Beyond COORDINATES

ACC Geospatial Information and Services Newsletter March 2013

THE NEXT EVOLUTION IN THE

AIR FORCE WEB MAP VIEWER GEOBASE

Highlighted in this issue!

FOR YOUR AWARENESS

AUTHORITY TO OPERATE

ACC/A7ZG GeoBase now has an Authority to Operate/Authority to Connect (AtO/AtC) on both the NIPR and SIPR systems, good until AUG2015 and MAR2016, respectively.

FUTURE DEVELOPMENT

The next phase of the Air Force GeoBase Web Viewer is to go mobile. The anticipated capability will allow viewing the map on handheld devices with many of the same capabilities you would have at the desktop. Mobility will require a CAC Reader designed for the handheld device to allow access into the Air Force Portal.

INSTALLATION ONSITE TRAINING

HQ ACC holds a number of ArcGIS Standard licenses (formerly ArcEditor) available for checkin/checkout by the installations who need onsite training. It is recommended to plan ahead to schedule the training licenses for usage; contact Kimberly Ludwig (kimberly.ludwig.ctr@langley.af.mil) to schedule dates.

IN THIS ISSUE

Introducing Web Map Viewer 2

Map Viewer Comparison..... 3

Beale AFB Fire 4-5

Map Navigation..... 6

Map Display 7

Tools and Functions 8

Shaw Air EXPO 9-10

Announcements 10

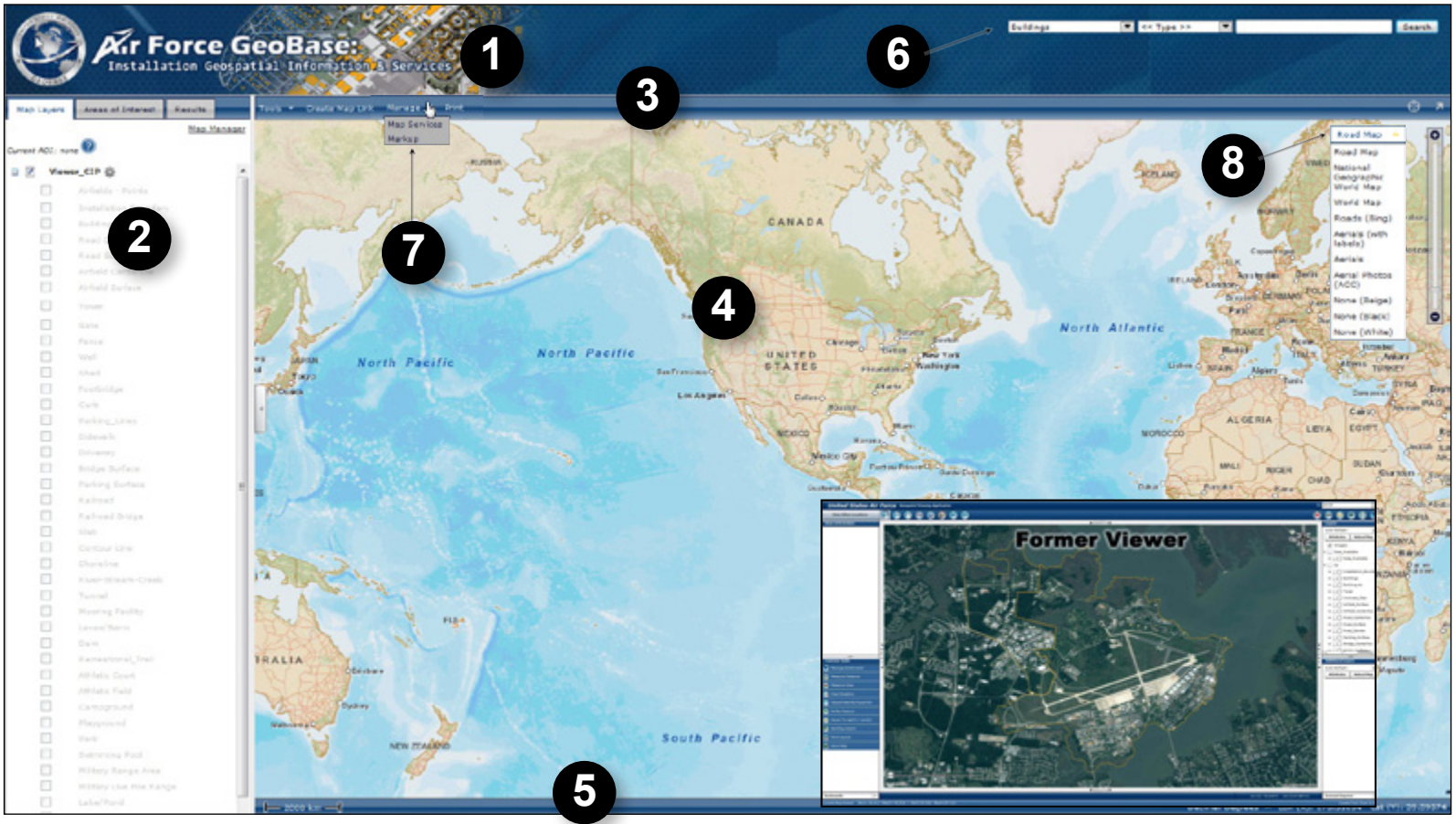
THE NEXT EVOLUTION IN THE AIR FORCE WEB MAP VIEWER GEOBASE

ACC GeoBase is excited to announce the next evolution in the Air Force GeoBase Web Map Viewer. Modeled after popular consumer based web mapping applications, the new viewer has been designed to provide users with a simple yet intuitive web mapping experience. Users with access to the USAF Global Combat Support System (GCSS) Portal and any AF.mil network will have the ability to access the viewer. Areas of Interest (AOI) are powered by geospatial information covered by GeoBase.

The developers worked on streamlining the interface to put as much information onto the smallest pixel space possible. While designed to work with most modern web browsers, the viewer is optimized for Internet Explorer 7+ and Firefox 3.5+. The enhancements the mapping interface contains were incorporated based on suggestions from our user-base through Viewer Feedback. Some of the enhancements include a button-less interface, seamless panning, scroll-wheel zooming, intuitive search, and mark-up tools. The pages of this quarter's newsletter will take you on a virtual tour of the new functions the Air Force GeoBase Web Map Viewer will provide.

