

# Advisory Circular

**Subject:** Airport Data and Information Program

Date: DRAFTAC No: 150/5300-19Initiated by: AAS-100Change:

1. PURPOSE. This advisory circular (AC) provides general guidance and information for airport authorities in the collection and management of data describing the physical infrastructure, characteristics, and services of their airport. It also describes how and when airports are inspected to ensure conformance with standards and applicability and currency of the published information. The data collected and maintained by the Airport Data and Information program is source material for the agency's aeronautical information database, for use in the dissemination of aviation information to the public, preparation of government and private industry aeronautical charts and related flight information publications as required by title 49 *United States Code* 44721, 49 U.S.C. 47130, and the planning and programming of various programs within the Federal Aviation Administration (FAA).

**2. DISTRIBUTION.** This AC is distributed to FAA Washington DC headquarters, director level, and the regional offices and field offices of Airports, Air Traffic Organization (ATO), and the Office of Aviation Safety (AVS).

**3.** CANCELLATION. This AC cancels AC 150/5200-35A, Submitting the Airport Master Record in Order to Activate a New Airport, dated May 2, 2004.

4. EFFECTIVE DATE. The effective date of this AC is January 2, 2013.

**5. PRINCIPAL CHANGES.** This AC provides new standards and recommended practices and automation capabilities for airport operators to manage their data within the FAA's authoritative source, Airports Geographic Information System (Airports GIS). With these new standards and capabilities the FAA is providing airport operators the ability to easily manage their airport data and share it with the FAA and the aviation community. The implementation of this program provides a new direction for the airport community toward airport-centric data management and sharing. These standards also provide new capabilities and tools supporting the inspection of airports at all levels. This AC implements new standards and tools for airport inspection personnel to use in completing, documenting, and following up on identified airport inspection data discrepancies.

**6. OBJECTIVES.** The goals and objectives of the agency's Airport Data and Information Program are as follows:

• To promote and encourage airport safety through direct contact with airport management and application of methods and techniques to improve safety conditions at airports

- To report conditions at airports in an accurate and timely manner, bringing attention to unsafe conditions and motivating airport management to correct deficiencies
- To collect and maintain a comprehensive, single-agency airport data repository
- To ensure data is promulgated with a degree of accuracy and frequency consistent with the exercise of FAA responsibilities
- To eliminate redundant collection and dissemination processes
- To provide an efficient means for producing both recurring and one-time reports needed for management direction, program planning, and statistical analysis
- To provide airport information to the public
- To provide independently verified and validated safety of flight critical data meeting the data quality and integrity requirements of the FAA and the public

**7. COMMENTS OR SUGGESTIONS.** If you have suggestions for the improvement of this AC, please send your comments to:

Manager, Airport Engineering Division Federal Aviation Administration ATTN: AAS-100 800 Independence Avenue, S.W. Washington, DC 20591

**8.** COPIES OF THIS AC. The Office of Airport Safety and Standards is in the process of making ACs available to the public through the Internet. Obtain these ACs through the FAA home page (www.faa.gov).

Michael J. O'Donnell, A.A.E Director, Airport Safety and Standards

## **TABLE OF CONTENTS**

CHAPTER	<b>X1. W</b>	HO IS RESPONSIBLE FOR AIRPORT DATA?	. 1
1.1	CLASSI	FICATION OF AIRPORTS	. 1
1.2	WHAT I	S THE AIRPORT DATA AND INFORMATION PROGRAM?	. 2
		What is the Airport Master Record?	
1.3		DATA AM I REQUIRED TO REPORT TO THE FAA?	
	1.3.1	Airport Administrative and Logistical Data	. 2
	1.3.2	Changes requiring validation or approval of the Airports Regional or Loc	
		Airports District Office	
		Changes requiring an aeronautical study by the FAA prior to publication	
1.4		E A TIMETABLE FOR MY DATA SUBMISSION?	
1.5	WHAT S	SUPPORTING DOCUMENTATION AM I REQUIRED TO PROVIDE TO	)
		SAA?	
1.6		O I ACTIVATE OR DEACTIVATE AN AIRPORT?	
		Activation of new public use landing areas	
1 7		Activation of new private use landing areas	
1.7		ARE AIRPORT SITE NUMBERS AND HOW ARE THEY ASSIGNED?.	
	1.3.1	Change in the associated city	
1.0		How are site numbers cancelled?	
		EPORTING MATRIX	. 0
1.9		ARE SOME REFERENCES I CAN USE TO HELP ME UNDERSTAND A SUBMISSION TO THE FAA?	10
		ONLINE REFERENCES	
	1.9.1	UNLINE REFERENCES	12
CHAPTER	2. AI	<b>RPORT DATA COLLECTION METHODS</b>	15
2.1		DOLOGIES	
2.2		O YOU HANDLE CHANGES MADE USING A WEB FORM?	
2.3	HOW DO	O YOU HANDLE CHANGES USING MAPS OR AERIAL IMAGERY?	15
2.4	HOW DO	O I UPLOAD THE REQUIRED DOCUMENTATION?	16
2.5	WHAT (	CHANGES REQUIRE SUBMITTING DATA FILES AND WHY?	17
	2.5.1	What is safety critical data?	17
		How do you collect the data?	
	2.5.3	Data accuracy	19
~			
CHAPTER		<b>RPORT INSPECTIONS</b>	
3.1		S THE PURPOSE OF THESE INSPECTIONS?	
	3.1.1	Who will inspect my airport?	
	3.1.2	How will I know when I am about to be inspected?	
	3.1.3	What will happen at my airport inspection?	
	3.1.4	What kind of unsafe conditions will the inspector report?	
20	3.1.5	Besides annual inspections, when else can I be inspected?	
3.2	3.2.1		
	3.2.1 3.2.2	Mandatory items to include on location sketch and layout:	
	3.2.2	Optional location sketch and layout items include:	<u>-</u> 4

APPENDIX A.	ATTRIBUTES AND FEATURE	S	27
APPENDIX B.	GLOSSARY OF TERMS		39

#### LIST OF FIGURES

Figure 2-1 illustrates a typical file upload dialog box	16
Figure 2-2 illustrates the upload dialog box after selection of the appropriate file	16
Figure 2-3 illustrates the upload confirmation page	17
Figure 3-1 is an example of the Airport Location Sketch and Layout drawing	25

### LIST OF TABLES

Table 1-1. Data requirements for different data elements	6
Table 2-1 identifies the data the FAA deems is safety critical data requiring submission of	
changes in a specific data file format	17

## CHAPTER 1. WHO IS RESPONSIBLE FOR AIRPORT DATA?

Title 14 CFR part 157, Notice of Construction, Alteration, Activation, and Deactivation of Airports, requires you, the owner or operator, of a public or private airport to notify us, the FAA, when you plan to construct, alter, activate, or deactivate a civil or joint-use (civil/military) airport or to alter the status or use of the airport. We provide a secure internet-based application called Airports GIS you use to notify the FAA about changes involving your airport. Using this system, you can identify changes to your airport and maintain the data describing the physical infrastructure, characteristics and services of your airport. In addition to meeting the requirements of part 157, the FAA uses this data to perform other studies or analyses necessary to ensure the safety and efficiency of the National Airspace System (NAS), including studying proposals for construction of objects on or surrounding airports (title 14 CFR part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace), developing instrument procedures, and disseminating the data to NAS users through flight information publications and aircraft navigation databases. At airports where the requirements of part 157 do not apply<sup>1</sup>, other statutory requirements or programs<sup>2</sup> may apply to you and your airport.

#### **1.1 CLASSIFICATION OF AIRPORTS**

Depending on the type or services of the airport, different requirements apply. For the purposes of collecting and maintaining data describing the physical infrastructure, characteristics, services, and status of the airport, the FAA identifies three levels of airports:

- Level I airports are small public use airports<sup>3</sup>, private use airports, and heliports.
- Level II airports are public and private use airports and heliports with non-precision, nonvertically guided (Very High Frequency Omnidirectional Range (VOR), Nondirectional Beacon (NDB), Global Positioning System (GPS), etc.) instrument approaches.
- Level III airports are those with vertically guided instrument approaches.

The amount of information we require you to submit and maintain differs for each level of airport. In general, to perform our regulatory and support activities we require Level I airports to provide the minimum amount of data. We require Level II airports to provide the minimum possible data requirements necessary to support the development and maintenance of instrument approaches and to ensure the safety and efficiency of these airports. Level III airports provide the most comprehensive data set. The data for Level III airports ensure the airport, aircraft, and air traffic control are using the same information regarding the airport.

