

**U.S. MARITIME AND SHIPBUILDING INDUSTRIES:
STRATEGIES TO IMPROVE REGULATION, ECO-
NOMIC OPPORTUNITIES, AND COMPETITIVE-
NESS**

(116-4)

HEARING
BEFORE THE
SUBCOMMITTEE ON
COAST GUARD AND MARITIME TRANSPORTATION
OF THE
COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES
ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

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Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

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FEBRUARY 28, 2019

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Coast Guard and Maritime Transportation
FROM: Staff, Subcommittee on Coast Guard and Maritime Transportation
RE: Hearing on “U.S. Maritime and Shipbuilding Industries: Strategies to Improve Regulation, Economic Opportunities, and Competitiveness”

PURPOSE

The Subcommittee on Coast Guard and Maritime Transportation will hold a hearing on Wednesday, March 6, 2019, at 10 o'clock a.m., in 2253 Rayburn House Office Building to examine the State of the U.S. flag Maritime Industry. The Subcommittee will hear testimony from the U.S. Coast Guard, the Maritime Administration (MARAD), and representatives of the maritime industry.

BACKGROUND

U.S. MERCHANT MARINE

The U.S. merchant marine is the fleet of U.S. documented (flagged) commercial vessels and civilian mariners that carry goods to and from, as well as within, the United States. These vessels are operated by a crew of U.S. licensed deck and engineering officers and unlicensed seafarers. During times of peace and war, the U.S. merchant marine acts as a naval auxiliary to deliver troops and war material to military operations abroad. Throughout our history, the Navy has relied on U.S. flagged commercial vessels to carry weapons and supplies and ferry troops to the battlefield. During Operations Enduring Freedom and Iraqi Freedom, U.S. flagged commercial vessels transported 90 percent of sustainment cargoes moved to Afghanistan and Iraq.¹

The merchant marine was formally recognized in statute with the passage of the *Merchant Marine Act of 1920* (46 U.S.C. Subtitle V). Section 50101(a) of title 46, United States Code, States that “[i]t is necessary for the national defense and the development of the domestic and foreign commerce of the United States that the United States have a merchant marine . . .” Sections 50101(b) and 51101 of title 46, United States Code, establish that “[i]t is the policy of the United States to encourage and aid the development and maintenance of the merchant marine . . .” and that “merchant marine vessels of the United States should be operated by highly trained and efficient citizens of the United States . . .”

Currently, there are approximately 41,000² non-fishing related commercial vessels flagged and operating in the United States. The vast majority of these vessels are engaged in domestic waterborne commerce, generally referred to as the “Jones Act trade,” moving 115 million passengers³ and nearly \$300 billion worth of goods⁴ between ports in the United States on an annual basis. Each year, the domestic

¹ Maritime Administrator Mark H. Buzby Testimony before the House Committee on Armed Services on March 8, 2018.

² USACE, Waterborne Transportation Lines of the United States Calendar Year 2016, <http://www.navigationdatacenter.us/veslchar/pdf/WTLUS2016.pdf>.

³ National Strategy for the Marine Transportation System: Channeling the Maritime Advantage 2017–2022, http://www.cmts.gov/downloads/National_Strategy_for_the_Marine_Transportation_System_October_2017.pdf.

⁴ Economic Contribution of the US Tugboat, Towboat, and Barge Industry, <https://www.marad.dot.gov/wp-content/uploads/pdf/Econ-Impact-of-US-Tugboat-Towboat-and-Barge-Industry-lh-6-22-17.pdf>.

coastwise fleet carries nearly 900 million tons (877 million in 2016) of cargo⁵ through the inland waterways, across the Great Lakes, and along the Atlantic, Pacific, and Gulf of Mexico coasts.

The U.S. Government-owned fleet consists of 15 vessels operated by the Military Sealift Command and 46 vessels in the Maritime Administration's (MARAD) Ready Reserve Force. Together, these vessels provide the initial surge of military capability while the commercial fleet is responsible for the ongoing sustainment.

Of the 41,000 U.S. flagged vessels, approximately 82 are operating in international commerce moving goods between U.S. and foreign ports.⁶ These vessels serve as a training and employment base for the civilian mariners who serve aboard the Government-owned fleet when they are called to deploy. The percentage of international commercial cargoes carried on U.S. flagged vessels has fallen from 25 percent in 1955 to approximately 1.5 percent today.⁷ Over the last 35 years, the number of U.S. flagged vessels sailing in the international trade dropped from 850 to 82 vessels. This decline corresponds with a decrease in U.S. mariners resulting in an estimated shortfall of 1,800 qualified mariners needed to crew the Government-owned fleet.⁸ Since the Department of Defense relies on civilian mariners to crew the Government-owned fleet through the Maritime Security Program (MSP) and the Voluntary Intermodal Sealift Agreement (VISA), maintaining a pool of highly trained mariners is imperative.

Within the international U.S. flag fleet, 60 vessels are enrolled in the Maritime Security Program. Under this program, militarily useful oceangoing commercial vessels each receive an annual operating stipend of \$5 million to provide military sealift for the United States Transportation Command within the Department of Defense (DoD).

U.S. SHIPBUILDING INDUSTRY

Since the development of the clipper ships in the 1830's, the United States has a long tradition of producing some of the most modern and sophisticated vessels in the world. Today, U.S. shipyards of all sizes deliver a wide variety of commercial vessels including patrol boats, tugs, barges of all sizes, ferries, ocean going container and roll-on/roll-off (RORO) vessels, tankers, and oil and gas development support vessels, among many others. The U.S. commercial shipyard industry, as well as its supplier base, is essential to maintaining the government shipbuilding and ship repair industrial base.

Currently there are 117 shipyards in the United States, spread across 26 States that are classified as active shipbuilders (Appendix A). In addition, there are more than 200 shipyards engaged in ship repairs or capable of building ships, but not actively engaged in shipbuilding. In 2011, the U.S. private shipbuilding and repairing industry directly provided 107,240 jobs, \$7.9 billion in labor income, and \$9.8 billion in gross domestic product (GDP) to the national economy.

The Federal Government, including the U.S. Navy, U.S. Army, and U.S. Coast Guard, is an important source of demand for U.S. shipbuilders. While just 1 percent of the vessels delivered in 2011 (15 of 1,459) were delivered to U.S. Government agencies, eight of the 11 large deep-draft vessels delivered were delivered to the U.S. Government, and roughly 70 percent of U.S. shipbuilding revenues came from military shipbuilding and repair.⁹

U.S. MERCHANT MARINE LAWS AND PROGRAMS

Since 1789, Congress has passed several laws to help keep the U.S. merchant marine competitive in the global economy and maintain a sealift and shipyard industrial capacity necessary for our national security. In addition to the Maritime Security Program, these laws and programs include the Jones Act, Cargo Preference, and the Military-to-Mariner Program.

Jones Act

The Jones Act first came into effect as part of the *Merchant Marine Act of 1920* to encourage the development of a strong merchant marine for both national defense

⁵The U.S. Waterway System 2016 Transportation Facts & Information, <http://www.navigationdatacenter.us/factcard/FactCard2016.pdf>.

⁶U.S. Department of Transportation Maritime Administration United States Flag Privately Owned Merchant Fleet Report November 2017.

⁷MARAD Calculation using CBP, Census, and commercial data sources.

⁸Maritime Administrator Mark H. Buzby Testimony before the House Committee on Armed Services on March 8, 2018.

⁹Figure 5, The Economic Importance of the U.S. Shipbuilding and Repairing Industry, Maritime Administration, November 2015.

and economic security. The Jones Act contains a number of provisions designed to encourage a robust U.S. shipbuilding capacity and employment opportunities for U.S. mariners:

1. U.S. Owned and Flagged—Chapter 551 of title 46, United States Code, requires that merchandise and passengers being transported by water between two points in the United States must travel on vessels owned by U.S. citizens and registered or “flagged” in the United States with an endorsement by the Coast Guard to participate in the coastwise trade;
2. U.S. Built—Chapter 121 of title 46, United States Code, requires vessels to be eligible for a coastwise endorsement to be built in the United States. Chapters 551 and 801 of title 46, United States Code, also place restrictions on the involvement of foreign owned, built, and flagged vessels in towing, dredging, and salvage activities in U.S. waters;
3. U.S. Crewed—Chapter 81 of title 46, United States Code, requires the master, all of the officers, and at least three-quarters of the crew to be U.S. citizens in order for a vessel to be flagged in the United States; and
4. Rebuild/Reflag Prohibition—Chapter 121 also prohibits vessels that were once eligible to engage in the U.S. coastwise trade and then later sold to a foreign citizen, documented under a foreign registry, or rebuilt outside the United States from engaging in the coastwise trade (a vessel may be considered rebuilt when work performed on its hull or superstructure constitutes more than 7.5 percent of the vessel’s steelweight prior to the work).

The Coast Guard is responsible for reviewing applications from vessel owners seeking a coastwise endorsement to participate in the Jones Act trade. The Coast Guard determines whether the owners meet the U.S. citizenship requirements and whether the vessel was built in the United States, or the extent to which it was rebuilt outside the United States, before it will issue a coastwise endorsement.

U.S. Customs and Border Protection (CBP) determines whether the cargo to be moved on a vessel constitutes “merchandise” under section 55102 of title 46, United States Code. CBP also determines whether the movement of that cargo is transportation and subject to the Jones Act.

Section 501 of title 46, United States Code, provides a mechanism to waive the Jones Act and other vessel navigation and inspection laws. The Jones Act can be waived by the Secretary of the department in which the Coast Guard is operating under subsection 501(a), at the request of the Secretary of Defense and to the extent the Secretary of Defense considers it necessary in the interest of national defense. Under subsection 501(b), the Secretary of Homeland Security may waive requirements for the use of a coastwise endorsed vessel for the purposes of national defense, only after a determination by the MARAD Administrator that no U.S. flagged, owned, built, and crewed vessels are available. Both authorities have been used sparingly by the executive branch, and most commonly to respond to instances of natural disasters or national emergencies.

Preference Cargo Laws and Programs

The Cargo Preference Act of 1954 was designed to support an internationally trading commercial U.S.-flagged fleet. It requires that at least 50 percent of government impelled cargo is transported on privately owned U.S. flag ships. These vessels provide economic and national security by transporting cargo for the Department of Defense as well as serving as an employment base for the civilian mariners who are responsible for crewing the Government-fleet in times of war. Several Cargo Preference provisions promote the use of U.S. flagged vessels.

1. U.S. Owned and Financed—Chapter 553 of title 46, United States Code, requires that cargo procured, furnished, and financed by the U.S. Government must travel on vessels registered or “flagged” in the United States. This includes the movement of government personnel on official business. In 2008, statutory amendments expanded application to vessels financed by the Federal Government as well (P.L. 110–417, § 3511).
2. International Aid—Chapter 553 of title 46, United States Code, requires at least 50 percent of the gross tonnage of U.S. agricultural commodities provided under U.S. food aid programs must ship via U.S.-flag commercial vessels. Section 55305 of title 46, United States Code, requires that ships eligible for food-aid cargoes must either be built in the United States, or, if built abroad, must have sailed under the U.S. flag for the previous 3 years. In 2012, chapter 553 was amended to reduce the percentage of food aid that must be shipped on U.S.-flag ships from 75 percent to 50 percent.

Shipping operators are responsible for reporting the movement of preference cargo within thirty days of loading goods by providing receipt of the shipment to MARAD, the administering authority (P.L. 91–469). Shippers are required to go to “great ef-

fort” to secure U.S.-flag service before using a foreign carrier, communicating with U.S.-flag carriers at the earliest possible time to ensure the greatest degree of coordination and to obtain the best freighted rates. If, through demonstrably diligent efforts, they are unable to find U.S.-flag service, MARAD can issue a determination of the non-availability of qualified U.S.-flag carriage.

Military-to-Mariner Program

A healthy maritime sector is vital to our economy and national security. A significant proportion of U.S. mariners are nearing retirement age, prompting a potential future shortage of available and experienced maritime professionals which could impact military sealift and U.S. maritime commerce. Trained mariners separating from military service (e.g., Navy, Marine Corps, Coast Guard, Army), could help compensate for a potential shortage. Maritime stakeholders are aware of this looming workforce attrition and have expressed concern that more should be done now to maximize the potential of this highly trained, dedicated, and proficient labor pool.

Originally formed in 1992, the Merchant Marine Personnel Advisory Committee (MERPAC) was statutorily authorized in section 310 of the *Howard Coble Coast Guard and Maritime Transportation Act of 2014* (46 U.S.C. 8108). MERPAC advises the Secretary of Homeland Security, through the Commandant of the Coast Guard, on matters relating to personnel in the United States Merchant Marine including training, qualifications, certification, documentation, and fitness standards and other matters, as assigned. MERPAC meets twice a year and as of February 2017, has made 88 recommendations to streamline the process for military mariners to obtain their U.S. Merchant Mariner credentials and increase the participation of each military service in maintaining crosswalks and course approvals.

Section 305 of the *Howard Coble Coast Guard and Maritime Transportation Act of 2014* (P.L. 113–281) encouraged opportunities for sea service veterans by authorizing the Secretary of Homeland Security to issue an officer endorsement to a military mariner who: (1) has at least 3 months of qualifying service on a vessel of the uniformed services within the 7-year period immediately preceding the date of application; and (2) satisfies all other requirements for such a license. Section 305 also requires the Secretary to issue a sea service letter to a member or former member of the Coast Guard within 30 days of making such a request for an officer endorsement.

Section 568 of the *National Defense Authorization Act for Fiscal Year 2017* (P.L. 114–328) requires the Secretaries of Defense and Homeland Security to report to Congress on how the DoD can better harmonize active duty training requirements for military service members with the credentialing requirements for similar civilian merchant marine industry positions. Additionally, the Secretaries were directed to identify and rectify gaps that exist between current military standards and commercial credentialing standards. The DoD transmitted the report to Congress on September 28, 2017.

INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING (STCW)

The STCW sets qualification standards for masters, officers, and watch personnel on seagoing merchant ships. The STCW was adopted in 1978 by conference at the International Maritime Organization (IMO) in London, and entered into force in 1984. The IMO implements the convention which is designed to ensure global standards are in place to train and certify seafarers among all flag States. The Coast Guard enforces STCW requirements as implemented under U.S. law for U.S. flagged carriers.

In 2010, after a 2-year comprehensive review of the entire STCW Convention and the STCW Code, the IMO adopted the “Manila Amendments.” In 2011, the Coast Guard proposed changes to amend its regulations to fully harmonize and incorporate the requirements for national licenses with those of the Manila Amendments.¹⁰ On December 24, 2013, the Coast Guard published a Final Rule to incorporate the 2010 Amendments into U.S. regulations. Full implementation of the 2010 Amendments took effect on July 1, 2017.

The most significant amendments include new rest hours for seafarers, new certificate of competency grades, updated training requirements, mandatory security training, and additional medical standards.

¹⁰ August 1, 2011 Proposed Rule (RIN 1625-AA16) outlines the changes to U.S. regulations proposed by the Coast Guard.

U.S. MARITIME AND SHIPBUILDING INDUSTRIES: STRATEGIES TO IMPROVE REGULATION, ECONOMIC OPPORTUNITIES, AND COMPETITIVENESS

WEDNESDAY, MARCH 6, 2019

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COAST GUARD AND
MARITIME TRANSPORTATION,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:01 a.m. in room 2253, Rayburn House Office Building, Hon. Sean Patrick Maloney (Chairman of the subcommittee) presiding.

Mr. MALONEY. Good morning. The subcommittee will come to order. Welcome to the first hearing of the 116th Congress. We are going to look at strategies to improve the U.S. maritime and shipbuilding industry. It is an honor to chair this crucial subcommittee. I look forward to working alongside the maritime community, including the Coast Guard.

The Subcommittee on Coast Guard and Maritime Transportation and its predecessors has been around in one form or another throughout the history of our country, supporting all of our maritime activities. I am privileged to assume the mantle of responsibility. I look forward to working in a genuine bipartisan manner with all of my colleagues on the other side of the aisle, with Ranking Member Gibbs, so we can write a new productive chapter in this subcommittee's history. And I really mean that, and I really want to run this committee in a way that is bipartisan and that is participatory, so thank you, gentlemen, for being here this morning.

Before we begin I want to take a moment to recognize and thank the members of the Coast Guard, in particular, for their actions during the recent Government shutdown. You know, for the first time in our Nation's history members of an armed service force were not paid due to a lapse in appropriations. That was unacceptable, and something we cannot allow to occur again.

To the men and the women of the Coast Guard, you deserve an apology from your Government, for what we put you through. And I, for one, am happy to deliver it. I don't think it is productive to get into a blame game here, except to say we appreciate you, we appreciate your service, and we should not have put you in that position. And I know a lot of us are committed to never doing so again, and we have some ideas on that, as well.

I also want to remember, in particular, Chief Warrant Officer Michael Kozloski, a Coast Guard member who died in a tragic accident while on duty in January in Alaska. You know, Mike Kozloski dedicated his entire adult life to protecting our country as a member of the Coast Guard, and his service will not be forgotten. Our thoughts go out to his wife, Brie, and to his children.

And I want to thank in particular Admiral Schultz, the Commandant, for joining me at the funeral in Mahopac, New York. It was not just Mike's hometown, it is in my district. It is about 10 miles from where I live. So we felt that loss in the Hudson Valley, it was close to home. So we appreciate Mike and his family. We lift them up in our prayers.

And again, thank you to all of the members of the Coast Guard who attended that beautiful service. It was really a wonderful opportunity for me to see firsthand that the Coast Guard works as a family. And we should act as members of your family on this committee, even as we ask tough questions and do our jobs.

Now, of course, one cannot overstate the importance of our Nation's maritime industry. Every year over \$4.6 trillion worth of commerce flows through our maritime transportation system, and it is rapidly becoming more complex. Increases in the amount of cargo being shipped and the size of the vessels carrying that cargo challenge the industry and agencies responsible for its oversight.

Similarly, new technologies are moving the industry forward, while also creating new vulnerabilities and challenges that must be addressed. So my hope is that this hearing will begin the dialogue to identify constructive, pragmatic strategies to protect, enhance, and expand the U.S. maritime and shipbuilding industries.

Since 1789, Congress has passed laws to help keep the U.S. merchant marine competitive in the global economy, and to maintain a military sealift and shipyard industrial capacity necessary to ensure our national security. Durable maritime statutes, such as the Jones Act, cargo preference, and the maritime loan guarantee program have been supplemented by new program authorities such as the Maritime Security Program, small shipyard grant program, and the Military to Mariner initiative.

The Jones Act first came into effect as part of the Merchant Marine Act of 1920 to encourage the development of a strong merchant marine for both national defense and economic security. The Jones Act requires that merchandise and passengers being transported by water between two points in the United States must travel on vessels that are built in the U.S., owned and manned by U.S. citizens, and registered or flagged in the United States, with an endorsement by the Coast Guard to participate in the coastwise trade.

Ninety-one United Nations member states have similar laws to the Jones Act, which are called cabotage laws. Some maritime nations are expanding the scope of their cabotage laws, despite the proliferation of global free trade agreements. For example, last year Russia enacted a law requiring that all domestic and international shipments of oil, natural gas, gas condensate, and coal extracted from Russian Territory and loaded on vessels along the North Sea route must be carried by Russian-flagged ships.

Despite other countries' cabotage laws, some free trade critics continue to attack the Jones Act as unnecessary, unhelpful to the U.S. economy. But we cannot become complacent in our defense of the Jones Act, which remains a critical component of U.S. maritime strategy.

Another critical component of that strategy is the U.S. merchant marine, the fleet of the U.S.-flagged commercial vessels and civilian mariners that carry goods to and from, as well as within, the United States. These vessels are operated by U.S.-licensed deck and engineering officers and unlicensed seafarers. A significant portion of U.S. mariners are nearing retirement age, revealing a potential future shortage of available and experienced maritime professionals that could impact military sealift and weaken U.S. maritime commerce: a point I expect Admiral Buzby will make today.

Maritime stakeholders are aware of this looming workforce attrition, and have expressed concern that more should be done now to expand this highly trained, dedicated, and proficient labor pool by any means necessary. So it is imperative that we examine every opportunity to grow and diversify the U.S. mariner workforce, including making it easier for separating military members to enter the maritime workforce and identifying ways we might better leverage the capabilities of State maritime academies.

In addition to facilitating commerce in times of peace and war, the U.S. merchant marine acts as a naval auxiliary to deliver troops and war material to military operations abroad. Throughout our history the Army has relied on U.S.-flagged commercial vessels to carry weapons and supplies and ferry troops to the battlefield. During Operations Enduring Freedom and Iraqi Freedom, U.S.-flagged commercial vessels transported 90 percent of sustainment cargoes moved to Afghanistan and Iraq. That is an extraordinary number.

But the U.S.-flagged fleet in the foreign trade has shrunken to the point that it is a remnant of what it was just 10 years ago. We must do more to address the competitive imbalance that exists between vessels operating under the U.S. flag with vessels operating under foreign flags of convenience.

Additionally, we must do more to generate new cargo. Cargo is the life blood of the maritime industry. Without more cargo, there is no need to build more ships. And without new ships, there is little need to hire more mariners. I would like to learn more about what options or strategies we might consider to address these two fundamental challenges to the security and success of the U.S. maritime industry.

So we are joined here today by experts from the U.S. Coast Guard and the Maritime Administration, as well as professionals from many sectors of the maritime industry.

Welcome to one and all; we appreciate your being here. I look forward to hearing from you on how we might strengthen this indispensable sector of the U.S. economy.

[Mr. Maloney's prepared statement follows:]

Prepared Statement of Hon. Sean Patrick Maloney, a Representative in Congress from the State of New York, and Chair, Subcommittee on Coast Guard and Maritime Transportation

Good morning, and welcome to our first hearing in the 116th Congress to look at strategies to improve the U.S. maritime and shipbuilding industries.

It is an honor to chair this crucial subcommittee, and I look forward to working alongside our maritime community, including the Coast Guard. The Subcommittee on Coast Guard and Maritime Transportation and its predecessors have been around in one form or another throughout the history of our country, supporting all of our maritime activities.

I am privileged to assume that mantle of responsibility, and I look forward to working in a genuine bipartisan manner with Ranking Member Gibbs to write a new productive chapter in this subcommittee's history.

Before we begin, I want to take a moment to recognize and thank the members of the Coast Guard for their actions during the recent government shutdown. For the first time in our Nation's history, members of an Armed Force were not paid due to a lapse in appropriations. It was unacceptable and something we cannot allow to occur again. To the men and women of the Coast Guard: thank you for the service you provide to this Nation every day.

I also want to remember Chief Warrant Officer Michael Kozloski, a Coast Guard member who died in a tragic accident while on duty in January. Chief Warrant Officer Kozloski dedicated his entire adult life to protecting our country as a member of the Coast Guard, and his service will not be forgotten. Our thoughts go out to his family and shipmates.

One cannot overstate the importance of our nation's maritime industry. Every year, over \$4.6 trillion worth of commerce flows through a maritime transportation system that is rapidly becoming more complex. Increases in the amount of cargo being shipped and the size of the vessels carrying that cargo challenge the industry and agencies responsible for its oversight.

Similarly, new technologies are moving the industry forward while also creating new vulnerabilities and challenges that must be addressed. My hope is that this hearing will begin a dialogue to identify constructive and pragmatic strategies to protect, enhance and expand the U.S. maritime and shipbuilding industries.

Since 1789, Congress has passed laws to help keep the U.S. merchant marine competitive in the global economy and to maintain a military sealift and shipyard industrial capacity necessary to ensure our national security. Durable maritime statutes such as the Jones Act, Cargo Preference, and the Maritime Loan Guarantee Program, have been supplemented by new program authorities such as the Maritime Security Program, Small Shipyard Grant Program and the Military-to-Mariner Initiative.

The Jones Act first came into effect as part of the Merchant Marine Act of 1920 to encourage the development of a strong merchant marine for both national defense and economic security. The Jones Act requires that merchandise and passengers being transported by water between two points in the United States must travel on vessels that are built in the U.S., owned and manned by U.S. citizens, and registered or "flagged" in the United States with an endorsement by the Coast Guard to participate in the coastwise trade.

Ninety-one United Nations member states have laws similar to the Jones Act, which are called "cabotage laws". Some maritime nations are expanding the scope of their cabotage laws despite the proliferation of global free trade agreements.

For example, last year Russia enacted a law requiring that all domestic and international shipments of oil, natural gas, gas condensate, and coal extracted from Russian territory and loaded on vessels along the Northern Sea Route must be carried by Russian-flagged ships.

Despite other countries' cabotage laws, some free trade critics continue to attack the Jones Act as unnecessary or unhelpful to the U.S. economy. But we cannot become complacent in our defense of the Jones Act, which remains a critical component of U.S. maritime strategy.

Another critical component of that strategy is the U.S. merchant marine—the fleet of U.S. flagged commercial vessels and civilian mariners that carry goods to and from, as well as within, the United States. These vessels are operated by U.S. licensed deck and engineering officers and unlicensed seafarers.

A significant proportion of U.S. mariners are nearing retirement age, revealing a potential future shortage of available and experienced maritime professionals that could impact military sealift and weaken U.S. maritime commerce—a point I expect Admiral Buzby will make today. Maritime stakeholders are aware of this looming workforce attrition and have expressed concern that more should be done now to

expand this highly-trained, dedicated, and proficient labor pool by any means necessary.

It is imperative that we examine every opportunity to grow and diversify the U.S. mariner workforce, including making it easier for separating military members to enter the maritime workforce and identifying ways we might better leverage the capabilities of state maritime academies.

In addition to facilitating commerce in times of peace and war, the U.S. Merchant Marine acts as a naval auxiliary to deliver troops and war material to military operations abroad. Throughout our history, the Army has relied on U.S. flagged commercial vessels to carry weapons and supplies and ferry troops to the battlefield. During Operations Enduring Freedom and Iraqi Freedom, U.S. flagged commercial vessels transported 90 percent of sustainment cargoes moved to Afghanistan and Iraq.

But the U.S. flag fleet in the foreign trade has shrunken to the point that it is a remnant of what it was just ten years ago. We must do more today to address the competitive imbalance that exists between vessels operating under the U.S. flag with vessels operating under foreign flags of convenience.

Additionally we must do more to generate new cargo. Cargo is the lifeblood of the maritime industry. Without more cargo, there is no need to build more ships, and without new ships, there is little need to hire more mariners.

I would like to learn more about what options or strategies we might consider to address these two fundamental challenges to the security and success of the U.S. maritime industry.

We are joined here today by experts from the U.S. Coast Guard and the Maritime Administration, as well esteemed professionals from many sectors of the maritime industry. Welcome to one and all. I look forward to hearing from you on how we might strengthen this indispensable sector of the U.S. economy.

Thank you.

Mr. MALONEY. I would now like to call on the ranking member of the subcommittee, Mr. Gibbs, for any opening remarks.

Mr. GIBBS. Thank you. Thank you, Chairman Maloney.

First, a procedural question. Representative Garret Graves from Louisiana, I just request that you ask unanimous consent that he sit in.

Mr. MALONEY. Yes, I think you are asking for a unanimous consent on that?

Mr. GIBBS. Yes.

Mr. MALONEY. Hearing no objection, so ordered.

Mr. GIBBS. Thanks.

Mr. MALONEY. Welcome, Mr. Graves.

Mr. GIBBS. Thank you. He just stepped out, he will be back. Thanks.

And also, I would like to offer my condolences to the family of the coastguardsman who lost his life. And I also wanted to thank our men and women in the Coast Guard, and our witnesses here today for the great work that they do, and great service to our country, protecting our citizens of our country, and also provide more safety on the—all the lakes and open seas.

The U.S. maritime industry directly or indirectly employs more than 475,000 Americans, providing nearly \$29 billion in annual wages. There are more than 40,000 commercial vessels currently flying the American flag, not counting the 35,000 vessels in the U.S. fishing industry fleet. The vast majority of these vessels are engaged in domestic commerce through roughly 80 U.S.-flagged vessels that continue to operate in international trade. It is estimated that the U.S. maritime industry accounts for over \$90 billion in economic output each year.

Beyond the important contributions to our economy, U.S.-flagged ships, U.S.-licensed mariners, and U.S. shipbuilders are vital to our national security. U.S. military relies on U.S.-flagged commercial

vessels crewed by American merchant mariners to carry troops, weapons, and supplies to the battlefield. We cannot rely on foreign vessels and crews to provide for our national security.

We must maintain a robust fleet of U.S.-flagged vessels—I keep saying vehicles there, don't I? Vessels—I am landlocked, I guess—and a group of skilled American mariners and a strong shipyard industrial base.

I am interested in ways in which we can promote the U.S. Fleet through more efficient and less burdensome regulations, as well as increased investment.

I look forward to hearing from the witnesses on ways in which we can further promote the U.S.-flagged fleet and create more U.S. mariner jobs.

[Mr. Gibbs's prepared statement follows:]

Statement of Hon. Bob Gibbs, a Representative in Congress from the State of Ohio, and Ranking Member, Subcommittee on Coast Guard and Maritime Transportation

The U.S. maritime industry directly or indirectly employs more than 475,000 Americans, providing nearly \$29 billion in annual wages. There are more than 40,000 commercial vessels currently flying the American flag, not counting the 35,000 vessel U.S. fishing industry fleet.

The vast majority of these vessels are engaged in domestic commerce, though roughly 80 U.S. flag vessels continue to operate in international trade. It is estimated that the U.S. maritime industry accounts for over \$90 billion in economic output each year.

Beyond the important contributions to our economy, U.S.-flag ships, U.S.-licensed mariners, and U.S. shipbuilders are vital to our national security. The U.S. military relies on U.S.-flag commercial vessels crewed by American Merchant Mariners to carry troops, weapons, and supplies to the battlefield. We cannot rely on foreign vessels and crews to provide for our national security. We must maintain a robust fleet of U.S.-flag vessels, a cadre of skilled American mariners, and a strong shipyard industrial base.

I am interested in ways in which we can promote the U.S. fleet through more efficient and less burdensome regulation as well as increased investment.

I look forward to hearing from the witnesses on ways in which we can further promote the U.S.-flag fleet and create more U.S. mariner jobs.

Mr. GIBBS. And thank you, I yield back.

Mr. MALONEY. I would also—I would like at this time to ask unanimous consent to enter a statement from the chair of the full committee, Peter DeFazio, which he is not able to deliver in person.

If there is no objection, it will be entered into the record.

[Mr. DeFazio's prepared statement follows:]

Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chair, Committee on Transportation and Infrastructure

Thank you, Chairman Maloney and Ranking Member Gibbs, I cannot think of a better way for this subcommittee to start off the 116th Congress than to convene this morning's oversight hearing on strategies to improve the U.S. maritime and shipbuilding industries.

We begin the new Congress with a clean slate and I am eager to hear from our witnesses today how we can make these critical industries stronger.

The maritime industry will continue to face challenges—such as increased shipping demand, larger vessels, and attacks on the Jones Act.

Regarding the Jones Act, recent discussions to waive the Act to allow the movement of LNG to either Puerto Rico or other U.S. locations are exactly the kind of

pernicious, thoughtless proposals that accomplish little but to fill the coffers of the oil and gas industry at the expense of developing new markets for our coastwise traders.

Let me be clear: under current law, the only way the Jones Act can be waived is when such a waiver is determined to be “in the interest of national defense”, period. And even in those instances, waivers are pursued as a last recourse, not the first option.

I applaud the President for signing an executive order on Monday to support the transition of active duty service members and military veterans to careers in the U.S. Merchant Marine. That was the right thing to do. It would be a cruel irony, however, if the next action taken by this administration is to waive the Jones Act and simultaneously eliminate future job opportunities for those very same veterans and separating active duty service members.

We are left with no other option other than to confront these challenges because the annual economic contribution of the maritime industry is simply too significant for us to remain indifferent. Remember, over ninety percent of U.S. imports and exports arrive or depart by ship.

The Coast Guard’s 2018 Maritime Commerce Strategic Outlook provides a succinct summation of what we risk to lose if we fail to act to rebuild and revitalize our maritime economy.

Nationally, maritime commerce generates more than 23 million jobs and over \$4.6 trillion in economic activity annually. More specifically, the U.S. maritime industry generates over \$100 billion in annual economic output and sustains more than 500,000 good paying jobs in the U.S. industrial base.

Not surprising, the maritime industry is an important engine in many state and local economies. For example, according to data compiled by the American Maritime Partnership, the maritime industry in Oregon alone contributes \$1.2 billion annually to the Oregon economy and provides close to 7,000 jobs, including \$367.2 million in worker income.

We all have a stake in maintaining and growing a vibrant, diverse, and globally competitive U.S. maritime industry. The founders of our Republic recognized this fact in the late 18th century, and it remains as true and relevant today.

The United States is a great maritime nation. However, to remain a great maritime nation in the future, we must renew our commitment, maintain our vigilance, embrace a new vision to support the U.S. maritime industry and unleash the great potential of our Nation’s Blue Economy.

Speaking of commitments, the government failed to uphold our commitment to members of the Coast Guard during the recent lapse in appropriations. It is unacceptable that the men and women of the Coast Guard had to worry about if and when they would receive their paychecks. I have introduced H.R. 367, the Pay Our Coast Guard Parity Act, to ensure that something like this never happens again.

Not paying the Coast Guard during the shutdown was one of the most monumentally dumb things I have witnessed during my thirty-two years in Congress.

For just a minute, think about it. These are the people we ask to go out selflessly into the jaws of violent storms to rescue people lost at sea. These are the people who are so proficient at combating illegal drug running that they interdict more contraband at sea than all other Federal, State and local agencies combined. Moreover, these are the people we turn to as first responders after natural and man-made disasters even though their own families and communities might be affected, too. Not paying the Coast Guard makes no sense.

The Coast Guard provides vital service to the Nation around the world and around the clock. As members of the Armed Forces, they are uniquely responsible to continue to perform regardless of the political winds. I hope Rear Admiral Nadeau can share with us some of the impacts of the shutdown on the men and women of the Coast Guard.

To that end, Mr. Chairman, I welcome the opportunity to renew our commitment this morning, and I look forward to hearing from our witnesses on how we might strengthen this often over-looked, but indispensable, sector of the U.S. economy.

Thank you.

Mr. MALONEY. Well, at this time I would like to—is Mr. Graves with us? No. Well, then at this time I would like to invite and welcome our witnesses for today’s panel.

We are joined today by Rear Admiral John Nadeau.

Am I saying your name correctly, sir?

Admiral NADEAU. Nadeau.

Mr. MALONEY. Nadeau, Nadeau. I was told it rhymed with Maddow, which I was hoping would irritate the Republicans on the committee.

[Laughter.]

Mr. MALONEY. But that was not to be. Admiral Nadeau, thank you for your presence today.

Admiral Nadeau is the Assistant Commandant for Prevention Policy for the United States Coast Guard.

We are also joined by Rear Admiral Mark Buzby, who is the Administrator of the Maritime Administration.

Thank you both for being here today, for your service to our country.

I would ask unanimous consent that our witnesses' full statements be included in the record.

Without objection, so ordered.

Since your written testimony has been part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes. And with that, Admiral Nadeau, welcome.

**TESTIMONY OF REAR ADMIRAL JOHN P. NADEAU, ASSISTANT
COMMANDANT FOR PREVENTION POLICY, U.S. COAST
GUARD; AND MARK H. BUZBY, ADMINISTRATOR, MARITIME
ADMINISTRATION**

Admiral NADEAU. Good morning, Chairman Maloney, Ranking Member Gibbs, distinguished members of the subcommittee. It is my pleasure—really, my privilege—to be here today to discuss the state of the U.S. maritime industry and the Coast Guard's role in advancing a safe, secure Marine Transportation System, and enabling the uninterrupted flow of commerce.

