

# EMERGENCY MANAGEMENT AND DISASTER RELIEF WITH BAE SYSTEMS' GEOSPATIAL EXPLOITATION PRODUCTS

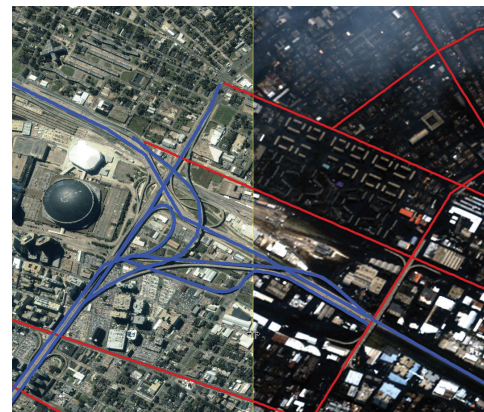


## QUICKLY CREATE AND DISSEMINATE A COMMON OPERATING PICTURE TO FIRST RESPONDERS.

When disaster strikes, every second counts. BAE Systems Geospatial eXploitation Products (GXP®) provide a streamlined workflow that enables responders to hit the ground running, and coordinate for maximum efficiency and speed when executing relief operations.

Quickly locate the imagery required for your mission with GXP Explorer®, and share assets across response units and agencies – no matter the geographical location. Instantly stream full-resolution imagery in any format from a standard Web browser with GXP WebView, and eliminate time wasted waiting for large downloads. Seamlessly import your selected mission assets directly into SOCET GXP® to understand the scope of the situation, assess damage, and perform highly-accurate analysis and exploitation. Create detailed, custom reports in industry-standard file formats with the push of a button. Disseminate geospatial products to command centers and first responders in the field, allowing them to work from a common operating picture, increasing situational awareness to maximize mission success.

## IN THE FIELD HURRICANE KATRINA




Images taken before and after Hurricane Katrina are stacked atop one another. Analysts use the Swiper tool in SOCET GXP to peel back the before image and view the devastation. The graphic vector layer identifies the road network.

In the aftermath of Hurricane Katrina, the Homeland Security Operations Center (HSOC) used BAE Systems' SOCET GXP software for disaster relief efforts. Current and archived high-resolution satellite imagery from New Orleans to Mobile, Alabama, was loaded into SOCET GXP and projected onto HSOC's large screens for in-depth analysis. Sources of flooding were pinpointed using the SOCET GXP analysis and change detection tools. Preliminary findings and data were extracted from the images, exported to PowerPoint®, and disseminated as the basis for a situational awareness briefing for decision-makers and engineers repairing the levees.



**FIND**

Quickly find imagery of an area, regardless of the geographical location of the data store.



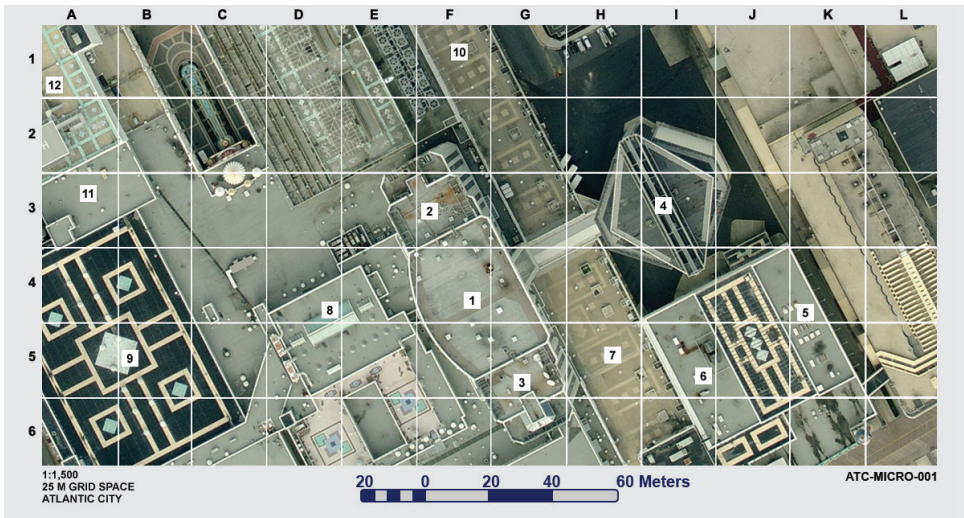
**ANALYZE**

Use powerful, highly-accurate analysis tools to exploit the imagery and plan for action.



