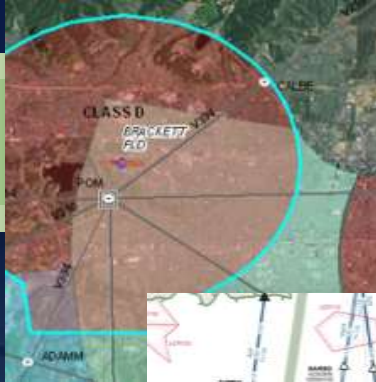


Esri Aeronautical Solution



Esri Airports GIS Overview

Terri Morganson

May 10, 2012



Overview Agenda

- **General GIS Overview**
- **Esri Resources**
 - **Esri Website**
 - **Aeronautical Solution Resource Center**
 - **ArcGIS Online**
 - **Airports GIS Package**
 - **Description**
 - **Demo video**



GIS Overview

A Complete Definition of GIS

Data Management

Analysis

Field Mobility

Visualization

Citizen Engagement

Aviation, Safety, Project Delivery, Environmental, Asset Management. . .

Managing, editing & integrating authoritative GIS data

Transforming data into actionable information

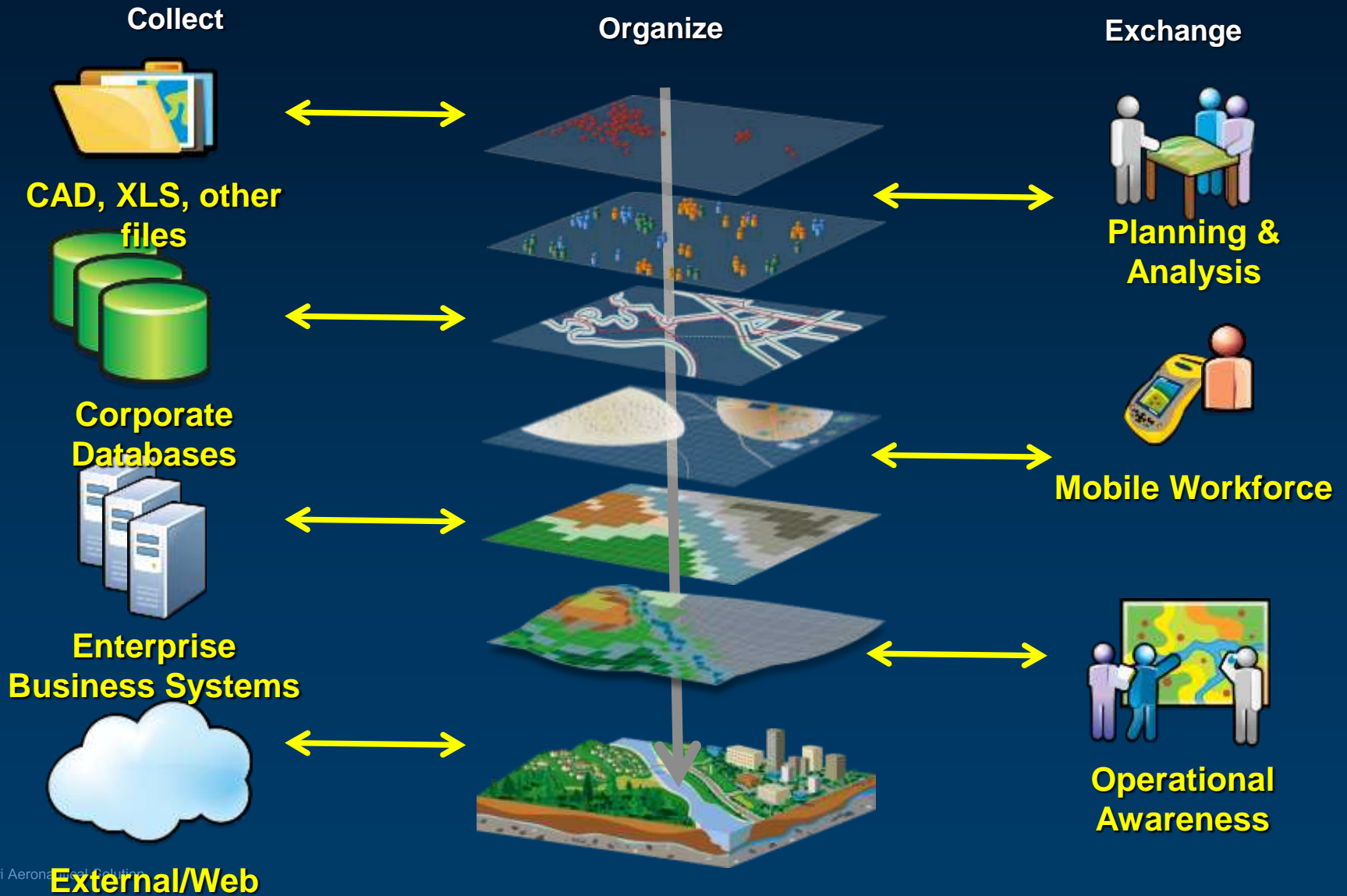
Getting information into and out of the field