The purpose is to supply the user with knowledge of core functionality available in the application and the ability to make the most use of the tools. Find out the difference through a brief comparison between the former to the new viewer. Major changes of capabilities and functions will be highlighted throughout. Please tell us what you think of the changes, if you found the guidance helpful, or have questions. Please send an e-mail to acc.a7zg.igis@acc.af.mil with the subject line "New Viewer Feedback".

USER'S GUIDE



THE DIFFERENCE
A COMPARISON

The main advantage of the map viewer application redesign is access across operating systems. The above images show the difference between the former and new display, giving more viewing area for the user. The diagram identifies and gives a brief description of the main areas and major changes of the new Viewer's Map Display redesign. The new interface has five main functional areas (1) Header (2) Console, (3) Toolbar, (4) Map Display, and (5) Status Bar. The major changes users will experience are the new (6) Quick Search ability, (7) Manage Tab, and the relocated (8) Layers.

1 HEADER

- Atop the streamlined interface is a new header identifying the Air Force GeoBase Map Services.

2 CONSOLE

- A tabbed interface located to the left of the map display allows the user to select and view layers available from the CIP, select Area of Interest (AOI), and view results of features chosen on the map.

3 TOOLBAR

- Provides access to advanced tools available in the application.

4 MAP DISPLAY

- The new map display has been developed to give users the ability to change the display size for the optimal map viewing experience.

5 STATUS BAR

- located at the bottom of the map, the status bar displays the scale and real-time map coordinates providing several coordinate viewing options.

6 QUICK SEARCH BOX

- Located on the right of the header defaults to an address search. Complete with an auto-suggest list for owner name and parcel number. This tool allows the user to toggle between map layer searches to locate layer features quickly.

7 MANAGE TAB

- Provides two options to more advanced map management capabilities:
  - **Map Services** explore maps from other map servers.
  - **Markup Manager** View all saved markup collections on the server.

8 BACKGROUND MAP DATA

- The web mapping interface allows you to easily access commonly used background data. The display defaults to the "Road Map" data layer.

TOOLS & FUNCTIONS

The following pages offers more detailed information on Navigation, Tools, and Functions.

