service, DoD - Department of Defense

| Automated Airport Weather Station Features | | Joint NWS, DoD, FAA | Operated and Controlled by FAA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METAR ELEMENTS / SENSOR TYPE | NOTES | ASOS | AWSS | AWOS IV Z/R | AWOS IV R | AWOS IV Z | AWOS III/PT | AWOS III/P | AWOS III/T | AWOS III | AWOS II | AWOS I | AWOS A |
| Pressure - Altimeter Setting | Altimeter Setting in inches of mercury (Hg) and Sea-level Pressure (SLP) | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ |
| Temperature Ambient / Dew Point | degrees Celsius | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | |
| Anemometer - Wind | DIrection, speed, character | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | |
| Visibility | up to and including 10 statute miles | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | | |
| Cloud Coverage and Ceiling [CHI] | Sky Condition up to 12,000 feet above [CHI] | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | | | |
| Precipitation Accumulation [HTB] | Heated Tipping Bucket [HTB] Gauge | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | | | |
| Precipitation Identification [PI] | type, intensity, accumulation - rain, snow, squalls | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | | | | | |
| Lightning [T] | only at selected sites | ✈ | ✈ | ✈ | ✈ | ✈ | ✈ | | ✈ | | | | |
| Runway Surface Condition [R] | | | | ✈ | ✈ | | | | | | | | |
| Icing - Freezing Rain [ZR] | not planned to be included where ZR potential is nil | ✈ | ✈ | ✈ | | ✈ | | | | | | | |
| Runway Visual Range [RVR] | at selected sites | ✈ | ✈ | | | | | | | | | | |
| Obscurations to Vision | Fog, Mist, Haze, and Freezing Fog | ✈ | ✈ | | | | | | | | | | |
| **47 Total Installations in New York State** | | **27** | **0** | **0** | **0** | **0** | **7** | **5** | **0** | **8** | **0** | **0** | **0** |

**Automated Airport Weather Stations** are automated sensor suites which are designed to serve aviation and meteorological observing needs for safe and efficient aviation operations, weather forecasting, and climatology. Automated airport weather stations have become part of the backbone of weather observing in the United States and Canada and are becoming increasingly more prevalent worldwide due to their efficiency and cost-savings.

**ASOS** The **Automated Surface Observing System** (ASOS) is operated and controlled cooperatively in the United States by the NWS, FAA, and DoD. After many years of research and development, the deployment of **ASOS** units began in 1991 and was completed in 2004.

**AWSS** The **Automatic Weather Sensor System** (AWSS) is a follow–on program of the FAA that provides identical data as ASOS. The **AWSS** units are operated and controlled by the FAA in the United States; the NWS and DOD have no role in their operation or deployment.

**AWOS** The **Automated Weather Observing System** (AWOS) is operated and controlled by the FAA. **Some AWOS** units are operated by state or local governments and others by private agencies.

# Appendix E

## Airport Performance Criteria Compliance

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| Table E-1: Category 1 - National / Commercial Service: General Airside Infrastructure and NAVAIDs | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport | Airport 3-Letter Identifier | Airport Reference Code (C-II≥) | Air Traffic Control Tower (Available) | Primary Runway Length (5500'≥) | Primary Runway Width (100) | Runway Pavement Conditions (Good) | Taxiway Pavement Conditions (Good) | Taxiway Type (Parallel) | Runway Lighting (MIRL/HIRL) | Taxiway Lighting (MITL) | Localizer Performance w/ Vertical Guidance (LPV) | Minimum Approach Procedure (Non-Precision) | Runway End Identifier Lights (REIL) | Visual Glide Slope Indicator (VGSI) | Wind Indicators | Weather Reporting Equipment | Rotating Beacon |
| Adirondack Regional | SLK | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Albany International | ALB | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Buffalo Niagara International | BUF | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Chautauqua County/Jamestown | JHW | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Elmira-Corning Regional | ELM | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Greater Binghamton-Edwin A Link Field | BGM | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Greater Rochester International | ROC | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Ithaca Tompkins Regional | ITH | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| John F. Kennedy International | JFK | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LaGuardia | LGA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Long Island MacArthur | ISP | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Massena International- Richards Field | MSS | Yes | No | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Niagara Falls International | IAG | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Ogdensburg International | OGS | U/K | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Plattsburgh International | PBG | U/K | No | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Stewart International | SWF | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Syracuse Hancock International | SYR | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Watertown International | ART | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Westchester County | HPN | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

## Table E-1: Category 1 - National / Commercial Service: FAA Design Standards, Economic, Environmental Compliance, Security

| Airport | Airport 3 Letter Identifier | Runway/ Taxiway Separation | Runway Safety Area (RSA) | Control over Runway Protection Zone (RPZ) | Unobstructed Runway Approaches - Part 77 Category | Revenue Equals/ Exceeds Operating Expenses | New Business Operating (Past 5 years) | Cease of Business Operations or Relocated | Airport Capital Improvement Plan (ACIP) | Emergency Response Plan | Storm Water Pollution Plan | Vegetation Management Plan | Wildlife Hazard Management Plan | Local/ State Comprehensive Plan | Recycling Program | Alternative Fuel Equipment | Comprehensive Solid Waste Plan | Security Plan | Security Fencing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adirondack Regional | SLK | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No | Yes | Yes |
| Albany International | ALB | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Buffalo Niagara International | BUF | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes | No | No | Yes | Yes | Yes |
| Chautauqua County/Jamestown | JHW | U/K | U/K | U/K | Yes | No | U/K | U/K | Yes | Yes | U/K | U/K | Yes | U/K | U/K | U/K | U/K | Yes | Yes |
| Elmira-Corning Regional | ELM | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No | Yes | Yes |
| Greater Binghamton- Edwin A Link Field | BGM | No | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | U/K | Yes | U/K | No | No | U/K | Yes | Yes |
| Greater Rochester International | ROC | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | U/K | Yes | No | Yes | Yes |
| Ithaca Tompkins Regional | ITH | Yes | U/K | Yes | No | No | Yes | U/K | Yes | Yes | Yes | No | Yes | No | Yes | U/K | No | Yes | Yes |
| John F. Kennedy International | JFK | No | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | U/K | Yes | Yes | U/K | Yes | Yes |
| LaGuardia | LGA | No | No | No | Yes | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Long Island MacArthur | ISP | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Massena International- Richards Field | MSS | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Yes | No | Yes | Yes | No | No | No | Yes | Yes |
| Niagara Falls International | IAG | Yes | Yes | Yes | No | No | Yes | No | Yes | Yes | Yes | U/K | Yes | U/K | Yes | No | U/K | Yes | Yes |
| Ogdensburg International | OGS | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Plattsburgh International | PBG | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Stewart International | SWF | Yes | No | Yes | No | U/K | Yes | No | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Syracuse Hancock International | SYR | No | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Watertown International | ART | Yes | Yes | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | U/K | Yes | Yes |
| Westchester County | HPN | Yes | Yes | No | No | Yes | No | No | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

## Table E-1: Category 1 - National / Commercial Service: Capacity, Services

| Airport | Airport 3 Letter Identifier | 24 Hour Attendance | Sufficient Based Aircraft Hangar | Sufficient Conventional Hangar Space | Cellphone Coverage (Moderate ≥) | Internet Access | Aircraft Maintenance | Fuel (AvGas and Jet A) | Food Services (Restaurant/ Vending Machines/ Concessions) | Catering | Restrooms | Ground Transportation | Aircraft Lavatory Disposal | Aircraft Deicing Service | Access Road | Adequate Signage | Fixed Base Operator (FBO) | Terminal Building | Snow Removal Equipment (SRE) | Aircraft Rescue Fire Fighting (ARFF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adirondack Regional | SLK | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Albany International | ALB | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Buffalo Niagara International | BUF | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Chautauqua County/Jamestown | JHW | No | U/K | U/K | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Elmira- Corning Regional | ELM | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Greater Binghamton- Edwin A Link Field | BGM | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Greater Rochester International | ROC | Yes | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Ithaca Tompkins Regional | ITH | Yes | U/K | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| John F. Kennedy International | JFK | No | U/K | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LaGuardia | LGA | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Long Island MacArthur | ISP | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Massena International- Richards Field | MSS | No | Yes | Yes | Yes | Yes | No | Yes | Yes | No | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Niagara Falls International | IAG | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Ogdensburg International | OGS | No | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | No | No | No | Yes | Yes | U/K | Yes | No | Yes |
| Plattsburgh International | PBG | No | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Stewart International | SWF | No | No | No | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Syracuse Hancock International | SYR | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Watertown International | ART | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Westchester County | HPN | Yes | No | No | U/K | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

**Table E-2: Category 2 - Regional / Corporate Business: General Airside Infrastructure, NAVAIDs, FAA Standards**

| Airport | Airport 3 Letter Identifier | Airport Reference Code (B-II≥) | Primary Runway Length (4000'≥) | Primary Runway Width (75'≥) | Runway Pavement Conditions (Good ≥) | Taxiway Pavement Conditions (Good ≥) | Taxiway Type (Partial Parallel ≥) | Runway Lighting (MIRL/HIRL) | Taxiway Lighting (MITL) | Localizer Performance w/ Vertical Guidance (LPV) | Runway End Identifier Lights (REIL) | Visual Glide Slope Indicator (VGS) | Wind Indicators | Weather Reporting Equipment | Rotating Beacon | Fixed Base Operator (FBO) | Terminal Building | Snow Removal Equipment (SRE) | Aircraft Rescue Fire Fighting (ARFF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brookhaven | HWV | U/K | Yes | Y | Yes | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Downtn Manhattan/Wall St | JRB | U/K | Yes | Y | No | Yes | Yes | Yes | Yes | No | Yes | No | Yes | Yes | No | Yes | Yes | No | No |
| East 34th Street (H) | 6N5 | U/K | Yes | Y | Yes | Yes | Yes | Yes | Yes | No | Yes | No | Yes | Yes | Yes | Yes | Yes | No | No |
| East Hampton | HTO | U/K | Yes | Y | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Floyd Bennett Memorial | GFL | No | Yes | Y | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Francis S. Gabreski | FOK | U/K | Yes | Y | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Genesee County | GVQ | U/K | Yes | Y | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No |
| Griffiss International | RME | U/K | Yes | Y | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Hudson Valley Regional | POU | U/K | Yes | Y | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Orange County | MGJ | Yes | Yes | Y | No | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | U/K |
| Oswego County | FZY | Yes | Yes | Y | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | No |
| Republic | FRG | Yes | Yes | Y | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes |
| Saratoga County | 5B2 | U/K | Yes | Y | Yes | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | U/K | U/K | U/K | U/K |
| Schenectady County | SCH | Yes | Yes | Y | Yes | No | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Sullivan County International | MSV | U/K | Yes | Y | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| West 30th St (H) | JRA | U/K | Yes | Y | Yes | Yes | Yes | No | No | No | No | No | Yes | No | No | Yes | U/K | U/K | U/K |