Disseminating information to the organization through maps, interfaces & reports

Communicating directly with stakeholders and enlisting their participation

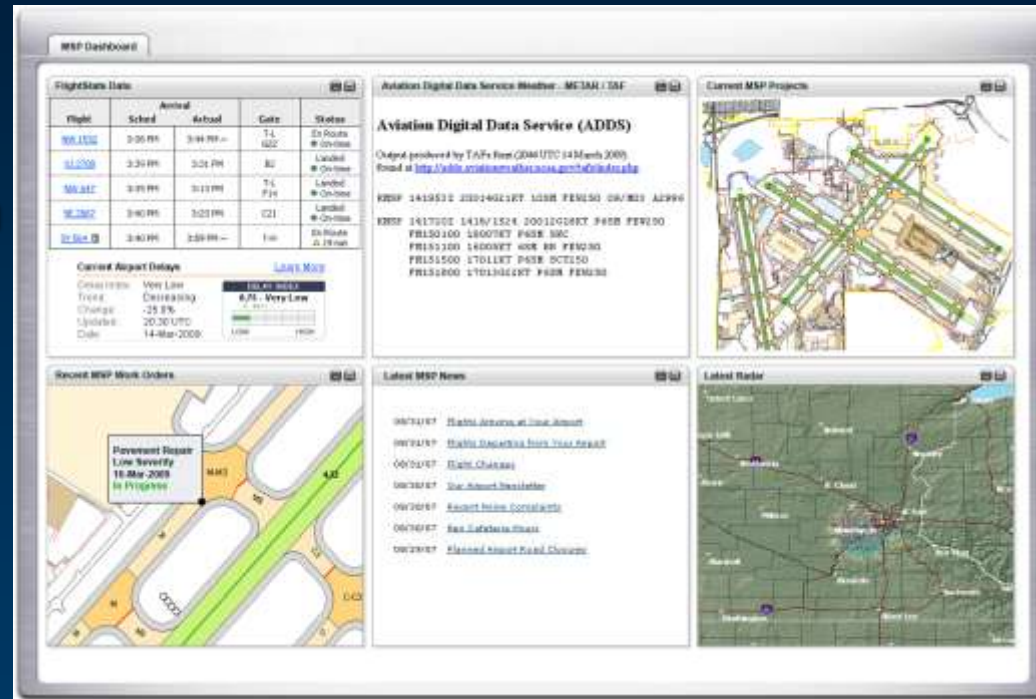


Data Management

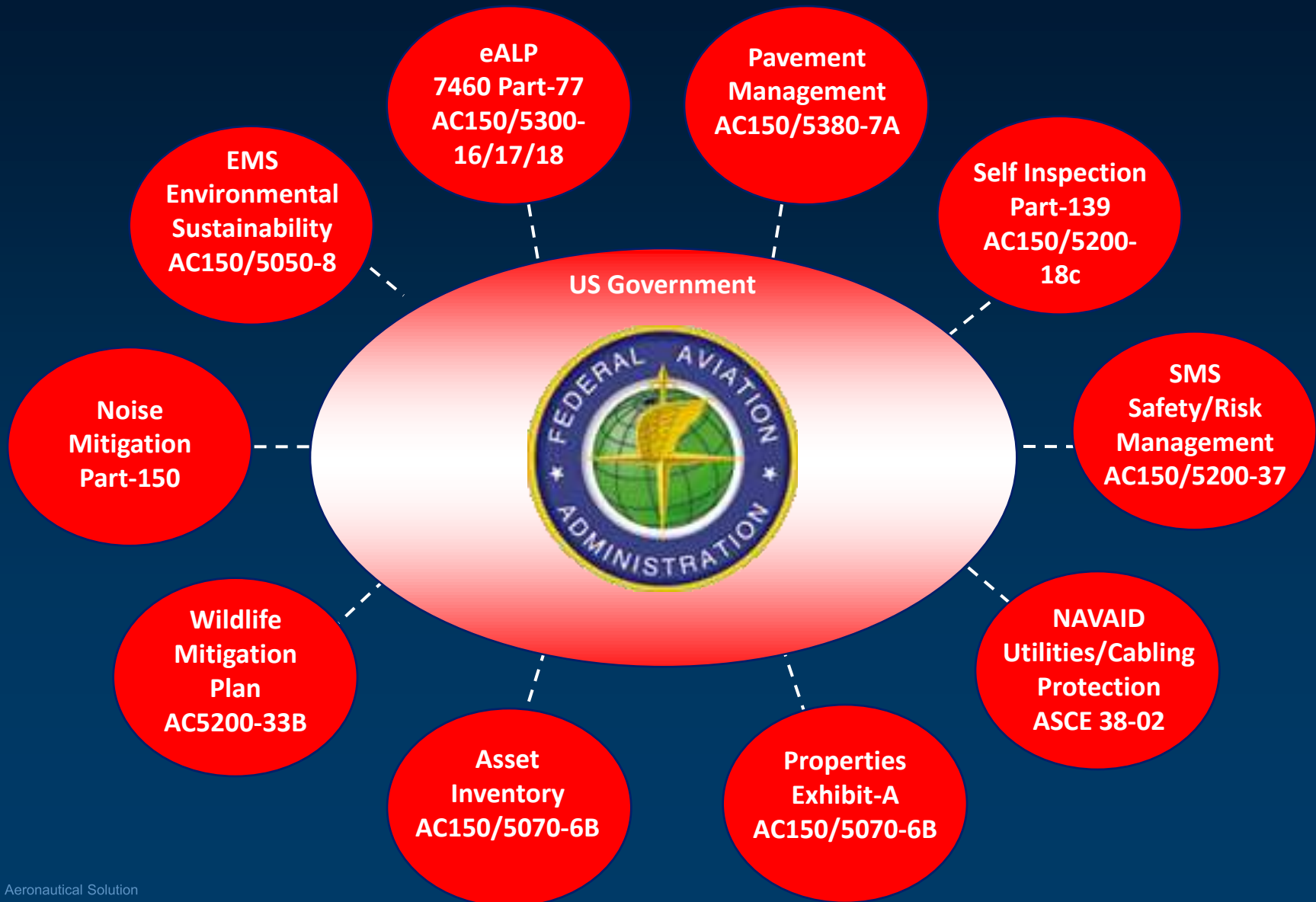


Information for Effective Decision Making

- Need Access to Information From Different Management Systems
- Inability to Share Information from Legacy Systems
- Need for Current and Accurate Information



Compliance



Better, Faster, Cheaper

- **Maximize Billing Opportunities**
- **Improve Security and Emergency Response**
- **Improve My Operational Performance**
- **Reduce Information Collection Costs**
- ***Enhanced Competitive Advantage***

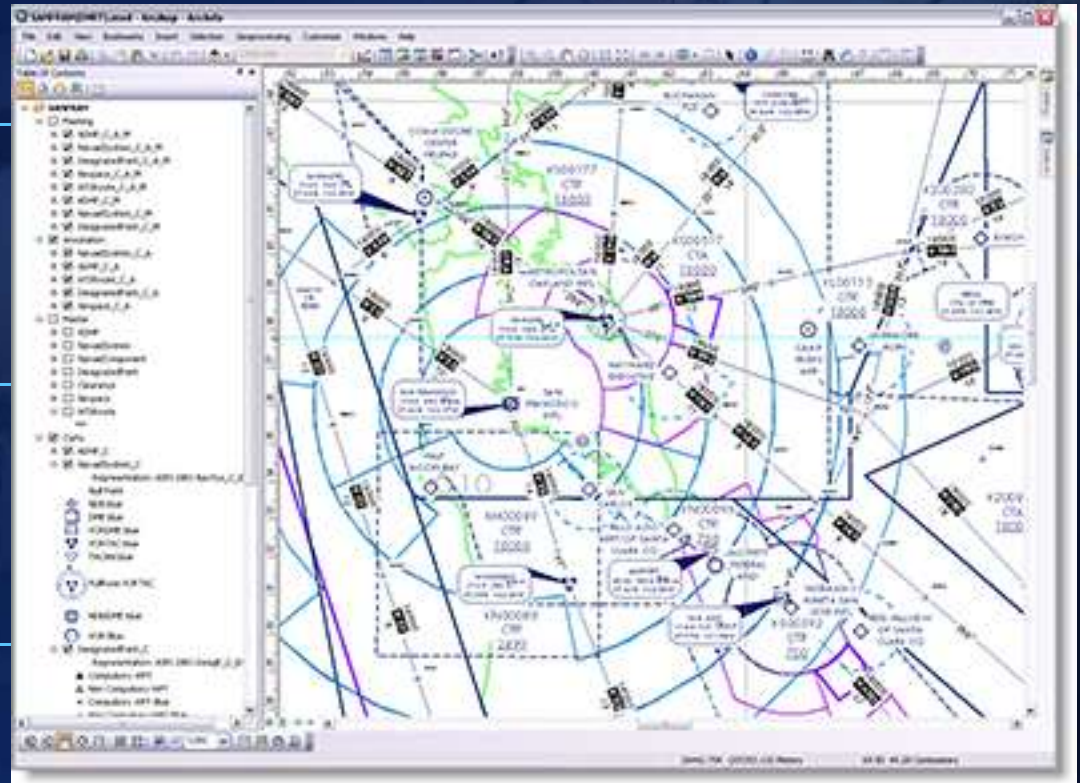
How are airports using GIS ?

- Terminal management
- Property management & Land acquisition
- Airspace management
- Flight tracks and Noise complaints
- Airport layout
- Snow removal
- Planning
- Pavement management
- Traffic Modeling
- Facilities & Utility management
- Construction Management
- Security
- Environmental Compliance
- Maintenance
- Approach & Transition zones
- Public information
- Lease tracking
- Emergency response

Application Areas



Esri Resources



Aeronautical Organizations

Overview

[Success Stories](#)

[Brochures/White Papers](#)

[Events](#)

[Demos](#)

[Partner Solutions](#)

Related Resources

[Newsletter](#)

[Connect with Others](#)

[Community Maps Program](#)

[Ask Our Experts](#)

Esri Aeronautical Solution

Esri's Aeronautical Solution provides a platform to manage aeronautical data and rapidly produce high quality charts.

[Learn More](#)

Civil and military organizations must quickly produce aeronautical information for safer navigation. Esri technology can help these agencies maintain, control, and disseminate data that meets their rigorous requirements.

Solutions for Aeronautical Organizations

With Esri technology, you can

- Create, visualize, analyze, and share information with others who depend on highly accurate, authoritative data. Automatically update charts through your organization's AIS to reduce data latency, redundancy, and errors.
- Produce a wide range of charting products, including [International Civil Aviation Organization \(ICAO\) compliant charts](#), from a central database.
- [Spanish airports and air navigation](#) streamline aeronautical charting with ArcGIS.
- Share data using the *Aeronautical Information Exchange Model (AIXM)*.
- Readily share your information through mobile and web applications

Improve Your Workflow



Esri technology allows you to implement an [effective workflow](#) for data collection, management, production, and delivery.

Esri Aeronautical Solution

Overview

[Airports GIS](#)

[Key Features](#)

[Demos](#)

[Chart Gallery](#)

[What You Get](#)

[Brochures/White Papers](#)

[Common Questions](#)

[System Requirements](#)

[Success Stories](#)

[Pricing](#)

[Free 60-Day Trial](#)

What's New at 10

Training Available for ArcGIS for Desktop 10

Get up to speed on ArcGIS 10 with [instructor-led training](#). Watch free [live training seminars](#) and [recorded seminars](#) online.

Latest Release

See [what's new](#) in Aeronautical Solution.

Overview

Esri Aeronautical Solution provides a true GIS-based platform to manage aeronautical data and rapidly produce high-quality charts that adhere to industry- and organization-specific requirements. With Esri Aeronautical Solution, civil and military agencies, commercial airlines, and chart producers can create, maintain, and use standard aeronautical products based on the latest digital data.

