TESTIMONY OF
VICE ADMIRAL PETER NEFFENGER
DEPUTY COMMANDANT FOR OPERATIONS

ON
"U.S. COAST GUARD MARITIME DOMAIN AWARENESS EFFORTS"

BEFORE THE
HOUSE TRANSPORTATION AND INFRASTRUCTURE SUBCOMMITTEE
ON COAST GUARD AND MARITIME TRANSPORTATION

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Good morning Mr. Chairman and distinguished Members of the Subcommittee. It is a pleasure to be here today to update you on the Coast Guard's efforts to improve our Nation's maritime security through Maritime Domain Awareness (MDA).

Maritime Domain Awareness

The maritime environment is inherently dangerous, complex, and difficult to govern. The maritime domain's continuously changing weather and sea state, along with wide expanses which may be exploited by criminals, adversaries, and those with sinister intent present significant challenges to assessing risk. Along with legal regimes and operational assets, MDA is an integral part of the Coast Guard's toolset through which the Coast Guard manages and mitigates maritime risk directed at U.S. ports, coastline and territorial seas. MDA-related capabilities, which support all levels (strategic, operational, and tactical) of maritime decision-making, provide a continuum of maritime knowledge combining unclassified situational awareness information sources with current and predictive maritime intelligence. The Coast Guard's MDA is facilitated by its broad statutory authorities, membership in the Intelligence Community, and strong international, Federal, State, local, tribal, and non-governmental partnerships.

MDA entails knowledge of:

People: Crew, passengers, owners, and operators;

Cargo: All elements of the global supply chain;

Infrastructure: Vital elements of the nation's maritime infrastructure, including facilities, services, and systems;

Operating Environment: Weather, environmentally sensitive areas, and living marine resources;

Trends: Shipping routes, migration routes, and seasonal changes; and

Threats, Indications, and Warnings: Intelligence preparation of the maritime domain; including analysis of threats and challenges from terrorism, illegal fishing, narcotics smuggling, and illegal migration.

A key element of the Coast Guard's Maritime Homeland Security Strategy is to use awareness of activity in the maritime domain to prevent illegal activity such as narcotics smuggling or trafficking in persons We can better intercept those who would do us harm if they cannot blend in with the millions of recreational boaters who lawfully enjoy our ports and coastal waters.

Today, I will discuss how the Coast Guard continues to improve its MDA through its systems and partnerships, and how it leverages and shares MDA in our day-to-day security operations.

<u>**Maritime Domain Awareness Systems**</u>

MDA is facilitated through all-source fusion and analysis from a variety of Coast Guard and other systems, including the Nationwide Automatic Identification System (NAIS), the Long Range Identification and Tracking (LRIT) system, Vessel Screening and Targeting, and partnerships with the Intelligence Community, international, Federal, State, local, and tribal government entities, and industry and private sector partners. Coast Guard access to national capabilities through the Coast Guard Cryptologic Group, Coast Guard Counter Intelligence Service, Coast Guard Investigative Service, and cyber capabilities, all combine to provide intelligence support to enhance our MDA. Moreover, Coast Guard operations both in port and at sea are robust sources of information that enhance our MDA.

Automatic Identification System (AIS): AIS is a communication system that has been adopted internationally by the International Maritime Organization (IMO). It is used by ships, Vessel Traffic Service (VTS) units, and maritime authorities to identify and locate vessels. AIS provides a means for ships to electronically exchange ship data, including identification, position, course, and speed, with other nearby ships, VTS stations, and shore-based AIS receivers used for maritime situational awareness.

AIS Regulation: The Coast Guard issued a Notice of Proposed Rulemaking on December 16, 2008, to require Notice of Departure from U.S. ports, and expand the applicability for Notice of Arrival and AIS requirements by changing the minimum size of vessels covered by these regulations to include smaller commercial vessels. The proposed AIS regulation expands the requirement to carry AIS to <u>certain commercial vessels</u> of less than 300 gross tons, and will enhance the Coast Guard's ability to identify and track vessels, detect anomalies, and heighten MDA. The regulation is focused solely on commercial vessels and does not include recreational vessels. Recreational vessels may voluntarily equip with AIS if they desire but they are not subject to this regulation.

