FEDERAL AVIATION ADMINISTRATION

FAA Airports GIS

System Release Newsletter

Issue: 01 December 2011

RELEASE: 3.0

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Newsletters to Accompany New FAA Airports GIS System Releases

The FAA Office of Airports Safety & Standards, Airports Engineering Division (AAS-100) is proud to announce the publication of newsletters to accompany each new release of the Airports GIS system. These newsletters provide general overviews of major system updates, and inform you of up-and-coming system design changes. This newsletter represents our first installment.

AC-17C RELEASED

The FAA Office of Safety and Standards, Airports Engineering Division (AAS-100) released an updated version of **AC 150/5300-17C** on Sept 30, 2011. Changes and updates to this Advisory Circular (AC) include enhanced airport data gathering technologies such as Light Detection and Ranging (LIDAR). The AC also boasts a new title, "***Standards for Using Remote Sensing Technologies in Airport Surveys***."

Release 3.0 - New Functionality and a New Look

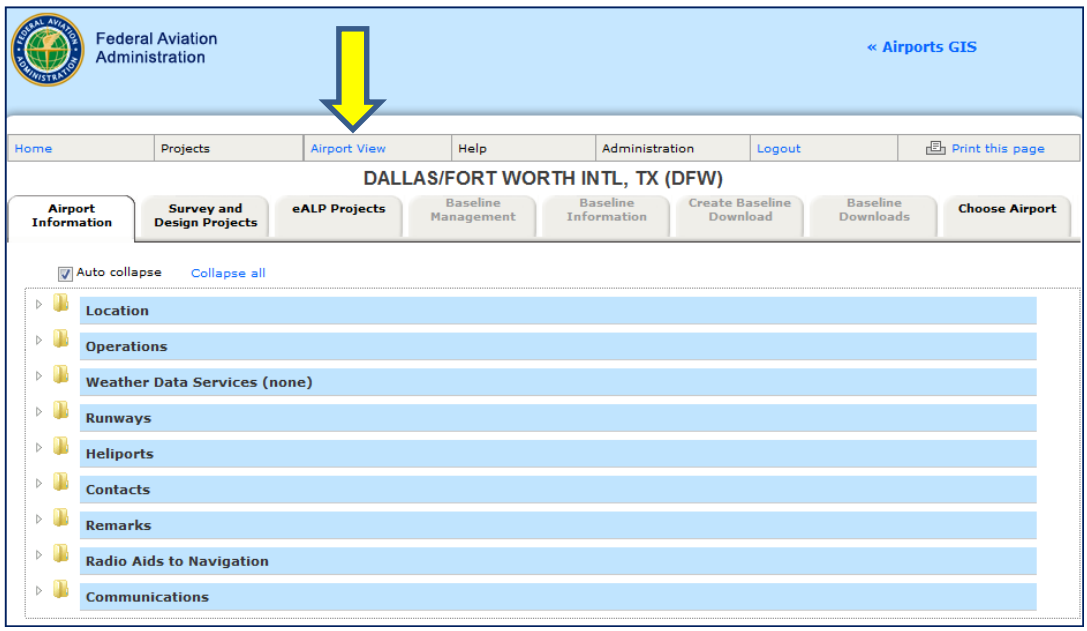
The Federal Aviation Administration proudly announces Release 3.0 of the FAA Airports GIS online project and data management system. This new system update, due for release in January 2012, will replace the existing online system and is one of several major system upgrades planned for FY2012.

Airports GIS Release 3.0 includes Graphical User Interface (GUI) upgrades, project workflow enhancements, two new project workflows entitled ***Design/As-Built*** and ***Survey Work (PACS/SACS only)***, several electronic Airport Layout Plan (eALP) assembly changes including several workflow changes and the inclusion of electronic signatures, and a new way to view airport data from one central location known as the ***Airport-Centric*** view (shown below).

