

Geospatial Data Collection for the FAA

Airports GIS Program

A Change in Direction

Dr. Michael T. McNerney, P.E. – FAA

Office of Airports

Office of Airport Safety and Standards

**Assistant Manager, Airport Engineering
Division**

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What is the FAA Airports GIS Program

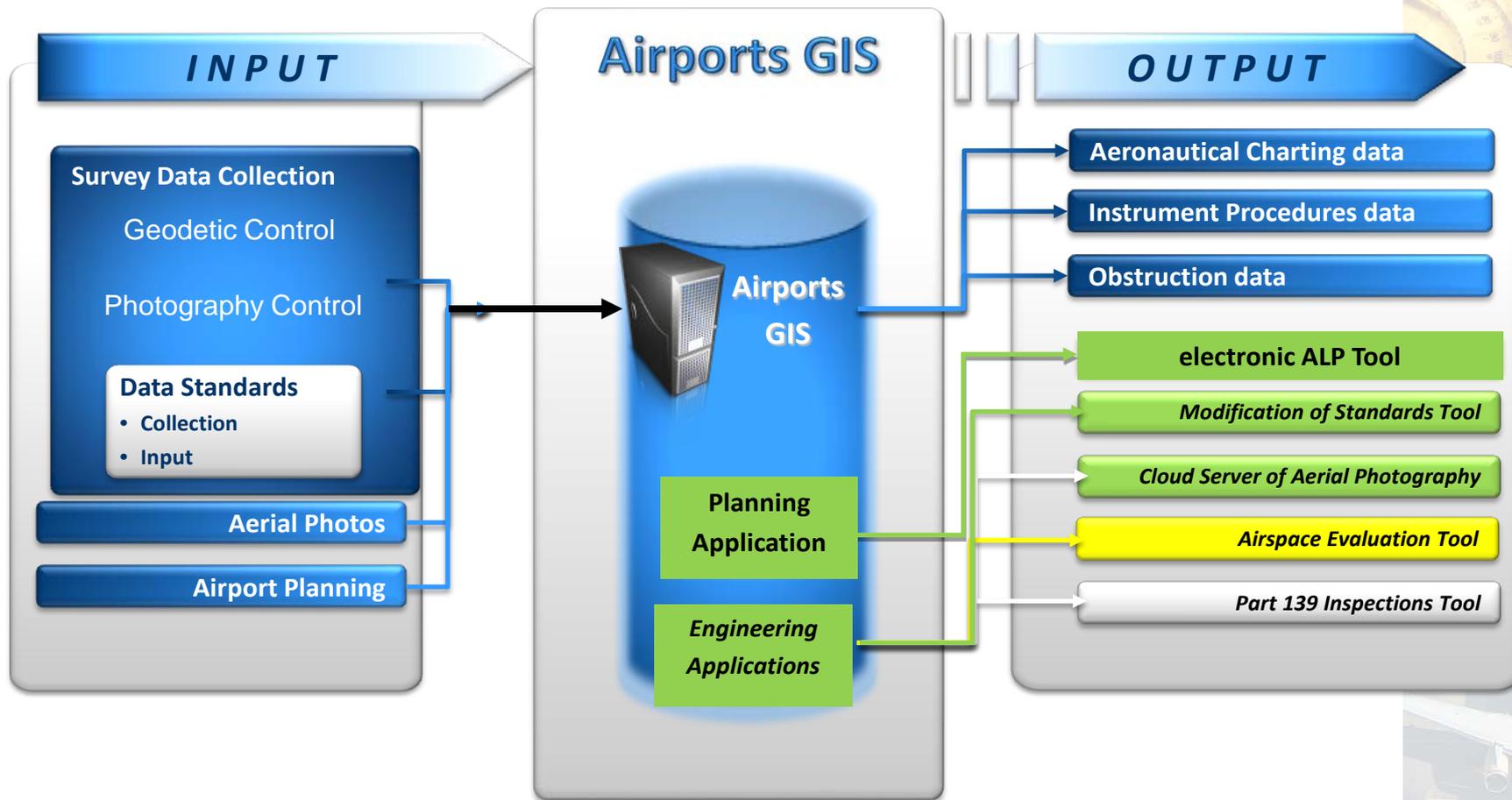
- About 544 airports have commercial service in US
- About 3,330 receive federal funding and are included in the National Plan of Integrated Airport System (NPIAS)