On behalf of our Commandant, Admiral Schultz, and the entire Coast Guard, I would first like to express our gratitude for all this committee's support of the United States Coast Guard. Thank you all. Thank you.

The U.S. Coast Guard is the world's premier, multimission maritime Service responsible for the safety, security, and stewardship of the maritime domain. At all times a military Service, a branch of the U.S. Armed Forces, a Federal law enforcement agency, a regulatory body, a first responder, and a member of the intelligence community, the Coast Guard operates on all seven continents and across the homeland.

Last October, the Commandant released his Maritime Commerce Strategic Outlook and outlined the Coast Guard's vision for enabling maritime commerce throughout our Nation's Marine Transportation System. We call it MTS. The MTS consists of our 95,000 miles of shoreline and 25,000 miles of navigable inland waterways, and it connects our 361 ports.

This MTS is marked with nearly 50,000 buoys and navigation aids that facilitate the safe and secure movement of thousands of vessels any given moment, any given day, 24 by 7 by 365. It gives us unfettered access to two of the world's largest oceans, it links our Nation's sheltered harbors and deepwater ports to those of other countries, and it connects our heartland, the Nation's breadbasket, to consumers and markets all around the globe.

The MTS supports \$4.6 trillion of U.S. economic activity every year, and sustains more than 23 million U.S. jobs. It is the most efficient, environmentally sound, and sustainable way to meet our Nation's transportation needs both today and tomorrow.

The MTS also enables our Nation to project our military force. It allows the movement and logistical support of the U.S. military. With the MTS, our DoD brothers and sisters can be transported anytime, anywhere around the globe, using U.S. sealift. It is on Coast Guard-inspected, U.S.-flagged ships that are manned with Coast Guard-credentialed U.S. mariners.

In short, the MTS is a gift to this Nation. And the release of the Maritime Commerce Strategic Outlook reflects the Coast Guard's commitment to ensure a safe and secure MTS. And in honoring our commitment, we are pursuing precisely what this committee seeks to explore here today. That is, strategies to improve regulation, economic opportunities, and competitiveness in the U.S. maritime zone.

At the operational level, the tragic sinking of the *El Faro* was over 3 years ago, but the lessons we learned are front and center as we work to make needed improvements in our marine safety mission.

In the past year alone, we have established a new staff dedicated to reforming our oversight of third parties. We have prioritized inspector training. We have prioritized the hiring of civilian re-inspectors. We have increased opportunities for maritime graduates to join us and focus on the maritime safety missions. And we have developed new policy and training to improve our oversight of third parties who we entrust to work on our behalf.

These actions and the mandates in the recently enacted Hamm Alert Maritime Safety Act, which this committee helped draft, will help us address all of our third-party oversight responsibilities, to include regulatory requirements under subchapter M, which recently added over 5,700 towing vessels to the U.S.-inspected fleet. That is a 50-percent increase.

While pursuing all these recent initiatives, we have engaged stakeholders to understand their challenges. We are grateful for the outstanding relationships we have with the dedicated leaders across the U.S. maritime industry, including those of the American Waterways Operators, AWO; the Offshore Marine Service Association, OMSA; the Seafarers International Union, and the American Maritime Officers, SIU and AMO; and a whole host of other industry and labor groups that directly or indirectly, through our advisory committees, all provide us valuable insight, advice, and recommendations.

In conclusion, a healthy maritime industry is vital to the Nation's economic prosperity and national security. The Coast Guard's marine safety missions and our day-to-day operations that support these missions must continue to evolve with stakeholder demands. They must keep pace with industry change, and ensure the safety, security, and environmental compliance of the MTS.

We will continue to leverage the valuable support of our Federal, State, local, and Tribal partners. We will continue to be a common-sense regulator. And we will continue to support any and all efforts

to improve regulation, economic opportunities, and competitiveness in the U.S. maritime.

Again, thank you for the opportunity to be with you today. I look forward to your questions.

[Admiral Nadeau's prepared statement follows:]

**Prepared Statement of Rear Admiral John P. Nadeau, Assistant
Commandant for Prevention Policy, U.S. Coast Guard**

INTRODUCTION

Good morning Chairman Maloney, Ranking Member Gibbs, and distinguished members of the Subcommittee. It is my pleasure to be here today to discuss the State of the U.S. maritime industry and the Coast Guard's role in advancing a safe, secure, and environmentally responsible U.S. Marine Transportation System.

The U.S. Coast Guard is the world's premier, multi-mission, maritime service responsible for the safety, security, and stewardship of the maritime domain. At all times a military service and branch of the U.S. Armed Forces, a Federal law enforcement agency, a regulatory body, a first responder, and a member of the U.S. Intelligence Community, the Coast Guard operates on all seven continents and throughout the homeland, serving a Nation whose economic prosperity and national security are inextricably linked to broad maritime interests.

THE COAST GUARD'S MARITIME COMMERCE STRATEGIC OUTLOOK

Last October, the Commandant released his Maritime Commerce Strategic Outlook to communicate the Coast Guard's vision for enabling maritime commerce throughout the U.S. Marine Transportation System (MTS). From its origin, with the establishment of the Revenue Cutter Service, the Coast Guard has facilitated maritime security to promote and safeguard American commerce for more than 228 years. Today, the transportation of cargo on water by the global maritime industry is the most economical, and efficient mode of transport. An estimated 90 percent of U.S. imports and exports move by ship through 361 commercial ports, along 95,000 miles of shoreline and 25,000 miles of navigable river and coastal waterways. Today's MTS supports \$4.6 trillion in economic activity and more than 23 million jobs.

The continued viability of the MTS also enables critical national security sealift capabilities, supporting U.S. Armed Forces' logistical requirements around the globe. By 2025, worldwide demand for waterborne commerce is expected to double, placing even greater demands on the MTS.

The Maritime Commerce Strategic Outlook establishes three lines of effort that are critical to safeguarding the MTS in the future:

1. To facilitate lawful trade and travel on secure waterways;
2. To modernize aids to navigation and mariner information systems; and,
3. To transform our workforce capacity and partnerships to meet the increasingly complex operating environment.

CURRENT AND FUTURE COAST GUARD MARINE SAFETY INITIATIVES

The Coast Guard has already made substantial progress toward the Strategic Outlook's lines of effort. Notably, under Admiral Schultz' direction, the Coast Guard has prioritized marine inspector training, established a new staff dedicated to performing third party oversight, increased opportunities for maritime graduates to join the Coast Guard, and prioritized the hiring of civilian marine inspectors.

Likewise, this Committee's continued support, to include legislation that is harmonious with the Coast Guard's Strategic Outlook, such as the *Hamm Alert Maritime Safety Act of 2018*, and a number of provisions in the more recently passed *Coast Guard Authorization Act of 2018*, has helped the Coast Guard refine and improve its marine safety mission.

For example, as directed by the *Hamm Alert Maritime Safety Act of 2018*, the Coast Guard is actively developing a comprehensive training architecture for our marine inspectors. This architecture will provide cohesive strategy, policy, and performance support to ensure that Coast Guard marine inspectors are trained consistently from the basic to the advanced level in a manner that keeps pace with industry, technology, and related regulatory changes.

Second, the Coast Guard has improved and continues to modernize the Alternate Compliance Program (ACP). The ACP continues to leverage third-party statutory survey and certification services to reduce the costs and redundancies that may be

associated with regulatory compliance. Using the lessons learned from the tragic sinking of the EL FARO, we developed new policy and training to improve our oversight of third parties. This new policy will help us equally address the new regulatory requirements of Subchapter M, which adds 5,700 vessels to the U.S. certificated fleet, a 50-percent increase.

Third, the Coast Guard has made a deliberate push to focus vessel owners on Safety Management Systems. These systems are designed to proactively ensure safety at sea, prevent injury or loss of life, and avoid damage to the environment. Owners and operators of vessels are on the front line of a maritime safety net and are best positioned to take early and effective action to ensure their vessels remain in compliance with applicable requirements.

To provide effective third-party oversight and monitor the effectiveness of Safety Management Systems, we have installed a competent and robust flag State control oversight framework aligned with international oversight methodologies.

Marine inspector training, effective oversight of third party organizations, and a focus on safety management will be critical in directing our marine safety workforce while performing vessel inspection programs for towing vessels and fishing vessels.

Staying abreast of changes in the maritime industry, such as integration of new technologies like LNG as fuel and automation; autonomous vessels, and maintaining effective risk management of growing cyber threats onboard vessels and within our ports, will also be critical areas of focus that will direct our present and future marine safety workforce.

Throughout the MTS, the Coast Guard is also modernizing its constellation of over 45,000 federally maintained aids to navigation. This effort will leverage automatic identification system technology to improve service delivery to users that increasingly rely on electronic navigation. The balance of physical and electronic aids will be informed by outreach across user-groups under a first-ever National-Level Waterways Analysis and Management System study. That balance of physical and electronic aids will be further informed by our intent to maintain a resilient MTS in the event of a GPS disruption.

As the lead Federal agency of the U.S. flag Administration, the Coast Guard acts as both a regulator and a facilitator each day throughout our Nation's ports and waterways. Our marine safety program respects these roles by establishing a level playing field for industry through a framework of common-sense regulations. The Coast Guard's successful efforts to streamline regulations and to explore deregulatory options also promote investment and innovation throughout the maritime sector.

CONCLUSION

A healthy maritime industry is vital to the Nation's economic prosperity and national security. It must also become increasingly dynamic and continually evolve to meet stakeholder demands. The Coast Guard's marine safety missions must continue to evolve to keep pace with industry change and ensure the continued safety, security, and environmental compliance in the MTS. We are focused on ensuring every Coast Guard action sustains the safe operation of the MTS, without imposing unnecessary costs on U.S. entities competing in a global industry.

Thank you for your continued support and the opportunity to testify before you today. I am happy to answer any questions you may have.

Mr. MALONEY. Thank you very much, Admiral Nadeau. I just want to observe for the record that you brought that in within 2 seconds of the 5 minutes. That is impressive, sir, impressive.

[Laughter.]

Mr. MALONEY. Admiral Buzby, the bar has been raised, sir. Thank you for being here. Please proceed.

Admiral BUZBY. All right. Good morning, Chairman Maloney, Ranking Member Gibbs, and members of the subcommittee. I appreciate the opportunity to discuss strategies to improve economic opportunities and competitiveness in the U.S. maritime and shipbuilding industries.

The U.S. merchant marine, U.S. shipbuilding, and repair facilities, our Nation's port systems, and supporting industries integrate our economy with a global supply chain that moves more than 90 percent of the world's trade by tonnage. These industries, vessels,

infrastructure, and personnel also play a critical role in our national security, supporting our ability to provide sealift to the Department of Defense.

The mission that Congress gave the Maritime Administration back in 1936 is to foster, promote, and develop the maritime industry of the United States to meet this Nation's economic and security needs.

For the past several decades our maritime industry has suffered losses as companies, ships, and jobs have moved overseas. As this valuable industry has eroded, our Nation's ability to trade internationally using U.S.-flagged ships has declined significantly. To address this multidecade trend, MARAD is working with stakeholders to identify ways to strengthen our industry.

In addition, MARAD continues to leverage its existing programs to support critical mariner training, improve port infrastructure, and help address environmental challenges.

U.S. strategic sealift relies on a fleet of 61 Government-owned sealift ships, maintaining 5- and 10-day readiness status, plus oceangoing commercial vessels operating daily under the U.S. flag. Currently, 82 ships sail in that international trade, and 60 of those are enrolled in the Maritime Security Program. A domestic fleet of 99 large, oceangoing, self-propelled commercial vessels operating in Jones Act trade are operated by mariners with unlimited tonnage and unlimited horsepower licenses.

All told, these commercial vessels form the primary employment pool for mariners with the unlimited credentials and training needed to meet the demanding need of our Nation's sealift capability. Estimates indicate that less than 2 percent of the U.S. waterborne imports and exports, by tonnage, move on those 82 internationally traded U.S.-flagged commercial vessels.

The last year in which the U.S. Fleet carried at least 10 percent of our trade was in 1960, when the fleet consisted of well over 1,000 ships. U.S.-flagged ships must compete against foreign-flagged carriers that benefit from major subsidies, tax benefits, or state ownership.

For example, one large foreign-flagged carrier that is wholly state-owned has received nearly \$2 billion in state assistance over the last several years, and will soon carry the single largest share of containerized imports to the United States. Absent such measures, U.S. shipping must rely primarily on cargo preference laws and the Maritime Security Program to maintain a level of competitiveness and help support the continued employment of American mariners.

One of MARAD's principal responsibilities is to ensure a reliable flow of highly trained mariners available to satisfy sealift requirements. We accomplish this through our Nation's Center of Maritime Excellence, the U.S. Merchant Marine Academy at Kings Point, and through the six outstanding State maritime academies. Rear Admiral Michael Alfultis, president of State University of New York Maritime College, will address mariner training in greater detail in the followup panel.

I am extremely proud of the Executive order that President Trump signed on Monday to address longstanding challenges to the transition of Active Duty uniformed service mariners and veterans,

and to the merchant marine. In short, hiring veterans makes good business sense, and enables our highly trained and motivated service men and women to continue to serve our Nation's needs.

In terms of shipbuilding, while the U.S. remains a global leader in naval shipbuilding, our large commercial shipyards are struggling to remain afloat, but for the Jones Act. However, U.S. shipyards have opportunities for growth. The expanding liquified natural gas market, for example, presents a unique opportunity to strengthen our maritime industry.

Another challenge is the state of our Nation's gateway port infrastructure. The newest tool available to improve efficiency, for which we are most grateful, is the port infrastructure development grant funding authorized by Congress in the 2019 budget.

MARAD's existing Marine Highway Program is working to develop and expand innovative services to better utilize our underutilized inland and coastal waterway system, which we expect will carry increasing levels of our Nation's commerce in the coming decades.

Finally, MARAD's Maritime Environmental and Technical Assistance, or META program, helps ensure U.S. Fleet compliance and international environmental standards.

Thank you for the opportunity to highlight MARAD's programs and support the competitiveness of the U.S. maritime industry. I look forward to working with you on these challenges.

[Admiral Buzby's prepared statement follows:]

Prepared Statement of Mark H. Buzby, Administrator, Maritime Administration, U.S. Department of Transportation

Good morning, Chairman Maloney, Ranking Member Gibbs, and members of the Subcommittee. I appreciate the opportunity to discuss strategies to improve economic opportunities and the competitiveness in the U.S. maritime and shipbuilding industries.

The U.S. Merchant Marine, U.S. shipbuilding and repair facilities, the Nation's port system, and supporting industries (collectively referred to as the U.S. maritime industry) integrates our economy with a vast global system that moves more than 90 percent of the world's trade by tonnage, including energy, consumer goods, agricultural products, and raw materials. Of the goods that the U.S. imports and exports, approximately 69 percent by weight and 40 percent by value move by water and through our national port system. These industries, vessels, infrastructure, and personnel also play critical roles in national security, supporting our Nation's ability to provide sealift for the Department of Defense (DOD) during times of war and national emergency.

The mission Congress gave the Maritime Administration (MARAD) is to foster, promote, and develop the maritime industry of the United States to meet the Nation's economic and security needs. Unfortunately, over the last few decades, the U.S. maritime industry has suffered losses as companies, ships, and jobs moved overseas. To reverse this multi-decade trend, MARAD is continuing to work with its industry stakeholders to identify ways our U.S.-flag commercial fleet can better compete for international cargoes and our U.S. shipbuilding and repair industry can grow and continue to meet commercial and military shipbuilding needs. In addition, MARAD continues to leverage its existing congressionally authorized programs to support mariner training, improve port infrastructure, and assist industry to address environmental challenges.

U.S.-FLAG FLEET

U.S. strategic sealift consists of 61 Government-owned vessels maintained in reduced operating status, augmented by the U.S.-flag commercial fleet. Commercial vessels crewed with civilian mariners transport equipment and supplies around the world and provide the pool of mariners with the unlimited tonnage/horsepower

qualifications needed to provide the additional crew for Government ships when they are activated. Our Nation relies on the fleet of large oceangoing self-propelled commercial vessels operating in the domestic (Jones Act) and international trades to provide employment for these highly qualified mariners and auxiliary sealift capacity when needed.

U.S.-flag Vessels in U.S. Domestic Trades

U.S.-flag vessels operating in domestic trades sail on U.S. inland and intracoastal waterways, lakes, oceans along the coasts of the United States, and between non-contiguous States and U.S. territories. The domestic water transportation market is served by a diverse array of approximately 41,000 vessels owned, operated, and largely built by U.S. citizens. The majority of vessels in the domestic trades consist of tugs and barges, with a smaller number of work and supply vessels used in the offshore oil industry, and specialty vessels such as dredges. As of February 4, 2019, 99 of the vessels operating in the domestic market were large cargo-carrying, merchant-type vessels capable of self-propelled operation in the deep oceans. These are the types of vessels needed to provide an employment base for mariners with the unlimited credentials and training required to also crew Government ships when needed to meet DOD sealift requirements.

U.S.-flag Ships in International Trades

Cargo preference laws require shippers of Government-impelled cargo to use U.S.-flag vessels for the ocean-borne transport of a significant portion of certain cargoes purchased or guaranteed with Federal funds. Specifically, 100 percent of military cargo, and at least 50 percent of most non-military Government-owned or impelled cargo transported by ocean, must be carried on U.S.-flag vessels subject to a MARAD determination of vessel availability. U.S.-flag carriers engaged in international trading believe that shipping required by cargo preference laws provides critical revenue that significantly contributes to the economic viability of this portion of the U.S.-flag fleet.

As of February 4, 2019, there were 82 large, U.S.-flag merchant-type vessels operating in international trades. Estimates using 2016 U.S. Census foreign trade data indicate that just 1.5 percent of U.S. waterborne imports and exports by tonnage move on oceangoing commercial vessels registered in the U.S. The last year in which the U.S.-flag fleet carried at least ten percent of our trade by tonnage was 1960 when the U.S.-flag commercial fleet consisted of well over 1,000 ships; the share remained close to 4 percent from 1977 until 1993, and fell to 2 percent as of 2003.

U.S.-flag ships must compete against foreign-flag carriers that benefit from major subsidies or state ownership. For example, one large Chinese-flag carrier that is wholly state-owned has received at least \$1.95 billion in state assistance over the last several years, and will soon carry the single largest share of containerized imports to the United States. Other foreign-flag carriers also receive state support through various means.¹ Absent other measures, cargo preference helps support the sustainment of a minimal U.S.-flagged, privately owned internationally trading commercial fleet and the continued employment of the associated American merchant mariners.

SUPPLY OF QUALIFIED MARINERS

To ensure that qualified mariners remain available to satisfy DoD sealift requirements, the Department of Transportation (DOT) and MARAD are firmly committed to mariner officer development at the U.S. Merchant Marine Academy (USMMA) and six State Maritime Academies.² Together, these academies graduate more than 1,000 entry-level new officers each year.

Hiring veterans makes good business sense, and in the case of the maritime industry, skills and experience from the sea services translate directly into qualifications needed in the U.S. Merchant Marine and maritime sector. In 2014, at MARAD's request, the U.S. Committee on the Marine Transportation System (CMTS) formed the Military to Mariner Task Force to help coordinate Federal efforts to facilitate the transition from military service to civilian employment in the U.S. Merchant Marine and other positions within the U.S. Marine Transportation System. The Maritime Administrator and the Executive Director of the Military

¹ Cho Si-young, "Korean government pledges \$6 bn subsidy promotion for shipping sector," Pulse, October 31, 2016. <https://pulsenews.co.kr/view.php?year=2016&no=759165>

² The six State Maritime Academies (SMA's): California Maritime Academy, Maine Maritime Academy, Massachusetts Maritime Academy, Great Lakes Maritime Academy, Texas A&M Maritime Academy, and the State University of New York Maritime College.

Sealift Command lead this Task Force, with participation from all the sea services. As a direct result of this partnership, Federal agencies have committed time and resources to:

- crosswalk military ship-board training and qualifications to civilian mariner credential requirements,
- assign permanent staff to the Navy and USCG Credentialing Opportunity On-line (COOL) projects,
- enable USCG Academy graduates to receive a 100 Ton Master-Near Coastal Credential upon graduation,
- increase the number of service training courses approved for Merchant Mariner Credentials, and
- identify ways to recruit, train, and retain Merchant Mariners to support both national Defense and Federal mission accomplishment.

I am extremely proud of the Executive Order the President signed this week to address long-standing challenges to the transition of active-duty uniformed service mariners into civilian merchant mariners crewing U.S.-flag commercial vessels. The Military to Mariner Executive Order also directs the CMTS to pursue innovative ways to support merchant mariner credentialing through the existing Military to Mariner (M2M) Task Force and to provide a yearly status report on its efforts.

Ensuring the availability of sufficient qualified contract and obligated mariners for a prolonged activation of U.S. reserve sealift capacity is a continuing concern. In 2017, Congress directed MARAD to convene a Maritime Workforce Working Group (MWWG) to assess the size of the pool of U.S. citizen-mariners necessary to crew the sealift fleet in times of national emergency. At that time, U.S. Coast Guard data indicated that 33,125 U.S. mariners held unlimited credentials, however the MWWG estimated a value of 11,768. The MWWG determined that the disparity between these values will remain unresolved until more research is completed.

U.S. SHIPBUILDING

Among the foremost challenges to the U.S. Merchant Marine and shipbuilding industry are low-cost foreign competitors (including heavily subsidized, state-owned fleet operators), diminishing government cargoes, and reduced commercial ship orders. Over the last several decades, large U.S. shipyards and their skilled labor forces have atrophied due to the uneven playing field of low-cost, highly subsidized international shipbuilding competition among other factors, resulting in shipyard closures and reductions in the U.S. vendor base.

The few remaining large U.S. commercial shipyards rely on the small U.S. domestic market. The successful, multi-decade industrial policies of the principal shipbuilding nations have virtually eliminated the ability for U.S. shipyards to compete in the global market. Over 90 percent of global shipbuilding occurs in three countries; China, Korea, and Japan. While the United States remains a global leader in naval shipbuilding, which represents the majority of the Nation's shipbuilding revenue, our large commercial shipyards are struggling to remain afloat. U.S. commercial shipbuilding of large merchant-type ships has been locked into a downward spiral of decreasing demand and an increased divergence between domestic and foreign shipbuilding productivity and pricing.

In the case of large self-propelled oceangoing vessels, U.S. shipyards still lack the scale, technology, and the large volume "series building" order books needed to compete effectively with shipyards in other countries.³ The five largest U.S. commercial shipyards construct limited numbers of large cargo vessels for domestic use, averaging five such vessels per year over the last 5 years, with a peak of ten such vessels in 2016. This production is small, however, relative to the worldwide production of 1,408 such ships in 2016.

U.S. shipyards have opportunities for growth. The expanding energy sector, and the Liquefied Natural Gas (LNG) market in particular, presents a unique opportunity to grow the U.S. shipping and shipbuilding industry, provided domestic LNG import demand can be grown to the needed levels. The global LNG market, however, is anticipated to expand over the next 20 years and it is estimated that the number of LNG ships necessary to service the market will nearly double by 2040. The U.S. could capitalize on this growing industry. Ship owners are more likely to be able to secure financing and invest in the construction of LNG vessels in the U.S.

³The issue of government subsidies to foreign shipyards has received significant attention recently. See, for instance, Nick Savvides, "Japan complains over Korean shipyard subsidies," Fairplay, April 11, 2017, <https://fairplay.ihs.com/ship-construction/article/4284711/japan-complains-over-korean-shipyard-subsidies>, and Myrto Kalouptsi, "Detection and impact of industrial subsidies: The case of Chinese shipbuilding," VOX, September 9, 2017, <https://voxeu.org/article/chinas-hidden-shipbuilding-subsidies>.

if there are long-term contracts for coastwise transportation for LNG that would provide a reliable flow of cargo for new vessels to carry at the necessary price levels once completed. Therefore, encouraging demand for U.S.-flag coastwise vessels in the domestic LNG market could foster an improved prospect for domestic construction of LNG tankers, and more LNG bunkering vessels.

The Jones Act requirement that vessels serving domestic markets must generally be built in the U.S, the Capital Construction Fund (CCF), and Construction Reserve Fund (CRF) programs are all tools Congress established to sustain U.S. shipyards. In addition, the Small Shipyard Grant Program is an important program for shipyard modernization. Since 2008, this program has provided grants totaling \$203.79 million to 216 shipyards.

PORT INFRASTRUCTURE/FREIGHT MOVEMENT

Another challenge the U.S. maritime industry faces is the state of our Nation's gateway port infrastructure. The ability of our ports to increase capacity and handle cargo more efficiently is vital to the health of many domestic industries. Freight volumes are projected to increase by 31 percent, and U.S. foreign trade will more than double between 2015 and 2045.

There is great potential to improve this system by increasing the efficiency of our ports. The newest tool available for DOT to improve efficiency is Port Infrastructure Development grants. The fiscal year Consolidated Appropriations Act, Pub. L. 115-141, appropriated a total of \$292.7 million for the Port Infrastructure Development Program, which is authorized under 46 U.S.C. § 50302. Through this program, MARAD will provide grants for coastal seaports for infrastructure improvement projects that are directly related to port operations, or intermodal connections to a port that improve the safety, efficiency, or reliability of the movement of goods into, out of, or around coastal seaports. Funds for the fiscal year grants will be awarded on a competitive basis.

MARAD is also working through its America's Marine Highway Program to develop and expand services to move freight along our waterways and coastlines and to relieve land-side congestion. Given the immense economic and environmental benefits of increased waterborne transportation, this program represents an opportunity to enhance American supply chain competitiveness. Working with local sponsors, this program is gaining support and making a difference for regional economies and transportation infrastructure. For example, a new Baton Rouge-to-New Orleans, LA, barge service was recently established to transport heavy weight export containers. In the past 90 days, more than 11,000 truckloads have moved via the Marine Highway, reducing highway congestion by one million vehicle miles traveled. The fiscal year 2019 Consolidated Appropriations Act included \$7 million in grant funding for the program.

ENVIRONMENTAL ISSUES

Finally, there is opportunity to foster the competitiveness of the U.S. maritime industry through MARAD's Maritime Environmental and Technical Assistance (META) program. Since maritime transportation is, by its nature, a global industry in most cases, U.S. vessel compliance with international environmental standards is required to compete in this realm. This program supports applied research and development to facilitate environmental compliance and enhance sustainability across the marine industry. Leveraging resources with the private sector and other government agencies, META's goal is to identify economically sustainable solutions to emerging maritime environmental challenges. The fiscal year Consolidated Appropriations Act includes \$3 million for the META program. Following on the META model, MARAD is also exploring other areas in which partnerships with the private sector and other government agencies can be leveraged to further research, development, and technology transfer to make our fleets and ports safer, more efficient, and more competitive.

Thank you for the opportunity to highlight MARAD's programs that support the strength and competitiveness our U.S. maritime industry. I appreciate this Subcommittee's continued support for the U.S. Merchant Marine and look forward to working with you to address the challenges facing the U.S. maritime industry and take advantage of opportunities to enhance and improve the U.S. maritime transportation system. I am happy to respond to any questions you may have.

Mr. MALONEY. Thank you, Admiral Buzby. Time to spare. We will now move on to Members' questions, beginning—we will limit

Members' questions to 5 minutes, and we will start by recognizing myself.

Admiral Buzby, can you tell us a little bit more about the President's Executive order that was recently signed? I think most of us support it, and certainly support the goals of the President's order. I am curious about your opinion about what kind of difference this is going to make around what timeframes.

Could you give us your best thinking on what we can expect from that, in terms of the shortage of mariners we are looking at?

Admiral BUZBY. I think this was a very positive, important step that the President took on Monday, signing this Executive order.

For some time we have been working with the Services on a Military to Mariner program. And I know this has had a lot of congressional interest over the years, and this particular Executive order helps smooth out that process, and gives some assistance and direction to the Services to carry out some of the mechanisms that are going to enable that flow of transitioning uniformed personnel and veterans into the merchant marine.

It provides direction to provide payment, or waiver of payments for some of the applications. For instance, for TWIC cards. It directs Coast Guard to conduct crosswalks with the Services on a lot of their courses that are being—people learn about in the military—

Mr. MALONEY. Excuse me, Admiral Buzby. I am being told that we are having a little trouble with the audio. If I could ask both the witnesses to just move the microphones closer to their mouths and speak directly into them, same for the Members, so that we can have your testimony recorded. And we are also, you know, dependent on these for any transmission of the hearing.

So excuse me, sir, go ahead.

Admiral BUZBY. OK. So to continue, we believe that this is going to have a positive effect on the ability for transitioning military members to come into the merchant marine. I am not—I don't think it is going to solve entirely our manning shortage, but it is going to help ease it in the future.

Mr. MALONEY. Right. I was hoping you might bottom-line it for me, though. Without other changes, do you expect this to keep it steady, slow the decline, reverse it?

Admiral BUZBY. I think it will be additive. It will help the situation. I think we are probably talking on the order of several hundred, probably, per year.

Mr. MALONEY. But net? What are we going to see to that shortage? If it is 1,800 now, where will it be if we did nothing—

Admiral BUZBY. It really is going to rely on the number of jobs that are out there. So it really comes back to ships. I mean we can bring people in, but if there is not a place for them to be employed, you know, it is—it will only do so much, I guess, is the—

Mr. MALONEY. Yes, thank you, sir. I appreciate that. And if you would, could you tell me a little bit about the role that the national training requirements play to the shortage of senior-level mariners?

Admiral BUZBY. Well, current—certainly, you know, the STCW requirements, which are on top of our national requirements that are set forth by the Coast Guard, add additional cost and time to

a mariner, as they attempt to maintain their license, or upgrade their license.

So what we see typically happen is, after about the 10-year point, as junior mariners are transitioning to the upper ranks of shipboard hierarchy, they are faced with a decision to make. If they don't see employment, they don't see opportunity for advancement because of, you know, lack of ships, lack of jobs, some of them are reticent about making that investment, financial investment, and time investment to get those more extensive credentials.

Mr. MALONEY. Thank you, sir.

Admiral Nadeau, could you say a word about LNG for me, and the challenges with LNG bunkering? Have you considered implementing uniform guidance on regulations regarding LNG bunkering to ensure consistency and safety?

Admiral NADEAU. Yes, sir. I would be pleased to. We have been working closely with industry. The LNG presents a great opportunity, particularly for operators that operate coastwise in the United States, due to some of the conditions we have along our coastline that require them to use low sulfur fuels. We have seen great growth in this area for shipping, particularly the new build and the recapitalization of the domestic fleet.

We have worked with industry to use provisions in our regulations, because right now regulations would not cover LNG as fuel. But we do have provisions and regulations to allow us to do equivalencies, and that is what we have done, where we have worked in partnership with industry and some of the [inaudible] as well as the IMO and others around the globe to work with them and develop a set of standards that are uniform.

And we have done that, both for the ships and—as well as some of the infrastructure. And we have worked with them, as well, on the actual procedures and the handling and the bunkering.

So today, in fact, we have ships operating out of Jacksonville, Florida, U.S.-flagged ships go back and forth to Puerto Rico that use LNG as fuel, and they bunker from a barge. We have ships that operate out of Louisiana that go in and out, operating in the Gulf of Mexico, their offshore support vessels that have a bunkering facility there, in Louisiana. And we see more development in the Northwest.

And in fact, this week I am meeting with some industry folks that are looking to both have the cruise ship industry, which are building brandnew, foreign-flagged cruise ships that will operate out of the U.S. with LNG as fuel, and some of the operators that will then provide them with that fuel, and are looking to do that via barge. So we are engaged, plugged in, and working closely with them to make sure that our regulations are not an impediment to that, and that it is done safely and securely to ensure, again, that we protect the MTS.

Mr. MALONEY. Thank you.

Mr. Gibbs?

Mr. GIBBS. Thank you, Mr. Chairman. I have a similar question, but for Admiral Nadeau.

Is the Coast Guard continuing to work with the Department of Defense to align training courses so that the military mariners re-

ceive the proper credit when they apply for civilian mariner licenses? That is really a Coast Guard issue, I think, to question.

Admiral NADEAU. Yes, sir. Thank you for that question. We are, in fact, working closely, as we have been. The Coast Guard fills two roles, I guess, with the military mariner. One, we are a provider. We have Active Duty members that choose to depart the Service or retire. They then can use their sea time to seek a credential. And we also, as the issuer of the credentials at the National Maritime Center, we in turn also evaluate the course work and figure out what can they get credit for.

So to date, there has been almost 100 courses that have been approved. Those are courses—about one-third of them from the Army, about one-third are the Coast Guard, and the other one-third are from Military Sealift Command, the Navy, or NOAA. So we do work with them, we evaluate the courses to see how can we give them credit, how can we give the maximum amount of credit for the experience and the training they have already received to minimize any additional burden that might be there.

Mr. GIBBS. Good, good. I want to make sure we get the alignment and everybody—makes it easier.

Admiral NADEAU. Absolutely. As, I think, Admiral Buzby said, you know, we are trying to create a crosswalk to make it easy for people to really knock down any impediments that might be there.

Mr. GIBBS. Admiral Buzby, MARAD has been working on a single document addressing both the national maritime strategy and the national sealift strategy. I also understand a draft strategy was completed in 2016, but subsequently it is under review by the current administration.

The original statutory deadline for the strategy was February 2015, but the deadline was extended in the National Defense Authorization Act of 2019 to February 2020. Will MARAD make the new deadline?

Admiral BUZBY. Mr. Gibbs, it is well beyond my capability to swear to you that it will be making it. It is our intention that we will. It is in interagency coordination right now, to ensure that it meshes up with the other national strategies.

Mr. GIBBS. How many U.S.-flagged, oceangoing vessels will have been lost between the original 2015 deadline and the new 2020 deadline, and how many U.S. mariners?

Admiral BUZBY. I would say that my anticipation is that we are going to be adding ships, sir, rather than losing ships. That is my intention.

Mr. GIBBS. Is it possible the strategy be released before February of 2020?

[Laughter.]

Admiral BUZBY. It is entirely possible. That would be my hope, as well.

Mr. GIBBS. OK. Admiral, do the National Academy of Sciences Committee on Polar Icebreaker Cost Assessment recommends a completion of planning and detailed design before the start of construction. Where is the Coast Guard, with regard to completion of the planning and detailed design at the start of the construction on that icebreaker?

Admiral NADEAU. Yes, sir. We are very grateful for the fantastic support we have had from Congress and the administration to provide us the funding to recapitalize our 40-year-old icebreaker, provide the Nation the capability it needs as to the expanding Arctic, as those waters become more and more active.

With the funding we receive, the \$650 million, we are able to move out. And if all goes according to plan—and it is going according to plan—we have an integrated project office set up with the Navy to make sure we incorporate best practices of both Services, and—

Mr. GIBBS. I guess that—

Admiral NADEAU [continuing]. Acquisitions, and we would expect to award contract fourth quarter of this year, sir.

Mr. GIBBS. I guess the followup on that, the National Academy of Sciences and GAO recommends the acquisition best practices, where the design is completed before the start of the construction on the polar icebreaker. Does the Coast Guard plan to follow that recommendation?

Admiral NADEAU. Sir, I am not the acquisition professional. That is probably something I would have to take back and bring back to you. I am not familiar with that exact recommendation that came out of the academy.

Mr. GIBBS. OK. Also in 2018 towing vessels became subject to inspection under subchapter M of the title 46 of the Federal regulations. Subchapter M provides the establishment of third-party inspections, the implementation of certificates of inspection, COI, and all applicable vessels, and a requirement for recurring compliance inspection or audits.

How many towing vessels chose a third-party inspector regime? And how many chose the traditional Coast Guard inspection regime?

Admiral NADEAU. Well, sir, they don't have to actually declare which way they are going to go until they approach their COI. The regulations phase in the COI, certificate of inspection. It is only 25 percent per year.

