

**MARITIME TRANSPORTATION:
OPPORTUNITIES AND CHALLENGES**

HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION
AND MERCHANT MARINE INFRASTRUCTURE,
SAFETY AND SECURITY

OF THE

COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

APRIL 24, 2018

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

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MARITIME TRANSPORTATION: OPPORTUNITIES AND CHALLENGES

TUESDAY, APRIL 24, 2018

U.S. SENATE,
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND
MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:30 p.m. in room SR-253, Russell Senate Office Building, Hon. Deb Fischer, Chairman of the Subcommittee, presiding.

Present: Senators Fischer [presiding], Wicker, Blunt, Capito, Young, Peters, Cantwell, Blumenthal, and Hassan.

OPENING STATEMENT OF HON. DEB FISCHER, U.S. SENATOR FROM NEBRASKA

Senator FISCHER. The hearing will come to order. Thank you all for being here today for this Surface Transportation and Merchant Marine Infrastructure, Safety, and Security Subcommittee hearing titled “Maritime Transportation: Opportunities and Challenges.”

Maritime transportation and the Merchant Marine are essential to the United States for both commercial and defense purposes. The United States Bureau of Transportation statistics found that in 2016, the value of exports and imports shipped by water was worth nearly \$1.5 trillion. As the world becomes more connected through trade, even a triple landlocked state like Nebraska relies on maritime transportation and the Merchant Marine to get our products to their final destination.

The Merchant Marine is also vital for the defense of our country. The Ready Reserve Force Program has been activated for defense and emergency purposes over 600 times since it was created in 1976. Understanding and addressing the needs of the Merchant Marine is crucial, and it’s a crucial part of our national security.

Today, we will be examining the current state of the maritime sector, including the maritime workforce, U.S. Sealift capability, and developments within freight transportation. Our witnesses from the Maritime Administration, the U.S. Merchant Marine Academy, the Federal Maritime Commission, and the Saint Lawrence Seaway Development Corporation will share the administration’s perspective on these topics. This hearing is particularly relevant as the Senate Commerce Committee considers the Fiscal Year 2019 reauthorization of the Maritime Administration, which Senator Peters and I introduced.

The Maritime Administration, or MARAD, plays an important role in both our national defense and the promotion of maritime industry in the United States. MARAD, through an agreement with the Department of Defense, manages the Ready Reserve Force, which serves to transport combat support, resupply, and unit equipment to the Army and the Marine Corps.

Domestically, the Ready Reserve Force played a critical part in the Federal response efforts following the devastating hurricanes last year. MARAD also oversees important maritime requirements that ensure the United States maintains its port and shipbuilding infrastructure. As one of our five service academies, the U.S. Merchant Marine Academy is necessary for developing future leaders in the maritime industry, including many who will go on to serve in our Nation's armed forces. I am thankful for their service to our country.

I remain concerned about the incidents of sexual assault and sexual harassment at the Academy, particularly the September 2016 alleged incident involving the men's soccer team. This committee has included a number of important provisions in recent MARAD reauthorizations to reform the Academy and address instances of sexual assault and harassment. Midshipmen must be confident in their leadership and trust that the Academy will respond to reports of this terrible behavior. Following the recent report released by the Department of Transportation's Inspector General's Office, I expect to learn how the Academy will address the gaps in its sexual assault and sexual harassment response and prevention efforts.

I also expect to hear about the efforts of MARAD and the Academy to encourage more ocean carriers to accept midshipmen as part of their Sea Year training. We will hear from the Acting Chairman of the Federal Maritime Commission, which oversees freight activities and our international ocean transportation system. The FMC is an independent Federal agency tasked with fostering a fair, efficient, and reliable international ocean transportation system for U.S. exporters, importers, and consumers. It is responsible for regulating ocean carrier activities, reviewing ocean carrier and marine terminal operator agreements, and monitoring ocean transportation operations and rates.

Ocean shipping has experienced several challenges and changes in recent years, including the 2015 West Coast ports slowdown, the bankruptcy of a major international ocean carrier, the formation of new ocean carrier alliances, and the dramatic growth in container shipping vessels, which has altered how our ports and intermodal connections manage the increase in freight. The FMC has a role relevant to each of these challenges, most recently by examining policies surrounding demurrage and detention rates. I look forward to hearing from the Acting Chairman about the current state of the maritime freight industry and how the Commission has been addressing these challenges.

I also want to take this opportunity to commend Commissioner Rebecca Dye for her work leading the supply chain innovation teams. Her recent report spotlights key challenges in the supply chain and offers potential solutions to better analyze the movement of freight across the port system.

Finally, we will hear from the Saint Lawrence Seaway Development Corporation, which maintains the United States' role in waterborne trade along the Saint Lawrence Seaway and in the Great Lakes. The Saint Lawrence Seaway Development Corporation faces many of the same challenges that the U.S. Port Authorities are facing, such as larger vessels and aging infrastructure, but also faces unique challenges such as the waterway freezing over in the winter. I look forward to hearing about these unique challenges and how the Development Corporation intends to meet them.

Thank you again to our witnesses for being here today, and I would now turn to my colleague and Ranking Member, Senator Peters, for his opening remarks.

**STATEMENT OF HON. GARY PETERS,
U.S. SENATOR FROM MICHIGAN**

Senator PETERS. Well, thank you, Chair Fischer.

Good morning to our witnesses. I look forward to hearing your testimony here today.

The U.S. Maritime Transportation System sustains and empowers our national economy. Over 90 percent of the volume of overseas trade enters or leaves the United States by ship, and waterborne cargo contributes nearly \$650 billion annually to the U.S. GDP and sustains more than 13 million jobs.

My home state of Michigan is not just a regional but an international hub for trade, transportation, and logistics. Many of the largest heartland industries, from grain to iron ore, are highly dependent on the maritime industry to move their products to market. Michigan has 38 deep water ports and ranks first in the Great Lake states in maritime tonnage with more than 61 billion tons of cargo moving annually into and out of the state. A recent study estimates that the total economic impact of commercial maritime industry in Michigan equates to over 91,000 jobs, \$19 billion in business revenue, and \$4.4 billion in personal income impacts.

While the Great Lakes Maritime Transportation System is a major regional and national transportation asset, unfortunately, a lack of funding has contributed to the deterioration of port conditions and capacity, not just in Michigan, but all across the United States. I look forward to hearing today what more we can do to rehabilitate and sustain our aging infrastructure.