NAIS: NAIS is a multi-year Coast Guard acquisition project to enhance maritime security and MDA-related capabilities. NAIS uses a series of shore-based transceivers along the coast of the United States to facilitate vessel tracking.

The Coast Guard has temporary NAIS capability in 58 ports and major coastal areas and is in the process of replacing this with a permanent system over the next several years. The permanent system is co-located with Rescue 21 towers and equipment sites to leverage existing infrastructure and investments.

LRIT: Using existing shipboard communication satellite capabilities and automated LRIT equipment, the LRIT system tracks the position of all vessels subject to the Safety of Life at Sea regulation. LRIT is designated by the IMO as a worldwide automated tracking system designed to collect and disseminate position information received from vessels subject to the LRIT regulation. The worldwide LRIT system became operational at the end of 2008. Today, over 100 flag states participate in the system, which generates approximately 11,650 vessel position reports daily.

The Coast Guard established a LRIT National Data Center in the United States, as required by the IMO LRIT regulation, to serve as the central collection point for ship reports received from U.S. flag vessels. The Coast Guard also developed the LRIT International Data Exchange (IDE) to manage the flow of LRIT information between various LRIT National Data Centers around the world. After operating the IDE on an interim basis for three years, the Coast Guard successfully transferred this critical function to the European Maritime Safety Agency ; a positive example of international cooperation. The Coast Guard continues to maintain an alternate IDE site for the international community.

LRIT complements existing classified and unclassified tracking systems that enhance MDA. The Coast Guard's unclassified Common Operational Picture (COP), which receives LRIT and NAIS information, is available to all classified COP managers to distribute to U.S. interagency users. LRIT and NAIS are complementary systems that, along with the Advance Notice of Arrival and other classified systems, collectively enhance our awareness of vessel movement through our waters.

This increased MDA was effectively leveraged to help support the earthquake response efforts in Haiti in 2010. By assembling commercial vessel tracking information from a variety of unclassified sources such as commercial satellite AIS and LRIT, the Coast Guard was able to assemble a publicly releasable surface shipping picture for the use of all government and non-government participants in the relief operations.

Vessel Screening and Targeting: As the lead Federal agency for maritime homeland security, the Coast Guard screens ships, crews, and passengers for all vessels required to submit a 96-hour Advanced Notice of Arrival (ANOA) to a U.S. port. The ANOA is collected by the National Vessel Movement Center which receives arrival information from over 100,000 foreign ship port arrivals annually. The compliance rate is greater than 99 percent (less than 2 per 1,000 arrivals are non-compliant).

The ANOA information is assembled in the Ship Arrival Notification System. This information is provided to the Coast Guard Intelligence Coordination Center's Coastwatch program and the Coast Guard's Maritime Intelligence Fusion Centers, which evaluate the ANOA to identify suspicious activities in the maritime domain. Coastwatch has provided thousands of advanced warnings about arriving individuals identified in Federal counterterrorism, law enforcement, and immigration databases as national security or criminal threats. In 2011, Coastwatch screened 28.5 million people, more than 121,000 ship arrivals, and generated 120 advance warning reports regarding arriving ships, people, or cargo posing a potential national security or criminal threat.

The Coast Guard has collaborated with U.S. Customs and Border Protection (CBP) to physically stand up a 24/7 maritime screening operations facility at the National Targeting Center (NTC). The Indications and Warning Center at the NTC screens 100 percent of crew and passengers for vessels required to submit an advanced notice of arrival. The co-location better enables the development of new information sharing practices and improves network and system capabilities to create more effective and efficient intelligence

and targeting practices for the maritime domain, resulting in higher quality intelligence delivery to the field. Coastwatch also has the capability to provide information to the Federal Bureau of Investigation, CBP, and the National Counterterrorism Center for persons discovered with possible terrorism links.