Emergency Management's warehouse was taken over by make-shift, 550 cord clotheslines to dry roughly 20% of drawings that were soaked from putting out the fire. Job well done Beale EAs!

Photo provided by Anissa F. Williams, 9 CES/CEAO

Photo provided by Anissa F. Williams, 9 CES/CEAO

Drawing Vault Protects As-built Drawings from Fire

By Kimberly Ludwig

On Monday, January 21, 2013 as many observed Dr. Martin Luther King, Jr. Holiday, the 9th Civil Engineer Squadron building on Beale Air Force Base, CA was destroyed by fire. At the time of the fire, there was one occupant who safely evacuated the building. It is roughly estimated to have started Monday afternoon, Beale AFB Fire Department and cooperating agencies from the surrounding area responded. Firefighters worked through the night and well into to the next day to extinguish the fire, with flare ups continuing throughout the week. One Beale firefighter sustained minor injuries and was treated and released from a local hospital.

The facility housed Operations Flight, Engineering Flight, and Beale's GeoBase office. A total of 200 personnel had to be relocated to various temporary facilities until a permanent location or new facility is established. The EAs were immediately welcomed by their 940th CES reservist counterparts, but are not fully mission capable yet. All of their survey equipment has been destroyed; the 940th and has offered their only

Photo provided by Anissa F. Williams, 9 CES/CEAO

Remains of 9th CES, Programs and Operations Flights. Almost the entire interior was burned and destroyed. - MSgt David T. Stalnaker

Beale's 3E5s, plus some civilian engineers helped clear water and rubble after breaching the drawing vault to rescue the base's as-built drawings.
In this picture: SSGT Lara-Ortega and A1C Gamboa Not in the picture but present are EAs were there, but these 2 were visible for the pic. The others were inside the vault or fetching a truck to load up the drawings- MSgt David T. Stalnaker

Civilian engineers and other CE crafts volunteered and sped up the rescue effort.- MSgt David T. Stalnaker

10 ft. high Zephyr antenna damaged by fire.
Photo provided by Anissa F. Williams, 9 CES/CEAO

(Fire article continued) asset, a total station, until replacements are received from various bases across ACC who are assisting by send their extra equipment and kits. SMSgt Yudinsky from ACC immediately sent out the call for help and 3 bases quickly responded to send in their excess equipment to rebuild Beale's mission capabilities: TSgt David Jauch from 355th CES, Davis-Monthan AFB; TSgt Amanda Simonsen from 20th CES, Shaw AFB; and TSgt Heidi Hunter from USAFA. Map production was restored in one week thanks to the 9th COMM Sq lending a plotter and Raun Olsen, Beale's GIO, along with their CSA rapidly installing the reservists' plotter onto the network.

The facility is considered a total loss, with the exception of the Drawing Vault. The concrete and CMU vault protected the contents from being destroyed by the fire. However, while extinguishing the fire, the water caused the space to flood. The Drawing Vault was breached in recovery efforts to evacuate the contents. 3E5s with some civilian engineers cleared rubble and water to rescue the drawings. 85 percent of the base's as-built drawings were recovered. The rescue effort was sped up with the help from CE crafts volunteers. 20 percent of the rescued drawings were soaked from the water. Beale EAs quickly made a make-shift drying facility in the Emergency Management's warehouse with 550 cord clotheslines. This fast, clever effort reduced extensive damage to the soaked drawings. Only a few pages were damaged by running ink and a couple older sheets suffered a few deteriorated corners when attempting to pick them up. The EA team worked hard and were able to reassemble and relocate the entire vault at to its new location 940th CES facility in only two weeks.

Special thanks to all who helped evacuate the vault, and the EA team for your hard work with drying and reassembling the vault. SSgt Kevin Howell, Israel Alvarado, and Gabriel Lara-Ortega; SrA Stephen Scharti; A1C Janea Cannon and John Gamboa.

~MSgt David T. Stalnaker

MAP NAVIGATION

Navigating the map in the new interface is powered by the use of the mouse, keyboard, or a combination of both. This section will point out the various abilities to navigate.

QUICK ZOOM

- Double-click on the mouse to zoom in or out by about 50 percent in width and height.

AREA ZOOM

- Hold the Shift key down, then hold the left mouse button down and drag on the map to draw a rectangle. The map will zoom in to the area of the rectangle.