In addition to investing in our infrastructure, we must also invest in our maritime industry, whether it's through increased shipbuilding, training for future mariners, or maintaining a fleet of vessels capable of supporting the military's needs during armed conflict or national emergencies. There has been a long-term decline in the number of U.S. flag ships and mariners. Many of our Jones Act and oceangoing vessels are aging and in urgent need of repair or upgrade.

These are challenges that we must address. Our economy and our military rely on the work of the men and women of the Merchant Marine, and I look forward to finding ways to grow the maritime industry and working to find sustainable, stable jobs for mariners in the future.

My state of Michigan is directly invested in the training of our future mariners as the home to the Great Lakes Maritime Acad-

emy, one of the six state maritime academies across the Nation. I am also honored to serve on the Board of the Merchant Marine Academy, where I have seen firsthand the importance of preparing our student mariners for the future.

For students to learn and grow, it is essential that we provide a safe learning environment, one that is free from harassment and sexual assault. I know this is an issue that we will cover today and I know that MARAD and the Academy are working to address.

That said, there is more that we can do to get this right, and Senator Fischer and I are glad to partner with you in this year's MARAD reauthorization bill to further build upon these efforts. I look forward to hearing our panel's suggestions on how we address these and other challenges and how we can work together to bolster our nation's infrastructure.

Thank you.

Senator FISCHER. Thank you, Senator Peters.

Now I would ask the panel to please give their opening statements, and we'll begin with you, Mr. Khouri.

**STATEMENT OF HON. MICHAEL A. KHOURI, ACTING
CHAIRMAN, FEDERAL MARITIME COMMISSION**

Mr. KHOURI. Thank you, Chairman Fischer, Ranking Member Peters, and Senators. Thank you for the opportunity to appear before you today, and, with permission, I will summarize my written remarks and request the written testimony with a copy of our Fiscal Year 2017 Annual Report be included in the record.

The FMC's mission is to ensure a competitive and reliable international ocean transportation supply system that supports the U.S. economy and protects the public from unfair and deceptive practices. As the Commission monitors international ocean trades and regulates key sectors of the container shipping industry, the Commission is meeting its mission, and our U.S. exporters, importers, and consumers are the ultimate beneficiaries.

As the first item, I'd like to address an issue of interest that Chairman Thune raised last fall. The Coalition for Fair Port Practices filed a petition in December 2016 asking the FMC to begin a new rulemaking proceeding to regulate practices by marine terminals and ocean carriers relating to demurrage, detention, and related fees. We received numerous written comments and then held two days of public hearings in January.

The Commission recently voted to begin a formal investigation to develop a full factual record. Following her experience and leadership last year with the Supply Chain Innovation Teams initiative, Commissioner Dye agreed to serve as the fact-finding officer. An interim investigation report is scheduled for September, and a final report is due in December of this year. We will keep you and the Committee updated on those initiatives.

Next, an overview. As you suggested, Chairman, the ocean transportation system has changed significantly over the last few years. The number of major global shipping companies decreased from 21 to 12. With new construction, global fleet capacity has increased to 5,200 container ships and 21 million TEUs of capacity. This capacity increase outran global cargo demand, resulting in overcapacity in nearly all trade lanes.

Nine of the 12 major ocean carriers are members of three global vessel operational alliances. A reassuring data trend shows us that even with the mergers and new carrier alliances, the individual ocean carriers continued to independently and vigorously compete on pricing and overall capacity decisions, providing evidence that healthy competition continues. Industry analysts and shipper interests recognize that the alternative to well regulated vessel alliances would be further mergers and consolidations in the industry, resulting in fewer ocean carriers and less service options.

Another positive development: ocean carrier agreements that contain authority to discuss freight rates have experienced a steady decline. Five such agreements terminated in the last few months. The Commission has responded to these structural developments with new agreement negotiation practice that narrows agreement authority, restricts language scope, and with enhanced monitoring programs. For all agreements, our staff maintains a careful watch on industry trends, being vigilant for indications of anticompetitive behavior.

Marine terminals and port authorities have shown new interest in using alliance type agreements. Terminals are cooperating in new ways as they address the challenges presented by larger vessels unloading more containers at each port call and the need for enhanced port infrastructure and developing collective solutions to mitigate cargo bottlenecks.

On the regulatory front, following the direction of Executive Order 13777, the Commission continues our process to identify and address outdated, unnecessary, or unduly burdensome regulations. Global supply chain operations benefit from less regulation through lower costs that pass through to our U.S. exporters, importers, and consumers.

Regarding our budget, our requested level of funding for Fiscal Year 2019 is \$27,490,000. The FMC is a small agency charged with a focused competition and commercial mission and a need for specialized staff, including a high percentage of economists and attorneys, career fields that tend to fall in the upper GS pay scales. The bulk of the Commission's budget, approximately 86 percent, is dedicated to these salaries and rent.

Thank you for your attention. I'd be pleased to answer any questions you may have.

[The prepared statement of Mr. Khouri follows:]

PREPARED STATEMENT OF HON. MICHAEL A. KHOURI, ACTING CHAIRMAN,
FEDERAL MARITIME COMMISSION

Chairman Fischer, Ranking Member Peters, Senators, thank you for the opportunity to appear before you today to discuss issues related to the Federal Maritime Commission and to share with you how the Commission works to ensure a competitive and reliable international ocean transportation supply system that supports the U.S. economy and protects the public from unfair and deceptive practices.

The Federal Maritime Commission

The FMC is an independent agency with specialized expertise that administers a focused antitrust legislative and regulatory regime tailored to the particular factors affecting the international ocean liner trade. The Shipping Act of 1984 contains several major sections that are comparable to the competition and antitrust statutes administered by the Department of Justice and the Federal Trade Commission. Since passage of the original Shipping Act in 1916, Congress has recognized that the international ocean liner industry requires special legislative and regulatory

consideration and oversight. This is due to the substantial amount of our Nation's international exports and imports being delivered via ocean carriage, the resulting critical role the industry plays in our international commerce, and the many competing, and potentially conflicting, maritime regulatory regimes and interests of our international trading partners.

Based on economic and non-economic conditions affecting the international ocean liner trade, Congress determined in 1916 to allow certain types of ocean carrier collaboration not permitted under other antitrust statutes, to ensure certain U.S. national objectives would be met. This included the availability of ocean transportation and stability of the shipping infrastructure upon which a material proportion of our international commerce depends. The antitrust laws, including the Shipping Act of 1984, are designed to protect competition, not individual competitors. Collaborative joint venture agreements among competitor ocean carriers, *as long as they are not found to be anticompetitive*, are recognized as beneficial, finding efficiencies and reducing cost that ultimately benefits U.S. exporters and saves the U.S. consumer money.

