



Compass 2022: Enabling Excellence Through Connections

By AFCEC Geospatial Integration Office

The U.S. Air Force GeoBase Program enables excellence through connections. This was the message of the eighth annual Compass, which kicked off May 3, and attracted more than 220 attendees.

Compass is a yearly GeoBase networking and educational workshop that brings together Airmen, Guardians, civil engineering staff and geospatial professionals for a week of learning and sharing geospatial solutions. After a three-year absence, Compass 2022 successfully reunited the GeoBase community, providing an invaluable and timely information exchange for all participants.

Compass 2022, held May 2-5 in San Antonio, Texas, drew an enthusiastic and committed audience.

Scott Ensign, Air Force Civil Engineer Center (AFCEC) Geospatial Integration officer and U.S. Air Force GeoBase program manager, welcomed attendees with, "We are excited to be here and to move forward with our in-person event."

Here's a summary of sessions:

Geographic Information System to Fuel Effective Decisions

In the opening session, Senior Logistics Analyst Tony Dronkers described the impact of Geospatial Information and Services. His team employs geospatial analysis to identify sortie generations (i.e. combat logistics) following an attack during simulation scenarios. Geospatial knowledge of location is used to plan resources and flight details. When the Air Force needs to deliver a large amount of equipment to a narrow airfield on an installation, the amount of space required to land the aircraft and how much equipment can be moved onto the airfield must be assessed. GeoBase provides precise answers that are effective in resolving these challenges.

Bioenvironmental Engineering: Preventative Medicine

Bioenvironmental Engineers (BEs) use the GeoBase Program to effectively communicate with decision-makers and installation commanders. The GeoBase Program is an enabler that displays data collected by BEs over long periods of time at Air Force bases across the world. GeoBase enhances the ability to analyze data, which means BEs are able to detect and rectify issues before they arise. With the assistance of the AFCEC Geospatial Integration Office (GIO), which provides geospatial solutions such as geospatial portal dashboards, BEs are able to assist decision-makers in identifying health concerns for installation, such as low chlorine or unsafe levels of lead and copper in water. In less than two minutes, 1st Lt. Natasha Sutton, a bioenvironmental engineer, can determine whether there is a problem with the water or data quality by using the Drinking Water Dashboard. The ability to display numbers on graphs and maps has significantly accelerated the process of locating problematic areas. Sutton emphasized the significance of the resources made available by the GeoBase Program and argued for the allocation of additional financial resources so that the program could maintain its level of support. "The BE team is working on communicating how and why they use their dashboards," she said.

Small Unmanned Aerial System Data Capture, Processing and Analysis Solutions

AFCEC's GIO established a formalized Small Unmanned Aerial System project that collaborated with major command SUAS program management, air base wing, security forces, spectrum management, operational support squadron airport operations, CE operations and maintenance, engineering and installation planning efforts. SUAS provides a faster, safer alternative to inspections of Air Force assets with increased consistency and quality. At the CE enterprise level, the AFCEC SUAS team facilitates and coordinates SUAS operations by assisting with problem solving, program structure, advisement, data processing methods, equipment, technology, capabilities and safety.

High-Quality and Well-Maintained Data

Department of Air Force GeoBase Support Manager Roger Clark and AFCEC GIO Geospatial Analyst Eric Rippons presented requirements for the DAF geospatial data quality accuracy, completeness, usability and value within the Air Force geospatial enterprise and the Assistant Secretary of Defense for Sustainment, Spatial Data Standards for Facilities, Infrastructure and Environment Quality requirements. While the Quality Management Plan, which will provide implementation guidance for data quality, is being finalized, the team is busy developing Entity Specification Directives to provide guidance regarding data quality, specifically in developing, storing and maintaining geospatial entities.