*****H – Helipad
Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA
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| Table E-2: Category 2 - Regional / Corporate Business: FAA Design Standards, Economic, Environmental Compliance, Security | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport | Airport 3 Letter Identifier | Runway/ Taxiway Separation | Runway Safety Area (RSA) | Control over Runway Protection Zone (RPZ | Unobstructed Runway Approaches- Part 77 Category | Revenue Equals/ Exceeds Operating Expenses | New Business Operating (past 5 years) | Cease of Business Operations or Relocated | Airport Capital Improvement Plan (ACIP) | Emergency Response Plan | Storm Water Pollution Plan | Vegetation Management Plan | Wildlife Hazard Management Plan | Recycling Program | Alternative Fuel Equipment | Comprehensive Solid Waste Plan | Local/ State Comprehensive Plan | Security Plan | Security Fencing (Complete) |
| Brookhaven | HWV | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Downtn Manhattan/Wall St (H) | JRB | No | U/K | U/K | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No | Yes | No | No | Yes | Yes | Yes |
| East 34th Street (H) | 6N5 | No | U/K | No | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No | Yes | No | No | Yes | Yes | Yes |
| East Hampton | HTO | Yes | U/K | U/K | Yes | Yes | No | No | Yes | Yes | U/K | Yes | Yes | Yes | Yes | No | Yes | Yes | No |
| Floyd Bennett Memorial | GFL | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | No | No | Yes | No | No | Yes | Yes | Yes |
| Francis S. Gabreski | FOK | Yes | Yes | No | No | Yes | Yes | No | Yes | Yes | Yes | No | No | No | No | No | Yes | Yes | Yes |
| Genesee County | GVQ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | Yes | Yes | Yes |
| Griffiss International | RME | Yes | Yes | U/K | No | No | Yes | U/K | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes | Yes | Yes | Yes |
| Hudson Valley Regional | POU | Yes | Yes | U/K | No | U/K | No | Yes | Yes | Yes | Yes | U/K | Yes | Yes | No | U/K | U/K | Yes | Yes |
| Orange County | MGJ | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Oswego County | FZY | Yes | Yes | Yes | No | No | No | No | Yes | No | Yes | No | No | No | No | No | No | Yes | Yes |
| Republic | FRG | No | Yes | No | Yes | Yes | No | Yes | Yes | U/K | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes |
| Saratoga County | 5B2 | U/K | U/K | U/K | No | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Schenectady County | SCH | Yes | Yes | U/K | No | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Sullivan County International | MSV | Yes | Yes | Yes | Yes | No | Yes | No | Yes | Yes | Yes | No | Yes | Yes | No | No | Yes | Yes | Yes |
| West 30th St (H) | JRA | U/K | U/K | U/K | Yes | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |

*****H – Helipad
Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

**Table E-2: Category 2 - Regional / Corporate Business: Services, Capacity**

| Airport | Airport 3 Letter Identifier | Standard Business Hours | Fixed Base Operator (FBO) | Terminal Building | Flight Training | Scheduled Air Taxi/ Charter | Internet Access | Aircraft Maintenance | Aircraft Lavatory Disposal | Fuel (AvGas and Jet A) | Ground Transportation | Cellphone Coverage | Food Services (Restaurant/ Vending Machines) | Restrooms | Access Road | Adequate Signage | Based Aircraft Hangar (Sufficient) | Conventional Hangar Space (Sufficient) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brookhaven | HWV | Yes | Yes | Yes | Yes | U/K | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No |
| Downtown Manhattan / Wall St (H) | JRB | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | Yes | Yes | Yes | Yes | Yes | No | No |
| East 34th Street (H) | 6N5 | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | No | Yes | Yes | Yes | U/K | U/K |
| East Hampton | HTO | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Floyd Bennett Memorial | GFL | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Francis S. Gabreski | FOK | No | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| Genesee County | GVQ | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No |
| Griffiss International | RME | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Hudson Valley Regional | POU | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Orange County | MGJ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Oswego County | FZY | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Republic | FRG | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| Saratoga County | 5B2 | Yes | U/K | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes | Yes | U/K | U/K |
| Schenectady County | SCH | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Sullivan County International | MSV | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| West 30th St (H) | JRA | Yes | Yes | U/K | U/K | Yes | Yes | No | U/K | Yes | Yes | Yes | U/K | Yes | Yes | Yes | U/K | U/K |

*****H – Helipad
Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

**Table E-3: Category 3 - Local / Community Business: General Airside Infrastructure, NAVAIDs, FAA Standards**

| Airport | Airport 3 Letter Identifier | Airport Reference Code (B-I≥) | Primary Runway Length (3000'≥) | Primary Runway Width (60'≥) | Runway Pavement Conditions (Fair) | Taxiway Pavement Conditions (Fair) | Runway Lighting (LIRL) | Taxiway Lighting (MITL) | Localizer Performance w/ Vertical Guidance [illegible] | Primary Runway End Identifier Lights (REIL) | Wind Indicators | Weather Reporting Equipment | Rotating Beacon | Segmented Circle | Runway/ Taxiway Separation | Runway Safety Area (RSA) | Control over Runway Protection Zone (RPZ) | Unobstructed Runway Approaches- Part 77 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Akron | 9G3 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | No | Yes | Yes | No | No |
| Buffalo Airfield | 9G0 | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Buffalo - Lancaster Regional | BQR | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | U/K | Yes | No | Yes | Yes | Yes | No |
| Canandaigua | IUA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cattaraugus County – Olean | OLE | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | U/K | Yes | No |
| Chautauqua County / Dunkirk | DKK | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | U/K | U/K | U/K | No |
| Columbia County | 1B1 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes |
| Corning-Painted Post | 7N1 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | U/K | Yes | No | Yes | Yes | Yes | No |
| Cortland County - Chase Field | N03 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | U/K | Yes |
| Dansville Municipal | DSV | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | U/K | U/K | U/K | No |
| Finger Lakes Regional | 0G7 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | U/K | U/K | No |
| Fulton County | NY0 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes |
| Hamburg Inc | 4G2 | U/K | Yes | No | Yes | No | Yes | No | No | No | Yes | No | No | No | U/K | U/K | U/K | No |
| Hamilton Municipal | VGC | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | Yes | U/K | No |
| Hornell Municipal | HTF | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Joseph Y Resnick | N89 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Kingston – Ulster | 20N | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | U/K | Yes | Yes | Yes | U/K | No |
| Kobelt | N45 | U/K | No | Yes | Yes | Yes | Yes | Yes | No | No | Yes | U/K | Yes | No | U/K | U/K | U/K | No |
| Lake Placid | LKP | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | U/K | U/K | Yes | U/K | U/K | U/K | Yes |
| Le Roy | 5G0 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | U/K | Yes | No | Yes | Yes | Yes | Yes |
| Ledgedale Airpark | 7G0 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | U/K | Yes | No | U/K | U/K | U/K | No |
| Lt Warren Eaton | OIC | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Oneonta Municipal | N66 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | U/K | Yes | Yes | U/K | Yes | No | No |
| Penn Yan | PEO | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No |
| Perry - Warsaw | 01G | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | U/K | Yes | No | Yes | Yes | No | Yes |
| Potsdam Municipal (Damon Field) | PTD | Yes | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Sidney Municipal | N23 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | U/K | U/K | U/K | No |
| Skaneateles Aero Drome | 6B9 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | U/K | Yes | No | U/K | U/K | U/K | No |
| Sky Acres | 44N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | U/K | U/K | No | Yes | No | No | Yes |
| South Albany | 4B0 | U/K | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | U/K | No | No | Yes | Yes | Yes | No |
| Tri-Cities | CZG | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | U/K | U/K | U/K | No |
| Wellsville Municipal | ELZ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | U/K | Yes | Yes |
| Williamson – Sodus | SDC | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Wurtsburo - Sullivan County | N82 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | U/K | Yes | Yes | U/K | U/K | U/K | No |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

## Table E-3: Category 3 - Local / Community Business: Economic, Environmental Compliance, Security

| Airport | Airport 3 Letter Identifier | Revenue Equals/ Exceeds Operating | New Business Operating (past 5 years) | Ceased Business Operations or Relocated | Emergency Response Plan | Storm Water Pollution Plan | Vegetation Management Plan | Wildlife Hazard Management Plan | Local/ State Comprehensive Plan | Recycling Program | Alternative Fuel Equipment | Comprehensive Solid Waste Plan | Security Plan | Security Fencing (Complete) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Akron | 9G3 | No | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | Yes | Yes | Yes |
| Buffalo Airfield | 9G0 | No | U/K | U/K | No | Yes | No | No | Yes | No | No | Yes | Yes | Yes |
| Buffalo - Lancaster Regional | BQR | No | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Canandaigua | IUA | No | Yes | No | No | Yes | No | No | Yes | No | No | Yes | Yes | No |
| Cattaraugus County - Olean | OLE | No | No | Yes | Yes | Yes | No | U/K | Yes | No | No | Yes | Yes | Yes |
| Chautauqua County / Dunkirk | DKK | No | No | U/K | U/K | U/K | U/K | U/K | Yes | U/K | U/K | Yes | Yes | Yes |
| Columbia County | 1B1 | No | Yes | Yes | No | Yes | No | Yes | Yes | No | No | No | Yes | Yes |
| Corning-Painted Post | 7N1 | U/K | No | No | Yes | Yes | No | No | Yes | No | No | Yes | Yes | Yes |
| Cortland County - Chase Field | N03 | Yes | Yes | No | No | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes |
| Dansville Municipal | DSV | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Finger Lakes Regional | 0G7 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Fulton County | NY0 | No | Yes | Yes | Yes | Yes | U/K | No | U/K | No | No | U/K | Yes | Yes |
| Hamburg Inc | 4G2 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Hamilton Municipal | VGC | Yes | No | No | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Hornell Municipal | HTF | No | Yes | Yes | Yes | U/K | Yes | No | U/K | No | No | U/K | Yes | Yes |
| Joseph Y Resnick | N89 | No | Yes | No | U/K | Yes | No | No | No | No | No | No | Yes | Yes |
| Kingston - Ulster | 20N | U/K | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Kobelt | N45 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | No |
| Lake Placid | LKP | U/K | No | No | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | Yes |
| Le Roy | 5G0 | Yes | Yes | No | Yes | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes |
| Ledgedale Airpark | 7G0 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Lt Warren Eaton | OIC | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | No |
| Oneonta Municipal | N66 | No | No | Yes | U/K | U/K | No | No | Yes | No | No | Yes | Yes | U/K |
| Penn Yan | PEO | U/K | Yes | No | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes |
| Perry - Warsaw | 01G | No | No | No | Yes | Yes | No | No | Yes | U/K | No | Yes | Yes | Yes |
| Potsdam Municipal (Damon Field) | PTD | No | Yes | No | U/K | Yes | No | No | No | No | No | No | Yes | Yes |
| Sidney Municipal | N23 | Yes | Yes | No | Yes | Yes | U/K | Yes | U/K | No | No | U/K | Yes | Yes |
| Skaneateles Aero Drome | 6B9 | Yes | Yes | No | Yes | U/K | No | No | No | Yes | No | No | Yes | No |
| Sky Acres | 44N | No | Yes | Yes | No | Yes | No | No | No | No | No | No | Yes | No |
| South Albany | 4B0 | Yes | Yes | No | U/K | Yes | No | No | Yes | Yes | No | Yes | Yes | Yes |
| Tri-Cities | CZG | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Wellsville Municipal | ELZ | No | No | U/K | No | Yes | No | No | U/K | Yes | No | U/K | Yes | Yes |
| Williamson - Sodus | SDC | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes | No |
| Wurtsburo - Sullivan County | N82 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | No | U/K |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