**DISSEMINATE**

Easily publish and disseminate reports for shared situational awareness in the field.



## LEAVE NO STONE UNTURNED GRID REFERENCE GRAPHIC

Create a common operating picture that allows responders to systematically cover a large geographic area and clearly communicate actions on the ground back to the command center. Use the SOCET GXP® Grid Reference Graphic (GRG) tool to overlay a grid on aerial imagery and quickly snapshot the GRG to a distributable report. Using this shared situational awareness ensures search and rescue operation teams have the information they need to confirm that no area goes unsearched.

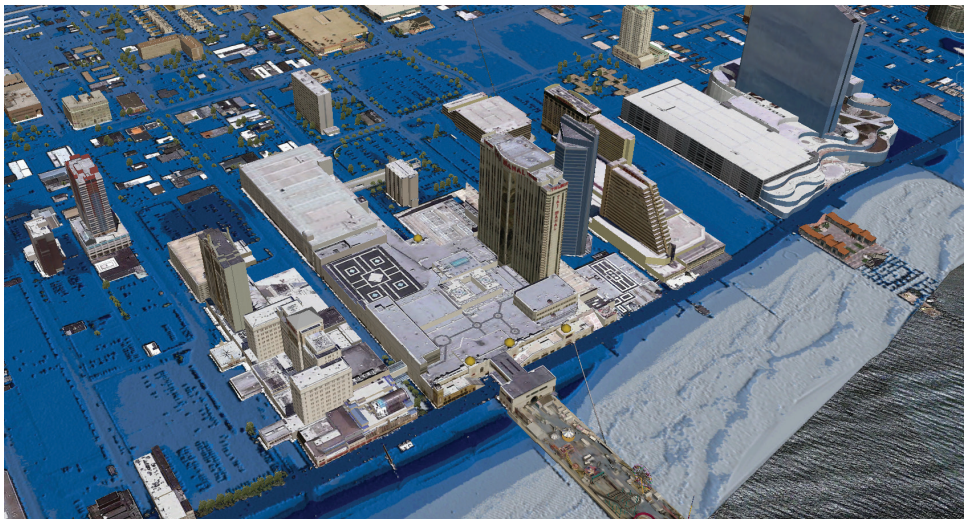
*In this GRG report, numbered markers indicate sites and structures that fall within the search area. These markers can be used to coordinate relief efforts among several responders or units.*



## SEE THE BIG PICTURE CHANGE DETECTION

Identify and assess damages caused by flooding, landslides, earthquakes, and fire. The advanced image processing algorithms within SOCET GXP make detecting change in an area fast and easy. Import and overlay before and after imagery to automatically detect areas of change. Highlight, measure, and store areas of interest (AOI) to save time when repeatedly performing analysis on the same area.

*SOCET GXP makes comparing changes in old vs. new imagery simple. In this report on a gas explosion, the extent of the damage can easily be assessed through a side-by-side comparison of the imagery.*



## AVOID THE INEVITABLE TERRAIN ANALYSIS

Analyze terrain to locate and plan for potentially problematic areas. Use LiDAR and other high-density terrain files to automatically extract 3-D buildings, rooftop detail, and trees with impressive accuracy. Determine height and volumetric differences in areas to create flood stage maps. Display point clouds and terrain surfaces in a 3D Multiport for a complete view of the scene.

*Highly-accurate terrain analysis capabilities in SOCET GXP can be used for environmental analysis and to identify areas where flooding may occur. This LiDAR-based flood stage map predicts where the water level will reach buildings and roads, allowing for pre-emptive action and preventative measures to minimize impact.*

*Imagery credits: (1) Copyright EagleView Technologies, Inc. Used with permission. (2, 3) Based on data available from the U.S. Geological Survey.*

**TO LEARN HOW GXP® PRODUCTS CAN MINIMIZE THE COST AND ENHANCE THE EFFECTIVENESS OF YOUR MISSION, CONTACT:**

**Americas**  
Tel 800 316 9643 or 703 668 4385  
Fax 703 668 4381  
gxp.sales@baesystems.com

**Asia, Australia, and Pacific Rim**  
Tel +61 2 6160 4044  
Fax +61 2 6160 4001  
gxp.sales.asia@baesystems.com

**Europe, Middle East, and Africa**  
Tel +44 1223 370023  
Fax +44 1223 370040  
gxp.sales.emea@baesystems.com

**India**  
Tel +91 11 4341 2345  
Fax +91 11 4341 2373  
gxp.sales.india@baesystems.com