

**STATEMENT OF  
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**BEFORE THE  
SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION  
SUBCOMMITTEE ON SURFACE TRANSPORTATION, AND MERCHANT MARINE  
INFRASTRUCTURE, SAFETY, AND SECURITY**

**The State of the U.S. Maritime Industry: The Federal Role**

**March 8, 2016**

Good afternoon, Chairwoman Fischer, Ranking Member Booker and Members of the Committee. Thank you for the invitation to testify on the state of the U.S. maritime industry. The United States is a maritime Nation: Our ports, inland rivers and waterways, Great Lakes and coastal ocean routes are essential to our global economic competitiveness, and the U.S. Merchant Marine plays a critical role in meeting national defense sealift and other security requirements and maintains a U.S. presence in international commercial shipping. To ensure a strong domestic maritime industry and U.S. Merchant Marine into the future, the Maritime Administration (MARAD) is focused on increasing the competitiveness of the U.S.-flag fleet, educating and training the next generation of merchant mariners, supporting innovation to address maritime energy and environmental issues, and addressing infrastructure challenges at our ports and on our inland rivers and waterways to increase mobility throughout the domestic transportation network. I will highlight each of these areas in my testimony today.

**THE U.S.-FLAG FLEET**

The U.S.-flag fleet is made up of vessels operating in both the domestic, coastwise trades and international trade. Our national policy for coastwise commerce is governed by the Merchant Marine Act of 1920, commonly referred to as the Jones Act, which reserves this trade for ships built in the United States, owned by U.S. citizens, and crewed by U.S. mariners. The national policy objectives for maintaining a U.S. Merchant Marine engaged in international maritime commerce is set forth in the Merchant Marine Act of 1936 as amended in 1970 which includes the objective that a substantial portion of our foreign trade should be carried on U.S. ships. Another policy goal of the 1936 Act is that our Nation's Merchant Marine, both ships and mariners, will serve as a naval auxiliary in times of war or national emergency.<sup>1</sup> These goals were reinforced in the 1989 National Security Directive 28, known as the National Security Sealift Policy.

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<sup>1</sup> 46 §U.S.C. 50101

## U.S.-Flag Fleet in Coastwise Trade

U.S. coastwise trade law<sup>2</sup> requires the use of qualified U.S.-flag vessels to carry our Nation's goods in domestic commerce, including trade with Puerto Rico, Hawaii and Alaska.<sup>3</sup> This same law also helps us to meet our national defense needs by supporting American built ships, the crews to operate them, and ensures that intermodal equipment, terminals and other infrastructure are available to the U.S. military in times of war or national emergency. Coastwise trade law promotes a strong and vibrant U.S. maritime industry, which helps the United States maintain its expertise in shipbuilding and maritime transportation. It also ensures that the vessels navigating our coastal and inland rivers and waterways abide by U.S. laws and operate under the oversight of the U.S. government.

More than 40,000 vessels operate in coastwise and inland trades. This includes 91 large self-propelled oceangoing vessels (1,000 gross tons or more) in domestic U.S. trade.<sup>4</sup> While the number of vessels is down from 125 in 2006, the decline is primarily due to the retirement of older tankers which are being replaced by large, oceangoing tank barges, most in the form of articulated tug-barges (ATBs). ATBs function in much the same way as self-propelled oceangoing vessels, but with smaller crews and slower speeds.

We do see encouraging signals for domestic industry growth with recent deliveries of new containerships and tankers qualified to operate in the coastwise trade. These containerships are among the first in the world that are able to be powered by U.S.-produced liquefied natural gas (LNG), making them one of the most environmentally friendly forms of freight transportation in the world.