<sup>&</sup>lt;sup>1</sup> See part 157 for exclusions

<sup>&</sup>lt;sup>2</sup> See part 139 and the National Plan of Integrated Airport Systems

<sup>&</sup>lt;sup>3</sup> In this guidance small public use airports are those serving general aviation without instrument approaches having fewer than 25 based aircraft and heliports.

#### **1.2 WHAT IS THE AIRPORT DATA AND INFORMATION PROGRAM?**

The Airport Data and Information Program provides you with guidance regarding airport data and information management and a means to manage the data and information about your airport. Airports GI) enables you to securely identify and share changes to your airport's physical infrastructure, characteristics, services, status, or operations with us. This system allows you to manage and update your information through the internet to ensure we and users of the NAS have the most current information available.

#### 1.2.1 What is the Airport Master Record?

The airport's master record (FAA form 5010–1 Civil Public Use and Military airports and 5010-2 Civil Private Use airports) describes the basic operational and services data of the airport within Airports GIS. The primary purpose of the Airport Master Record is to identify the minimum data and information about the physical infrastructure and the operational status of all airports (public and private) comprising the NAS. We use airport master records in flight information publications, navigation databases, and to complete any necessary analyses. We provide airport master record data and information to the FAA ATO for dissemination to pilots and other interested parties as part our aeronautical information solution and services. We intend to eventually have an Airport Master Record for all airports and heliports within the U.S. and its territories enabling us to provide regulatory and support services.

#### **1.3 WHAT DATA AM I REQUIRED TO REPORT TO THE FAA?**

#### 1.3.1 Airport Administrative and Logistical Data

Airport Administrative and Logistical data describes the information about the airport such as the city and state, the airport owner and operator, the attendance schedule for the airport, the contact information for the airport manager, and other general information. In general, administrative and logistical information does not require action or coordination on the part of the FAA, except at National Plan of Integrated Airport System (NPIAS) airports.

## **1.3.2** Changes requiring validation or approval of the Airports Regional or Local Airports District Office

In some cases, the data about the airport requires our review to determine the effect of the changes on the safety, utilization, or efficiency of a public use airport (or private use airport with a published instrument approach) or compliance with NPIAS requirements. In these cases, once you request a change, we initiate a study to determine the effect of the change on the airport and issue a determination. After completing the study we will advise you (airport owner, operator, or sponsor) of our determination and allow you to initiate the change.

#### 1.3.3 Changes requiring an aeronautical study by the FAA prior to publication

When a change has the potential to affect the NAS or neighboring airports, we will perform an aeronautical study. If the proposed change could affect an instrument flight procedure, the regional or local Airports District Office will address identified airport changes through their respective Regional Airspace Procedures Team (RAPT). The coordination of these changes

through this cross functional team allows all of our respective offices the opportunity to address the change appropriately.

#### 1.4 IS THERE A TIMETABLE FOR MY DATA SUBMISSION?

A critical element in keeping your data current is ensuring you publish the change in the right timeframe. Provide change requests early enough to ensure adequate time is available for the completion of any studies, analysis, or coordination before their acceptance into the NAS. Depending on the type of change, you should allow for a considerable amount of time when the change affects an instrument flight procedure (about 180 days) or requires contracting for engineering and surveying services. Planning is important to ensure the collection, validation, and verification of the data is complete and ready prior to the publication effective date. This publication interval is based on the international standard Aeronautical Information Regulation and Control (AIRAC) cycle. The effective date for commissioning, decommissioning, or altering a component of the NAS (in this case an airport) the Instrument Flight Rules (IFR) system must coincide with one of the pre-established international AIRAC charting dates. Generally, the cutoff for all airport data is 43 working days prior to the publication effective date.

For more information on publication cycles, refer to the inside cover of any Airport/Facility Directory. This information may also be found at

<u>http://www.faa.gov/air\_traffic/flight\_info/aeronav/</u>. Through appropriate planning and close coordination with your Regional Airports Office or Airports District office, you can ensure the completion of the necessary studies and coordination ensuring your data is correct, complete, and ready for operational use in the appropriate timeframe.

## **1.5 WHAT SUPPORTING DOCUMENTATION AM I REQUIRED TO PROVIDE TO THE FAA?**

In order for us to appropriately study and coordinate the proposed change to your airport's data, certain supporting documentation is necessary. The level of this documentation varies according to the type of change but generally falls within one of the following classifications.

- The performance and completion of an airport survey and submission of the associated geospatial vector data file(s) according to the standards of AC 150/5300-16/17/18;
- An airport official responsible for the data reads, understands, and certifies a systemgenerated certification statement. In these cases the certification is electronically signed by the airport official submitting the change using their individual password.
- Providing a scanned, signed, certified letter from the airport board or authority identifying their agreement with the proposed change.

These supporting documentation levels are the minimum requirements. We encourage the submission of as much supporting documentation as possible to support the change. This assists us in making an appropriate decision in a timely manner.

#### **1.6 HOW DO I ACTIVATE OR DEACTIVATE AN AIRPORT?**

#### 1.6.1 Activation of new public use landing areas

The airport proponent of all proposed new public-use airports will use Airports GIS to provide the information necessary to complete the FAA Form 7480-1, Notice of Landing Area Proposal. Airports GIS will provide the information and supporting documentation to the appropriate FAA Regional Airports Division or Airports District Office for review, coordination and study of the proposal. This may be the first information available to the FAA regarding proposals for new general aviation public-use airports. When we receive the information supporting the proposal, we initiate an aeronautical study. After we complete the aeronautical study, we issue an airspace determination letter to you as either:

- no objection
- no objection with conditions
- objectionable

When the airport becomes operational, the airport is inspected and the proponent advised of any additional information or corrections to the original data submission necessary. With the inspection complete and any new information provided to Airports GIS, the system validates the data, assigns the airport a site number, and advises our other organizations through the System Wide Information Management (SWIM) program of the availability of data for a new airport. If our Regional Airports Division, Airports District Office, State, or contractor personnel are unable to physically inspect a new public-use airport they will review the data and advise the airport proponent of any additional information necessary to enter into Airports GIS. Proponents should contact the State Aviation Agency for guidance regarding State aviation requirements.

#### 1.6.2 Activation of new private use landing areas

The airport proponent of all proposed new private-use airports should submit the information regarding the airport to Airports GIS. This is usually the first information available to us regarding proposals for new private-use airports. Once the necessary information is entered into Airports GIS, we initiate an aeronautical study. When we complete the aeronautical study, we issue you an airspace determination letter of either

- no objection
- no objection with conditions
- objectionable

This letter notifies the airport proponent of the results of our aeronautical study and includes instructions for providing any additional information we may require through Airports GIS. The letter also instructs the proponent to advise us when the airport becomes operational. When notified the airport became operational, Airports GIS validates the data, assigns the airport a Site Number, and provides the information about the airport to our other organizations through the SWIM program.

#### **1.7 WHAT ARE AIRPORT SITE NUMBERS AND HOW ARE THEY ASSIGNED?**

The Site number is an eight digit sequential number we assign to the airport according to the State and Associated City. The Site number has a one-letter suffix identifying the primary use of the airport. The suffixes identifying the primary use of the airport are

A = Airport
B = Balloonport
C = Seaplane Base
G = Gliderport
H = Heliport
U = Ultralight Flightpark

Because of the number of airports in the system, we reuse Site Numbers when the number is not assigned to an airport. When a new or proposed location is recommended for inclusion in the NPIAS, Airports GIS will assign a Site Number for the Airport as long as the airport proposal is included in the subsequent NPIAS or until the selection of a site for the construction of a new airport is complete. When a proposed public use airport receives a favorable airspace determination, Airports GIS will assign the Site Number to the airport. If we receive notice of a new airport or notice of one not previously reported Airports GIS assigns a Site Number once enough information is known about the new airport. When a previously abandoned airport is "reactivated," Airports GIS will attempt to reassign the same site number to the airport. If the previously assigned number is currently assigned to another airport, Airports GIS will assign the airport a new Site Number. Airports GIS assigns Site Numbers to all Military Airports who do not have one when the appropriate information regarding the military airport is input into Airports GIS.

#### 1.7.1 Change in the associated city

Since Airports GIS uses the associated city to make Site Number assignments, any change in the airport's associated city usually requires a new site number. Requesting changes to the associated city in Airports GIS will generate a new Site Number for the airport once airport authority requests the change and provides the appropriate documentation. Airports GIS will publish Site Number changes to interested parties through the FAA SWIM program.