With Esri Aeronautical Solution, you can

- Significantly reduce chart production time by managing and generating aeronautical charts from a central database-driven system.
- Produce charts to your cartographic specifications from the database, including International Civil Aviation Organization (ICAO)-compliant charts.
- Add value for customers by supporting custom requests.
- Share data within the aeronautical community using the Aeronautical Information Exchange Model (AIXM).
- Enhance data quality through the direct loading of digital changes and automated change-verification workflow management.

[Airports GIS Now Available](#)



Aeronautical Solution supports the Instrument Approach Procedure (IAP).

Esri Aeronautical Solution

Overview

Airports GIS

What You Get

How Do You Get It

Key Features

Demos

Chart Gallery

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Airports GIS

What You Get

The Esri Aeronautical Solution—Airports GIS tools and templates use a free and ready-to-use -18B geodatabase template provided by the FAA. This eliminates costly and time-consuming database design and helps to ensure consistency and compliance with -18B requirements. Also included is detailed, easy-to-use documentation outlining configuration and getting started with the solution information.

Key capabilities available with the Esri Aeronautical Solution—Airports GIS Package include:

- [Show/Hide All Capabilities](#)
 - [Preconfigured map product templates](#)
 - [A single integrated workflow management application](#)
 - [Automated data validation tools](#)
 - [Preconfigured -18B data editing templates](#)
 - [Automated tools for creating and visualizing obstacle surfaces](#)

As the Airports GIS program continues to evolve, Esri will continually expand and update its support for this mandate. New tools and templates will be offered via download from the Esri Resource Center.



Preconfigured map product templates.

Esri Aeronautical Solution

Overview

Airports GIS

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Airports GIS

How Do You Get It

If you are a current Esri Aeronautical Solution user, simply download the Airports GIS Package from the [Aeronautical Solution Resource Center](#).

If you are interested in obtaining the Esri Aeronautical Solution or have other questions regarding the Airports GIS package, please contact the Esri Aeronautical Team at aero@esri.com.





Aeronautical Solution

Help

Forum

Gallery

Videos

Ideas

System Requirements

Installation Guide

Get Support

Esri Aeronautical Solution

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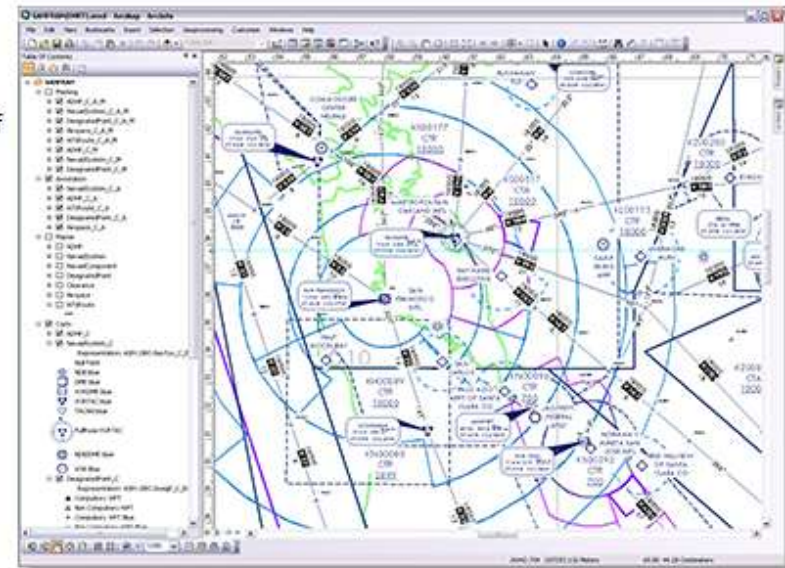
Airports GIS is a program mandated by the FAA that requires U.S. airports and their consultants to submit accurate and high quality GIS data that will be subjected to rigorous quality checks as part of the review process. Esri Aeronautical Solution - Airports GIS Package includes tools, templates and workflows specifically developed to assist airports and their consultants in meeting the data requirements set forth by this program.

To learn more about the Aeronautical Solution, see [What is the Aeronautical Solution?](#)

[Click here](#), to request a fully functional 60 day trial of Esri Aeronautical Solution.

Helpful Resources:

- [What's new in Aeronautical Solution 10?](#)
- [Take a quick tour of the Aeronautical Solution](#)
- [FAQ's](#)



FAA's Airport GIS Program

FAA.gov https://airports-gis.faa.gov/public/

Federal Aviation Administration

Airports GIS

- Login
- Newsletters/Publications
- Airports GIS Online Help
- Airports GIS Issues/Questions
- FAQs
- Airports
 - Steps to Follow
 - Airport Regions
 - Airport Improvement Program (AIP)
 - AC 150/5300
 - Contractor Security
 - Airport Sponsor Benefits
 - Planning Considerations
- Surveyors
 - Survey Intro
 - Airport Familiarization
 - Aviation Glossary
 - Aeronautical Information Manual (AIM)
 - Airport Visual Aids
 - Airport markings/Signs
 - Phonetic Alphabet
- Airport Design Tools
 - Wind Analysis

[Login to Airports GIS web application.](#)

FAA Airport Surveying - GIS Program

Airports Geographic Information System (AGIS)

The Airports Surveying-GIS program helps the Federal Aviation Administration (FAA) collect airport and aeronautical data to meet the demands of the Next Generation National Airspace System.

Guided by Advisory Circulars, you, the airport sponsor or proponent, are a key link in the information chain. A single web app lets you access airport data and submit changes. The changes match defined business rules to ensure the proper FAA office is notified.

We hope to reduce reporting and processing time for an airport change from "up to a year" to a publication cycle or two.

The FAA is streamlining the existing survey application and integrating other aeronautical applications into a single Internet portal for submission and delivery of airport and aeronautical data. Airports GIS currently supports open data standards, enhanced workflow and tracking capabilities, automatic validation of all submitted data, and a GIS viewer.

We are developing electronic Airport Obstruction Charts and electronic Airport Layout Plans (for Phase 2). Our ultimate goal is to integrate multiple versions of the airport data: preliminary, current, planned, and temporary. And to share data with other FAA systems such as iOEAAA and eNASR. Stay tuned for future implementations.

There is a tremendous amount of work ahead, but it will be worth it. Please continue visiting to see our progress.

News & Highlights

Latest News Letter

[System Release Newsletter \(3.0\)](#)

FAA.gov Home | Privacy Policy | Web Policies & Notices | Contact Us | Help

Readers & Viewers: PDF Reader | MS Word Viewer | MS PowerPoint Viewer | MS Excel Viewer | WinZip

A Good Impetus to Start Esri Airport GIS Program



Aeronautical Solution

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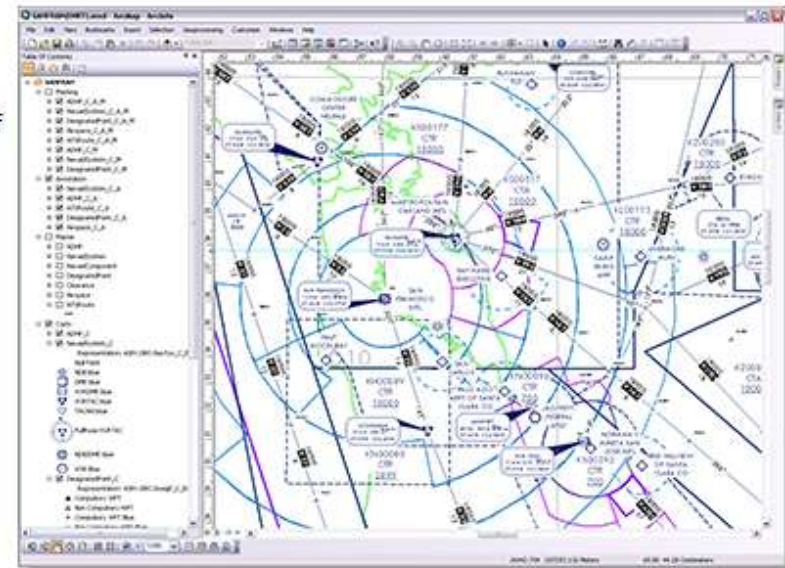
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- [Take a quick tour of the Aeronautical Solution](#)
- [FAQ's](#)