The construction of these vessels demonstrates the benefit of the U.S.-build requirement of the coastwise law<sup>5</sup> to domestic shipbuilding. In 2013, American shipbuilders directly employed 110,000 Americans and produced \$37.3 billion in gross domestic product.<sup>6</sup> As of February 2016, there are seven tankers, two containerships, two containership roll-on/roll-off vessels (ConRos), 16 ATBs and several barges on U.S. shipyard order books.<sup>7</sup> These civilian shipyards and related

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<sup>2</sup> 46 U.S.C. 55102

<sup>3</sup> Currently, 91 large U.S.-flag self-propelled ocean-going vessels operate in U.S. domestic commerce. Although this segment of the fleet does not depend on government-impelled cargos, the crews of these vessels are qualified to operate sealift ships in the Government reserve fleet.

<sup>4</sup> *U.S. Army Corps of Engineers, Waterborne Transportation Lines of the United States, Calendar Year 2013, Volume 1- National Summaries, Table 1: SUMMARY OF THE UNITED STATES FLAG PASSENGER AND CARGO VESSELS OPERATING OR AVAILABLE FOR OPERATION ON DECEMBER 31, 2013 BY REGION.*

<sup>5</sup> 46 U.S.C. 55102

<sup>6</sup> *Economic Importance of the U.S. Shipbuilding and Repairing Industry*, Maritime Administration (November 2015) [http://www.marad.dot.gov/wp-content/uploads/pdf/MARAD\\_Econ\\_Study\\_Final\\_Report\\_2015.pdf](http://www.marad.dot.gov/wp-content/uploads/pdf/MARAD_Econ_Study_Final_Report_2015.pdf)

<sup>7</sup> Source: IHS Maritime Sea-Web, accessed February 2, 2016.

industries are part of the Federal shipbuilding and repair industrial base that ensures adequate American expertise and capacity to meet national shipbuilding needs.

### **U.S.-Flag Fleet in International Trade**

To defend American interests and carry out national policy overseas, the United States must be capable of deploying military forces anywhere in the world on short notice to meet contingency requirements. The U.S.-flag fleet of privately owned, commercially operated vessels, along with government-owned vessels, provide critical sealift surge and sustainment capacity to move equipment and materials for the Armed Forces and Federal agencies when needed, and where needed, during times of conflict, humanitarian crises, and natural disasters.

For example, during U.S. overseas contingency operations in Iraq and Afghanistan from 2002 to 2010, over 95 percent of all military ocean-borne cargoes were moved on U.S.-flag vessels and government-owned sealift vessels activated from reserve status and crewed by U.S. merchant mariners.<sup>8</sup> U.S.-flag vessels, strategic ports and intermodal systems ensure delivery of vital supplies and equipment to our military service members and their families stationed overseas.

### **Ready Reserve Force (RRF)**

MARAD manages and maintains a fleet of government-owned merchant ships in the National Defense Reserve Fleet (NDRF). This includes 45 RRF vessels that are maintained ready for operation within five days for transport of cargo to the area of operation and one RRF off-shore petroleum discharge vessel maintained ready for operation within 10 days to meet critical war fighting requirements. Vessels maintained in the RRF and NDRF, including training ships on loan to the six State Maritime Academies (SMAs), are also called upon for disaster response in an emergency, as was the case when one RRF ship and two training ships were activated in November 2012 to provide support for relief efforts following Hurricane Sandy, and more recently RRF ships supported the medical mission to Liberia for the United States contribution to the international Ebola Virus response in late 2014. Additionally, RRF and NDRF vessels can be configured to support other emergent situations as was the case in mobilizing the Motor Vessel (M/V) CAPE RAY for use in the international effort to destroy the Syrian Government's declared chemical weapon stockpile. That mission was completed in August of 2014.

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<sup>8</sup> The Use of Commercial Vessels and Intermodal Systems for Military Sealift 2002-2011, A Report of the NDTA Military Sealift Committee Working Group on Maritime Policy, Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF), National Defense Transportation Association, Arlington Va. (Feb. 28, 2003).