The Department of Homeland Security's (DHS) Interagency Operations Center (IOC) for Port Security, Coast Guard Sector Command Center, Coast Guard Sector Intelligence Staff, and CBP utilize NTC screening results in the local screening of vessels 24 hours prior to arrival. The Coast Guard may activate the Maritime Operational Threat Response Plan if the Coast Guard determines that a vessel poses a special security risk. Coastwatch has successfully uncovered and disrupted human smuggling organizations using commercial ships to illicitly move Special Interest Aliens under the guise of crew and stowaways.

The Coast Guard has imposed additional security measures for all Liquefied Natural Gas (LNG) shipments arriving in the United States from Yemen. Security measures include the recommended or required presence of additional security personnel while the vessel is berthed at the LNG facility in Yemen, stricter notice of arrival and crew vetting requirements, an underwater vessel survey, additional security searches, and enhanced communication between the ship operator and the Captain of the Port. The Coast Guard uses electronic biometric technology with support from DHS's US-VISIT program and Department of State Consular data to screen and verify the identity of foreign crewmembers of these vessels. The actual biometric verification takes place during joint Coast Guard/CBP boardings of the LNG vessels prior to entry into the U.S. port. Boarding officers, carrying handheld biometric devices, conduct biometric verifications of the crew using the data stored on the devices. The Coast Guard's Maritime Intelligence Detachment (MID) at the El Paso Intelligence Center (EPIC) generates a tactical intelligence summary of the crew's biometric and biographic signatures to identify any derogatory data or national security threats.

Partnerships and Information Sharing

Leveraging longstanding partnerships and unique maritime authorities and capabilities, the Coast Guard and our interagency partners have significantly enhanced the Nation's maritime security. Effective MDA requires efficient information sharing that demands coordination amongst all levels of government as well as with private sector partners, as appropriate.

Interagency Approach to MDA: The Maritime Security Interagency Policy Committee implemented an interagency MDA governance structure consistent with the National Strategy for Maritime Security. The Coast Guard, as the DHS MDA Executive Agent, interacts with the Executive Agents of the other principal MDA stakeholders (Department of Defense (DoD), Department of Transportation, and the Intelligence Community). This interagency MDA Executive Steering Committee serves as a collaborative forum for MDA strategy, policy, and implementation issues among the various Departments.

DHS IOC: Mandated by the SAFE Port Act of 2006, the DHS IOC project is improving real time information sharing, situational awareness, and planning and coordination of operations amongst all levels of government and port stakeholders. The IOC project focuses on improving partnerships through the installation of a basic, common information technology (IT) capability at interagency operations centers in our maritime ports. The Secretary of Homeland Security delegated to the Coast Guard the authority to establish IOCs, which will provide partners at high priority ports nationwide a framework to plan, coordinate, and execute maritime operations in real time. A basic, common IT capability, WatchKeeper, is being developed by the Coast Guard as a web-based information management and display tool to

provide a COP to achieve enhanced situational awareness, provide shared awareness of assets within the port, and coordinate planned vessel boardings. It allows coordination across operational networks without physical co-location of agencies. As of today, the Coast Guard has delivered WatchKeeper to 18 of 25 ports with the remainder scheduled for installation by the end of Fiscal Year 2014.

Last year, the Coast Guard, CBP, and U.S. Immigration and Customs Enforcement (ICE) developed a cross-component Maritime Operations Coordination (MOC) plan to enhance the Department's coordination capabilities when responding to threats against the United States. The MOC plan acknowledges the unique nature of the maritime domain, reinforces the need for a layered approach to security, and strengthens Coast Guard, CBP, and ICE coordination, planning, information sharing, and intelligence integration for maritime operations, while reducing duplication of effort between the components.

Coast Guard Operations and MDA

Coast Guard assets and people depend upon adequate MDA in executing the Service's statutory missions. Whether it is patrolling and conducting law enforcement missions within the U.S. Exclusive Economic Zone or conducting counternarcotics operations in the Caribbean and eastern Pacific, MDA is a key security mission enabler.

Maritime Security & Response Operations: The Coast Guard conducts a diverse suite of anti-terrorism, maritime security, and response operations nationwide. After 9/11 these were embodied in the Coast Guard's Operation Neptune Shield operation order and were refined in 2010 in the Maritime Security and Response Operations Manual. Operational activities include, but are not limited to: patrols; presence and response (focused near maritime critical infrastructure/key resources); security boardings; escorts; fixed security zone enforcement; surveillance and tracking; intelligence; surge operations and National Special Security Event support; deployable specialized mission units and capabilities; and support of military outloads. These activities are conducted by cutters, boats, and aircraft, as well as shore-side personnel.