#### 1.7.2 How are site numbers cancelled?

Due to the ever increasing number of airports in the Airport Information and Data Program, it is not feasible to retain site numbers for locations indefinitely. Airports GIS will without notice or intervention by a user cancel Site numbers meeting any of the following criteria:

• Except for Airports with Federal agreements, when an airport is abandoned for three years or more

- When a proposed airport location recommended in the NPIAS is deleted
- When a "skeleton" site number assigned for development is cancelled
- At an airport where there is a change in associated city
- When a site number is erroneously assigned to a duplicate record

When a site number is cancelled Airports GIS will notify other FAA systems using the airport Site Number through a SWIM complaint web service

#### **1.8 DATA REPORTING MATRIX**

Table 1-1 identifies the data requirements for different data elements according to the type of airport (public, private, etc), specific data element change, and supporting documentation. This table uses a coding system to define the process the data change request will follow, identified by the letters A, B, or C. The second part of the code identifies the required supporting documentation which must be included for the change to be reviewed and accepted it is designated by a two digit number, 01–03.

- A = Airport Administrative and Logistical Data
- B = Changes requiring validation or approval of the airports Regional Office or Local Airports District Office
- C = Changes requiring aeronautical study by the FAA prior to publication
- 01 =Data collection accomplished according to the standards of AC 150/5300-16/17/18/XX and submission of the data
- 02 = Web-based certification statement completed and signed using the airport owner, operator, or sponsor username and password
- 03 =Certified letter from the board or airport authority

	Ту	pe Of Airpor	t
Data Element Being Changed	Public Airport With Federal Agreements	Public Airport Without Federal Agreements	Private Use Airport
Airport (General Informat	ion)		
If you are requesting to change the status of your airport from IFR (Instrument Flight Rules) to VFR (Visual Flight Rules) or VFR to IFR	C02	C02	C02
If you are requesting to establish or change your Airport Reference Point	C01	C01	C02
If you are requesting to establish or change the status of airport from private use to public use or from public use to private use.	C03	C03	C03
If you are requesting to establish or change the Airport Elevation for your airport	C01	C01	C02

#### Table 1-1. Data requirements for different data elements

	Ту	pe Of Airpor	t
Data Element Being Changed	Public Airport With Federal Agreements	Public Airport Without Federal Agreements	Private Use Airport
If you are requesting to establish or change the Traffic Pattern for your airport	C02	C02	C02
If you are requesting to establish or change the FAA assigned Airport Magnetic Variation for your airport	B02	B02	A02
If you are requesting to establish or change the information regarding the VOR Receiver Checkpoint at your airport	B02	B02	A02
If you are requesting to establish or change the information regarding the Rotating Beacon (geographic coordinates, elevation, schedule, or color) at your airport	B01	B01	A02
If you are requesting to establish or change the Airport Acreage of your airport	B02	B02	A02
If you are requesting to establish or change the information regarding IFR Procedure availability at your airport	C02	C02	C02
If you are requesting to establish or change the information regarding the Lighting system (control or frequency) of your airport	B02	B02	A02
If you are requesting to establish or change the Communication frequencies in use for your airport	C02	C02	C02
If you are requesting to establish or change the Airport Rescue Firefighting (ARFF) Index for your airport	B02	B02	A02
If you are requesting to establish your airport as part of the NPIAS program	B02	B02	NA
If you are requesting to establish or change the Non Commercial Landing Fee for your airport	A02	A02	A02
If you are requesting to establish or change the information regarding Airport of Entry, Landing Rights, or User fee for your airport	A02	A02	A02
Airport Administration	l		
If you are requesting to establish or change the Airport Attendance Schedule for your airport	B02	A02	A02
If you are requesting to establish or change the Contact Information (name, mailing address, phone, e-mail) for the Airport Manager of your airport	A03	A02	A02
If you are requesting to establish or change the Contact Information (name, mailing address, phone, e-mail) for the Airport Authority for your airport	B03	A02	A02
If you are requesting to establish or change the Physical address for your airport	B02	A02	A02

	Ty		pe Of Airport	
Data Element Being Changed	Public Airport With Federal Agreements	Public Airport Without Federal Agreements	Private Use Airport	
If you are requesting to establish or change the Airport Ownership (private, public, Air Force, Army, Navy, other) for your airport	B03	A02	A02	
If you are requesting to establish or change the Airport Licensing of your airport	B02	B02	A02	
If you are requesting to establish or change the distance and direction to the Center Business District for your airport	A02	A02	A02	
Non-commercial usage	B03	B02	A02	
Airport Operations (12-month count of ta	ake-off or lan	ding)		
If you are requesting to establish or change the number of Air Carrier operations for your airport	A02	A02	NA	
If you are requesting to establish or change the number of Air Taxi operations for your airport	A02	A02	NA	
If you are requesting to establish or change the number of Commercial operations for your airport	A02	A02	NA	
If you are requesting to establish or change the number of local General Aviation operations for your airport	A02	A02	NA	
If you are requesting to establish or change the number of itinerant General Aviation operations for your airport	A02	A02	NA	
If you are requesting to establish or change the number of Military operation for your airport	A02	A02	NA	
If you are requesting to establish or change the number of Based Aircraft <sup>4</sup> for your airport	A02	A02	A02	
Airport Services				
If you are requesting to establish or change the Type(s) of Fuel available at your airport	A02	A02	NA	
If you are requesting to establish or change the type of Airframe Repair service available at your airport	A02	A02	NA	
If you are requesting to establish or change the type of Power Plant Repair services available at your airport	A02	A02	NA	
If you are requesting to establish or change the availability of Bottle Oxygen at your airport	A02	A02	NA	

<sup>&</sup>lt;sup>4</sup> The airport official should provide any additional supporting documentation they feel is required to support this data element (such as the number of single engines, multi engines, jets, helicopters, gliders, ultra-lights, commuters, air taxis, etc.)

	Ту	pe Of Airpor	t
Data Element Being Changed	Public Airport With Federal Agreements	Public Airport Without Federal Agreements	Private Use Airport
If you are requesting to establish or change the availability of Bulk Oxygen at your airport	A02	A02	NA
Apron/Parking Areas			
If you are requesting to establish or change the information regarding Aircraft Parking Positions (standpoints) for your airport	B01	B01	NA
If you are requesting to establish or change the information regarding Inertial Navigation System Checkpoints at your airport	B01	B01	NA
If you are requesting to establish or change the information regarding the Weight Bearing Capacity of Aprons or Parking areas of your airport	B02	B02	NA
If you are requesting to establish or change the Pavement Classification Number (PCN) for Aprons or Parking areas at your airport	B02	B02	NA
Heliport/Helipad			
If you are requesting to establish or change the information regarding the Final Approach Takeoff Area (FATO) including length, width, type (ingress or egress), bearing, or geometric center coordinates, or elevation for your heliport/helipad	C01	C01	C01
If you are requesting to establish or change the Touchdown Liftoff Area (TLOF) including length, with or geometric center coordinates or elevation information for your heliport/helipad	C01	C01	C01
If you are requesting to establish or change the type of Lighting available at your heliport/helipad	B02	B02	A02
If you are requesting to establish or change the information regarding the Marking of your heliport/helipad	B02	B02	A02
Navigational Aids			
If you are requesting to establish or change the information regarding Electronic Navigational Aids at your airport	C01	C01	A02
If you are requesting to establish or change the information regarding the Visual Navigational Aids (threshold crossing height, glideslope angle, distance from serviced runway end, runway reference point elevation, or identified runway side) for your airport	C01	C01	A02
Obstacles			
If you are requesting to establish or change the information regarding an Obstacle on or surrounding your airport	C01	C01	A02
If you are requesting to establish or change the information regarding the Obstacle Free Zones or Areas associated with your airport	B01	B01	NA