Currently—so we are only in our first year of implementation—but currently we have signals that about 60 percent of the fleet is—at this point indicated to us they are going to go third party.

Of the COIs we have issued to vessels to date, about—I would say about 80 percent of those, maybe even more, have been to third party—those that use a third-party option.

Mr. GIBBS. Did the Coast Guard receive any additional resources to conduct these inspections, or provide oversight to third-party inspections?

Admiral NADEAU. We got some resources a few years back, but nothing recently. We are working to try and leverage third parties and—

Mr. GIBBS. How you figure you can handle the workload?

Admiral NADEAU. We do the best—we could always use more resources, sir, but we do the best with what we have, and apply it, and look across all the missions we have, all the risks that are out there, to make sure we are trying to address the highest risk as best we can. And leveraging third parties is one way to get after that, provided we do proper oversight.

Mr. GIBBS. Yes, thank you. I yield back.

Mr. MALONEY. The gentleman's time is expired. Mr. Garamendi. I should add we are following a rule of seniority by arrival time at the committee.

Mr. Garamendi?

Mr. GARAMENDI. Thank you, Mr. Chairman, and congratulations on taking the chairmanship of this committee. And Mr. Gibbs, you have a powerful team at the head of the podium here.

Mr. Buzby, Admiral Buzby, you went through the issue of the Executive order. You should take great pride in having pushed that through the administration, through the President's signature. It is going to carry a long, long way.

You also mentioned that it may not do a whole lot of good if there are no ships upon which those sailors or those veterans who would become licensed would be able to sail.

Two issues, specifically, one which will be the subject of tomorrow's hearing in the Armed Services Committee. You will be testifying, but I think we should be aware of it here, because it is crucial to this question, and that has to do with the Ready Reserve.

The ships are aged out, as you have said in your written testimony and in other forms. Could you briefly describe the need for the rebuilding the new ships to replace the existing ships in the Ready Reserve Fleets?

And then I would like to talk to you about your issue of the export of a strategic national asset called oil and natural gas.

Admiral BUZBY. Yes, sir. Thank you for your question. Yes, the Ready Reserve Force, it is a 44½-year-old average-age fleet. That is old for ships. I mean, you know, in the commercial world it is rare to see a ship beyond about 15 or 20 years. So these ships, which have very unique military capabilities, admittedly, are old. They need to be replaced.

The Navy recognizes that, we recognize that, U.S. TRANSCOM recognizes that, and we have a plan to try and do that, a three-pronged plan. The Navy has put this out—it has been out for about a year now—that talks about investment in some of the ships to extend the service life where it makes sense, to recapitalize using newer used ships from the open market that have military utility and modify them in U.S. shipyards, as required, and building new ships in U.S. shipyards. So those three sort of prongs, or strategies to get us where we need to go.

I think the quickest and most affordable way of those three prongs to get after it is probably going to be to get ships from the open market currently, modify them in the U.S. yards, and put them to work in the RRF. We are pursuing that strategy—

Mr. GARAMENDI. Thank you, I will go to the next question in just a moment. But to comment on that, of critical importance here is that these ships be replaced, and also that the American shipyards have a full role in rebuilding or repurposing ships that may be purchased, as well as building the new ships to replace those that are aging out within the Ready Reserve Fleet.

I would draw to the attention of the committee here this wonderful little place card that lays out all of this. It is very useful. And Admiral Buzby, if you can make that available, because it came from you—

Admiral BUZBY. We are happy to make those available to the whole committee, sir.

Mr. GARAMENDI. Secondly, you described in your written testimony and touched on it in your oral testimony that there is an enormous market for LNG and for the export of it, as well as for petroleum products—principally oil—that America is an exporting nation in both of these strategic assets.

There is a piece of legislation that we would hope you and the administration would endorse. It is called the Energizing American Shipbuilding Act. It would require that a very small percentage of that export be on American-built ships. It is estimated that perhaps as many as 30 to 40 ships—perhaps more, as the exports increase—would be built in American shipyards, as well as manned and womanned by American mariners.

Would you care to comment on what that might mean to the maritime industry in the United States and our national security?

Admiral BUZBY. Yes, sir. I appreciate the question. As we look across the size of the fleet that we need to provide the right pool of mariners to meet our sealift needs, we believe we are about 45 or so ships short right now to meet the manning needs. So to the extent that we can generate the cargo available for ships to be available to carry and to provide employment for those mariners that would be on those ships, I think that would be a step in the direction.

We always talk about cargo as king, but we need the cargo first before we can get the ships. This is a natural cargo that exists now. We are an energy exporter, we should be taking advantage of it.

Mr. GARAMENDI. Thank you, Admiral Buzby, I will take this issue to the members of the committee, since it is central to the purpose of this committee, and ask for their support of energizing American shipbuilding. Thank you.

Admiral BUZBY. Yes, sir.

Mr. GARAMENDI. I yield back.

Mr. MALONEY. I thank the gentleman from California. If the gentleman would like to make a unanimous consent request that the two leave-behinds be entered as part of the record, I think that might be well received.

I am having a little trouble with my chair. Other than that, I think the hearing is going very well.

[Laughter.]

Mr. MALONEY. Thank you.

Admiral BUZBY. And we are happy to make copies available.

Mr. MALONEY. I know I am also familiar with these documents. If members of the committee haven't seen them, they are useful, in terms of both the Maritime Security Program and the Ready Reserve Force. I ask they be entered as part of the record.

Without objection, so ordered.

**Maritime Administration posters, submitted for the record by Hon.
Maloney**

[MARAD's Maritime Security Program Fleet poster is available online at <https://www.maritime.dot.gov/national-security/strategic-sealift/msp-ship-poster-december-2018>. MARAD's National Defense Reserve Fleet (Ready Reserve Force and Special Mission) poster is available online at <https://www.maritime.dot.gov/national-defense->

reserve-fleet/rrf/marad-rrf-ship-poster. The information has also been retained in committee files.]

Mr. MALONEY. Mr. Gallagher?

Mr. GALLAGHER. Thank you, Mr. Chairman.

Admiral Nadeau, in your opening statement you noted that, "The Coast Guard has made a deliberate push to focus vessel owners on safety management systems." Can you explain what concrete steps you are taking to focus vessel owners on SMS?

Admiral NADEAU. Yes, sir. Happy to do that. Again, in the aftermath of *El Faro*, though, the—we know the casualty was caused by some decisions made by the master. We learned some other things. And I think it highlighted for us again just the value and importance of an effective safety management system on any functioning ship.

So we have doubled down on efforts. We have conducted training of our own people. We have trained over 100 people last year, some of our more experienced marine inspectors, on safety management systems. We developed policy—internal policy to instruct our people how to get out and start looking after these systems. We developed policy for industry that talked about what we expect in their safety management systems. We have been working with our third parties and are in regular contact with them to make sure that they are doing what we would expect them to be doing. And, in fact, we have stood up a brandnew element within our Coast Guard headquarters that is focused solely on the problem of watching and monitoring the U.S.-flag fleet and our third parties, to make sure that we track and get after this.

So I am seeing some marked improvements, but we are not done. We have got more work to do.

Mr. GALLAGHER. One thing I have heard is that the safety inspection fees required by the Coast Guard can disincentivize companies from choosing the safety management system. The Coast Guard authorization bill last Congress gave you the authority to revise those fees after studying the issue. What is the status of that?

Admiral NADEAU. Yes, sir. We are thankful for the opportunity to go and look at those fees. They have been stagnant for some time. And that work is underway. We want to make sure that we do not disincentivize the idea of having a third party. That is an option under subchapter M, as we spoke about earlier.

We encourage—and I truly believe—that using a safety management system is the right way to manage the risk, particularly as we look at a future as things get more and more complex.

The responsibility should rest with the operator. The Coast Guard is on board, at best, once a year. That cannot ensure the vessel is going to be safe the other 364 days. The operator can, with a good, healthy safety management system. We want to ensure we incentivize that, and we are taking a hard look at our fees that we charge to make sure it does so.

Mr. GALLAGHER. And I appreciate the fact that you guys are studying the issue. I just would like to sort of plant the flag. And hopefully at some point we could come back to the question of whether you think the current fee structure is sound. I just don't want to sort of lose sight of that. But by all means, study it in depth, and I look forward to following up with you at some point.

My final question. The Coast Guard has allowed pilot compensation to increase. And check me on my numbers here, but I think by 20 percent in 2014, 24 percent in 2015, 14 percent in 2016, 13 percent in 2017, and another 8 percent in 2019. I have heard from my local stakeholders in the Port of Green Bay that these increases are unprecedented, they are unsustainable for ratepayers, taxpayers interested in moving waterborne freight in the Great Lakes.

Is the Coast Guard open to reforming or deregulating pilotage on the Great Lakes?

Admiral NADEAU. Sir, I have been intimately involved, I learned more about Great Lake pilotage than I ever thought I would. Last year I personally attended a public meeting we held up in New York. We brought all the people together to try and get after some of the issues we have had.

I would welcome the opportunity to give you a more detailed brief on what we are doing there.

To answer your specific question, no. We are never opposed to getting a little smarter, how we can better get after and serve. Again, make sure things are safe, secure, and resilient.

I would point out, though, sir, that the numbers are up. We do see greater activity in the Great Lakes, even this year, and there seems to be both more cargo and more ships. So I don't think that we are impeding anything, but I would not discount the fact there is always ways to improve.

Mr. GALLAGHER. And we will have to get you to come to the Port of Green Bay at some point and hear from the local stakeholders there. We have the best cheese and beer in the entire country.

[Laughter.]

Mr. GALLAGHER. So if that is not incentive enough, I don't know what is. Thank you.

Mr. MALONEY. I thank the gentleman from Wisconsin, and look forward to him bringing that to future committee hearings, as is allowed under House rules. I put in a word for cheddar. Other Members may have separate requests.

Mr. Larsen?

Mr. LARSEN. Thanks, Mr. Chairman. First off, I would like to thank the Coast Guard team. I was with Admiral Schultz Friday night in Seattle as part of the recognition of the enlisted and Enlisted Reserve folks of the year, and we got two great candidates for the national competition. And if I was voting I would vote for them. But they just really impressed, with the enlisted—Active Enlisted Reserve folks, and the stories that they brought to everybody. And we should be really proud of our enlisted folks in the Reserve and the Active Duty components of the Coast Guard.

Second, I want to echo your comments on the icebreaker, on the Polar Security Cutter. At this point I don't care what you call it. I have been at it for 18 years, and it is going to get built, and we are very happy about that. And I want to echo Mr. Gibbs's comments about timing and notification to us. I want to watch this closely.

Admiral Buzby, with regards to MARAD and the small shipyard grants, I certainly want to see those continue. Last year the committee enacted legislation requiring MARAD to post a notice of funding within 15 days of Congress appropriating funding for the

program. In the first year of the new law, MARAD already missed a deadline, which is last Saturday, March 2nd. And I am wondering when the notice of opportunity will be posted.

Admiral BUZBY. It is out, sir.

Mr. LARSEN. It is out? When was it out?

Admiral BUZBY. It was out the next day, I believe it was. We were just—

Mr. LARSEN. Maybe the 4th. Maybe not Sunday, but maybe the 4th.

Admiral BUZBY. It was. Yes, sir.

Mr. LARSEN. OK, great. Thank you. And with respect to the 2020 budget, I know we are always reluctant to say, "Give us exact numbers." Will there be a number higher than zero in the President's budget for small shipyard grants?

Admiral BUZBY. I can say, sir, that we strongly support the program. We like it a lot, and we know it gives great benefit to the shipyard community.

Mr. LARSEN. Just say it is going to be higher than zero. That is all I am asking.

Admiral BUZBY. That is all I can say, sir.

Mr. LARSEN. I got it, I understand. I will take that as a positive.

Admiral, as—I am sorry, is it Nadeau or Nadeau? Nadeau.

Admiral NADEAU. In the Northwest, Pacific Northwest, the safe transportation of crude oil is a priority. We have got four refineries in the—five, actually, in the Puget Sound, north Puget Sound area, and there is—but there is a major project across the border in Canada, in Burnaby, British Columbia. And last month the Canadian National Energy Board recommended approval for the Trans Mountain pipeline extension project. They call it TMX.

As a result, the number of vessels transporting crude out of that facility will go from about one per week to about one per day, if it is finally approved. And those vessels will be coming south of the Salish Sea, and then taking a hard right around Vancouver Island, and then going out to the Strait of Juan de Fuca, and then out to the Pacific, presumably on the Canadian side.

But if there are oil spills, there is not a wall at the border in the water. And so the question, really, has to do with, from your perspective, about the available sources the Coast Guard has in the region and capacity, both to respond to an oil spill, as well as a planning taking place with your partners in the Canadian Coast Guard, in the event of a final approval of TMX.

Admiral NADEAU. Sir, it is a little bit outside my wheelhouse. But I can speak in more general terms, in that we do have a robust framework in place to address those risks and those threats, and that we require both ship operator have plans in place, and the support in place that they can call upon, should they have an incident.

The network—and I know we have a close workmanship with the Canadians and our District 13, partners with them, and I think we actually have joint plans. So—and through the, again, the whole infrastructure that is the area committee, and the regional committees, they all work together just to prepare and plan and make sure they are ready, should we have the misfortunate to experience that type of event.

Mr. LARSEN. Well, it is certainly a challenge to us, because it is a project that is on the other side of the border. So we don't have a lot of regulatory tools to address those issues that come with it. But we do have some, because of our strong working relationship with the Canadians on a variety of issues, including the Coast Guard.

So I think what I would like to then follow up with you on or with the Coast Guard on is just to have you all come in, walk through those parts where you are cooperating with Canadian Coast Guard, specifically on this project, sort of the planning for it in the event that it is finally approved.

Admiral NADEAU. Yes, sir. We can arrange that.

Mr. LARSEN. Thank you very much. I yield back.

Mr. MALONEY. Thank you, Mr. Larsen.

Mr. Graves?

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman, and I want to congratulate you in the new position. I am looking forward to working with you.

And I also want to congratulate Ranking Member Gibbs for the leadership position on this subcommittee.

A few quick questions. Admiral, there was a moratorium that the Congress passed in the TWIC reader rule that prevented full implementation. Can you give us an idea of when the Coast Guard will be providing a report to Congress on that issue?

Admiral NADEAU. Yes, sir. Thanks for the question. Currently DHS is responsible for providing a report back to Congress. And they are working with their FFRDC and have contracted that out, and we are supporting that effort and partnering, as we are called upon, to help them complete and conduct that analysis.

Once complete, we look forward to having that report, as well. I am sure it will be delivered here. And we will use that, then, to inform where do we go next with the TWIC reader rule.

Mr. GRAVES OF LOUISIANA. So you are not clear on when we can expect it?

Admiral NADEAU. We would expect to see a draft soon, but I don't know—it gets delivered to DHS, and then it gets delivered to you all.

Mr. GRAVES OF LOUISIANA. Yes.

Admiral NADEAU. I don't have an estimate on that, sir.

Mr. GRAVES OF LOUISIANA. OK. Next question. I think National Academies and perhaps GAO suggested on the polar icebreaker that the Coast Guard do detailed design before moving forward on the—on construction. Is—do you have an understanding of what the Coast Guard's plan is there for acquisition?

As you know, the appropriations bill done a few weeks ago does provide a significant amount of funding for that. I know Mr. Larsen and Congressman Maloney and many other folks were involved in that. I just want to get your read on progress there.

Admiral NADEAU. Sir, I can't speak to that specific provision that the academy recommended. What I can tell you is that we are extremely grateful for the support that we receive to recapitalize and build a new Polar Security Cutter.

That \$650 million will enable us to award and continue to design and award a contract before the end of the fiscal year. Working

closely with the Navy and the integrated program office, we are marching along, and we have everything we need to keep going on track.

But I don't know if that gets to your specific question, sir. That might be a get-back we have to provide.

[The information follows:]

U.S. Coast Guard's reponse to request for information from Hon. Graves of Louisiana

Consistent with best practices in other Coast Guard and Navy acquisition programs, the DD&C contract will commence a design phase immediately after award and prior to construction. The joint Coast Guard and Navy Integrated Program Office has structured the contract to require 80 percent design maturity prior to the start of construction. In addition, the contract structure uses days of production information as an indicator of design maturity. The request for proposal stipulates that the drawings and models necessary to support the initial 180 days of production be submitted 90 days before the production readiness review, which occurs prior to the approval to begin construction. This production information will be used to ensure the maturity of the Polar Security Cutter design.

[The information provided above by the U.S. Coast Guard prompted additional questions from the subcommittee. Those questions, and the U.S. Coast Guard's answers, follow:]

U.S. Coast Guard's responses to questions about post-hearing information

Question 1. How and by what method did the CG/Navy IPO determine its 80 percent design maturity requirement before construction can begin? Is this a generally accepted standard for Navy ship construction contracts?

Answer. The IPO evaluated Coast Guard and Navy best practices for several shipbuilding programs and adopted a standard comprising of both a minimum design maturity (80 percent) and days of production metric (180 days).

Question 2. What components are left out in the remaining 20 percent? Are these structural components of the vessel or equipment and appurtenances?

Answer. The portion of design that may not be complete prior to the start of construction is related to sections of the ship that will not be constructed during the first 180 days. Structural design and general arrangements will be largely complete, but items such as software development, C4 system detailed design, and minor equipment selection may still be ongoing.

Question 3. Is a 90-day review period sufficient to review the drawings and models?

Answer. Yes. The PSC configuration will be established early in the design period and reviewed through phased Contract Data Requirements List (CDRL) data submissions and design reviews throughout the detail design period.

Mr. GRAVES OF LOUISIANA. If you could. Again, I am not certain if it was GAO, National Academies, or both, but there was a recommendation that the Coast Guard complete detailed design before moving to construction. So if you could get back to the committee on that, I would appreciate it.

Last question, and really, just both of you, kind of throwing this out there. You know, it is amazing, in the committee memo they talk about—and I apologize, I missed your testimony, so I might be asking you to repeat something, but I am just going to read you two lines out of here.

Now, the percentage of international commerce cargoes carried on U.S.-flagged vessels have fallen from 25 percent in 1955 to approximately 1.5 percent today. Over the last 35 years the number

of U.S.-flagged vessels sailing in international trade dropped from 850 to 82 vessels.

There have been rumors about the administration perhaps looking at tweaks to Jones Act requirements. I am just curious. Looking at some of these staggering statistics, looking at some of the challenges you have had in defense industrial base and even in some of the vessels that you need to acquire, do either of you have any comments on that, on that trend? If changes to the Jones Act would exacerbate that? Any thoughts or reaction?

Admiral BUZBY. I will go ahead and start, sir. You know, the internationally trading fleet, which carries commerce outside of our domestic, is really kind of a separate—

Mr. GRAVES OF LOUISIANA. Well, but Admiral, I mean—let me see if I can maybe hone in on my point.

If we are seeing it dropping off like that, if we are going to not have a robust domestic fleet or domestic defense industrial base here, the shipyards that actually build these ships, wouldn't that actually further drive up the cost of having ships in the United States, U.S.-flagged ships, U.S.-built ships? And wouldn't that further challenge our ability to compete on a—

Admiral BUZBY. Well—

Mr. GRAVES OF LOUISIANA [continuing]. Level playing field, internationally?

Admiral BUZBY. The Jones Act is enabling that—that is the business for those shipyards. We are not building any internationally trading ships in our shipyards today.

Mr. GRAVES OF LOUISIANA. If we—so if we poke holes in the Jones Act, though, doesn't that further undermine our shipbuilding capacity, domestically?

Admiral BUZBY. Absolutely.

Mr. GRAVES OF LOUISIANA. And that would—would that raise concerns with you?

Admiral BUZBY. Absolutely, it would.

Mr. GRAVES OF LOUISIANA. Admiral?

Admiral NADEAU. Sir, we—the Jones Act is a longstanding, 100-year statute on the books. It does a lot of things. I only offer that in—if anyone is going to start tinkering in there, you got to be mindful of second-, third-order effects that might occur.

Mr. GRAVES OF LOUISIANA. Potentially negative. Just because something is old, doesn't mean it is good. But in this case I think that it does actually provide significant protection.

I remember Admiral Zukunft last year actually said that the Coast Guard is not outfitted to properly secure U.S. ports if the—if we do poke holes in Jones Act.

Admiral NADEAU. I believe that is what Admiral Zukunft said. Yes, sir.

Mr. GRAVES OF LOUISIANA. Thank you. I yield back.

Mr. MALONEY. The gentleman's time is expired. Mr. Lowenthal?

Mr. LOWENTHAL. Thank you, Mr. Chair. And I am pleased to again serve on the maritime subcommittee in this Congress. I look forward to working with my colleagues, and especially I want to include my cochair of the PORTS Caucus, Randy Weber, to address some of the critical issues that face our ports and our maritime industry.

You know, ports across the country have applauded the inclusion of \$293 million for the Port Infrastructure Development Program which is at MARAD, which is included in the most recent appropriations language.

As we all know, ports face significant challenges from rising volumes, increased congestion, and the need to lower harmful emissions. Those are three critical things that ports are all confronted with. And so I am hoping that this program, this newly included infrastructure development program, will provide a strong Federal partnership to make these needed investments to modernize our ports, and also the terminals included within the ports.

So, Admiral Buzby, my first question is to you. Can you give us an idea when we can expect to see the notice of funding opportunity for this program? And when does MARAD plan to award grants for this program?

Admiral BUZBY. Thank you for the question, sir, and thank you to the Congress for that very generous infusion of money for ports.

Mr. LOWENTHAL. Yes.

Admiral BUZBY. It is very critical. I mean that—ports are our gateway to our economy. So to get them operating as efficiently as we can is very, very important.

We are working really hard right now with the Secretary's office to get the NOFO put together to—how that program is going to be administered. We are working through to ensure we understand the guidance from Congress, so that we get the proper instructions into the NOFO when it goes out.

I would expect it would be out in a matter of several months.

Mr. LOWENTHAL. Several months?

Admiral BUZBY. Yes, to get that out, probably toward this—certainly, this year, to get out—

Mr. LOWENTHAL. So if we had another meeting in June, you would think that it would be out June, July?

Admiral BUZBY. My guess. But, you know, we are proceeding right along. Believe me, we are having meetings quite frequently to get that—we are anxious to get that out there, we are anxious to get that process in place.

Mr. LOWENTHAL. Thank you. How about the eligibility? Maybe you might tell us about what type of projects you hope to support with these funds.

Admiral BUZBY. Well, there is a number of different projects. You know, I think we are looking to how do we, as I mentioned, make these ports more efficient, how do we account for the flow of cargo.

You know, we have gigantic ships that are coming, much larger than—

Mr. LOWENTHAL. Right.

Admiral BUZBY [continuing]. These terminals have handled in the past, upwards of 18,000 to 20,000 TEUs—

Mr. LOWENTHAL. Even larger.

Admiral BUZBY. Right. So, you know, ships—this massive amount of cargo is going to be flowing, and it has to flow out through rail lines, through highways, and through our marine highways. So upgrading that flow, I think, is going to be a big focus, probably, for a lot of ports and terminals that put in for these, for this grant money.

Mr. LOWENTHAL. Thank you. I have a question for the Coast Guard, a little different.

You know, the development of offshore wind farms is growing steadily, especially along the east coast. BOEM, the Bureau of Ocean Energy Management, is responsible for the overall development of offshore energy, with input from other Federal agencies.

So my question is, as the Federal agency that is charged with ensuring safe navigation, what is the Coast Guard's role in the development of offshore wind farms?

Admiral NADEAU. Thank you for that question, sir. We have an active role in that, as you stated, and it is primarily in the navigation safety. We are in support to BOEM, as the lead Federal agency for the permitting and the development of that activity, but we are plugged in with them and engaged.

In fact, we have an MOA that we signed a couple years ago that clearly outlines our roles and responsibilities, and we are active with them on a reoccurring basis where we meet with them to discuss and try and deconflict. We think this can be done right. It has to be mindful of the right—stakeholders have to come to the table. We are committed to working with our other Federal partners to ensure all stakeholder needs are addressed and considered as part of that process.

Mr. LOWENTHAL. Thank you. I have one last question. And maybe you can—just a brief answer. Does the Coast Guard have the authority to ensure the safety of vessels and workers during wind farm development activities?

Admiral NADEAU. We would regulate safety of the workers on U.S.-flagged vessels. But depending on where the activity is taking place, we may not have jurisdiction or authority. If you are on a foreign vessel more than 12 miles offshore, my sense is we, depending on what that vessel is doing, may not have the jurisdiction over that activity. That would be left to BOEM, in that case.

Mr. LOWENTHAL. Thank you. And I yield back, Mr. Chairman.

Mr. MALONEY. I thank the gentleman. I would just like to note that we have been joined by the chairman of the full committee, Chairman Peter DeFazio. And without objection, I would like to yield to the chairman if he has any remarks he might like to make at this time. I would also like to congratulate him on his position as chairman of the full committee, and look forward to working with him.

Mr. DEFazio. Well, Mr. Chairman, first I am sorry I couldn't be here for the testimony in the beginning. I was over—Ways and Means was holding the first meaningful hearing since 2010 on funding infrastructure. So I thought it was important I be there—

Mr. MALONEY. Starting on a bipartisan note—

Mr. DEFazio [continuing]. To encourage them to move quickly and robustly to funding our infrastructure deficit.

I just wanted, Mr. Chairman, to present you with this small token—

Mr. MALONEY. Thank you.

Mr. DEFazio [continuing]. And congratulate you on your chairmanship of the committee. I had a statement which I rewrote that seems to be the earlier pabulum statement I got, but I feel very

strongly about the Jones Act, and I was very pleased that—hopefully, that is not what is in here.

[Laughter.]

Mr. MALONEY. That is yours.

Mr. DEFAZIO. Yes. I think—oh, yes, OK, this is better.

You know, because the President's Executive order to facilitate the movement of personnel from active military service into the merchant marine, I think, is great. And—but it would be ironic if there wasn't a merchant marine for them to move to.

We are seeing, you know, the Governor of Puerto Rico following on, you know, the myth that Puerto Rico pays a premium for its freight service from Jacksonville and elsewhere, is pushing for future exemptions under the Jones Act for potential future shipments of LNG, et cetera. It is just the oil and gas industry trying to get their foot in the door to disestablish, you know, what is a very successful U.S. story, in terms of maintaining at least a minimal merchant marine capability, shipbuilding capability, and that. And if we undermine the Jones Act we won't have that any more.

I also in that testimony referenced the fact that the Coast Guard was the only uniformed military service not paid during the shutdown, and it was ironic in talking to the Commandant—I think it was the Commandant; I had numerous conversations with numerous people in the Coast Guard—about them escorting the submarines to Bangor. So the sailors in the subs are getting paid, but the Coasties on top of the water providing the security weren't. It was a little bit of—more than a little bit of irony to that.

And also, the President made it all very much about drugs. You know, former Commandant, Admiral Zukunft observed that we only act on 20 percent of our actionable intelligence to intercept drug shipments, and yet the Coast Guard interdicts more drugs than every other agency in the Federal, State, and local governments, combined. And that—and there is a lot more out there, if they had additional resources.

So I just want to thank the Coast Guard for being here today, I want to thank the chairman for convening this important hearing, and hope you enjoy that gavel.

Mr. MALONEY. I thank the gentleman. And I am particularly glad I yielded, given that it was the presentation of a gift, which I was unaware of. But I am very grateful for it, and appreciate—

Mr. DEFAZIO. It is kind of small—

Mr. MALONEY. I appreciate—I think I will leave that right there. Thank you. Thank you very much, sir.

And I have offered the Republicans offsetting time, which has been graciously declined by my colleague, Mr. Gibbs. But I do want to recognize Mr. Weber.

Thank you, Mr. Chairman.

Mr. WEBER. I will take that time, if it is still available.

[Laughter.]

Mr. WEBER. Thank you, Mr. Chairman. I am going to go a little bit different route. Most of you all know that I have Texas A&M Maritime Academy in Galveston in my district. And so I am very interested in the workforce, the training, and the like.

In your testimony, Admiral Buzby, you said there are 61 Government-owned vessels maintaining reduced operating status. Do you know where those are stationed?

Admiral BUZBY. Yes, sir. They are stationed on all three of our coasts: Atlantic coast, gulf coast, and Pacific coast, spread in groups of, typically, threes and fours.

Mr. WEBER. OK. But there is a group, Sabine-Neches Waterway, over by Beaumont.

Admiral BUZBY. Yes, sir. We have one of our Reserve Fleets there.

Mr. WEBER. How many ships are stationed there, do you know, offhand?

Admiral BUZBY. Let's see. There are four Ready Reserve Force ships there, and then a number of ships in the National Defense Reserve Force that are in longer term layup there.

Mr. WEBER. I am going to be pushing for my colleagues—talking to the great chairman from our full committee that Sabine-Neches Waterway, as you know, has an authorized Chief's Report to be dredged to a deeper depth. And we certainly need that.

The Port of Beaumont, for our friends here on the committee and those listening, sends out more military personnel and equipment than any other port in the other 49 lesser States in the country. And I just want to make sure I get that in the record. So any help that we can get from you all in getting that dredged will be really appreciated.

Mr. DEFAZIO. If the gentleman would yield for 1 brief second?

Mr. WEBER. Yes, sir, Mr. Chairman.

Mr. DEFAZIO. I certainly intend to address the harbor maintenance tax, fully expending the harbor maintenance tax, and I have been working with the Budget Committee in the hope of spending down the \$10 billion balance that has already been sequestered. With needs like yours, it could be well spent.

Mr. WEBER. Well, thank you, Mr. Chairman. I appreciate that. Count me as a supporter of that idea. Let's use the Harbor Maintenance Trust Fund for, who knew, harbor maintenance, you know?

[Laughter.]

Mr. WEBER. So I appreciate that.

The number of maritime academies, is it—you pronounced your—Nadeau—the number of maritime academies, Admiral? How many?

Admiral NADEAU. I could defer to my friend next door, but I believe it is six plus one. Is that right, Buz?

Admiral BUZBY. Federal academy at Kings Point, plus six State—

Mr. WEBER. Right. Right, right, right. You wouldn't happen to know which academy has the oldest, smallest ship, would you?

Admiral BUZBY. Yes, sir.

[Laughter.]

Mr. WEBER. And, Admiral Buzby, which one would that be?

Admiral BUZBY. The Texas A&M Maritime Academy in Galveston.

Mr. WEBER. Darn, you don't say.

Admiral BUZBY. I do say, sir.

Mr. WEBER. Well, Mr. Chairman, are you still with us?

[Laughter.]

Admiral BUZBY. Actually, the smallest. Not so much the oldest. The oldest, actually, is at State University in New York. They have the oldest.

Mr. WEBER. Right.

Admiral BUZBY. By a long ways.

Mr. WEBER. As you know, the *General Rudder* only houses 50 cadets. And what does that one hold?

Admiral BUZBY. About 600.

Mr. WEBER. About 600? Gosh. I am thinking that is a little bit higher number. So we are obviously pushing for a ship to get funded, Mr. Chairman, in the appropriations coming up for a new ship for Texas Academy.

Of the six academies that we have—Admiral Buzby, this might be for you—what are the capacities of the varying ships?

Admiral BUZBY. Well, the *Empire State* is right around 600. The *Kennedy*, which is the second largest and second oldest, is just shy of 600. It is almost the same capacity.

Mr. WEBER. OK.

Admiral BUZBY. The *State of Maine* and the *Golden Bear*, which are sister ships, are on the order of about 350, I want to say. And then the *General Rudder* and the *State of Michigan*, which are sister ships also, they are on the order of 50.

Mr. WEBER. OK. So we can see the disparity there. And so we certainly want to make that case for those for my friends here on the committee.

You also talked about LNG bunkering. And you are probably aware that 95 percent of the Nation's LNG really is exported from the Sabine-Neches Waterway, the second longest waterway in the Gulf Coast, second only to the Mississippi River.

Of course, it does have Cheniere Energy—did we lose Mr. Graves? It does have Cheniere Energy in those calculations, but the Sabine-Neches navigation district is responsible for making sure that LNG gets out. It is a coming—obviously, a coming industry.

Do either of you know what percentage of those ships being built—are they all tankers that are going to be using LNG? Or are there containerships? Do you know any of those stats?

Admiral BUZBY. Are you talking U.S.—

Mr. WEBER. No, the new ones around the world that are—

Admiral BUZBY. Around the world?

Mr. WEBER [continuing]. Using LNG.

Admiral NADEAU. So we are seeing development, both in cruise liners, some of the—a large—I would say a large—I would say—I am thinking, like, 25 percent of the new cruise ships that are on order right now will be LNG-fueled. We have seen other containerships, some of the big containerships that are operating around the world, switching to LNG as fuel. And I have not heard of any bulkers yet. But there is more and more developed, as the infrastructure around the globe develops and fuel becomes available. Particularly for those that are on a known trade route, it is very attractive.

Mr. WEBER. Thank you, Mr. Chairman, for your indulgence. I yield back.

Mr. MALONEY. I thank the gentleman.

Mr. Brown?

Mr. BROWN. Thank you, Chairman Maloney and Chairman DeFazio, Ranking Member Gibbs.

First of all, it is an honor to be able to serve with all of you on the Coast Guard and Maritime Transportation Subcommittee. I look forward to the work that we will do together this term.

The U.S. maritime industry is essential to ensuring long-term stability and security for our country. From supporting commerce within our own waters to providing aid to our security efforts abroad, the U.S. maritime industry is a critical element of our economic and military power.

However, the maritime industry's strength is not guaranteed, and American dominance at sea is currently being challenged and threatened. And we face numerous challenges that we have to address. In order to combat these challenges, it is imperative, I believe, that the Maritime Administration issue the national maritime strategy, which is years overdue.

Admiral Buzby, without a national maritime strategy, it is my belief that Congress does not have all the tools that we need to best support the U.S. maritime industry and ensure long-term competitiveness for U.S.-flagged vessels. I understand that no timeline has been established for the release of the report, GAO has recommended that a timeline be established. Can you give us an update on the progress developed in the national maritime strategy, and when we might expect to see it? Thank you.

Admiral BUZBY. Yes, sir. Thank you for the question. And if I may, Congress has extended our deadline for the report to February 2020. So technically, we are not late under the new extension. And obviously, we are striving mightily to make sure we deliver a product by then.

I would agree with you wholeheartedly that a national maritime transportation strategy is really vital for all of us in the industry to be able to stack hands, along with Congress, to have a common way forward, an agreed way forward.

The strategy is currently en route within the administration. Part of the delay was to ensure that our strategy meshed up and is coordinated well with the national defense strategy and national security strategy, because they are all complementary, and they really need to be in sync with one another. So that is what is going on right now with the strategy.

Mr. BROWN. That is early 2020?

Admiral BUZBY. February of 2020, yes.

Mr. BROWN. February. Thank you.

And Admiral Nadeau? OK. Admiral—first name Rear, last name Admiral.

[Laughter.]

Mr. BROWN. As you know, Chairman DeFazio referenced—

Mr. MALONEY. Spoken like an Army man.

Mr. BROWN [continuing]. The President signing the Executive order last week to help bolster the Military to Mariner program. I did arrive late at the hearing, perhaps you have spoken to it. Can you talk to me a little bit about the program, and how many mili-

tary members and veterans have received credentials under this program?

And I understand that the pool of credentialed mariners is declining. How many credentialed mariners are there, and is that number, in fact, decreasing?

Admiral NADEAU. Yes, sir. Thanks for the question. We point out that we currently have about 200,000 credentialed mariners. How many of those are active, it is difficult for us to say. Our system is not set up to track. And I think we know that we need a better way to track and support the needs of MARAD, so they can know who is available and what is their availability and when could they serve.

We have been working on this for some time. We use recommendations from our advisory committee, MERPAC, to help us establish the right way to move forward and give us advice and recommendations, not just to the Coast Guard, but to all the Services, how we can best taking the training and education, and mirror that to the international standard, so they can get credit for the experience and the training they receive.