MOUSE WHEEL ZOOM

- Zoom by scrolling or clicking on the center mouse wheel. Zoom in and out to any extend by scrolling the mouse wheel forward and back.
- With a click of the mouse wheel zoom in to 50 percent, If your mouse has that capability.

IDENTIFY

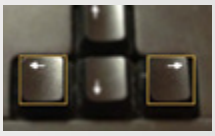
- Single Click on a visible map feature to identify the feature.

DRAG

- Drag the map display holding the Left Mouse button down and move the mouse to guide the map to display a new location.

ZOOM BAR

- Drag the gauge up or down to zoom in or out, click + to zoom in closer and - to zoom out, or click on the notches to navigate to the desired zoom extent.

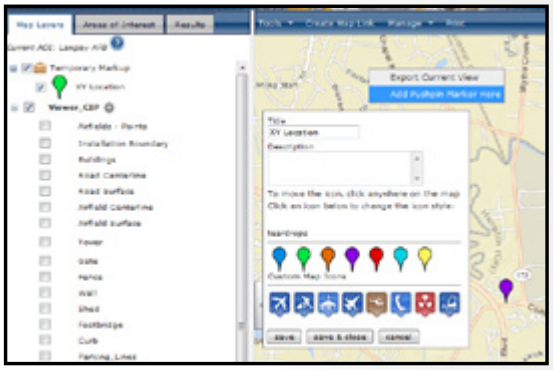


KEYBOARD

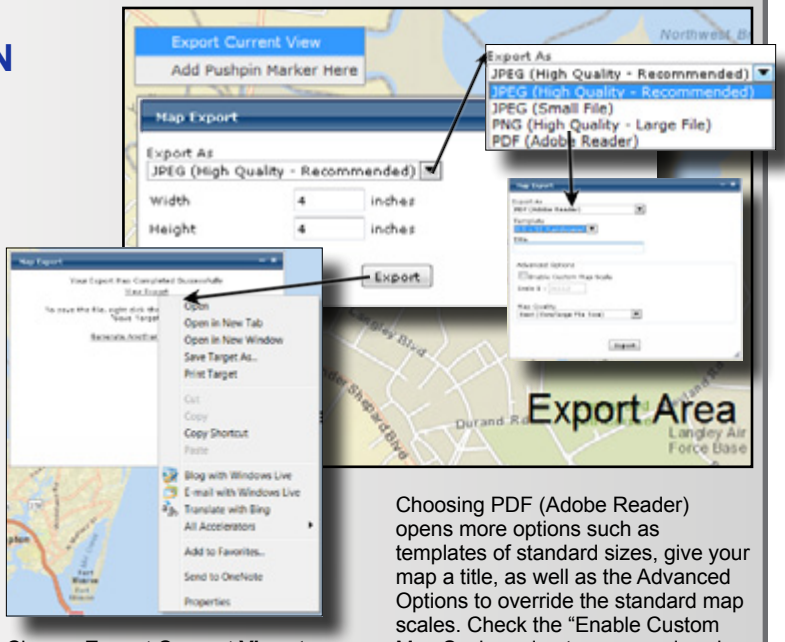
- Right Arrow: Click on the right keyboard arrow to go back one map extent.
- Left Arrow: Click on the left keyboard arrow to go forward one map extent.

EXPORT/ PUSH PIN

- Right Click the mouse to initiate the Export Current Map View or Add Pushpin Marker menu.



Choose **Add Pushpin Marker** to add colored pushpins and pushpin icons to identify various items on your map display. Add a title, description, and change the style of the pushpins to differentiate all items that is needing identification. Your map is saved to the right of the map display as a Temporary Markup, with the option "Save" to save and continue, save and close, or cancel.



Choose **Export Current View** to generate an image file to export. The Map Export dialogue box will appear, choose a file format from the "Export as" dropdown. Choose from High Quality - Recommended), JPEG (Small File), and PNG (High Quality - Large File) provides the ability to set the size by entering a value in the Height and Weight fields.

Choosing PDF (Adobe Reader) opens more options such as templates of standard sizes, give your map a title, as well as the Advanced Options to override the standard map scales. Check the "Enable Custom Map Scale and enter a numeric value in the Scale 1: field, give the map a title and choose the Map Quality from the dropdown to suit your purpose.