	Ту	pe Of Airpor	t
Data Element Being Changed	Public Airport With Federal Agreements	Public Airport Without Federal Agreements	Private Use Airport
Runway			
If you are requesting to establish or change the Runway Identifier(s) (Number) for your airport	C02	C02	A02
If you are requesting to establish or change the Runway Length of any runway at your airport	C01	C01	C02
If you are requesting to establish or change the Runway Width of any runway at your airport	C01	C01	C02
If you are requesting to establish or change the Declared Distances information for your airport	C02	C02	NA
If you are requesting to establish or change the type of Runway Surface information for your airport	В02	B02	A02
If you are requesting to establish or change the Pavement Classification Number for any runway at your airport	B02	B02	NA
If you are requesting to establish or change the Weight Bearing Capacity information for any runway at your airport	B02	B02	NA
If you are requesting to establish or change the information regarding the Markings (type or condition) at your airport	B02	B02	A02
If you are requesting to establish or change the information about the Lighting (including approach lighting, REILs, edge lights) at your airport	C02	C02	NA
If you are requesting to establish or change the information regarding the availability of Centerline lighting at your airport	B01	B01	NA
If you are requesting to establish or change the availability of Touchdown zone lighting at your airport	B01	B01	NA
If you are requesting to establish or change the information regarding the Approach light plane at your airport	B02	B02	NA
Engineered Arresting Material System (length, width, geographic position, elevation, or material)	B01	B01	NA
Runway threshold (geographic position or elevation)	C01	C01	C01
If you are requesting to establish or change the information regarding any Displaced threshold(s) (geographic position, elevation or distance to runway end) at your airport	C01	C01	C01
If you are requesting to establish or change the information regarding Land and Hold Short Operations (LASHO) including distance to runway end at your airport	B01	B02	NA

	Type Of Airport			
Data Element Being Changed	Public Airport With Federal Agreements	Public Airport Without Federal Agreements	Private Use Airport	
If you are requesting to establish or change the information regarding Runway Visual Range (RVR) <sup>5</sup> at your airport	B02	B02	NA	
If you are requesting to establish or change the information regarding the Runway Visual Value (RVV) <sup>6</sup> at your airport	B02	B02	NA	
If you are requesting to establish or change the information regarding the availability of a Stopway or its dimensions at your airport	B01	B01	NA	
If you are requesting to establish or change the information regarding Clearway (length or width) at your airport	B01	B01	NA	
If you are requesting to establish or change the information regarding arresting systems available at your airport	C01	C01	NA	
Taxiway				
If you are requesting to establish or change the information regarding taxiway Identifiers at your airport	C02	C02	NA	
If you are requesting to establish or change the Width of any taxiway at your airport	C01	C01	NA	
If you are requesting to establish or change the information regarding the Centerline Points (including geographic coordinates) for taxiways at your airport	B01	B01	NA	
If you are requesting to establish or change the Pavement Classification Number for any taxiway at your airport	B02	B02	NA	
If you are requesting to establish or change the information regarding any type of Hold Lines (including a change in location) at your airport	C01	C01	NA	

<sup>&</sup>lt;sup>5</sup> Runway Visual Range (RVR) - An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end. This value is based on the sighting of either high intensity runway lights or on the visual contrast of other targets, whichever yields the greater visual range. RVR, in contrast to prevailing or runway visibility, is based on what a pilot in a moving aircraft should see looking down the runway. RVR is horizontal visual range, not slant visual range. It is based on the measurement of a transmissometer made near the touchdown point of the instrument runway and is reported in hundreds of feet. RVR is used in lieu of RVV and/or prevailing visibility in determining minimums for a particular runway.

1. <u>Touchdown RVR</u>- The RVR visibility readout values obtained from RVR equipment serving the runway touchdown zone.

2. <u>Mid-RVR</u>- The RVR readout values obtained from RVR equipment located midfield of the runway.

**3.** <u>Rollout RVR</u>- The RVR readout values obtained from RVR equipment located nearest the rollout end of the runway.

<sup>&</sup>lt;sup>6</sup> Runway Visibility Value (RVV) - The visibility determined for a particular runway by a transmissometer. A meter provides a continuous indication of the visibility (reported in miles or fractions of miles) for the runway. RVV is used in lieu of prevailing visibility in determining minimums for a particular runway.

	Type Of Airport		
Data Element Being Changed	Public Airport With Federal Agreements	Public Airport Without Federal Agreements	Private Use Airport
If you are requesting to change the Weight bearing capacity of any taxiway at your airport	B02	B02	NA
If you are requesting to establish or change the Directionality of any taxiway at your airport	B02	B02	NA
If you are requesting to establish or change the information regarding End-around taxiways at your airport	C01	C01	NA
If you are requesting to establish or change the information regarding taxiway Edge lighting at your airport	B02	B02	NA
If you are requesting to establish or change the information regarding taxiway Centerline lighting at your airport	B01	B01	NA

## **1.9 WHAT ARE SOME REFERENCES I CAN USE TO HELP ME UNDERSTAND DATA SUBMISSION TO THE FAA?**

The following free publications are available from the FAA at <u>http://www.faa.gov/airports/</u> or <u>http://www.faa.gov/air\_traffic/publications/</u>.

#### **1.9.1 ONLINE REFERENCES**

#### 1.9.1.1 AC 150/5300-18, General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards.

This AC provides the specifications for the collection of airport survey data through field and office methodologies in support of aeronautical information and airport engineering surveys. It also explains how to submit data to the FAA, which will forward the data to the National Geodetic Survey (NGS) for quality control purposes. The primary purpose of these general guidelines and specifications is to list the requirements for data collection at airports in support of the FAA Airport Surveying–GIS Program.

#### 1.9.1.2 AC 150/5370-2, Operational Safety on Airports During Construction,

This AC sets forth guidelines for operational safety on airports during construction. It contains major changes to the following areas: "Runway Safety Area"; "Taxiway Safety Areas/Object-Free Areas"; "Overview"; "Marking Guidelines for Temporary Threshold"; and "Hazard Marking and Lighting."

- 1.9.1.3 Obstruction Evaluation Airport Airspace Analysis (OE/AAA) website, <u>http://oeaaa.faa.gov</u>.
- 1.9.1.4 Title 14 CFR part 157, <u>http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl</u>

This CFR provides regulations on how to give notice of construction, alteration, activation, and deactivation of airports.

- 1.9.1.5 Aeronautical Information Services (AIS) web site, <u>http://www.faa.gov/about/office\_org/headquarters\_offices/ato/service\_units/system\_ops/aaim/organizations/aeronautical\_im/aero\_info\_svcs/</u>
- 1.9.1.6 National Flight Data Center, <u>http://nfdc.faa.gov/index.jsp</u>
- 1.9.1.7 Pilot Controller Glossary (PCG) website, <u>http://www.faa.gov/air\_traffic/publications/atpubs/PCG/index.htm</u>

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## CHAPTER 2. AIRPORT DATA COLLECTION METHODS

#### **2.1 METHODOLOGIES**

Submit all changes describing the physical infrastructure, characteristics, status, or services of an airport to us through the Airports GIS web application at <u>https://airports-gis.faa.gov/public/</u>. This internet application provides you the necessary tools to submit and manage data while ensuring the completion of any necessary coordination processes. There are three basic methods of submitting data.

- Completing an online web form
- Using a map or aerial imagery of the area.
- Submitting data files with the necessary information in the appropriate format.

#### 2.2 HOW DO YOU HANDLE CHANGES MADE USING A WEB FORM?

Airports GIS uses web forms as a simple a user-friendly interface for managing your data. Once you log in to the system using your Airports GIS username and password, the system checks your credentials against its role-based access control database to make sure you have the appropriate level of authority to make changes to the airport's data. Once the user authentication is complete, the system provides you with a series of web pages containing the data about the airport. After you select the data element you want to change, you can enter the new information or upload geospatial vector files of the data. In some cases, the system prompts you to select a set of values. Once you change the value or upload a file, the system checks the data for adequacy and then prompts you to provide the necessary supporting documentation (if necessary).

Some changes require you to sign (using your system password) an online certification statement while others require you to submit supporting documentation as a file in portable document format (PDF). If the change does not require action by anyone other than the authorized airport official submitting the change, the system makes the change within the Airports GIS database and notifies other FAA systems such as the National Airspace System Repository (NASR) of the proposed change through the SWIM program. If the change requires us to take action on the change, the system holds the change in a pending status, notifies our appropriate staff offices and/or lines of business who must act on the change. After the completion of necessary reviews, studies, or coordination, Airports GIS stores the change and advises our other systems through the SWIM program processes.