ArcGIS Online



Browse a gallery of featured maps and applications

Create your own maps

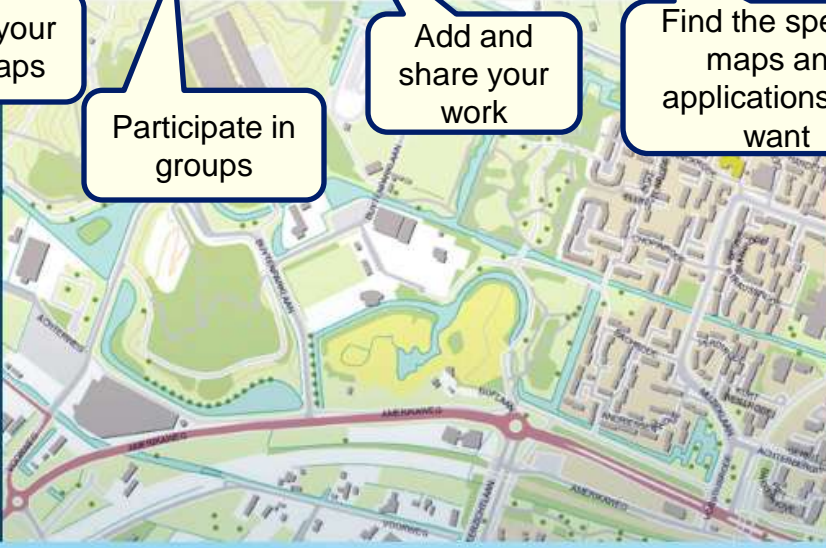
Participate in groups

Add and share your work

Find the specific maps and applications you want

ArcGIS Online is a cloud-based, collaborative content management system for maps, apps, data, and other geographic information.

[Learn More >>](#)



Featured Maps



Geography, class, and fate: Passengers on the



Around the World in 365



Ocean Basemap



World Globe 1812

Make a Map >>

Create a map that can be viewed on a mobile device. Share it on a blog or website.

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Get a free ArcGIS Online account and start making web maps today.

Quickly get up and running by viewing our short training videos

Featured Videos >>

Watch these short videos to quickly get started making maps and apps.

World Topographic Map Update

May 08, 2012
The update includes content for the US as well as updates for Germany.

Open maps in ArcGIS Explorer Online

Start ArcGIS Explorer Online >>

Use this rich application for transforming your data into beautiful maps and presentations that tell powerful stories.

ArcGIS US International Aiports with Links to Diagrams - Web Map

New Map My Content Help Sign Out

Details

Add

Basemap

Save

Share

Print

Measure

Bookmarks

Find address or place

US International Aiports with Links to Diagrams - Web Map

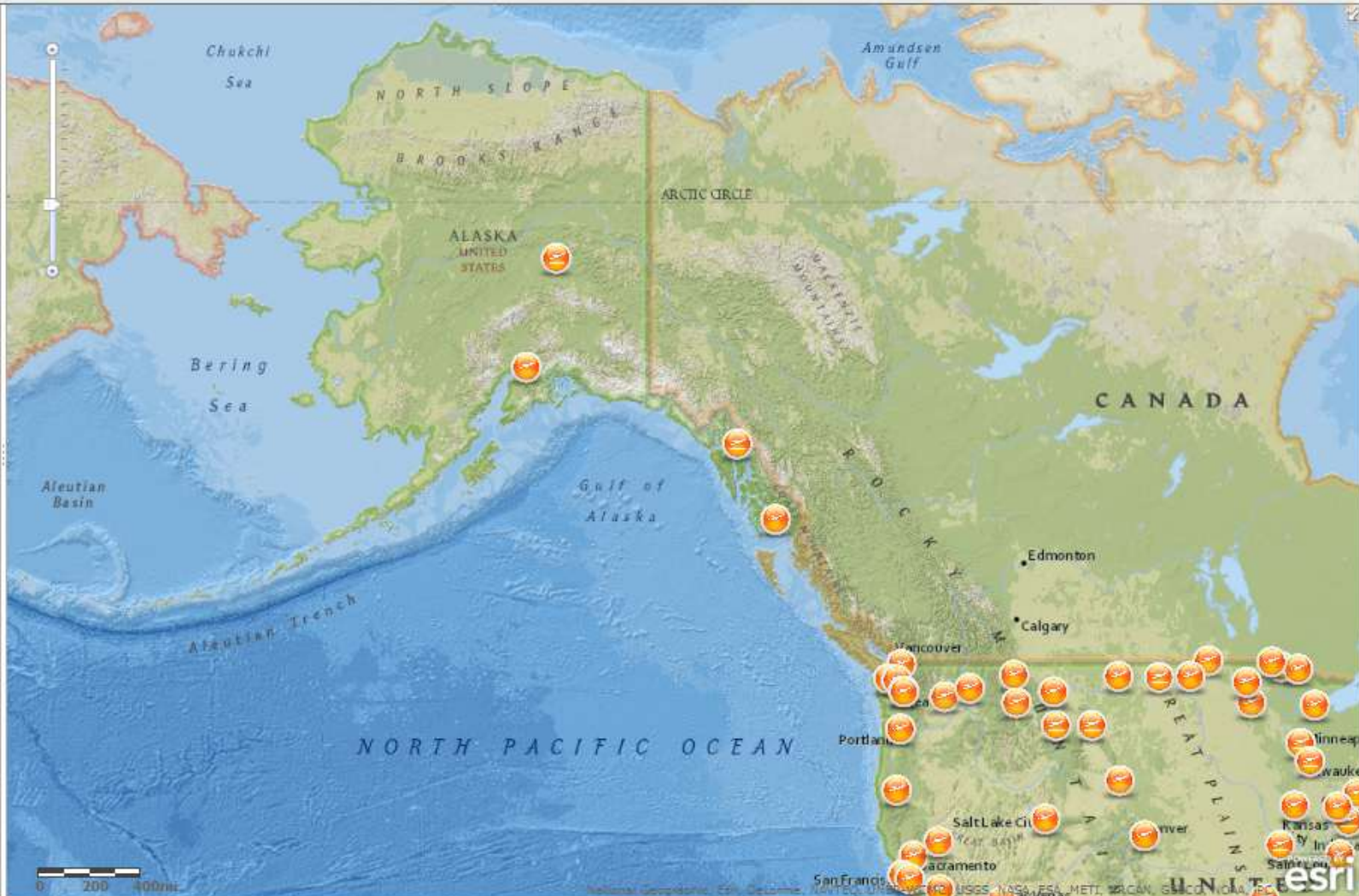
This map can be used to search US airports and get detailed information regarding FAA airports and runways

Web Map by rayers
Last Modified: April 22, 2012
0 ratings, 0 comments, 469 views

More Details...