We have about—we believe—our system is not set up to track how many veterans, or people coming with military service. But we kind of have an ad hoc system we started in 2016. To date I want to say it is about 2,000 folks that we know had military service that have now transitioned and have an actual credential that they are using.

And we have done a lot of things along the way to make that easier, including transcripts of sea service, where they can easily map their time and credit that towards their credentialing.

Mr. BROWN. So I would just say that if accurate tracking of mariners is important, then be sure to, you know, make the appropriate request of Congress, how we can support you in more accurately tracking the mariners that are active.

I yield back, Mr. Chairman.

Mr. MALONEY. I thank the gentleman. And at this time I would like to yield to the ranking member for a quick question, in the spirit of accommodation.

Mr. GIBBS. Just to followup question from the gentleman from California.

Admiral, the “Atlantic Coast Port Support Access Route Study” was completed 3 years ago, and the question is when is it going to be implemented. Because you identified the routes and the windmills, and stuff. When are you going to implement the routes?

Admiral NADEAU. We are working to do that now, sir. Work has started. But I just would point out that, while we wait to complete the work that needs to do—and it looks like a rulemaking will be necessary—it doesn’t prevent us from today sitting down with all stakeholders as the permitting process works itself out. We are at the table with BOEM and the stakeholders to ensure that what we learned through that process is taken into account as they proceed with issuing permits.

So we will look to implement regulations. But in the meantime, we don’t ignore the fact that we have this very useful information. We ensure that that is taken into account to keep the waterways

safe, secure, and that we don't sacrifice safety at the expense of some other development.

Mr. GIBBS. Thank you. I yield back.

Mr. MALONEY. I thank the gentleman. Ms. Plaskett?

Ms. PLASKETT. Thank you, Mr. Chairman. And congratulations to you and to the ranking member. This is a really important subcommittee, for me, being the representative from the Virgin Islands. I tell people back home that the reason that seven nations, over time, owned the Virgin Islands was not because they wanted a vacation spot. It was first because of our agriculture. But more importantly, it was because of our geographic location and our strategic importance for national security interests, as well as for commerce.

And with that being said, this then—this committee and both of you are very important to us, both for a strategic location, in terms of commerce, and as well in terms of national security interests, as well. Because, listen, you know, there is a reason that Bluebeard, Blackbeard, and Redbeard had their homes on St. Thomas. It was very important to them, in terms of their commerce.

And, unfortunately, in the 21st century, drug traffickers are very smart, as well. And they are using the Virgin Islands and Puerto Rico, as security interests are blocking the movement of drugs into the United States through land going to the sea. And having the sufficient funds from the Coast Guard to be able to fight that is very, very important to us.

So you have my support, both of you, in terms of creating what is needed in the budget fight, and ensuring that you have the right amount of vessels, and our ports are in the shape that they are supposed to be, so that maritime work can be done.

So, with that, one of my first questions to you, Admiral Buzby, is related to port infrastructure. And how will resilient port design, maritime highway design designation, and intermodal connections impact global shipping?

Admiral BUZBY. Thank you for your question, ma'am. And thank you for the support. You know, marine highways development is a very large priority with the Department of Transportation, and MARAD, in particular, because we see that mode as the mode with the greatest opportunity for expansion and capacity in the future. We are only going to be moving more things, as population increases and as we see flow of goods around the world.

So, you know, our highways and our railroads are getting very crowded, as we all know, and air shipment is still pretty expensive. So our waterways, which our Nation is blessed with, provides a natural route to move more and more goods. So to the extent we can continue to develop our marine waterways, I think it is going to be to all of our national benefit.

Ms. PLASKETT. I agree. And with that, sir, you know, when you talk about LNG—my colleague sitting right next to me—you know, the Virgin Islands, we actually have deepwater ports, we are outside of the custom zone, and we already have an oil refinery. So LNG—you guys could bring it right to us. We will take care of you.

[Laughter.]

Ms. PLASKETT. The other thing I wanted to ask about with regard to the Coast Guard is the support that you feel that you have

from us, and what you need from us, and particularly in the area of the Virgin Islands.

And I will ask you first with regard to drug trafficking, and the need for additional ships and et cetera. What would you want that to look like to be able to fight within the Caribbean?

Admiral NADEAU. Not exactly within my current responsibilities, but I can speak in general terms, ma'am. And I would tell you that, first, we are grateful to the tremendous support that we have received from Congress and the administration. We are building. We received funding for our second OPC. We have got funding for six FRCs, two of which will go off to replacement, capitalized six that we have right now in CENTCOM AOR.

And sir, Mr. DeFazio, I appreciate your thanks that we had people there, as well, working with the Navy during the shutdown over, actually, in CENTCOM AOR that were not getting paid. But they stood the watch, and we are very proud of them.

Ma'am, to your question, we are grateful for the support. We are recapitalizing our assets. As you know, we recouped about \$6 billion worth of drugs off the waterways last year, getting after those transnational criminal organizations where they are most vulnerable, which is at sea. We will continue that. That is the Commandant's—one of his top priorities.

Ms. PLASKETT. And what about shoreside infrastructure? Is there—is that—I know that we often talk about the actual—when we talk about assets, we are talking about ships and your men and women who are out there fighting. But what about shoreside infrastructure to support the fleet, itself?

Admiral NADEAU. We have an aging infrastructure there, as well, ma'am. I believe we are up to about \$1.7 billion in our backlog. Recent committee support through Congress, we have got some funding to start getting after that. But there is still a lot more work to be done to get after all of our backlog there.

Ms. PLASKETT. OK, thank you very much for the time.

Mr. MALONEY. I thank the gentlewoman. And before I go to Mr. Pappas I would just like to advise the Members that after Mr. Pappas's questioning I would like to move to the second panel.

Without objection.

Mr. Pappas?

Mr. PAPPAS. Thank you very much, Mr. Chairman. Thank you very much, Admiral Buzby and Admiral Nadeau, for joining us here today. I appreciate your thoughts and I read—

Mr. MALONEY. Nadeau.

Mr. PAPPAS [continuing]. The written testimony, as I was—

Mr. MALONEY. Nadeau.

Mr. PAPPAS. Nadeau, got it.

[Laughter.]

[Inaudible.]

Mr. PAPPAS. Thank you. We have got a lot of French Canadians in my district, so I will—

[Inaudible.]

Mr. PAPPAS. OK. Great, excellent. I know it well, I know it well. It is about a mile from my house.

Well, since we are talking about New Hampshire, I am very proud to represent the Granite State, 18 miles of coastline, the

smallest coastline of any State in the country. I represent all of it. But yet the maritime industry is absolutely critical to the seacoast economy of the State of New Hampshire. According to the American Maritime Partnership, more than \$113 million annually is added to the economy from the maritime industry, and \$75 million in workforce income is derived from that industry.

I am concerned a great deal about, you know, the size of the mariner pool. I know you have touched on that a great deal this morning, so I appreciate your responses there.

One thing I wanted to raise. Recently I saw something in the Wall Street Journal, a report on China attempting to hack U.S. universities, and targeting information on U.S. maritime research. And I am wondering if you could comment on that, if the Coast Guard or the Maritime Administration has looked into this to ensure that our universities have the technical assistance that they need to make sure that they are protected, and that the information is secure.

Admiral NADEAU. I am not familiar with that specific incident, sir. But I can tell you in general, in terms of cyber, we have set up a Coast Guard Cyber Command, and have built that expertise out, and are leveraging that.

In addition, we are looking to work with the stakeholders to ensure that there is sufficient guidance in place, that people know what to expect, that we continue to address all of the threats and hazards that may be coming.

We do know that they present new risks. Cyber is a new world for us. But it is ever present, and the industry needs to take advantage of those efficiencies in order to remain competitive. So we don't want to impede their ability, we just want to make sure we are mindful of the risks, ensure that we have the proper resilience in place, and that redundancy is there, so that however we leverage this technology, we make sure that, should it go away or should it be impeded somehow, or should someone take it from us, we can continue to operate or deal with the consequences when that occurs.

Mr. PAPPAS. Thank you.

Admiral BUZBY?

Admiral BUZBY. Yes, sir. We are not doing anything directly with any of the colleges and universities. As Admiral Nadeau said, we are primarily focused on the ships and the infrastructure, the connections to the ports, the terminals, all those things that enable our maritime transportation system to flow. And we participate widely with industry and with other parts of the Government to make sure that we are as secure as we can be.

But as you are seeing in that article, we are under constant attack every day, many times a day.

Mr. PAPPAS. Well, thanks for the response.

The Jones Act seems to be working. I am a big supporter. I am wondering if you could just give us an overall comment of what the maritime industry would look like without the Jones Act.

Admiral BUZBY. Well, I would start, because we would not have a maritime industry without the Jones Act, quite plain and simple. You know, without—the majority of our unlimited tonnage mariners work on Jones Act ships. Those 99 large Jones Act ships, they

employ the majority of the mariners that I am going to need to man up those 61 Government sealift ships. Absent the Jones Act and the jobs that go with them, we are not taking those ships to war, we are not taking this country to war. It is as simple as that.

Mr. PAPPAS. Thank you.

I yield back, Mr. Chairman.

Mr. MALONEY. Well, I thank the gentleman.

And Admiral Nadeau, I think it is fair to say we have found every conceivable pronunciation of your name today.

[Laughter.]

Admiral NADEAU. I have heard it all, sir. Thank you.

Mr. MALONEY. If you were fishing with Barack Obama and you caught a big fish, you would say, "Hand me the net, O," right? Is that it?

[Laughter.]

Mr. MALONEY. But you will never forget. You will never forget now. It is in your head.

Sir, thank you very much. Thank you, Admiral Buzby. Both of you, we are cognizant of the extraordinary service you have provided to our Nation throughout your careers, and continue to do so. I will let you both know, you know, we take our oversight responsibility seriously, and we all have a role to play. But we respect very much the jobs that you do, particularly the men and women of the Coast Guard.

Let me just reiterate we appreciate you very much, and we share your commitment to that mission on this committee. Thank you.

With that, we would like to adjourn the first panel and move to the second panel, if we could.

[Pause.]

Mr. MALONEY. I will just note for the record—I think I note for the record this is not our normal committee room.

[Pause.]

Mr. MALONEY. Well, thank you all. We would like now to welcome our next panel of witnesses. We are joined today by Rear Admiral Michael Alfultis.

Sir, am I saying your name correctly?

[Laughter.]

Mr. MALONEY. I can't do this again.

Admiral ALFULTIS. If you had problems with the last admiral, you are really going to have problems with mine. Alfultis.

Mr. MALONEY. Alfultis. Alfultis. No one will make the mistake I just made. Thank you, sir. Mr. Alfultis, Admiral Alfultis, president of the State University of New York Maritime College, an institution I know well.

We are joined by Ms. Jennifer Carpenter, executive vice president and COO of the American Waterways Operators. Thank you, ma'am, for being here.

Mr. John Crowley, president of the National Association of Waterfront Employers.

Mr. Michael Roberts, senior vice president and general counsel at Crowley Maritime, on behalf of the American Maritime Partnership.

And Mr. Augustin Tellez, executive vice president, Seafarers International Union, on behalf of the American Maritime Officers;

Masters, Mates, and Pilots; Marine Engineers' Beneficial Association; and the Seafarers International Union.

Thank you all for being here today. I look forward to your testimony. I ask unanimous consent that our witnesses' full statements be included in the record. And without objection, so ordered.

As per the previous panel, since that written testimony has been made part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes.

And with that, Admiral, you may proceed.

TESTIMONY OF REAR ADMIRAL MICHAEL ALFULTIS, USMS, PH.D., PRESIDENT, STATE UNIVERSITY OF NEW YORK MARITIME COLLEGE; JENNIFER A. CARPENTER, EXECUTIVE VICE PRESIDENT AND COO, THE AMERICAN WATERWAYS OPERATORS; JOHN E. CROWLEY, JR., PRESIDENT, NATIONAL ASSOCIATION OF WATERFRONT EMPLOYERS; MICHAEL G. ROBERTS, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, CROWLEY MARITIME CORP., ON BEHALF OF AMERICAN MARITIME PARTNERSHIP; AND AUGUSTIN TELLEZ, EXECUTIVE VICE PRESIDENT, SEAFARERS INTERNATIONAL UNION, ON BEHALF OF AMERICAN MARITIME OFFICERS; INTERNATIONAL UNION OF MASTERS, MATES AND PILOTS; SEAFARERS INTERNATIONAL UNION; MARINE ENGINEERS' BENEFICIAL ASSOCIATION; AND THE MARITIME TRADES DEPARTMENT, AFL-CIO

Admiral ALFULTIS. Good morning, Chairman Maloney, Ranking Member Gibbs, and members of the subcommittee.

I am president of State University of New York Maritime College, and I am here representing the Consortium of State Maritime Academies. I am here today about three very important issues as they pertain to the training, education, and development of future mariners: first, the importance of the State maritime academies in producing licensed mariners for national defense and economic security; second, the need to replace the fleet of aging State maritime academy training ships that are inextricably linked to our ability to train our students; and finally, the importance of employment and advancement opportunities for U.S. mariners.

The six State maritime academies, along with the Federal United States Merchant Marine Academy, provide the pool of new mariners our Nation needs for national defense and economic security. Collectively, the State maritime academies annually graduate approximately 900 new deck and engine licensed officers. This equates to more than 70 percent of the new U.S.-licensed officers each year, with the U.S. Merchant Marine Academy producing the remaining 25 percent, and another 5 percent working up through the industry ranks. All of these sources are important in ensuring a healthy mariner pool.

The ability of the State maritime academies to produce licensed officers is accomplished through a unique Federal-State-citizen partnership. At SUNY Maritime College, student tuition and fees fund approximately 50 percent of our operating budget, and State funding accounts for over 47 percent. Federal support accounts for approximately 3 percent.

The State maritime academies are grateful to Congress and the administration for the support provided. And as the fiscal year 2020 budget process progresses, we look forward to working with Congress to maintain the level of support received in fiscal year 2019.

In addition to direct support, the Federal Government provides each State maritime academy with a training ship. The State maritime academies require modern vessels of sufficient size to provide the required sea time and training to meet licensing requirements. They are the primary and often the only means for cadets to learn, train, and earn federally required sea time for the U.S. Coast Guard merchant mariner license. These training vessels, owned by the Federal Government and operated by the State maritime academies, are also essential assets for humanitarian and disaster relief efforts, as they were for Hurricanes Harvey, Irma, Maria, Sandy, and Katrina.

Recognizing urgency of replacing the fleet of aging training ships, Congress has partially funded the national security multimission vessel, or NSMV, program. The fiscal year 2018 budget included \$300 million for the first NSMV to replace the *Empire State* at SUNY Maritime College. The fiscal year 2019 budget included another \$300 million for a second vessel to replace *Kennedy* at Massachusetts Maritime Academy.

The NSMVs are designed as multimission assets to serve in humanitarian aid and disaster relief efforts, as well as training ships. The State maritime academies are extremely appreciative of the bipartisan and bicameral support for the NSMV program and the two ships funded to date. To meet the training needs of the collective State maritime academies and have sufficient ships available to support other national tasking and missions, we request Congress continue to fund the NSMV program until three additional ships have been built and delivered. This will ensure adequate capacity for all State maritime academies' training requirements, while providing the flexibility to deploy the NSMVs in response to national emergencies.

As others have testified, or will testify today, an adequate pool of skilled U.S. citizen mariners is essential for national defense sealift requirements and our economic security. While the State maritime academies and the U.S. Merchant Marine Academy currently produce an adequate supply of entry-level licensed officers, there is an estimated shortfall of 1,800 mariners to crew all U.S.-flagged commercial and Government Reserve sealift vessels for the same period of time of more than 6 months.

We request strong congressional support for legislation and funding that strengthens and grows the U.S. maritime industry, in order to provide the employment and advancement opportunities needed to recruit and retain sufficient number of licensed mariners for commercial and strategic sealift requirements.

So, in summary, the State maritime academies and the U.S. Merchant Marine Academy are essential to producing a pool of entry-level licensed officers for national defense and economic security. Funding is needed to replace three additional training ships used by the State maritime academies in order to maintain our Nation's ability to train mariners and respond to natural disasters.

And full funding and expansion of current programs and new incentives and legislation are needed to provide employment and advancement opportunities for our mariners.

Thank you for the opportunity to testify today on behalf of the Consortium of State Maritime Academies, and I look forward to answering any questions that you may have.

[Admiral Alfultis's prepared statement follows:]

**Prepared Statement of Rear Admiral Michael Alfultis, USMS, Ph.D.,
President, State University of New York Maritime College**

INTRODUCTION

Good afternoon Chairman Maloney, Ranking Member Gibbs, and members of the Subcommittee. I am Rear Admiral Michael Alfultis, President of the State University of New York Maritime College.

Today I am representing the Consortium of State Maritime Academies (SMAs), which includes: California Maritime Academy in Vallejo, California; Great Lakes Maritime Academy in Traverse City, Michigan; Maine Maritime Academy in Castine, Maine; Massachusetts Maritime Academy in Buzzards Bay, Massachusetts; State University of New York Maritime College in Throggs Neck, New York; and Texas A&M Maritime Academy in Galveston, Texas.

I am here today to talk about three very important issues as they pertain to the training, education, and development of future mariners:

1. The importance of the State maritime academies in producing licensed mariners for national defense and economic security;
2. The need to replace the fleet of aging SMA training ships that are inextricably linked to our ability to train our students; and
3. The importance of employment and advancement opportunities for U.S. mariners.

(1) State Maritime Academies Produce 70 percent of the New Licensed Officers Each Year and Are Important to America's Commercial and National Security.

The six State maritime academies, along with the Federal United States Merchant Marine Academy, provide the pool of new mariners our nation needs for national defensive and economic security.

Our national defense is dependent upon civilian mariners who provide logistical support for our operational and deployed forces in both peace and conflict. The Military Sealift Command (MSC) operates a fleet of over 120 ships which provide vital logistical and special mission support for U.S. operational forces across the globe. These vessels are crewed by U.S. civilian mariners serving in the U.S. Merchant Marine. Additionally, U.S. mariners are also required for another 100 ships in the National Defense Reserve Fleet (NDRF) and 60 ships in the national Maritime Security Program (MSP) fleet. These ships are an essential ready source of "surge" shipping, when needed by the Department of Defense (DOD) to support the rapid deployment and global projection of U.S. military forces.

In addition to DOD sealift and logistical requirements, agricultural products, petroleum products, and consumer goods in the U.S. are transported via vessels. Thus, as a maritime nation, the U.S. economy depends on a healthy maritime industry. U.S. licensed mariners operate vessels engaged in international trade, coastal trade, and transportation along inland waterways. They also serve as pilots responsible for the safe navigation of all vessels in U.S. waters. They operate the network of ferries transporting people, trucks, and autos. Eventually, many of our licensed mariners will become executives, managers, and leaders in other sectors of the maritime industry, including port and terminal operations, chartering and brokering, insurance underwriting, admiralty law, and maritime security.

Enrollment in the six State maritime academies' license programs is near full capacity and currently stands at over 3700 cadets. In addition, nearly 1000 midshipmen are enrolled at the USMMA. Enrollment in the SMAs' license programs is limited by the capacity of the training ships, berths available for cadets on commercial ships, and shoreside training infrastructure.

As with U.S. Merchant Marine Academy graduates, SMA licensed cadets historically have enjoyed high employment rates upon graduation. Our highly skilled graduates have many opportunities both afloat and ashore in the maritime industry, U.S. Armed Forces, the U.S. transportation eco-system, and energy sectors.

The ability of the SMAs to produce licensed officers is accomplished through a unique Federal, State, citizen partnership.

By Federal law, the U.S. Department of Transportation (DOT) Maritime Administration (MARAD) is responsible for the education and training of merchant marine officers to ensure national defense readiness and other national security needs. To that end, MARAD fully funds and operates the U.S. Merchant Marine Academy (USMMA), and provides training ships and limited funding to the six SMAs. Funding includes limited direct support and fuel funding, and stipends for cadets in the Strategic Sealift Officer Midshipman program. The State Maritime Academies are grateful to Congress and the Administration for the funding provided to the Maritime Administration especially as the cost to educate and train cadets and maintain our aging training ships has increased substantially. As the FY-2020 budget process progresses, we look forward to working with Congress to maintain the level of support we received in FY-2019.

For their part, States with maritime academies are responsible for providing all the shore-based infrastructure including academic buildings, dormitories, simulators, laboratories, faculty and staff. While the Federal Government provides the SMAs training vessels and funds major maintenance and repair of the vessels, the SMAs provide berthing, crewing, and routine maintenance costs, and the cost of operating the ship.

Our students are also partners as they are responsible for paying for tuition, fees, books, materials, and room and board. The average cost of attendance for in-State students at the SMAs is \$ 27,000 per year. At SUNY Maritime College, student tuition and fees represent almost 50 percent of our operating budget and State funding accounts for over 47 percent. Federal direct funding and fuel reimbursement account for approximately 3 percent. Direct funding from MARAD is primarily used to offset training cruises and for unique and expensive equipment such as bridge and engineroom simulators and small vessels, used to meet U.S. Coast Guard Seaman-ship, Training, Certification, and Watchkeeping (STCW) requirements.

A 2018 study completed for Massachusetts Maritime Academy concluded that based on the assumption that the Federal Government provides an additional \$300 million to build a new ship to replace their aging training ship, the annualized Federal funding (over the 50 year service life of the new ship) received by Massachusetts Maritime Academy would be approximately \$7.7 million, or 11 percent of the pro forma total sources of funds for the academy. This is reflective of funding for the other State Maritime Academies.

In this unique Federal, State, citizen partnership, each partner plays an essential role in the production of licensed mariners at the SMAs.

(2) The New Program To Recapitalize The State Maritime Academy Training Ship Fleet is Essential to the Continued World-Class Training of American Mariners.

All maritime academy cadets seeking a U.S. Coast Guard license are required to accumulate at least 360 days of sea time to qualify for a license. Therefore, a fleet of training vessels at the six SMAs is essential for the SMA cadets to meet the sea-time requirements. While the U.S. Merchant Marine Academy utilizes commercial ships for their cadets, there is an insufficient number of commercial vessels upon which all SMA cadets can also obtain the required sea time. Federal law (Title 46 USC 51504) and Federal regulations (46 CFR 310.4) specifically authorize the Department of Transportation to provide each SMA with a "suitable ship" under control of the Secretary, and if no such vessel is available, to build and provide such a vessel.

The academy training ships are Federal assets that are owned by the U.S. Department of Transportation (DOT) Maritime Administration (MARAD) and operated by the respective SMAs. They are used extensively during training cruises and pier side at each academy. The SMA vessels are the primary—and often the only—means for cadets to learn, train, and earn federally required sea time for a U.S. Coast Guard Merchant Mariner license.

The SMA vessels are also essential Federal assets for humanitarian and disaster relief efforts. The Federal Government has no other vessels in the NDRF with the 400–600 berthing capacity of these ships that can be called upon in times of national need. For example, the training ships for Massachusetts Maritime Academy, SUNY Maritime College, and Texas Maritime Academy housed disaster relief workers for an extended period during the response in fall 2017 to Hurricanes Harvey, Irma, and Maria. They also supported disaster recovery operations during Hurricanes Sandy in 2012, and Katrina in 2005. These vessels have also been used for international humanitarian missions and to support DOD missions. This relieves U.S. Navy ships of missions that would further impact their heavy operational and personnel tempo.

Averaging 37 years of age, the SMA training vessels are approaching the end of their service life. The consequences of losing one of these training ships would significantly decrease the number of graduates produced by the State maritime academies and ripple through the State maritime academies and the entire American maritime industry.

The age of the training ships also hampers the ability of the SMAs to train future licensed mariners on the use of current technology their graduates will experience on modern commercial vessels. While older systems are good for teaching fundamentals, they are not sufficient for ensuring we produce competent mariners who are technologically savvy. Although our modern simulators can compensate for some of this technology gap, simulation alone is not a substitute for actual hands-on experience. The SMAs require modern vessels of sufficient size to provide the required sea time and experience to meet licensing requirements.

Recognizing the urgency of replacing the fleet of aging training ships, Congress has partially funded the National Security Multi-mission Vessel (NSMV) program. The FY-18 budget included \$300M to replace the *TS Empire State VI* at SUNY Maritime College with the first NSMV. This is the first ever U.S. purpose-built ship for cadet training and disaster response. The fiscal year 2019 budget included another \$300 million for a second vessel to replace the *TS Kennedy* at Mass Maritime Academy. The NSMVs are designed as multi-mission assets, to serve in humanitarian aid and disaster relief efforts, as well as SMA training ships. For their part, the State maritime academies are working with their respective university systems and States to fund the outfitting of classrooms, labs, and dedicated training spaces onboard the NSMVs.

The SMAs are extremely appreciative of the bipartisan and bicameral support for the NSMV program and the two ships funded to date.

To meet the training needs of the collective SMAs and have sufficient ships available to support other national tasking and missions, we request Congress continue to fund the NSMV program until three additional ships have been built and delivered. This will ensure adequate capacity for all SMA training requirements, while providing the flexibility to deploy the NSMVs in response to national emergencies. An analysis provided by MARAD also indicates increasing the number of NSMVs constructed will reduce the per hull cost and the annual maintenance and repair costs due to a common hull for all academy vessels. Without a fully funded NSMV program, the SMAs cannot produce the number of capable licensed mariners required for a healthy mariner pool.

(3) Our Nation's Security Is Highly Dependent on the Availability of a Pool of Highly Skilled Merchant Mariners.

As others have or will testify today, at previous hearings by this committee, and before other committees, mariners are essential for national defense sealift requirements and our economic security.

Our nation's ability to deploy, project, and sustain forces is dependent on two factors:

1. having a sufficiently large oceangoing U.S.-flag fleet operating in foreign and domestic trades, and
2. an adequate pool of skilled U.S. citizen merchant mariners to crew each commercial and government-owned reserve sealift vessel while continuing to crew the commercial Jones Act fleet which includes trans-ocean ships, workboats, passenger vessels, and ferries.

There are serious challenges to meeting national defense sealift requirements. Commercial U.S.-flag vessels engaged in international trade, and the Navy's and Maritime Administration's (MARAD's) reserve sealift fleets have declined dramatically, and are under economic and fiscal pressures that are impacting their long-term ability to surge and support our joint forces in a crisis.

While the domestic Jones Act fleet remains strong and provides jobs for our new graduates, the number of non-Jones Act U.S. vessels in international trade has declined by more than 20 percent over the last 5 years, from 106 to 83. This impacts employment and advancement opportunities for U.S. licensed mariners on U.S. flag vessels engaged in international trade and thereby threatens the availability of mariners available to support surge sealift requirements.

While the SMAs and USMMA currently produce an adequate supply of entry level licensed officers, a working group comprising members from U.S. Transportation Command, the Office of the Secretary of Defense, the Coast Guard, Navy, and MARAD determined that we have a shortfall of 1,800 mariners to crew all U.S.-flag commercial and government reserve sealift vessels during a full mobilization for a sustained period of more than 6 months.

Full funding and expansion of new programs are needed to reverse the decline of military useful sealift ships and increase the pool of qualified mariners. In addition to full funding of the USMMA and SMAs and recapitalization of the training ships, these include:

- Full funding of the Maritime Security Program through 2025 and new authorization through 2035 to keep ships under the U.S. flag;
- Restoration of U.S. cargo preference laws that require 75 percent of the Food for Peace cargoes be carried on U.S.-flag;
- Requiring a percentage of liquefied natural gas and crude to be exported on U.S. built, U.S. flag ships as called for in the 2018 Energizing American Shipbuilding Act;
- The repeal of current Internal Revenue Code language: to expand U.S. shipping by making the financing of U.S. ship construction less expensive;
- Legislation that supports explicitly U.S.-flag ships must be utilized in the transportation, construction, and maintenance of offshore wind generation farms that will be developed in the coming decades; and,
- Incorporating marine highway corridors, connectors, and State freight systems as part of the “National Freight Strategic Plan” to improve infrastructure and developing American Marine Highway vessels to expand the use of waterways for freight and passengers and provide a more sustainable form of transportation by removing trucks from overcrowded highways.
- Strong support for legislation that strengthens the Jone’s Act and creates U.S. maritime jobs afloat and ashore.

These initiatives will increase the number of U.S.-flag ships, provide sufficient employment and advancement opportunities to recruit and retain sufficient licensed mariners for the commercial fleet and to support national defense sealift requirements.

SUMMARY

In summary, I leave you with three main points:

1. The State maritime academies and the U.S. Merchant Marine Academy are essential to producing sufficient mariners. Full funding, at authorized levels, is needed to meet the operational and maintenance requirements and capital improvements at the U.S. Merchant Marine Academy and Federal assistance at the six State maritime academies, including for the Student Incentive Program.
2. Recapitalization of five training ships for the State maritime academies is critical. Two NSMVs were funded in FY-18 and FY-19. However, three more ships will ensure the long-term capacity to train licensed mariners at the SMAs.
3. Full funding and expansion of current programs and new incentives and legislation are needed to reverse the decline of military useful sealift ships and increase the pool of qualified mariners.

Thank you for the opportunity to testify today on behalf of the Consortium of State Maritime Academies. I look forward to answering any questions you may have.

Mr. LOWENTHAL [presiding]. Thank you, Admiral Alfultis.

And next, Ms. Carpenter, you may proceed.

Ms. CARPENTER. Good morning. Thank you for the opportunity to testify today alongside my colleagues from across the maritime industry. We are all in this together, and we deeply appreciate your leadership and support. It is great to see that every member of this subcommittee hails from a maritime State or territory.

Today I would like to discuss four pillars that form the foundation of our industry’s health and viability, and the critical role that you play in preserving that foundation. Those pillars are the Jones Act, Federal preemption, waterways infrastructure, and marine safety.

First, the Jones Act, the basis for every dollar that our members invest in American-built vessels, and every job they provide to American men and women. The Jones Act allows us to provide lad-

ders of career opportunity and support hundreds of thousands of jobs in related industries, nationwide.

The human dimension of the Jones Act is equally compelling. High school graduates and military veterans can work their way up from the deck to the wheelhouse, becoming captains on towing vessels and making six-figure salaries. In addition, many of our member companies are still owned by the third, fourth, or even fifth generations of the same families. We don't see either of those things much in the U.S. economy today.

The Transportation and Infrastructure Committee has long been a bastion of bipartisan support for the Jones Act, as we saw most recently with your letter to Secretary Nielsen. We thank you for that, and ask that you continue to support the law vigorously.

Second, Federal preemption. American farmers, energy producers, and manufacturers depend on our industry to move their products to market, and to deliver the inputs and the raw materials on which they rely. And because our vessels can pass through the waters of a dozen States in the course of a single voyage, our industry depends on a coherent and consistent regulatory regime administered and enforced by knowledgeable Federal agencies.

The principle of Federal primacy was a foundation of the U.S. Constitution and has consistently been applied to interstate commerce for more than 200 years. It has also been reflected in thoughtful bipartisan legislation, from the landmark Oil Pollution Act of 1990 to last year's Vessel Incidental Discharge Act.

Thank you for passing VIDA. It is important, both for the maritime industry, which needed the national uniformity that only Federal regulations can provide, and for the marine environment, which will benefit as the highest standards economically achievable are implemented nationwide. We urge you to continue to ensure the primacy of Federal laws governing vessel operations, and hold executive branch agencies accountable for actively defending Federal authority in this field.

The third pillar is waterways infrastructure, which is in urgent need of modernization and repair. Critical failures and unscheduled closures have occurred at locks throughout the system. If left untended, these problems will increase the cost of marine transportation and call its reliability into question. That would be devastating, not only for our industry, but for the shippers who rely on us and for air quality and highway congestion, as well.

Congress can continue to support waterways infrastructure by keeping the Water Resources Development Act on a 2-year reauthorization cycle, and opposing additional taxation, tolling, or lockage charges on users of the inland waterway system. We are already paying our share, supporting a 45-percent increase in the inland waterways fuel tax in 2014.

The fourth pillar is marine safety, our industry's franchise to operate. This responsibility falls primarily on us. Congress also has an important role to play. A quarter century ago, AWO developed the Responsible Carrier Program as a code of best practices for member companies. We later instituted a third-party audit mechanism to increase the integrity of our safety management system.

Building on these industry-led initiatives, AWO worked with this subcommittee and the Coast Guard for more than a decade to de-

velop comprehensive towing vessel safety and inspection regulations, which took effect last July.

AWO members are committed to getting safer every day. Our goal is not simply to comply with the regulations, but to institute a culture of safety industrywide. Please hold us accountable for the commitments we make.

In addition, please help the Coast Guard to promote a culture of safety by ensuring that regulations, policy, and user fees don't disincentivize safety management systems. Congress can also help by eliminating regulations that have little positive impact on safety or environmental protection.

In closing, I thank you for your support for our industry, and ask for your continued support for the four pillars that enable us to serve our customers and our country.

I look forward to answering your questions.

[Ms. Carpenter's prepared statement follows:]

**Prepared Statement of Jennifer A. Carpenter, Executive Vice President
and Chief Operating Officer, The American Waterways Operators**

Good morning, Chairman Maloney, Ranking Member Gibbs and Members of the Subcommittee. I am Jennifer Carpenter, Executive Vice President & Chief Operating Officer of The American Waterways Operators. AWO is the national trade association for the inland and coastal tugboat, towboat and barge industry. On behalf of AWO's over 300 member companies, thank you for the opportunity to testify at this important hearing on strategies to improve regulation, economic opportunities, and competitiveness in the U.S. maritime and shipbuilding industries.

I'm very pleased to be part of this panel alongside my colleagues from other sectors of the American maritime industry. We are truly all in this together and we deeply appreciate your leadership and support. To place the sector I represent in context, the tugboat, towboat and barge industry is the largest segment of our nation's domestic maritime fleet. We operate more than 5,500 towing vessels and 31,000 dry and liquid cargo barges on the navigable waterways that run through America's heartland; along the Atlantic, Pacific and Gulf coasts; on the Great Lakes; and in ports and harbors around the country. Each year, towing vessels and barges safely, securely and efficiently move more than 760 million tons of critical cargo, including agricultural products for export, coal to electrify our homes and businesses, petroleum products to fuel our cars, chemicals for manufacturing facilities, cement and sand for construction projects, and other building blocks of the U.S. economy. Tugboats also provide essential services in our nation's ports and harbors, including ship-docking, tanker escort and bunkering.

Each one of you hails from a State with a proud maritime tradition, and you know how the work that tugboat, towboat and barge operators do contributes to the economy, environment and quality of life in New York, Ohio, and around the country. Our industry's work also has a vital impact nationwide. Today, I'd like to discuss the four pillars that, taken together, comprise the foundation our industry's health and viability. Those four pillars are the Jones Act, Federal preemption, waterways infrastructure, and marine safety.

I would also like to emphasize the critical role that Congress, and especially this Subcommittee, play in preserving the strength of that foundation. The sound state of our industry, and the strength and resilience of our members to persevere through the ups and downs of the commercial market, are directly reliant on the certainty that those four public policy pillars provide. Were those pillars to erode, the vitality and viability of our industry would be threatened. Let me say a few words about each of them.

I. THE JONES ACT

The Jones Act is the statutory foundation of the tugboat, towboat and barge industry. It is the basis for every dollar American companies invest in American-built vessels and every job they provide to American men and women. The Jones Act allows our industry segment alone to provide family wage jobs and ladders of career opportunity for more than 50,000 Americans—including nearly 39,000 positions as

mariners on board our vessels—and support more than 300,000 jobs in related industries across the Nation. As Mr. Roberts has explained, the domestic maritime industry in total supports nearly 650,000 jobs and \$155 billion in economic output nationwide.