## Table E-3: Category 3 - Local / Community Business: Capacity, Services

| Airport | Airport 3 Letter Identifier | Attendance (On-call) | Terminal Building (Admin Building) | Based Aircraft Hangar (Sufficient) | Conventional Hangar Space (Sufficient) | Cellphone Coverage (Moderate ≥) | Internet Access | Aircraft Maintenance | Fuel (Avgas ) | Food Services (Restaurant/ Vending Machines/ | Restrooms | Ground Transportation | Aircraft Lavatory Disposal | Access Road | Adequate Signage |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Akron | 9G3 | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Buffalo Airfield | 9G0 | Yes | No | Yes | No | Yes | Yes | Yes | Yes | No | No | No | No | Yes | Yes |
| Buffalo - Lancaster Regional | BQR | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Canandaigua | IUA | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Cattaraugus County - Olean | OLE | Yes | Yes | No | No | Yes | Yes | No | Yes | No | Yes | No | No | Yes | Yes |
| Chautauqua County / Dunkirk | DKK | Yes | No | No | U/K | Yes | Yes | Yes | Yes | No | Yes | No | No | Yes | No |
| Columbia County | 1B1 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Corning-Painted Post | 7N1 | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | No | Yes | Yes |
| Cortland County - Chase Field | N03 | Yes | No | No | No | No | Yes | Yes | Yes | No | Yes | No | No | Yes | Yes |
| Dansville Municipal | DSV | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K | U/K | U/K | U/K | Yes | U/K |
| Finger Lakes Regional | 0G7 | U/K | U/K | U/K | U/K | U/K | U/K | Yes | Yes | U/K | U/K | U/K | U/K | Yes | U/K |
| Fulton County | NY0 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Hamburg Inc | 4G2 | No | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K | U/K | U/K | U/K | Yes | U/K |
| Hamilton Municipal | VGC | Yes | Yes | No | No | Yes | Yes | Yes | Yes | No | Yes | No | No | Yes | Yes |
| Hornell Municipal | HTF | Yes | Yes | U/K | U/K | Yes | Yes | No | Yes | No | Yes | No | No | Yes | Yes |
| Joseph Y Resnick | N89 | No | Yes | U/K | No | Yes | No | Yes | Yes | No | Yes | No | No | Yes | Yes |
| Kingston - Ulster | 20N | No | No | No | No | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | No |
| Kobelt | N45 | Yes | U/K | U/K | U/K | U/K | Yes | U/K | Yes | No | U/K | U/K | U/K | Yes | U/K |
| Lake Placid | LKP | Yes | U/K | U/K | U/K | Yes | Yes | Yes | Yes | Yes | U/K | U/K | No | Yes | Yes |
| Le Roy | 5G0 | Yes | Yes | No | No | Yes | Yes | Yes | Yes | No | Yes | Yes | No | Yes | Yes |
| Ledgedale Airpark | 7G0 | Yes | U/K | U/K | U/K | U/K | Yes | Yes | Yes | U/K | U/K | U/K | U/K | Yes | U/K |
| Lt Warren Eaton | OIC | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | Yes | No | No | Yes | Yes |
| Oneonta Municipal | N66 | U/K | Yes | Yes | U/K | U/K | U/K | Yes | Yes | U/K | U/K | U/K | No | Yes | Yes |
| Penn Yan | PEO | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | No | No | Yes | Yes |
| Perry - Warsaw | 01G | Yes | Yes | No | Yes | Yes | Yes | No | Yes | No | Yes | No | No | Yes | No |
| Potsdam Municipal (Damon Field) | PTD | Yes | Yes | No | No | Yes | Yes | Yes | Yes | No | Yes | No | No | Yes | No |
| Sidney Municipal | N23 | Yes | Yes | U/K | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Skaneateles Aero Drome | 6B9 | No | Yes | Yes | Yes | Yes | No | No | Yes | No | Yes | No | No | Yes | Yes |
| Sky Acres | 44N | Yes | Yes | No | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | No |
| South Albany | 4B0 | Yes | Yes | No | U/K | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Tri-Cities | CZG | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K | U/K | U/K | U/K | Yes | U/K |
| Wellsville Municipal | ELZ | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Williamson - Sodus | SDC | No | Yes | No | U/K | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Wurtsburo - Sullivan County | N82 | No | Yes | U/K | U/K | U/K | No | Yes | Yes | Yes | Yes | Yes | No | Yes | U/K |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

**Table E-4: Category 4 - Local / General Aviation: General Airside Infrastructure, NAVAIDs, FAA Standards**

| Airport | Airport 3 Letter Identifier | Airport Reference Code (B-I≥) | Primary Runway Length (Turf ≥) | Primary Runway Width (50'≥) | Runway Pavement Conditions (Fair) | Taxiway Availability | Taxiway Pavement Conditions (Fair) | Wind Indicators | Weather Reporting Equipment | Rotating Beacon | Segmented Circle | Runway/ Taxiway Separation | Runway Safety Area (RSA) | Control over Runway Protection Zone (RPZ) | Unobstructed Runway Approaches- Part 77 Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Airhaven | 09N | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | U/K | U/K | No | No |
| Argyle | 1C3 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | U/K | U/K | U/K | No |
| Bayport Aerodrome | 23N | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | Yes | U/K | U/K | U/K | No |
| Becks Grove | K16 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | U/K | U/K | U/K | No |
| Clarence Aerodrome | D51 | U/K | Yes | Yes | Yes | Yes | U/K | Yes | No | No | No | U/K | U/K | U/K | No |
| Cooperstown-Westville | K23 | No | Yes | Yes | No | No | N/A | Yes | No | U/K | Yes | No | U/K | U/K | No |
| Duanesburg | 4B1 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | No | U/K | U/K | No |
| Elizabeth Field | 0B8 | Yes | Yes | Yes | Yes | No | N/A | Yes | No | No | No | No | Yes | U/K | No |
| Frankfort - Highland | 6B4 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | U/K | Yes | U/K | No |
| Geneseo | D52 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | Yes | U/K | U/K | U/K | No |
| Gowanda | D59 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | U/K | U/K | U/K | No |
| Greene | 4N7 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | No | U/K | Yes | Yes |
| Haverstraw Heliport | H43 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | U/K | U/K | U/K | No |
| Kline Kill | NY1 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | Yes | No | U/K | U/K | U/K | Yes |
| Long Lake / Helms Seaplane Base | NY9 | U/K | Yes | Yes | Yes | No | N/A | No | No | No | No | U/K | U/K | U/K | No |
| Malone - Dufort | MAL | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | No | No |
| Montauk | MTP | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | U/K | U/K | U/K | No |
| New York Skyports Inc Heliport | 6N7 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | No | U/K | No | No |
| North Buffalo Suburban | 0G0 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | Yes | No | U/K | U/K | U/K | No |
| Pine Hill | 9G6 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | Yes | No | No |
| Piseco Municipal | K09 | U/K | Yes | Yes | Yes | Yes | Yes | Yes | No | No | Yes | U/K | U/K | U/K | No |
| Randall | 06N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | Yes | Yes | No | No |
| Royalton | 9G5 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | No | Yes | U/K | Yes |
| Ticonderoga Municipal | 4B6 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | Yes | Yes | Yes | U/K | U/K | Yes |
| Warwick Municipal | N72 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | No | No | U/K | U/K | U/K | Yes |
| Whitfords | B16 | U/K | Yes | Yes | Yes | No | N/A | Yes | No | Yes | Yes | U/K | U/K | U/K | No |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

**Table E-4: Category 4 - Local / General Aviation: Economic, Environmental Compliance, Security**

| Airport | Airport 3 Letter Identifier | Revenue Equals/ Exceeds Operating Expenses | New Business Operating (past 5 years) | Cease of Business Operations or Relocated | Emergency Response Plan | Storm Water Pollution Plan | Vegetation Management Plan | Wildlife Hazard Management Plan | Local/ State Comprehensive Plan | Recycling Program | Alternative Fuel Equipment | Comprehensive Solid Waste Plan | Security Plan | Security Fencing (Complete) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Airhaven | 09N | No | No | No | Yes | U/K | Yes | Yes | Yes | Yes | No | Yes | Yes | No |
| Argyle | 1C3 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | No | U/K |
| Bayport Aerodrome | 23N | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Becks Grove | K16 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Clarence Aerodrome | D51 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Cooperstown-Westville | K23 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Duanesburg | 4B1 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | No |
| Elizabeth Field | 0B8 | No | U/K | U/K | Yes | U/K | No | No | No | No | No | No | Yes | U/K |
| Frankfort - Highland | 6B4 | No | Yes | No | Yes | Yes | No | Yes | Yes | U/K | No | Yes | Yes | U/K |
| Geneseo | D52 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Gowanda | D59 | U/K | No | No | Yes | Yes | No | No | Yes | No | No | Yes | Yes | No |
| Greene | 4N7 | No | No | No | U/K | U/K | U/K | U/K | U/K | U/K | No | U/K | Yes | No |
| Haverstraw Heliport | H43 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Kline Kill | NY1 | Yes | Yes | No | U/K | No | No | No | No | No | No | No | Yes | No |
| Long Lake / Helms Seaplane Base | NY9 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Malone - Dufort | MAL | No | No | Yes | U/K | Yes | Yes | No | No | No | Yes | No | Yes | U/K |
| Montauk | MTP | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| New York Skyports Inc Heliport | 6N7 | U/K | Yes | No | Yes | U/K | U/K | No | Yes | U/K | No | Yes | Yes | Yes |
| North Buffalo Suburban | 0G0 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Pine Hill | 9G6 | No | No | No | Yes | Yes | No | No | Yes | Yes | No | Yes | Yes | No |
| Piseco Municipal | K09 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | Yes | U/K |
| Randall | 06N | Yes | U/K | No | No | Yes | No | No | No | U/K | No | No | Yes | Yes |
| Royalton | 9G5 | No | No | No | No | Yes | No | No | No | No | No | No | Yes | Yes |
| Ticonderoga Municipal | 4B6 | No | Yes | No | Yes | Yes | Yes | No | Yes | No | No | Yes | Yes | Yes |
| Warwick Municipal | N72 | Yes | No | No | Yes | U/K | U/K | U/K | U/K | Yes | Yes | U/K | Yes | Yes |
| Whitfords | B16 | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | U/K | No | No |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

**Table E-4: Category 4 - Local / General Aviation: Capacity, Services**

| Airport | Airport 3 Letter Identifier | Part-Time Attendance | Based Aircraft Hangar (Sufficient) | Conventional Aircraft Hangar (Sufficient) | Cellphone Coverage (Moderate ≥) | Internet Access | Restrooms | Access Road | Adequate Signage | Fuel (Avgas) |
|---|---|---|---|---|---|---|---|---|---|---|
| Airhaven | 09N | No | No | Yes | Yes | No | No | No | Yes | No |
| Argyle | 1C3 | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | No |
| Bayport Aerodrome | 23N | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | No |
| Becks Grove | K16 | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | No |
| Clarence Aerodrome | D51 | No | U/K | U/K | U/K | U/K | U/K | Yes | U/K | No |
| Cooperstown-Westville | K23 | U/K | U/K | U/K | Yes | U/K | U/K | Yes | U/K | Yes |
| Duanesburg | 4B1 | No | Yes | U/K | Yes | U/K | U/K | Yes | U/K | Yes |
| Elizabeth Field | 0B8 | Yes | U/K | U/K | No | No | Yes | Yes | Yes | No |
| Frankfort - Highland | 6B4 | No | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Geneseo | D52 | Yes | U/K | U/K | U/K | U/K | U/K | No | U/K | No |
| Gowanda | D59 | No | U/K | U/K | Yes | No | No | No | U/K | Yes |
| Greene | 4N7 | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No |
| Haverstraw Heliport | H43 | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | No |
| Kline Kill | NY1 | No | Yes | Yes | Yes | No | Yes | Yes | Yes | No |
| Long Lake / Helms Seaplane Base | NY9 | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | Yes |
| Malone - Dufort | MAL | Yes | No | No | U/K | No | Yes | Yes | Yes | No |
| Montauk | MTP | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | No |
| New York Skyports Inc Heliport | 6N7 | Yes | No | No | Yes | No | Yes | Yes | Yes | No |
| North Buffalo Suburban | 0G0 | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | Yes |
| Pine Hill | 9G6 | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Piseco Municipal | K09 | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | Yes |
| Randall | 06N | No | Yes | Yes | U/K | Yes | No | Yes | Yes | Yes |
| Royalton | 9G5 | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Ticonderoga Municipal | 4B6 | No | No | No | Yes | No | No | Yes | Yes | Yes |
| Warwick Municipal | N72 | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes |
| Whitfords | B16 | Yes | U/K | U/K | U/K | U/K | U/K | Yes | U/K | Yes |

Sources: New York State Airport System Plan Inventory Survey, Louis Berger, CHA.

# Appendix F

## System Needs
## by
## System Objective and Airport Category

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## E.1 General Airside Infrastructure Objectives

National Commercial Service airports:

- Airfield pavement conditions including runways and taxiways at 16% (runways) and 11% (taxiways) of airports fall short of adequate pavement conditions in compliance with FAA recommendations.
- The Airport Reference Code (ARC) was not reported as 37% of airports within this category. Although not considered to be a shortfall, further investigation is warranted to ensure adequate compliance with FAA infrastructure requirements.

Regional Corporate Business airports:

- Over half of eligible airports (65%) do not meet the ARC design standards of B-II.
- Airfield pavement conditions including runways, taxiways, and heliports at 29% (runways/heliports) and 24% (taxiways) of airports do not meet the minimum adequate pavement condition in compliance with FAA requirements.
- Over half of eligible airports (65%) do not have a published LPV approach at the airport, whereas 18% are not equipped with a Visual Glide Slope Indicator (VGSI).
- 59% of airports have no Segmented Circle on the airfield.
- Approximately 12% of airports are not equipped with a rotating beacon, weather reporting systems (12% total, including 6% unreported), or a non-precision approach systems.