Open this map in:
ArcGIS Explorer Online


Make your own map
Add to this map
Make a new map



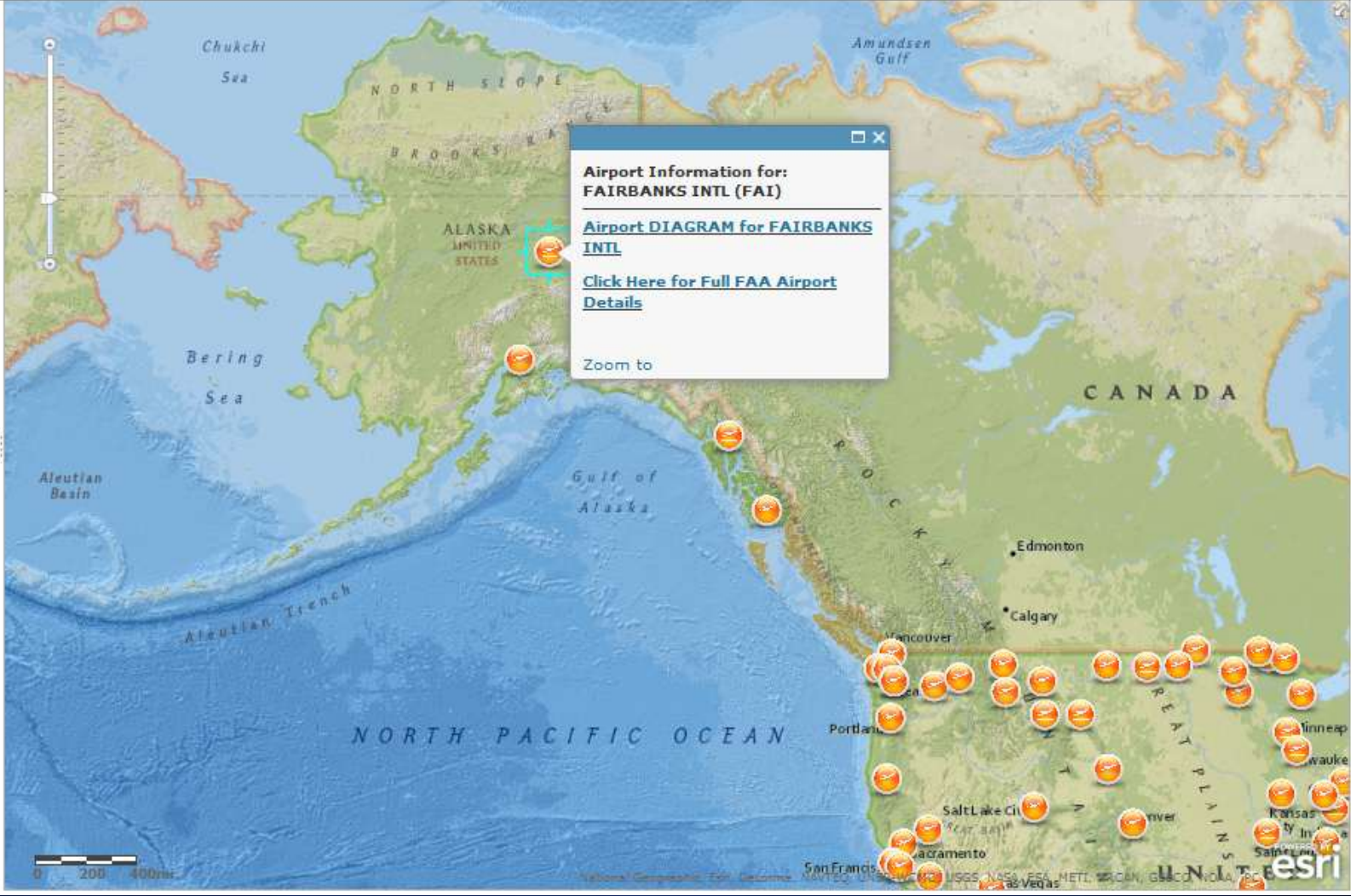
Details
Add
Basemap
Save
Share
Print
Measure
Bookmarks

Legend

US International Airports



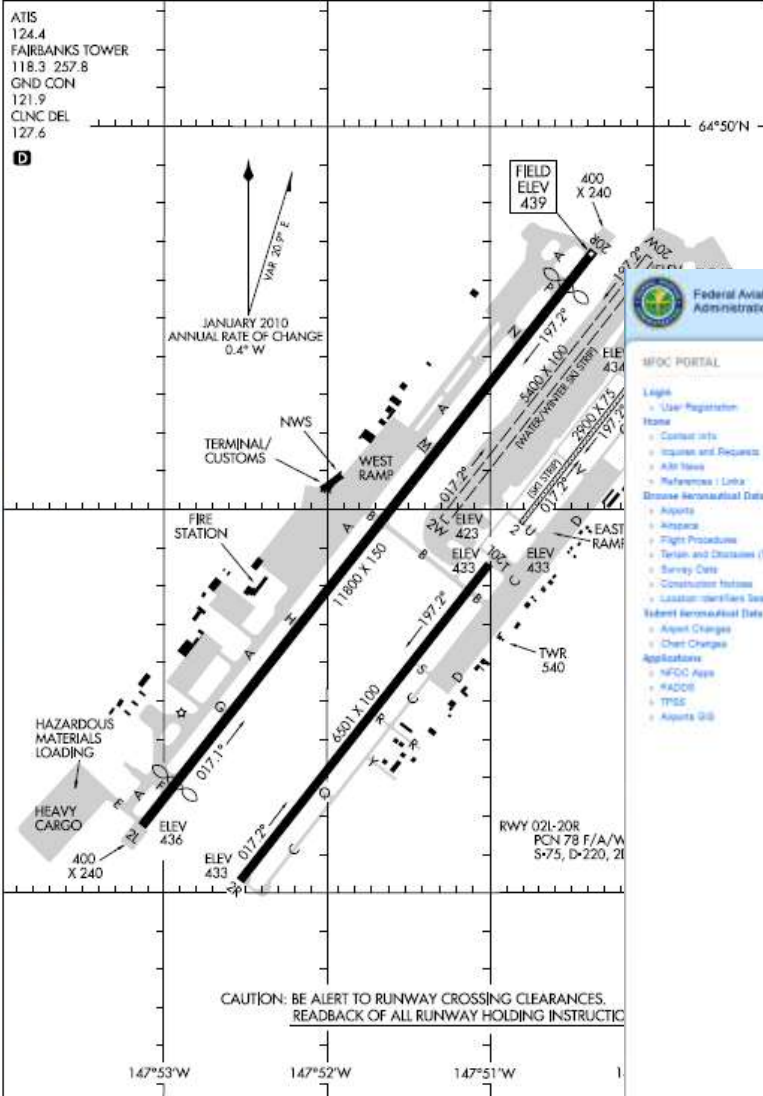
Esri.com | Terms of Use | Privacy | Contact Us | Report Abuse



AIRPORT DIAGRAM

AL-1234 (FAA)

FAIRBANKS INTL (FAI) (PAFA) FAIRBANKS, ALASKA



AK_05_APR_2012 to 31 MAY 2012

AIRPORT DIAGRAM

FAIRBANKS INTL



FAI PORTAL

- Home
- Log in
- User Registration
- Contact Info
- Inquiries and Requests
- Alert News
- References / Links
- Obtain Aeronautical Data
- Airports
- Airspace
- Flight Procedures
- Terms and Conditions (TOC)
- Survey Data
- Construction Notices
- Location Identifiers Search Tool
- Submit Aeronautical Data
- Airport Changes
- Chart Changes
- Applications
- NFDIC Apps
- FADDE
- TPDS
- Airports GIS

FAIRBANKS INTL

- New Airport Search
- Show All Airports
- Airport Operations
- General Services
- Communications
- Navigation Info
- Weather Data Services
- Networks
- Helpdesk

Latitude: 64-45-54.2943 N
 Longitude: 147-41-22.2128 W
 Elevation: 438 Ft.
 Variation: 21 E 2000
 From city: 3 miles SW of FAIRBANKS, AK
 ARTCC: DMH
 Website charts: FAIRBANKS
 Time Zone: UTC (-6-40T)

FAI (PAFA)