There is also a vitally important human dimension behind the statistics. In the tugboat, towboat and barge industry, many high school graduates and veterans of the U.S. Armed Forces have worked their way up from the deck to the wheelhouse, becoming captains on towing vessels and making six-figure salaries that allow them to provide for their families. Those salaries result in purchasing power that supports local economies in the communities where mariners live. And, our industry is a rarity in that many of our member companies, like Crowley Maritime, are owned by the third, fourth or even fifth generations of the same families that have deep roots in their communities. This is a testimony to the enduring strength of our members and the work they do. It is also something we see very rarely in our country today and is a really special and powerful thing.

The Transportation and Infrastructure Committee, and especially this Subcommittee, has long been a deep reservoir of bipartisan support for the Jones Act, a fact demonstrated most recently by the powerful letter sent by Chairmen DeFazio and Maloney and Ranking Members Graves and Gibbs to Homeland Security Secretary Nielsen opposing a 10-year Jones Act waiver for LNG shipments to Puerto Rico. The men and women who own, operate, crew and build American vessels are deeply grateful for your support. Mr. Chairman, Mr. Ranking Member, Members of the Subcommittee, if you seek a single reason why the Jones Act remains critical to America as the law approaches its centennial, look no further than the tugboat, towboat and barge operators in your States. Their valuable work bears daily witness to the wisdom of a law that has sustained a vibrant industry—past, present, and future. Please continue vigorously supporting the Jones Act. It is essential to our industry and it is very important to our country.

II. FEDERAL PREEMPTION

An efficient marine transportation system is essential to a healthy American economy. American farmers, energy producers, and manufacturers depend on the tugboat, towboat and barge industry to safely, securely and efficiently move their products to market and to carry the inputs and raw materials on which they rely. In turn, this economic powerhouse relies on a nationally consistent regulatory regime administered by the Federal Government.

Like other modes of transportation, the tugboat, towboat and barge industry operates nationwide: AWO member vessels can pass through the waters of a dozen States in the course of a single voyage. The smooth and uninterrupted interstate movement of cargo between U.S. ports is a centerpiece of our members' value proposition to their customers. As such, a coherent and consistent regulatory regime that is administered and enforced by knowledgeable Federal agencies—including the U.S. Coast Guard and the Environmental Protection Agency—is vital to the efficiency and the viability of our industry. Federal primacy in the regulation of maritime transport allows Federal agencies to take input from all stakeholders, including States and the public, to establish rules based on vessel operational experience that have been analyzed from a national perspective.

Federal primacy is not a new concept. It is settled law that served as a foundation for the U.S. Constitution and has consistently been applied to interstate commerce for more than 200 years. The Constitutional Convention of 1787 unanimously adopted the Supremacy Clause, cementing the Federal Government's position as the supreme law of the land when regulating interstate commerce.

Key to that supremacy is Congress' power to regulate commerce under Article I of the Constitution. The Federalist Papers cite this authority and the ability to regulate interstate navigation without intervention from individual States as one of the reasons for adopting the Constitution. Likewise, in 1824 the Supreme Court ruled that the power to regulate commerce undoubtedly included the power to regulate interstate navigation.

Today, Federal primacy over navigation remains just as important to commerce as it was at the founding of our country. I would like to highlight two examples in which Congress worked in a bipartisan way to establish a nationally consistent Federal regulatory regime beneficial to both the maritime industry and the American public.

The first is the Oil Pollution Act of 1990, landmark, bipartisan legislation that enabled vessel owners to plan for and make multi-billion-dollar investments in state-of-the-art, environmentally friendly tank barges and tankers to carry the nation's vital energy cargoes. The phaseout of single-hulled vessels and transition to

an all-double-hull fleet, combined with a comprehensive Federal regulatory regime for oil spill prevention, response and liability and the adoption by vessel owners of safety management systems, vendor vetting programs and other safety measures, has produced dramatic, positive results for the American public. Oil spills from tank barges have plummeted by 99.6 percent since enactment of OPA 90. This outstanding safety record is all the more relevant today given the nation's energy renaissance and the vastly increased need for marine transportation of crude oil and petroleum products.

Second is the Vessel Incidental Discharge Act of 2018, or VIDA, passed last year by the 115th Congress as part of the Frank A. LoBiondo Coast Guard Authorization Act with the leadership and support of this Subcommittee. VIDA is another landmark bipartisan measure that will bring uniformity and certainty to the regulation of ballast water and other incidental discharges for vessels engaged in interstate commerce. While the law at its core is preemptive in nature, it is also notable for balancing the role of the States in the standard-setting and implementation process. VIDA represents both a win for the maritime industry, which needed the national uniformity that only Federal regulations can guarantee, and for the marine environment, which will benefit as the highest standards economically achievable are implemented nationwide. We hope that when history looks back on VIDA, as it has with OPA 90, it will see a success story that has benefited both the American economy and our precious marine environment.

OPA 90 and VIDA have and will promote safety, protect the environment, and preserve the efficiency of barges and towing vessels engaged in interstate commerce. This should be the goal of Federal regulation of interstate commerce. As such, it is critical that Federal primacy be maintained. We urge the Committee to ensure the primacy of Federal laws governing the operation of towing vessels and barges and hold executive branch agencies accountable for actively defending and preserving Federal authority over vessel operations.

III. INFRASTRUCTURE

The third pillar, waterways infrastructure, is equally essential to the towing industry. It is a key component of the nation's intermodal transportation network that helps to make America competitive in world markets. However, that infrastructure is in urgent need of modernization and repair. For example, more than half of the 238 locks on our inland waterways system are over fifty years old and have exceeded their design lifespan. Critical failures, and significant unscheduled temporary closures, have occurred at locks across the system. If left untended, these problems will compound, increasing the cost of marine transportation and calling its very reliability into question. That would be devastating not only for the tugboat, towboat and barge industry, but for the shippers who rely on it and for air quality and highway congestion as well. Each barge that is pulled off the waterways adds 16 bulk rail cars to our railways or 70 tractor-trailers to our highways, with a resulting increase in greenhouse gases of more than 20 percent and 150 percent, respectively.

Fortunately, the ongoing revitalization of waterways infrastructure has shown Congress at its bipartisan best. For the past 6 years, lawmakers have worked across the aisle to secure long-sought improvements for our nation's coastal and inland waterways. The resulting authorization and appropriations bills have ensured that America's waterways will continue to remain vital to the safe, reliable and efficient movement of cargo.

Congress can continue to support the pillar of infrastructure by doing two things. First, we urge you to keep the Water Resources Development Act (WRDA) on a 2-year reauthorization cycle. WRDA is a crucial part of a cooperative effort that involves the Inland Waterways Users Board, the U.S. Army Corps of Engineers, and the key committees of jurisdiction in Congress. As we have seen in the past, failure to enact WRDA bills on a regular basis causes backlogs in much-needed modernization and maintenance that result in costly navigation stoppages on the inland waterways system.

Second, we urge Congress to oppose any additional taxation, tolling, lockage fees, or other charges placed upon the users of the inland waterway system. Our industry has already stepped up to the plate there. In 2014, Congress, at the industry's request, enacted a 45 percent increase in the diesel fuel tax our member companies pay into the Inland Waterways Trust Fund (IWTF), a longstanding public-private partnership that yields positive results for our industry and the U.S. economy. We already pay our fair share.

IV. MARINE SAFETY

The fourth pillar is marine safety, which is our industry's franchise to operate. Unlike the other pillars, this responsibility falls primarily on us, and we know and welcome that. Congress also has an important role to play. For more than 25 years, our members have demonstrated their commitment to safety leadership through industry-led initiatives and partnerships with government to safeguard human life and protect the marine environment. AWO's top priority is to lead and support members in continuously improving safety, security, and environmental protection.

A quarter century ago, AWO developed the Responsible Carrier Program (RCP) as a code of best practices for member companies. Companies use the program to develop safety management systems that meet or exceed applicable laws and regulations and are tailored to reflect their unique operational needs. We subsequently instituted a third-party external audit mechanism to enhance the integrity of our safety management system. Building on these industry-led initiatives, AWO worked with this Subcommittee to pass legislation giving the Coast Guard the authority to develop comprehensive towing vessel safety and inspection regulations, and worked closely with the agency for more than a decade to produce those regulations, which took full effect last July. These regulations, known as Subchapter M, will ensure that each of the 5,000 affected U.S.-flag towing vessels meet minimum standards of safety to protect lives, the environment and property, while recognizing and incentivizing operators who exceed minimum standards. The regulations also leverage safety management systems and third-party organizations to help the Coast Guard focus its limited resources where they're needed most.

It is important to emphasize that, even while Subchapter M is now in effect, AWO members remain committed to getting safer every day. Our goal is not simply to comply with the regulations, but to institute a genuine culture of safety industry-wide. Last October, AWO's Board of Directors unanimously approved Safety Leadership 3.0, a vision to guide how AWO will lead and support members in continuously improving safety, security and environmental stewardship in the post-Subchapter M landscape. As we move forward with this initiative, we look forward to working with Congress, and especially this Subcommittee of jurisdiction, to build a safer marine transportation industry. Please hold us accountable for the commitments we make.

In addition, please help the Coast Guard to incentivize a culture of safety, and not simply a culture of compliance. This includes ensuring that the agency's regulations and policy do not disincentivize the use of safety management systems, which are the foundation of every effective safety culture. We ask that you press the Coast Guard to establish towing vessel inspection user fees that are lower for vessels that have implemented a safety management system—in recognition of their reduced demand on agency resources, because of the Coast Guard's ability to leverage approved third parties to supplement their oversight. We thank the Subcommittee for directing the Coast Guard in the Frank LoBiondo Coast Guard Authorization Act to compare the costs to government of towing vessel inspections performed by the Coast Guard and those performed by a third party in order to more accurately assess inspection user fees.

There are also other ways that Congress can help the industry and the agency stay focused on that which will truly improve safety, including eliminating regulations that pose implementation challenges for towing vessel operators, but offer little positive impact on personnel or vessel safety or environmental protection. Congressional assistance to resolve these low-risk compliance challenges will enable the Coast Guard and the industry to focus our attention on the regulatory requirements that will make a real difference in protecting people, the environment and property.

V. CONCLUSION

AWO's member companies are committed to a culture of continuous improvement—to making our domestic maritime industry ever safer, more efficient, and more environmentally sustainable. The vibrancy of the towing industry is a direct result of the ingenuity, resourcefulness, and work ethic of the men and women who comprise it. The sound state of our industry is also a direct result of the bipartisan support that it enjoys in this Subcommittee specifically and in the Congress generally. The statutory and regulatory certainty that you provide is foundational to our survival and success.

I would again like to thank the Subcommittee for its demonstrated record of support for our industry, and ask for your continued support for the four pillars that undergird our industry and enable us to do what we do for our customers and for our country. It is no exaggeration to say that you are the guarantor of the certainty that will ensure the towing industry's continued success in the years ahead.

Thank you for this opportunity to testify, and I look forward to answering your questions.

Mr. LOWENTHAL. Thank you, Ms. Carpenter.

Now, Mr. Crowley, you may proceed.

Mr. CROWLEY. Good morning.

Mr. LOWENTHAL. Good morning.

Mr. CROWLEY. Thank you, Mr. Lowenthal, Mr.——

Mr. LOWENTHAL. Good morning.

Mr. CROWLEY [continuing]. Weber, both cochairs of the great PORTS Caucus.

Mr. LOWENTHAL. That is why we are here, sitting up here.

[Laughter.]

Mr. CROWLEY. My name is John Crowley, and I serve as president of the National Association of Waterfront Employers, a role I have held for 5 years. Thank you for the invitation to be here today. I appreciate the opportunity to discuss the potential strategies to improve the regulation, economic opportunities, and competitiveness of our Nation's maritime industry.

We are here today because of our need for Federal infrastructure investment accessible to port operators, and greater coordination and transparency to ensure the regulatory requirements are implemented in a cost-effective manner.

My first goal is to share with you the critical role that terminals play in our national economy, as a national asset. As terminal operators, our customers are the ocean carriers who move global commerce to and from the United States. We move the cargo from the water to the rest of the Nation.

U.S. port operators work off uniquely configured footprints, with varied water and landward access developing proprietary processes to optimize local productivity. Accordingly, port operators must be adaptive and forward-thinking, looking to leverage advanced infrastructure to ensure the operators' skilled workforce can meet the Nation's multiple and dynamic needs. They require improved infrastructure to support the growing demands for economic opportunity throughout the country.

I know this committee understands the strategic importance of moving freight and that ports require significant infrastructure investment. And I thank Congress for its leadership in providing focus on the importance of ports, and the nearly \$300 million for their use through the Port Infrastructure Development Program. However, more work needs to be done.

While the funding and support that Congress has established sets a strong foundation, we firmly believe that port infrastructure needs will not be met with just single-year funding, no matter how robust. We urge Congress to support self-sustaining, permanent funding specifically aimed at port operators, as well as the traditional port infrastructure development in a manner similar to the harbor maintenance tax and your efforts in that regard.

We further seek to ensure that private port operators have access to available Federal funding and potential loan guarantees, both through public-private partnerships, and by ensuring direct port operator access and eligibility. Federal investment can have the largest impact when directly supporting port operators, because

port operators have the largest direct impact on improving inter-modal productivity.

This Federal investment in port operators will result in the improved competitiveness of port operators. Each of these investments is an investment in a national asset, which will remain with the port facilities for the future operations and operators.

Operators in any business sector face regulatory oversight, and port operators are no different. Congress' efforts to ensure robust port security, a coordinated and environmentally sensitive port infrastructure, and a competitive port environment are important and necessary to maintaining this competitive business operation. While Congress' leadership establishes standards, regulatory agencies implement the policy.

NAWE members work closely with Federal agencies in pursuit of the Nation's policy objectives. And when executive agencies take expansive views of their authority to issue interpretive rules or policy statements, use of the Administrative Procedure Act is sorely needed in their regulatory development.

Therefore, we recommend the creation of a coordinating committee dedicated to aligning agency actions with stakeholder input, and provide unified recommendations to Congress. I believe that, through the development of dedicated port infrastructure funding opportunities, accessible to port operators, coordinated agency oversight, and reasonable and transparent regulations, Congress and the executive branch can ensure that U.S. ports and port operators are prepared to meet tomorrow's needs of the U.S. economy.

I appreciate this subcommittee's continued support for U.S. port operators, and I look forward to working with you to develop the strategies to improve the regulation of port operators in future, and new economic opportunities for our U.S. maritime transportation system.

I am happy to respond to any questions you have.

[Mr. Crowley's prepared statement follows:]

Prepared Statement of John E. Crowley, Jr., President, National Association of Waterfront Employers

Good morning, Chairman Maloney, Ranking Member Gibbs, and members of the Subcommittee. My name is John Crowley, and I serve as President of the National Association of Waterfront Employers (NAWE), a role which I've held for 5 years. Thank you for the invitation to be here today, I appreciate the opportunity to discuss potential strategies to improve the regulation, economic opportunities, and competitiveness of our Nation's maritime industry.

The National Association of Waterfront Employers (NAWE) is the voice of the marine terminal operator and stevedore in Washington, representing interests in all of our Nation's major ports. Formed initially around common interests in providing compensation to injured longshoremen, NAWE was active in supporting maritime security regulation at our ports' facilities following 9/11. Today, NAWE's portfolio represents the full spectrum of port operators' interaction with the Federal Government, including guiding the development of national freight, infrastructure funding, port safety, security and environment, and workforce policies. Thus, through our work, NAWE ensures that there are open lines of communication between Congress, regulatory agencies, and the operators at our Nation's gateways to international commerce.

IMPORTANCE OF PORT OPERATORS

Port operators are a critical part of our maritime transportation industry. The port operators that NAWE represents hire labor, fund the purchase of equipment

at U.S. ports, and most importantly serve as the critical link moving cargo between the sea and the land. It is the work of port operators that connects the products of American workers to the global economy and, in turn, ensures that global commerce constantly flows in support of our Nation's economy. As our Nation's economy continues to grow, so does the importance of our port operators. For example, according to the American Association of Port Authorities (AAPA) from 2007 to 2014, the total economic value that U.S. coastal port operators provided in terms of revenue to businesses, personal income, and economic output rose by 43 percent to \$4.6 trillion. This accounted for 26 percent of the Nation's \$17.4 trillion economy in 2014. Moreover, Federal, State, and local tax revenues generated by port-sector and importer/exporter revenues rose 51 percent during this period to \$321.1 billion. More than just serving as the gateway for the Nation's trade, port operators help to construct the foundation of our economic strength.

In addition to directly supporting the flow of the Nation's commerce, the presence of port operators in port communities spurs American job development and commercial activity both on the facility and outside the gate. From 2007 to 2014, jobs generated by port-related activities jumped 74 percent to 23.1 million in the United States. Personal wages and local consumption related to the port sector increased during this period to \$1.1 trillion, with the average annual salary of those directly employed by port-related businesses equating to \$53,723. Port operators therefore continue to create numerous high-paying American jobs, directly supporting our maritime communities.

Port operators' customers are the ocean carriers who move global commerce to and from the United States; however, their work has a direct positive impact on numerous other stakeholders. These stakeholders include the port authorities with whom they operate, tugs, pilots and marine exchanges moving vessels alongside the port operators' facilities, rail and motor carriers that move cargo inland, and—of course—the importers and exporters who rely on port operators to provide exceptional service to ensure that their products arrive on time and in condition to meet their customers' needs.

On our facilities, there are three distinct while simultaneous operations; waterside transfer, yard maintenance and landside transfer. Each operation faces changes of both customers and stakeholders, transportation modes, schedules of customers and stakeholders, volume, weather, and regulatory environment. The national economy is increasingly looking for just-in-time delivery and reductions in turn time for each operation are constantly demanded. Accordingly, port operators must be adaptive and forward-thinking, looking to leverage new technologies and advanced infrastructure to ensure that the operators' skilled workforce can meet stakeholders multiple and dynamic needs.

In addition to supporting the flow of commerce to ensure our Nation's economic security, port operators also serve a critical function in U.S. national security. Terminal operators' facilities, equipment, and workforce support the staging and throughput of military cargo, during both initial deployments and sustainment operations. In this manner, port operators serve as a critical first link in the line of communications to U.S. Armed Forces operating throughout the world. In this manner, Federal investment in port operator infrastructure is an investment in a national asset, supporting our collective economic and national security.

THE NEED FOR INFRASTRUCTURE INVESTMENT

Accordingly, today, our highest priority is to seek support for port infrastructure investment to assure an efficient supply chain, specifically focused on increasing port productivity. Investment in transportation infrastructure is a universally recognized need across all modes. Numerous studies have shown the challenges facing our Nation's roads, utilities, and rail infrastructure, and the State of U.S. port infrastructure has been demonstrated to be of equal national concern. NAWA therefore encourages Congress to continue to recognize the critical importance and immeasurable value of this national asset.

We are thankful for Congress' leadership in providing \$900 million for the Better Utilizing Investments to Leverage Development (BUILD) Grants Program (a portion of which will go to port infrastructure projects), nearly \$300 million for the Port Infrastructure Development Program, and \$7 million for the Short Sea Transportation Program (America's Marine Highways) under the Consolidated Appropriations Act, 2019. NAWA is also thankful for Congress' efforts with regard to the Water Resources Development Act 2018 and the Harbor Maintenance Tax. As partners in the maritime industry we will all benefit and look forward to the support being delivered where it is most needed. However, despite this clear sign of support, there is much more work to be done. AAPA members have identified an additional \$32 bil-

lion in needed Federal investments in port landside connections and port operator facility infrastructure. This number will inevitably increase with the continued growth of global commerce and resulting demand for larger container vessels, demanding new infrastructure capability and capacity. Accordingly, with the Nation's many urgent transportation infrastructure needs, there remains a present strategic opportunity to make a Statement on the enduring importance of ports, port operators, and the associated maritime communities.

The funding and support that Congress has established sets a strong foundation, but the Nation's port infrastructure needs will not be met with single-year funding, no matter how robust. Nor will port operator needs be met within the current legislative structure, which does not recognize a port operator's asset as national in nature unless they are adopted by a local governmental entity. Accordingly, NAWE urges Congress to support self-sustaining, permanent funding specifically aimed at port operators as well as traditional port infrastructure development. That is, we seek to ensure that private port operators have access to available Federal funding, both through public-private partnerships (P3s) and by ensuring direct port operator eligibility for funding opportunities.

Indeed, as the critical node between global commerce and our Nation's economy, port operators are uniquely positioned to understand the most pressing gaps in port infrastructure funding and development. U.S. port operators work off of unique configured footprints, with varied water and landward access, developing proprietary processes to optimize local productivity. While researchers review metrics that will gauge supply chain productivity, port operators are on the ground, with direct oversight of the equipment and infrastructure needs to best meet their customers' requirements and other aforementioned changing conditions. Accordingly, port operators are among the first to understand delays in both offshore ocean transport and landward freight mobility. They are constantly making adjustments in operation and require improved infrastructure to meet the growing demands of the U.S. economy.

Not only do port operators have critical information as to where investment is required, Federal investment will often have the largest impact when directly supporting port operators, because port operators have the largest direct impact on improving intermodal productivity. This Federal investment in port operators may result in—for example—the construction of new wharf or crane rails, shore-side power and associated infrastructure, electric cargo handling equipment, the purchase of larger and modernized ship to shore cranes, or the implementation of environmental or security requirements set by the Federal Government. Each of these investments—although developed through the existing port operator—is truly an investment in a national asset, which will always remain with the port facility in support of future operators and port operations.

In order to ensure continued, dedicated funding to the Port Infrastructure Development Fund—and further ensuring that port operators can access that funding—Congress can continue to lend its strong support of this critical national asset by identifying a continuing source of such funding. Moreover, by reviewing the effectiveness of dedicated funding sources—outside of annual appropriations—Congress can support the development of self-sustaining port infrastructure funding without drawing resources from other national priorities. NAWE's members are eager to work with Congress to identify and develop these dedicated funding sources.

Additionally, beyond the programs funded by the Consolidated Appropriations Act, 2019, a strategic opportunity exists to leverage Federal funding through loan guarantee programs. Although port infrastructure projects are eligible for loan guarantees under the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, port funding is often secondary to other surface transportation modes, and port operators are not directly eligible. Dedicated and fully funded port infrastructure loan guarantees—similar to (or as an extension of) the Title XI Federal Ship Financing Program—could leverage Federal investment with private funds, leading to increased port infrastructure development. Through a focused strategy involving grant, loan, and loan guarantee funding—made available to port operators—Congress can ensure that appropriate investments are made today so that our Nation's ports are prepared to meet the future needs of our Nation's growing economy.

OPPORTUNITIES FOR REGULATORY IMPROVEMENT

Because port operations are responsible for delivering a significant portion of our Nation's diverse economy, Federal policy and oversight is understandably dispersed among various departments and agencies. As a clear example, the Federal Maritime Commission (FMC), U.S. Customs and Border Protection (CBP), Maritime Administration (MARAD), and U.S. Coast Guard (USCG)—among other agencies—all had

a direct role to play in mitigating the impacts at port terminals associated with the 2017 bankruptcy of a major international ocean carrier.

While the need for multi-agency oversight is understandable, a strategic opportunity exists to better align and coordinate the roles, missions, and authorities of these agencies to better address the various dimensions of freight movement through port terminals. Port operators are often subject to inconsistent or redundant requirements, often even within the same Department (as evidenced by various facility security plan requirements by USCG and CBP). Committees such as the U.S. Maritime Transportation System National Advisory Committee (MTSNAC) provide a forum for stakeholder input to the Administration. However, a coordinating committee among the stakeholder agencies is needed to align the disparate agency authorities with stakeholder input, and to provide unified recommendations to Congress regarding needed support for port operations and infrastructure development as well as oversight.

In addition, while NAWE members work closely with Federal agencies in pursuit of the Nation's policy objectives, additional opportunity to participate in regulatory development under the Administrative Procedure Act (APA) is sorely needed. Executive agencies continue to take an expansive view of their authority to issue "interpretive rules" and policy Statements without public input. These rules and policy Statements, even when under the guise of facilitated discussions, become conflated with compliance and adjudicatory actions. In contrast to the current regulatory environment, in the immediate aftermath of the 9/11 attacks, NAWE members were invited to participate in the regulatory development in support of the Maritime Transportation Security Act (MTSA), which defined the operators' roles.

Today, operators have not been asked to participate, even though they have been called on to fulfill potential additional roles such as paying for radiation portal monitors and agency man-hours where neither the equipment nor the process has been modernized. Operators are expected to contribute to environmental policy objectives such as emissions from customer and stakeholder equipment, even to the point of support and compliance by customers and stakeholders. The role and expertise of key policymakers should be to modernize and support acquisition of equipment, driving policy goals so that the operator can focus on innovating with equipment and processes to improve productivity. If operators' first effort and investment is in public policy goals, there are less resources to devote to being productive and competitive. It is time to reestablish that collaborative spirit, while recognizing respective roles, under Congress's leadership. Indeed, Congress's oversight is essential to ensuring that regulations and policies affecting port operations are developed publicly and transparently in a manner that increases the competitiveness of the U.S. maritime transportation system in the global market.

Substantively, NAWE encourages a unified national policy and Federal oversight—with appropriate stakeholder input—to facilitate an efficient supply chain. NAWE members strive to achieve productive waterfront operations mindful of the national goals of safety, security, and environmental sustainability. Port operators therefore welcome meaningful regulations supporting the development of an efficient supply chain, while discouraging non-productive regulations that shift significant costs of these goals on private port operators and impede focus on achieving an efficient supply chain.

Finally, true to its historical beginnings, NAWE and its operator members seek Federal support for a process that delivers medical care returning the workforce to full health following injuries on the job and provides fair and reasonable compensation for its workforce while disabled. We also join in the bicameral and bipartisan recognition of the importance of retirement systems and look forward to being heard during these discussions.

* * *

In aggregate, through the development port infrastructure funding opportunities accessible to port operators, coordinated agency oversight, and reasonable and transparent regulations, Congress and the executive branch can ensure today that U.S. ports and port operators are prepared to meet tomorrow's needs of the U.S. economy.

I appreciate this Subcommittee's continued support for U.S. port operators and look forward to working with you to develop strategies to improve the regulation of port operators and to develop new economic opportunities for our U.S. maritime transportation system. I am happy to respond to any questions you may have.

Mr. LOWENTHAL. Thank you, Mr. Crowley. Next we have Mr. Roberts.

You may proceed.

Mr. ROBERTS. Thank you, Mr. Chairman. Members of the subcommittee, thank you very much for convening this hearing. And thank you very much for being here, and caring about our industry. It is really important to us, and we really appreciate it. So I am here on behalf of the American Maritime Partnership. AMP has represented nearly every segment of the domestic maritime industry for 24 years. Our common interest is in ensuring that America has a vibrant domestic maritime industry and that the legal underpinning for that to happen, the Jones Act, remains intact.

A just-released analysis by PricewaterhouseCoopers finds that more than 650,000 jobs are created by the American domestic maritime industry. This includes highly educated officers and engineers who have graduated from our State and Federal maritime academies to those with a high school education and vocational training who have found a career home in the maritime industry. It includes thousands of military service veterans. As we have heard, the President just Monday recognized them in issuing an Executive order that eases their transition into the industry.

Please remember two things about these 650,000 jobs. First, they are vitally important to our national defense and our homeland security. The men and women who build and operate our commercial ships are the same people we rely on to respond to a national emergency. Many of them have served and continue to serve our country on ships involved in a variety of missions related to our Nation's defense.

The second point is that these jobs depend upon the integrity of the Jones Act. My written testimony discusses the fact that the Jones Act reflects the normal rule of law, that those operating in our home markets must obey American law, and not the laws of Liberia or China or wherever a shipowner chooses to register their vessel. If the Jones Act is degraded, and foreign ships are allowed to displace American ships in our home markets, there will not be American citizens who know how to build ships, and there will not be American citizens who know how to operate ships. And we will be exposing tens of thousands of miles of our coastlines and our river systems to foreign ships and foreign mariners entering our country.

Two subjects merit particular attention today: liquified natural gas, or LNG, and Puerto Rico.

Less than 2 weeks ago in San Juan, my company christened the *Taino*, which is one of the newest vessels delivered by an American shipyard. It is a beautiful ship powered by LNG, built in Mississippi by American workers and custom designed to provide direct, nonstop service to customers in the market between the mainland and Puerto Rico.

With more than \$1 billion in total investment by the carriers in that trade, Puerto Rico now has the newest, most efficient, most environmentally marine logistic system that exists anywhere in the world, employing hundreds of Puerto Rican Americans. With all that Puerto Rico has been through, these ships and this unique logistics system and the commitment to Puerto Rico's long-term economic health that they represent should be a source of great pride and hope on the island.

These ships not only are fueled by LNG, but they also carry LNG in 40-foot insulated tanks. To industrial facilities on the island, it is a new market that proudly developed a few years ago to offer a more reliable and less expensive source of energy.

As you know, Puerto Rico has asked for a 10-year waiver of the Jones Act for deliveries of U.S. LNG to the island. AMP strongly opposes this waiver for several reasons. It is way too broad. There are now at least a dozen projects under development at shipyards around the country. Granting the waiver would kill those projects and create uncertainty that could affect the entire maritime industry.

Granting such a waiver would also be illegal, as there is no national defense basis for it. Such a waiver would immediately be challenged in court, and the uncertainty that I just mentioned would be compounded.

Finally, no case has been made as to why a waiver is needed. If there is a real near-term need for bulk deliveries of LNG to the island, the starting place to meet that need is with a solution that complies with the law, and keeps the Jones Act intact.

Having said this, if someone believes that a waiver is needed, the place to make that case is in Congress, in this subcommittee and in the Senate counterpart, and not by asking the administration to twist the existing waiver law inside out.

Let me finally say that we proudly at AMP want very much Puerto Rico to succeed in rebuilding a modern and resilient power system and a powerful and diversified economy, that continued support of Congress is critical to Puerto Rico's success, funding nutritional assistance and other support programs, continuing disaster recovery relief, and infrastructure support programs. We have supported Puerto Rico in these efforts, and will continue to do so.

Thank you very much.

[Mr. Roberts's prepared statement follows:]

Prepared Statement of Michael G. Roberts, Senior Vice President and General Counsel, Crowley Maritime Corp., Vice President, American Maritime Partnership

Mr. Chairman, Mr. Ranking Member, Members of the Subcommittee. Thank you for the opportunity to be with you today. I am Michael G. Roberts, senior vice president and general counsel of Crowley Maritime Corporation, a large, American domestic shipping company. We are a diversified marine transportation and logistics company based in Jacksonville, Florida. We employ about 3,000 American mariners, and have invested nearly \$3 billion in vessels built by American workers in U.S. shipyards. Vessels in our fleet serve customers in Alaska, the U.S. West, East and Gulf coasts, the Caribbean and Central America.

I am here today in my capacity as Vice President of the American Maritime Partnership ("AMP"). AMP is the largest maritime legislative coalition ever assembled. Our organization includes all elements of the American domestic maritime industry—shipping companies, ship construction and repair yards, mariners, and pro-defense organizations. Our singular focus is the Jones Act, the foundational law of our industry. As everyone in this room knows, the Jones Act requires that cargo moved by water in our home markets—between two points in the United States—be transported on American vessels.

Putting this law into context requires a constant reminder that very different legal and regulatory systems govern domestic and international shipping. This is important in understanding why those markets may have different economic conditions, and in considering policy choices affecting this industry. "Normal" regulatory principles apply to domestic shipping in the sense that those who operate in American domestic trades must obey American laws. Ships must be registered under the

U.S. flag, which means that in a legal sense, the vessels themselves are considered a part of American sovereign territory. The ship owner and all involved must comply not only with rules that apply particularly to the maritime industry, but also to rules applicable to American businesses generally. This includes immigration (officers and crew of a U.S. flag ship must be American citizens), employment, environmental, safety, tax, and other laws.

Because ships in international trade do not operate within any single national jurisdiction, ship owners can simply pick the jurisdictional home of every element of their business, including, most importantly, where their ships are registered.¹ This is not permitted in any domestic service business. For example, a restaurant or factory owner cannot plant the flag of another country at his / her facility in Poughkeepsie and declare it to be no longer part of America, so that they can reduce costs, replace American workers with foreign workers, eliminate U.S. tax liability, etc. Because of the Jones Act and other “cabotage” laws in the U.S. and other countries, domestic shipping, aviation, and other service industries are governed by “normal” regulatory principles, i.e., the laws of the country in which they operate.

Those who support free enterprise and fair competition support the Jones Act. It is not protectionist to insist that maritime work performed within our country be handled by American workers and under American laws. To the contrary, it is an appropriate assertion of our basic sovereignty as a country to prohibit foreign workers operating under foreign rules from operating within our domestic economy. That is the fundamental purpose and effect of the Jones Act.

With that background, if there were one word to describe why we have a Jones Act in our country it would be “security.” The Jones Act provides important national, economic and homeland security benefits throughout our country. Simply put, our Nation needs a critical mass of Americans who know how to build and operate ships. The commercial American maritime industry provides that critical mass—the expertise and resources needed to provide surge and sustainment sealift capacity during a military contingency, and the basis on which to scale up our maritime capabilities should the need arise. Without the Jones Act (and the Maritime Security Program and Cargo Preference laws in international trade), the overwhelming operating advantages of foreign flag ships, and the overwhelming subsidies and other advantages of foreign shipbuilders, would quickly drive Americans out of the industry.

The national security and homeland security benefits have been well-documented through writings and statements by the Defense Department, Coast Guard, and Customs and Border Protection officials, as well as independent experts like the Lexington Institute. For example, recently former Defense Secretary James Mattis referred to the U.S. Merchant Marine as our Nation’s “Fourth Arm of Defense.” I will discuss the economic security benefits in a moment. But in every case, the policy rationales for the Jones Act can be summarized in the phrase “American security.”

SUMMARY OF KEY POINTS

Today I would like to talk about two topics. First, I will provide you a brief update on the state of the American domestic maritime industry. Second, I will talk about one issue that threatens to undermine our industry, and that is possible changes to longstanding interpretations of the Jones Act administrative waiver process. Nothing is more essential to the long-term investments that are necessary for success in our industry than a reliable, predictable, and consistent legal framework.

STATE OF THE AMERICAN MARITIME INDUSTRY

The American maritime industry is comprised of many different segments, from large ocean-going ships to small river barges, from inland towboats to huge offshore development ships. Scores of shipbuilding and repair yards dot our coastlines and river systems. Vibrant industries support our shipbuilding and ship operations, from naval architects to the suppliers of nearly everything needed to build and operate a vessel. Thousands of young Americans enter the industry each year, including men and women with engineering and technical degrees (and practical experience)

¹Ship owners usually choose jurisdictions that minimize tax and regulatory burdens. According to a 2010 U.N. report, the top five registries for international shipping are: Panama, Liberia, Marshall Islands, Hong Kong, and Greece. These jurisdictions, which account for .4 percent of world population, register more than 50 percent of the world’s tonnage. U.S. flag vessels (including domestic and international) accounted for 1 percent of world tonnage, while U.S. population accounts for about 4.5 percent of the world total.

from our maritime academies, as well as those with no college education who are looking to work hard, earn a decent living and start a family.

The American domestic maritime industry is strong—growing, innovating, and thriving. A recent study by PricewaterhouseCoopers for an AMP board member, the Transportation Institute, shows that ours is an industry that supports total employment of about 650,000 Americans and total economic impact of more \$150 billion annually. There are approximately 40,000 vessels in the U.S. fleet distributing 877 million short tons of cargo annually in a highly efficient, cost-effective and environmentally friendly manner. These jobs and economic benefits touch almost every corner of America, and we would be happy to visit with your offices to describe the industry's presence in your districts.

Americans are among the world leaders in innovating the maritime industry. We are building and operating many of the most advanced tug boats to escort tankers through our waters, and highly sophisticated vessels to support safe offshore resource development. Several American shipyards and operating companies are beginning to build and deploy clean burning liquified natural gas (LNG) in a variety of different applications.