Congress entrusted competition oversight and antitrust enforcement for this industry to a specialized agency with particular expertise in this legal area, close familiarity with the commercial and operational issues involved in the ocean liner industry, and sensitivity to the interests of U.S. stakeholders and our many international trading partners. The FMC reviews and monitors international ocean liner carrier joint collaborations or agreements under the Shipping Act to ensure that procompetitive efficiencies and cost savings are obtained for the benefit of U.S. consumers and anticompetitive effects are prevented or properly mitigated.

Congress noted the role they envisioned for the FMC in their Joint Explanatory Statement of the Committee of Conference—House Report No. 98–600, during consideration of the Shipping Act of 1984:

[a]s new and evolving forms of cooperative conduct develop, the conferees believe that the Commission, rather than the antitrust agencies or the courts in the first instance, is in the best position to assess an agreement's benefits and detriments in light of the objectives of this Act.¹

Given the significant growth in international commerce over the past three decades and the importance of this international trade to the U.S. economy, what was true in 1984 is even more valid today.

Our Annual Report was submitted on April 1, 2018, and provides a comprehensive summary of the Commission's activities and industry developments in Fiscal Year 2017 (FY 2017). I will address matters of interest to the Committee, discuss what we foresee as potential developments and trends in the coming year, and review our significant activities of the past year.

Petition P4–16/Fact Finding 28

First, I would like to address an issue of interest to the Committee that Chairman Thune raised in a letter to the Commission last September. On December 7, 2016, the Coalition for Fair Port Practices, an organization of trade associations representing shippers, ocean transportation intermediaries, and domestic transportation companies, filed a Petition (P4–16) asking the Commission to begin a new rulemaking proceeding to address practices by marine terminal operators (MTOs) and vessel-operating common carriers (VOCCs) related to demurrage, detention, and related fees. Demurrage, detention, and related fees are charged by VOCCs and MTOs to compensate for the use of containers and terminal space and encourage the efficient movement of cargo through the terminals and the expeditious return of equipment.

The petitioners claimed that there were no standards as to what constitutes unreasonable demurrage and detention practices under the Shipping Act of 1984 which thereby lead to unfair practices that undermine the integrity and efficiency of the U.S. ocean transportation system. The petitioners asked the Commission to issue a rule, or alternatively, a policy statement interpreting unreasonable demurrage and detention practices and provide the industry with the tools it needs to more efficiently resolve demurrage and detention disputes.

The Commission received over one hundred comments on the Petition, and in January of this year, held a two-day public hearing that explored issues raised in the Petition by soliciting testimony from shippers, ocean transportation intermediaries, ocean carriers, truckers, and marine terminal operators.

Based on the testimony received in the public hearing and post-hearing comments filed by the parties and the public, the Commission voted last month to launch a

¹The Conference Report for the Shipping Act of 1984, H. Rept. 600 at pg. 32.

formal investigation to examine practices of VOCCs and MTOs related to detention, demurrage, and per diem charges with Commissioner Rebecca F. Dye as the Investigative Officer. The investigation will focus on how demurrage and detention practices can optimize, not diminish, the performance of the American international freight delivery system. Commissioner Dye has broad authority to conduct the investigation, including the power to issue subpoenas, to hold public and non-public sessions, and to require reports. Under the Commission Order, she is charged with making recommendations for Commission action including investigations of prohibited acts; enforcement priorities; policies; rulemaking proceedings; or other actions warranted by the record developed in the proceeding. An interim investigation report is scheduled for September 2, 2018 and the final report of Commissioner Dye's findings and recommendations is due to the Commission for consideration, discussion, and vote no later than December 2, 2018.

Changes from 2016 to 2017 and Industry Oversight

The container shipping industry plays an integral role in America's international trade and commerce. There is no more efficient or economical way to move large volumes of commodities than aboard vessels, and the sectors of our economy tied to international trade depend on an efficient global intermodal transportation system. In 2017, approximately 34 million TEUs² moved through our Nation's ports, a 4 percent increase from 2016. U.S. imports surged during the year and accounted for most of this increase. The U.S. imported over 22 million TEUs last year valued at \$754 billion. This was an increase of over 6 percent by volume from 2016. Meanwhile, the U.S. exported 12 million TEUs in 2017 with a value of \$266 billion, a 1 percent increase over 2016 by volume.

In 2016, there were significant changes to the ocean transportation services marketplace, marked by merger and acquisition activity among shipping lines and the bankruptcy of a top ten ocean carrier. As a result of these events, the number of major multi-trade lane shipping lines operating in the international trades has dropped from 21 in 2011 to 12 global carriers following the merger of the three Japanese carriers into Ocean Network Express (ONE) and COSCO's acquisition of Orient Overseas Carrier Line (OOCL). The table below lists the ocean carriers that serve the major east-west trade lanes. On a broader scale, thirty-six ocean container carriers serve the U.S. trades.³

²A Twenty-Foot Equivalent Unit (TEU) can be used to measure a ship's cargo carrying capacity. The dimensions of one TEU are equal to that of a standard 20 foot shipping container—20 feet long and 8 feet tall. Two TEUs are equal to one forty-foot-equivalent unit (FEU).

³Ocean common carriers that transport at least 0.1 percent market share or higher with a minimum of 18,000 containers per year in U.S. trades.