FAIRBANKS, AK
 UNITED STATES
 Data is effective:
 04/01/2012 - 04/30/2012

Airport Operations

Airport Status: Operational Facility type: Open to the public Control Tower: Air traffic control tower plus approach control Tower Hours: 24 hours Asph/Disp Hours: 24 hours FAA: FAIRBANKS FBO (PAF) Phone: 907-474-5127 Toll Free: 1-866-248-8225 * NADDS TOL-V AND SOC-R, CTLD-H&S TOL, PDD-CUB * VPR/DF ABL FOR PORT YUKON AK LCED AT LAT 64-34-39.9289 LONG 145-53-23.8818 * VPR/DF 501-622 ABL FOR BETHEL AK LCED AT LAT 60-5420.8381 LONG 151.3000 894 * VPR/DF ABL FOR AMHER AK LCED 67-08-32.9779 157-51-13.0389 NOTAMS Facility: FAI (FAIRBANKS INTL) Attendance: Continuous	Wind Indicator: Lighted Recommended Circling: No Beacon: Clear and Green 55-65 Landing Fee: Yes Fuel: 100LL, 41 Fire and Rescue: AFFF Inten I C certified on 03/01/2009 Self Operations: Landing Rights Issued Not an Airport of Entry
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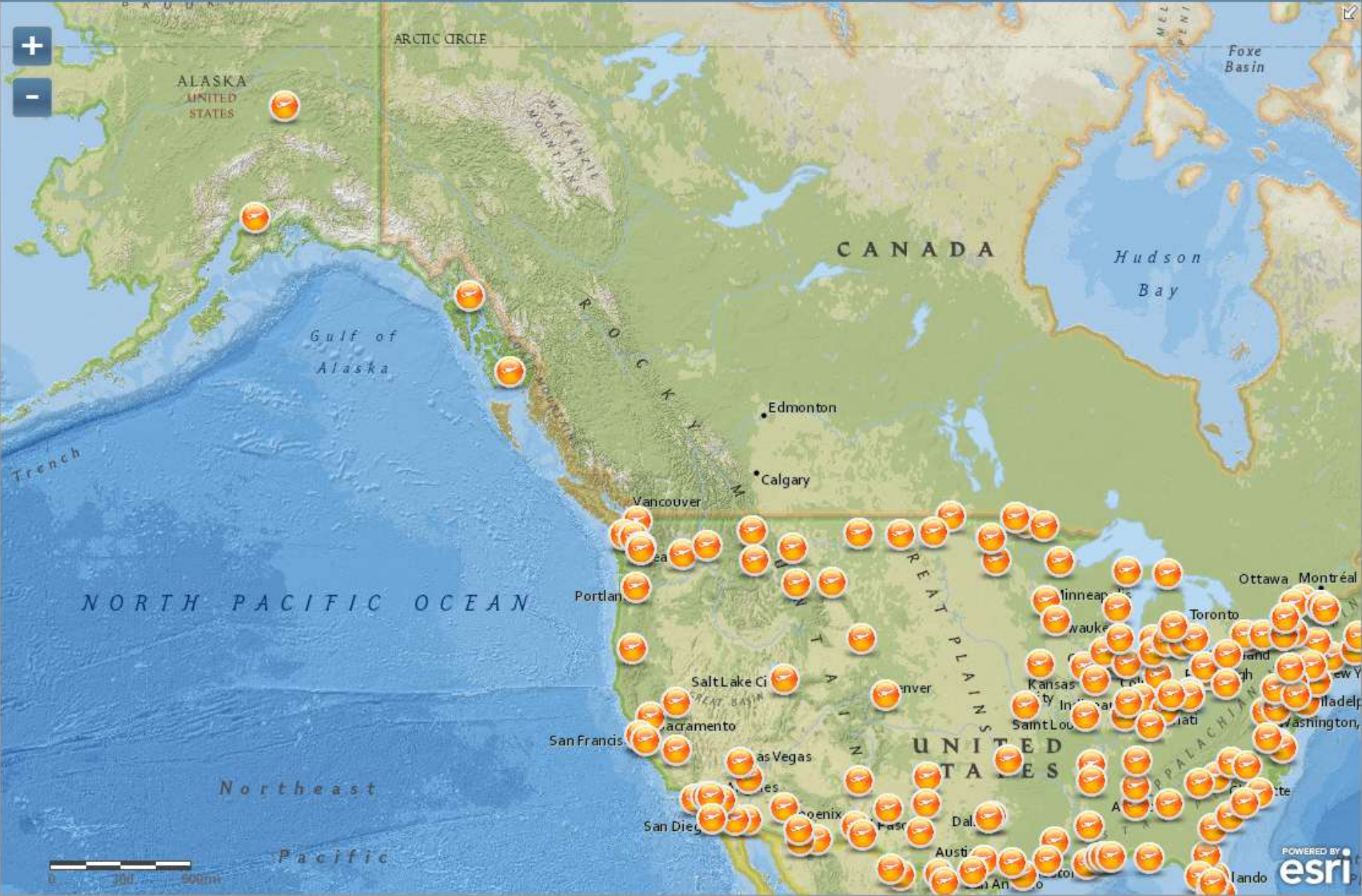
Airport Contacts

HARBOR: ISSUE UNDERGROUND 5450 AIRPORT HWY - SUITE C FAIRBANKS, AK 99709 UNITED STATES Phone: 907-474-2500	TERMINAL: STATE OF ALASKA DOT/FA ALASKA INTL AIRPORT SYSTEM 6450 AIRPORT HWY - SUITE 1 FAIRBANKS, AK 99709 UNITED STATES Phone: 907-474-2500
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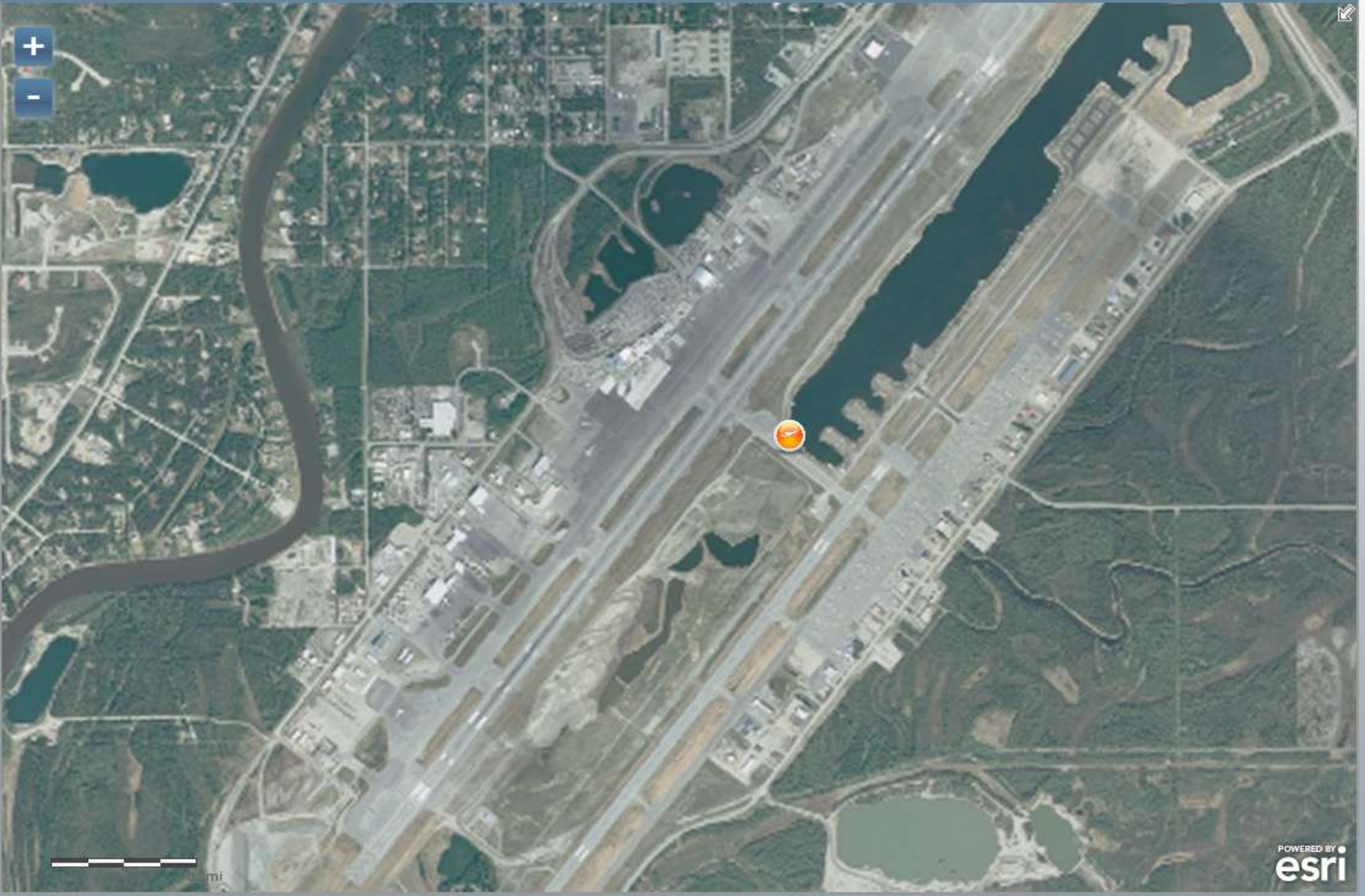
General Remarks

- * MGRAPORY BIRDS SEEN APRIL DURING SPRING THRU FALL
- * ATCT LOCATED AT 64-45-54.2943 N 147-41-22.2128 W BUREAU OF THE YEAR
- * AFB CONTROLLED BY FAIRBANKS INTL ATCT. CTCY ATCT ON FRAG 128.3 BE SOON AS PRACTICAL AFTER BRYAT UP FOR TAKE ON THE ROAD. FLIGHT PLAN TYPICALLY ASSIGNED BY FAIRBANKS ATCT. UNITED TRANSPARENT FLIGHT PLANE PARKING ABL. CTCY OPS 907-474-2530 FOR INFORMATION. SPY FROZEN IN WINTER. NOT HOIT, AIR OPS NOT RICHOD.
- * BE ALERT FOR SNOW REMOVAL EQUIPMENT OPERATING 1 OCT TO 15 NOV
- * MILITARY CONTRACT PLUS ABL
- * FOR FLIGHTS IN NEAR PART OF FAIRBANKS RECOMMEND CONTACTING EMBLEN RANGE CONTROL ON 125.3 OR CALL 1-800-759-8723 FOR INFORMATION ON MILITARY ACTIVITIES.
- * NOISE ABATEMENT PROCEDURES IN EFFECT PH 1200-0800 ALL LARGE ACFT, TURBINE ENGINE, AND HEAVY ACFT UTILIZE BY OIL FOR ARAIS AND 15R FOR

