



# 5

## *Data Collection and Inventory*

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## Chapter 5

### Data Collection and Inventory

Detailed information regarding existing infrastructure, conditions, operations, and plans for the 106 airports that are part of the Florida airport system serves as the basis for many of the analyses and recommendations presented in this plan. The inventory process updated information from the previous Florida Aviation System Plan (FASP) effort and created a common data repository with relevant information about each airport. The information will ultimately be used to make decisions related to airport development, airport role classification, planning, and funding. Hence, the inventory process is a foundational step for the development of comprehensive recommendations and plans for Florida’s aviation system.

This chapter documents the process used to create the updated airport and aviation inventory for the FASP.

#### 5.1 Phase 1 Florida Department of Transportation (FDOT) and Industry Surveys

To begin the data collection, two survey efforts were undertaken to obtain information from FDOT Aviation Office (FDOT AO) staff and airport managers across the entire system. These surveys were conducted to investigate performance measures (PMs) for consideration and to review the types of activities and emerging trends potentially of interest for the FDOT AO to consider in the FASP 2043. The intent, process, and results of each are noted below.

##### 5.1.1 FDOT AO Staff Surveys

Early in Phase 1, FDOT AO staff completed surveys regarding PMs and their implementation and level of influence within Florida’s aviation system. Survey questions included many that evaluated current goals and PMs within the existing FASP. Other survey items asked participants to rank the success of existing PM implementation and to identify how future PMs should be implemented. In addition, the survey identified several PMs used nationally and asked respondents to rank their importance. Notably, 100 percent of the staff surveyed identified airport inspections, airport layout plans (ALPs), airport master plans, and pavement condition index (PCI) studies as important PMs to consider in the future.

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##### 5.1.2 Airport Management Survey

A two-part survey distributed to airport managers assessed various aviation activities along with airport perspectives on emerging trends. The FDOT AO issued the survey via email. Questions targeted areas of interest including aviation activities taking place at system airports and the importance of emerging trends. First, managers were asked to assess whether specified airport

services and aircraft activities at their airports occurred at no level (none), minor levels, moderate, or significant levels. Second, airport managers were asked to assess whether the timing of anticipated impacts of emerging trends and technologies to their airports would be immediate, near-term, mid-term, long-term, or would not have an impact at all. **Appendix C – Airport Activity/Emerging Trends Survey Results** summarizes the results.

**Aviation Activity**

The purpose of the aviation activity survey was to help the FDOT AO understand the diversity of the activity across the system. The survey results confirmed that the Florida aviation system does, in fact, host diverse aviation activities across the state. The survey results were used to inform the development of the goals and PMs. The wide range of activities across the system includes aircraft maintenance; manufacturing; maintenance, repair, overhaul (MRO); air cargo operations; charter activities; military operations; and flight instruction. **Table 5-1** contains a summary of some of the activity survey highlights.

**Table 5-1. Summary of Airport Activity Survey Results**

Percentage of Airports Reporting	Airports Reporting Specific Activities
40%	Significant or moderate amount of charter flights
50%	Significant or moderate number of corporate flights
43%	Some level of agricultural spraying flights
58%	Significant level of personal/recreational flights
70%	Flight Club activity
70%	Sightseeing flights
80%	Emergency medical/air ambulance flights
80%	Law enforcement flights
10%	Significant military exercises/training flights
58%	Environmental or natural resources flights
20%	Prisoner transport
50%	Aerial inspection flights
66%	Aerial photography flights
80%	Private flight instruction activities
64%	Part 61 flight instruction activities

Source: 2022 FASP Phase 1 Airport Manager Survey

**Emerging Trends and Technologies Survey**

The emerging trends and technology portion of the airport survey was conducted to assist with focusing potential goals/objectives/PMs to support future development. In addition, this portion was necessary to access individual airport perspectives on current “hot topics” across the nation to see if these “hot” topics are relevant to the Florida aviation system. The

**Figure 5-1. Example of Electric Ground Service Equipment (GSE)**



responses were also used to guide PM development, where appropriate. General topics noted in the airport survey included the following:

- Electrification of Vehicles – Aircraft, Ground Support Equipment (GSE), and Passenger Vehicles.
- Equipment Innovations – Aircraft Counting, Remote Airport Traffic Control Tower (ATCT), Weather Reporting.
- Resiliency and Sustainability – Power Alternatives, Fuel Alternatives, Weather Impacts.
- Advanced Air Mobility (AAM) – AAM/Urban Air Mobility (UAM)/ Electric Vertical Takeoff and Landing Aircraft (eVTOL).

Understanding the prevalence of a variety of airport activities and facilities allows the FDOT AO to proactively assess the needs necessary to accommodate existing and future flight activities within the system. This ability to evaluate demand by an assortment of flight activities together with the ability to identify where aviation-related facilities are available will allow the FDOT AO to be better positioned to accommodate them in future airport programming efforts.