The Expeditionary: Taking Good Quality Data to the Highest Level

Allied Forces Central Europe Expeditionary GeoBase Manager Karen Hastings presented an overview on the role and responsibilities of the USAF GeoBase Expeditionary Geospatial and Mapping Support. Crucial services such as map production and Common Installation Picture (CIP) maintenance and development are provided by the expeditionary team in support of Warfighters. The expeditionary team manages U.S. military and foreign country geographical data and maintains the features classes for the CIP schema with monthly submissions. Spatial data collection and maintenance have an impact on the highest level of decision making. Referencing the GeoBase vision of "One Base ... One Map," Hastings took it a step further adding, "One Base ... One CIP." She emphasized, "Do not make copies of your data. Visual checks at installations are important. Is data on the ground the same as on your map? [Computer-aided design] snaps are the best." Some of the data problems encountered include invalid and duplicate geometry. Data stewardship matters more than ever and is critical for maintaining the CIP, she said.

Real Property Reconciliation Dashboards Capabilities

From Wright-Patterson AFB, Ohio, GeoBase GIO Dan Sandrowicz shared information on Real Property Reconciliation Dashboards. The dashboards display all geospatial and real property data disparities. "Collaboration is the key for a solution," Sandrowicz said. GIOs use data visualized on the dashboards to identify problem areas and communicate issues to real property offices. Dashboards are housed on the Air Force Materiel Command Portal and made available for use by the enterprise.

Civil Engineer Land Survey Equipment Refresh

Civil Engineer Land Survey Equipment Portfolio Manager Nate Mata and Sandrowicz presented on the CELSE Working Group. The AFCEC GIO provides comprehensive documentation and understanding of CE installation surveying equipment challenges, enabling proper staff planning and securing of resources for enterprise acquisition, and training on mission-critical equipment. The co-presenters addressed equipment included in this year's refresh and its significance. Establishing a refresh cycle ensures two things: 1) bases have the most up-to-date equipment for the battlefield, and 2) Airmen at bases receive training with the latest equipment. Bases may purchase equipment locally but must maintain an accurate inventory. The CELSE WG is drafting governance for policies for maintenance, equipment calibration and protection, and outreach on Defense Logistics Agency Disposition Services, also known as the Defense Reutilization Marketing Office. Presenters encouraged all attendees to join the WG and contribute to decisions regarding the equipment refresh. Air Force Installation and Mission Support Center Portfolio Manager Richard Updike elaborated on the WG by adding, "Be patient, be constructive, and help contribute to it."

USAF GeoBase: Looking Back, Looking Forward

Retired Col. Brian Cullis shared the origins of the USAF GeoBase Program, which began in 1988, and how it evolved with the support of many contributors and experiences which led to its formal establishment in the Fall of 2000. Cullis emphasized the importance of the pioneering efforts of the U.S. Army Corps of Engineers in the early 1990s to the USAF GeoBase program,

as well as early champions such as Michael Aimone, former Assistant Deputy Chief of Staff for Logistics, Installation and Mission Support, headquarters Air Force; retired Gen. James McCarthy; Retired Lt. Gen. Michael Zettler; and Kathleen Ferguson, former Principal Deputy Assistant Secretary of the Air Force for Installations, Environment and Energy. Cullis' presentation marked the first time the details leading to the GeoBase Program had been shared with an audience. He concluded by encouraging the GeoBase community to continue to make a difference by reducing decision risk for the Air Force mission and supporting the new AFCEC USAF GeoBase Strategy.

Additional Sessions

- CAD Review Standards and Practices – presented by Senior Airman Ethan Capps and GIO Jace Riley, Fairchild AFB, Washington.
- GeoSLAM – Progress at FE Warren AFB, Wyoming, and information on how the GeoSLAM tool can capture and collect data in some of the world's most challenging locations. An example was shown for an active-shooter map.

For questions and support, contact the GeoBase Service Desk at GeoBaseSupport@di2e.net.

(Editor's note: This article was co-authored by Julio Toala, GeoBase Geospatial Operations manager, and Tracy Maxwell, Martha Ferris, Lisa Meinhardt, AFCEC Geospatial Integration Office contract support. Contributions also made by Anthony Dronker, 1st Lt Natasha Sutton and Karen Hastings)