Forthcoming Airports GIS system releases will include links to online resources and support enhanced visual reference systems such as Google Earth™ and ESRI Arc GIS™. System enhancements and training products will be provided with each significant system release.

Training videos providing complete walkthroughs of all system changes are currently under development. Expect release of these training videos by February 2012.

Screen shot of the new Airport-Centric view.



Secrets of a Successful Airports GIS Survey Upload

Having trouble uploading survey data to the Airports GIS system? Here are a few "tips & tricks" you can add to your arsenal of internal quality review checklists to make this process a lot smoother:

Tip #1: Download and use ***FAA geodatabase templates***. These templates make it easier to create new and compliant AC-18B survey files for upload to Airports GIS.

Tip #2: Ensure all files include critical airport reference points. Incomplete survey files will produce errors. The Airports GIS validation system cross-references certain associated feature data to ensure quality control. All survey uploads require, at a minimum, the ***Airport Reference Point (ARP)*** and the ***Airport Elevation*** in the ***Airport Control Point*** layer as critical airport reference points.

Tip #3: Use the ***Test a Survey File*** tool until you get a good upload (*System Administrators call this tool the* ***Sandbox***). This tool saves every test file iteration you submit while the project writes over your last upload. Help Desk Administrators can use data from this tool to evaluate your previous survey tests for trends and file errors.

Tip #4: It's all about the ***Status***. Make sure all associated features classes have the same ***Status*** value. Some examples of ***associated feature classes*** include runways and runway ends, and airport NAVAIDS and their perpendicular points (if required).

Look for more of these tips in the next version of the Airports GIS System Release Newsletter!

Viewing Data the Airport-Centric Way

The Airports GIS System Release 3.0 includes the long-awaited system enhancement known as the Airport-Centric viewer. Under development for over a year, this exciting new feature allows you to view and access all facets of airport data from a single source. You can manage airport survey data, airport projects and baseline data sets all from one central location. To access this feature, log in to Airports GIS and click ***Airport View*** at the top of the main page (see screenshot page 1).

> The Airport-Centric Viewer enables users to "…manage airport data, airport projects and baseline data sets all from one central location."

The default ***Airport View*** tab is titled ***Airport Information***. This tab displays published airport data in several expandable categories (To expand each category, click the arrow **(▷)** to the left of each folder icon.). This published and organized FAA airport data is pulled directly from the National Flight Data Center (NFDC) database, which is also known as the National Airspace System Resource (NASR).

Use the second tab, ***Survey and Design Projects***, to access, view, and manage all current and completed projects for the selected airport. This tab lists project types, current status, and next actions to be completed. View additional details for each project by clicking on the arrow **(▷)** to the left of the associated project folder icon. To go directly to a project, click on the project number. You can also access and download all submitted project survey data directly from this tab. You will find functionality under the ***eALP Projects*** tab. (Note to users: If the selected airport does not have any eALP projects started, this tab will not be accessible and will remain grayed out.)

The ***Baseline Management*** tab lets you create and manage the official on-file airport baseline dataset. After a project is complete, a designated airport data specialist uses this tab to review and eliminate data ambiguities and redundancies, and merges new survey data with the established airport baseline dataset. This essential functionality is critical to ensuring the development of a quality dataset and will require additional training. These additional training videos will be posted on the FAA Video Training Series (VTS) website after they have been approved for public distribution.

After creation, an airport baseline dataset can be downloaded (only in the **Airport-Centric** view) by anyone with approved access. This file contains the most current and up-to-date features from completed projects. Uncompleted project data cannot be merged into the airport baseline until it has been verified. Supported download formats include .DWG, .SHP, and .DGN, with Google Earth support scheduled for FY2012.

After managing one airport, you can easily move to another airport by clicking the ***Choose Airport*** tab or the ***Airport View*** link at the top of the page. Both links will bring you back to the initial ***Choose Airport*** user input page. Type in an airport 3-letter ID and click **Select**.