Those who oppose the Jones Act seek to destroy this American industry and outsource these jobs because foreign workers would be cheaper. AMP exists to resist those efforts by educating policymakers and the public about our industry.

THE CORE ELEMENT OF CONTINUED SUCCESS—LEGAL CERTAINTY

We have one primary request when it comes to the Jones Act and that is legal certainty. Americans who invest their time and money into this industry need to have confidence that their commitments will not be undermined by capricious decisions that undo the legal framework of the Jones Act. This includes all participants, from young Americans who commit their career choices to this industry, to those in the financial sector. We exist in a highly technical and capital-intensive business, and our human and financial investments in vessels and other infrastructure are long-term. All of us make those commitments in reliance on U.S. law as it stands today and as it has generally stood for nearly 100 years. Our single biggest concern is unanticipated changes to the rules “in the middle of the game.” It is critically important that the legal, regulatory and administrative framework that serves as the foundation for the American maritime industry remains predictable and certain. Hundreds of thousands of Americans depend on that.

In that light, our greatest concern today would be changes to longstanding, consistent interpretations of the Jones Act administrative waiver rules. As you know, administrative waivers to the Jones Act are exceedingly rare and are granted only under the specific requirements of 46 U.S.C. § 501, a law not specific to the Jones Act but permitting waivers of “navigation or vessel-inspection laws” under certain extremely limited circumstances. The core requirement of § 501 is that Jones Act waivers must be “necessary in the interest of national defense.”² “Necessary,” of course, means an action that is “essential or required.” As such, the applicants for this waiver must demonstrate that approval is required or essential for national defense. In fact, Customs and Border Protection (CBP), the agency within the Department of Homeland Security with initial responsibility for managing administrative waiver requests, has recognized that the burden for approval of an administrative waiver is high and has ruled that there must be a showing of an “immediate and adverse impact to national defense.” Indeed, CBP has repeatedly held in their rulings that a Jones Act waiver cannot be issued solely for economic reasons or economic benefit. The Defense Department has historically analyzed administrative waivers by asking if there would be an “immediate adverse impact on defense operations” absent the waiver.

Into this longstanding statutory regime governing administrative waivers of the Jones Act has come the Government of Puerto Rico, which in December filed a request for an unprecedented 10-year administrative waiver under § 501 to import LNG from domestic sources. There are many reasons why this administrative waiver should not be granted. There is no precedent for a waiver of anywhere near that length. The longest waiver we can recall was for 30 days following Hurricane Katrina.

Moreover—

- American shipping companies are taking U.S. LNG to Puerto Rico today on Jones Act vessels. They move scores of ISO tank loads of LNG from Florida to San Juan to power industrial facilities on the island. They created this market 5 years ago, a market that is expected to grow over the next few years as Puer-

²46 U.S.C. § 501.

to Rico moves toward a more diversified and resilient power generation and distribution system.

- It is grossly misleading to claim that there are no bulk LNG Carriers (LNGCs) in the Jones Act fleet today. First, such vessels are not built “on spec” but are rather built to meet the needs of customers based on contracts to move products in particular markets. No such contracts for domestic markets have yet been agreed. Second, a 1996 waiver would have allowed scores of LNGCs to become Jones Act vessels over the past 22 years, including many that could still be used today. Not once has that waiver been used—because there has been no market for bulk LNG shipments from the U.S. to Puerto Rico.
- There still is no market for bulk LNG cargoes from the U.S. to Puerto Rico. The one facility on the island that can physically receive bulk LNG is under a long-term contract to receive LNG from Trinidad. One proposed facility might be able to receive relatively small bulk shipments in the near term if it can clear regulatory and financial hurdles. (That same facility, however, could be used to compete with the existing LNG ISO tank business moving on Jones Act vessels.) Every other LNG receiving facility on the island is conceptual—it exists on paper with no concrete plans for actual development. It would likely take several years for any of these concepts to be developed. Hence, any LNG waiver would not even be used for months if not years.
- Given the possibility that bulk LNG shipments could develop over the next 5 years, American carriers have begun actively exploring building Jones Act LNGCs in American shipyards. They have proposed different ship sizes and configurations to shipyards in Pennsylvania, Florida, Mississippi, Louisiana, Texas, California, and elsewhere, asking the shipyards for design options and indicative pricing. With that information, serious discussions can take place with LNG power developers about shipping contracts that would justify making binding contracts with shipbuilders. Thousands of good paying, skilled jobs could be developed building LNGCs in those States. Those jobs support the defense industrial base and the Jones Act would be working exactly the way it was intended.

Returning to the technical basis for issuing an administrative waiver, there simply is no credible argument that Puerto Rico’s request for a 10-year Jones Act waiver is “necessary in the interest of national defense.” Puerto Rico government officials have repeatedly described their interest in LNG in economic terms. AMP appreciates the desire of Puerto Rico to reduce its energy costs and, as noted, AMP members are actively engaged to find solutions that comply with all laws, including the Jones Act, to achieve that goal. No one is better positioned than the leading participants in the domestic shipping industry to assess the economics of moving LNG to Puerto Rico. We are confident that solutions can be developed that will comply with American law, provide thousands of family wage skilled jobs to Puerto Ricans and other Americans, and achieve the substantial savings touted by Puerto Rico’s leaders. Stated otherwise, Puerto Rico can fully realize the benefits of shifting to an LNG energy supply without bypassing Puerto Rican and other American workers in the American maritime industry.

There have been other recent discussions regarding waivers to move LNG to the Northeast. In addition, one prominent oil and gas executive has publicly called for a national waiver to move LNG. But a waiver under these circumstances would face the same challenge as the Puerto Rico waiver—they would require a complete administrative reinterpretation of the waiver statute and its unambiguous “interest of national defense” requirement. As we have said previously, there are no precedents for long-term waivers and no precedent for economic waivers.

As markets develop and if the price of domestic natural gas remains low, customers and developers are likely to enter into the types of long-term gas supply contracts that will bring state-of-the-art Jones Act LNG vessels into those markets. Granting an administrative waiver, however, would kill the further development of American LNG vessels. In fact, the novel use of the § 501 authority for an extended LNG administrative waiver could destabilize the entire American domestic shipping industry by introducing extreme uncertainty and volatility into the market.

Finally, Congress can waive the Jones Act for specific vessels or services, imposing terms and conditions that accommodate the specific need without undermining the core objectives of the Jones Act. If proponents of the Puerto Rico LNG waiver believe they can make an appropriate showing, they should engage with Congress and the American maritime industry to search for solutions.

CONCLUSION

Again, thank you for allowing us to be with you today for one of the first Subcommittee hearings under your leadership. We are grateful for the chance to tell our story and to emphasize to you the exciting growth of our industry. Our industry is a great American success story, and the key to our continued success is a predictable, sound, consistent legal framework so that we can “deliver the goods” for our Nation.

Mr. LOWENTHAL. Thank you, Mr. Roberts.

And now, Mr. Tellez, you may proceed.

Mr. TELLEZ. Mr. Lowenthal, Ranking Member Gibbs, members of the committee, thank you for this opportunity. As the chairman mentioned, my name is Augie Tellez. I would only add to the people I am representing today the Maritime Trades Department of the AFL-CIO, representing approximately 4 million working people in America today.

End of written stuff. Too bad those other guys left, because now I wing it.

[Laughter.]

Mr. LOWENTHAL. Best presentation so far.

Mr. TELLEZ. I must add my name to those thanking the President and his administration for the Executive order on the Military to Mariner Executive order. Now we just have to make sure, as someone said, that there is an industry in which to employ them.

As the world’s foremost superpower, we have got to project our force to any spot on any given day on this planet. That force has to be maintained, sustained, supplied, with all the stuff to do their job, and then brought home. That role has fallen on the U.S. merchant marine in every conflict since the Revolution, and we have done that job admirably and, at times, with sacrifice.

Sadly, today, the answer to the question as to whether we can recreate that effort is very unclear. We are at a critical time. And to reverse that critical situation, I think it is time for some bold moves. Bold moves, not in the sense that some have proposed, that to make them more competitive we should add foreign workers to do our job on ships, but boldness in the sense that we create opportunity, untold opportunities for American seafarers in the future.

If we are to be able to perform our wartime duties, then we have to be supported in peacetime. And in peacetime, cargo is king. And we rely heavily on preference cargoes. Every day we argue should it be 75, should it be 50. Are the laws being enforced? Are they being complied with? Let’s be bold. Let’s supply 100 percent cargo preference to all Government-impelled cargoes across the Government. Let every Federal agency buy, build, and ship American. End of argument.

The Maritime Security Program is another linchpin in our peacetime fleet. It needs to be extended, expanded, and increased, so that we can realize Admiral Buzby’s vision of the larger fleet that includes U.S. tankers to meet our military’s fueling needs.

LNG—we are becoming and have become a premier energy producer and exporter. Sadly, there is no U.S.-flag involvement in that trade. Let us be bold and enact Mr. Garamendi’s Energizing American Shipbuilding Act into law, embrace it as a national energy policy that will create thousands of jobs on land, in the shipyards, at sea, create a trade for American companies to be involved in, and

silence those Jones Act waiver demands for the transportation of energy.

Let us be creative in recapitalization and utilization of our Ready Reserve Force. Let us utilize it and man it smartly, operationally, so that we have not nine men taking care of three or four ships, but an operational crew that is taking care of them, so that they truly become a ready and a Reserve Force. You have a training platform and a manning platform that will answer the question of mariner shortage.

Do not be fooled or confused by the number of 200 certificates issued by the Coast Guard. That number has no role in the question of whether we have enough mariners or not. Right now, right now, we are—our wartime requirements are about a little shy of 12,000 folks, 12,000 mariners. We have the capability of reaching back and probably grabbing hold of about 12,000 mariners. Whether each one of those will come to the fight remains a question. We meet our needs if everyone says yes.

Those are the bold moves we need to make. There are other things included in all the testimonies, written testimonies: ad valorem tax, this tax, this measure. But I think the time is now to make these bold moves. We cannot wait. If we act now—and I believe you have the ability. And in my humble opinion, you have the responsibility not only to the legacy of all those who sacrificed before, but for the future mariners and for the future security of this Nation to make those bold moves.

And some day, when you ask me whether we can get the job done, the answer would be a resounding and indisputable yes, we can. Thank you.

[Mr. Tellez's prepared statement follows:]

Prepared Statement of Augustin "Augie" Tellez, Executive Vice President, Seafarers International Union, testifying on behalf of Maritime Labor

Good morning, Chairman Maloney, Ranking Member Gibbs, and the members of the subcommittee.

I thank you for conducting this hearing and for giving me the opportunity to testify. I also thank all of you for your continued support of the United States Merchant Marine. My name is Augie Tellez and I am the Executive Vice President of the Seafarers International Union. I am testifying today on behalf of maritime labor, which includes the SIU, the American Maritime Officers, the Marine Engineers' Beneficial Association, the International Organization of Masters, Mates and Pilots, and the Maritime Trades Department of the AFL-CIO. All told, the members of these seagoing labor organizations and the affiliates of the MTD number over 4 million working people in America.

Today is the Maritime Industry Congressional Sail-in, our industry's annual day to visit Capitol Hill. As we speak, nearly 200 representatives of the U.S.-Flag maritime industry, from CEOs and union leaders to actively sailing merchant mariners, are meeting with Members of Congress and their staff. Their goal is to educate our elected officials and staff about the importance of the merchant marine, to request support for the laws that keep our ships sailing and our members employed, and to put a human face on what is often a forgotten industry in America.

This hearing could not be timelier. The United States Merchant Marine is at a crossroads, and if we are to continue to meet the challenges of the 21st century and an unstable world, the Federal Government and the maritime industry must work together to find solutions to help keep our industry viable against the uneven playing field that is world commerce and the opposition of misguided interest groups on both the left and the right here at home.

This committee is well-aware of the ongoing mariner shortage that the United States faces and the implication that shortage has for national security. The Mari-

time Administrator has testified repeatedly about these concerns, and this committee has heard from several current and former United States Transportation Command leaders that our mariner pool is already at the breaking point. This is the paramount issue facing the Merchant Marine today, and all of the issues that are the subject of this hearing—improving regulations, providing greater economic opportunities and increasing competitiveness—are important factors in helping the industry get back to where we need to be to continue our efforts to protect American economic, homeland and national security.

The U.S.-Flag merchant marine relies on three pillars to support its mission to fulfill the mandate set forth in the Merchant Marine Act of 1936: the Jones Act, the Maritime Security Program, and Cargo Preference. All these laws, working together, create the environment necessary for a successful and commercially viable merchant marine—trained mariners, jobs for those mariners, ships for those mariners to crew, and cargo to keep those ships moving.

Whatever else we talk about at this hearing today, keep those four things in mind, because everything we do in the industry and everything the government does to support the industry has to go toward supporting one of those four things.

Mariners. Jobs. Ships. Cargo.

Without mariners, jobs, ships and cargo, the U.S. Merchant Marine ceases to exist. They must be taken together because each of them depends on the existence of the other. A solid, workable government policy on the merchant marine needs to fulfill the needs of each of these things in order to be successful.

Let's first talk about mariners and jobs.

The mariner shortage that we currently face has two aspects to it: first, the recruitment of new mariners into the industry and second, the continued training and retention of existing mariners. In order to get new mariners in the door, we need to be able to demonstrate to them that choosing a career in maritime is a viable option for them. A life at sea isn't for everyone—it's long hours, time away from family, and dangerous work. In a modern-day economy that seems to expect every worker to go to college and then work a 9 to 5 job, it's difficult for many people, young people especially, to imagine a career in the merchant marine.

We have found, however, that one of the easiest transitions is the transition between a career in the military to a career in the maritime industry. While the merchant marine is not a uniformed service, the relationship between the merchant marine and the uniformed services is clear, and the lifestyle is similar. The maritime industry has put together a "Military to Maritime" program that is designed to help identify military veterans who are looking for jobs and pair them with the jobs, training and credentialing they need in order to begin a career in the maritime industry, and more easily transition to civilian life. At the same time, Congress should work to help veterans while reducing bureaucratic burdens.

One of the biggest barriers to entry into the industry is the number of credentials and fees that must be paid by a mariner before they can even begin to look for a job. These include fees for both the Transportation Worker Identification Credential and the Merchant Mariner Credential. Additional fees are required for officer licenses, as well. Waiving those fees for veterans entering the industry would help remove one barrier to entry and provide an additional benefit to those who have served and are now looking to enter the merchant marine. In addition, by allowing the Coast Guard to accept a valid military Common Access Card (CAC) in lieu of a TWIC and accepting a recent military physical examination instead of requiring a mandated maritime related physical, we could help reduce duplicative burdens on former servicemembers transitioning into the industry.

This Committee has been instrumental in bringing the services to the table to address these issues. The roundtables you have organized over the past few years have been a great example of what Congress can accomplish. In that line, we continue to urge the Coast Guard to continue working with the Navy to ensure that military personnel are given full credit toward their commercial credentials and licenses for comparable service attained at sea. We also urge them to continue creating clearer pathways forward to the credentialed positions that exist in the industry. We also hope that the Navy would work with the Coast Guard to ensure that their training and shipboard assignments can more closely mirror international maritime standards including the Standards of Certification, Training and Watchkeeping (STCW) that govern crewmembers in both the United States and overseas. Congress should also allow GI Bill eligible veterans to continue receiving subsistence benefits while they are enrolled in training institutions that are qualified by the Coast Guard to offer maritime course instruction leading to a commercial certification or license. Many veterans are deterred from entering a training program because they would potentially lose subsistence benefits during training before they begin receiving a steady income.

Rest assured, that no matter how difficult it is, U.S. maritime labor is committed to ensuring that for every mariner job there is a trained, skilled, and motivated mariner to fill it. When the balloon has gone up, U.S. maritime labor has never let a ship sail into harm's way without enough mariners aboard to get the job done safely. No matter what, maritime labor has always gotten the job done, and we will continue to get the job done.

As we have always said to our friends in the industry—give us the jobs, and we'll fill them.

Moving on, there are a few ideas that can help us bring new ships and more cargo into the merchant marine.

First, as this committee is aware, the 2008 Coast Guard Authorization Act gave the Maritime Administration the authority to enforce existing U.S.-flag cargo preference laws, but the agency has been unable to set the necessary enforcement. Despite the clear intent of Congress, MARAD continues to find itself blocked in the interagency review process from publishing implementing regulations for this authority. Without these implementing regulations, MARAD has been unable to use the power granted it by Congress to hold shipper agencies of the Federal Government accountable when they fail to comply with existing cargo preference requirements.

Evidence supports a strong belief in certain areas of the industry that the commercial fleet is missing opportunities across all the major sectors of cargo preference—whether it's defense related cargo, Eximbank financed cargo, or P.L. 480 and other food aid cargoes—and that this missing cargo is contributing to the decline of the fleet. It is critical that MARAD be able to use the power Congress intended it to have to hold other Federal agencies accountable for following the law. This is common sense, yet it remains an issue over a decade later. This must change.

A key legislative option to consider that would have a positive impact on jobs and ships would be rolling back the cuts to cargo preference that were enacted in 2013. The Maritime Administration (MARAD) has made it clear that the changes made to cargo preference in the Moving Ahead for Progress in the 21st Century Act of 2013 (MAP-21), which reduced the percentage of foreign food aid cargoes reserved for the Merchant Marine from 75 percent to 50 percent, were responsible for the loss of over 25 ships in the U.S.-Flag international fleet. Congress can reverse that change and restore the 75 percent requirement—or even expand the requirement to 100 percent to mirror the requirement for defense related cargo. Doing so would ensure the additional cargo needed to sustain the ships and jobs that existed just a few years ago, and help reverse the negative trend we have seen since that misguided change in the law.

On the Jones Act front, we continue to push for creative solutions to kickstart Short Sea Shipping projects across the country. MARAD's Marine Highways program is a good start, but more must be done to help make short sea shipping more than just a paper program. As we see more and more people concerned about climate change, the more sense Short Sea Shipping makes—not only will it result in new jobs and new ships for the Jones Act domestic fleet, it will help reduce greenhouse gas emissions by getting trucks off the highways and moving those goods via ships or barges.

A variety of tax related issues have been discussed over the years to promote the maritime industry. Most recently, Congress adopted the tonnage tax, which brings the industry in line with the tax regimes of most of our foreign competitors. Congress should continue to look at ways to use the tax code to incentivize shipping cargo on American ships. Past ideas have included tax breaks for shippers to encourage them to utilize American shipping companies to move their cargo.

These are just a few ideas that the industry has discussed over the years to help promote the industry. And while it is clear there are no silver bullets that can solve every problem the industry faces today, there is one idea—and one bill—that comes close.

The Energizing American Shipbuilding Act is a comprehensive bill designed to address all four of the major concerns—mariners, jobs, ships and cargo. This bipartisan bill, which was introduced in the last Congress by Congressman John Garamendi and Senator Roger Wicker, would reserve a small portion of exported American crude oil and liquefied natural gas for ships built in the United States, flagged American and crewed by American mariners.

The resulting cargo would be sufficient to create thousands of new shipbuilding and mariner jobs, while adding dozens, if not a hundred, new ships to the U.S.-Flag international fleet. With the lifting of the ban on the export of crude oil in 2015, the United States has seen rapid growth in the oil export business, yet none of that trade is being done right now on American ships.

Adding American crude oil and LNG to cargo preference is a simple, cost-effective way to help bolster both the U.S. shipbuilding industry as well as help us to boost the size of the U.S.-Flag international fleet, which has been losing ships steadily for several years. This bill is similar to one that was passed in 1974 by Congress but vetoed by President Ford. In addition, given that this trade did not exist prior to 2015, it is not unreasonable for Congress to reserve a portion of this new cargo for American industries, knowing that the benefit to both national security and the merchant marine will be significant.

We look forward to Congressman Garamendi and Senator Wicker reintroducing this bill in the 116th Congress and we urge Congress to pass it and the President to enact it into law.

Now, let me be frank.

For decades, we have been coming to Congress, stressing the need for more ships and more jobs. Today is no different, and the need for these new jobs and new ships is more important than ever before.

I have testified before this committee many times, and each time I have stressed that those of us in the industry and our allies in Congress must stop constantly playing defense, protecting the ships and jobs we have. We need to go on the offense and start trying to find ways to grow the industry. We can't simply rely on maintaining MSP, stopping attacks on the Jones Act and cargo preference, and hope that things turn around.

They won't. Not unless we act.

Now is the time for action. It's not the time for us to play defense, or to accept half measures that are politically expedient but largely ineffective. We need bold leadership from Congress, and we look to the members of this Committee for that leadership. We have an opportunity now to fix these problems and put our Merchant Marine back on the right course. I urge you to stand with us.

The United States Merchant Marine has stood by America in peace and war for over two hundred years. If we want it to continue to do so, it is critical that we act today to not just protect but to expand the maritime industry and our international fleet. Working together I am confident that Congress, the Administration, and the maritime industry can find solutions that will result in more trained mariners, more mariner jobs, more ships, and more cargo—all the things needed to keep our Merchant Marine sailing now and well into the future.

Thank you for allowing me to testify today, and I look forward to answering any questions you may have.

Mr. LOWENTHAL. Thank you. Now we are going to move on to Member questions. Each Member will be recognized for 5 minutes. And I am going to start by recognizing myself.

Mr. Crowley, I know it hasn't been easy, but terminal operators have been in an essential part of our ports' efforts to reduce emissions. They have played a critical role in this. For example, at my home port, which, as you know, is the Port of Long Beach, diesel particulates from cargo handling equipment has been cut by 93 percent from 2005 levels. NOx emissions are down 73 percent, while container volume has increased by 12 percent.

This is very, very important progress, and I am proud that the State of California and local partners, such as the industry itself, have committed resources to help with this effort. With State resources we have funded demonstration programs for zero-emission handling equipment, and rolling out charging outlets for cargo equipment at some of our busiest terminals. But we know that much of the investment in low- and zero-emission equipment will come from private terminal operators. That is where much of it is going to come.

So both in your written testimony and in your oral testimony you talked about loan guarantees, or low-interest financing programs as one way for Congress to spur investments at marine terminals. Can you dig a little deeper, and tell us how you see that playing out, and what—what is the scope of what you are talking about?

Mr. CROWLEY. Thank you, Mr. Lowenthal. And again, I appreciate your leadership in the PORTS Caucus and the efforts on behalf of ports. Thank you for the question.

Certainly, port operators and terminal operators support the goals of lower emissions and being good port stakeholders in the communities in which they live. It is with that in mind—takes significant investment into those efforts, which are important to the Nation and local communities, but deter from them getting to the productivity of the business that they are about, moving cargo. And that is part of our focus on trying to achieve more flexibility and receiving support for things that are broadly good and national goals in order to support the investments that can be done throughout the facility.

Loan guarantees are amongst other avenues of means to support that investment, and everything that gets done on the terminal operation. You know, we are reminded of title 11 in the vessel construct of loan guarantees and support. Not available today, certainly, and probably not prospectively available, but that sort of program, as a dedicated means for national asset, would seem to be something that we could consider. And I would be happy to work further with the committee and staff towards that end.

Mr. LOWENTHAL. Thank you. I would like to work together with you on that.

Also you mentioned talking about how these loan guarantees or low-interest finance programs can help programs or projects that are—I think you mentioned the term “broadly good,” in terms of the public’s interest. Could you be more specific?

What investments do you think our terminal operators right now—would they make, if we did provide these low-interest loans, if we did help them by providing the financing that they need to do this? What specifically do you think they would be focusing on?

Mr. CROWLEY. Well, the first dollar always goes to—Mr. Lowenthal, to your question—to the things that are required as part of being good citizens in the community, such as the environmental matters that you have previously questioned. But they reach to many other things, such as—all the way to the development of better wharfs, stronger rails, to transit, the larger cranes that are needed to efficiently and productively move cargo today, all things which don’t run out of their useful life by the terminal operator standards, but are needed because of outside influences. And all of those things together are increasingly, you know, over \$1 billion for many entities.

Mr. LOWENTHAL. Thank you, and I yield back. Now Ranking Member Gibbs.

Mr. GIBBS. Thank you, Chairman.

Mr. Roberts, going out to Puerto Rico and the LNG Jones Act waiver, several questions there. But I guess a two-part first: Does the pending Jones Act waiver for carrying LNG to Puerto Rico argue on the basis of national defense, and does waivers under section 501 and title 46 of the United States Code require national defense rationale for approval?

Mr. ROBERTS. Mr. Gibbs, we see no basis for finding that there is a national security or national defense initiative that is the basis for issuing this waiver. It is entirely based upon an economic argu-

ment, and the prospect of some potential future need that has yet to be identified.

Mr. GIBBS. We agree, because we sent the letter.

Mr. ROBERTS. And we thank you very much for that.

Mr. GIBBS. Puerto Rico's current LNG needs, are they being met either through imports, or by the Jones Act-qualified vessels carrying ISO LNG tank containers?

Mr. ROBERTS. Yes, Mr. Gibbs. The one facility on the island that is physically capable of receiving LNG is under a long-term contract to receive from Trinidad, and that is working. The other demand on the island for LNG at this time is being met and was created by our company, honestly. And that is being met through ISO tanks that are being carried on Jones Act vessels from the mainland.

Mr. GIBBS. Do you know if a section 501 waiver has ever been granted to transport material to a facility which is not designed, and has not been funded, has not been permitted, and has not been built, and does not exist?

[Laughter.]

Mr. ROBERTS. That would be a unique application of that law.

Mr. GIBBS. But you don't know if it ever happened, right?

Mr. ROBERTS. It has not.

Mr. GIBBS. OK. I guess Ms. Carpenter and maybe Mr. Roberts, too, about the towing vessel inspections. We talked about with the first panel under subchapter M and the certificates of inspection. But how many towing vessels choose to use third-party inspection, or choose national Coast Guard inspection regimes, do you know?

Ms. CARPENTER. Yes. Our experience with our members very much tracks what you have heard from Admiral Nadeau earlier. About 80 percent of our members who have received certificates of inspection are using the towing safety management system option, which leverages third parties.

Mr. GIBBS. You know, also, the shipping inspections, geographic restrictions, is there a plan for allowing towing vessels to operate as response vessels beyond the geographic area in which their certificate inspection is applied? And does the geographical limitations of the certificate inspection pose other problems for traditional towing vessel operations?

Ms. CARPENTER. Yes, so this is something that our members have an interest in, both as subcontractors to salvage and response organizations who may be providing services to vessel owners. But our members are also tank barge operators and towing vessels who are required to have response plans, and rely on these response resources. So it is very important to us, from both perspectives, that we have a sufficient network of response providers whose vessels are properly outfitted and whose mariners are properly credentialed to do the work.

We have encouraged all of our members to meet with their Coast Guard officer in charge of marine inspections to talk with them about the work that their vessel may do in the event of an emergency, and to make sure that they have the necessary certifications in place, and that we have productive plans.

I will just add we have been talking with our colleagues at the American Salvage Association, who have expressed real concern

here. We are very much interested in hearing their members' perspective, as the folks who are doing the subcontracting to our members. If they see a gap, that is something we are going to want to work with them and with the Coast Guard and with this subcommittee—

Mr. GIBBS. I do know the salvage industry has some concerns on the inspection process and how it is going on.

I guess, Mr. Tellez, I love your testimony, especially the beginning.

[Laughter.]

Mr. GIBBS. I understand in the Coast Guard we have had—talked about the Military to Mariner initiatives. And this is—do you have any further ideas on improving these operations, or other ideas to help preserve the experience of military mariners for use in the private sector? You know, ideas to help facilitate this?

Mr. TELLEZ. In 2004 the industry created a veterans—accelerated veterans program. At that time we were probably getting about 10 per class. That program today gets about three per class. Part of the reason, at some point, because we do not charge tuition, the VA stopped allowing these veterans to use their benefits to either pay for documentation, pay for transportation, to pay for all the paperwork and documents they need to come to school. What the Executive order does, it repairs that pathway and allows them to use that money, and also maintain their per diem.

So for a married guy with a family, that per diem becomes very important while they're in school. The key there, again, is two things. The Coast Guard has to be able to give them equivalency for their sea time experience in the military. And then we have a job to put them to.

Mr. GIBBS. OK, I appreciate that.

Mr. LOWENTHAL. Thank you, Ranking Member Gibbs.

Next, Mr. Brown, Representative Brown.

Mr. BROWN. Thank you, Mr. Chairman. Just, I think, two clarifying questions. One for Mr. Tellez.

And good afternoon, I am glad to be your host at your headquarters in—

Mr. TELLEZ. Glad to have—

Mr. BROWN [continuing]. Camp Springs, Maryland.

Mr. TELLEZ. Always glad to have you, sir.

Mr. BROWN. Yes, indeed. So you mentioned a war—and I may have this inaccurate, so that is why it is a clarifying question. You said there is a—you see a 12,000 war-time requirement shortage, in terms of the number of—

Mr. TELLEZ. Oh, not a shortage.

Mr. BROWN. OK.

Mr. TELLEZ. We are tracking about an 1,800 to 2,000 manpower shortage to meet our military requirements, sustainable. Surge, we can handle, which is the initial—how we place those folks and keep it going, there is about an 1,800—

Mr. BROWN. So does the—that Military to Mariner program—I mean that helps address this shortage.

Mr. TELLEZ. It helps address it. The shortage is a potential shortage. You still have—you can't have people just sitting around, waiting for something to happen. So if you bring them in and recruit

them and train them, they can't just be sitting around, waiting for the balloon to go up.

Mr. BROWN. You can't retain them.

Mr. TELLEZ. You can't retain them, so you have to be able to place them somewhere. We do the best we can, putting them in what we have right now. That is our goal. And we are pretty successful at it. But to close that 1,800-man gap takes a lot more than just bringing in 200 or even 2,000 over a period of years.

Mr. BROWN. Thank you.

And for Admiral Alfultis, you had mentioned that—and this is, again, a clarifying question—that the academies produce a sufficient number of merchant marine officers. Yet somewhere in your testimony you talked about a shortfall. Can you just clarify that?

Admiral ALFULTIS. Yes, sir. Thank you for the question. So the shortfall we are all talking is the same shortfall, about 1,800 mariners. We are producing—again, the number of mariners that we produce each year, entry level, certainly meets the need for—we believe, the need for entry-level mariners.

The issue is, again, the retention issue. If they don't have jobs to continue sailing on their license and advance on their license to the more senior-level mariners, we lose them. I think Admiral Buzby testified, you know, typically about the 6- to 10-year mark, that is where we are losing our mariners, because some just want to come to shore for a different lifestyle, but many are just hitting a wall, where there is just not enough jobs available for all these mariners.

And frankly, one of the issues we are having, as my colleague here alluded to, we are having a hard time finding enough positions for the kids that are graduating. We have students that are graduating with an officer's license. They are taking jobs as able-bodied seamen, not even sailing as an officer, because there is not enough third-mate positions available to them, because there is not enough ships for all these people who are graduating.

So we are graduating a sufficient number. The trick, again, is to have enough positions for them when they graduate, enough positions for them to continue to sail and advance through their career.

Mr. BROWN. And then, just in terms of retirements, is that a challenge? Are you seeing, you know, bubble or—tell me about retirements, and what that—impact that is having on the shortage that you could see in this area.

Admiral ALFULTIS. I am going to concede to some of my other colleagues on that question. I am more—I produce the entry-level mariners. I will concede that to some of my other colleagues who could possibly answer that question.

Mr. TELLEZ. Two issues there. On the license side, part of the problem is that they are not retiring. And what happens is you have the top officer staying beyond and aging, and at the same time his nominal replacement would be the chief mate, going at the same time. So there is the potential that both of them would retire at the same time. It takes maybe 8 to 10 years to create those positions. Where are you going to fill those gaps in?

On the unlicensed side, we have probably about two dozen folks retiring every month. We bring in recruits every month or so. We try to maintain a balance there. The problem again that we are

going to face is that the demographics are going to create a skill gap, whereas because there are not enough jobs, there is not enough opportunity, people are staying on beyond what they should do, and clogging up that pipeline, so to speak. And that is the problem we are having and will be facing very, very shortly.

Mr. BROWN. Thank you. I yield back.

Mr. LOWENTHAL. Thank you. And now I turn to my colleague and cochair of the PORTS Caucus, Representative Weber from Texas.

Mr. WEBER. Thank you, Mr. Chair.

Mr. Tellez, you said that the average retirement per month is two dozen.

Mr. TELLEZ. On my union. That is within my union.

Mr. WEBER. Oh, I got you. What is the average age, would you guesstimate?

Mr. TELLEZ. Within my union?

Mr. WEBER. Yes, sir. Those that are retiring.

Mr. TELLEZ. [No response.]

Mr. WEBER. I mean is it 60, is it 50?

Mr. TELLEZ. It is over that, anywhere between 65 to 70.

Mr. WEBER. So safe to say they get in the industry and they stay there a long time.

Mr. TELLEZ. Once they get that salt in their blood, yes, they are there for a while.

[Laughter.]

Mr. WEBER. OK.

Mr. TELLEZ. They forget how to act on land.

Mr. WEBER. OK. Well, I will leave that alone for right now.

[Laughter.]

Mr. WEBER. So I guess this is really kind of a question for all of you, and I will start over here.

How do we explain that there is a national security tie to our Acting Secretary of Defense? Are you all engaged in explaining that? Do you meet with him or his staff? Any thoughts?

Admiral ALFULTIS. I would say I—we—yes, we engage with Military Sealift Command, we engage with U.S. Transportation Command. They are actually two of our greatest advocates, so there is certainly a dialogue between the DoD, through MARAD, to the State maritime academies. We do have that dialogue about what their needs are, and how we can meet their needs.

And I would say some of our strongest advocates for things like the Jones Act, the need for mariners, are actually DoD.

Mr. WEBER. So you are having that ongoing dialogue. I don't know if that means an annual meeting. You are trying to—the last thing we want is a national emergency that all of a sudden we have to make the—or the Secretary is charged with giving the waiver. The last thing we want is to try to explain that in an emergency.

So we are—this is an ongoing—what do you call it, continuing ed training session, Mr. Crowley? Are we meeting with him or his staff?

Mr. CROWLEY. I would have to defer on many of these manning issues to the other colleagues here.

I will say with respect to terminal operators, there is a continuing negotiation with the logistics staffs for outflow and inflow of—

Mr. WEBER. OK. Mr. Roberts, your thoughts?

Mr. ROBERTS. Yes. There is an organization called the National Defense Transportation Association.

Mr. WEBER. OK.

Mr. ROBERTS. Admiral Buzby was the president of that before taking his current position. They meet on a regular—and that is—

Mr. WEBER. Good to hear.

Mr. ROBERTS. That is the association that facilitates the interface between TRANSCOM and its component commands, and the industry to stay ahead of this. And there is a very good dialogue there. That organization is very successful.

Mr. WEBER. Good to hear.

Mr. Tellez, your thoughts?

Mr. TELLEZ. I serve on something called the VISA Executive Working Group over at TRANSCOM, and that is—peacetime, it is probably a quarterly meeting.

Mr. WEBER. OK.

Mr. TELLEZ. We have met with the former Secretary and his—

Mr. WEBER. OK. Well, maybe we—

Mr. TELLEZ. It is an ongoing—

Mr. WEBER. That is what I like.

Ms. Carpenter, let's go to you real quick.

Ms. CARPENTER. I would just say we talked about the lack of a national defense reason for a 10-year waiver to move LNG to Puerto Rico. If we give Jones Act waivers—

Mr. WEBER. For those nonexistent facilities?

Ms. CARPENTER. Right. If we give Jones Act waivers where we don't have a national defense emergency, we will find ourselves with a national defense emergency—

Mr. WEBER. That is part of the fear, right.

Ms. CARPENTER. We won't have a domestic maritime industry.

Mr. WEBER. OK, thank you.