In addition, the FDOT AO plays an important role with developments in emerging trends and technologies by being involved to represent the interests and challenges of airports across the state. By doing so and implementing recommendations related to the emerging trends, Florida will be well positioned to accommodate the increase in use of electrification of vehicles, Sustainable Aviation Fuels (SAFs), and the rapidly developing and impending airworthiness certification and operations use of AAM aircraft.

These survey findings provided guidance in selection of the following topics, which, as Part of Phase 1, were targeted for future review. **Chapter 8 – Aviation Office Initiatives** discusses the brief working papers developed to address these topics:

- Electrification of Airports.
- Power Alternatives.
- Resource Management.
- Sustainable Aviation Fuel (SAF).
- Unleaded AVGAS.
- Weather Reporting Alternatives.

**Figure 5-2. Example of Electric Passenger Vehicle**



**Figure 5-3. Example of Weather Reporting Equipment**



**Figure 5-4. Example of Electric Vertical Takeoff and Landing (eVTOL) Aircraft**



## 5.2 Phase 1 Review of Existing Documents

As part of Phase 1, review of documents that addressed aviation related data, which may require FDOT AO support, was important. These items were relevant in terms of PMs that could be considered important for the FASP update. These documents included sources within Florida and other industry resources.

### 5.2.1 Florida Related Documents

Several sources reviewed outside of the FDOT AO that measure various aviation-related topics were reviewed as input into the development of PMs and included:

- Florida Transportation Plan.
- FDOT Freight Mobility and Trade Plan.
- FDOT Source Book.
- FDOT Strategic Intermodal System (SIS) Policy Plan.

The results of the document review identified eleven performance measures and eleven performance indicators (PIs) for consideration in the FASP.



### 5.2.2 ACRP Report 223: Performance Measures for State Aviation Agencies

Numerous performance measures are detailed in Airport Cooperative Research Program (ACRP) Research Report 223: *Performance Measures for State Aviation Agencies*.



Other comparable state PMs were reviewed within ACRP 223 for their compatibility with the FASP. Out of the ACRP 223 review, six other states were identified as comparable to Florida, plus 55 PMs and 45 PIs were identified as appropriate for further review and consideration for the FASP.

### 5.2.3 Summary of Other Documents

Through the review of existing FASP PMs and PIs, a review of other FDOT-related document PMs and PIs, and an assessment of PMs from comparable airports identified in ACRP Report 223, a multitude of PMs were identified for consideration to implement within FASP 2043.



This summary of 100 measures (PMs and PIs) were presented to the FDOT AO staff for consideration and became the foundation for the assessment of the recommended PMs and PIs outlined in **Chapter 4 – System Goals**.

### 5.3 Phase 1 Initial Data Collection Process

The FASP 2043 inventory is based on a variety of public and proprietary data sources as well as direct contact with airports. A primary goal of the effort was the capture of relevant information at appropriate levels of detail and relevancy that ultimately feed and support capital and operational planning decisions for the FDOT Aviation Office (AO), district coordinators, and airport managers. The data sources and elements collected throughout the inventory process were selected to align with the goals and objectives laid out for the FASP 2043 and the associated PMs and PIs. The initial data collection effort focused on the following information sources:

- Federal Aviation Administration (FAA) Airport Data and Information Portal (ADIP) - FAA Form 5010 (Airport Master Record).
- FAA National Airspace System Resource (NASR).
- National Based Aircraft Inventory Program.
- FAA Operations Network (OPSNET).
- Master Plans and Airport Layout Plans (ALP).
- Statewide Airfield Pavement Management Program (SAPMP).
- Airport Websites.

The information obtained from these data sources was processed and merged into a master database.

### 5.4 Phase 2 Airport Surveys

Following the initial inventory and data collection effort in Phase 1, an online survey was developed and distributed to points of contact for each of the 106 system airports through Phase 2. Survey participants included airport managers, operators, and contractors. The purpose of the survey was three-fold:

- To verify and update information gained from published data sources regarding airport facilities and airport services.
- To provide guidance on conflicting information obtained from other data sources.

- To obtain airport data that is not readily available through public data sources such as hangar availability, plans for technological improvements, and FAA safety compliance.

The survey was developed and distributed to airport points of contact using an Excel spreadsheet. Survey questions included pre-populated data from public sources that airports were asked to confirm or update. It contained a total of 48 questions individually customized for each airport according to information previously obtained. The survey was distributed through the FDOT district aviation coordinators. Targeted follow-ups via e-mail and telephone calls were conducted to maximize the response rate and ultimately the accuracy of the information in the inventory database. Follow-up calls and emails were centered on clarification of information entered that contradicted what was publicly available, or survey responses that displayed a misunderstanding of the questions asked. In total, 105 out of the 106 system airports responded to the survey. Non-responsive airport data was populated based on publicly available information.

Responses were consolidated into a comprehensive survey response database following a detailed clean-up process that identified and corrected errors and inconsistencies in the collected data. Data validation was also conducted with publicly available information.