

**STATEMENT OF
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**BEFORE THE
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES**

**HEARING ON “COMMERCIAL AND PASSENGER VESSEL SAFETY:
CHALLENGES AND OPPORTUNITIES”**

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Good afternoon, Chairman Maloney, Ranking Member Gibbs, and members of the Subcommittee. Thank you for the opportunity to testify today on the Maritime Administration’s (MARAD) role in promoting the safety and security of U.S.-flag commercial vessels. Secretary Chao’s number one priority is safety, and that focus extends to MARAD’s programs. Safe operation of MARAD’s National Defense Reserve Fleet (NDRF) and Ready Reserve Force (RRF), the privately-owned commercial Maritime Security Program (MSP) and Voluntary Intermodal Sealift Agreement (VISA) fleets, and all other U.S.-flag vessels is critically important to our maritime industry. MARAD is actively engaged with U.S.-flag commercial vessel operators to alert them to security threats and collaborate with them on emerging technologies and best practices to improve safety at sea. MARAD also plays an important role in educating and training U.S. mariners to ensure they are ready to face the challenges of living and working at sea, which includes encountering sometimes hazardous environments.

Mariner Training

The marine environment can be dangerous by its very nature, so a well-trained workforce is critical to safe vessel operations. MARAD educates and trains U.S. merchant mariners at the U.S. Merchant Marine Academy (USMMA) and facilitates mariner education through the support we provide to the State Maritime Academies (SMAs). The U.S. Coast Guard (USCG) establishes training requirements that maritime academies must meet, and the USMMA and the SMAs modify their curricula accordingly. In addition, MARAD encourages the academies to incorporate lessons learned from real world incidents.

At the academies, deck and engineering cadets must complete training and assessments required to obtain USCG Unlimited Licenses as 3rd Mate and 3rd Assistant Engineer and the corresponding international Standards of Training, Certification and Watchkeeping endorsements as well. These training courses and assessments take place during the academies’

four-year curricula. In addition to classroom and practical training ashore, cadets and midshipmen receive hands-on shipboard training on commercial vessels, the academies' training vessels, or a combination of both.

For example, cadets at the USMMA receive formalized safety training throughout the curriculum. They learn everything from first aid and the proper use of personal safety equipment to aquatic survival and firefighting. As part of their education and training, USMMA cadets spend one year working and learning at sea on commercial U.S.-flag vessels, most of which are either MSP vessels or ships operated by the Military Sealift Command and crewed by civilian mariners. The cadets are integrated into the crews aboard these ships, which are actively engaged in commerce around the globe. Building on knowledge from the classroom, this first-hand experience solidifies the best working practices onboard the vessels, including safe vessel operations.

Cadets at the SMAs receive most of their at-sea training aboard vessels MARAD provides. One of the ways MARAD supports quality training for these cadets is providing them with safe and modern training vessels. Congress has appropriated funds the past two years to replace the oldest vessels in the aging training vessel fleet. The new training ships will provide state-of-the-art platforms to allow for future mariners to keep up with the ever-evolving global maritime industry. The new vessels have been designed specifically to provide a robust training environment including a second bridge, multiple simulators, and laboratories and classrooms designed to provide focus on specific curricula. While these vessels will primarily be used by SMA cadets, we anticipate that USMMA cadets will also gain required sea time aboard them.

Maritime Security

In addition to supporting U.S. mariner training, MARAD supports DOD strategic sealift requirements through our Government-owned vessels in the NDRF and RRF, as well as through assured access to commercial vessels in the MSP and VISA program. Security is a major concern for mariners who operate our ships and those who operate the broader commercial fleet. While we stay abreast of maritime security threats to our own assets, which include piracy, terrorism, criminal activity, or cyber-attack, MARAD also provides U.S.-flag vessels with timely information on those threats through interagency coordinated Maritime Alerts and Advisories. MARAD cooperates with the Departments of State, Defense, Justice, and Homeland Security, as well as the Intelligence Community, in providing those advisories. MARAD is also DOT's principal coordinator for maritime domain awareness functions and serves as a key facilitator between maritime industry and government agencies providing expert maritime security advice and assistance on issues involving the global maritime transportation system.

Moreover, the Cruise Vessel Security and Safety Act of 2010 (CVSSA) directed DOT to ensure proper and accurate reporting of incidents occurring on cruise vessels. This information is

collected from the FBI and made publicly available on the Department's website on a quarterly basis. The CVSSA also permitted MARAD to create a Training Provider Certification Program to help certify companies that provide commercial CVSSA training to cruise vessel members. Since its creation in 2015, this voluntary program has certified that training provided by these companies adheres to the training standards and curricula jointly developed by the U.S. Coast Guard, the Federal Bureau of Investigation, and MARAD. These training standards are enforced by the Coast Guard and include ensuring proper maintenance of video surveillance systems, displaying U.S. Embassy and Consulate information, and adhering to fire safety and emergency requirements for passengers.

Technology and Innovation to Improve Maritime Safety

Safety regulations do not always keep pace with new technologies and practices. As a result, national and international industry-developed consensus standards often fill the gap. MARAD collaborates with the USCG, maritime industry, and scientific and technological innovators to develop voluntary consensus standards that guide equipment requirements and usage. For example, in response to the surge in interest to use liquefied natural gas (LNG) as a marine fuel, MARAD led the development of standards for LNG transfer hoses and associated equipment. MARAD also uses its RRF and training vessels as platforms to demonstrate innovations in safety technology, including anti-snapback mooring lines and marine evacuation systems, where existing equipment poses risks to mariner safety.

MARAD is currently working with the U.S. Army Corps of Engineers and the National Oceanic and Atmospheric Administration (NOAA) on a project to automate weather reporting from vessels. After prototype testing on MARAD vessels, automated weather stations are being installed on U.S.-flag ships for further demonstration and validation. These systems report weather data at three minute intervals through the ship's automated identification system (AIS). Additional weather data obtained from ships much more frequently should improve weather forecasting and warnings, and hence improve vessel operational safety. Pairing this system with other on-board Global Positioning Systems (GPS) applications may also assist in detecting GPS spoofing (e.g., altering vessel location information), which is a growing cyber security threat.

The U.S. maritime workforce is a critical component to our Nation's economic and national security. Recognizing this, MARAD is looking at advances in remote operations that help to reduce hazards to mariners. MARAD recently partnered with industry to demonstrate remote operation of a spill response vessel that can help minimize mariner exposure to toxic chemicals. Similar remote technologies could be used in other areas where mariner risks are high, such as emergency response or vessel inspections. Remote systems also have a role to play in preventing intrusion and monitoring risks during maritime operations. MARAD is exploring additional

applications of data driven systems particularly in enhancing engineering and navigation systems.

Conclusion

MARAD looks forward to continued collaboration with our Federal partners and the maritime industry to improve vessel safety and security. I appreciate this subcommittee's interest and support for the U.S. merchant marine and am happy to answer any questions you may have.