Once you are ready to export your map, click the Export button, this will open another dialogue box. Click "View Export" to view the exported map image in a new browser, to save the image, Right Click on the "View Export" link, choose "Save Target As".

MAP DISPLAY VIEWING

The new streamlined interface gives users a greater map display to maximum the mapping experience. Consolidating the tools and functional areas into five key sections of the map viewer. This section will act as a guide to assist users with maneuvering the new map interface to identify the functional areas and tools in detail. The redesigned areas are the Header, Console, Toolbar, Map Display, and Status Bar.

1 FULL VIEW

One new function of the application is the ability to expand the map view to various extents of your browser. Maximize Map button located above the Zoom Bar gives users the ability to view the map display to the full extent of your browser with a click of your mouse. The view can be reduced back by clicking the button again.

2 CLOSE WEST PANE

can extend your map view to the vertical extents of your screen by clicking the < and the Console is extracted and out of view. Leaving the Header and Toolbar accessible. Clicking > brings the Console back into view.

3 RESIZE PANE

Hover over the line dividing the Console and Map Display activates dual arrows. Click and drag the line left or right to adjust both the Console and Map Display to the size you choose.

4 SWIPE

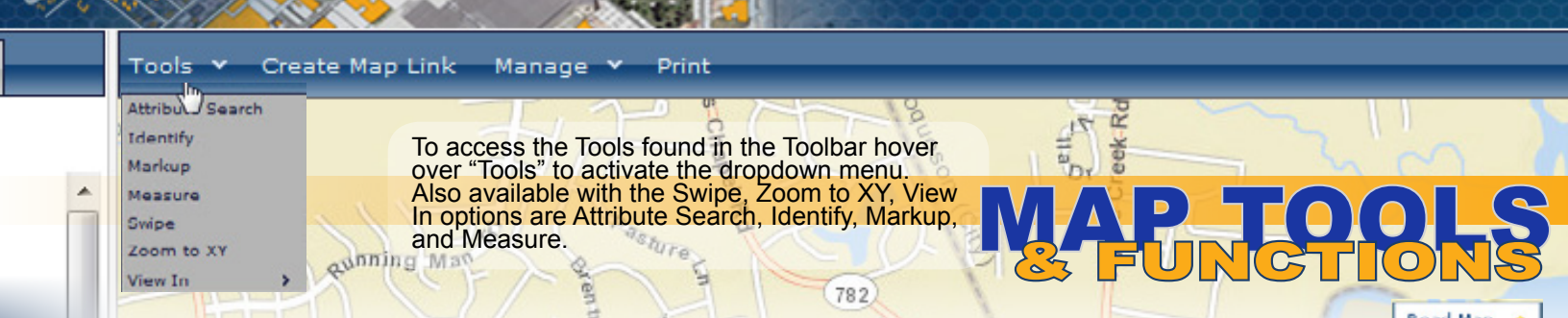
Accessible from the Tools dropdown on the Toolbar, this tool is useful to view the map in a dual view. Users can determine changes that may be visible on two background datasets. The Swipe toolbar will appear under the Tools with Horizontal or Vertical options and Resources to choose. This allows users to quickly toggle the between two background layers with a “swipe” of your mouse in a side to side or up and down motion. Select which view you want to compare from the Resources dropdown menu. Continue utilizing the navigation tools pan and zoom by holding down the ctrl key with the Swipe tool still open.

5 VIEW IN >

Gives users the choice to view the current displayed mapping area in either Google or Microsoft Bing Maps in a new browser. Also located in the Tools dropdown menu, with options to choose from Google’s; Roads, Aerials, Hybrid, or Earth mode and Microsoft Bing’s; Roads, Aerials, Hybrid, or Bird’s Eye modes.

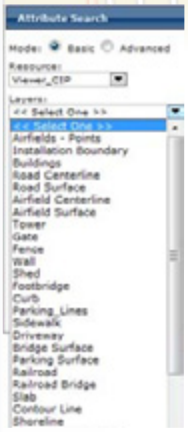
6 ZOOM TO XY

Found in the Tools dropdown menu allows you to navigate to specific point on the map. Select from the options of Decimal Degrees, Degrees/Minutes/Seconds, native map units, or UTM coordinates and enter the values in the appropriate boxes, and click Go. The map will re-center to that specific location, place a pushpin on the map, and save the pushpin into the markup collection. Edit the XY Location Summary window by clicking the “edit” link located at the bottom of the summary box to modify the description. The “Dimensions” link will display geometric details of the shape. The “What’s Nearby” link will run a geographic proximity search.