Local Community Business airports:

- Over half of eligible airports (60%) do not meet the ARC critical performance design standard of B-I.
- Approximately 13% or airports do not have length of 3000 feet or longer.
- Taxiway pavement conditions at 22% of airports was not recorded or reported. As the performance criteria is unknown, further investigation is warranted to evaluate Pavement Condition Indexes (PCIs) of these airports.
- Similar to the previous two airport categories, 72% of airports in this category do not have a published LPV approach at the airport.
- Airport/airfield lighting and visual aids within this airport category do not meet the performance criteria developed for these airports. Currently, segmented circles (41%), runway end identifier lights (REILs) (25%), and rotating beacons (19% including 13% unreported) are unavailable on these airfields.
- Approximately 44% of airports are not equipped with any type of weather reporting equipment.

Local / General Aviation airports:

- 90% of airports within this category either do not meet or were unresponsive to compliance with B-I ARC design standard.
- Taxiway pavement conditions at 59% of airports were not recorded or reported. As the performance criteria is unknown, further investigation is warranted to evaluate the Pavement Condition Indexes (PCIs) or these airports.
- Airport/airfield lighting and visual aids within this airport category fall well short of the performance criteria developed for these airports. Currently, segmented circles (69%), runway lighting (17%), and rotating beacons (79%) are unavailable on these airfields.
- Approximately 7% of airports are not equipped with any type of weather reporting equipment.

## E.2 FAA Design Standards

National Commercial Service airports:

- 31% of airports within this category were either unresponsive or do not meet the FAA design standards associated with Runway/Taxiway separation requirements.
- RSA and RPZ requirements are not met or were not reported at 22% and 31% of airports, respectively.
- 74% of airports within this category have obstructed approaches necessary for the safety of incoming and departing aircraft.

Regional Corporate Business airports:

- FAA design standards for runway and taxiway separation are not met, or were not reported, at 36% of airports within this category.
- RSA and RPZ requirements are not met or were not reported at 47% and 65% of airports, respectively.
- 53% of airports do not meet the FAA airspace requirements for unobstructed approaches.

Local Community Business airports:

- FAA design standard requirements for runway and taxiway separation are not met or were not reported at 40% of airports within this category.
- RSA and RPZ requirements are not met or were not reported at 44% and 54% of airports, respectively.
- 66% of airports do not meet the FAA airspace requirements for unobstructed approaches.

Local General Aviation airports:

- 86% of airports within this category were either unresponsive or do not meet the FAA runway and taxiway separation design standards.
- RSA compliance was unreported at 76% or airports. Although there were no airports that were non-compliant with design standards, further investigation is required to determine the current infrastructure at these airports.
- RPZ requirements are not met, or were not reported, at 93% of airports.
- 83% of airports reported obstructed approaches.

## E.3 Economic Objectives

National Commercial Service airports:

- 51% of airport operational expenses do not equal or exceed operational expenses within this category.
- 21% of airports within this category did not attract new business or revenue generating services at the airport within the past 5 years.
- 53% of airports within this category have experienced a cessation of business in the past 5 years.

Regional Corporate Business airports:

- 65% of airports either showed operational expenses that do not equal or exceed revenue generation or chose not to report annual revenue.
- 42% of airports within this category did not report or did not attract new business or revenue generating services at the airport within the past 5 years.
- 35% of airports reported have experienced a cessation of business in the past 5 years
- 18% of airports within this category did not report that a current Capital Improvement Plan (CIP) was available.

Local / Community Business airports:

- 79% of airport operational expenses do not equal or exceed operational expenses within this category (includes 35% unreported).
- 47% of airports within this category did not attract new business or revenue generating services at the airport within the past 5 years.
- 25% of airports reported have experienced a cessation of business in the past 5 years.
- 37% of airports within this category either do not have a current CIP or did not report that a current CIP was available.

Local / General Aviation airports:

- Only 10% of airports within this category reported that annual revenue equal or exceeded the operational expenses of the airport.
- 17% of airports experienced new business operations within the past 5 years.
- Only 7% of airports within this category reported a cessation of on-airport business within the past 5 years.31% of airports within this category have a current Capital Improvement Plan (CIP).

## E.4 Environmental Compliance

National Commercial Service airports:

- Only 37% of airports within this category have an active Vegetation Management Plan.
- There is an absence of a Comprehensive Solid Waste Management Plan at 64% of airports within this category, this includes 27% of airports without a current recycling program.
- Alternative fuel is only available at 37% of National / Commercial Service airports, which includes 11% where an alternative fuel program hasn't been reported.

Regional Corporate Business airports:

- 36% of airports either do not have or did not report having an active Emergency Response Plan.
- 24% of airports within this category did not report having a current Stormwater Pollution Prevention program.
- Only 24% of airports within this category have an active Vegetation Management Plan.
- There is an absence of a Comprehensive Solid Waste Management Plan at 71% of airports within this category, this includes 53% of airports without a current recycling program.
- Alternative fuel is only available at 18% of National / Commercial Service airports, which includes 18% where an alternative fuel program hasn't been reported.

Local Community Business airports:

- Only 44% of airports reported having an active Emergency Response Plan.
- 35% of airports within this category did not report having a current Stormwater Pollution Prevention program.
- Only 16% of airports within this category have an active Vegetation Management Plan.
- Wildlife Management Plans are only active at 13% of airports within this category.
- Alternative fuel is only available at 16% of Local Community Business airports, while 25% of airports did not report on the presence of an alternative fuel program.

- A Comprehensive Solid Waste Management Plan is only available at 6% of airports within this category, this includes only 25% of airports with a current recycling program.

Local General Aviation airports:

- Only 31% of airports reported having an active Emergency Response Plan.
- 72% of airports within this category do not have a current Stormwater Pollution Prevention program (includes 69% unreported).
- Only 10% of airports within this category have an active Vegetation Management Plan.
- Wildlife Management Plans are only active at 10% of airports within this category.
- There is an absence of a Comprehensive Solid Waste Management Plan at 90% of airports within this category, this includes only 14% of airports with a current recycling program.

### E.5 Facility Services and Capacity

National Commercial Service airports:

- 21% of airports within this category currently do not have a maintenance building or a snow removal equipment building.
- Although not critical to the success of all the airports included in this category, 58% of control towers do not provide 24-hour attendance. Increasing the prevalence of this service would promote additional scheduled airline service within the National / Commercial service category.
- Approximately 16% of airports do not provide ground transportation services.

Regional Corporate Business airports:

- Only 29% and 24% of airports reported having active SRE and maintenance buildings, respectively. Additionally, 18% of airports do not have any maintenance operations.
- Only 47% of airports have an ARFF facility on the airfield. Although ARFF facilities are only required for airports with a *FAA Part 139: Airport Certification*, airports should strive to, at minimum, have a current Emergency Response Plan that provides actionable items for instruction in case of an emergency event on the airfield.
- 18% of airports do not have a Fixed Base Operator (FBO) or terminal/administration buildings at the airport.
- Fuel service is not available at 18% of the airports within this category.
- Only 35% of airports offer an aircraft deicing service.
- Although not critical to the success of all the airports included in this category, 37% of airports do not have a control tower and 58% do not provide 24-hour attendance. (Each of these services would increase the chance of providing scheduled airline service within the Regional Corporate Service category.)
- Approximately 35% of airports do not provide ground transportation services.

Local / Community Business airports:

- Currently, 79% of annual revenues at airports within this category to not meet or exceed their operational expenses.
- Hangar leases, fuel sales, and aircraft parking are common ways for these smaller airports to generate revenue. However, 18% do not have an active FBO providing these services, 35% do not offer deicing service, fuel service is not available at 18% of airports, and only 20% have additional hangar capacity for based aircraft.

Local / General Aviation airports:

- Only 38% of airports reported the airfield is equipped with proper signage for aircraft wayfinding and airfield operations.
- Based on the utility service surrounding many rural airports, internet access and cell phone coverage is only available at 10% and 34% of airports, respectively.
- Restroom facilities are only available at 34% of airports within this category.
- Fuel service is not available at 52% of the airports within this category.

### E.6 Hangar Capacity and Security

National Commercial Service airports:

- Only 32% of airports within the National / Commercial Service category currently have a waitlist for hangar storage.

Regional Corporate Business airports:

- 42% of airports within this category do not have additional based aircraft hangar space and conventional hangar storage is only available 41% of airports in the same category.
- There are 42% of airports that do not have tie-down aircraft parking available.
- 18% of airports do not have security fencing or a currently active security plan.

Local Community Business airports:

- Only 19% and 22% have based aircraft and conventional hangar space available.
- 41% of airports do not have security fencing, with 31% of airports not having a current security plan in place.

Local General Aviation airports:

- Only 21% and 24% have based aircraft and conventional hangar space available.
- 21% of airports have security fencing, while only 38% of airports have a current security plan in place.

# Appendix G

## Airport Service Areas

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**Figure G-1:**

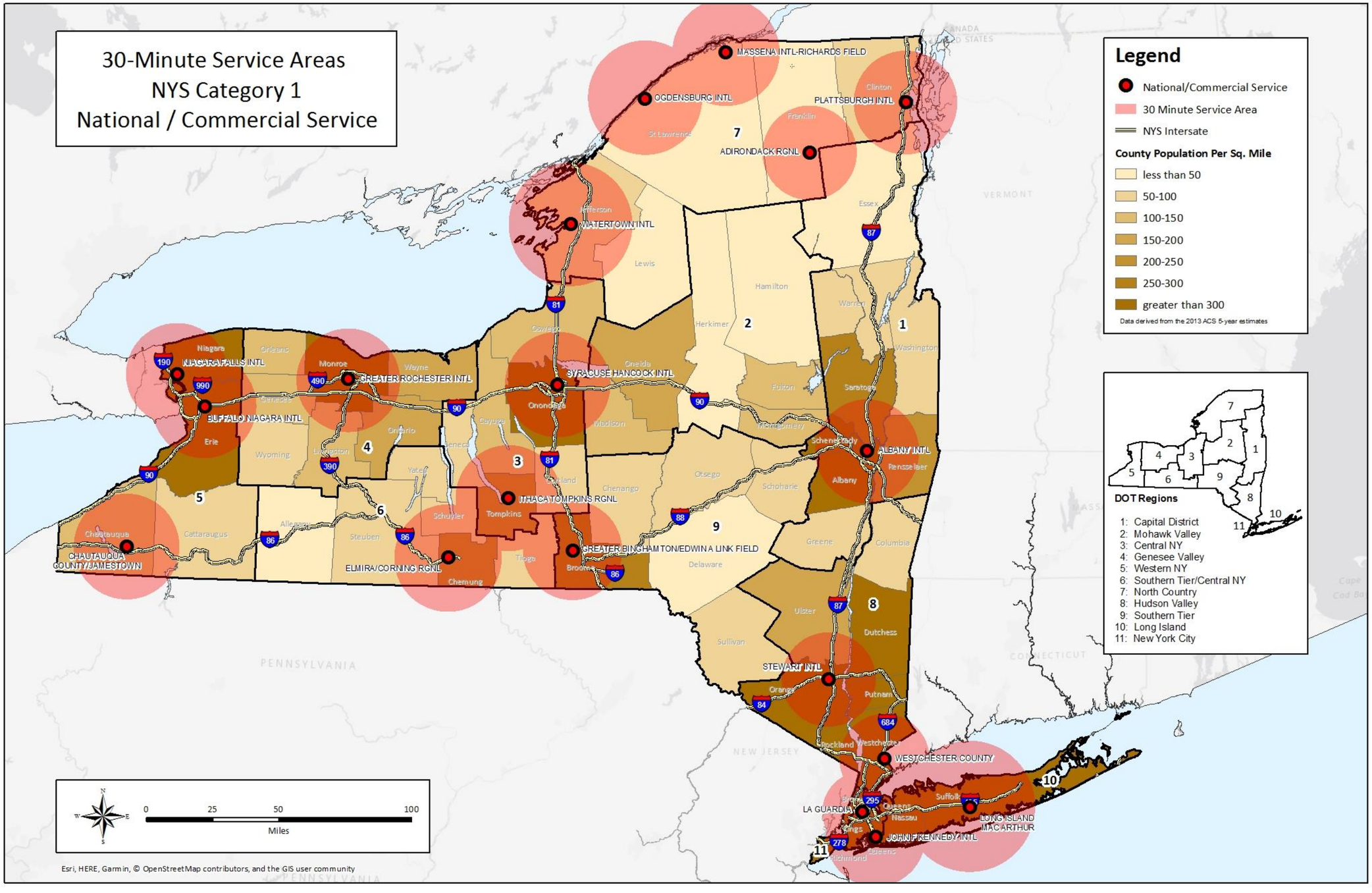
30-Minute Service Areas
NYS Category 1
National / Commercial Service
Legend
National/Commercial Service
30 Minute Service Area
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
MASSENA INTL-RICHARDS FIELD
OGDENSBURG INTL
PLATTSBURGH INTL
ADIRONDACK RGNL
WATERTOWN INTL
NIAGARA FALLS INTL
GREATER ROCHESTER INTL
SYRACUSE HANCOCK INTL
BUFFALO NIAGARA INTL
ITHACA TOMPKINS RGNL
CHAUTAUQUA COUNTY/JAMESTOWN
ELMIRA/CORNING RGNL
GREATER BINGHAMTON/EDWIN A LINK FIELD
ALBANY INTL
STEWART INTL
WESTCHESTER COUNTY
LA GUARDIA
LONG ISLAND MAC ARTHUR
JOHN F KENNEDY INTL
0 25 50 100
Miles
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**Figure G-2:**