Major Ocean Carriers by Operated Capacity

| August 2011 | | | | January 2018 | | | |
|-------------|---------------|---------------|-------|--|---------------|---------------|-------|
| Rank | Operator | TEU Share (%) | | Rank | Operator | TEU Share (%) | |
| 1 | Maersk | 2,422,110 | 18.1 | 1 | Maersk | 4,151,807 | 22.7 |
| 2 | MSC | 2,016,197 | 15.1 | 2 | MSC | 3,147,525 | 17.2 |
| 3 | CMA CGM | 1,291,816 | 9.7 | 3 | CMA CGM | 2,514,170 | 13.7 |
| 4 | COSCO | 624,353 | 4.7 | 4 | COSCO | 2,490,361 | 13.6 |
| 5 | Hapag-Lloyd | 622,799 | 4.7 | 5 | Hapag-Lloyd | 1,547,865 | 8.4 |
| 6 | Evergreen | 614,115 | 4.6 | 6 | ONE | 1,483,371 | 8.1 |
| 7 | APL* | 580,658 | 4.3 | 7 | Evergreen | 1,060,224 | 5.8 |
| 8 | CSAV* | 525,483 | 3.9 | 8 | Yang Ming | 594,806 | 3.2 |
| 9 | Hanjin* | 511,661 | 3.8 | 9 | PIL | 384,807 | 2.1 |
| 10 | CSCS* | 510,958 | 3.8 | 10 | Zim | 366,292 | 2.0 |
| 11 | MOL* | 420,821 | 3.2 | 11 | Hyundai (HMM) | 347,136 | 1.9 |
| 12 | OOCL | 415,638 | 3.1 | 12 | Wan Hai | 235,591 | 1.3 |
| 13 | NYK* | 398,667 | 3.0 | Total | | 18,323,955 | 100.0 |
| 14 | Hamburg Süd* | 394,652 | 3.0 | * These carriers no longer exist as independent operating and marketing entities | | | |
| 15 | K Line* | 342,763 | 2.6 | | | | |
| 16 | Zim | 336,399 | 2.5 | | | | |
| 17 | Yang Ming | 336,328 | 2.5 | | | | |
| 18 | Hyundai (HMM) | 316,108 | 2.4 | | | | |
| 19 | PIL | 265,919 | 2.0 | | | | |
| 20 | UASC* | 234,815 | 1.8 | | | | |
| 21 | Wan Hai | 171,423 | 1.3 | | | | |
| Total | | 13,353,683 | 100.0 | | | | |

Data Source: ASX-Alphaliner Monthly Monitor, Top 30 Carriers, August 2011 & January 2018

Notwithstanding the reduction in the number of major shipping lines serving the international trades, the container industry remains very competitive. Using traditional antitrust analysis measures, the major transpacific and transatlantic trade lanes remain unconcentrated and competitive. These trade lanes have a Herfindahl-Hirschman Index (HHI) of 835 and 1,354, respectively.⁴ This also holds true when one further breaks out the transpacific trade by West Coast and East Coast, as well as the transatlantic Northern European trade. The other transatlantic trade lane, the Mediterranean, is moderately concentrated according to the index, although it is by far the smallest by volume of the noted trade lanes. None of the major trade lanes are highly concentrated using this measure.

⁴ Concentration is assessed using the HHI. Theoretically, the greater the degree of market concentration and the fewer the competitors, the higher the HHI. In its merger guidelines, the Department of Justice's (DOJ) Antitrust Division regards markets as not concentrated if the HHI is below 1,500. Under DOJ guidelines, mergers, and other less problematical forms of horizontal collaborations, that do not result in concentrated markets are unlikely to produce adverse competitive effects and, ordinarily, do not require further government regulatory analysis.

| Trade Lane | TEUs | HHI |
|---------------------------|-------------------|--------------|
| Asia-U.S. West Coast | 13,595,933 | 826 |
| Asia-U.S. East Coast | 8,907,327 | 943 |
| Transpacific-U.S.* | 22,594,058 | 835 |
| North Europe-U.S. | 3,720,219 | 1,179 |
| Mediterranean-U.S. | 1,543,643 | 2,114 |
| Transatlantic-U.S. | 5,263,862 | 1,354 |

* includes Hawaii, Great Lakes and Puerto Rico (90,798 TEU)

The global fleet has increased in size in recent years. At the beginning of 2018, ocean carriers deployed 21.1 million TEUs of ship capacity globally, a 70 percent increase from 2009. Looking back over the past few decades, shipper demand for container ocean transportation was growing seven percent or more year after year. VOCCs were ordering more ships and bigger ships. Then the global recession began in 2008. There were three plus years of vessel construction commitments at all of the world's shipyards and shipper cargo demand was retreating. A perfect formula for overcapacity and depressed ocean freight rates. The backlog of new shipbuilding has now eased—in fact some shipyards in South Korea and China are now offering incentives in efforts to avoid large worker layoffs and yard closures. Global cargo demand has returned to modest to normal growth levels in major trade lanes. As consumer confidence and spending has grown, and the demand for ocean transportation services has increased, carriers have been able to fill their ships relatively close to capacity in the past year, despite having increased the total capacity on the major trade lanes.

Ocean carrier monitoring data confidentially filed at the FMC indicates that ocean carriers regularly experienced capacity utilization of over 90 percent on the inbound major transpacific trade throughout 2017 and about 90 percent on the transatlantic. Each of these trade lanes saw capacity utilization rise toward the end of 2017 compared to earlier in the year. However, vessel utilization on the backhaul route from the U.S. to Asia is only about 50 percent, with only slightly higher levels from the U.S. to Europe. Although ships are sailing relatively full, rates have remained comparatively low and are 22 percent below their peak in 2010. When adjusted for inflation, real rates are down 31 percent since 2010. According to FMC monitoring data, rates have remained steady on the major transatlantic trades.

There are some signs that the industry is moving towards a recovery from overcapacity and low freight rates. The percentage of the idled fleet has decreased. Many carriers have recently reported positive operating profits (*i.e.*, EBIT or earnings before interest and taxes). However, charter rates for vessels of all sizes remain substantially lower than their peaks prior to the recession. Additionally, there does not appear to be any indication that typical sailing speeds are increasing. Other factors that can affect moving to a recovery are continued economic import and export growth in the United States. However, an economic downturn would have an adverse effect on demand for shipping and would slow down any recovery, thereby having a dampening effect on rates.

Nine of the remaining twelve major multi-trade lane ocean carriers are currently members of three global alliances—2M, OCEAN, and Transportation High Efficiency (THE). These alliances are joint operating agreements of ocean carriers where they are allowed to discuss and agree on the supply of vessel capacity through the deployment of a specific service string or strings of vessels in various trade routes. Each alliance operates multiple services in the major transpacific (Asia-U.S. and Canada), transatlantic (Europe—U.S. and Canada), and Asia-Europe trades and supply over 90 percent of the vessel capacity in each of these trade lanes. These three major alliances are not the only vessel sharing agreements in which these and other ocean carriers participate, as carriers can and do participate in multiple agreements filed at the FMC. These include various space charter agreements, vessel sharing agreements, vessel sharing alliances, joint service agreements, and

cooperative working agreements. In addition to the three global vessel sharing alliances referenced above, ocean carriers participate in more than 325 other agreements filed at the Commission.