#### 2.3 HOW DO YOU HANDLE CHANGES USING MAPS OR AERIAL IMAGERY?

In some cases the system may require or allow you to identify changes using geographically referenced maps or aerial imagery. In these cases the system will display the map or imagery for the area around the airport. The National Map is a service of the U.S. Geological Survey providing high resolution orthoimagery combining the visual attributes of aerial photography with the spatial accuracy and reliability of a planimetric map. The resolution of these products may vary from 6 inches to 3 feet ensuring enough precision to provide quality, consistent data. Usually, the system identifies the appropriate area using the airport location identifier tied to

your account. If you have multiple airports assigned or the system doesn't have the information, you will be prompted to identify the area through another means, generally by the physical airport location zip code. Once the system identifies the appropriate area, it displays the map or imagery you will need to provide the information. The system will then allow you to point to locations on the map to identify changes or submit new data about the airport. The definition of features using this method results in an estimated value for the geographic position of features at the airport. The ground elevation is also estimated according to the underlying digital terrain model the system uses. Though the accuracy of the image, map, and digital terrain model are known, your ability to pinpoint exact features on your screen will be less accurate. The data collection process supports low resolution accuracy requirements of the FAA, so estimated values are acceptable.

#### 2.4 HOW DO I UPLOAD THE REQUIRED DOCUMENTATION?

When the change requires the submission of a file (submitted in PDF format) the system provides a standard Windows<sup>TM</sup> interface allowing you to upload the necessary file(s). To upload a file, select the "Browse" button to navigate to the file to upload.

Category:	Final Report			
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escriptions	-			
escription:	Submit	and the second se		

Figure 2-1 illustrates a typical file upload dialog box

Select the file (see Figure 2-2), and click the Submit button. The file is uploaded and the system provides upload confirmation (Figure 2-3).

	Action: Upload Final Report Add required documentation:		
	Category:	Final Report	
	• File:	C:\Users\troe\Desktop\FAA SOftware Standards\FAA-ST Browse	
	Description:	The file selected to upload	
		Submit Cancel	

#### Figure 2-2 illustrates the upload dialog box after selection of the appropriate file

The upload confirmation page allows you to submit additional documents using the "+Upload Document" link or to add further clarifying comments and information. The file size limit is 500 megabytes. To enter these additional documents and comments you must click the Submit button.

Date	Added By	Category	File Name	Action	Description
2010 03:33 PM	Timothy Roe	Final Report	TAA-STD-OGOB_OATA_ETANDARD.pdf (D.1MB)	delate	The file selected to upload
Or Liment	i mana sana sana sa				
		Cince unit h	ave uploaded all of your document(s), please click ti	a Submit	button to complete this action
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#### 2.5 WHAT CHANGES REQUIRE SUBMITTING DATA FILES AND WHY?

#### 2.5.1 What is safety critical data?

Some data elements require submitting a geospatial data file to support the change. Generally this is data we deem as safety critical<sup>7</sup>. The following table identifies some of the data we deem is safety critical data. For a complete listing of safety critical data, requirements, and associated accuracies refer to AC 150/5300-18.

## Table 2-1 identifies the data the FAA deems is safety critical data requiring submission of changes in a specific data file format.

Identification of or changes to the location or elevation of the runway threshold or displaced threshold

Identification of or changes to the runway end location or elevation

Identification of or changes to taxiway center line points

Identification of or changes to the geometric center of a heliport/helipad Touchdown Lift Off Area (TLOF) or the Final Approach and Takeoff Area (FATO) area

Identification of or changes to the Airport/heliport elevation

Identification of or changes to the threshold crossing height for a runway

Identification of or changes to objects<sup>8</sup> in the approach and departure areas

Identification of or changes to the location or reference elevation(s) of navigational aids located on the airport

<sup>&</sup>lt;sup>7</sup> PUT IN DEFINITION OF SAFETY CRITICAL DATA HERE.

<sup>&</sup>lt;sup>8</sup> Object. Includes, but is not limited to above-ground structures, NAVAIDs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.

Identification of or changes to the runway or FATO length, width or TLOF dimensions

Identification of or changes to the Stopway length

Identification of or changes to the declared distances for the airport such as landing distance available, takeoff run available, takeoff distance available, or accelerate stop distance available

When requesting changes to safety critical data the FAA requires the submission of the change in a geospatial data format and the collection of the data is generally from an airport survey or other approved collection method.

#### 2.5.2 How do you collect the data?

Depending on the level of airport (see paragraph 1.1) the collection of safety critical data requires specialized tools and training. For Level II airports we allow the use of hand held GPS receivers meeting certain standards and following defined processes outlined in this AC. Data collection at a Level III airport requires professional engineering and surveying services to collect and format the data (See AC 150/5100-14, *Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects*).

#### 2.5.2.1 Overview

The collection of geospatial data describing certain airport features is necessary for us to facilitate the safe operation of the NAS. Capture or identify the following features for all airports:

- Runway ends (Thresholds)
- Displaced thresholds
- Stopway ends
- Heliport data
- Navigation aids (NAVAIDS)
- All objects exceeding 15 feet above ground level within the boundaries of the airport property.

#### 2.5.2.2 Data collection at level I airports

For Level I airports, use the tools and processes Airports GIS provides to capture the location and the necessary attribution describing the characteristics of the feature. The design of the application walks you through the steps to complete the data capture. Review the User's Guide and complete the on-line training before you use the system to capture data.

#### 2.5.2.3 Data collection at Level II airports

The data defining the physical airport infrastructure supporting an airport's non-vertically guided non-precision instrument procedures requires a more rigorous data collection process than airports in Level I. On Level II airports you can collect certain points on the airport using a

mapping grade or better GPS receiver at specific locations. Collect and document feature attributes at the same time you mark the position.

The point location and attributes for each feature requiring collection are listed in Appendix A. Before you capture data, you must register for and complete the online training and download the User Guide to learn the data capturing requirements and process. Submit observation data to us via the internet at <u>https://airports-gis.faa.gov/public/</u> in Receiver Independent Exchange (RINEX) format. Airports GIS processes the data and posts the final data to the spatial database. A portable document format (PDF) file with the data dictionary definitions is available at <u>https://airports-gis.faa.gov/public/</u>.

The online training and User Guide available at the Airports GIS web site provides more detailed information regarding the data collection at Level II airports.

#### 2.5.2.4 Data collection at Level III airports

Refer to AC 150/5300-18 for information, requirements, data formats, and accuracies related to Level III airports.

#### 2.5.3 Data accuracy

The accuracy of features at Level I airports is a function of the positional accuracy of the base data set (imagery or map) and associated processes of Airports GIS. Accuracy information using this method will always be an estimated value. Accuracy of features at Level II airports is a function of the post processing of the data to achieve a horizontal position accuracy of 5 feet relative to the North American Datum of 1983 (NAD 83). Data providers must use latitude and longitude as the unit of measurement. The vertical position (elevation) requirement is 10 feet relative to the North American Vertical Datum of 1988 (NAVD 88) with a unit of measurement of feet. AC 150/5300-18 contains the accuracy requirements for Level III airport data.

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## CHAPTER 3. AIRPORT INSPECTIONS

Though it is the responsibility of the airport operator to manage the information describing the physical infrastructure and services of their airport, the FAA, State, or contractor personnel perform standardization inspections of all public use airports and heliports in the United States and its territories as part of the Airport Data and Information Program.

#### **3.1 WHAT IS THE PURPOSE OF THESE INSPECTIONS?**

The purpose of these inspections in to ensure data on public use landing facilities is current and provides the information necessary for flight planning and operations.

#### 3.1.1 Who will inspect my airport?

The regional Airports Certification Safety Inspectors conduct the airport inspections for all commercial service civil airports. Authorized regional Airports, State, or contractor personnel accomplish the inspection on other public use and certain private use airports. It is the responsibility of the Flight Standards Service and the local Flight Standards District Office (FSDO) to inspect heliports.

#### 3.1.2 How will I know when I am about to be inspected?

If possible, before conducting an airport inspection the airport inspector will contact airport management or a local person(s) closely associated with the airport (i.e., the chairman of the airport board, city official, etc.). Inspectors generally request someone familiar with the operations of the airport be available to discuss inspection findings. This contact can be either in person or by e-mail, letter, or telephone.

#### 3.1.2.1 Inspected ANNUALLY by FAA personnel

- Air carrier airports certificated under part 139
- All other commuter-served airports and obligated NPIAS commuter, reliever, and satellite airports
- Non-obligated NPIAS commuter, reliever, and satellite airports

#### **3.1.2.2 Inspected ANNUALLY to TRIENNIALLY by FAA, State, or contractor personnel:**

- General aviation obligated airports
- General aviation NPIAS airports
- All other general aviation airports

Unique situations may dictate inspection of certain civil private use airports, such as those airports served exclusively by a commuter. The regional Airports Division is responsible for assigning an appropriate inspection priority based on the individual airport's use.