To access the Tools found in the Toolbar hover over "Tools" to activate the dropdown menu. Also available with the Swipe, Zoom to XY, View In options are Attribute Search, Identify, Markup, and Measure.

MAP TOOLS & FUNCTIONS



Attribute Search

The Attribute Search tool offers a Basic and Advanced search mode which can be used to perform searches on attributes in layers.

Basic Mode

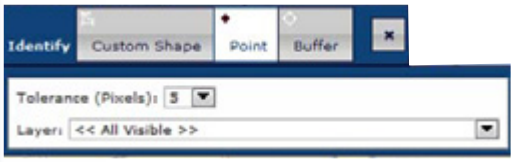
Choose a Resource: Viewer Recreation or Viewer CIP from the dropdown. Choose a layer from the Layers dropdown. Once that is selected The Attributes and Value dropdowns will appear. Make your selections and click the Search button.

Advanced Mode

Choose a Resource: Viewer Recreation or Viewer CIP from the dropdown. Choose a layer from the Layers dropdown; this will open multiple attributes to search.

Identify

View map feature attributes with the Identify tool. This can be done by selecting Custom Shape, Point, and Buffer in the Identify Tool. Type in the Radius value and choose feet, meters, or miles. Choose from a list of layers in the dropdown menu.



Custom Shape: The Custom Shape option allows users to draw a custom shape (polygon) by clicking areas on the map. A single click places a vertex (corner) on the map. The shape of an area is defined with each mouse click placing multiple vertices (corners). Customize the polygon shape further by adding, moving, and deleting vertices. Click and drag a shaded vertex box to move it. Click a hollow vertex box to create and place a new vertex. To delete a vertex, place the pointer over a shaded vertex box and press the delete key.

Point: The point tool sets a pixel tolerance on the buffer so that you can adjust the accuracy of your mouse clicks on the map.

Buffer: The buffer tool allows you to enter a predefined buffer distance when querying the map.

Markup

Gives the User the ability to mark the current view with Lines, Polygon, Icon, Freehand, Arrow, Rectangle, Buffer, as well as with Text. The Markup tool is used to create geographically referenced and/or feature-linked graphics and text which can be displayed on the map at varying scales. Markup items are a permanent part of the current map session and will be visible when you print or export a map.

To use the tool, select from one of the eight choices on the Markup toolbar (see the above image). After selecting a Markup tool, specific instructions for how to use the tool can be viewed by clicking on the "? Toggle Help" button.

Backgrounds

By default the web mapping interface opens with "Aerials" background data layer. A list of more Background data layer options can be accessed through the dropdown menu to the right of the map defaulted to Aerials.