Alliances can be very beneficial for U.S. exporters, importers, and consumers. Such alliances allow participants to obtain efficiencies and cost-savings that can be passed on to domestic consumers especially when healthy competition exists among vessel operators. Of note, the benefits of alliances and other forms of joint commercial vessel operating arrangements are recognized by Congress and addressed in the Shipping Act of 1984, as amended, and the contemporaneous Congressional record:

Another important potential benefit to be considered is any efficiency-created aspects of an agreement. Agreements involving significant carrier integration are, if properly limited to achieve such important benefits, to be favorably considered by the Commission and the courts. Joint ventures and other cooperative agreements can enable carriers to raise necessary capital, attain economies of scale, and rationalize their services. Pooling arrangements can also offer significant benefits in reducing excess capacity and promoting efficiency.⁵

A reassuring data trend shows that even with the wave of mergers and acquisitions and new carrier alliance groupings, the individual ocean carriers within each alliance continue to independently and vigorously compete on pricing. Further, individual ocean carriers within the alliances continue to add and withdraw vessels from trades both inside and outside the alliances in which they participate, demonstrating that competition remains in both vessel capacity decisions and pricing decisions within the alliances. And over the last decade, the global vessel fleet has increased. The increase in capacity came from an increase in the number of vessels and an increase in the size of new vessels entering the global fleet. The increase in capacity occurred without a corresponding increase in cargo demand. Industry stakeholders have noted that the alternative to carrier alliances is further consolidation in the industry with fewer ocean carriers and less competition.

The Commission responded to the recent and ongoing structural changes in the international liner shipping industry with aggressive negotiations on proposed agreements and enhanced monitoring programs. With the increased size and market share of carrier alliances over the last four years, the FMC has insisted on narrower agreement authorities, more clear and specific agreement language, and enhanced monitoring requirements. Monitoring for these large alliances, entailing more details and timely filing of monitor reports has increased.

As alliances are ongoing cooperative agreements rather than mergers, the Commission is charged by Congress with continuous monitoring after the initial review and following the effective date of the agreements. The Commission examines both the structural market and actual carrier behavior under filed agreements to detect anticompetitive activity that would violate the Shipping Act.

Our transportation analysts, economists, and attorneys maintain a careful watch on industry trends, being vigilant for any indications of anticompetitive behavior by the participants operating within the filed agreements. The Commission is diligent in monitoring economic conditions and carrier agreement activities to identify potential anti-competitive concerns and the possible need for Commission action. The Commission may challenge an agreement in Federal District Court at any time after the effective date. The FMC will continue to monitor industry trends to identify when the industry enters a full recovery and vessel supply/cargo demand equilibrium. Such monitoring and analysis will be important for determining the extent to which rate increases at that time are attributable to an economic recovery or to coordinated action by carriers.

The FMC prioritizes all filed agreements⁶ on a *red-yellow-green* scale, with red being higher profile agreements with the highest probability of potentially adverse market effects based on the agreement's authority in combination with the underlying market. All global alliances are categorized as *red* agreements. For these alliances, FMC staff prepares scheduled briefings for management and conducts more detailed quarterly reviews. The FMC monitors these *red* agreements for any exercise of market power that could allow alliance members to raise and maintain prices above competitive levels.

The FMC conducts a four-tiered analytical approach. The first tier is an immediate review of advance notifications of cancelled alliance sailings or other changes in vessel capacity that affect the supply of vessels of any individual alliance service by more than five percent of average prior weekly vessel capacity. The second tier

⁵The Conference Report for the Shipping Act of 1984, H. Rept. 600 at pg. 36.

⁶At the end of FY 2017, there were 484 agreements on file covering vessel operators and marine terminal operators.

consists of a careful review of submitted minutes of the most senior agreement committees that make vessel deployment decisions to assess the medium-to long-term outlook for capacity levels and how that could impact freight rates. Under the third tier, changes in individual alliance members' vessel capacity, capacity projections, and how that relates to changes in freight rates are analyzed. The final tier consists of reviewing and analyzing confidentially filed carrier data submitted by the alliances⁷ for completeness and accuracy to determine if this data reveals any potential red flags.

The Commission also monitors trends in other carrier and marine terminal operator agreement filings. It is important to note that carrier agreements containing rate discussion authority have experienced a steady decline in membership and a number have been terminated. More specifically, of the sixteen rate discussion agreements, five have been terminated entirely in the past few months, including the Transpacific Stabilization Agreement, which has served as the primary price discussion forum for the ocean trade from Asia to the United States since 1989. Carriers appear to be ending their participation in rate discussion agreements for a number of reasons. Overcapacity continues to define the major east-west container shipping markets, keeping downward pressure on rates and limiting the effectiveness of these agreements. We also note carrier concerns over potential changes in the regulatory environment in the U.S. and abroad.

Further, the Commission monitors and analyzes commercial contracts confidentially filed in the FMC's SERVCON System between vessel-operating common carriers (VOCCs) and shippers for the transport of U.S. exports and imports. SERVCON is the Commission's repository for all filed service contracts, excluding exempt commodities, in the U.S. waterborne foreign commerce. Service contracts contain the rates, terms, and other service requirements agreed upon by VOCCs and shippers for the carriage of cargo. Commission staff conducts focused research and analysis on service contract terms and conditions, such as chassis usage/fees, demurrage terms/fees, etc., in order to investigate or clarify industry reports, gain better insight into emerging industry issues, and better inform policy decisions.

Review and analysis of confidentially filed commercial contracts between VOCCs and shippers provide a valuable tool to evaluate the competitive dynamics at play between shippers seeking to leverage cargo volumes in the pursuit of lower freight rates and/or special service terms and VOCCs competing to obtain that cargo. FMC staff also systematically monitors a sampling of service contracts for a number of beneficial cargo owner and non-vessel-operating common carrier (NVOCC) shippers on an ongoing basis to track overall competitive conditions in various trades. These reviews are designed to protect the shipping public from unfair and deceptive carrier practices by identifying and addressing potential concerted carrier activity under filed agreements found to have resulted in discriminatory practices involving rates or charges applied to any locality, port, or persons due to those persons' status as shippers' association or ocean transportation intermediary.

As noted earlier, although there has been a contraction in the number of lines operating in the international ocean trades, competition between companies remains vibrant and shippers continue to benefit from low rates. Overall market share of even the largest oceangoing carriers remain diffused. In the U.S. export and import trades combined, CMA CGM and Mediterranean Shipping Company (MSC) hold a 12.7 percent market share followed closely by Maersk in third position with 12.3 percent market share. These are far from "dominant" market positions as recognized by established economic standards. We will continue to look for any potential impact the carriers operating in the new alliances have on market dynamics, rates, and services.