And Mr. Tellez, you said you think there is about a 1,800-mariner shortage. And then you said that you could sustain the surge, but it wasn't sustainable. I think you said something like that.

So define the difference in numbers between the—handling a surge and handling something sustainable.

Mr. TELLEZ. Well, in surge—and we do worst-case scenario in conjunction with MARAD. We meet and we consider surge and worst-case scenarios using everything that floats. And to have everything that floats sailed into the war zone would require about 11,500 or—

Mr. WEBER. OK, I have only got 47 seconds left. Thank you. So what is the number-one thing we can do to encourage shipbuilding in this country?

I will start here real quick. Short, please.

Admiral ALFULTIS. Build three more NSMVs.

[Laughter.]

Mr. WEBER. Well, and I have got a name for one of them.

Mr. Crowley?

Mr. CROWLEY. I think I defer to the other members on the panel.

Mr. WEBER. Mr. Roberts?

Mr. ROBERTS. Well, I think defending the Jones Act, and I think the—looking at the—revitalizing the shipbuilding—Mr. Garamendi's bill.

Mr. WEBER. OK.

Mr. TELLEZ. Create the requirement, create cargo.

Mr. WEBER. Sure. Well, that is trade, balance of trade. And I hate to be specific, but—dare I call it Trinidad, having a contract with Trinidad—anybody know what the length of that contract is?

Ms. Carpenter?

Mr. TELLEZ. It was 10 years.

Mr. WEBER. It was 10 years.

Mr. TELLEZ. Yes, I don't—

Mr. WEBER. Because we would sure like to sell them some from Texas. I am just saying.

[Laughter.]

Mr. TELLEZ. Now they are booked, but you got to get in line.

Mr. WEBER. I thank you.

I yield back. Mr. Chairman.

Mr. LOWENTHAL. Thank you. And further questions for members of the panel? I know Ranking Member Gibbs—

Mr. GIBBS. Thank you, Chairman. Just kind of a followup question to Mr. Crowley's testimony, talking about—it was Congress', really, I think, intent of the Committee on the Marine Transportation System to serve as a coordinating agency to align the different thoughts of different agencies' authorities, which—stakeholder, in part.

What actions do you think we need to take, as Members of Congress, to make this happen? Looking at your testimony, you talk about the different agencies here.

Mr. CROWLEY. Yes, Mr. Gibbs. I appreciate the question.

You know, one of the ways to look at it is if you are calling someone from the administration to testify as to the health or the challenges of the port operator in this industry, I think your challenge is to find who that is. And so we end up sometimes, for example, overlapping security regulations by two members of the same department on the same facility security plans, providing a redundancy and a cost that distracts us from other worthy efforts.

Mr. GIBBS. So we really need to somehow align the marine transportation—the—on your testimony—get the name of it here—

Mr. CROWLEY. There are—if I may?

Mr. GIBBS. Yes.

Mr. CROWLEY. I think I know where you are going—

Mr. GIBBS. Yes.

Mr. CROWLEY [continuing]. Mr. Gibbs. There are committees that exist now, but they are primarily intended to advise individual secretaries and heads of agencies on their own status and where they are—how their work is evolving.

We find—and the Hanjin bankruptcy is a good example—that there are multiple agencies trying to help out in a case like that, none of which had any coordinating mechanism across the board that had been instituted, and we find ourselves more answering

questions than getting help for the challenges that the ports also face.

Mr. GIBBS. It is the old saying, the right hand and the left hand doesn't know what is going on.

Mr. CROWLEY. There is—

Mr. GIBBS. Some of that.

Mr. CROWLEY. This is a diverse community, and it has generated diverse sponsorship within the administrations and, you know, across the effort. Understandable, but we call upon the administrations and the agencies to do the same sort of work we have to do, which is make sense of the various requirements and the policies to make them efficient and productive to our Nation's economy.

Mr. GIBBS. Thank you.

Thank you, Mr. Chair.

Mr. LOWENTHAL. Thank you. And now I would like to ask any of the Members—are there any more questions?

Not hearing any more questions, I would like to thank each of the witnesses for your testimony. Your contribution to this discussion has been very helpful. And it has been very informative.

And I would like to now ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing.

And I ask unanimous consent that the record remain open for 15 days for any additional comments and information that is submitted by Members or witnesses, which will be included in the record of today's hearing.

Without objection, that is so ordered.

If no other Members have anything to add, this subcommittee stands adjourned.

[Whereupon, at 12:20 p.m., the subcommittee was adjourned.]

APPENDIX

QUESTIONS FROM HON. SEAN PATRICK MALONEY FOR REAR ADMIRAL JOHN P. NADEAU

Question 1. We are seeing a large increase in the number of LNG powered ships, including cruise ships, calling upon U.S. ports. To facilitate that traffic, ports need to be able to provide the LNG to fuel the ships, some through bunkering operations.

Has the Coast Guard considered implementing uniform guidance or regulations regarding LNG bunkering to ensure consistency and safety across the nation?

ANSWER. Through ongoing engagement with both Coast Guard field commands and the maritime industry, the Coast Guard has promulgated uniform/nationwide guidance related to LNG bunkering.

In 2015, the Coast Guard published guidance that addresses guidelines for LNG fuel transfer operations and training of personnel on vessels using natural gas as fuel (CG-OES Policy Letter 01-15).

In 2017, the Coast Guard published guidance for evaluating simultaneous operations during LNG fuel transfer operations (CG-OES Policy Letter 01-17).

Subsequently, guidance specifically for Coast Guard field personnel overseeing LNG transfers was promulgated and distributed to Coast Guard field units. These policy letters and field guidance provide a basis for uniform oversight of LNG bunkering operations across the United States.

Through regular engagement with the industry, local stakeholders and federal advisory committees, the Coast Guard will continue to consider whether additional guidance and/or regulatory standards are warranted for LNG bunkering operations.

Question 2. MMD Requirements: Under title 46 of the United States Code, anyone who works onboard a vessel is required to have a merchant mariner's document. This requirement ensures that mariners engaged in vessel operations are properly vetted and qualified. However, vessel operations have changed since we first passed the law requiring those aboard vessels to possess merchant mariners' documents. Increasingly modern vessels often carry specialized workers that are not involved in the safe navigation or operation of the vessel. For example, today's vessels often carry specialized individuals such as divers, industrial workers, and remotely operated vehicle pilots.

In enforcing this requirement, does the Coast Guard believe there's a safety concern that this Committee should be mindful of if it were to change the law?

ANSWER. The MMD requirement addresses three safety related areas:

- 1) Background checks. The MMD requirement allows the Coast Guard to review a mariner's criminal record and determine if the individual is a safe and suitable person for serving on a vessel. (This concern is less if the person possesses a Transportation Worker Identification Credential or another background check that establishes that he or she is not a security threat.)
- 2) Safety training and indoctrination. Mariners, to include entry-level mariners, are aware of the dangers of shipboard life and regularly participate in emergency drills such as abandon ship drills.
- 3) Chemical testing. MMD applicants must pass a chemical test for drugs prior to being approved.

Question 3. Would the Coast Guard oppose a revision to this law that excludes non-operating personnel such as divers or remotely operated vehicle pilots from needing a merchant mariner credential?

ANSWER. The Coast Guard does not oppose a revision to this law provided that the revision includes requirements for background checks, safety training, and chemical testing of a sufficient scope to address the safety concerns raised in Part 1.

Question 4. What steps has the Coast Guard taken to implement the Maritime Safety Act of 2018 to facilitate proper vessel inspections and oversight of the mari-

time industry, to ensure that vessels and crew have necessary safety equipment, and to make sure relevant casualty data is available after an accident?

ANSWER. On July 3, 2018, in response to Section 215 of the Hamm Alert Maritime Safety Act of 2018 (Act) and to address a number of other mandates in that Act, the Coast Guard: established the Flag State Control Division (CG-CVC-4) in the Office of Commercial Vessel Compliance to provide oversight of Recognized Organizations and third-party organizations; developed additional program guidance to improve oversight and assess Authorized Classification Societies; developed supplemental flag-state guidance on safety management systems; and increased oversight training for marine inspectors. For more information, see attached report.

Finally, the Coast Guard continues to capture relevant marine casualty data after accidents and makes that data available. Certain marine casualty data related to the U.S. fleet can now be found at page 5 of the following report: <https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CG-5PC/CG-CVC/CVC1/AnnualRpt/2018DomesticAnnualReport.pdf>.

Question 5. In October 2018, the Coast Guard released the Maritime Commerce Strategic Outlook to guide Coast Guard efforts in securing the maritime environment while enabling maritime commerce.

Admiral, can you talk to us a little bit about the three lines of effort included in the Strategic Outlook and the steps the Coast Guard is taking to implement them?

ANSWER. The MCSO relies on the implementation of three lines of effort (LOE), each of which has multiple objectives:

LOE NO. 1—FACILITATING LAWFUL TRADE AND TRAVEL ON SECURE WATERWAYS

The Coast Guard will advance American prosperity through securing ports and waterways that enable commerce and ensuring vessels are subject to uniform, consistent standards.

- *Objective 1: Mitigate Risk to Critical Infrastructure*
Fortify cybersecurity in the Marine Transportation System (MTS) by developing incident prevention and response frameworks. Enhance risk-based planning for Maritime Security and Response Operations (MSRO) such as security boardings, security zone enforcement, and aerial, shore-side and waterborne patrols. Bolster intelligence collection and use to improve security procedures, enhance the International Port Security Program, and leverage best practices in security among global partners. Enhance Maritime Domain Awareness and information sharing among maritime security partners.
- *Objective 2: Build Resiliency within the Marine Transportation System*
Strengthen Marine Transportation System Recovery Unit procedures, data models, and catalogs of critical infrastructure and navigation aids to improve reopening ports following natural and man-made disasters. Further promote a safety culture within industry by overseeing optimal uses of safety management systems and procedures to identify and mitigate risks and respond to incidents.
- *Objective 3: Enhance Unity of Effort in the Marine Transportation System*
Enhance cooperation among federal, state, local and tribal agencies and maritime stakeholders, especially within the U.S. Committee on the Marine Transportation System, Area Maritime Security Committees, and Harbor Safety Committees. Leverage relationships within international organizations to shape global standards, such as the International Maritime Organization, International Association of Lighthouse Authorities, and International Hydrographic Organization. Identify emerging environmental threats and reconfigure Area Contingency Plans to address them.

LOE NO. 2—MODERNIZING AIDS TO NAVIGATION AND MARINER INFORMATION SYSTEMS

The Coast Guard will ensure America's waterways and maritime industry employ state-of-the-art systems that ensure America's competitiveness as a global trading partner.

- *Objective 1: Improve the Nation's Waterways*
Ensure the on-going viability of the existing constellation of fixed and floating aids to navigation (ATON), including new technologies such as electronic ATON and improved, data-driven and risk-based models that optimize the marking of navigable waters and obstructions. Enhance Marine Safety Information systems to provide mariners with real-time, accessible and relevant voyage planning data. Promote the use of electronic navigation charts and risk-based decision-making while maintaining an equitable level of safety. Improve bridge permitting procedures and information related to bridge operations in order to minimize chokepoints at bridge-waterways intersections. Support the U.S. Army Corps of Engineers efforts to optimize the reliability of locks and dams.

- *Objective 2: Optimize Maritime Planning*
Engage maritime stakeholders within the public, private, and academic (marine science) sectors to identify potential conflicts in waterway uses and overall needs of the industry and local communities, while protecting the marine environment. Balance development of navigation routes with the development of renewable energy installations, aquaculture, and technologies related to commercial infrastructure and vessel construction and operation. Develop next-generation waterway designs to improve Maritime Domain Awareness, mariner information, and waterway resiliency.
- *Objective 3: Recapitalize Aging Assets*
Faced with aging surface and aviation assets and antiquated shore infrastructure, invest in modern assets to perform the ATON mission and domestic and polar ice operations mission, including the development of effective fleets of Waterways Commerce Cutters, buoy tenders, and heavy icebreakers. Strengthen partnerships with international agencies and maritime stakeholders in order to ensure effective prioritization of icebreaking services during asset recapitalization and construction.
- *Objective 4: Streamline and Update Information Systems*
Faced with the increasing obsolescence of Coast Guard marine safety, credentialing, and navigation information systems, initiate research and development of modern, adaptable information systems. Promote the sharing and leveraging of public and private data sources in order to make risk-based decisions that counter safety, security, and environmental threats. Promote a shift from an antiquated rules-based regulatory structure to a risk- and principles-based regulatory structure that keeps pace with emerging practices and technologies.

LOE NO. 3—TRANSFORMING WORKFORCE CAPACITY AND PARTNERSHIPS

The Coast Guard will continuously review the human capital system that recruits, develops, and retains the best possible workforce to ensure it can adapt within a constantly changing environment.

- *Objective 1: Leverage and Ensure Effective Oversight of Third Parties*
Increase the use and oversight of third-party organizations for regulatory functions and standards accrediting bodies in order to align with global practices while maintaining an equitable level of safety. Ensure the Coast Guard retains the necessary proficiency and technical expertise to conduct proper oversight of third-party organizations. Adapt the Coast Guard's organizational structure and responsibilities to sustain its ability to monitor the global performance of the U.S. flag fleet and third-party organizations.
- *Objective 2: Sharpen High-Tech and Adaptive Service Competencies*
Leverage new technology to improve the way the Coast Guard conducts oversight of the MTS, expanding the use of condition-based monitoring and analytics. Maintain awareness of industry trends that have the potential to transform or disrupt the MTS. Optimize the use of technology, mobility, data analytics, and artificial intelligence to enhance vessel inspections and investigations. Invest in advanced education and industry training in emerging fields like automation, artificial intelligence, data analytics, and cybersecurity.
Promote and establish groups of non-traditional thinkers, academic professionals, and government stakeholders to identify, address, and leverage emerging technologies and industry practices.
- *Objective 3: Advance the Prevention and Response Operations Workforce*
Broaden the diversity of our workforce to be more reflective of the population we serve. Implement state-of-the-art training and qualification programs that will enable professional mastery. Recruit, develop, and retain professionals who thrive during constant changes to technology and tools. Develop a repository of information about advanced navigation control and vessel propulsion systems. Develop a repository of methods for leveraging new technologies, responding to and managing crises, and contingency planning.

Beyond the organic authorities the Coast Guard already possesses to carry out statutory missions to further the MCSO, the Coast Guard established a task force to ensure continued implementation of the MCSO's three lines of effort and to assess what, if any, additional legal authorities may be necessary to carry out statutory missions to further the MCSO.

Question 6. Does the Coast Guard need any additional authorities or legislative assistance to fully implement the Maritime Commerce Strategic Outlook?

ANSWER. Not at this time. The Maritime Commerce Strategic Outlook (MCSO) aligns with the existing Coast Guard statutory missions as set forth at Title 6, U.S.

Code, Section 468 and the primary duties set forth in Title 14, U.S. Code, Section 102.

Question 7. Can you discuss why the presence of U.S. Flag fleet in world ports is meaningful towards the exercise of U.S. sovereignty and economic strength?

ANSWER. From the Coast Guard's perspective, a U.S.-flagged fleet that trades in foreign ports demonstrates our Nation's commitment to safe, secure, and environmentally sound shipping worldwide.

Question 8. Does the strength of a U.S. Flag fleet bolster the credibility of the U.S. at the International Maritime Organization or other international maritime organizations? How?

ANSWER. From the Coast Guard's perspective, while less than one percent of the global ship portfolio currently trades under U.S. flag registry, the United States' credibility at international fora such as the International Maritime Organization is bolstered by its distinction as the leading port state for foreign vessel arrivals.

Question 9. U.S. vessels with U.S. crews can be "ears and eyes" in ports and trade lanes throughout the world. Are you aware if other countries leverage their fleets to bolster national security goals such as intelligence-gathering?

ANSWER. Yes, the Coast Guard understands that other countries leverage their vessel fleets to bolster their national security goals.

QUESTIONS FROM HON. RICK LARSEN FOR REAR ADMIRAL JOHN P. NADEAU

Question 1. Can you provide us an update on the Coast Guard's progress in streamlining the process for military members to transition to licensed mariners?

ANSWER. Once the establishment of the Coast Guard's Credentialing Opportunities On-Line (CG COOL) website goes live and the program manager position is established in the Summer of 2019, the Coast Guard will have a streamlined web-based resource and subject matter expert for all military members who are interested in a mariners license.

Question 2. What steps has the Coast Guard taken internally to assist Coast Guard members in becoming licensed mariners?

ANSWER. The Coast Guard is currently identifying formal training courses and qualification processes for approval towards a merchant mariner credentialing license. Additionally, the Coast Guard has established a form to account for career sea time that meets experience requirements.

Question 3. What steps are being taken in the Armed Forces to ensure members are aware of the availability, requirements, and assistance offered as part of the military-to-mariner process?

ANSWER. The Coast Guard is establishing a CG COOL web presence, similar to the other military services' COOL sites. Internal communications will be circulated by various means to all members of the Coast Guard. We anticipate this site being live by the end of summer 2019 and for credentialing payment processes to be in place by January 2020.

Question 4. In the Pacific Northwest, the safe transportation of crude oil is a priority; a major spill could have devastating impacts on the regional economy, public safety and environment. Last month, the Canadian National Energy Board recommend approval for the TransMountain Pipeline Extension Project. As a result, the number of vessels carrying crude oil could grow.

Can you speak to the available resources the Coast Guard has in the region and its capability to respond to an oil spill?

ANSWER. Within the United States, vessels carrying bulk liquid petroleum, non-tank vessels (self-propelled vessels of 400 gross tons or greater operating on the navigable waters of the United States and carrying oil of any kind as fuel for main propulsion), marine transportation-related facilities, pipelines and offshore facilities must submit oil spill response plans for approval by the U.S. government. The response plan specifies a means to mobilize and manage necessary personnel and resources required to mitigate up to a worst-case discharge. The Vessel Response Plan (VRP), the Non-Tank Vessel Response Plan (NTVRP) and Facility Response Plan (FRP) holders must cite specific Oil Spill Removal Organizations (OSROs) with whom the plan holder has a contractual agreement to provide equipment and personnel to abate a spill. OSROs provide specific amounts of core equipment to plan holders per regulations set out in 33 Code of Federal Regulations (CFR) 155 (tank and non-tank vessel requirements) and 33 CFR 154 (marine transportation-related facility requirements).

In District 13, the Coast Guard has at its disposal the entire commercial OSRO equipment inventory resident in the region, including spill response equipment owned by other federal agencies, such as the U.S. Navy.

Question 5. Are these resources adequate? If not, what additional resources does the Coast Guard need?

ANSWER. Yes. The response equipment located in the Pacific Northwest region meets or exceeds the regulations set out in 33 Code of Federal Regulations (CFR) 155 (tank and non-tank vessel requirements) and 33 CFR 154 (marine transportation-related facility requirements).

Question 6. At the recent full Committee hearing on climate change, one witness highlighted the importance of federal funding for climate risk assessments at U.S. ports and recommended developing resiliency standards for port infrastructure that maps to regional predictions of sea level change.

Does the Coast Guard have a plan in place to address these issues?

ANSWER. As Coast Guard facilities and assets are planned for recapitalization, resiliency for natural disasters is factored into facility plans and designs. Additionally, Coast Guard shore infrastructure is constructed in accordance with international and local building codes when there are more stringent codes due to localized vulnerabilities such as natural disasters. With an over \$1.7 billion shore infrastructure backlog, the Coast Guard must continue to invest in our shore infrastructure and build resiliency to withstand damage from natural disasters.

Question 7. How do you anticipate resilient port design will impact the U.S. maritime system?

ANSWER. The Coast Guard believes that more resilient port and maritime facility design could make the U.S. Maritime Transportation System (MTS) less susceptible to damage from natural disasters.

QUESTIONS FROM HON. STACEY E. PLASKETT FOR REAR ADMIRAL JOHN P. NADEAU

Question 1. How has climate change and associated physical impacts (e.g., sea level rise, increased storm surge, higher flood levels, etc.) affected Coast Guard facilities and assets, and what are the practical impacts on the Coast Guard's budget and operational readiness?

ANSWER. As Coast Guard facilities and assets are planned for recapitalization, resiliency for natural disasters is factored into facility plans and designs. Additionally, Coast Guard shore infrastructure is constructed in accordance with international and local building codes when there are more stringent codes due to localized vulnerabilities such as natural disasters. With an over \$1.7 billion shore infrastructure backlog, the Coast Guard must continue to invest in shore infrastructure and build resiliency to withstand damage from natural disasters. As a first-responder, and when shore infrastructure is not built to 21st century standards, assets and personnel may be unable to respond as promptly and effectively in support of our statutory missions.

Question 2. How is the Coast Guard spending the \$835 million in supplemental appropriations provided in the Further Additional Supplemental Appropriations for Disaster Relief Requirements Act, 2018 for expenses related to the consequences of the 2017 hurricane season?

ANSWER. The Coast Guard is spending the \$835 million in supplemental appropriations to rebuild and repair damaged or destroyed facilities and equipment and to replace inventories of supplies crucial for readiness that were expended in the Coast Guard's response to the storms.

Question 3. How have those resources been used for expenses related to the consequences of Hurricanes Irma and Maria in the U.S. Virgin Islands?

ANSWER. The Coast Guard is repairing its facilities and equipment in the U.S. Virgin Islands, to include the Rescue 21 tower, the Marine Safety Detachment building, and waterfront piers. The U.S. Virgin Islands also received operational support from the Coast Guard in the form of cutter and aircraft activities that are not easily attributable to a single state or territory, and these resources are being used to restore operational readiness for such assets.

Question 4. How much of the overall total has been used for such expenses in the U.S. Virgin Islands?

ANSWER. \$15.6 million is planned for direct expenses in the U.S. Virgin Islands.

QUESTIONS FROM HON. BOB GIBBS FOR REAR ADMIRAL JOHN P. NADEAU

Question 1: Is the Coast Guard aware of any technical corrections needed to the Frank LoBiondo Coast Guard Authorization Act of 2018 in addition to correcting the subtitle numbering inconsistencies in Chapter 700 of Title 46, United States Code?

ANSWER. Generally, the Coast Guard provides proposed technical corrections to legislation and similar input to Congress through the Department of Homeland Security by way of an established process. The Coast Guard will follow this process to provide information regarding technical corrections to the Frank LoBiondo Coast Guard Authorization Act of 2018.

QUESTIONS FROM HON. SEAN PATRICK MALONEY FOR MARK H. BUZBY

Question 1: The Department of Defense relies on the U.S. Merchant Marine to deliver personnel and material to forward operating bases around the world. You have stated that there is a shortage of 1,800 mariners needed to sustain our presence overseas.

How did the Maritime Administration arrive at that number?

ANSWER. In 2017, Congress directed MARAD to convene a Maritime Workforce Working Group (MWWG) to assess the size of the pool of U.S. citizen-mariners necessary to crew the sealift fleet in times of national emergency. At that time, U.S. Coast Guard (USCG) data indicated that 33,125 U.S. mariners held unlimited credentials, however the MWWG estimated a value of 11,768. The MWWG determined that the disparity between these values (21,357 mariners) will remain unresolved until more research is completed.

The 1,800 mariner figure was derived by the Maritime Workforce Working Group in their Report (Jan. 2018, Table 3 on p.24 of the MWWG Report). Additional analysis is needed to refine this number. Concurrent operations of the U.S.-flag commercial fleet in addition to sustained surge sealift, was estimated to require 13,607 mariners. The MWWG (chaired by MARAD) estimated that 11,768 qualified mariners with unlimited credentials might be available to crew the Ready Reserve, MSC contract mariner crewed ships, and commercial U.S.-flag fleets based on the group's selected methodology.

Question 2: What had led to the shortage?

ANSWER. More research is required to determine the number of merchant mariners with the credentials necessary to participate in sealift operations. The number of U.S. mariners who maintain their proficiency and remain active is proportional to the number of vessels flying the U.S.-flag. The declining number of U.S.-flag ships reduces the available employment base for merchant mariners aboard this fleet, which is the number one factor influencing the size of the active merchant mariner pool. Without those jobs, mariners are unlikely to maintain their credentials or to take lower paying seafaring jobs. This affects mariner recruiting and retention. In addition, the increased costs and additional requirements associated with renewing their mariner credentials to meet requirements under the International Convention on Standards of Training, Certification, and Watchkeeping that went into effect on January 1, 2017 have contributed to more early retirements of mariners holding senior level credentials.

Question 3: Can you please explain why our shortage would significantly impact sealift capabilities?

ANSWER. Ensuring the availability of sufficient qualified contract and obligated mariners for a prolonged activation of U.S. reserve sealift capacity is a continuing concern. MARAD estimates that the supply of available mariners is sufficient to activate the sealift mobilization assuming the MWWG derived estimate of 11,768 civilian mariners are willing to serve when called upon. (It should be noted that most civilian mariners are not obliged to report.) However, sustaining the sealift operations will require crew rotations, which is where a problem could occur absent other mitigating measures. With this number of mariners, and assuming a full activation of all applicable sealift assets concurrent with full steady state commercial U.S.-flag shipping activities, a shortage could be felt beginning with 4th month of surge operations.

Question 4: Last Thursday, the Department of Energy announced a sale of 6 million barrels of crude oil from the Strategic Petroleum Reserve. According to the Department's notice, prospective buyers can take delivery by pipeline, tanker, or barge and are referred to the Department of Homeland Security concerning individual waivers of the Jones Act.

Administrator Buzby, is the Jones Act fleet ready to assist with this sale or are we going to hear complaints of an unsuccessful sale due to lack of available Jones Act vessels?

ANSWER. Neither the Jones Act nor the Cargo Preference Act apply to the sale of SPR crude oil abroad because the purchasers are private sector individuals that are buying the commodity with their own funds and without receiving any financing from the United States. Domestic purchasers who require ocean shipping will make arrangements with Jones Act carriers for barges, Articulated Tug Barges, or Tankers. In the last sale of 4.74 million barrels SPR oil in April, May and June of 2018, all deliveries were made using pipeline, U.S.-flag coastwise qualified vessels and foreign-flag export.

Question 5: Have you consulted with the Defense Department, Customs and Border Protection and Department of Energy regarding how any Jones Act waiver requests will be handled?

ANSWER. DOD, DOE, CBP and MARAD have consulted and are standing by for any Jones Act waiver requests.

Question 6: In your discussions with the Defense Department, do you believe they see the need for foreign ships here as a “national defense” emergency?

ANSWER. We have not engaged the Defense Department in any such discussion.

Question 7: The Department of Energy is offering 6 million barrels of oil, but according to their notice, each of their own 2 barge docks can only handle ninety (90) thousand barrels per day and will only be open for fourteen (14) days. This means the maximum amount of oil that can be carried by barge in this sale is 2.5 million barrels, or less than half of the total 6 million barrels being offered. Since there appears to be no rush or emergency to complete this sale, have you asked the Department of Energy why they don't make more of this oil available to move by barge?

ANSWER. We have been in touch with Department of Energy on this release and they have indicated to us that with the availability of pipeline deliveries, barge deliveries and foreign export, they see no forthcoming Jones Act issues.

Question 8: The Department of Energy guidelines for Strategic Petroleum Reserve oil delivery by barge require a minimum lot size of forty-thousand (40,000) barrels. I understand that the predominant size tank barge the U.S. industry uses is thirty-thousand (30,000) barrels. Does this pose a barrier to entry for Jones Act fleet operators?

ANSWER. With the options of using pipelines and foreign vessels for foreign sales, neither we nor DOE anticipate a problem.

QUESTIONS FROM HON. RICK LARSEN FOR MARK H. BUZBY

Question 1: Small Shipyard grants help shipyards, like Dakota Creek Industries in my district, to modernize their facilities purchase new equipment purchases and improve worker training. Last year, this Committee enacted legislation requiring MARAD to post a notice of funding opportunity within 15 days of Congress appropriating funding for the program. In the first year of this new law, MARAD already missed the deadline, which was Saturday, March 2. This hurts these small shipyards by giving them less time to prepare proposals and may hurt the allocation of federal funding to the highest quality projects.

When will the notice of opportunity be posted?

ANSWER. The Notice of Funding Opportunity (NOFO) was approved on March 5 for posting and it went live on grants.gov on March 6, 2019.

Question 2: How do we ensure this does not happen again?

ANSWER. As is stated in the question, the deadline for publication of the Notice was March 2—a Saturday. It was available to the public the following Wednesday. Should appropriations be made available for future Small Shipyard grants, the Department of Transportation and MARAD will make every effort to ensure that reviews are completed in a timely manner.

Question 3: With President Trump's FY2020 budget expected to be released in the upcoming weeks, do you anticipate full funding will be maintained for the Small Shipyard grants?

ANSWER. Similar to previous budget requests since Congress established the Small Shipyard Grants Program, the Presidents 2020 budget does not request funding for the program. MARAD stands ready to administer grants in the future should Congress make appropriations available. MARAD will also continue to oversee the current portfolio of previously awarded projects to help make the shipbuilding in-

dustry more competitive and efficient in building, repairing and reconstructing modern vessels.

Military-to-Mariner Transition:

Question 4: Has MARAD increased the number of military mariners joining the civilian fleet as Congress has increased the focus on the military-to-mariner process?

ANSWER. MARAD does not have access to tracking veterans using the Military-to-Mariner program. We do not have access to any such data and this question should be addressed to the Army, Navy, and USCG.

The best we can do at this juncture is to add a question to the Mariner survey that we plan to execute (after receiving all approvals and concurrences) in June 2020. Thereafter, the survey will be repeated every two years so that we can build our own estimates based on survey results.

Question 5: At the recent full Committee hearing on climate change, one witness highlighted the importance of federal funding for climate risk assessments at U.S. ports and recommended developing resiliency standards for port infrastructure that maps to regional predictions of sea level change.

Does MARAD have a plan in place to address these issues?

ANSWER. Transportation infrastructure assessment, planning, and investment in the face of sea level change and extreme weather events has been the subject of multi-modal discussions and investigations at the Department of Transportation (DOT) for years. As hurricanes closed 26 coastal seaports in the Gulf and along the Atlantic during a six-week period in 2017, it became more evident that new tools are needed to properly assess risks and assist in investment and recovery decisions. In developing those tools, damage to and flooding of near-port intermodal infrastructure must also be considered.

The MARAD Ports Team is currently scoping a framework for a proposed asset management tool called the "Waterfront Asset Management Tool" (WFAM) for domestic port planning. This proposed asset management tool will aid domestic port planning, targeting waterfront structures as the assets that pose the greatest risk of both short- and long-term freight and economic disruption for our Nation's ports. This tool will assist public and private ports with tools to establish risk based asset management plans to prioritize maintenance dollars and provide justification for spending scarce funding for maintenance and/or resiliency priorities. The tool will seek to balance risk, operational, and business priorities. The forecast of long-term spending, including long term maintenance of projects with long (50+ year) service lives will be incorporated into the tool including projected sea-level predictions during that timeframe.

In addition, MARAD is working with the DOT's Office of the Assistant Secretary for Research and Technology to develop nationally applicable modeling tools that incorporate the costs and benefits of resilience into the transportation infrastructure planning process. Furthermore, MARAD completed an assessment of port facilities (under the direction of the Department of Homeland Security, FEMA) for various ports that were damaged by the 2017 hurricanes in Puerto Rico. These assessments included proposals for resiliency to affected sites.

Question 6: Follow-up: How do you anticipate resilient port design will impact the U.S. maritime system?

ANSWER. The impacts of resilient port design are unknown because the industry does not currently have a systemic method or standard for assessing resilience and maintaining or hardening port infrastructure and systems. Outreach during our WFAM tool-scoping, has revealed that a variety of approaches are being used by port managers and stakeholders to prioritize improvement and maintenance projects, or assess the magnitude of sea level changes and extreme weather events. We believe that waterfront asset management is essential to promote and improve the resiliency and efficiency of freight movement by targeting investment in facilities that are most vulnerable. The proposed tool will provide effective management tools and provide leadership with information that will support resilient infrastructure investment and lifecycle planning.

QUESTIONS FROM HON. SEAN PATRICK MALONEY FOR
REAR ADMIRAL MICHAEL ALFULTIS, USMS, PH.D.

Investing in Vocational Training:

Question 1: What steps need to be taken by the federal government in order to broaden the base of U.S. civilian mariners to ensure military sealift readiness?

ANSWER. There are three primary ways to broaden the base of U.S. civilian mariners. First, increasing federal funding to state and federal maritime academies to help expand training and education capacity is essential. Sealift requires mariners

with “Oceans Unlimited Tonnage” deck licenses and engineers with “Any Horsepower” licenses. The State Maritime Academies (SMAs) collectively produce 70% of entry-level licenses each year. SMA capacity is currently limited by shore-side facilities designed years ago for a smaller student population, antiquated training vessels and a limited number of simulators due to cost and amount of sea service/training credit allowed by the Coast Guard (not more than 30 days).

Second, the recent Presidential Executive Order for a “Military to Mariner” program can help broaden the mariner base for military sealift readiness, but requires the Coast Guard to publish policy and work with the academies for how military personnel may apply their training and sea service toward satisfying the U.S. Coast Guard credentialing requirements in existing programs. In addition, the U.S. Coast Guard should be directed to work with the SMA’s to create new programs (similar to continuing education) for veterans that will allow shorter and quicker routes to completing requirements for licensing outside the approved programs that are connected to academic degree programs.

Third, retain the mariners that are being produced. To do this, there must be advancement opportunities for mariners in the U.S. commercial fleet. Full funding and expansion of new programs are needed to reverse the decline of military useful sealift ships and increase the pool of qualified mariners. We support the following initiatives:

- Full funding of the Maritime Security Program through 2025 and new authorization through 2035 to keep ships under the U.S. flag;
- Restoration of U.S. cargo preference laws that require 75 percent of the Food for Peace cargos be carried on U.S.-flag;
- Requiring a percentage of liquefied natural gas and crude to be exported on U.S. built, U.S. flag ships as called for in the 2018 Energizing American Shipbuilding Act;
- The repeal of current Internal Revenue Code language: to expand U.S. shipping by making the financing of U.S. ship construction less expensive;
- Legislation that supports explicitly that U.S.-flag ships must be utilized in the transportation, construction, and maintenance of offshore wind generation farms that will be developed in the coming decades;
- Incorporating marine highway corridors, connectors, and state freight systems as part of the “National Freight Strategic Plan” to improve infrastructure and developing American Marine Highway vessels to expand the use of waterways for freight and passengers and provide a more sustainable form of transportation by removing trucks from overcrowded highways; and,
- Strong support for legislation that strengthens the Jones Act and creates U.S. maritime jobs afloat and ashore.

These initiatives will help increase the number of U.S.-flag ships, provide sufficient employment and advancement opportunities to recruit and retain sufficient licensed mariners for the commercial fleet and to support national defense sealift requirements.

Question 2: What new incentives or changes in existing training and credentialing requirements and programs could be enacted to encourage more people to enter the maritime workforce?

ANSWER. First, there need to be sufficient jobs for them to enter the workforce. This is especially true for shipbuilding business and license jobs within the U.S. flag fleet. Without sufficient deep-sea entry-level officer positions, our license graduates will sail on inland and coastal vessels of limited tonnage or foreign deep draft ships. This will limit their ability to advance their license.

Another way we can encourage more people to enter the maritime workforce is to make the Coast Guard’s training and credentialing requirements less complex, cumbersome and costly. Current training, especially to meet international STCW requirement, is overly burdensome and costly and does not help to attract and retain mariners. Requirements are largely dictated by the international community without regard to lessons learned from marine casualties and do not follow a risk-based approach to maritime safety.

Current regulations for approval of academy training programs is also overly burdensome (e.g., checklists for hundreds of individual assessments) and is more focused on documentation through a Quality Standards System (QSS) than on educating and training students on current technology and industry practices.