For questions about the ***Airport-Centric*** view, or any other Release 3.0 updates, please contact the Airports GIS Help Desk *(See the last page of this newsletter for contact information and hours of operation.)*.

The Debut of Two "New Survey Project" Additions

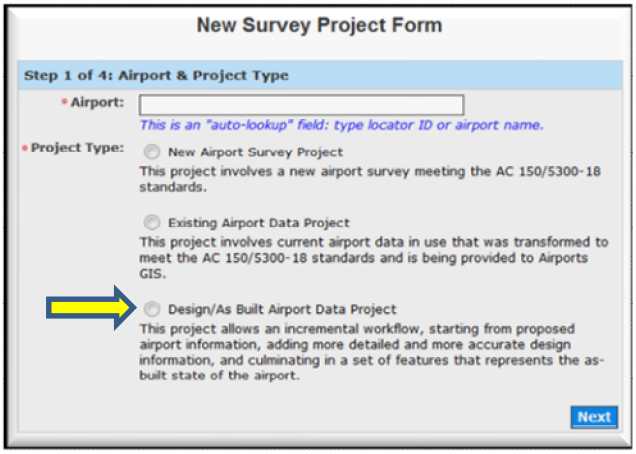
Airports GIS Release 3.0 includes two **New Survey Project** selections when you create a new Airports GIS project: ***Design/As-Built Airport Data Project*** and ***Survey Work - Establish permanent geodetic control (PACS/SACS)***. These additions give airport sponsors additional flexibility when creating airport projects. In addition, these new workflows are streamlined and less ambiguous in their deliverable requirements.

The ***Design/As-Built*** project type reflects the incremental workflow of the project. It lists the proposed airport information, adds more detailed and more accurate design information, and culminates in a set of features that represents the as-built state of the airport. Turn to Page 4 of this newsletter for a more information about this workflow and its functionality.

The ***Survey Work***, or ***PACS/SACS*** only, survey purpose creates a standard workflow that only requires contractors to submit a Geodetic Control Plan; no other plans are required. This project type also requires the submittal of a survey file that contains the new, or recovered, geodetic control marks, the ARP, and the Airport Elevation control points. Currently, these project types are handled by NGS (besides the SOW review). Any questions regarding them should be directed to the NGS subject matter expert assigned to your specific airport project.

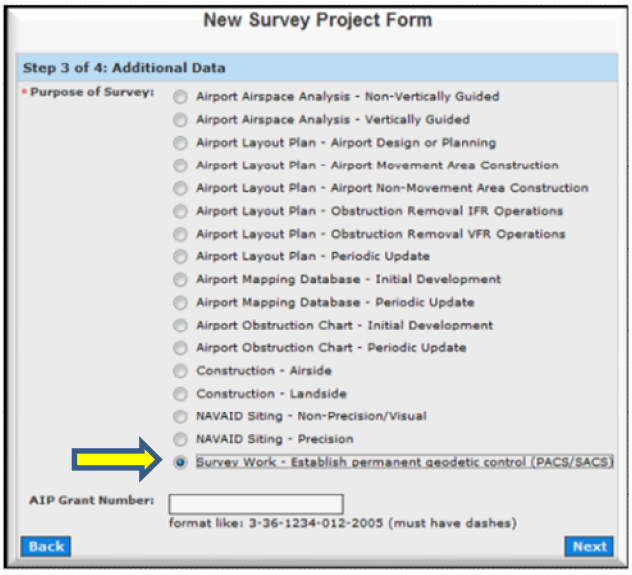
In previous versions of Airports GIS, most project workflows required contractors to upload "placeholder" documents as plan deliverables even though they were not a requirement of the project. Airports GIS Release 3.0 lets you select or deselect plan submittal requirements during project creation. If a specific plan is required for the selected project workflow, the system prompts the user with a pop-up warning, and then automatically opts-in that plan for project submittal.

For more information on this topic, contact the Airports GIS Help Desk.