While the United States' international trade depends on the liner trade, unfortunately there is no substantial U.S.-flag presence in the major transpacific and transatlantic trade lanes. The three largest carriers in the U.S. trades are CMA CGM, MSC, and Maersk Line. The invisible hand is not the only force that guides the global shipping industry, and nations throughout the world go to great lengths to support national companies, including indirect subsidies and direct capital infusion to maintain the national company's solvency. Some carriers are owned in part or whole by governments. The People's Republic of China (PRC) is the United States' largest trading partner in terms of cargo volume. The PRC actively invests in logistics, transportation, and infrastructure through initiatives such as Silk Road to advance strategic goals. The PRC-owned COSCO Shipping and Hong Kong-based OOCL will become the largest carrier of U.S. imports when the two companies' com-

⁷To prevent an alliance carrier from viewing another carriers' data, each alliance carrier submits its data individually to alliance counsel, who then prepares a collective submission on behalf of the alliance to the FMC.

plete their merger this year. For the moment, such links between governments and national carriers can provide lower freight costs and greater service choices for imports and exports.

The ocean liner industry has been in a state of vessel oversupply for several years. The low freight rate structure in U.S. trade lanes is a direct reflection of that capacity supply/demand imbalance and American exporters and importers have been the beneficiary of those low freight rates. Such supply imbalances will not last forever. The Commission does not favor one competitor, sector, or industry stakeholder over another. We will continue to be attentive as we look for indications of rate increases that are products of market distorting, or collusive carrier business practices. However, it is important to remember that rate increases, in and of themselves, are not proof of an uncompetitive marketplace. At some point in the future, higher freight rates will be a normal result of a more equalized and healthy supply/demand marketplace.

The Commission continues to see marine terminal operators and port authorities' increased interest in how to use cooperative agreements filed with and reviewed by the Commission to their benefit. The nature and complexity of marine terminal operator agreements have increased considerably in recent years and marine terminal operators are cooperating in novel ways in an attempt to address the demands of significantly larger vessels unloading substantially larger numbers of containers at each port call. As a result, marine terminal operators have filed agreements to combine aspects of their operations, finance necessary infrastructure improvements, increase terminal velocity, develop collective solutions to mitigate cargo bottlenecks, and a host of other activities, all aimed at enhancing their ability to compete against other ports for cargo. There is a realization among these parties that seeking an alternate antitrust enforcement regime available to them through an agreement filed at the FMC can lead to increased efficiencies and lower costs.

We would review with interest the application of any parties from the port and terminal sector who want to use agreements to achieve goals that ultimately benefit the American shipper and consumer. Due to the unique nature of these types of agreements, monitoring of terminal agreements is specifically tailored to the agreement's scope, authority, and potential competitive impact of the agreement.

Regulatory Reform and Agency Actions

Regulatory Reform

Throughout FY 2017 and into FY 2018, the Commission has been actively taking steps to identify and address outdated, unnecessary, or unduly burdensome regulations. Further, the Commission aggressively looks for ways to make compliance with Commission requirements easier and more cost effective for shippers, carriers, and ocean transportation intermediaries (OTIs).⁸

Though they do not apply to the Commission, the FMC voluntarily initiated a regulatory reform effort in the spirit of Executive Order 13771, *Reducing Regulations and Controlling Regulatory Costs* and Executive Order 13777, *Enforcing the Regulatory Agenda*. The Acting Chairman designated a Regulatory Reform Officer and a Regulatory Reform Task Force (RRTF) was established consistent with the Executive Orders. The RRTF issued a Notice of Inquiry for public participation in the regulatory reform process and is working expeditiously to review existing regulations and provide regulatory relief, while maintaining the Commission's ability to complete its statutory mandate to protect competition and integrity in America's ocean supply system.

Flowing from the work of the RRTF, the FMC publicly issued a Plan for Regulatory Reform of Existing FMC Rules (Regulatory Reform Plan). The Regulatory Reform Plan identifies regulations for future review. The work on this Plan is projected to be completed in FY 2019. In addition to the Plan, the FMC established a Regulatory Reform web page and has pledged to provide additional information to the public on the Commission's website as the Regulatory Reform Plan progresses.

While the work of the RRTF is ongoing, the Commission has already taken steps to amend regulations related to Service Contracts, Negotiated Rate Agreements (NRAs), and NVOCC Service Arrangements (NSAs) to eliminate or reduce unnecessary filing obligations. On March 29, 2017, the Commission issued a deregulatory final rule updating and modernizing the FMC's regulations governing Service Contracts and NSAs, reducing the regulatory burden and costs of compliance with the agency's regulations. On November 29, 2017, the Commission issued a Notice of Proposed Rulemaking (NPRM) to simplify and streamline its NSA and NRA rules and

⁸ OTIs includes non-vessel-operating common carriers and ocean freight forwarders.

procedures. The NPRM sought public feedback on three proposals: ending the requirement for NSAs to be filed with the Commission; expanding the ability of NVOCCs and shippers to amend NRAs; and allowing the act of tendering cargo to be considered acceptance of a rate under the terms of the NRA. The Commission is reviewing filed comments and moving forward with review of proposed deregulatory actions on this item. These changes will make it easier and more efficient for shippers and carriers to do business. Global supply chain operations will benefit through lower costs, which should result in savings realized by our U.S. exporters and importers.

Tariff publication requirements is a statutory obligation that the Commission will consider for review and possible modification under its Regulatory Reform Plan. Currently, OTIs and VOCCs are required to publish both rates and applicable terms, conditions, and rules in their tariffs, even though the overwhelming majority (92 percent plus) of cargo moving in most U.S. trade lanes does so under the terms of service contracts. In other words, current law and Commission regulations require vessel operating companies to publish “shelf” freight rates that have nothing to do with the actual day-to-day market prices being charged to shippers. This statutory requirement for tariff filings could be relieved under the exemption authority that Congress provided to the Commission in the 1984 Act and the 1998 OSRA amendments.⁹

Supply Chain Innovation Team Initiative

The Shipping Act contemplates a regulatory process for the foreign commerce of the United States with a minimum of regulatory costs. The Supply Chain Innovation Team Initiative (SCITI) was led by my colleague, Commissioner Rebecca F. Dye. The FMC initiative made a meaningful contribution towards enhancing supply chain efficiency for America’s exporters and importers. Whenever possible, the Commission seeks to facilitate the cooperation of stakeholders to develop non-regulatory commercial solutions to address bottlenecks in the international supply chain.

