



Highlights of [GAO-09-337](#), a report to the Committee on Homeland Security, House of Representatives

Why GAO Did This Study

U.S. ports, waterways, and coastal approaches are part of a system handling more than \$700 billion in merchandise annually. With the many possible threats—including transportation and detonation of weapons of mass destruction, suicide attacks against vessels, and others—in the maritime domain, awareness of such threats could give the Coast Guard advance notice to help detect, deter, interdict, and defeat them and protect the U.S. homeland and economy. GAO was asked to review the Coast Guard's efforts to achieve awareness about activity in the maritime domain. This report addresses: the extent to which the Coast Guard (1) has vessel tracking systems in place, (2) can use these systems to track vessels that may be threats, and (3) has coordinated the development and implementation of these systems. To answer these questions, GAO analyzed relevant statutes, regulations, and plans for vessel tracking systems, compared the roles of the planned systems, and interviewed appropriate officials.

What GAO Recommends

To ensure efficient use of resources, GAO recommends that the Commandant of the Coast Guard determine the extent to which duplicate vessel tracking information from LRIT and commercially provided long-range AIS is needed to accomplish Coast Guard missions, particularly in light of information already available through national technical means. DHS agreed with this recommendation.

To view the full product, including the scope and methodology, click on [GAO-09-337](#). For more information, contact Stephen L. Caldwell at (202) 512-9610 or caldwells@gao.gov.

MARITIME SECURITY

Vessel Tracking Systems Provide Key Information, but the Need for Duplicate Data Should Be Reviewed

What GAO Found

At sea or in U.S. coastal areas, inland waterways, and ports, the Coast Guard is currently relying on a diverse array of vessel tracking systems operated by various entities, but its attempts to develop systems to track vessels at sea are facing delays. For tracking vessels at sea, the Coast Guard uses existing national technical means—classified methods of tracking vessels—and plans to obtain vessel identification and tracking information from two more sources, long-range identification and tracking system (LRIT), and commercially provided long-range automatic identification system (AIS). However, one source of this information has just become available and the other has been delayed due to technical and operational difficulties. International LRIT requirements generally came into effect on January 1, 2009. The Coast Guard estimates that commercially provided long-range AIS will be operational in 2014. For tracking vessels in U.S. coastal areas, inland waterways, and ports, the Coast Guard operates a land-based AIS, and also either operates, or has access to, radar and cameras in some ports.

The existing and planned sources of vessel tracking information may allow the Coast Guard to track larger vessels at sea, but systems and other equipment that track smaller and noncommercial vessels in coastal areas, inland waterways, and ports may prove ineffective in thwarting an attack without advance knowledge. The means of tracking vessels at sea—national technical means, LRIT, and commercially provided long-range AIS—are potentially effective, but each has features that could impede its effectiveness. The systems used in U.S. coastal areas, inland waterways, and ports—AIS, radar, and video cameras—have more difficulty tracking smaller and noncommercial vessels because they are not required to carry AIS equipment and because of the technical limitations of radar and cameras. In studies GAO reviewed and discussions with maritime stakeholders, there was widespread agreement that vessel tracking systems and equipment will be challenged to provide a warning if a small vessel is moving in a threatening manner.

The Coast Guard has not coordinated its plans for obtaining vessel tracking information at sea, and is planning on obtaining potentially duplicative information, but in coastal areas, inland waterways, and ports, the various tracking methods complement each other. Once operational, the two new planned means for tracking vessels at sea—LRIT and commercially provided long-range AIS—will both provide vessel identification and position information for almost all the same vessels. Commercially provided long-range AIS provides additional information about each vessel and its voyage, but almost all of that information is available through reports filed by vessel operators. The primary need cited by the Coast Guard to develop both systems—to detect anomalies—can be met by the national technical means already operational, combined with information from the reports filed by vessel operators and LRIT. Furthermore, the Coast Guard has not coordinated or analyzed the information each source can provide and the need for information from both.