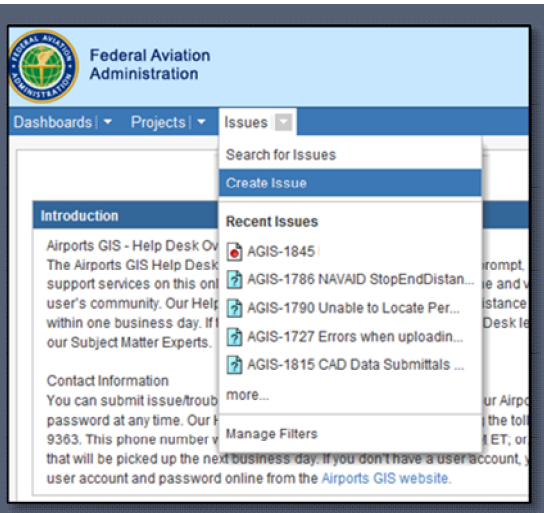


Above: Screenshots of the new ***Design/As-Built*** addition to Step 1 of the airport project creation process.

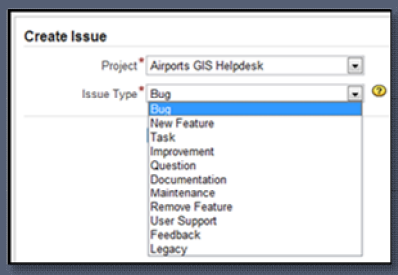
Below: Screenshot of the new ***Survey Work (PACS/SACS)*** purpose addition to Step 3 of the airport project creation process.



Airports GIS Help Desk Gets a Facelift



The FAA Airports GIS Help Desk system recently received a significant software upgrade. This new system offers improved issue tracking tools, and delivers user e-mail notifications of ticket actions and resolutions. During ticket creation, you can upload multiple support files and include screen shots for additional reference. Our system developers analyze this data and use it to plan modifications and upgrades.