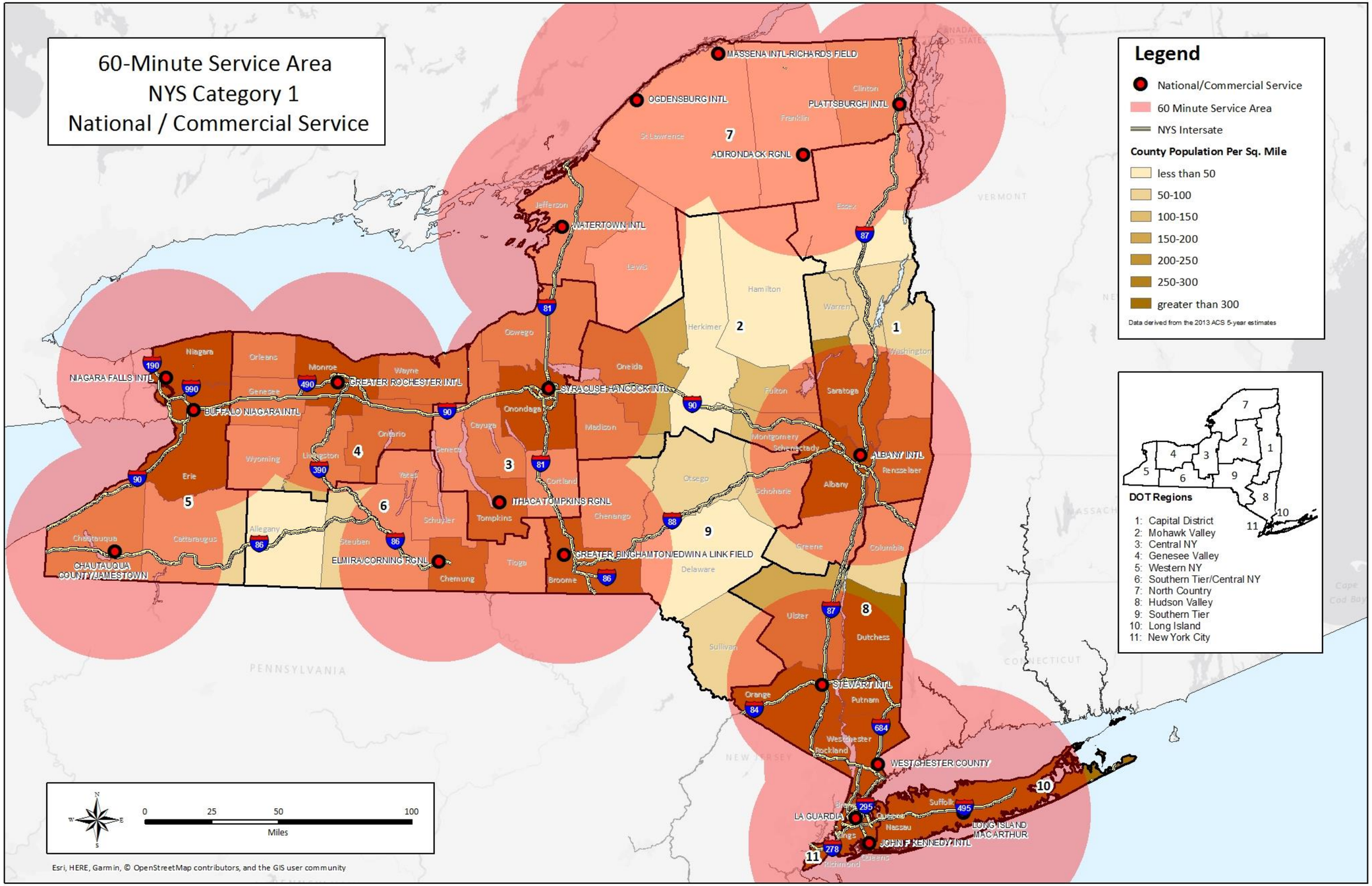
60-Minute Service Area
NYS Category 1
National / Commercial Service
MASSENA INTL-RICHARDS FIELD
OGDENSBURG INTL
PLATTSBURGH INTL
ADIRONDACK RGNL
WATERTOWN INTL
NIAGARA FALLS INTL
BUFFALO NIAGARA INTL
GREATER ROCHESTER INTL
SYRACUSE-HANCOCK INTL
ITHACA TOMPKINS RGNL
ELMIRA/CORNING RGNL
CHAUTAUQUA COUNTY/JAMESTOWN
GREATER BINGHAMTON/EDWIN A LINK FIELD
ALBANY INTL
STEWART INTL
WESTCHESTER COUNTY
LA GUARDIA
JOHN F KENNEDY INTL
LONG ISLAND MACARTHUR
Legend
National/Commercial Service
60 Minute Service Area
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
0 25 50 100
Miles
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**Figure G-3:**

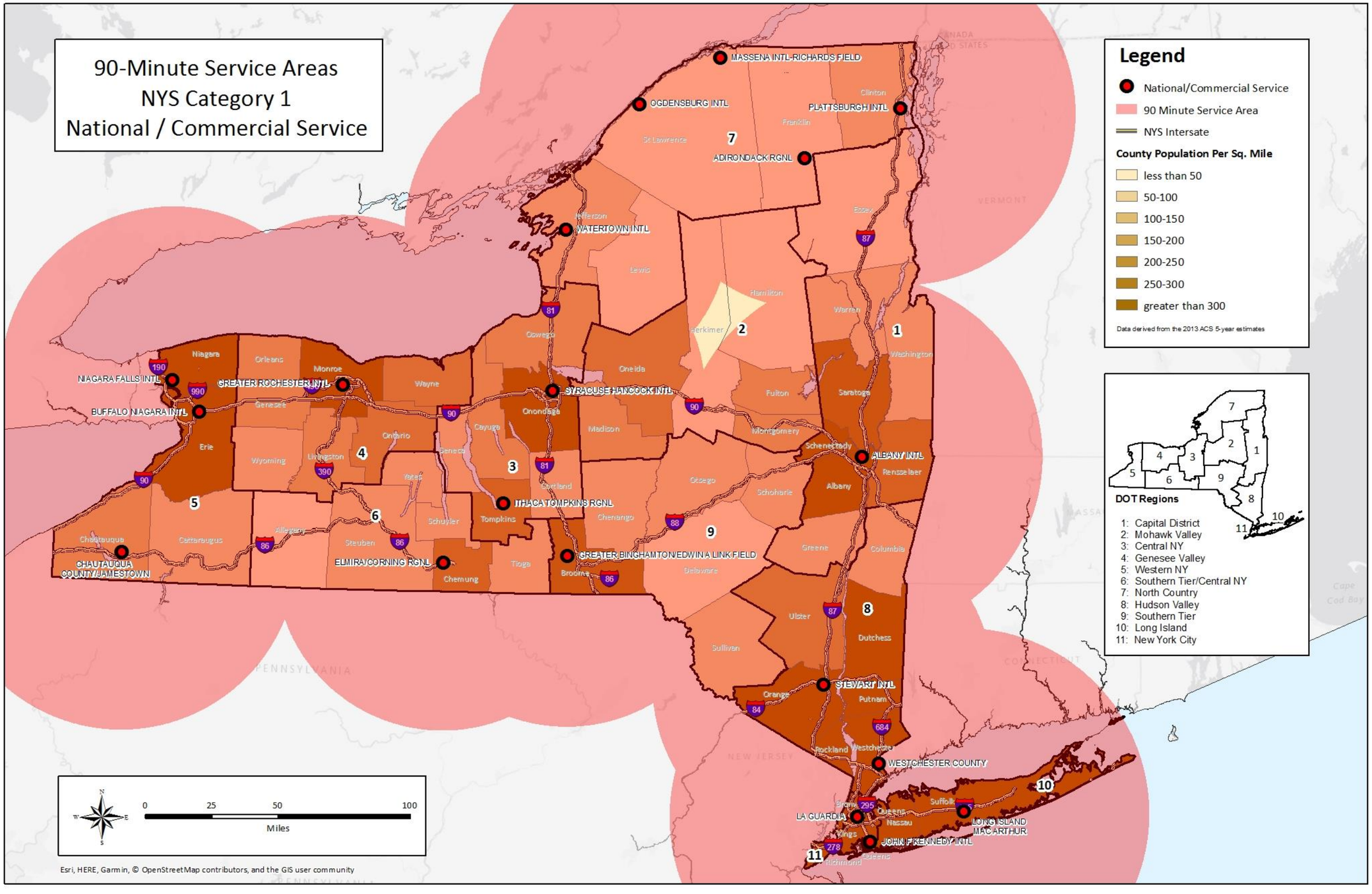
90-Minute Service Areas
NYS Category 1
National / Commercial Service
MASSENA INTL-RICHARDS FIELD
OGDENSBURG INTL
PLATTSBURGH INTL
ADIRONDACK RGNL
WATERTOWN INTL
NIAGARA FALLS INTL
GREATER ROCHESTER INTL
BUFFALO NIAGARA INTL
SYRACUSE HANCOCK INTL
ITHACA TOMPKINS RGNL
CHAUTAUQUA COUNTY/JAMESTOWN
ELMIRA/CORNING RGNL
GREATER BINGHAMTON/EDWIN A LINK FIELD
ALBANY INTL
STEWART INTL
WESTCHESTER COUNTY
LA GUARDIA
JOHN F KENNEDY INTL
LONG ISLAND MAC ARTHUR
Legend
National/Commercial Service
90 Minute Service Area
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
0 25 50 100
Miles
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**Figure G-4:**