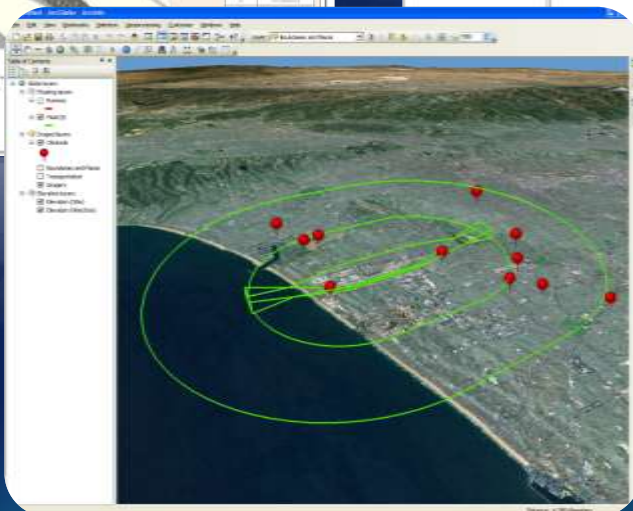
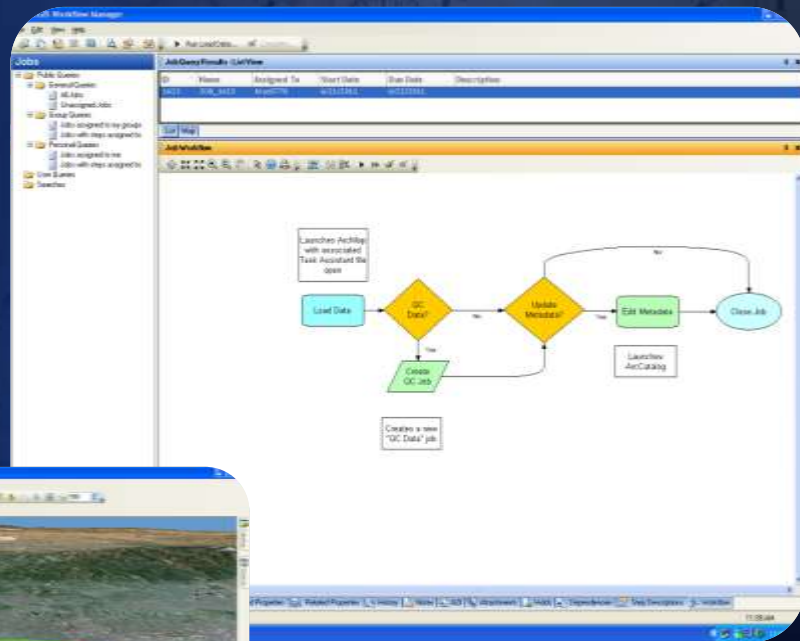
Airports w/ Diagrams



Airports w/ Diagrams



Esri Aeronautical Solution – Airports GIS Package



Airports GIS Package Objectives

- Tailored GIS capabilities supporting FAA requirements
- Configurable and Extensible
- Agile Development and Deployment Pattern



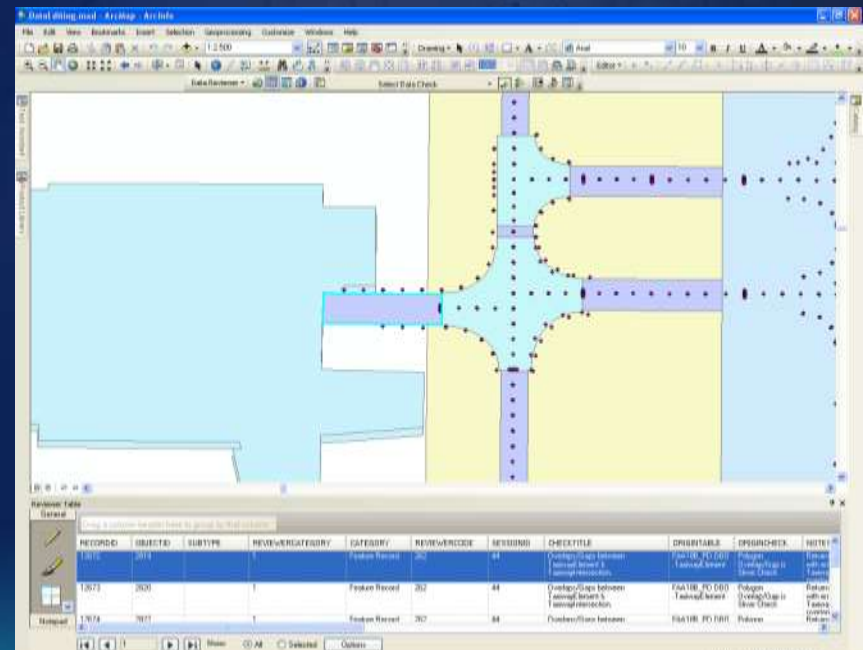
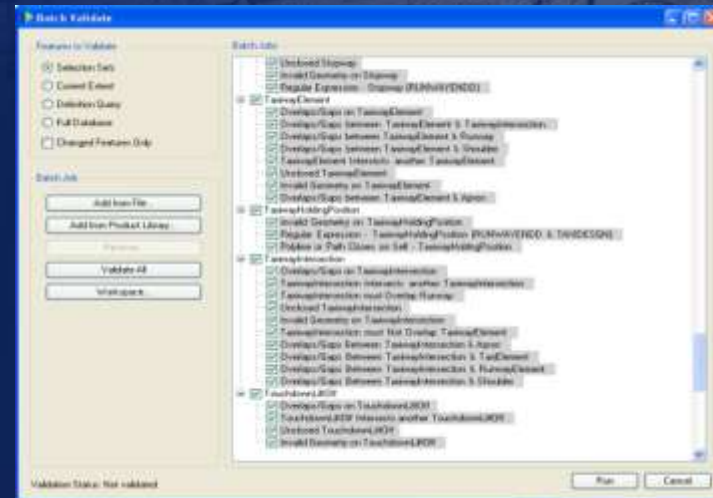
Airports GIS Package Highlights

- Improved Data Quality
- Workflow-based Operations
- Preconfigured Map Products
- 18B Template-based Editing Environment
- Automated Obstacle Identification Surface Tools
- Uses FAA Provided 18B Geodatabase Template

Improved Data Quality

Submit Quality Data to FAA – Faster Acceptance and Less Rework!

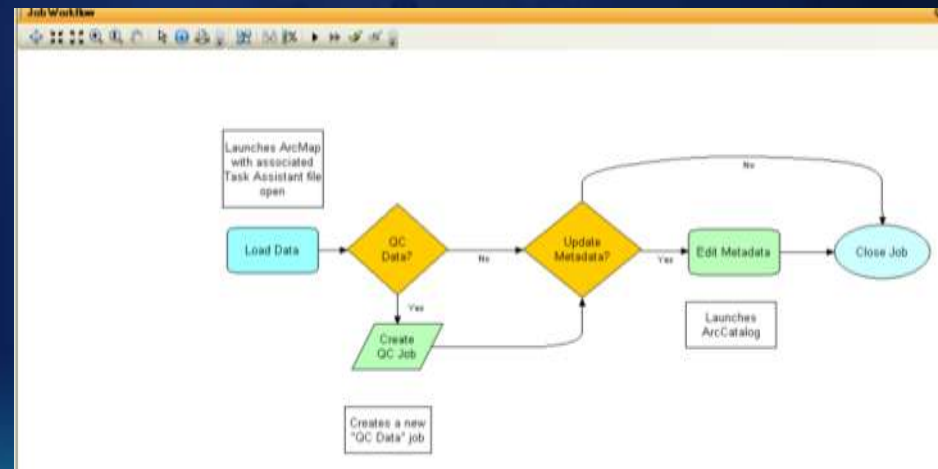
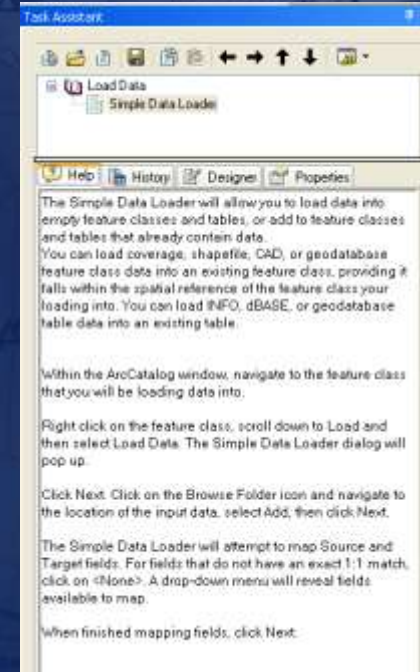
- Automated Tools for -18B Data QC Processes
- Preconfigured and Customizable -18B Rule Base Provided
- Document QC Review Processes
- Report Quality Information