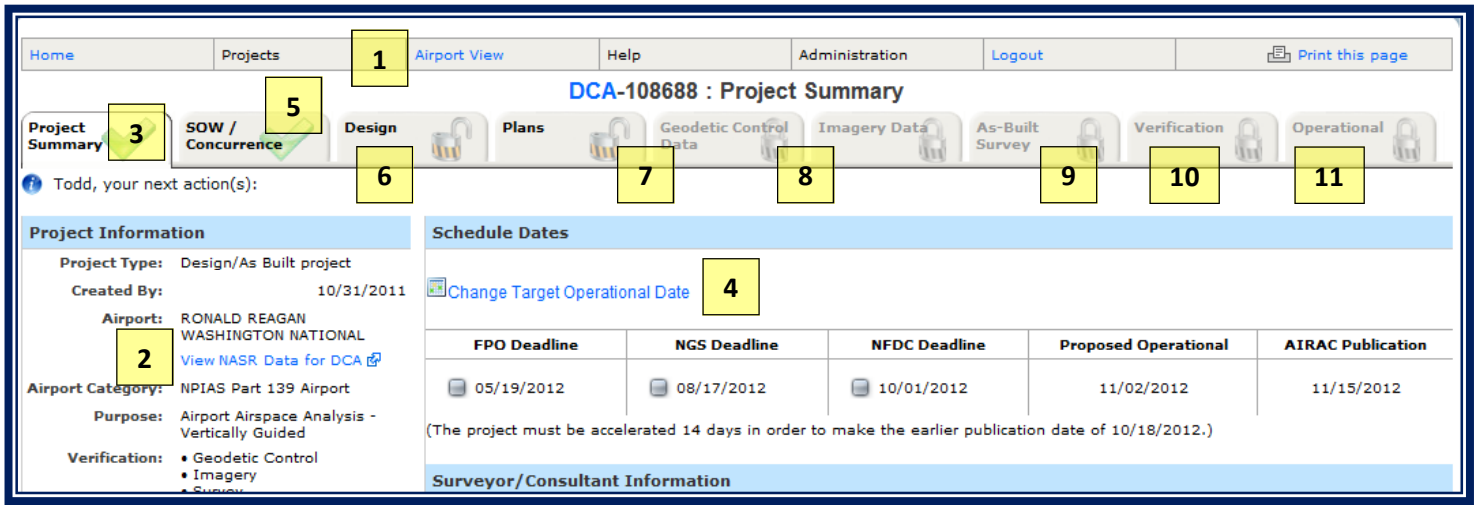


The Airports GIS Help Desk Team aims to resolve all requests for assistance on supported applications within one business day. You can submit issue and trouble tickets directly to our Help Desk using your Airports GIS user account and password. Just click the *Airports GIS Support Desk Request* link at the bottom of the log-in page.

Navigating the New "*Design / As-Built*" Workflow

After a significant period of coordination, discussion, development, and workflow refinement, the FAA Airports GIS System Development Team is proud to announce the release of the new ***Design/As-Built*** project workflow. As a significant part of the Release 3.0 system enhancement, this new project workflow provides airport managers with a central location to create and manage these critical airport projects. From initial design submittals, to final as-built reviews and operational dates, this workflow does it all!

(**5**) The ***SOW/Concurrence*** tab has not changed in this release. Remember, submitting documents involves clicking two ***Submit*** buttons: one to upload and one to submit. To make sure all of your required actions are complete, check the ***(Name), your next action(s):*** prompt just below the ***Project Summary*** tab. As a reminder, all documents submitted to Airports GIS projects must be in non-editable format such as .PDF.



A sample Design/As-Built page

When users select ***Create New Survey Project*** for an airport, step 1 of this process now presents an additional project selection type: the ***Design/As-Built Airport Data Project*** (see page 3 for a screenshot of this menu). After completing this 4-step setup process, the project will open and look similar to the screenshot provided below.

(**1**) Users access the Airport-Centric viewer (see page 1) by clicking the ***Airport View*** link located on the main toolbar at the top of the project. To navigate to the Airport-Centric viewer for the current airport, click the ***Project Summary*** tab (**3**), then click the link provided below the airport name (**2**).

(**3**) The ***Project Summary*** tab incorporates a proposed operational date (or estimated project completion date) for project data. The project creator clicks the ***Change Target Operational Date*** (**4**) link and selects a date in the pop-up calendar tool. Once this date is set, all of the required lines-of-business (LOB) coordination suspense dates are calculated and displayed. Users click check boxes next to each LOB date when the task is complete. (Hint: Mouse over each LOB title to see how each date is calculated.). The project manager will set the actual operational date of the project and approves survey data at the very end of this process (**11**).

(**6**). The new ***Design*** tab includes a series of sub-tabs (see page 5) that support the submittal and coordination of project design data. This tab contains the same process tabs located in the ***Survey*** tabs for previous projects plus a few new additions and survey data requirements. ***Notice: The next few paragraphs are very important and may impact system functionality!***

The ***Download File*** tab is here for quick access to file type translations. Supported translation types include AutoCAD (.dwg), ESRI (.shp), and Microstation Map (.dgn).

Under the ***Update Phases*** tab the feature class attribute ***Alternative*** plays a big role in this part of project management because it is directly associated with design data. In each design project, more than one design ***Alternative*** to construction or installation can be submitted. When this occurs, the project manager can choose only one ***Alternative*** (*using the drop box provided under the word Alternative - see page 5*) to complete coordination through the environmental and airspace review processes. The sample on page 5 shows that design ***Alternative #2*** was selected as the final approved data.

The selected data is used to coordinate Environmental and Airspace review actions.

After all review and approval actions are complete and construction begins, the project manager sets the data to ***Work in Progress.***

After the work has been completed and the As-Built survey has verified that nothing has changed with the design data, the project manager sets the data to ***As-Built***. This action automatically sets the submitted design features to an As-Built status, and transfers the data over to the ***As-Built Survey*** tab (**9**).

