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requirements as the USA employs AIS for Maritime Domain Awareness (MDA) purposes. You will hear more about the role of AIS Class B in both safety and security. You will hear more about the joys of AIS messaging. You will welcome e-NAV.

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PMM

Turning Lemons into Lemonade: Embracing New Vessel Tracking Requirements

By Captain Ed Page



For ages, the lure of the sea has been casting off all lines and escaping civilization. Regrettably, in the wake of several CNN-caliber

oil spills, abandon-ships and fires, aggravated with post 9/11 homeland security concerns, those carefree days are over. Like the aviation community, systems are coming on line to track ships to aid safe, secure, efficient and environmentally sound maritime operations. The challenge is for the maritime industry to lean forward and implement these emerging tracking capabilities so they are not a burden, but instead an asset.

The watershed event that accelerated vessel tracking was 9/11. Authorities quickly realized a terrorist incident involving a vessel could have devastating impacts and feared the maritime transportation sector was the most vulnerable. Former US Coast Guard Commandant Admiral Tom Collins highlighted the import of tracking vessels when he stated "with regard to Maritime Domain Awareness, which is the centerpiece of our maritime security strategy, we believe that the installation of Automatic Identification System and Long Range Tracking Devices will aid enormously in providing the necessary information on in-bound maritime shipping, long before ships reach our ports."

The Coast Guard effectively brought vessel tracking onto IMO's (International Maritime Organization's) center stage and treaties implementing AIS (Automatic Identification Systems) and LRIT (Long Range Identification and Tracking) were passed.

AIS

AIS vessel carriage requirements have been implemented progressively for two years now and AIS has become ubiquitous. While many initially begrudged the high cost and added burden of installing AIS, most mariners now use it, especially when sailing in congested waters. It is proving to aid maritime safety as well as maritime security and efficiency. In contrast, while vessels are underway far offshore or sailing in high risk regions of the world, the non-secure AIS is often turned off by vessels' crews due to concerns that AIS increases their vessel's vulnerability to terrorist attack. However, overall AIS is showing benefits beyond those initially anticipated.

LRIT

Presently worldwide LRIT via the satellite communications system components of Ship Security Alert Systems (SSAS) and Global Marine Distress Safety System (GMDSS) has been adopted by the IMO as an additional maritime security tool. Unlike AIS, the satellite messages used by LRIT are secure and not broadcast in the clear to all vessels. In most cases, the

use of existing onboard satellite communications equipment that are part of the SSAS and GMDSS suites allows vessels to readily and inexpensively participate in this tracking system for the mere cost of a "latte a day". Several vessel operators are leading the way in implementing this emerging tracking capability, making it an asset to maritime operations, with the tankers, ferries, cruise ships, containerships and many tug and barge companies sailing Alaska waters having participated in satellite vessel tracking for several years now to increase the safety and efficiency of their operations. Other companies are starting to do likewise.

Maritime Exchanges

The genesis of the original non-profit Maritime Exchanges established in the 1800's was "tracking vessels" and exchanging information on vessel arrivals with others in the maritime community to facilitate efficient trade. The old "tools of the trade", comprised of spyglasses and semaphore, have since been replaced by the internet. AIS and satellite transponders. Today Marine Exchanges, linked together by the Maritime Information Services of North America (MISNA), advocate the sharing of information on vessels' positions with government and the maritime industry. Congress recognized the merit in marine industry developed solutions when stating, "The conferees

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encourage the Department of Homeland Security to be aware of the important role played by existing non-profit maritime associations in the collection and dissemination of maritime information and encourage the Department to work with maritime exchanges to build upon and improve communications with the private sector.”

Accordingly MISNA developed an extensive network of more than 50 AIS sites and a worldwide satellite tracking system that tracks 8,000 to 10,000 vessels daily, sharing this information with the maritime community and government agencies. Participants in MISNA's Automated Secure Vessel Tracking System (ASVTS) represent the responsible maritime operators who have nothing to hide from the Coast Guard, Customs and other agencies that actively manage, support and monitor their fleets.

Lemons into Lemonade

With the development of ASVTS as a hybrid AIS and LRIT vessel tracking system, the benefits of vessel tracking are quickly being realized. The applications and benefits of ASVTS include but are not limited to:

- Increasing the efficiency of maritime operations by sharing accurate real time vessel position information with pilots, tugs, agents, ports, shore gangs, rail connections and other port entities
- Facilitating the timely vessel inspections by government agencies and Coast Guard vessel escorts where provided
- Aiding emergency response by locating resources that can render assistance
- Validating a vessel's prior port calls, voyage route, and compliance with offshore routing, areas to be avoided, and speed restrictions
- Sharing of information with cargo interests, charter parties, and shippers.

- Adjusting vessel speed with berth availability to save fuel costs and avoid the need to anchor

- Assist in compliance with Coast Guard Advance Notice of Arrival requirements to avoid penalties and port delays.

Presently, participation in the Long Range Identification and Tracking (LRIT) component of MISNA's secure vessel tracking system is voluntary and evolving into the "Standard of Care" for responsible ship operators. The owner, operator and affiliates can all view vessels' positions through use of a user name and password with the Coast Guard provided a "master password" allowing the agency to see all participating vessels.

This information helps the Coast Guard identify anomalies in a vessel's transit, positively identify prior ports of calls, and respond to emergencies. The tracking system essentially provides a Safety and Security Net for vessels and is proving to be a "cheaper, better, faster" industry developed solution over government mandated solutions.

The expression "When life gives you lemons, make lemonade" applies to the onset of vessel tracking initiatives. If the days of casting off all lines and escaping civilization are over, the challenge is to make vessel tracking a useful, value-added tool. Several in the marine industry are doing just that and finding ways to implement an industry developed vessel tracking solution that meets the needs of governments while also aiding commercial interests.

Additional information on ASVTS may be obtained at www.asvts.org or by contacting any Marine Exchange office. **PMI**

Captain Ed Page is a 1972 graduate of the US Coast Guard Academy who served as a commissioned officer for 29 years before retiring to start the Marine Exchange of Alaska in 2000. He served in a variety of marine safety positions around the U.S. and overseas including an assignment as Captain of the Port for Los Angeles/Long Beach and as Chief of Marine Safety and Security for the Pacific. He presently is the President of the Maritime Information Services of North America and Executive Director of the Marine Exchange of Alaska and resides in Juneau, Alaska with his wife Barbara and daughter Brittany.

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