## **Maritime Security Program**

The Maritime Security Act of 1996 established the Maritime Security Program (MSP), which provides direct annual stipends for up to 60 active, commercially viable, militarily useful, privately-owned U.S.-flag vessels and crews operating in U.S. international trades. The MSP fleet ensures access to U.S.-flag ships in ocean-borne foreign commerce with the necessary intermodal logistics capability to move military equipment and supplies during armed conflict or national emergency, and also provides critical employment for up to 2,400 highly qualified U.S. merchant mariners. Under this program, participating operators are required to commit their ships, crews and commercial transportation resources upon request by the Secretary of Defense during times of war or national emergency. Of the 78 U.S.-flag vessels that trade internationally, 57 currently participate in the MSP program. MARAD recently approved one vessel to enter the program and is in the process of filling the remaining two vacancies in the program.

## **Cargo Preference Laws**

To encourage an active, privately owned and operated, U.S.-flag fleet, Congress enacted several measures known as “cargo preference” laws between 1904 and 1954. These laws require shippers to use U.S.-flag vessels to transport certain government-impelled ocean-borne cargoes. Specifically, under the Military Cargo Preference Act of 1904 and the Cargo Preference Act of 1954, 100 percent of military cargo, and at least 50 percent of government non-military cargo, including agricultural cargoes, must be carried on U.S. flag vessels. The cargoes provided under these programs help maintain the fleet of privately-owned U.S.-flag ships in global trade that provide ready access to ships and crews to transport equipment and supplies to support our Armed Forces when deployed globally.

## **Trends Concerning the U.S.-Flag Vessel Fleet Size**

The total number of vessels in the internationally trading U.S.-flag fleet has varied considerably over the years, rising from 92 in 2001 to 106 in 2011 and declining to 78 vessels in February 2016, continuing a long-term downward trend. Vessel owners take into account a variety of factors before making a decision to leave the fleet including the availability of government-impelled cargo and foreign-flag trading options for their vessels. In individual circumstances, particularly for operators that do not have the benefit of participating in the MSP, loss of government-impelled cargo could influence a vessel owner’s decision to retire vessels from the fleet or reflag.

Privately owned and operated ships remain under U.S.-flag only if there is cargo to move. Reductions in available preference cargo have contributed to a decline in the number of U.S.-flag vessels trading internationally, and in turn, a reduction in U.S. mariner jobs in international trade. While this does not preclude these mariners from seeking jobs in coastwise or Jones Act trades, they may not necessarily maintain the appropriate U.S. Coast Guard (USCG) Merchant Mariner

Credential (MMC) for international trade given that the number of large self-propelled ocean-going domestic trading vessels has not increased, but stayed roughly the same.

### **Sealift Manpower Assessment**

MARAD is responsible for determining whether adequate U.S. manpower is available to support the operation of sealift ships during a major crisis and is currently working with the Department of Defense (DOD) to address mariner requirements and to assess the availability and capacity of sealift assets to support national security. This assessment of the status of the U.S. civilian merchant mariner pool includes close coordination with maritime labor and consultation with other maritime industry stakeholders. Given that mariner service is completely voluntary, it is difficult to assess actual mariner availability to meet contingencies. At the same time, the domestic and international training requirements for mariners in domestic coastwise and international trade are increasing due to updated Standards of Training, Certification and Watchkeeping (STCW) requirements adopted at the International Maritime Organization that take effect in January 2017.

Currently, there are approximately 11,300 qualified mariners readily available to sail on either commercial or government reserve sealift ships. The initial activation of the 63 MARAD and Military Sealift Command surge vessels would require roughly 3,200 mariners for sustained operation. This is in addition to continued operation of the privately-owned commercial fleet. While it appears possible to meet the initial four to six months of sealift surge with available mariners, maintaining sustained operations that require crew rotation on both government and commercial vessels, including vessels that are not carrying military cargo, could be severely challenged. Given this assessment, I am working closely with the U.S. Transportation Command, the U.S. Navy (Military Sealift Command), and the commercial maritime industry to develop proposals to maintain an adequate number of trained mariners.

