

www.agi.com

InVIEW

AS PREVIOUSLY
PRINTED IN *INVIEW*
JULY 2005



To subscribe to *InView*
or read past issues, visit
www.agi.com/InView.

ANALYTICAL GRAPHICS, INC.
220 VALLEY CREEK BLVD.
EXTON, PA 19341



Eagle Vision: Imagery and Intel, From Space to the Battlefield

THE EAGLE VISION (EV) PROGRAM OF THE UNITED States Air Force (USAF) lives up to its name by providing an "eagle's eye" view of the battlefield to warfighters in need of a detailed lay of the land. The EV equipment—portable satellite receiving and processing stations—fuses remote sensing imagery from a half-dozen commercial satellites with other topographical data to generate dynamic 3-D terrain models for U.S. operational intelligence and mission-planning activities. To support this ongoing USAF effort, the Defense and Security Systems segment of the European Aeronautic Defence Space Company (EADS DS) has delivered the fifth Eagle Vision Data Acquisition Segment (DAS) to Air National Guard (ANG) Hawaii, and has started manufacturing the Advanced Eagle Vision 6. EADS uses STK software technology to aid in the data acquisition monitoring process for both of the Eagle Vision stations.

The Advanced Eagle Vision equipment incorporates innovative technologies such as STK to "extend the warrior's vision" by enabling immediate exploitation of the commercial imagery it receives. Because the portable stations can be easily deployed in the field, imagery can be downloaded and processed in near-real time as the satellite passes over an area of interest. The EADS iterations of the Eagle Vision stations offer enhanced capabilities to the program such as a reduced system footprint, improved imagery production performance, and increased satellite access. Eagle Vision currently accesses commercial satellite imagery from SPOT, RADARSAT, IRS, QuickBird, and IKONOS.

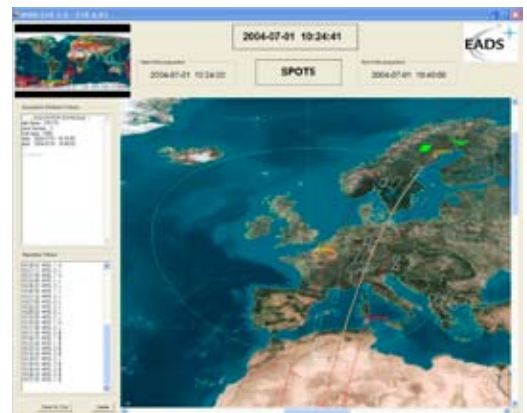
With the help of AGI's partner Agenium Groupe, Montesson, France, EADS employs STK/Integration Module to incorporate STK into the Eagle Vision software and to interface with the legacy monitoring and control application. The resulting enhanced capabilities include precise orbit propagation, accurate satellite instrument modeling, and the ability to display the spacecraft pass in real time over the imaging area.

Philippe Barbier, head of Earth Observation Strategy and Programs at EADS DS, was impressed that STK's capabilities exceeded the project's minimum requirements, enabling full concentration on the USAF's specifications with a modicum of development time. He noted that using AGI technologies was a recommendation of the EV Program Office. "We were very pleased at how quickly STK generated results for us, especially considering the complexity of the scenarios we were creating with the software," Barbier said.

EADS DS also benefited significantly from the STK expertise of Agenium, who, as an international business partner, not only sells AGI software to users in France and the surrounding region, but provides technical support to them as well. "The EADS and Agenium teams maintained a



The European Aeronautic Defence Company (EADS) is using STK software technology to aid in the data-acquisition monitoring process for the U.S. Air Force Eagle Vision ground stations. STK enables immediate exploitation of the imagery Eagle Vision receives from multiple satellites.



strong working relationship during the entire development period," Barbier said. "The quality of technical support was superior." The STK software suite is being considered for operational use to analyze any problems detected during the remote sensing image acquisition process.

More information on EADS solutions can be found at www.eads.com. To learn about Agenium Groupe, as well as AGI's other business partners, please visit www.agi.com/partners. ▲