The SCITI was an outgrowth of the Commission’s previous work on port congestion issues in the fall of 2014. Launched in May of 2016 and focused on challenges faced by America’s international maritime supply chains, Commissioner Dye, with her volunteer teams of industry leaders composed of shippers, marine terminal operators, trucking companies, ocean carriers, port officials, labor representatives, logistics companies, and other stakeholders, worked to develop actionable commercial solutions—including in particular—the key content for a national seaport information portal that could provide the necessary critical information sought by all parties involved in moving containers to/from vessels, through seaports, and onward to a final destination.

SCITI created two teams—one focused on import supply chains and the second focused on export supply chains. The work of both the import and export teams was summarized in a Final Report prepared by Commissioner Dye and presented to the Commission on December 5, 2017. *Supply Chain Innovation Teams Initiative: Final Report* presents the teams’ view that greater visibility across the American freight delivery system was the one operational innovation likely to most increase U.S. international supply chain performance. The report also highlights the concept of a common National Seaport Information Portal for critical shipment information, possibly organized by business dashboards tailored to the needs of each supply chain actor.

Protecting the Public

The Commission licenses and regulates ocean freight forwarders and NVOCCs. There are currently 6,417 OTIs that are licensed/registered with the FMC. In furthering our mission to protect the public from unfair and deceptive practices, the Commission crossed an important milestone in FY 2017 with the successful launch of the OTI triennial renewal process. An important program with which the Federal Maritime Commission fulfills our mission of protecting the public is by investigating, conducting background examinations, and approving the Qualified Individual, *i.e.*, the person who is the senior employee in charge of service in the daily operations of the OTI.

Several years ago, the Commission reviewed a survey of OTIs and discovered that a significant number had moved to new addresses without informing the FMC; that, too frequently, the Qualified Individual, whose qualifications were reviewed as the basis of granting the original FMC license, was no longer an employee of the company; and other filing discrepancies. A simple matter of not having the correct address of an OTI on file hampers the ability to have proper service in a legal matter

⁹ 46 U.S.C. § 40103 (a)

and is an important issue. Failing to maintain an approved Qualified Individual is a serious matter. During the first year of our Triennial OTI License Renewal program over 1,350 license renewals were received, reviewed, and accepted by the Commission representing nearly 30 percent of the 4,870 active U.S.-based OTI licenses. Of the 1,350 reviewed, 77 percent provided updates regarding changes to the owners or officers, with 10 percent reporting changes to their physical or e-mail address. Importantly, the renewal program revealed 94 incorrect Qualified Individuals. Therefore, bringing and maintaining our records up to date is an important ongoing initiative.

Given advances in information technology, the Commission determined that there was an opportunity to improve the quality and accuracy of information the agency has on file concerning OTIs, while doing so in a manner that was making the process easy to complete and with minimal industry burden. The renewal process is online and in most cases takes only five minutes to complete—facilitated by prepopulating the outgoing FMC inquiry with the OTI's information already on file with the FMC, such as company ownership, corporate officers, business locations, changes in affiliation or branch office. Moving to a web-based update system not only aids the Commission in meeting its mandate to safeguard the public, it significantly reduces the compliance burdens and costs upon the regulated entities.

FY 2019 Budget Request, Strategic Plan, Management Reforms

Fiscal Year 2019 Budget

The FMC is a small agency with a very technical mission and a need for a very specialized workforce. Our requested level of funding for FY 2019 is \$27,490,000. Overall, the bulk of the Commission's budget, approximately 86 percent, is consumed by rent, salaries and benefits, and communications. Our staff includes a high percentage of transportation economists and attorneys—career fields that tend to command more compensation in order to successfully recruit and retain qualified candidates and is the heart of the agency's mission. Overhead costs such as inter-agency services, commercial services, travel and transportation, supplies, and equipment account for most of the remaining budget dollars. The Commission has very little, if any, control over many of these costs. Year in and year out, the rent we are charged rises, the supplies and resources we purchase to support our economists and attorneys' competitive analysis and legal research cost more, and information technology (IT) costs—including IT security and telecommunications bills—rise. We constantly work to find a balance between our resources and our workload; however, if there is a surge of agreement filings, if a class of plaintiffs choose to seek relief at the FMC, or if our building security requirements increase, then we work to prioritize our mission-critical activity and reallocate resources to the extent possible.

Finding ways to conduct the Commission's business more efficiently is an important goal we share, Chairman Fischer. As such, the Commission works to find ways to make every dollar appropriated to us go as far as it can. A recent example of innovative cost-sharing is our agreement with another small, independent agency, the Surface Transportation Board, to share the services and costs of a single Equal Employment Opportunity (EEO) Officer to ensure both agencies' responsibilities while maintaining solid support of our EEO principles.

As I mentioned earlier in this testimony, the Federal Maritime Commission continues to faithfully implement the purposes and mission of the Shipping Act. I am proud of the work the Commission's staff does each day to ensure a competitive and reliable international ocean transportation supply system that supports the U.S. economy and protects the public from unfair and deceptive practices.

Strategic Plan for 2018–2022

A proven method of achieving strong performance at an organizational level is through focused and meaningful strategic planning. Strategic planning is a driving force in an organization's success. Government agencies benefit from strategic planning that is focused, and designed to unite all agency team members to find ways to achieve our mission more effectively while delivering value to the taxpayer. Earlier this year, the Commission finalized a new Strategic Plan for FY 2018–2022. This document will guide our work into the future.

Agency Reform and Long-Term Workforce Plan

The President has made reshaping the Federal Government one of the key initiatives of his Administration. Through an Executive Order issued in March and a memorandum issued in April 2017 by the Director of the Office of Management and Budget (OMB), the Administration instructed departments and agencies throughout the Federal Government to include an Agency Reform and Long-Term Workforce Plan (Workforce Plan) as part of their FY 2019 budget submissions. A prime direc-

tive in the Executive Order and OMB memorandum was for Federal agencies to explore, develop and implement plans to streamline, consolidate and flatten their organizational operations and structure.

Over the last year, the Commission developed a Workforce Plan as directed by OMB. In broad terms, our 5-year Workforce Plan will (i) flatten the organization and reduce the number of supervisory positions; (ii) reduce the number of SES positions; (iii) establish a new two-tier SES structure to realign and control SES salary costs; (iv) realign and combine functions within the Commission (some subject to Congressional approval); and (v) continue our emphasis on achieving operational efficiencies and improving customer service through automation projects.