### **MARINER TRAINING**

It takes many years of training to develop the necessary mariner competencies for officer and engineering positions on vessels; therefore, maintaining an adequate pool of American merchant mariners is vital to the commercial success of both the U.S.-flag fleet and the capacity to project American sea power. The average age of USCG credentialed merchant mariners is 46, and the workforce is retiring faster than it is being replaced.<sup>9</sup> Since the maritime segment of transportation workers is relatively small, the effect of a large percentage of older workers is likely to be significant on the entire transportation workforce. Given the high average age of the credentialed mariner workforce, the expected separation rate of workers from the industry (i.e., those leaving the

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<sup>9</sup> Bureau of Labor Statistics, Occupational Outlook Handbook, <http://www.bls.gov/ooh/transportation-and-material-moving/water-transportation-occupations.htm> accessed March 3, 2016.

industry, retirements, and expected job growth), and time needed to gain shipboard experience, there could be a critical need for senior mariners to meet employment demand between now and 2022.

Both the U.S. Merchant Marine Academy (Academy) and the SMAs provide training for USCG credentialed Merchant Marine officers. The Academy graduates each year one quarter of the Nation's new highly skilled, entry-level Merchant Marine officers who hold an unlimited tonnage or horsepower endorsement available to support the U.S. Merchant Marine and national maritime industry infrastructure. To meet USCG licensing requirements, Midshipmen are required to have 360 days of sea service during their four-year education program. This at-sea experience qualifies midshipmen for both their domestic USCG MMC and their international STCW endorsements. The Academy's shipboard training program exposes Midshipmen to life at sea on board commercial and military vessels and enables commercial U.S. shipping companies and the U.S. Navy (Military Sealift Command) an opportunity to provide seamanship and engineering training. In 2016, 230 Midshipmen are expected to graduate from the Academy. Presently, with rare exceptions, all of these graduates are commissioned on active duty or into a reserve unit of the Armed Services or other uniformed services of the United States and provide a guaranteed source of mariners to crew government owned surge sealift vessels when activated.

The six State Maritime Academies (SMAs) collectively graduate more than two-thirds of the entry-level Merchant Marine officers annually.<sup>10</sup> More than 660 Cadets are expected to graduate from the SMAs in 2016. As part of its support to the SMAs, MARAD provides ships<sup>11</sup> on loan to the SMAs to support at-sea training. Unlike the Academy, SMA Cadets receive most of their sea time to qualify for their MMC and STCW endorsements on these MARAD-provided training ships rather than on commercial or military vessels. The available SMA training ships are aging with an average age of 37 years. MARAD is addressing priority maintenance across all the aging training vessels to ensure that they all meet safety and functional requirements and can stay in service as long as possible. In addition, MARAD is looking into appropriate next steps to ensure adequate shipboard training capacity remains available in order to produce sufficient quantity and quality of mariners to support sealift needs into the future.

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<sup>10</sup> The six SMAs are: California Maritime Academy in Vallejo, CA; Great Lakes Maritime Academy in Traverse City, MI; Texas A&M Maritime Academy in Galveston, TX; Maine Maritime Academy in Castine, ME; Massachusetts Maritime Academy in Buzzards Bay, MA; and State University of New York (SUNY) Maritime College in the Bronx, NY.

<sup>11</sup> 46 U.S.C. 51504

## **ENVIRONMENT**

Air emissions control and the prevention of invasive species spread through ballast water and other means remain the most significant environmental challenges for the maritime industry. MARAD works in partnership with other Federal agencies, academia and the maritime industry, and with continued support from Congress for the Maritime Environmental and Technical Assistance (META) Program, progress is being made on both of these fronts. Recent projects have demonstrated the feasibility of using biofuels and LNG for maritime propulsion, and the use of hydrogen and other fuel cells for shipboard and shoreside applications; however, challenges still exist. No ballast water management system has yet been Coast Guard certified as capable of meeting U.S. standards, but with MARAD assistance, progress is being made to help assess the effectiveness of control systems and to advance invasive species control science.

