The Joint Geospatial-Intelligence Activity

By Lieutenant Colonel Richard E. Barrowman

The Soldier stares patiently at the military personal digital assistant (PDA) screen. Although it seems longer, almost 30 seconds have passed since he requested full-motion imagery of the building around the corner. The Soldier has received information from a reliable source that a group of men entered the building carrying material that looked as if it could be used to produce explosives. The Soldier wants the imagery to determine the number of men, which direction they came from, what they were carrying, and other details that only video can provide. The video, in near real time, will be downloaded to him based on his providing a global positioning system grid and time frame. The video—from a Marine unmanned aerial vehicle—is being processed through an Air Force Distributed Common Ground/Surface System (DCGS). After nearly a minute and a half, the video is streaming into his PDA, and he is formulating a plan to attack the building with his squad.

Sound like something out of a television episode? Maybe a futuristic experimental video game? In reality, it's a capability the Joint Geospatial-Intelligence Activity (JGA) intends to facilitate for every warrior in the fight: the timely, multidirectional collection, management, dissemination, and display of geospatial intelligence among national and tactical users.

JGA is a partnership between the United States Joint Forces Command (USJFCOM), United States Strategic Command (USSTRATCOM), and the National Geospatial-Intelligence Agency (NGA) to bring the combatant commands (COCOMs) and services and agencies (CSAs) together to aggregate joint requirements and formulate solutions for capabilities that extend and enhance geospatial support. Geospatial intelligence is the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the Earth.

The geospatial legacy suffers from the fact that geospatial information (maps, charts, and geodetic information) has been functionally managed by "operations," while imagery was managed by "intelligence." Today's joint warfighter support needs to drive these two together. A couple of challenges exist to realizing the full capability of geospatial capabilities. Disparate staff functions are only one. Separate service systems developed without appropriate joint standards and guidance are another, as well as previously unavailable network-centric environment and adequate bandwidth. Additionally, the traditional geospatial data delivery via media (paper and compact disc [CD] or digital versatile disc [DVD]) through the Defense Logistics Agency cannot keep pace with requirements; not all theater geospatial holdings are electronically connected to national holdings; access to imagery products requires knowledge of library and database locations; and operators at the lowest tactical level have limited access to secure communications. Continuing to improve the way we train and fight jointly is now a mandate.

Seeking solutions for enhancing geospatial products, JGA has a special focus on warfighter information needs at the joint task force (JTF) level and below. The organization also ensures that geospatial intelligence collected and produced in theater can be shared effectively within theater with allies and with operational and strategic users.

JGA coordinates efforts across the enterprise and focuses on procedures (concept of operations or tactics, techniques, and procedures), data standards, architecture, requirements, and policies necessary to obtain the capabilities to provide integrated geospatial information to the lowest tactical level in the near- to midterm. JGA is following the guidance the Chairman of the Joint Chiefs of Staff provided on 1 October 2005: By changing how we employ the tools already at our disposal, transformation will progress significantly. Consequently, JGA is neither a program nor an acquisition. Rather, it seeks to collaborate among all mission partners to better connect geospatial data from the national to tactical level. The lead on the JGA project says that they are using existing capabilities and technologies to the extent possible. The services have invested a lot of money in their own architectures.

Demand for geospatial intelligence is great and becoming exceedingly more complex. JGA efforts focus on the visualization (display), analysis (value adding), and distribution (dissemination) of geospatial intelligence, following the lead set by the commercial sector to provide better awareness of a geospatial-supported common operational picture. These capabilities enable users to organize, understand, and act upon information gathered and created across the geospatial domain by enhancing the correlation of information data layers in a manipulative framework that assures the user a high degree of geopositional accuracy and flexibility in display.

JGA efforts are based on requirements identified from engagement with COCOMs and services, as well as information from other governmental agencies. The partnership on paper is between USJFCOM and NGA, but in reality, the partnership is broader—involving all the services and COCOMs, as well as supporting agencies like Defense Information Services Agency.

The solution may lead to doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) changes, or it may lead to focusing the efforts of existing programs. JGA is collaborating with existing capability demonstrations within the USJFCOM Joint Experimentation Directorate (J9) and engaging in discussions about future training, optimal architecture, and the necessary data standards for ensuring interoperability and usability of data on different customer sets.

It all goes back to the Soldier outside the building. He needs current, accurate, and competent information. He shouldn't have to worry about source, timeliness, or compatibility of his system. He should focus on the accomplishment of his mission and the prevention of loss of life.

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