Workflow-based Operations

Standardize Your Best Practices – Structured, Repeatable and Efficient

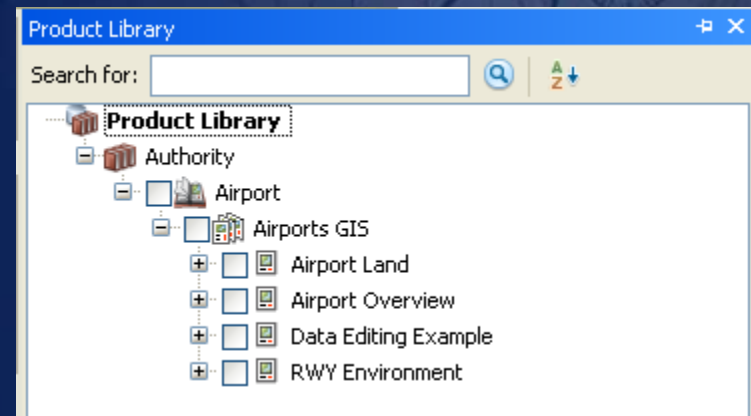
- Manage GIS and Non-GIS Tasks
- Simplifies Software Tools with Automation
- Stores Transaction History of Data Maintenance
- Sample Airports GIS Workflows Provided



Preconfigured Map Products

Use Out-of-the-Box or Customize to Your Requirements

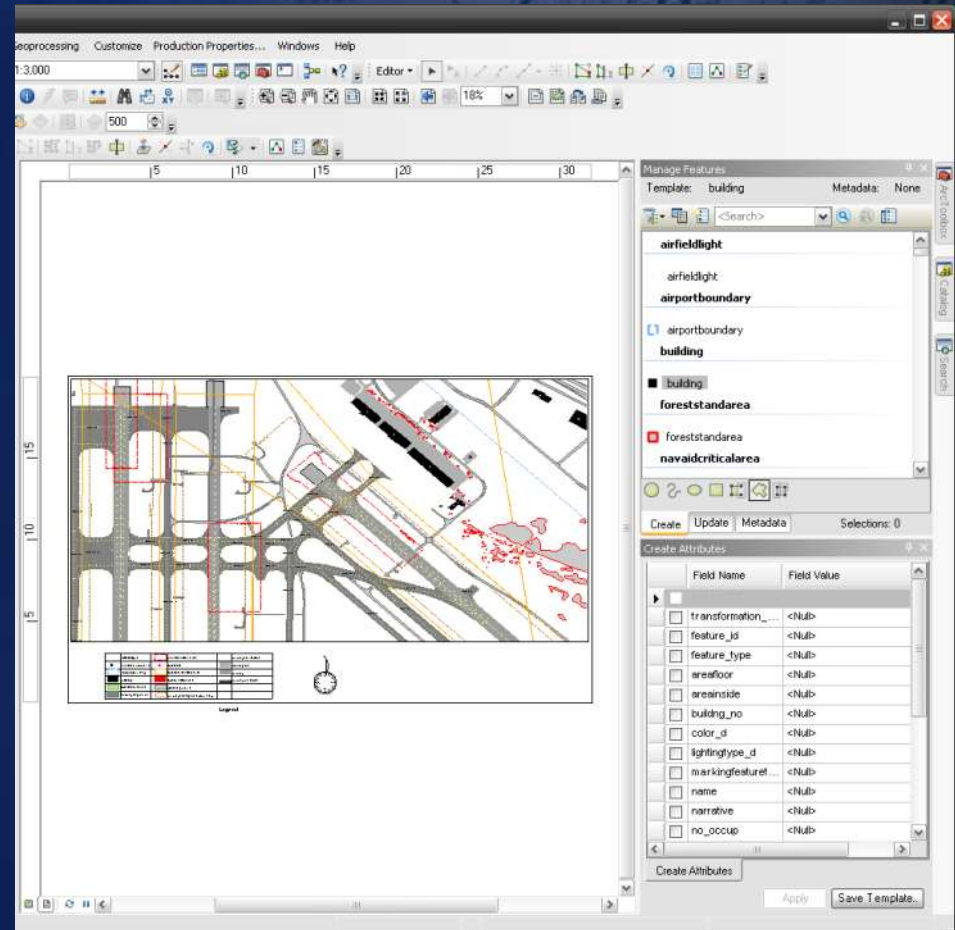
- Enhanced Cartography
- Supports Your Planning and Operations Activities
- Sample Product Library for Efficient Creation & Management



Template-based Editing Environment

Simplified Data Creation and Editing Experience

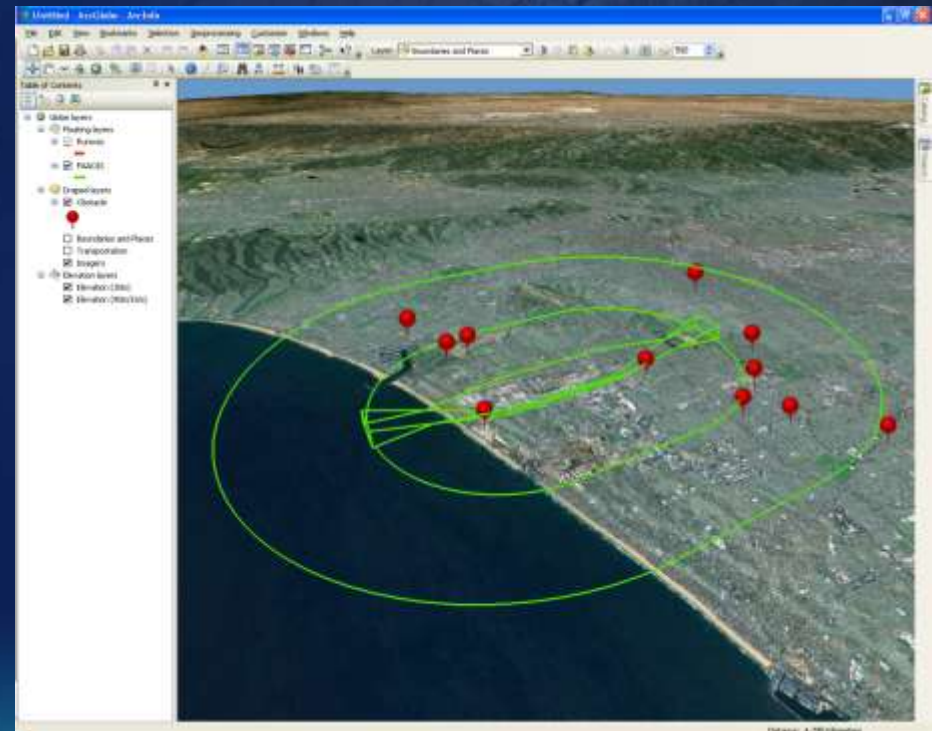
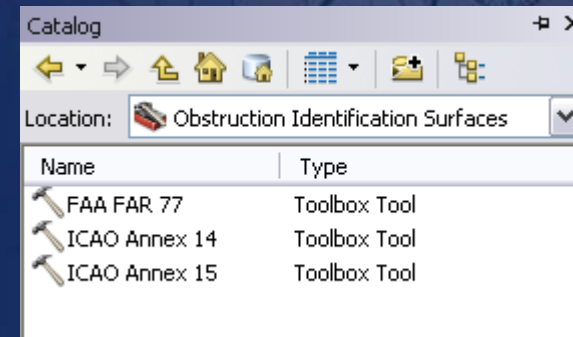
- Preconfigured -18B Editing Templates
- Integrated Spatial and Attribute Editing Interface
- Coded Value Domains
- On-the-Fly Business Rule Validation



Obstacle Identification Surface Tools

Automated and Efficient

- **Support Domestic and International Specifications**
 - FAR Part 77
 - ICAO Annex 14 &15
- **Parameter-based feature construction**
- **Use on the Desktop or Deploy as a GP Service**





Esri Aeronautical Solution – Airports GIS Package

[Demo Video](#)



esri