To encourage more U.S. citizens to enter the maritime workforce there needs to be a robust, comprehensive, and coordinated national level recruiting and marketing program for the public that highlights educational and career opportunities in the maritime industry. We frequently see advertisements for the armed services on television. However, there is no one paying for prime-time advertisement of the force

that is going to project and sustain combat power or that is essential to our national economic prosperity.

One way to do this is by improving and enhancing the existing Strategic Sealift Midshipman Program (SSMP) available for SMA Cadets. The mission of the SSMP is to produce a cadre of Strategic Sealift Officers (SSOs) for the reserve component of the U.S. Navy. The Strategic Sealift Officer Reserve Groups is comprised of actively sailing officers in the U.S. Merchant Marine who are qualified to operate merchant ships as naval auxiliaries and provide officer crewing for ships in the Ready Reserve Force (RRF) and Military Sealift Command's (MSC) Surge Sealift Fleet.

Currently, administration for SSMP is split between the U.S. Navy and MARAD. The Navy is responsible for the program administration, eligibility, and participation requirements under the NROTC program (which is directed by the Navy Education Training Command's Naval Service Training Command). MARAD is responsible for recruiting SMA Cadets into the program and administering the Student Incentive Program which provides a stipend. Unlike the tax-free Navy ROTC Scholarship program that awards academic scholarships that cover the full cost tuition, room, and uniforms, the MARAD SSMP stipend normally provides \$8,000 per year (or a maximum \$32,000 total) for eligible candidates. This stipend counts as income, is taxed, and counts against other scholarships and grants a student receives.

Students who participate in this voluntary program and receive the stipend are commissioned as in the U.S. Navy reserve component as a Strategic Sealift Officer and are obligated to sail on their licenses for five years.

To explore ways to incentivize more license cadets to participate in the SSMP, we recommend that Congress direct DOT and DOD to establish a working group that includes representation from the SMAs to conduct a full review of this program to include:

- Program objectives
- Program administration and funding
- Medical requirements for program participation
- Scholarship/stipend incentives
- Obligations upon graduation
- Assignment of a dedicated SSO at each SMA to support program objectives

Maritime Academy and Maritime Industry Jobs:

Question 3: Can you describe the current ability of state maritime academies to attract diverse applicants who desire to enter the maritime industry?

ANSWER. Like all educational institutions, the SMAs are seeking to become more diverse, which will inevitably transfer into a more diverse workforce. This will also expand opportunities to work in the maritime industry to a greater number of people and help fill the anticipated workforce gap.

One way we are doing this is through outreach to maritime/marine K-12 schools and technology schools in urban port areas. There are now over 45 maritime and marine science high schools across the country and each year more are opening. These students have already been exposed to the maritime environment: they are a natural source for maritime training schools, colleges, and industry apprenticeships. As such many of the SMAs have established pipelines and partnerships with these schools.

These specialized schools alone will not solve the anticipated shortages within the maritime workforce. Toward this end, the SMAs have afterschool and summer STEM and leadership programs specifically aimed at exposing K-12 children in our local areas to opportunities at our institutions as well as the maritime industry. Funding for such programs comes from grants and industry partners. Many companies also have community outreach programs.

While these programs are laudable, there needs to be a coordinated and concerted effort at the national level that brings government and industry together to educate students and teachers about the maritime industry and the opportunities it holds. We must work together to better educate all K-12 students about the "ladders of opportunity" within the maritime industry. While most Americans have almost daily contact with the trucking and airline industries and readily understand their importance, less noticeable is the maritime industry that tends to be "out of sight and out of mind." As Congressman Elijah Cummings said at the "Securing Maritime's 21st Century Workforce" conference in the fall of 2015, "If you never see anything, how can you dream about it? How can you reach for something that you don't even know is there?"

Another valuable source of diverse, energetic and mature employees is veterans. We need to educate veterans about maritime workforce opportunities both at sea and ashore. We need to make it less onerous for veterans to translate their military experience toward training and assessment requirements to meet international

Standards for Training, Certification, and Watchkeeping for Seafarers (STCW) requirements for a Coast Guard merchant mariner license. While some progress has been made in this regard, there needs to be greater urgency and cooperation to remove obstacles that hinder a smooth transition for veterans. We welcomed the President's recent Executive Order that directs the U.S. Coast Guard to do this.

Question 4: Have you noticed any trends in the desire to get a merchant mariner's license or serve at sea?

ANSWER. The SMAs continue to experience robust interest and enrollment in our license programs. Our graduates' education and training also make them sought out for shoreside maritime industry and engineering jobs. As far as the trends go, the Coast Guard could provide data on this if requested. We believe that with fewer U.S. flag vessels and advancement opportunities, and a stronger economy, more mariners may be electing to place their credentials into "continuity" rather than spend the time and money to obtain required STCW refresher or revalidation training.

Question 5: What could be done to make careers in the U.S. maritime industry more appealing to your students or prospective mariners?

ANSWER. As previously discussed, marketing, recruiting, and jobs/opportunities. Interest tends to follow the demand signal. For example, when the Gulf of Mexico oil patch was booming, our graduates sailed on oil rigs and limited tonnage off-shore supply vessels. When the jobs disappeared, those mariners went back to deep water vessels. This resulted in fewer jobs for newly licensed officers being available. If we increase the size of the U.S. flag fleet, then this will create a demand for mariners, who will also be available in time of national emergencies to crew our NDRF/RRF ships when they activated. Bottom line an increased U.S. flag fleet will keep more mariners sailing on their licenses, and more U.S. shipyards economically competitive.

As discussed previously, we must also enhance the current Strategic Sealift Midshipman program incentives to encourage more participation in the program, which requires cadets upon graduation to sail on their licenses.

State Maritime Academies' License Programs:

Question 6: In your statement, you state that the state maritime academies' license programs are limited by the capacity of the training ships, berths available to cadets on commercial ships, and shoreside training infrastructure.

Can you provide us more detail on each of those limitations?

ANSWER. Cadets must obtain 360 days of sea time. This is accomplished through a combination of time and experience in simulators and onboard academy small vessel, training ships and commercial vessels.

The SMA training ships are essential in that cadet berthing onboard commercial ships is extremely limited. This limitation is due to:

- The shrinking U.S. deep-sea merchant fleet
- Limited number of berths on U.S. government and civilian owned/operated ships which were not built with excess berthing specifically for cadets
- Since the U.S. Merchant Marine Academy has no training ship, they rely exclusively on the U.S. fleet to provide their cadets the required sea time and training leaving only limited berthing for SMA Cadets.

The primary means for cadets at State Maritime Academies to obtain the required sea time is onboard the federally owned and provided training ships. Each academy must limit participation in their respective programs based on the capacity of their training ship. For example, at Maritime College we limit our program to 1150 cadets as we try to limit summer sea term to 500 cadets even though our ship could accommodate 600 cadets. To provide maximum training opportunities, we essentially do two summer sea term cruises each summer with about 500 cadets on each half.

Additionally, the training vessel at Texas A&M Maritime Academy in Galveston (TAMMA), *TS General Rudder*, is insufficient to meet the at-sea and alongside education and training needs of TAMMA's cadets. With capacity for only 50 cadets, *TS General Rudder* is also inadequate to meet national emergency or urgent humanitarian aid requirements in the Gulf Region. TAMMA must share a ship with another maritime academy and the Maritime Administration must activate training vessels from other academies to meet mission requirements in the Gulf. This impacts both Texas and the SMAs that are sharing the ship, since the ships are also utilized pier side at the academies to support labs and provide training throughout the year.

The number and capacity of the SMA training ships also limit the number of license cadets we can accept in our programs. To provide cadets watchstanding expe-

riencies of sufficient quality and quantity to ensure that they have the requisite proficiency, we are forced to limit the number of cadets in our license programs. We are also limited by the number of cadets who can utilize our shoreside bridge and engineroom simulators which can only accommodate 4–6 cadets at a time and require a licensed instructor to operate the simulator and individually assess the cadets. To increase capacity, we would need to increase the number of simulators, operators and instructors. This would be expensive and require more direct support.

The SMAs would also like the U.S. Coast Guard to count more simulator time toward the required sea time. Currently, the U.S. Coast Guard permits only 30 days of simulator time to count toward the required sea time. With additional simulators, and more simulator time counting toward the license, this would enable our cadets to experience a wider range of situations (such as weather, maritime traffic, and emergencies) that cannot be replicated at sea due to safety concerns.

Question 7: What steps and what level of additional funding are necessary to remove those limitations?

ANSWER. To provide sufficient capacity for training SMA Cadets it is imperative that the NSMV program is fully funded for the construction of five ships. This will provide adequate berthing for SMA Cadets and flexibility should an academy training ship be activated to support a national emergency or urgent humanitarian aid need.

Additionally, full funding of other State Maritime Academy programs, including direct payments, student incentive payments, school-ship maintenance and repair and fuel assistance at 2019 levels is essential. The direct support funds enable the academies to offset the costs of expensive simulators and labs that support mariner training.

Marine Highway Corridors:

Question 8: In your written testimony, you said that Congress should consider “[i]ncorporating marine highway corridors, connectors, and state freight systems ... to improve infrastructure and ... expand the use of waterways for freight and passengers ...”

In your opinion, would there be a sufficient number of U.S. mariners to man the additional vessels required to support such a plan?

ANSWER. The vessels supporting the marine highway would primarily require license mariners. The Coast Guard can provide data on the number of mariners with the proper credentials to support such a plan. However, an unknown will be whether or not these mariners are available and willing to work in this area.

Question 9: How could the number of mariners be increased to match a surge in demand?

ANSWER. Through marketing, recruitment and funding for training programs leading to required credential endorsements.

QUESTIONS FROM HON. RICK LARSEN FOR
REAR ADMIRAL MICHAEL ALFULTIS, USMS, PH.D.

Question 1: Northwest Washington is a leader in renewable energy and the state continues to invest in innovative and efficient technologies to reduce emissions, such as electrification of Washington’s transportation system including the Guemes Island Ferry project in my district to construct the country’s first all-electric passenger ferry.

How do you anticipate vessel electrification will impact the U.S. shipbuilding industry?

ANSWER. Most of the industry projections that we see predict that the number of hybrid and electric propulsion vessels will increase over time. Current technology, especially in the area of storage technology does not provide enough power in a small enough package to be useful beyond short coastal and inland routes. As all-electric and hybrid propulsion-powered ferry fleets are coming online, this will incentivize the market to push development of more powerful and affordable batteries. As the cost comes down, we believe this will provide incentives for owners to recapitalize their fleets, which will, in turn, benefit the U.S. shipbuilding industry, especially those involved in building ferries and workboats.

This being said, the impact of the transition from combustion to electric drive system on the shipbuilding industry, can be positive economically, environmentally and strategically, because it will revive an important sector of US economy vital to both trade and national security.

The economic activities resulting from electrification of the shipbuilding industry will reinvigorate the maritime industry as a result of the:

- Introduction of new technologies and modernization of functionalities of ships and infrastructures
- Creation of alternative means for ships maintenance and infrastructure
- Generation of new businesses
- Growth of clean energy produced by utilizing ocean energies, electronics and machine building sectors.

Environmentally, the industry will play an important role in accelerating research for high energy density fuel storage, such as solid and liquid recyclable hydrogen storage and implementation of existing technologies, such as hydrogen and new high capacity batteries for both long and short distances, leading to simpler design and cost reduction in shipbuilding.

Strategically, transitioning to hybrid/electric propulsion will put US shipbuilding on the world arena to compete, acquiring global recognition in offering efficient low emission and cost-effective vessels for short and long haul.

Question 2: How can the federal government support states and localities seeking to electrify their maritime network?

ANSWER. One approach may be expanding the current Better Utilizing Investments to Leverage Development, or BUILD Transportation Discretionary Grant program to subsidize states and localities that want to electrify their maritime network. We recognize the needs across the transportation eco-system exceed the available funding through BUILD grants.

Question 3: Are State Maritime Academy graduates prepared to work with these new technologies?

ANSWER. A World Maritime University report on the maritime workforce opines that the process of electrification will be evolutionary and there will be a shift in workforce rather reduction in labor. The SMAs have the capacity and potential to deliver graduates for the successful implementation of new technologies in shipbuilding industry through changes in our current curricula. However, these changes must be well informed by U.S. Coast Guard requirements.

Currently, our license cadets receive steam, diesel, and gas-turbine endorsements on their Third Assistant Engineer, Any Horsepower, U.S. Coast Guard credential. There is currently no specific endorsement for electric or hybrid propulsion. The IMO and the U.S. Coast Guard have not yet established any specific requirements for licensed mariners serving on hybrid and electric propulsion vessels. We recommend the U.S. Coast Guard be directed to establish requirements for electric/hybrid propulsion.

QUESTIONS FROM HON. SEAN PATRICK MALONEY FOR JENNIFER A. CARPENTER

Question 1: As you describe, implementing federal oil pollution standards has both encouraged stateside shipbuilding and reduced tank barge oil spills by 99.6 percent.

How can pollution regulations simplify interstate commerce? Could you elaborate on the maritime industry response?

ANSWER. Uniform, nationwide pollution prevention standards are the most effective way to support commerce, safety and environmental stewardship. A single vessel can pass through the waters of multiple states in a single voyage and complying with a myriad of state regulations leads to inefficiency, waste and confusion for vessel owners and mariners. Those compliance costs are ultimately borne by shippers and consumers, who may shift to less environmentally-efficient modes of transportation that are governed by national standards. Uniform national standards also encourage investment in advanced pollution prevention technology because they give vessel owners the certainty that such equipment can be utilized nationwide. This is crucial because such equipment—from ballast water treatment systems to double-hulled tank vessels—is very costly.

The recently-enacted Vessel Incidental Discharge Act (VIDA) is an important step in the direction of uniform, nationwide regulations for the maritime industry that balance the needs of efficient commerce, safety and environmental stewardship. In addition to the pollution standards themselves, interstate commerce can be simplified by minimizing redundant reporting and enforcement regulations between and across states and the federal government. Efficiencies gained under a nationwide standard can easily be stymied if operators must continue to report to both state and federal regulators. One standard. One reporting process. One enforcement mechanism.

The Oil Pollution Act of 1990 (OPA 90) brought about many changes that spurred both American shipbuilding and improved pollution prevention. OPA 90 compelled a 25-year phase-out of single-hull tankers and tank barges in favor of double-hull vessels. Importantly, Congress understood that retiring single-hulled vessels and re-

placing them with new double-hulled vessels was a multi-billion-dollar undertaking that needed to be carried out in a phased process over time. Instead of requiring that all single-hull vessels be immediately retired, and therefore causing a major disruption to shipping, OPA 90 required that new tankers and tank barges be double-hulled and provided for the orderly phaseout of existing single-hulled vessels over a 25-year period based on vessel age and size.

In addition to complying with the requirements of OPA 90, the maritime industry has actively worked to implement additional measures to prevent oil spills. AWO's Responsible Carrier Program (RCP) requires vessel operators to implement a safety management system that seeks to achieve zero harm to human life, property and the environment. In a 2012 report to Congress, the Coast Guard noted that "[a]nother downward shift in spill volume occurred about 1997, which corresponds to the implementation of voluntary industry standards, known as the 'Responsible Carrier Program'." Further, since "most of the U.S. tank barge population belongs to member companies of AWO" that must comply with the RCP, "spill volumes reach new record low values" that represent "approximately one gallon spilled for every 71.4 million gallons transported, a remarkable improvement given that the amount of oil transported by barge has been relatively constant, at approximately 69 billion gallons per year."

In sum, the dramatic reduction in oil spills is the result of both well-reasoned government regulation and industry commitment to a comprehensive oil spill prevention and response regime that recognizes the importance of continuous improvement and strong safety cultures.

Question 2: How will the United States' growing LNG industry impact interstate commerce?

ANSWER. The growth of LNG offers significant opportunities and challenges for the transportation of LNG and the use of LNG as a maritime fuel source. America's Jones Act carriers have the distinction of owning and operating the world's first LNG-powered containerhips and the first combination container and roll-on/roll-off (ConRo) ships. While those ships currently operate on the Jacksonville-Puerto Rico trade lane, LNG-powered vessels that will serve the U.S. mainland-Hawaii trade lane are under construction and there are plans underway to convert vessels on the Alaska trade lanes to LNG as well.

As the market demand for LNG as a maritime fuel continues to increase, the chain of interstate commerce needed to transport LNG will also continue to grow. For example, to safely fuel LNG-powered ships in the Puerto Rico trade, the first U.S.-built LNG bunker barge was delivered for service last fall. Recognizing that LNG may increasingly be transported by barge, in 2016 the U.S. Coast Guard tasked its Towing Safety Advisory Committee (TSAC) with drafting recommendations and best practices for the towing of LNG barges. In March 2018, TSAC delivered its recommendations to the Coast Guard, and the towing vessel industry will continue to work with the Coast Guard to ensure the safe operation of LNG transportation as the market grows.

QUESTIONS FROM HON. RICK LARSEN FOR JENNIFER A. CARPENTER

Question 1: Northwest Washington is a leader in renewable energy and the state continues to invest in innovative and efficient technologies to reduce emissions, such as electrification of Washington's transportation system including the Guemes Island Ferry project in my district to construct the country's first all-electric passenger ferry.

How do you anticipate vessel electrification will impact the U.S. shipbuilding industry?

ANSWER. The design, construction, and operation of electric and hybrid vessels is already impacting the U.S. shipbuilding industry in exciting ways. Naval architects and marine engineers are evaluating a number of different models and concepts to fully or partially electrify vessels, and new prototypes will inform future development. AWO anticipates continued growth in vessel electrification, particularly as cities and ports invest in shoreside infrastructure. However, towing vessel operators have specific needs around safety, power, and operational profile that are different from ferries or passenger vessels.

The most important aspect of vessel electrification and driving a shift towards cleaner propulsion is shoreside infrastructure to support and maintain a fully-electric or hybrid fleet. Jurisdictions seeking to drive technological change must commit to investment in shoreside infrastructure and maintain that commitment throughout the development process to ensure that environmental benefits are fully realized. Jurisdictions that abandon or relax those commitments in mid-development

harm the business community and hamper the implementation of future beneficial initiatives.

Another important element is the Jones Act. As the federal government, states and local jurisdictions implement emission reduction initiatives, it is vital that shipyards and vessel operators be able to rely on the certainty and stability of a national commitment to domestic vessel construction. Policymakers must ensure that domestic shipyards and vessel operators can meet aggressive timelines and achieve challenging goals. Without strong support for the Jones Act, pressures to develop environmental control technologies outside the U.S. could lead to less-sustainable and problematic foreign-sourcing that could undermine U.S. economic and security interests.

With strong, vocal support for the Jones Act, however, vessel operators invest in their fleets and the entire shipbuilding supply chain becomes an engine of economic growth. As a concrete example of that impact, Nichols Brothers Boat Builders of Freeland, Washington, is currently constructing a hybrid electric tugboat for Baydelta Maritime, which provides ship assist and escort services in the San Francisco Bay. Not only is the hybrid tug being constructed in Washington, but it was also designed by Seattle-based Jensen Naval Architects & Marine Engineers. While this example is only a small piece of the shipbuilding industry, the U.S. Maritime Administration estimates that shipbuilding contributes \$972 million annually to the Washington economy, including \$634 million in worker income.

Continue the market certainty supported by the Jones Act and vessel operators will invest in new technologies that are more efficient and economical, in tandem with the investments the federal government, states, localities and ports make in the infrastructure needed to support those technologies. In turn, those investments will drive growth in the shipbuilding market and positively impact the supply chain from raw materials and manufacturing to design and construction services.

Question 2: How can the federal government support states and localities seeking to electrify their maritime network?

ANSWER. Providing shoreside electrical infrastructure for vessels is a significant financial undertaking for ports. Much like the certainty of the Jones Act to vessel operators, ports need long-term certainty to make these infrastructure investments. Investment from the federal government is an important component in ensuring the financial viability of port electrification initiatives.

In Seattle, for example, the Northwest Seaport Alliance is undertaking a \$300 million modernization of Terminal 5 that includes installing electrical infrastructure to provide shore power to vessels. This project has taken several years, and numerous regulatory and permitting steps, to reach its current stage of soliciting construction bids. Additionally, long-term infrastructure investment is well underway at the Ports of Los Angeles and Long Beach in Southern California that would enable vessels to plug into a shoreside electrical grid at port to reduce dwell-time emissions. These initiatives have broad support across multiple levels of government and this alignment is crucial to realizing economic and environmental benefits.

QUESTIONS FROM HON. SEAN PATRICK MALONEY FOR JOHN E. CROWLEY, JR.

Question 1: How are current federal port security measures like TWIC achieving or failing to meet current security needs?

ANSWER. TWIC provides a government validated process for vetting personnel seeking regular unaccompanied access to our nation's ports and related facilities. As terminal operators, we are unable to judge how effective the vetting is in either achieving or failing to meet security needs. While the TWIC is a government provided card, it is not being utilized as intended. The current TWIC program lacks the use of biometrics and updated readers that allow for the validation of individual identities along with their current access status and do not significantly aid in controlling access. TWIC and port security in general are federal responsibilities that require direct federal investment in programs and measures that are developed and implemented in open and honest partnership with private business interest. Federal agencies involved in port security need to be funded at a sufficient level of port security investment and they need to increase information sharing with industry partners to foster sustainable port security measures.

Question 2: What advancements in port cyber security, like container scanning, require further research or investment?

ANSWER. While container screening has aided in traditional port security measures such as drug interdiction, it has not revealed significant threats from terrorism and the lack of modernization continues to restrict port and terminal productivity. In terms of NAWA's members, there remains only limited cyber connections to port

wide operations, which reduces overall risk. Risk is further reduced by operators that continue to invest and update their cyber security to address threats, but the threats from state actors and global criminal networks require appropriate government efforts. This includes federal agencies that focus on such threats, sharing complete and timely information on threats with industry.

Question 3: Are there additional legislative actions that could be taken to improve maritime safety?

ANSWER. NAWE members put safety as “Job One.” Federal studies should be pursued to evaluate the safety of container contents carried in global marine shipping and during terminal handling. Results should be shared with industry and cooperative actions to improve safety should be implemented.

Question 4: What is your experience with Customs and Border Patrol agents? Are there a sufficient number of agents in ports to handle current and future capacity?

ANSWER. We have no understanding of long-term Customs and Border Protection (CBP) staffing as we have been unable to ascertain the annual budgetary level of supported staffing at regional or port levels. Operators appear to obtain sufficient agent presence until CBP announces that it will begin to seek payments for certain services through the Reimbursable Services Program (RSP). The inconsistent application of the program across region and ports has further complicated our ability to understand how CBP seeks to meet current and future capacity needs. The use of agents at our facilities has not been modernized or made more efficient over time.

QUESTIONS FROM HON. RICK LARSEN FOR JOHN E. CROWLEY, JR.

Question 1: Northwest Washington is a leader in renewable energy and the state continues to invest in innovative and efficient technologies to reduce emissions, such as electrification of Washington’s transportation system including the Guemes Island Ferry project in my district to construct the country’s first all-electric passenger ferry.

How do you anticipate vessel electrification will impact the U.S. shipbuilding industry?

ANSWER. NAWE does not have views as to the impact of electrification to shipbuilding.

Question 2: How can the federal government support states and localities seeking to electrify their maritime network?

ANSWER. NAWE is not aware of the direct impact of electrification on states and localities. However, we do know that federal, state and local requirements that seek to reduce a dependence on fossil fuels and associated emissions at port facilities, often result in operators being compelled to make investments that not only do not aid in productivity but restrict operator’s ability to invest in systems that do. Like many businesses today, port operators are faced with urgent need to replace aging infrastructure and invest in infrastructure and technology that increases productivity. Port productivity is directly tied to our nation’s economy and without this investment both will be negatively impacted. While NAWE supports efforts such as electrification of maritime networks, direct investment from federal, state and local government is needed to support them and balance overall investment in our nation’s ports.

Question 3: Your testimony highlights the importance of “port infrastructure investment to assure an efficient supply chain, specifically focused on increasing port productivity.” In particular, you mentioned Congress’ recent \$900 million appropriation for the BUILD program. Mid-sized cities, including several in Washington’s Second District, often have trouble competing for federal infrastructure funding.

How can the federal government help to better ensure port infrastructure funding gets to small and mid-sized cities?

ANSWER. Federal financial support for port infrastructure investment that prevents deterioration of, and allows for increased, productivity is an issue at ports across our country, regardless of size. The first step to better ensuring that port infrastructure funding gets to small and mid-sized cities is ensuring that adequate federal support is available for ports. While limited federal program funding in recent years has gone to select port projects, program limitations (authorization and funding levels) and competition from other modal project prevents most ports and operators from obtaining support. NAWE would recommend that Congress modify existing support programs to allow broader port infrastructure projects to compete for federal support. Additionally, NAWE would recommend Congress establish a program with designated funding that would include a fair distribution based on

port size to support rebuilding and growing port infrastructure and assets required by facility operators.

QUESTIONS FROM HON. SEAN PATRICK MALONEY FOR MICHAEL G. ROBERTS

Question 1: The Jones Act ensures that cargo shipped between U.S. ports be carried on U.S. built vessels, owned by U.S. companies, and crewed by U.S. mariners.

What would happen if efforts to repeal or make substantial exemptions to the Jones Act were successful?

ANSWER. The Jones Act is the backbone of the domestic maritime industry and without it, vessels serving American home markets would not be built, crewed, or owned by Americans. Repealing the Jones Act and treating American home markets the same as international markets would result in most American commercial shipyards closing as orders are sent to government-subsidized yards in Asia and Europe. American commercial mariners would quickly be replaced by foreign mariners willing to work for a small fraction of American-scale wages. Control over the American maritime industry would be ceded to companies from countries that could well be our political rivals.

Closing these yards and reflagging these vessels would eliminate hundreds of thousands of jobs for skilled American workers. These are precisely the kinds of family-wage jobs that should be supported, not exported. This is both for economic reasons and because keeping these jobs and this industry in American hands serves important national and homeland security interests. Simply put, our defense industrial base requires a critical mass of Americans who know how to build and operate ships. Without commercial demand, the pool of skilled shipyard workers and mariners would shrink, and critical skills could be lost forever. We would not have a maritime defense industrial base to scale up when needed. And our homeland security would be dramatically compromised by granting foreign mariners greatly expanded access to our ports and other critical infrastructure, including the tens of thousands of miles of coastline and inland waterways running through our nation's heartland.

Question 2: Who would be responsible for the carriage of cargo on our coasts and inland rivers?

ANSWER. As noted, without the Jones Act and if we treated American domestic commerce the same as international commerce, cargo moving along our coasts and inland rivers would be carried by foreign carriers using foreign vessels and foreign mariners.

QUESTIONS FROM HON. RICK LARSEN FOR MICHAEL G. ROBERTS

Question 1: Northwest Washington is a leader in renewable energy and the state continues to invest in innovative and efficient technologies to reduce emissions, such as electrification of Washington's transportation system including the Guemes Island Ferry project in my district to construct the country's first all-electric passenger ferry.

How do you anticipate vessel electrification will impact the U.S. shipbuilding industry?

ANSWER. As a preliminary comment, we note that in addition to the Guemes Island Ferry, Representative Larsen's district includes numerous routes serviced by Washington State Ferries—one of the largest passenger ferry systems in the world and also an excellent opportunity to have Washington State lead the nation in capitalizing on high-impact vessel electrification opportunities. Further enhancing the opportunity for the Pacific Northwest to effectively lead vessel electrification, is the region's access to cost-effective renewable power sources, a crucial aspect to jump-starting vessel electrification as a viable alternative to conventional power.

In terms of impact on the Shipbuilding industry, significant investment in new vessels, vessel upgrades, and supporting infrastructure will be required. Vessel electrification, in particular electrification of primary propulsion systems, requires investment in new vessels or in significant upgrades to existing vessels. Electrified vessels currently represent a higher capital expense than conventional (primarily diesel engine-powered) vessels. While there is potential for lower operating costs of an electrified vessel to offset the higher capital expense, there are several issues that make this a difficult investment:

- Lower cost, conventionally-powered vessels are able to comply with current emission regulations;
- Shore-side electrical infrastructure can't deliver the high power needed for efficient operation of electrified vessels; and

- Technology and workforce required to support vessel electrification is not widely available and requires development investment.

Question 2: How can the federal government support states and localities seeking to electrify their maritime network?

ANSWER. Support financing to offset capital expenditures required for vessel electrification—Significant federal support by Northern European countries has provided industry-leading electrified vessels as well as state-of-the-art technologies. Similar support for R&D expenditures in the U.S. could advance projects where there is a high likelihood of demonstrable improvements in efficiency and emissions, as well as the opportunity to advance U.S.-based engineering, technology, and manufacturing.

Support marine electrical workforce development programs—Shipping industries will need to develop a highly-skilled workforce with requisite marine electrical capability to support vessel electrification. The industry will need to build new capabilities in development, engineering, installation, operation, and maintenance of electrified vessels and vessel systems. There are currently very few educational programs focused on the marine electrical systems needed to develop this workforce. Support is needed for college and university programs, in marine electrical trade/apprentice programs for shipyard workers, and in maritime education programs for vessel officers and crews.

Provide consistent, well-enforced maritime emission regulations—Vessel electrification is currently driven almost exclusively by emission regulation compliance. Investment in a regulatory-driven environment demands predictable regulation, including firm phase-in schedules and consistent enforcement of compliance. With predictable, enforced regulation, investment in electrification will be able to advance technologies, grow market share, and drive down implementation costs so that electrified vessels can compete with conventionally powered vessels.

Enhance shore-side power grid connectivity—Providing required electrical infrastructure to connect the region's renewable power to maritime consumers is prohibitively expensive and creates a real barrier to development of otherwise prime applications for electrified vessels. Federal funding for high capacity electrical grid-connections at docks, piers, and other vessel access points to augment state and local funding will be crucial to moving vessel electrification technology forward.

QUESTIONS FROM HON. SEAN PATRICK MALONEY FOR AUGUSTIN TELLEZ

Question 1: The Department of Defense relies on the U.S. Merchant Marine to deliver personnel and material to forward operating bases around the world. It is commonly recognized that there is a shortage of 1,800 mariners needed to sustain our presence overseas.

a. How did the industry and the Maritime Administration arrive at that number?

ANSWER. The shortage number is designed to highlight a worst-case scenario where the entire Maritime Security Fleet is activated, both the Military Sealift Command and Ready Reserve Fleets are activated, and all of the existing commercial obligations of the international sailing U.S.-Flag fleet are still being met. This provides us with a base number of billets that must be filled. This number is then doubled to provide a 2–1 mariner to billet ratio. Generally speaking, one job or billet can provide sufficient work for two merchant mariners.

MARAD and the industry track mariner sea-time for a variety of purposes, and MARAD considers any mariner who has active sea-time on their record in the past 18 months as being “available” and qualified for service. The available and qualified service number subtracted from the two-to-one ratio is what gives us the 1,800 number.

It's important to note that the 1,800 number also assumes that every mariner that MARAD believes is available and qualified for service is actually available, willing and qualified to serve.

b. What had led to the shortage?

ANSWER. There are two major issues that are contributing to the shortage. First, the average age of merchant mariners is steadily increasing, which means that more and more mariners are close to or are hitting retirement age and there are too few new recruits to replace those retiring mariners. Second—which contributes heavily to the first—the number of jobs available in the industry has been dropping as the size of the U.S.-Flag international fleet has been dropping. The loss of those ships and jobs has a variety of causes, including—as noted in my testimony—changes in the cargo preference laws that have been responsible for the loss of over a quarter of the fleet since 2013.

The solution to the crew shortage is more cargo, more ships and more jobs.

c. Can you please explain why our shortage would significantly impact sealift capabilities?

ANSWER. First, while we are confident that we have sufficient capacity for initial surge requirements in the event of a future conflict, the shortage will have a significant impact on sustainment operations, especially once we hit the six-month mark. Crews need rest and relief in order to operate at peak efficiency and safety. It is also important to note that these numbers do not consider potential casualties in future conflicts where our opponents have a maritime presence and attempt to disrupt our sea lines of communication. As we have seen in past conflicts, especially during World War II, significant losses of personnel at sea will have an impact on our capabilities and the shortage will only exacerbate that impact.

Question 2: What are the most common roadblocks that impede the ability of prospective U.S. mariners from earning their credentials?

ANSWER. Obtaining adequate sea-time to qualify for a credential, the cost of those credentials, the need to travel to a regional exam center and the limited number of those facilities are some of the most common obstacles.

In addition to those above, U.S. Coast Guard medical requirements are also more stringent than Military Sealift Command and the equivalent international standards.

Finally, the increase in the number of special mission vessels has generated a significant need for mariners with security clearances. Given the backlogs within the existing security clearance system, this has created another substantial obstacle for mariners.

Question 3: What benefit could a robust marine highway system provide for the U.S. maritime industry? What would increased coastwise shipping mean for the manpower shortage? What are the necessary next steps to fully integrate marine highways into our transportation system?

ANSWER. Having a robust marine highway system would provide a significant number of jobs for merchant mariners and their reliefs, allowing them to keep their skills and credentials current. Most, but not all, coastwise maritime jobs have similar skills to those required in deep sea shipping and those skills would be transferable. A new market for the industry to expand into would also provide new economic opportunities for operators, faster and more fuel-efficient options for shippers, reduced pollution, and increased efficiency throughout the intermodal transportation system.

The two biggest issues in getting short-sea-shipping off the ground are the initial investment costs and securing access to cargo. In order for a route to be successful there needs to be sufficient cargo to justify placing a ship in service. If that exists, then the next biggest issue is the investment capital needed to get some of these programs off the ground. In order to qualify for a coastwise endorsement under the Jones Act, ships entering the trade must be built in the United States, and obtaining enough capital to build a ship, create routes and enter into agreements has been a major barrier for startup companies to break into the coastwise trade. There also need to be adequate port facilities, including connections between the ports and inland destinations equipped to handle coastwise trading.

QUESTIONS FROM HON. RICK LARSEN FOR AUGUSTIN TELLEZ

Question 1: Can you describe some of the impacts you have seen from the focus on Military-to-Mariner transition program in recent years?

ANSWER. We have seen a marked increase in the number of veterans entering our training programs and joining the industry compared to prior to the focus. Nonetheless, we had to overcome a significant number of obstacles, including issues with U.S. Coast Guard equivalency being granted for military sea-time, and the inability of veterans to use GI Bill and other veteran benefits to transition into industry training programs.

With the President's recent Executive Order, coupled with Congress's efforts to address these issues and promote the program, we are confident that we'll see another uptick in veteran recruitment.

Questions 2 and 3: Northwest Washington is a leader in renewable energy and the state continues to invest in innovative and efficient technologies to reduce emissions, such as electrification of Washington's transportation system including the Guemes Island Ferry project in my district to construct the country's first all-electric passenger ferry.

How do you anticipate vessel electrification will impact the U.S. shipbuilding industry?

How can the federal government support states and localities seeking to electrify their maritime network?

ANSWER. As with any maritime technological advancement, whether it's in navigation, propulsion, fuels or equipment, we believe these changes will require a vigorous training and retraining program for our mariners. We do our best to ensure that our mariners have all the skills they will need to meet the requirements of any new maritime technology and electrification is no different. We've done this many times before and we expect to continue doing it as we watch new technologies emerge and evolve.

As demand increases for green transportation systems, it is likely that more shipyards will begin to specialize in this kind of construction, as we have seen in the recent increase in the number of LNG powered vessels being built in American yards for the Jones Act trade. Our goal will be to ensure that, as with LNG, our mariners remain on the cutting edge of maritime technology.

Continued support for the Maritime Administration's small shipyard grant program, as well as the Title XI shipbuilding loan guaranty program can help to ensure that shipyards and ship operators have access to capital to invest in this new work. Federal support, either in the form of direct grants or tax incentives, for state and local port agencies to provide the infrastructure necessary for vessel electrification programs can also have an impact here.

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