#### 3.1.3 What will happen at my airport inspection?

During the inspection of an airport, inspectors use the latest information in Airports GIS to validate or correct data describing the physical infrastructure and services of the airport. If the inspector finds a discrepancy or difference between the published information and their observations, the inspector will discuss the item with the responsible airport official or designated representative. The physical inspection of an airport affords us an opportunity to foster aviation safety and development; thus, the inspector must use a cooperative and thorough approach in the discussion of items with local contacts. Upon completion of the inspection, the inspector will enter inspection findings into the Airport Inspection module of Airports GIS. This module provides the inspector tools to note necessary changes to the airport's data, note the physical inspection of the airport, and note whether the results of the inspection results require you to update changes in your airports data, you can sign into Airports GIS to make the necessary changes and provide any supporting documentation. Airports GIS will tie these changes to the inspection module and annotate completion of the necessary changes.

#### 3.1.4 What kind of unsafe conditions will the inspector report?

Inspectors look for and report all items on the airport with the potential to present a hazard to safe operations. Examples of these conditions include, but are not limited to, the following:

- Unmarked obstructions
- Deteriorating or cracked runways or taxiways
- Stored materials
- Parked aircraft near runways or taxiways
- Garbage dumps or other areas near the airport with the potential to attract birds
- Objects in the safety areas
- Other potential safety hazards on or near the runway

The inspector identify and discuss these unsafe airport conditions with you before leaving the airport and advise you these unsafe conditions are noted in the Airport/Facility Directory for use by the flying public until rectified. In addition, the inspector must discuss your responsibility in promptly notifying airmen about any condition affecting future aeronautical use of the airport by issuing a Notice to Airmen (NOTAM) through the local Flight Service Station (FSS).

#### 3.1.5 Besides annual inspections, when else can I be inspected?

Between annual inspections, regional Airports personnel may conduct a special inspection, such as at the completion of a construction project. The inspector may decide to complete a full inspection for the airport. If a full inspection is not accomplished and only certain items are validated, the inspector should not change the date of last inspection. Submit the date of the additional inspection as "additional information" within the Airports GIS inspection module.

#### **3.2 INSTRUCTIONS FOR LOCATION SKETCH AND LAYOUT DRAWING**

Using the drawing tools available within Airports GIS, airport authorities subject to inspection must develop and submit a location sketch and layout drawing for use on the reverse side of the Airport Master Record. Airports not subject to inspection may develop and provide location sketches and layout drawings at their discretion.

The standard layout size before reduction is 8.5 by 11 inches. The drawing comprises a location sketch, which serves to locate the airport relative to its associated city, and a layout drawing, portraying the essential features of the airport. In order to assure uniform sketches nationally, all of the items in this section must, where possible, be included on all sketches. Optional items are so indicated. Additional items may be included but should be kept to a minimum to preclude needless detail and clutter.

#### 3.2.1 Mandatory items to include on location sketch and layout:

- Runways, complete with magnetic headings (including the magnetic variation and epoch year, if available), and identifiers; runway end coordinates; and elevations. Runways under construction will also be shown.
- Operational Data Requirements:
  - Runway dimensions-length and width, threshold to threshold
  - Displaced Threshold(s), including coordinates and elevations when available
  - Runway surface composition
  - Runway magnetic heading
  - Runway identifiers
  - Runways under construction
  - Weight-bearing capacity (landing gear configuration or PCN number when available)
  - Runway end elevations
  - Land and Hold Short (LAHSO) lines
  - ILS hold lines
  - Localizer/Glideslope Critical Areas
  - Dimensions of turnaround areas adjacent to runway thresholds where operational taxiways do not exist
  - Dimensions of overruns and blast pads
  - Location of Hotspot(s) on movement areas with a description of the potential safety problem(s) that exist
- Taxiways, with identifiers
- Taxiways under construction
- Parking areas, run-up mats, alert areas, landing pads, ramps and hold pads
- Turnarounds
- Large tanks
- Control Towers (including tower height)
- Airport beacons
- Helicopter pads/alighting areas
- Highest obstruction within diagram area

- Fueling area
- Terminal/Administration Building and Base Operations
- Other unique structures or features, clearly labeled
- Engineered Materials Arrestor System (EMAS) and dimensions

#### 3.2.2 Optional location sketch and layout items include:

- Radar reflectors
- Fire Station
- Military/Government hangars (numbered). Identify the branch of service or agency to which it belongs when other than airport operator. Acronyms and/or abbreviations may be used; e.g., ANG (Air National Guard), USCG (United States Coast Guard), FAA (Federal Aviation Administration), etc.
- Parking areas and ramps; e.g., south, ANG, USN, etc
- Hot cargo ramps
- Automated Flight Service Station (AFSS), National Weather Service (NWS)
  - US Customs
  - Flight Standards District Office (FSDO)
  - Security Identification Display Area



Figure 3-1 is an example of the Airport Location Sketch and Layout drawing

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## APPENDIX A. ATTRIBUTES AND FEATURES

#### **OVERVIEW**

The following paragraphs list the features and the attributes to be captured. Enter all applicable attributes.

FEATURE:	Runway End
<b>DEFINITION:</b>	The end of the runway surface suitable for landing or takeoff runs of aircraft. Runway Ends describe the approach and departure procedure characteristics of a runway threshold. In most cases, the Runway End is the same as the runway threshold, unless the threshold is displaced.
FEATURE TYPE:	Point
SURVEYED LOCATION:	Locate the receiver over the physical end of the usable landing/takeoff surface.
FEATURE ATTRIBUTES:	
Attribute Name	Attribute Description
runwayEndDesignator	Enter the numeric or alphanumeric designator for the runway end (example: 32L)
surfaceType	Whether the runway is a manmade or natural (for example, grass) surface
surfaceMaterial	A code indicating the composition of the related surface
surfaceCondition	A description of the serviceability of the pavement
runwayLighting	Whether the runway is lighted or unlighted
width	Runway width at the narrowest point of usable landing surface
status	Select from the list the most appropriate status for the feature. In most cases this will be OPERATIONAL, though others could apply.

NAME:	Displaced Threshold
DEFINITION:	A threshold that is located at a point on the runway other than the designated runway end. The displaced area is available for takeoff or rollout of aircraft, but not for landing. A displaced threshold does not mark the end of the runway. If there is a displaced threshold, the runway end and displaced threshold will be captured.
FEATURE TYPE:	Point
SURVEYED LOCATION:	The location of the displaced threshold on the runway centerline
FEATURE ATTRIBUTES:	The designator for the runway end the displaced threshold applies to (example: 32L)

NAME:	Stopway
DEFINITION:	An area beyond the takeoff runway, no less wide than the runway and centered upon the extended centerline of the runway, and able to support the airplane during an aborted takeoff without causing structural damage to the airplane. It is designated by the airport authorities for use in decelerating the airplane during an aborted takeoff.
FEATURE GROUP:	Airfield
FEATURE CLASS NAME:	StopwayEnd
FEATURE TYPE:	Point
SURVEYED LOCATION:	The <b>physical</b> end of the stopway on the extended centerline of the runway

### FEATURE ATTRIBUTES:

Attribute Name	Attribute Description
runwayEndDesignator	The designator for the runway end (example: 32L)
surfaceType	Whether the runway is a manmade or natural surface
surfaceMaterial	A code indicating the composition of the related surface
surfaceCondition	A description of the serviceability of the pavement
width	Stopway width at the narrowest point of usable surface
status	Select from the list the most appropriate status for the feature. In
	most cases this will be OPERATIONAL, though others could apply.

NAME:	Helinort Reference Point		
DEFINITION:	Heliport Reference PointThe geographic position of the heliport expressed in latitude and longitude at (1) the center of the final approach and takeoff (FATO) area or the center of multiple FATOs for heliports having visual and nonprecision instrument approach procedures or (2) the center of the final approach reference area when the heliport has a precision instrument approach.		
FEATURE GROUP:	Geospatial		
FEATURE CLASS NAME:	Airport Control Point		
FEATURE TYPE:	Point		
SURVEYED LOCATION:	Locate the receiver at the center of the FATO regardless of its shape. If multiple FATOs exist, position the receiver in the center of the multiple FATOs.		
FEATURE ATTRIBUTES:			
Attribute Name	Attribute Description		
status (Enumeration: CodeStatus)	Select from the list the most appropriate status for the feature. In most cases this will be OPERATIONAL, though others could apply.		
pointType (Enumeration: CodePointType)	For this feature use the CodePointType of HRP for Heliport Reference Point.		