If, after completing the as-built survey, the contractor finds that the data differs from original design data, the contractor must upload a corrected survey file along with all required final report documentation into this tab (**9**). When uploading new data, the contractor must include a summary document outlining the reasons for the new survey file and all changes made to original design data. (continued page 5)

(***Warning: Do not click Submit for Verification until all documents are uploaded.***) After all support documents have been uploaded, click ***Submit for Verification***.

(7-8) There were no functionality changes to the ***Geodetic Control Data*** and ***Imagery Data*** tabs Release 3.0, but some actions in these tabs directly affect the function of others. For instance, the ***As-Built Survey*** tab will not open if a plan is pending approval, and if all steps in the ***Design*** -> ***Update Phases*** (**6**) sub-tab have not been completed. Make sure all steps have been completed.

(9) (Recap) If the As-Built survey identifies that changes to the original submitted design data are required, the contractor may upload a new corrected survey file. Be sure to include a detailed document listing all changes made.

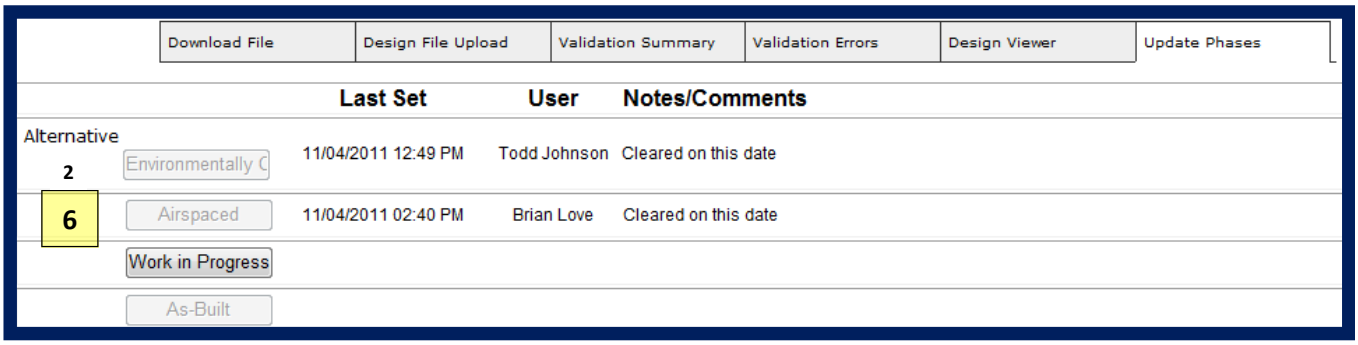
(10) There were no changes made to the ***Verification*** tab.

(11) Using the ***Operational*** tab, the sponsor sets the all of the As-Built data an operational status. This completes the project and allows the new data to be reviewed and set for merging into the airport's baseline dataset under the Airport-Centric ***Baseline Management*** tab.

Final Comments – This is a general overview of functionality within the new ***Design/As-Built*** project workflow. A full project walkthrough will be available in an upcoming Video Training Series (VTS) video to be posted on the FAA website at the following web address:

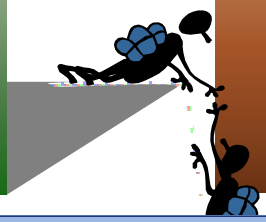
http://www.faa.gov/airports/engineering/training/agis/.

Sub-tabs available on the ***Design*** tab. In this example, Alternative 2 is the final approved data.



Need More Help?

We encourage you to use the new and improved ***Airports GIS Support Desk Request*** available online at any time. Help Desk tickets are resolved in a timely manner and include user email updates. ***You can also reach a Help Desk staff member between the hours of 8AM-8PM ET Mon-Fri at 1-877-503-9363.***



WEB LINKS

FAA Airports GIS
https://airports-gis.faa.gov/

Airports GIS Help Desk
http://arp-helpdesk.isicns.com/secure/Dashboard.jspa