



NGA Supports Gulf of Mexico Oil Spill Remediation Efforts

BY KATHERINE S. WHITAKER

The National Geospatial-Intelligence

Agency is actively providing intelligence analysis and geospatial intelligence products to the U.S. Coast Guard, the lead federal agency in the response to the Gulf of Mexico oil spill, the worst disaster of its kind in U.S. history.

Containment efforts and planning to minimize the damage have been on-going since the rig sank April 22. An estimated 35,000 to 60,000 barrels of oil per day have escaped from the damaged wellhead, which is located more than 4,000 feet underwater.

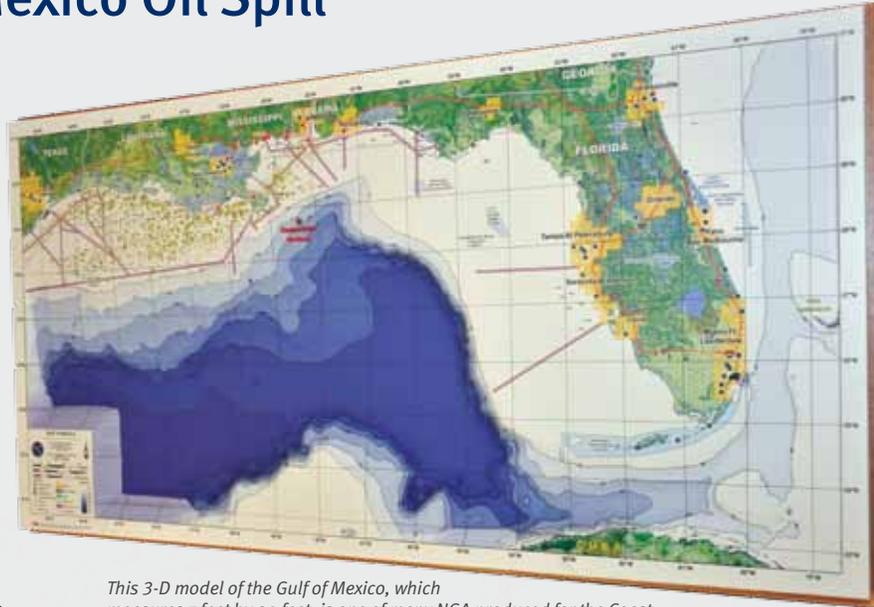
“NGA’s support is critical. We are providing essential data that the USCG depends on,” said NGA employee Army Maj. Sam Hagadorn.

NGA’s support to the oil spill remediation efforts includes providing analysis, unclassified commercial satellite imagery and geospatial products of the Mississippi Delta and surrounding Gulf Coast areas. The products include three-dimensional models of major infrastructure along the Gulf Coast, operational planning map atlases and graphics depicting the extent of the oil spill. These products greatly assist the Coast Guard in leveraging every available resource to respond to the Gulf oil spill.

An NGA Crisis Action Team was stood up soon after the April 21 explosion of the Deepwater Horizon that rig killed 11 workers onboard. The CAT, composed of volunteers from several branches throughout the agency, has been working around the clock ever since.

“We are providing reachback support for the team members on the ground. We help to extract the location of the booms using commercial airborne and other sources of imagery, locate gaps and areas in need of repair as well as plan future boom placement,” said Hagadorn.

The National Incident Commander, Adm. Thad Allen, USCG (ret.), requested a model from NGA’s 3D Model Production Facility in order to obtain



This 3-D model of the Gulf of Mexico, which measures 7 feet by 20 feet, is one of many NGA produced for the Coast Guard.

DOD photo

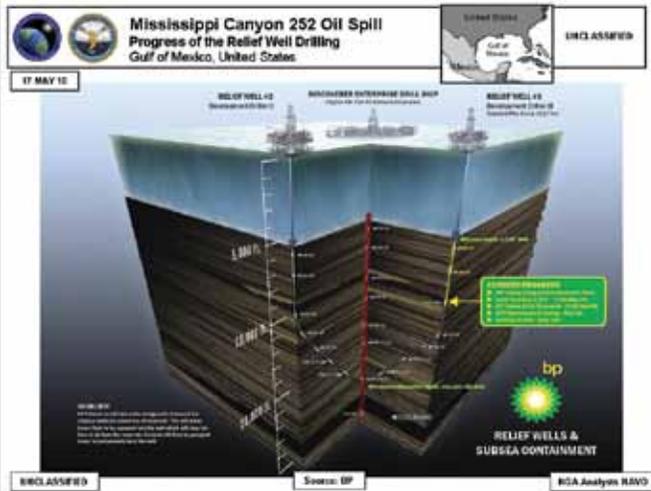
situational awareness of the affected areas. Models of ships and aircraft were also developed to be used with NGA’s 7 feet by 20 feet hydrographic and topographic model of the Gulf of Mexico and surrounding areas.

“These two elements make it possible to easily see how resources are allocated and moving around in support of the oil spill,” said the program manager of NGA’s 3-D Model Production Facility.

The model “dramatizes the depth of water that we’re working with here,” said Hagadorn.

The Coast Guard also requested a Domestic Mobile Integrated Geospatial-Intelligence System to provide assistance with the disaster. DMIGS is a self-contained vehicle, custom built on a fire truck chassis that allows NGA analysts to drive to a crisis location and provide on-the-spot geospatial intelligence analysis and products.

The DMIGS has been operating at full capacity producing GEOINT that facilitates Coast Guard efforts to identify oil-stricken locations in the area so the National Guard can efficiently place booms, devices that confine oil off the water, in areas where they predict the oil will flow. They can also ascertain the origin of displaced booms.



NGA product showing the relief wells being dug by British Petroleum.

DOD photo

“The DMIGS has been providing the common operational picture on a daily basis to ensure that all components are on the same page. With the data provided by DMIGS, we can see imagery for a given day, see where booms are placed and where there might be holes. We can see the environments impacted by the oil and also project where the oil is headed and plan accordingly,” said Hagadorn.

DMIGS II will continue to be present at the Gulf Coast oil spill and rotate analysts every two weeks while the Coast Guard needs its assistance.

Operating throughout the Gulf of Mexico, Deepwater Horizon, a fifth-generation deep-water rig leased by British Petroleum, had been drilling 45 nautical miles southeast of Venice, La., since January. P



This operational planning atlas uses maps and current commercial imagery to show the U.S. coastline of the Gulf of Mexico in detail.

NGA product



Domestic Mobile Integrated Geospatial-Intelligence System.

DOD photo