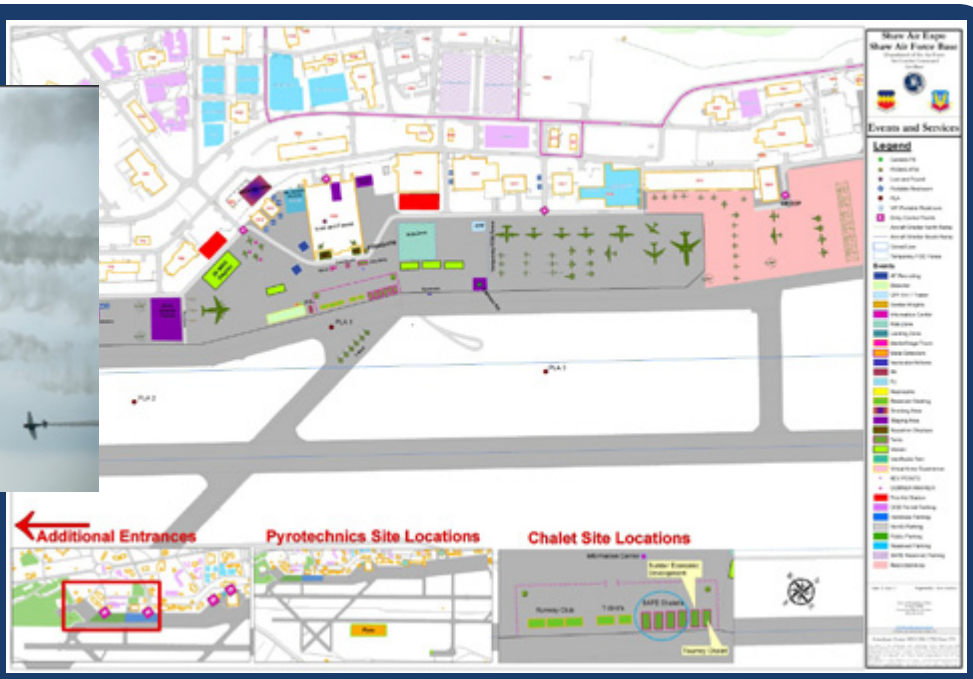
Quick Identify

Single Click on map features to display basic information in a feature window. The information will identify the object, the common name, and other helpful information. The window also links to dimensions of the geometry selected for more information.

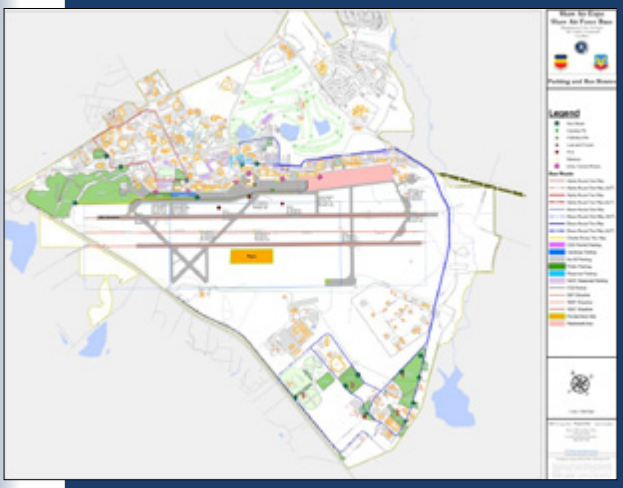
What's Nearby By by default all layers that are available to the tool. Search specific layers in the map in the "Find: All Visible" field located at the top of the feature window. Click on the arrow to restrict the search to a specific layer. Select from a list of available layers in the dropdown menu to filter your search.

Save the geometry by clicking the briefcase symbol located to the right of the "What's Nearby" link. The selected feature will be saved to a markup collection.

Narrow your search to a radius in the next field "Within:" allows users to specify a radius in a measurement of feet around the map feature. By leaving the box empty or entering a value of "0" will return all features that are adjacent to the selected property in the results tab. Entering in a value greater than "0" in the field will produce a buffer polygon drawn around the selected feature on the screen. All features that touch this buffer area will be returned in the results tab. Clicking the "Save Buffer" will save the buffer to Markup.



Shaw AFB GIO Provides Mapping Service in Air EXPO Planning



by Travis Thompson and Kimberly Ludwig

Kick off for the Shaw Air Force Base biannual 2012 Air Expo began last January with Col. Charlie Moore, 20th Fighter Wing commander, and Lt. Col. Scott Walker, Shaw Air Expo director in a press conference with local community leaders and media. In February the 20th Civil Engineer Squadron (CES) Geospatial Integration Office (GIO) met with Lt. Col. Walker & Mr. Tindall, Head Coordinator to discuss their role in the planning process. During this phase of the air show, MSgt Robert Padar, did an amazing job of providing all available personnel to decrease the day to day work load to allow focus and to be an integral part of the Shaw Air Expo. Preparing for the air show required coordination amongst many departments including emergency response, public affairs, planning, Parking, etc. to produce a safe and pleasurable atmosphere for all who were in attendance.

The GeoBase Office provided mapping services using geospatial technologies critical in logistical planning. The planning began with a map template from a previous air show. The GeoBase staff produced maps based on specifications to give the directors an accurate visual for structural placement and routing maps. Meetings were set up to coordinate with base facilities and local government included Emergency Management, Civil Engineering (CE), Communications Planning, Real Property (RP), Transportation and Readiness, and Sumter Police and Fire Departments *(continued on next page)*

AIRSHOW PLANNING

with Geospatial Technologies

(Air Show Continued) as well as the vendors to produce Air Show event, Routing, Parking Plan, and Public Display Maps for the event. As the event requirements changed, the changes were incorporated into the maps. The placement of every feature is critical in the success of such an event, with expectations of 60+ thousand attendants.

