MARITIME SECURITY AND ENVIRONMENTAL MONITORING

The most timely, reliable and accurate maritime security and environmental monitoring services for the oil and gas industry.

Operations in the maritime environment present unprecedented challenges to today's Oil and Gas industry in terms of increased security threats and heightened concern over environmental compliance.

MDA Geospatial Oil and Gas Services integrates a new generation of spaceborne surveillance systems with traditional in situ observations to

provide a complete maritime security and environmental monitoring service. This enables operators to reduce the risk of piracy, terrorism and accidental encroachment into operational areas, as well as to demonstrate compliance with environmental regulations and avoid costly litigation. The integration of spaceborne data with conventional data sources provides broad area surveillance in a cost effective, unobtrusive manner.
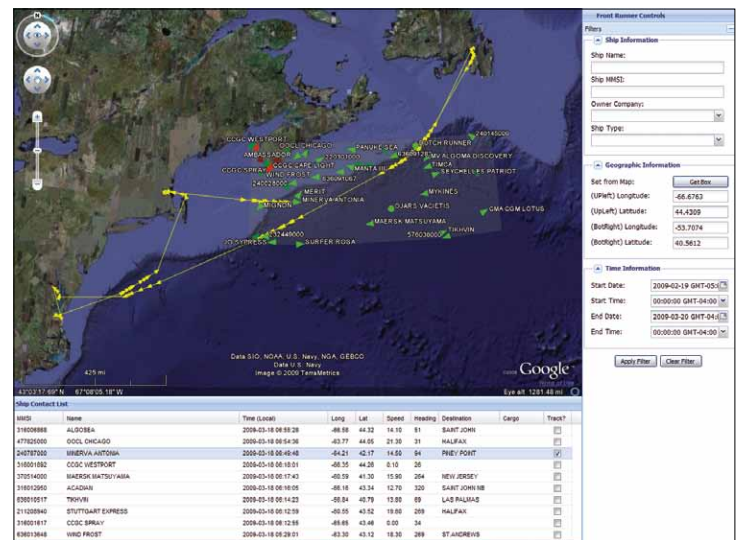
Wide-Area Maritime Surveillance
MDA uses satellite synthetic aperture radar (SAR), including RADARSAT, as premier surveillance assets, capable of imaging vast

areas of open ocean and littoral regions day and night, regardless of cloud cover. SAR is the optimal space-based sensor to detect and track ship targets and surface oil emanating from natural seeps, production platforms or ship bilges. RADARSAT has been providing business and government customers around the world accurate global maritime surveillance since 1996.

MDA integrates space based SAR surveillance with both land and space based AIS data to provide persistent monitoring anywhere in the world. By combining these data sources, non-compliant vessels are quickly identified and targeted for interception. In addition, patterns of behavior are analyzed and suspicious activities are detected. Additional information on the detected targets can be obtained by subsequent cueing of other spaceborne, airborne or ship borne assets.

Maritime Security
Oil vessels in transit, offshore production and storage platforms are increasingly targets for piracy and terrorist acts. Maintaining personnel

Web-based information delivery brings highly-accurate historical and current ship movements directly to user desktops.

safety, the security of these maritime assets, as well as the oil and gas they hold, is an important facet of industry operations. MDA provides customers with a wide range of surveillance, tracking, and security solutions specifically tailored to meet these challenges.

RADARSAT-2 provides wide area surveillance to detect and track unauthorized vessel traffic in offshore oil fields and around oil production and storage platforms. Its high revisit cycle and all-weather imaging capability rapidly detects, classifies, and tracks illegal or unauthorized vessels in restricted areas. Daily reports enable more cost-effective direct tasking of air and surface assets to intervene and apprehend these vessels, reducing both operating costs and losses to theft and piracy.
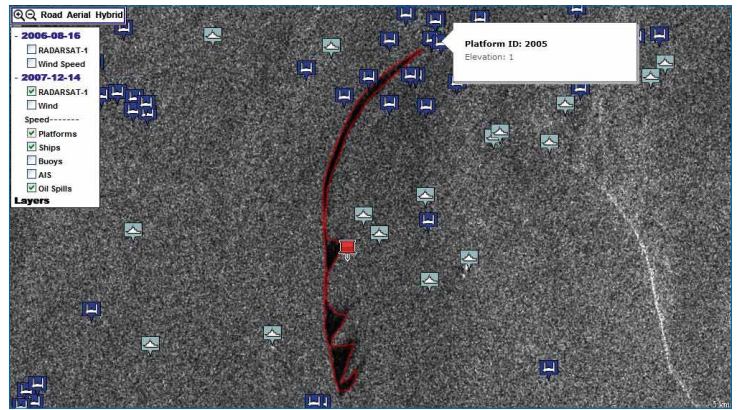
Used in tandem with space-based AIS that operates far beyond shore-based systems, RADARSAT-2 data quickly and comprehensively produces a watch list of illegal vessels that do not broadcast identity, and/or appear in restricted areas. Eliminating known legal targets reduces the amount of information to review, and focuses resources on unknown vessels.

MDA can provide customers with a secure, custom web-based interface to serve as an interoperable resource where daily updates to image status, links to downlink the imagery or derived data, and a KML- or GIS-extraction tool can act as a secondary common operating picture. MDA's customized interface displays all AIS data (real time and historical), allowing visualization of a given ship's track over the previous two weeks. The potential for a single team in a fixed geographic location to monitor and direct maritime security operations around the world is now a reality.

Environmental Monitoring: Oil Spills

As effective as RADARSAT-2 data is for detecting ships, it is also a useful tool to detect surface oil on oceans. Using the data to generate sea state reports, MDA can accurately project and track in near-real time the direction and extent of a spill emanating from blue water and littoral oil seeps and spills, and from accidental and dumped maritime oil slicks. Daily reports can be delivered via secure FTP, the internet, or email to provide definitive status updates and assist in remediation and clean up operations.

MDA Geospatial Oil and Gas Services is your solution partner for reliable and accurate maritime security and environmental monitoring. We deliver innovative, and cost-effective, advanced geospatial information solutions.

Oil spill tracking with MDA Geospatial Oil and Gas Services information products is fast, accurate, and interactive.

CUSTOMER SATISFACTION

For over four decades we have worked closely with our worldwide customer base to provide them with information solutions that leverage advanced technologies and allow them to conduct their business more efficiently.

For more information, please contact us at:

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