Full Feature Geospatial Data Collection

- There are about 13,188 Airports and 5,581 Heliports
- Of those about 8,310 Airports and 5,513 Heliports are private use landing facilities.
- About 19, 440 landing facilities in the FAA database including seaplane bases, gliderports, ballonports and ultralight Flightparks

Limited geospatial features and attributes 2014/2015

Airports GIS



New Implementation

- **eALP Module implemented. (Waiting Security Signoff)**
- **Modification of Standards Implemented**
 - Start testing with ASW and ASO regions
- **Cloud server FAA Implementation**
 - Aerial Photography
 - NASR Subset Data
 - Google Earth Airport View
 - Airport Data Upload
 - ALP, RSA, Signage and Marking Plans, SHP files
- **Airport 20:1 Penetrations Visualization Tool**



Data Collection Requirements

- **AC 150/5300-16 Geodetic Control**
 - National Geodetic Survey (NGS) reviews
- **AC 150/5300-17C Imagery Requirements**
 - Submit Plan in Advance, equipment, ground control
 - Imagery Reviewed and checked for accuracy
 - Imagery used for feature extraction
- **AC 150/5300-18B Feature and schema standards**
 - Change 1 to 18B sitting in Legal office before Publication
 - About 34 safety critical features –
 - Runways, taxiways and safety features - Reviewed
 - About 135 features with attributes
 - 1 foot elevation contours, buildings, proposed features
 - Electronic Airport Layout Plan (eALP)

Full Feature Airport GIS Implementation

Immediate Steps

Safety Critical Data: if a survey is required for a project involving safety-critical data submit into Airports GIS

Initial Data Collection Projection - Short Term

NUMBER OF AIRPORTS	FY10	FY11	FY12	FY13	FY14	FY15	FY16	TOTAL
Large and Medium Hubs	4	5	35	15	5	2		66
Small and Non Hubs	3	15	12	100	100	34		264
Non Primary Certified	0	10	10	20	100	45	36	221
Towered not Certified	0	0	0	0	20	150	104	274
TOTAL	7	30	57	135	225	231	140	825

Most requested data – 1 foot elevation contours for planning and preliminary design



AC 150/5300-17C, Standards for Using Remote Sensing Technologies in Airport Surveys

- **Mandatory for all Federally Funded Airports**
- **Survey required for Safety Critical Projects**
 - Master Plans, Airport Layout Plan updates
 - Instrument Procedures Updates
 - Major Construction Projects
 - Maybe required for off airport FAA installed Navaids
- **Aerial Photography Required**
- **LIDAR permitted but must be cost effective**



Data Required

- **3,330 NPIAS Airports**
- **Major airports require updates 3-5 years**
- **2000 projects per year (60%-70% require survey)**
 - Peak Data collection time
- **Data migration from NASR**



Aeronautical Data Management (ADM)

- **Aeronautical Data Management (ADM)**

- NavLean initiative under ATO
- Airports and Surveys Requirements Documents, Software Design Documents
- Schedule April 2013 to Sept 2015
 - Includes changing 5010 data to Airports GIS Web Interface
 - Includes change of Airport Data 5010.4 Order and AC 5300-19

- **AIM Agreement to Cooperate with ARP**

- Airports GIS is Authoritative Source
- All Surveys enter into Airports GIS
- AIM will use Airports GIS for
 - Airport Diagrams, Digital NOTAMs, LVO/SMGCS Charting



Thank You: Questions Welcome!



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