Many of these activities both rely upon and contribute directly back to MDA, such as:

- Pre-entry security boardings of selected vessels and small vessel security boardings;
- Waterborne, shore-side, and aerial surveillance patrols of ports and coastal approaches; and
- Cutter offshore presence.

For example, the Coast Guard has provided intelligence support to successful National Oceanic and Atmospheric Administration/Coast Guard efforts to protect the living marine resources of the oceans by suppression of Illegal, Unregulated, and Unreported (IUU) fishing. Specifically, Coast Guard Intelligence (CGI) supported operations before, during, and after the seizure of the illegal High Seas Drift Net (HSDN) M/V BANGUN PERKASA. In advance of the HSDN season, CGI provided pre-deployment planning support to Coast Guard cutters. During patrols, daily Coast Guard Intelligence-developed MDA products were provided to operational commanders. Post-interdiction, CGI provided amplifying information on HSDN activities and facilitated information sharing with foreign enforcement partners to better police Pacific maritime commons.

Through Field Intelligence Reports (FIRs), Coast Guard units promptly report raw, unevaluated information on foreign or U.S. activities that impact Coast Guard operations and missions. Some FIRs identify Maritime Security and Response Operations activity successes and problems, and are reviewed for policy implications. Other FIRs identify security successes and breaches of private sector vessels and maritime critical infrastructure/key assets and likewise, are evaluated for their impact on vessel and facility security plans. The Coast Guard shares relevant FIRs with other DHS components (e.g., CBP/Integrated Planning Division Joint Operations Directorate), the Federal Interagency, and the Intelligence Community. The Coast Guard is a core participant in the Nationwide Suspicious Activity Reporting Initiative.

COP: The Coast Guard has long employed a COP as an effective operational coordination and dissemination tool. However, our early COP was run on a DoD/Intelligence Community IT backbone that made sharing information to non-military partners quite difficult. As noted previously, the Coast Guard is implementing web-based access to its COP. For example, WatchKeeper provides a port-oriented COP as a web-based service to non-DoD port partners. We are working closely with the DHS COP Integrated Planning Team to further this service, and to ensure that the Coast Guard is aligned with departmental and interagency data standards and protocols.

Area Maritime Security Committees (AMSC): Each Sector conducts MDA outreach primarily through oversight of their AMSCs. AMSCs are comprised of members selected from Federal, State and local law enforcement agencies, and the maritime industry. Each AMSC develops an Area Maritime Security Plan with the primary purpose of providing a framework for communication and coordination among port stakeholders and law enforcement officials, and to identify and reduce the vulnerabilities, risks, and security threats in and near the maritime transportation system. This plan is updated and exercised regularly and is not static. The AMSC refocuses their efforts accordingly to respond to the dynamic and evolving threats — illicit drug and human trafficking, piracy, terrorism, weapons of mass destruction, illegal fishing, and environmental crimes. Through these committees, the Coast Guard Sector builds and maintains relationships and actively shares information.

MDA is enhanced in various ways such as by coordinating patrol schedules and information pertaining to high risk port areas, identifying and addressing uncharacteristic vessel operations, and conducting joint training exercises. The Committee also serves as the conduit for communicating threats and changes in Maritime Security levels and disseminating appropriate security information to port stakeholders.

Conclusion

Through a whole-of-government approach, the Coast Guard continues to implement and improve MDA to meet the unique challenges of the maritime environment. Combined efforts to attain MDA enhance all our missions and especially those focused on maritime security. As the Coast Guard proceeds with its major cutter and aircraft recapitalization projects, including development of unmanned aerial systems, the continuing process of enhancing operational capabilities and sensor packages on our assets will expand our MDA capability.

Thank you for the opportunity to testify today, and for your continued support of the U.S. Coast Guard. I'd be pleased to answer any questions you may have.