



EVR2EST

Eagle Vision & ROVER Responsive Exploitation of Space Products for Tactical Use



Summary

- Integrates the Eagle Vision Systems together forming a net-centric system for delivery of time-critical, space-based imagery products
- Open standards and utilization of High Performance Computing processing centers
- Rapid dissemination of space-based products direct to the field on organic devices such as ruggedized laptops, tablets and smart phones.
- Whole of Government Communities Of Interest
- Ongoing support of foreign and domestic missions

EVR2EST is providing time-critical commercial satellite imagery products to joint/allied Warfighters and first responders today using open standards to support current operations.

EVR2EST operationalizes the rapid ingest of commercial satellite imagery by providing a common web-based platform for the U.S. Air Force (USAF) A2QS Eagle Vision Systems to catalog, archive and disseminate their commercial space-based imagery products. Products are made available to U.S. and allied ROVER users and other federal, state, local and tribal organizations worldwide operating from theater-level down to tactical teams and first responders through standardized formats and services. Units from theater-level down to tactical teams and first responders now have access to timely space-based imagery and radar products direct from the deployed ground station on their laptops, tablets and smart phones.

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The USAF Eagle Vision system was developed and fielded to process commercial space-based imagery. However, the current system has no capability to rapidly disseminate those products out to the field (e.g. minutes versus hours or days). The EVR2EST initiative is operationalizing today the rapid ingest of Eagle Vision commercial space-based imagery and provides that data to ROVER units and other government organizations worldwide operating from theater-level down to tactical Warfighter teams and first responders. ROVERs are designed to collect full motion video from various military platforms including unmanned aerial systems, lightning pods and other aircraft.

Although EVR2EST is centered on commercial products, it is envisioned that the same software can be utilized for National Systems Data. EVR2EST takes maximum advantage of existing USAF-invested ROVER and Eagle Vision hardware and software, as well as other USASMDC/ARSTRAT-developed products such as the Geospatial Information Interoperability Exploitation Portable to expand current capabilities for both expeditionary and homeland defense usage. The program deliverable is both an integrated software suite that is being incorporated into both the Eagle Vision and ROVER programs for display on their organic devices such as laptops, smart phones or iPads using geospatial information services such as the Google Earth Enterprise Environment, ARC Explorer, Bing, Yahoo and others.

The rapid processing, exploitation and dissemination of space-based imagery provided by the new EVR2EST capability to ROVER units and other government organizations will greatly improve situational awareness for Warfighters and first responders. The impact to their operations should be dramatic. The ROVER operator can download the latest imagery before going out on a mission of collecting full motion video so that rapid exploitation can be made on the latest imagery versus a historical digital map, which is the current method. The ability of first responders to have access, along with critical infrastructure data, for homeland missions will also provide that much needed overhead imagery that is relevant, because it is timely. This has been

recently reflected in current 2011 U.S. Northern Command operations as shown:

- April-Southeastern tornados
- May-Mississippi River flooding
- May-Missouri tornado
- June-New England flooding
- June-Florida wildfires
- July-New Mexico wildfire response

EVR2EST is also planned for immediate use in U.S. European Command, U.S. Africa Command, U.S. Southern Command and U.S. Pacific Command.

EVR2EST is and will continue to be a unique, but vital product by distributing space-based products, combined with full motion video, to the Warfighters and first responders not only rapidly, but using services that are government owned and non-proprietary. It is designed to be interoperable with systems such as the Distributed Common Ground Station Integration Backbone and other "net-centric" systems. Our first evaluation, which we are still awaiting results, was with the 2011 Coalition Warrior Interoperability Demonstration. Today it is being used somewhere by a first responder fighting a wildfire, or a flood, or a tornado. Tomorrow it will be used by Warfighters in theater to provide the best that space can give to situational awareness. EVR2EST is being used to support the Department of Homeland Security and also with the Joint Project Development Office for the next generation of airspace control for the Federal Aviation Administration. EVR2EST is an existing, proven product.

<https://www.evr2est.us>



For more information, please contact:
USASMDC/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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