NAME:	TLOF (Touchdown and Lift-off Area)
DEFINITION:	A load bearing generally paved area normally centered in the final approach and takeoff area (FATO) on which a helicopter lands or takes off. The TLOF is frequently called the helipad or helideck.
FEATURE GROUP:	Airfield
FEATURE CLASS NAME:	Helipad
FEATURE TYPE:	Point
SURVEYED LOCATION:	The center of the TLOF regardless of its shape

## FEATURE ATTRIBUTES:

Attribute Name	Attribute Description
length	The overall length of the TLOF
width	The overall width of the TLOF
surfaceType	Whether the runway is a manmade or natural surface
surfaceMaterial	A code indicating the composition of the related surface
surfaceCondition	A description of the serviceability of the pavement
designHelicopter	A generic helicopter reflecting the maximum weight, maximum contact load/minimum contact area, overall length, rotor diameter, etc. of all helicopters expected to operate at the heliport. [Source: AC 150/5390-2, <i>Heliport Design</i> ]
status	Select from the list the most appropriate status for the feature. In most cases this will be OPERATIONAL, though others could apply.

NAME:	Obstacle
DEFINITION:	All fixed (whether temporary or permanent) and mobile objects, or parts thereof, located on an area intended for the surface movement of aircraft, penetrating an Obstruction Identification Surface (OIS), or selected as a representative object. Use this feature for modeling linear objects as obstacles.
FEATURE GROUP:	Airspace
FEATURE CLASS NAME:	Obstacle
FEATURE TYPE:	Point
SURVEYED LOCATION:	Locate the receiver as close as possible to the object. The preferred location is at the center of the object at the top, though this may not always be possible.
FEATURE ATTRIBUTES: Attribute Name	Attribute Description
obstacleType (Enumeration: CodeObstacleType)	Select the type of obstacle from the list best representing the object. If none of the available types is appropriate use the code Vertical Structure.
aboveGroundLevel	The approximate height at the top of the object above the ground. Use the most accurate means available to estimate this height. For instance, for a two story building use 10-15 feet per story or 20-30 feet.
lightCode	Is the object lighted? (Yes or No)
markingFeatureType (Enumeration: CodeMarkingFeatureType)	Select from the list, the type of marking (if any). In general the marking type will be either; Alternating bands of orange and white, Orange and white Checkerboard pattern, Solid, Other, or None. If there is some kind of marking on it select Other, if it is painted the same or similar color as everything else select None.

CodeLightingConfigurationType)

(Enumeration: CodeStatus)

(Enumeration: CodeOwner)

aboveGroundLevel

status

owner

NA ME.	Aimort Basson (ADDN)		
NAME:	Airport Beacon (APBN)		
DEFINITION:	A visual NAVAID operated at many airports. At civil airports, alternating white and green flashes indicate the location of the airport. At military airports, the beacons flash alternately white and green, but are differentiated from civil beacons by dual peaked (two quick) white flashes between the green flashes. If the airport beacon is within 200 feet of any runway centerline it should also be identified as an object.		
FEATURE GROUP:	Navigational Aids		
FEATURE CLASS NAME:	NavaidEquipment		
FEATURE TYPE:	Point		
SURVEYED LOCATION:	If possible, locate the receiver underneath the beacon at the center of the structure. If not possible get as close as possible to the center with the receiver. Determine the height above ground level from known information if available or estimate the height.		
FEATURE ATTRIBUTES:			
Attribute Name	Attribute Description		
navaidEquipmentType (Enumeration: CodeNavaidEquipmentType)	Specifies the type of NAVAID. For this feature use the code Visual.		
lightingType (Enumeration:	The type of visual navigational aid system (use only when NAVAID equipment type is set to visual). For this attribute use		

Select from the list the most appropriate status for the feature. In

Select from the list the most appropriate owner of the beacon. In

general this is Public, Private, FAA (other than F&E), or possibly

The approximate height at the top of the object above the ground. Use the most accurate means available to estimate this height. For instance, for a two story building use 10-15 feet per story or 20 -30

one of the military services (Air Force, Army, Navy).

most cases this will be OPERATIONAL, though others could

APBN.

apply.

feet.

NAME:	Precision Approach Path Indicator (PAPI) System
<b>DEFINITION:</b>	A visual aid supporting vertical guidance to arriving aircraft within approximately 4 miles of the airport. PAPIs consist of a single row of either two or four light housing assemblies normally installed about 950 feet beyond the runway threshold on the left side of the runway.
FEATURE GROUP:	Navigational Aids
FEATURE CLASS NAME:	NavaidEquipment
FEATURE TYPE:	Point
SURVEYED LOCATION:	Locate the receiver at the center of the light array at the intersection of the ground, gravel, concrete pad, or other base and plumb line through the HSP. elevation of the ground.

### FEATURE ATTRIBUTES:

Attribute Name	Attribute Description
navaidEquipmentType (Enumeration: CodeNavaidEquipmentType)	Specifies the type of NAVAID. For this feature use the code Visual.
lightingType (Enumeration: CodeLightingConfigurationType)	The type of visual navigational aid system (use only when NAVAID equipment type is set to visual). For this attribute use APBN.
status (Enumeration: CodeStatus)	Select from the list the most appropriate status for the feature. In most cases this will be OPERATIONAL, though others could apply.
Owner (Enumeration: CodeOwner)	Select from the list the most appropriate owner of the beacon. In general this is Public, Private, FAA (other than F&E), or possibly one of the military services (Air Force, Army, Navy).
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above the Landing Threshold Point (or Fictitious Threshold Point).

NAME:	Pulse Light Approach Slope Indicator (PLASI) System
DEFINITION:	A visual approach aid located at General Aviation airports for use in visual flight conditions. The equipment is usually housed in a single enclosure located near the runway edge or helicopter approach/departure path.
FEATURE GROUP:	Navigational Aids
FEATURE CLASS NAME:	NavaidEquipment
FEATURE TYPE:	Point
SURVEYED LOCATION:	Locate the receiver at the center of the light array at the intersection of the ground, gravel, concrete pad, or other base and plumb line through the HSP. elevation of the ground.
FEATURE ATTRIBUTES:	
A the harts Norms	Attailante Degenintion

Attribute Name	Attribute Description
navaidEquipmentType (Enumeration: CodeNavaidEquipmentType)	Specifies the type of NAVAID. For this feature use the code Visual.
lightingType (Enumeration: CodeLightingConfigurationType)	The type of visual navigational aid system (use only when NAVAID equipment type is set to visual). For this attribute use APBN.
status (Enumeration: CodeStatus)	Select from the list the most appropriate status for the feature. In most cases this will be OPERATIONAL, though others could apply.
owner (Enumeration: CodeOwner)	Select from the list the most appropriate owner of the beacon. In general this is Public, Private, FAA (other than F&E), or possibly one of the military services (Air Force, Army, Navy).
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above the Landing Threshold Point (or Fictitious Threshold Point).

NAME:	Simplified Directional Facility (SDF)
DEFINITION:	NAVAID used for nonprecision instrument approaches. The final approach course is similar to that of an ILS localizer, except the SDF course may be offset from the runway, generally not more than three degrees, and the course may be wider than the localizer resulting in a lower degree of accuracy.
FEATURE GROUP:	Navigational Aids
FEATURE CLASS NAME:	NavaidEquipment
FEATURE TYPE:	Point
SURVEYED LOCATION:	Center of the Antenna Supporting Structure

#### FEATURE ATTRIBUTES:

Attribute Name	Attribute Description
navaidEquipmentType	Specifies the type of NAVAID
owner	Owner of the facility
facilityID	See AC 150/5300-18B (5.10.24)

NAME:	Visual Approach Slope Indicator (VASI)
<b>DEFINITION:</b>	An airport lighting facility providing vertical visual approach slope descent guidance to aircraft during landing. System consists of two or three sets of lights that are usually located on the left side of the runway.
FEATURE GROUP:	Navigational Aids
FEATURE CLASS NAME:	NavaidEquipment
FEATURE TYPE:	Point
SURVEYED LOCATION:	Locate the receiver at the center of the light array at the intersection of the ground, gravel, concrete pad, or other base and plumb line through the HSP elevation of the ground.
FEATURE ATTRIBUTES:	
<u>Attribute Name</u>	Attribute Description
navaidEquipmentType (Enumeration: CodeNavaidEquipmentType)	Specifies the type of NAVAID. For this feature use the code Visual.
lightingType (Enumeration: CodeLightingConfigurationType)	The type of visual navigational aid system (use only when NAVAID equipment type is set to visual). For this attribute use APBN
status (Enumeration: CodeStatus)	Select from the list the most appropriate status for the feature. In most cases this will be OPERATIONAL, though others could apply.
owner (Enumeration: CodeOwner)	Select from the list the most appropriate owner of the beacon. In general this is Public, Private, FAA (other than F&E), or possibly one of the military services (Air Force, Army, Navy).
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above the Landing Threshold Point (or Fictitious Threshold Point).