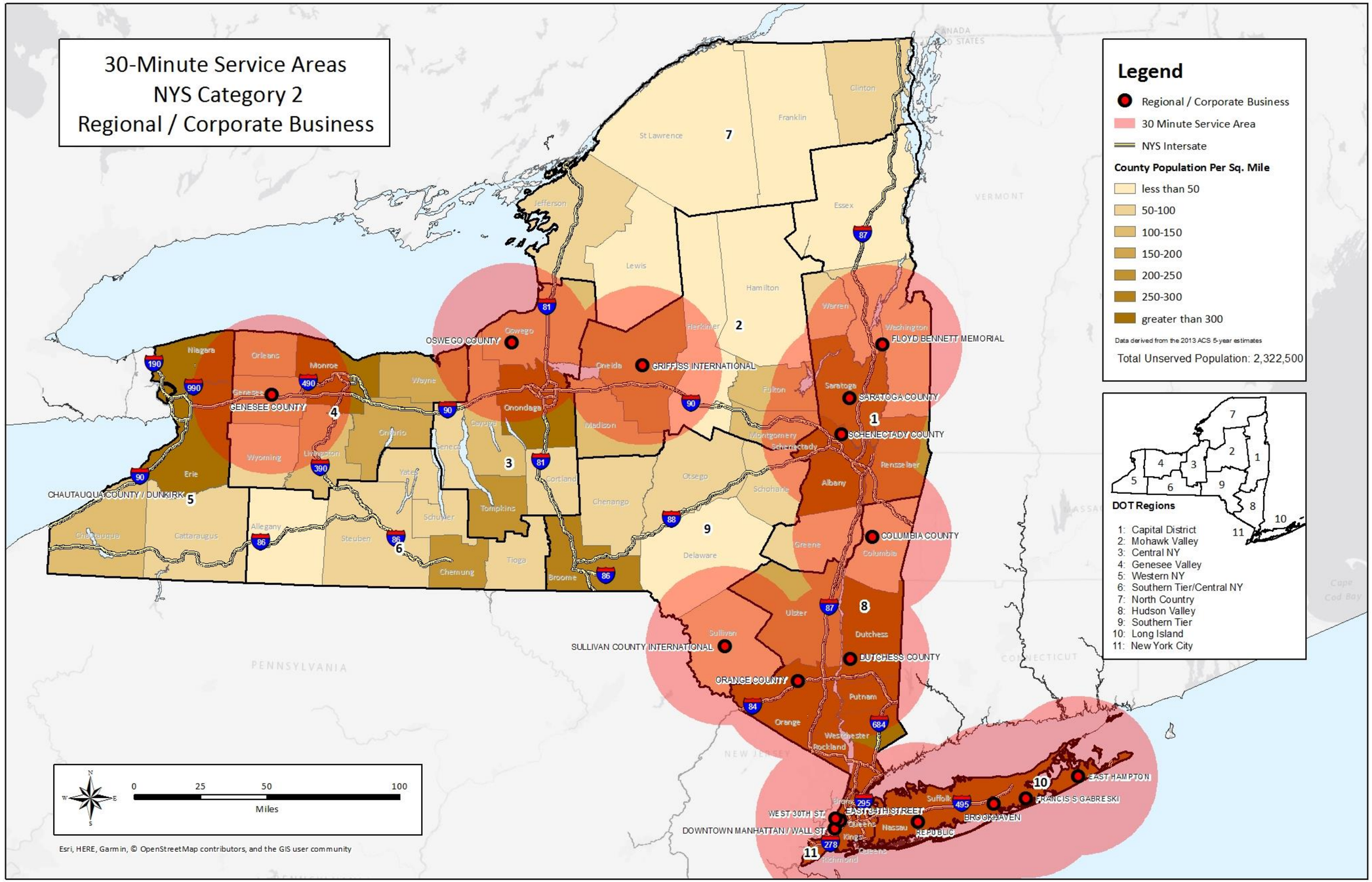
30-Minute Service Areas
NYS Category 2
Regional / Corporate Business
Legend
Regional / Corporate Business
30 Minute Service Area
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
Total Unserved Population: 2,322,500
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
OSWEGO COUNTY
GRIFFISS INTERNATIONAL
FLOYD BENNETT MEMORIAL
SARATOGA COUNTY
SCHENECTADY COUNTY
GENESEE COUNTY
CHAUTAUQUA COUNTY / DUNKIRK
COLUMBIA COUNTY
SULLIVAN COUNTY INTERNATIONAL
DUTCHESS COUNTY
ORANGE COUNTY
EAST HAMPTON
FRANCIS S GABRESKI
BROOKHAVEN
REPUBLIC
WEST 30TH ST.
EAST 34TH STREET
DOWNTOWN MANHATTAN / WALL ST.
0 25 50 100
Miles
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**Figure G-5:**

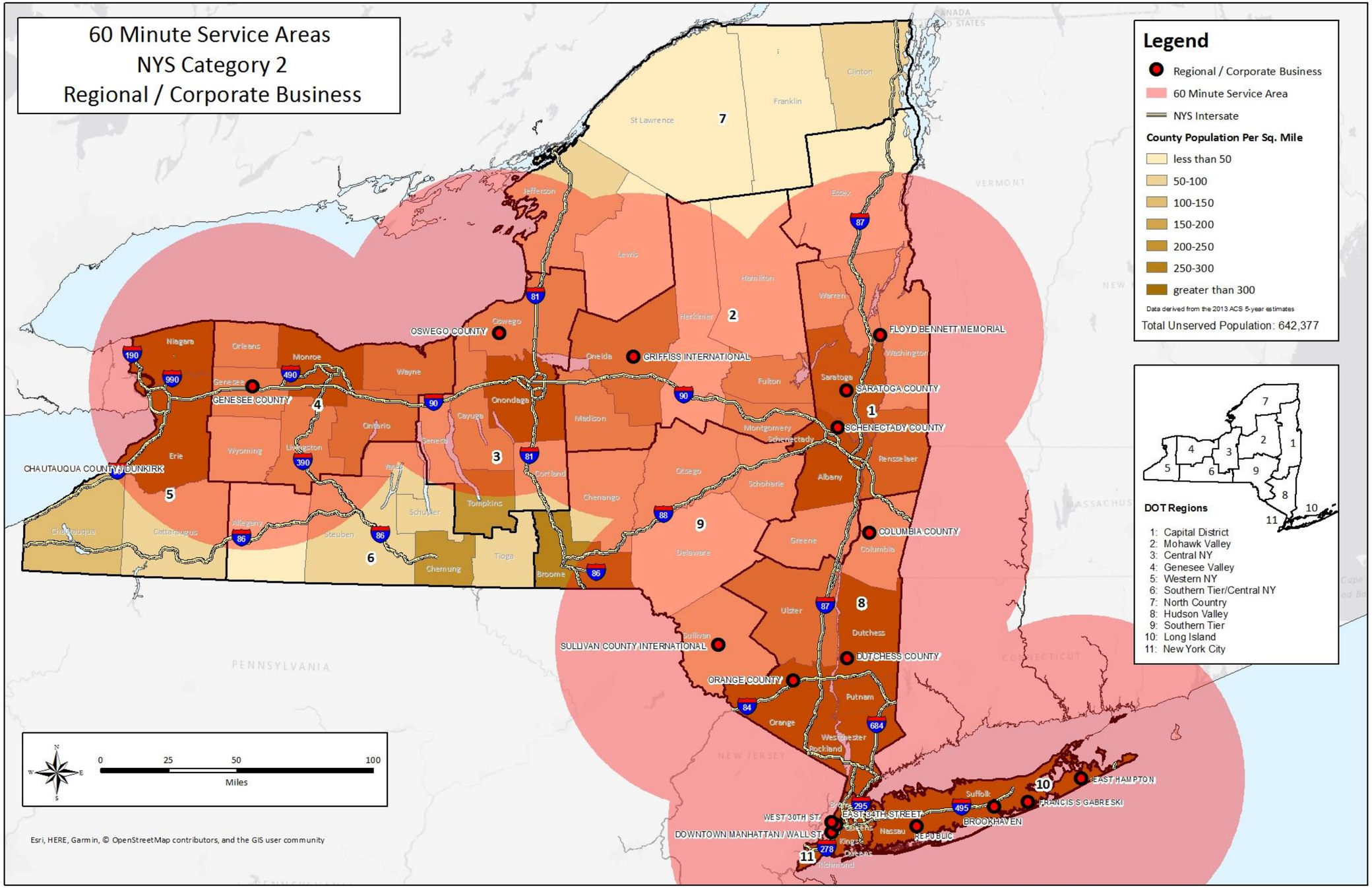
60 Minute Service Areas
NYS Category 2
Regional / Corporate Business
Legend
Regional / Corporate Business
60 Minute Service Area
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
Total Unserved Population: 642,377
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
OSWEGO COUNTY
GRIFFISS INTERNATIONAL
FLOYD BENNETT MEMORIAL
GENESEE COUNTY
SARATOGA COUNTY
SCHENECTADY COUNTY
CHAUTAUQUA COUNTY/DUNKIRK
COLUMBIA COUNTY
SULLIVAN COUNTY INTERNATIONAL
DUTCHESS COUNTY
ORANGE COUNTY
WEST 30TH ST.
EAST 34TH STREET
DOWNTOWN MANHATTAN / WALL ST.
REPUBLIC
BROOKHAVEN
FRANCIS S GABRESKI
EAST HAMPTON
0 25 50 100
Miles
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**Figure G-6:**

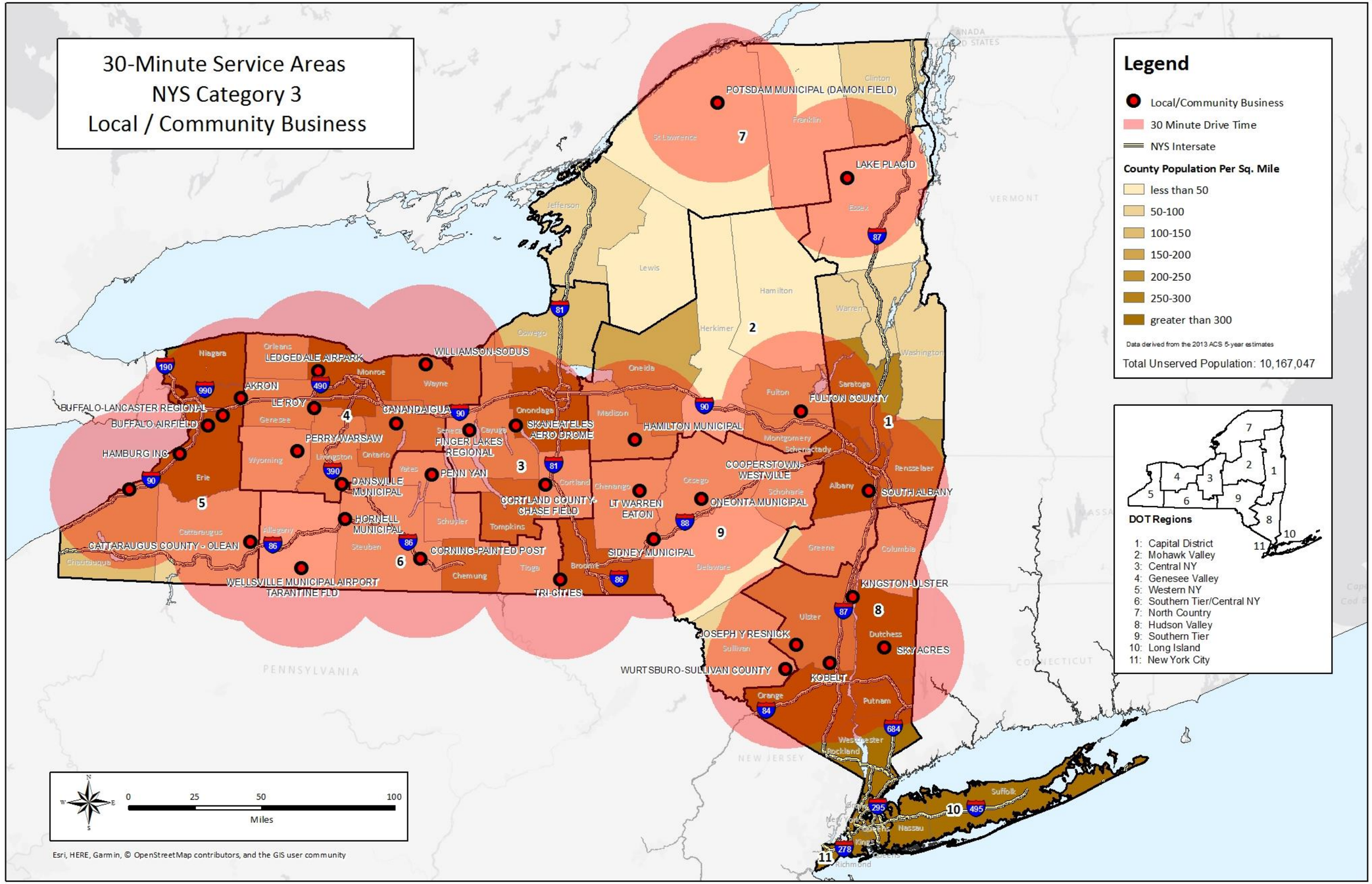
30-Minute Service Areas
NYS Category 3
Local / Community Business
Legend
Local/Community Business
30 Minute Drive Time
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
Total Unserved Population: 10,167,047
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
POTSDAM MUNICIPAL (DAMON FIELD)
LAKE PLACID
WILLIAMSON-SODUS
LEDGEDALE AIRPARK
AKRON
LE ROY
BUFFALO-LANCASTER REGIONAL
BUFFALO AIRFIELD
HAMBURG INC
PERRY-WARSAW
GANANDAIGUA
FINGER LAKES REGIONAL
SKANEATELES AERODROME
HAMILTON MUNICIPAL
FULTON COUNTY
COOPERSTOWN-WESTVILLE
SOUTH ALBANY
PENN YAN
DANSVILLE MUNICIPAL
HORNELL MUNICIPAL
CORNING-PAINTED POST
CORTLAND COUNTY-CHASE FIELD
LT WARREN EATON
ONEONTA MUNICIPAL
SIDNEY MUNICIPAL
CATTARAUGUS COUNTY - OLEAN
WELLSVILLE MUNICIPAL AIRPORT TARANTINE FLD
TRI-CITIES
KINGSTON-ULSTER
JOSEPH Y RESNICK
SKY ACRES
WURTSBURO-SULLIVAN COUNTY
KOBELT
0 25 50 100
Miles
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**Figure G-7:**

