



GIIEP

Geospatial Information Interoperability Exploitation-Portable System



Summary

- Receive and disseminate still imagery or full motion video from space, airborne and ground assets and Global Positioning System data for asset tracking air/ground assets
- “TIVO Like” with real-time or nearly real-time collaboration capabilities such as graphics dissemination, data distribution, and situational awareness, and a “chat” function
- Geo-referencing for incorporation into organic Geographic Information Systems
- Interface/interoperable with NGB Joint Incident Site Communications Capability

GIIEP spans the “last tactical mile” by quickly getting situational awareness products from the source to the Soldiers, airmen and first responders, thus greatly enhancing the potential value of the imagery products.

The GIIEP system was developed by the U.S. Army Space and Missile Defense Command Battle Lab for the National Guard Bureau – J2. Its purpose is to enable greater use of space-based, aerial and terrestrial imagery combined with a situational awareness picture, collaboration and full motion video to support homeland domestic event response operations. Currently, GIIEP is fielded to all 54 states and territories, U.S. Air Force North, and distributed common ground stations-air units. GIIEP has a natural fit with the Advanced Geospatial Intelligence Node, Eagle Vision and Wideband Intelligence Dissemination System – Broadcast Request Imagery Technology, with interoperability and better use of associated products.

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Defense support to civil authorities is an important responsibility of the U.S. military. A key enabler is the incident awareness and assessment mission, which leverages traditional intelligence, surveillance and reconnaissance capabilities in support of domestic operations while assuring strict adherence to all applicable legal frameworks. To streamline national processes and procedures, the NGB J-2, U.S. Air Force director for ISR and unmanned aircraft systems, and SMDC have partnered in an effort called GIIEP, which is designed to improve the quality, timeliness and relevance of incident awareness and assessment information provided to the Department of Defense and civil authorities. The incident awareness and assessment community supporting NORTHCOM, other Title-10 organizations and inter-governmental agencies currently has sufficient access to imagery, full motion video and other products through an infrastructure that provides the products, but not necessarily in a timely manner nor releasable to all the incident awareness and assessment community. GIIEP addresses those problems, and is intended to provide the soldier, airman or incident commander nearly real-time access to the best available still and video imagery in addition to collaboration tools and geospatial locations.

GIIEP is a fully operational unclassified system developed by the command, with all its products accessible via the Internet. The GIIEP system is a man-portable, multi-band receiver capable of ingesting a variety of visual and textual data, which will enhance the ability of each state or territory joint force headquarters to rapidly respond to disaster situations and provide annotated and compressed incident awareness and assessment products that can be quickly disseminated to mission partners. The inherent flexibility of the system will enable operators to tailor their efforts to take maximum advantage of available assets and available communications as they support disaster response operations. The system is a refinement of products demonstrated involving federal, state and local organizations. The major components of the system includes a primary and a back-up server, mobile clients, referred to as "Go-Kits," and the supporting software that can be hosted on organic computers. The primary server site is at the U.S. Geologic Survey Earth Research Observation and Science center in Sioux Falls, S.D., which provides the base imagery, with the second site

at the Eagle Vision-6 site at Redstone Arsenal, Ala., which provides rapidly ingested commercial space imagery provided by other Eagle Vision sites into the GIIEP architecture.

As of today, the GIIEP system has been used to support many domestic operations and training exercises across the 54 National Guard states and territories in conjunction with federal, state and local, domestic incident response partners. Most recently, for example, the U.S. Air Force used GIIEP to disseminate commercial space-based imagery to the National Guard and first responders rapidly to support the tornado, flooding and wildfire relief efforts that occurred during the spring and summer of 2011. Additionally, the GIIEP system had a significant role as an interoperability trial in the 2011 Coalition Warrior Interoperability Demonstration. The GIIEP system's capabilities were highlighted as an Advancing Homeland Security/Homeland Defense technology, where the scenarios included wildfires, earthquakes, hurricanes and border patrol issues. The demonstration was used as an external evaluation event. The initial reaction after CWID showed a successful performance, and CWID participants provided positive feed back.



For more information, please contact:
USASMC/ARSTRAT Public Affairs Office
P.O. Box 1500
Huntsville, AL 35807
Phone: 256-955-3887
Fax: 256-955-1214
Email: webmaster@smdc.army.mil
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