## **THE MARITIME TRANSPORTATION SYSTEM**

The U.S. maritime transportation system employs more than 200,000 workers in water transportation and ship and boat building, and another 95,000 in support of the maritime industry.<sup>12</sup> In 2014, the maritime industry, including those that serve foreign transportation needs, added \$18.5 billion to our Gross Domestic Product.<sup>13</sup> The maritime transportation system is a critical component of our national transportation system of ports, railways, roads, pipelines and waterways, and the maritime component is our primary access to global trade. As our country grows, so does demand for freight transportation.

Freight congestion in and around our Nation's ports continues to grow and will be exacerbated by ever larger mega containerships and growing multi-partner shipping alliances, whereby multiple shippers agree to share the capacity of a single vessel to improve capacity utilization and lower per unit shipping costs. Large ships calling at our container ports create surges in freight moving into and out of ports. These surges create logistical challenges with the availability and storage for equipment such as chassis and empty containers, long lines and wait times for trucks entering ports, adequate space for safe truck parking, and traffic on the intermodal road and rail infrastructure connecting to the ports.

In many cases, our ports and their surrounding infrastructure are in need of repair and modernization to accommodate the needs of increasingly larger vessels in the commercial merchant fleets that handle our trade. In recognition of these challenges, both Congress and the

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<sup>12</sup> Department of Transportation, Bureau of Transportation Statistics – Occupational Employment Statistics (May 2014). Include those employed in water transport (NAICS 483000), ship and boatbuilding, (NAICS 336600), support activities for water transportation (NAICS 488300).

<sup>13</sup> Department of Commerce, Bureau of Economic Analysis, Gross-Domestic-Product-(GDP)-by-Industry 2014.

Administration have been taking steps to further integrate the marine transportation system into surface transportation planning and programs.

One of those efforts was rolled out in February of last year, when Secretary Foxx released the draft report *Beyond Traffic 2045: Trends and Choices*, which created a baseline for the discussion of marine transportation's role in our Nation's transportation system as it evolves over the next 30 years. Following that, Congress passed the Fixing America's Surface Transportation (FAST) Act, which further integrates ports into the surface transportation system by making them eligible for funding under the new National Highway Freight Program (NHFP) and the Nationally Significant Freight and Highway Projects Program.

MARAD is also working to develop a robust Marine Highway system aimed at providing a viable and efficient transportation option for shippers to move freight more efficiently, avoiding congested cities and towns. The America's Marine Highway Program is focused on facilitating partnerships between service operators and potential shippers, as well as State DOTs, Metropolitan Planning Organizations, and Economic Development Agencies at the Federal, State and local level in order to create opportunities for new services. In FY 2016, MARAD will be assisting sponsors of designated Marine Highway projects to conduct planning and develop equipment and infrastructure necessary to bring these new services to life.

## **THE DEPARTMENT OF TRANSPORTATION'S NATIONAL MARITIME STRATEGY**

MARAD is taking action to aid the Department's efforts in safe and efficient freight transportation, and to address the issues that challenge the U.S. maritime industry through the development of a draft National Maritime Strategy. We expect to publish the draft strategy in the coming months, which will be available for public comment before MARAD finalizes it. As required in section 603 of the Howard Coble Coast Guard and Maritime Transportation Act of 2014, the strategy will identify Federal regulations and policies that reduce the competitiveness of U.S.-flag vessels operating in foreign trade; and the impact of reduced cargo flow due to reductions in military deployment overseas. It will also include recommendations to make U.S.-flag vessels more competitive and increase the use of U.S.-flag vessels in foreign trade, ensure compliance by Federal agencies with cargo preference laws, increase the use of third-party inspection and certification authorities to inspect and certify vessels; increase the use of short sea transportation routes; and enhance United States shipbuilding capability. Following publication of the draft strategy for public comment, I look forward to providing the strategy to the committee.

Again, thank you for inviting me to testify today. I appreciate your interest and continued support for the maritime industry and the U.S. Merchant Marine and will be happy to answer any questions you may have.