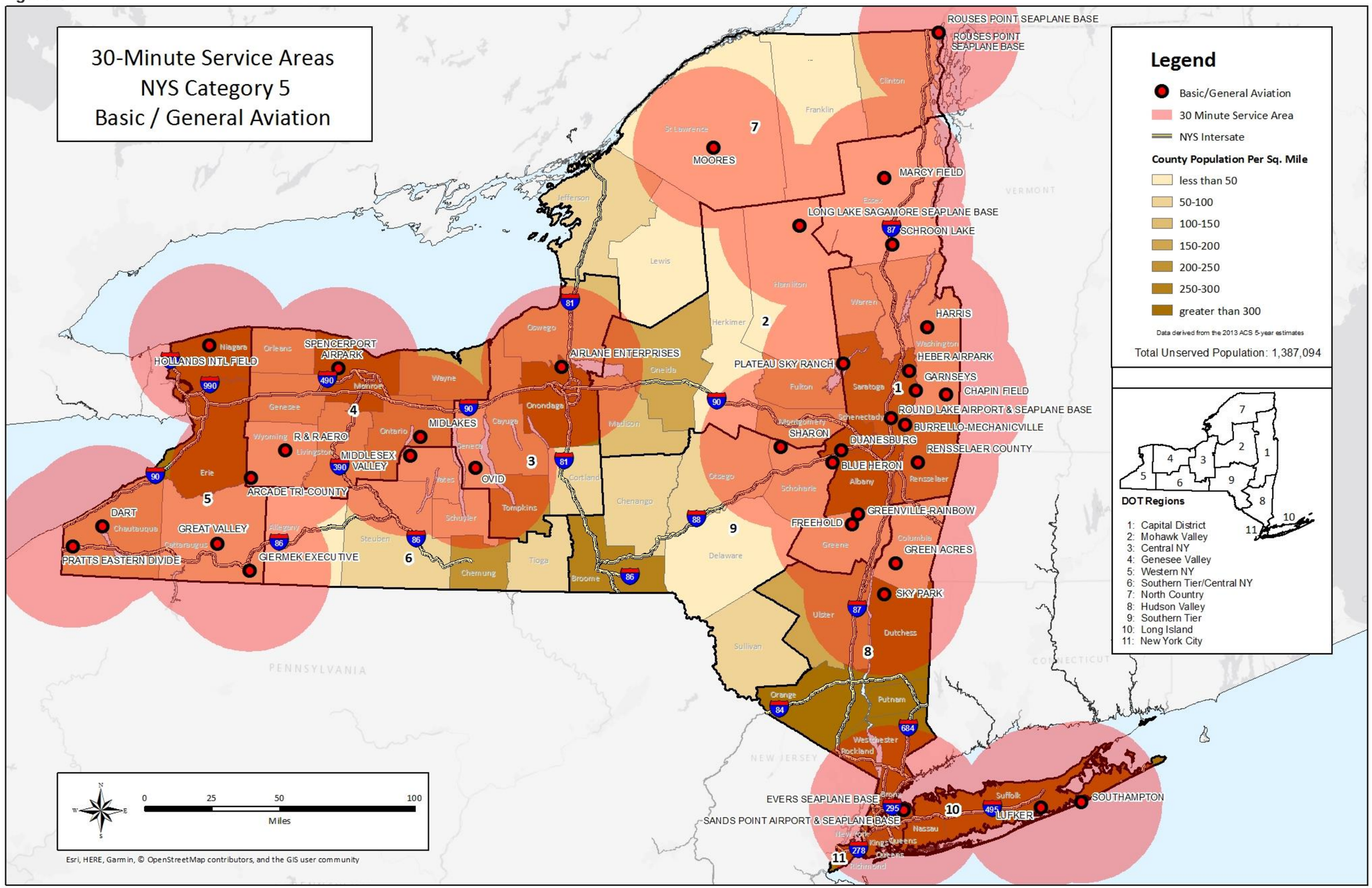
30-Minute Service Areas
NYS Category 5
Basic / General Aviation
Legend
Basic/General Aviation
30 Minute Service Area
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
Total Unserved Population: 1,387,094
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
ROUSES POINT SEAPLANE BASE
MOORES
MARCY FIELD
LONG LAKE SAGAMORE SEAPLANE BASE
SCHROON LAKE
HARRIS
HEBER AIRPARK
GARNSEYS
CHAPIN FIELD
ROUND LAKE AIRPORT & SEAPLANE BASE
BURRELLO-MECHANICVILLE
RENSSELAER COUNTY
GREENVILLE-RAINBOW
GREEN ACRES
SKY PARK
SOUTHAMPTON
LUFKER
EVERS SEAPLANE BASE
SANDS POINT AIRPORT & SEAPLANE BASE
PLATEAU SKY RANCH
SHARON
DUANESBURG
BLUE HERON
FREEHOLD
AIRLANE ENTERPRISES
SPENCERPORT AIRPARK
HOLLANDS INTL FIELD
MIDLAKES
R & R AERO
MIDDLESEX VALLEY
ARCADE TRI-COUNTY
OVID
DART
GREAT VALLEY
PRATTS EASTERN DIVIDE
GIERMEK EXECUTIVE
0 25 50 100
Miles
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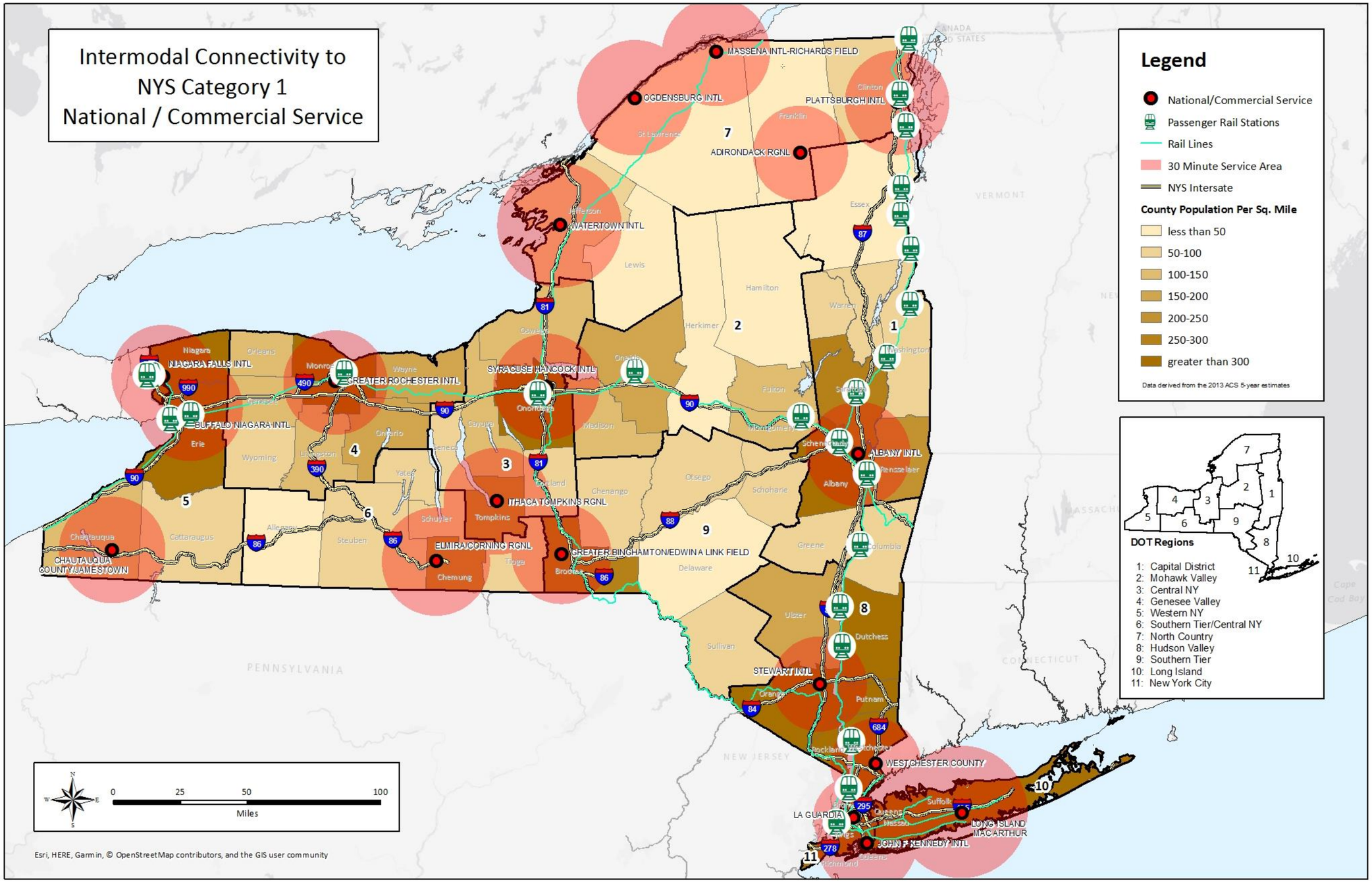
**Figure G-8:**


Intermodal Connectivity to
NYS Category 1
National / Commercial Service
MASSENA INTL-RICHARDS FIELD
OGDENSBURG INTL
PLATTSBURGH INTL
ADIRONDACK RGNL
WATERTOWN INTL
NIAGARA FALLS INTL
GREATER ROCHESTER INTL
SYRACUSE HANCOCK INTL
BUFFALO NIAGARA INTL
ITHACA TOMPKINS RGNL
ELMIRA/CORNING RGNL
GREATER BINGHAMTON/EDWIN A LINK FIELD
CHAUTAUQUA COUNTY/JAMESTOWN
ALBANY INTL
STEWART INTL
WESTCHESTER COUNTY
LA GUARDIA
LONG ISLAND MAC ARTHUR
JOHN F KENNEDY INTL
Legend
National/Commercial Service
Passenger Rail Stations
Rail Lines
30 Minute Service Area
NYS Intersate
County Population Per Sq. Mile
less than 50
50-100
100-150
150-200
200-250
250-300
greater than 300
Data derived from the 2013 ACS 5-year estimates
DOT Regions
1: Capital District
2: Mohawk Valley
3: Central NY
4: Genesee Valley
5: Western NY
6: Southern Tier/Central NY
7: North Country
8: Hudson Valley
9: Southern Tier
10: Long Island
11: New York City
0 25 50 100
Miles
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# Appendix H