A routing map was developed working in conjunction with the public transit authorities and emergency response members to facilitate adequate space for emergency responders as well as traffic direction to the show. Bus and Parking Plan was a tedious task with locating parking areas for such a tremendous population and route them appropriately. The event map was published in the Air Expo Brochure and placed in various spots around the area, acting as a directory, to help navigate people to their desired destinations. The final products consisted of an Event, Parking, Routing, Public Events, and a Hangar Map, to show events held inside Hangar 1200.

The GeoBase team did not stop with production of the maps. The GeoBase team maintained an exhibit located in the main hangar during the air show. Those who maintained the booth included MSgt Padar, SSgt Nero, SrA Naquin, SSgt Bryant, SSgt Washington, TSgt Harper, TSgt Simonsen, SSgt Adams, SrA Young, and Travis Thompson. The exhibit consisted of slide show presentation running in the background of our booth entitled "The History of Maps". The presentation featured the development of Shaw since the early 40's using historical imagery. The Civil Engineering did Trimble Robotic presentation that demonstrated the use of survey equipment, electronic geodimeter, measures horizontal angles and distances. Landing simulation onto the Shaw AFB Runway was demonstrated GIS applications in Arc Globe. Through the diligent efforts of all involved, the 2012 Air Expo was a spectacular event.

ANNOUNCEMENTS

WELCOME

Beau Barnett	**GeoBase Wing Analyst**	**Dyess GIO**
Ken Barnes	**GeoBase Wing GIO/Analyst**	**Tyndall GIO**
MSgt Darel Kelsey	**Expeditionary GeoBase 3E5 FAM**	**AFCENT GIO**
Sean Malone	**ACC GeoBase Systems Lead**	**HQ ACC GIO**
Heather Sieber	**ACC GeoBase Systems**	**HQ ACC GIO**
Doug Steele	**ACC GeoBase Web Administrator**	**HQ ACC GIO**

FAREWELL

Ryan Davison	**Wing GeoBase Analyst**	**Nellis GIO**
Matt Moore	**ACC GeoBase Web Administrator**	**HQ ACC GIO**
Zachary Petersen	**Wing GeoBase Analyst**	**Seymour Johnson GIO**

CONGRATULATIONS

SMSgt (S) Robert Padar,
20th CES Shaw AFB

Dana and Freddie Torres on your baby boy,
Dylan Christopher Torres
born on December 27, 2012

Davis Monthan CEX named "Team of the Month"

MSgt David Jauch - Davis Monthan AFB 355th CES Engineering section has been recognized as "Team of the Month" for their efforts in preparing for their Operations Readiness Evaluation (ORE).

Engineering was recognized for their outstanding job developing Base X, supporting various agencies' map requirements, and preparing Davis Monthan for the Phase II ORE. The team quickly and skillfully executed the wing's top priority, recovering the airfield after attack, despite the chaotic environment. 1st Lt Michelle K. Tempel, Readiness and Emergency Mgt Flight Commander, 355 CES/CEX fully supported the nomination, recognizing the difficult job of providing base coverage for the entire wing.

Of the team, SSgt Brad Johannes was nominated as CE Individual for his outstanding job coordinating Base X play area requirements with all Davis Monthan agencies, de-conflicting those requirements and consolidating the Base X map to include various specialized team routes and PAR routes.

A1C Jenna Schaub was nominated as CE Individual for her outstanding job coordinating with the FW Augmentee Duty Program POC, activating and recalling our RST and CCT augmentees, and orchestrating training for CBRN recon and CCA processing. She is also an outstanding operator within the CBRN cell during the Phase II.

Along with the outstanding performance of the team, fully integrating GeoExPT software into the OREs and training has enhanced the results. Geospatial Information Systems (GIS) was used in all of the ORE maps (DART routes, ADAT routes, Chem routes, Sectors, Base X Play Areas, etc.). Using this technology has drastically reduced time used to plot damage and select a MOS. The technology also removes error in RQC chart reading.