Т

NAME:	VOR/TACAN/DME
<b>DEFINITION:</b>	<ul> <li>A NAVAID providing VOR azimuth, TACAN azimuth, and TACAN distance measuring equipment (DME) at one site. The VHF Omnidirectional Range (VOR) system is present in three slightly different navigation aids (NAVAIDs): VOR, VOR/direction measuring equipment (DME), and VORTAC. By itself it is known as a VOR, and it provides magnetic bearing information to and from the station. When DME is also installed with a VOR, the NAVAID is referred to as a VOR/DME.</li> <li>When military tactical air navigation (TACAN) equipment is installed with a VOR, the NAVAID is known as a VORTAC. DME is always an integral part of a VORTAC. Regardless of the type of NAVAID utilized (VOR, VOR/DME or VORTAC), the VOR indicator behaves the same. The airport will provide the physical location information.</li> </ul>
FEATURE GROUP:	Navigational Aids
FEATURE CLASS NAME:	NavaidEquipment
FEATURE TYPE:	Point
SURVEYED LOCATION:	Center of Antenna Cover
FEATURE ATTRIBUTES:	
Attribute Name	Attribute Description
navaidEquipmentType	Specifies the type of NAVAID

Attribute Maine	Attribute Description
navaidEquipmentType	Specifies the type of NAVAID
owner	Owner of the facility
facilityID	See AC 150/5300-18B paragraph 5.10.28
TachityiD	See AC 150/5500-16D paragraph 5.10.28

NAME:	Wind Cone
DEFINITION:	
FEATURE GROUP:	Geospatial
FEATURE CLASS NAME:	Airport Control Point
FEATURE TYPE:	Point
SURVEYED LOCATION:	Locate the receiver at the base of mast

#### FEATURE ATTRIBUTES:

Attribute Name	Attribute Description
status (Enumeration: CodeStatus)	Select from the list the most appropriate status for the feature. In most cases this will be OPERATIONAL, though others could apply.
pointType (Enumeration: CodePointType)	For this feature use the CodePointType of Wind_Cone.
aboveGroundLevel	Height AGL to top of mast
lightCode	Is the windsock lighted? (Yes or No)

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## APPENDIX B. GLOSSARY OF TERMS

Abandoned airport is an airport that is closed permanently.

Aeronautical Information Regulation and Control (AIRAC) A series of common dates for the publication of airport and aeronautical data.

**Aeronautical Information Services** (AJV-2) is an office within the FAA headquarters ATO System Operations. They are the FAA's official stewards for aeronautical information.

Air Carrier Airport A public airport regularly served by an air carrier certificated by the Secretary of Transportation under 49 U.S.C. 41102 (except a charter air carrier); or at least one air carrier operating under an exemption from 49 U.S.C. 41101 (a)(1) that the Secretary grants and having at least 2,500 passenger boardings at the airport during the prior calendar year.

**Airport** means any airport, heliport, helistop, vertiport, gliderport, seaplane base, ultralight flightpark, manned balloon launching facility, or other aircraft landing or takeoff area.

**Airport closed indefinitely** is an airport where all flying activities have ceased indefinitely; however, the intent remains to reopen the airport at an unspecified time.

Airport closed temporarily is an airport closed to aircraft operations for a short duration due to maintenance, construction, weather, or some other purpose while the operator is still in business.

**Airport Data Information Program Administrator** is the office contracted by the FAA with primary responsibility for collecting, administrating, and disseminating non-safety of flight critical data for the Airport Safety Data Program via an electronic medium acceptable to the FAA.

**Airports District Office** (ADO) is a subdivision of a regional Airports Division's geographic boundaries.

**Airport Engineering Division** (AAS-100) is a headquarters division within the Office of Airport Safety and Standards.

**Airport Management** includes the airport owner, operator, manager, or sponsor (for NPIAS airports) unless a distinction is made in the text.

Airport Master Record refers to the forms used to report aeronautical data in the performance of the Airport Safety Data Program.

- Form 5010-1 contains aeronautical information on public-use airports.
- Form 5010-2 contains aeronautical information on private-use airports.
- Form 5010-3 is a "skeleton" form. The data elements are blank, and the form is used to report the initial aeronautical information for newly established public-use airports.

• Form 5010-5 is also a "skeleton" form. The data elements are blank, and the form is used to report the initial aeronautical information for newly established private-use airports.

**Airport Safety and Operations Division** (AAS-300) is a headquarters division within the Office of Airport Safety and Standards.

**Airport Sketch** is a sketch of the movement areas, facilities, and equipment on the airport and contains a small location diagram showing the airport in relation to its associated city.

**Clearway** is a defined rectangular area beyond the end of a runway that is cleared or suitable for use in lieu of runway to satisfy takeoff distance requirements.

**Data integrity** is the degree of assurance that aeronautical data and its value has not been lost nor altered since the data's origination or authorized amendment.

**Data quality** is the degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution, and integrity.

**Displaced Threshold** is the portion of pavement behind a displaced threshold may be available for takeoffs in either direction or landings from the opposite direction.

Flight Service Station (FSS) is an Air Traffic field facility.

**Heliport** means any landing or takeoff area intended for use by helicopters or other rotary wing type aircraft capable of vertical takeoff and landing profiles.

**National Aeronautical Charting Group** (NACG) is a group within the FAA ATO Technical Operations and is the FAA's publisher of aeronautical charts and flight information publications.

National Airspace System Resources (NASR) Database contains the official FAA record of aeronautical information for each of the Nation's public use airports.

**National Flight Data Digest** (NFDD) is published each workday by the FAA ATO, System Operations Aeronautical Information Management and contains a compilation of changes to the NAS.

**National Plan of Integrated Airport System** (NPIAS) identifies nearly 3,400 existing and proposed airports that are significant to national air transportation and thus eligible to receive Federal grants under the <u>Airport Improvement Program (AIP)</u>. It also includes estimates of the amount of AIP money needed to fund infrastructure development projects that will bring these airports up to current design standards and add capacity to congested airports.

**Non-Safety of Flight Critical Data** is routine data (integrity level  $1 \times 10^{-3}$ ), where there is a very low probability that when using corrupted routine data the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

**Office of Airport Safety and Standards** (AAS) is a headquarters office that reports to the Associate Administrator for Airports.

**Overrun Area** is that area, in military aviation exclusively, beyond the end of the designated runway with a stabilized surface of the same width as the runway and centered on the extended runway centerline. This is not included in the runway length and is considered unusable.

**Private use** means available for use by the owner only or by the owner and other persons authorized by the owner.

**Private use of public lands** means that the landing and takeoff area of the proposed airport is publicly owned and the proponent is a non-government entity, regardless of whether that landing and takeoff area is on land or on water and whether the controlling entity be local, State, or Federal Government.

**Public use** means available for use by the general public without a requirement for prior approval of the owner or operator.

**Regional Airports personnel** are personnel of a regional Airports Division and may include personnel located in an Airport District Office and Airport Field Office.

**Runway Safety Area** is a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. In addition, it provides greater accessibility for fire fighting and rescue equipment during such an incident.

**Safety of Flight Critical Data** has an integrity level of  $1 \times 10^{-8}$  where there is a high probability that when using corrupted critical data, the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; or essential data, (integrity level  $1 \times 10^{-5}$ ): there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

**Stopway** is a defined rectangular surface beyond the end of a runway that is prepared or suitable for use in lieu of runway to support an airplane without causing structural damage during an aborted takeoff.

**Traffic pattern** means the traffic flow that is prescribed for aircraft landing or taking off from an airport, including departure and arrival procedures utilized within a 5-mile radius of the airport for ingress, egress, and noise abatement.

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