## ACIP Data Received by Airport

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| ACIP Data Received by Airport (1 of 4) | | | | |
|---|---|---|---|---|
| Facility Name | FAA Loc ID | SASP Category | NPIAS Category | ACIP |
| Adirondack Regional | SLK | Cat 1 - National / Commercial Service | Regional, Non-primary | Yes |
| Airhaven | 09N | Cat 4 - Local / General Aviation | | |
| Airlane Enterprise | 1H1 | Cat 5 - Basic / General Aviation | | |
| Akron | 9G3 | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Albany International | ALB | Cat 1 - National / Commercial Service | Small hub, Primary | Yes |
| Arcade Tri-County | D23 | Cat 5 - Basic / General Aviation | | |
| Argyle | 1C3 | Cat 4 - Local / General Aviation | | |
| Bayport Aerodrome | 23N | Cat 4 - Local / General Aviation | Local, Non-primary | |
| Becks Grove | K16 | Cat 4 - Local / General Aviation | | |
| Blue Heron | N25 | Cat 5 - Basic / General Aviation | | |
| Brookhaven | HWV | Cat 2 - Regional / Corporate Business | Local, Non-primary | |
| Buffalo Airfield | 9G0 | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Buffalo - Lancaster Regional | BQR | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Buffalo Niagara International | BUF | Cat 1 - National / Commercial Service | Medium hub, Primary | Yes |
| Burrello - Mechanicville | K27 | Cat 5 - Basic / General Aviation | | |
| Canandaigua | IUA | Cat 3 - Local / Community Business | Local, Non-primary | |
| Cattaraugus County - Olean | OLE | Cat 3 - Local / Community Business | Basic, Non-primary | Yes |
| Chapin Field | 1B8 | Cat 5 - Basic / General Aviation | | |
| Chautauqua County / Dunkirk | DKK | Cat 3 - Local / Community Business | Regional, Non-primary | Yes |
| Chautauqua County / Jamestown | JHW | Cat 1 - National / Commercial Service | Regional, Non-primary | Yes |
| Clarence Aerodrome | D51 | Cat 4 - Local / General Aviation | | |
| Columbia County | 1B1 | Cat 3 - Local / Community Business | Regional, Non-primary | Yes |
| Cooperstown - Westville | K23 | Cat 4 - Local / General Aviation | | |
| Corning - Painted Post | 7N1 | Cat 3 - Local / Community Business | Local, Non-primary | |
| Cortland County - Chase Field | N03 | Cat 3 - Local / Community Business | Local, Non-primary | |
| Dansville Municipal | DSV | Cat 3 - Local / Community Business | Local, Non-primary | Yes |
| Dart | D79 | Cat 5 - Basic / General Aviation | | |
| Downtown Manhattan - Wall St | JRB | Cat 2 - Regional / Corporate Business | Unclassified, Non-primary | |
| Duanesburg | 4B1 | Cat 5 - Basic / General Aviation | Unclassified, Non-primary | |
| East 34th Street Heliport | 6N5 | Cat 2 - Regional / Corporate Business | Unclassified, Non-primary | |
| East Hampton | HTO | Cat 2 - Regional / Corporate Business | Regional, Non-primary | |
| Elizabeth Field | 0B8 | Cat 4 - Local / General Aviation | Basic, Non-primary | Yes |
| Elmira - Corning Regional | ELM | Cat 1 - National / Commercial Service | Non-hub, Primary | Yes |
| Evers SPB | 6N6 | Cat 5 - Basic / General Aviation | | |

| ACIP Data Received by Airport (2 0f 4) | | | | |
|---|---|---|---|---|
| Facility Name | FAA Loc ID | SASP Category | NPIAS Category | ACIP |
| Finger Lakes Regional | 0G7 | Cat 3 - Local / Community Business | Local, Non-primary | |
| Floyd Bennett Memorial | GFL | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Francis S Gabreski | FOK | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Frankfort - Highland | 6B4 | Cat 4 - Local / General Aviation | Unclassified, Non-primary | Yes |
| Freehold | 1I5 | Cat 5 - Basic / General Aviation | Unclassified, Non-primary | |
| Fulton County | NY0 | Cat 3 - Local / Community Business | Local, Non-primary | Yes |
| Garnseys | B04 | Cat 5 - Basic / General Aviation | | |
| Genesee County | GVQ | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Geneseo | D52 | Cat 4 - Local / General Aviation | | |
| Giermek Executive | 8G3 | Cat 5 - Basic / General Aviation | | |
| Gowanda | D59 | Cat 4 - Local / General Aviation | | |
| Great Valley | N56 | Cat 5 - Basic / General Aviation | | |
| Greater Binghamton/ Edwin A Link Field | BGM | Cat 1 - National / Commercial Service | Non-hub, Primary | Yes |
| Greater Rochester International | ROC | Cat 1 - National / Commercial Service | Small hub, Primary | Yes |
| Green Acres | 1A1 | Cat 5 - Basic / General Aviation | | |
| Greene | 4N7 | Cat 4 - Local / General Aviation | | |
| Greenville-Rainbow | 1H4 | Cat 5 - Basic / General Aviation | | |
| Griffiss International | RME | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Hamburg Inc | 4G2 | Cat 3 - Local / Community Business | | |
| Hamilton Municipal | VGC | Cat 3 - Local / Community Business | Local, Non-primary | Yes |
| Harris | 83K | Cat 5 - Basic / General Aviation | | |
| Haverstraw Heliport | H43 | Cat 4 - Local / General Aviation | | |
| Heber Airpark | K30 | Cat 5 - Basic / General Aviation | | |
| Hollands International Field | 85N | Cat 5 - Basic / General Aviation | | |
| Hornell Municipal | HTF | Cat 3 - Local / Community Business | Local, Non-primary | Yes |
| Hudson Valley Regional | POU | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Ithaca Tompkins Regional | ITH | Cat 1 - National / Commercial Service | Non-hub, Primary | Yes |
| John F Kennedy International | JFK | Cat 1 - National / Commercial Service | Large hub, Primary | |
| Joseph Y Resnick | N89 | Cat 3 - Local / Community Business | Local, Non-primary | Yes |
| Kingston - Ulster | 20N | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Kline Kill | NY1 | Cat 4 - Local / General Aviation | | |
| Kobelt | N45 | Cat 3 - Local / Community Business | Unclassified, Non-primary | |
| LaGuardia | LGA | Cat 1 - National / Commercial Service | Large hub, Primary | |
| Lake Placid | LKP | Cat 3 - Local / Community Business | Local, Non-primary | Yes |

| ACIP Data Received by Airport (3 of 4) | | | | |
|---|---|---|---|---|
| Facility Name | FAA Loc ID | SASP Category | NPIAS Category | ACIP |
| Le Roy | 5G0 | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Ledgedale Airpark | 7G0 | Cat 3 - Local / Community Business | Unclassified, Non-primary | |
| Long Island MacArthur | ISP | Cat 1 - National / Commercial Service | Small hub, Primary | Yes |
| Long Lake / Helms SPB | NY9 | Cat 4 - Local / General Aviation | | |
| Long Lake Sagamore SPB | K03 | Cat 5 - Basic / General Aviation | | |
| Lt Warren Eaton | OIC | Cat 3 - Local / Community Business | Basic, Non-primary | Yes |
| Lufker | 49N | Cat 5 - Basic / General Aviation | | |
| Malone-Dufort | MAL | Cat 4 - Local / General Aviation | Basic, Non-primary | Yes |
| Marcy Field | 1I1 | Cat 5 - Basic / General Aviation | | |
| Massena International-Richards Field | MSS | Cat 1 - National / Commercial Service | Regional, Non-primary | Yes |
| Mattituck | 21N | Cat 5 - Basic / General Aviation | | |
| Middlesex Valley | 4N2 | Cat 5 - Basic / General Aviation | | |
| Midlakes | 92G | Cat 5 - Basic / General Aviation | | |
| Montauk | MTP | Cat 4 - Local / General Aviation | Unclassified, Non-primary | |
| Moores | 1E8 | Cat 5 - Basic / General Aviation | | |
| New York Skyports Inc SPB | 6N7 | Cat 4 - Local / General Aviation | Unclassified, Non-primary | |
| Niagara Falls International | IAG | Cat 1 - National / Commercial Service | Non-hub, Primary | Yes |
| North Buffalo Suburban | 0G0 | Cat 4 - Local / General Aviation | Unclassified, Non-primary | |
| Ogdensburg International | OGS | Cat 1 - National / Commercial Service | Basic, Non-primary | Yes |
| Oneonta Municipal | N66 | Cat 3 - Local / Community Business | Basic, Non-primary | Yes |
| Orange County | MGJ | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Oswego County | FZY | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Ovid | D82 | Cat 5 - Basic / General Aviation | | |
| Penn Yan | PEO | Cat 3 - Local / Community Business | Local, Non-primary | Yes |
| Perry-Warsaw | 01G | Cat 3 - Local / Community Business | Basic, Non-primary | |
| Pine Hill | 9G6 | Cat 4 - Local / General Aviation | | |
| Piseco Municipal | K09 | Cat 4 - Local / General Aviation | Basic, Non-primary | |
| Plateau Sky Ranch | 1F2 | Cat 5 - Basic / General Aviation | | |
| Plattsburgh International | PBG | Cat 1 - National / Commercial Service | Non-hub, Primary | Yes |
| Potsdam Municipal (Damon Field) | PTD | Cat 3 - Local / Community Business | Basic, Non-primary | Yes |
| Pratt's Eastern Divide | D88 | Cat 5 - Basic / General Aviation | | |
| R & R Aero | 5R5 | Cat 5 - Basic / General Aviation | | |
| Randall | 06N | Cat 4 - Local / General Aviation | Unclassified, Non-primary | Yes |
| Rensselaer County | 5B7 | Cat 5 - Basic / General Aviation | Unclassified, Non-primary | |

| ACIP Data Received by Airport (4 of 4) | | | | |
|---|---|---|---|---|
| Facility Name | FAA Loc ID | SASP Category | NPIAS Category | ACIP |
| Republic | FRG | Cat 2 - Regional / Corporate Business | National, Non-primary | Yes |
| Round Lake | W57 | Cat 5 - Basic / General Aviation | | |
| Rouses Point SPB | K21 | Cat 5 - Basic / General Aviation | | |
| Royalton | 9G5 | Cat 4 - Local / General Aviation | Unclassified, Non-primary | |
| Sands Point SPB | 7N3 | Cat 5 - Basic / General Aviation | | |
| Saratoga County | 5B2 | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Schenectady County | SCH | Cat 2 - Regional / Corporate Business | Regional, Non-primary | Yes |
| Schroon Lake | 4B7 | Cat 5 - Basic / General Aviation | Unclassified, Non-primary | |
| Sharon | K31 | Cat 5 - Basic / General Aviation | | |
| Sidney Municipal | N23 | Cat 3 - Local / Community Business | Local, Non-primary | |
| Skaneateles Aero Drome | 6B9 | Cat 3 - Local / Community Business | Unclassified, Non-primary | |
| Sky Acres | 44N | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Sky Park | 46N | Cat 5 - Basic / General Aviation | Unclassified, Non-primary | |
| South Albany | 4B0 | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Southampton Heliport | 87N | Cat 5 - Basic / General Aviation | | |
| Spencer Airpark | D91 | Cat 5 - Basic / General Aviation | | |
| Stewart International | SWF | Cat 1 - National / Commercial Service | Non-hub, Primary | |
| Sullivan County International | MSV | Cat 2 - Regional / Corporate Business | Local, Non-primary | |
| Syracuse Hancock International | SYR | Cat 1 - National / Commercial Service | Small hub, Primary | Yes |
| Ticonderoga Municipal | 4B6 | Cat 4 - Local / General Aviation | Basic, Non-primary | Yes |
| Tri-Cities | CZG | Cat 3 - Local / Community Business | Local, Non-primary | |
| Warwick Municipal | N72 | Cat 4 - Local / General Aviation | Local, Non-primary | |
| Watertown International | ART | Cat 1 - National / Commercial Service | Non-hub, Primary | Yes |
| Wellsville Municipal Airport | ELZ | Cat 3 - Local / Community Business | Local, Non-primary | Yes |
| West 30th St Heliport | JRA | Cat 2 - Regional / Corporate Business | Unclassified, Non-primary | |
| Westchester County | HPN | Cat 1 - National / Commercial Service | Small hub, Primary | Yes |
| Whitfords | B16 | Cat 4 - Local / General Aviation | Unclassified, Non-primary | |
| Williamson - Sodus | SDC | Cat 3 - Local / Community Business | Unclassified, Non-primary | Yes |
| Wurtsboro - Sullivan County | N82 | Cat 3 - Local / Community Business | Unclassified, Non-primary | |

Source: NYSDOT

*End of Report*