NGA Expands Customer Base for Special-Security Events

By William Mullen

hile the annual Major League Baseball All-Star Game gave Americans another chance to indulge in one of their favorite pastimes, NGA analysts took interest for another reason. The game in Pittsburgh July 11 was a special-security event. At the behest of a lead federal agency, NGA has supported more than 30 such events since 2002.

For the All-Star Game, support NGA provided the FBI included imagery of the event area. Analysts overlaid elevation and other key infrastructure data on the imagery to give the FBI, local law enforcement and other government planners a common operating picture.

Support NGA provided to the Olympics Intelligence Center at the 2002 Winter Olympics in Salt Lake City served as the foundation for subsequent support. NGA provided the center geospatial-information systems, data, near-real-time imagery, on-site analysis and technical support.

MLB All-Star Venue Overview
Pittsburgh, PA

Strategic and tactical geospatial intelligence (GEOINT) for special-security events, as well as counterterrorism, is the mission of the Domestic Operations Branch in NGA's Office of Americas.

Following each deployment, Office of America analysts have refined operations and matured capabilities. In four years, they have expanded their deployed support at local command posts to hundreds of customer environments via the Web. They have developed critical relationships with internal and external partners and rapidly fielded advanced technologies to support increasingly complex customer requirements.
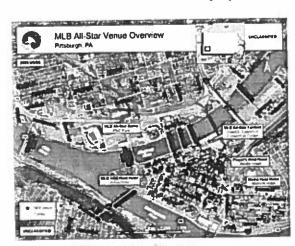
Three-Tiered Approach

The operational-support methodology, first developed for the Salt Lake City Olympics, consists of a three-tiered approach involving data, systems and analysis.

NGA's high-fidelity composite datasets include various imagery sources, terrain elevation data and rich layers of vector (feature) data down to the local level, resulting in a virtual environment. The Agency deploys hardware and software suites capable of full analysis and production in the field. Conducting seamless operational support on site are teams of highly skilled imagery and geospatial analysts. When such skilled analysts using robust systems exploit real-time datasets of the complexity provided by NGA, the result is temporally relevant tailored reference products that enhance situational awareness and tactical operations.

For area familiarization in one package, analysts have developed "city books." These special analysis products geographically depict an event theater of operations with large- and small-scale graphics, virtual walkthroughs and three-dimensional models, including examinations of infrastructure and airport defense.

Produced in hard- and softcopy, these products go to hundreds of customers, from senior policymakers to FBI Special Weapons and Tactics (SWAT) teams.

In the command-post environment, NGA situational-awareness capabilities have

improved incident understanding, contextualization and response times. Since the 2003 Super Bowl in San Diego, NGA's Palanterra™ has served as the primary customer access point for all datasets and real-time incident tracking. Palanterra™ provides a common operational picture on multiple networks, giving customers access to the best available data from the convenience of their desktops.

Through its partnership with NGA's Office of Global Support, the Office of Americas has adapted mobile integrated GEOINT production and communication systems to support special-security events, similar to those used in the war on terrorism. Analysts have also taken advantage of high-tech tools like 360-degree photography and GPS-enabled videography.

The Office of Americas acquired two of the newer systems through its partnership with the National Reconnaissance Office (NRO). Designed by engineers at NRO, Buzz Lite is a rugged, portable communications system for securely downloading imagery and other data at remote locations in a timely manner. Another system NRO has provided is EDICT, an acronym that means Encrypted Dissemination of Information over Commercial Telecommunications. These systems and GPS-enabled telephone communications tools allow NGA deployed personnel to disseminate imagery and update secure Palanterra™ databases with local incident data from multiple locations in real time.

Efforts to identify and apply advanced GEOINT tradecraft to support special-security events continue through strategic partnerships and rapid fielding of advanced products and technologies.

What Is an SAV?

By Rob Rapanut

Since 2003 NGA has worked with the Department of Homeland Security (DHS) to visit and assess the sites of critical infrastructure in major population centers.

These site assistance visits (SAVs) usually involve the creation of products that integrate geospatial data pertaining to different kinds of infrastructure, including:

- regional transportation network
- natural gas and oil production facilities
- medical facilities
- law enforcement facilities
- fire stations

NGA analysts draw from a variety of sources to create their SAV products. Vector data (points, lines and polygons used to represent geographic features) is sometimes laid over multispectral commercial imagery. The database of NGA's Homeland Security Infrastructure Program is the source of much of the vector data. Various federal agencies and commercial vendors also provide data. A typical SAV package includes approximately seven to nine map graphics and two or three image-based graphics.

These comprehensive SAV products provide DHS officials with key situational awareness when they visit different infrastructure sector stakeholders to assess and address their security vulnerabilities. Most importantly, this partnership provides DHS with a solid conduit to tap NGA's vast analytical expertise and geospatial data holdings in critical infrastructure.