Our goal is to find ways to do more while controlling costs. Delayed work groups with broader spans of control and less hierarchy have been proven to improve efficiency, employee engagement and accountability. We are working to reshape the FMC and improve operational effectiveness as required by the Administration while minimizing the impact to the 116 committed and vital employees of the FMC.

Conclusion

Thank you for this opportunity to discuss the mission of the Federal Maritime Commission, current state and future challenges of the ocean shipping industry, as well as highlight some of the Commission's recent achievements and future priorities. Thank you, I am always ready to be of assistance to the Committee and I will be pleased to answer any questions you may have.

Senator FISCHER. Thank you, Chairman Khouri.

Next I would like to welcome Admiral Buzby. Thank you for being here today, and it's good to see you again.

STATEMENT OF HON. MARK H. BUZBY, ADMINISTRATOR, MARITIME ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Mr. BUZBY. Thank you very much. Chairwoman Fischer, Ranking Member Peters, and members of the Subcommittee, thank you for this opportunity to testify about the challenges facing the U.S. maritime sector and the need to ensure long-term viability of this important industry.

The mission of the Maritime Administration is to foster, promote, and develop the U.S. maritime industry to meet this Nation's economic and security needs. A key challenge MARAD faces is to ensure the availability of sufficient Sealift capabilities to meet Department of Defense requirements to effectively deploy military forces, respond to national emergencies, and provide humanitarian assistance at home and abroad.

Our strategic Sealift transports 90 percent of the equipment and supplies that move and sustain our military forces around the globe. It consists of government-owned vessels, privately owned U.S. flag commercial vessels and the mariners who operate them, and the intermodal systems upon which the government relies.

The 61-ship surge Sealift fleet, which includes MARAD's 46-ship Ready Reserve Force and 15 military Sealift Command vessels, is in urgent need of recapitalization. This fleet delivers equipment and supplies during major contingencies. These ships average 43 years of age and require longer shipyard time for more expensive maintenance and repairs to ensure mission readiness. Our nation's Sealift capacity also relies on privately owned commercial vessels operating under the U.S. flag.

As this Subcommittee is well aware, the U.S. commercial presence in international trade is at the lowest levels in its history, with only 81 vessels operating exclusively in international trade.

This decline compromises MARAD's ability to meet national security requirements.

While we continually seek innovative ways to make the U.S.-flag commercial fleet more viable, MARAD's primary means of support are through three programs: the Maritime Security Program, or MSP; cargo preference laws; and the Jones Act.

MSP helps maintain an active, privately owned U.S. flagged and crewed fleet of 60 militarily useful commercial ships in international trade. Cargo preference laws keep U.S. flag operators economically competitive by requiring shippers to use U.S.-flag vessels to transport government-owned or impelled cargo. The Jones Act, which requires cargos going between U.S. ports to be transported on U.S. vessels, supports U.S. shipyards and repair facilities, ensuring that production and repair of American built ships are available to our military and by requiring such vessels to have U.S. documentation and crews.

Jones Act vessels provide employment for the majority of U.S. mariners, which helps meet the challenge of ensuring the Nation has enough qualified mariners to crew our surge fleet of vessels when needed. We currently estimate a shortfall of 1,800 qualified mariners, which is a best case scenario, assuming that all qualified mariners will voluntarily report when called upon and that there will be no ship losses or personal casualties. I'm working closely with USTRANSCOM, MSC, the Coast Guard, and the commercial maritime industry to ensure that we maintain an adequate number of mariners with proper training to operate in contested waters.

One opportunity to ensure that qualified U.S. mariners are available is continued support for the United States Merchant Marine Academy and the six state maritime academies. These institutions graduate most of the U.S. Coast Guard credentialed officers qualified to crew these U.S.-flag oceangoing ships.

I will let Admiral Helis speak to the accomplishments of the Merchant Marine Academy, but I want to thank this committee for its continued support for this institution and its midshipmen. Ensuring its long-term success is a high priority for me as a proud graduate of the great Class of 1979.

I also want to thank you for the support you have given to the state maritime academies by providing \$300 million in the Fiscal Year 2018 appropriations bill to fund the construction of a new common school ship, the National Security Multi-mission Vessel. This vessel is not only important to training mariners, but will also be used to respond to national disasters and humanitarian relief efforts.

There are many additional challenges facing the U.S. Merchant Marine, but these are the top priorities my colleagues and I at MARAD are working to address to meet the nation's economic and security needs. I appreciate this subcommittee's support for the United States Merchant Marine and look forward to working with you on the challenges and opportunities confronting the U.S. maritime industry.

I'm happy to respond to any questions you may have, and I respectfully request that my written statement be entered into the record.

Thank you very much.

[The prepared statement of Mr. Buzby follows:]

PREPARED STATEMENT OF HON. MARK H. BUZBY, ADMINISTRATOR, MARITIME
ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Good afternoon Chairwoman Fischer, Ranking Member Peters, and members of the Subcommittee. Thank you for this opportunity to testify about the challenges facing the U.S. maritime sector and opportunities to ensure the long-term viability of this important industry.

The Maritime Administration's (MARAD) mission is to foster, promote and develop the U.S. maritime industry to meet the Nation's economic and security needs. A key challenge MARAD faces in carrying out this mission, is meeting Department of Defense (DOD) sealift requirements. The United States relies on strategic sealift capabilities, which include ships and the necessary mariners to crew those ships to efficiently and effectively deploy military forces around the world. Strategic sealift consists of Government-owned vessels, privately-owned vessels engaged in commerce under the U.S.-flag and the mariners who operate them, and intermodal systems upon which the Government relies. These vessels, mariners, and supporting infrastructure transport 90 percent of equipment and supplies that move and sustain our military forces around the globe.

Government Fleet Readiness

Vessels in MARAD's 46-ship Ready Reserve Force (RRF), along with 15 Military Sealift Command (MSC) vessels, form the 61-ship surge sealift fleet to rapidly deliver equipment and supplies during major contingencies. Readiness of the RRF is a constant challenge given that the average age of the vessels is 43 years. Repairs to older equipment and aging systems require shipyard periods lasting longer and costing more each year. In addition, MARAD and DOD must make investments to meet new regulatory requirements, such as installing modern enclosed lifeboats on RRF vessels. MARAD and the U.S. Transportation Command (USTRANSCOM) are working with the U.S. Navy to address the challenges of recapitalizing the sealift fleet to ensure mission readiness.

U.S.-Flag Commercial Fleet Viability

Our Nation relies on privately-owned commercial vessels operating under the U.S. flag to augment the capabilities of the Government's fleet. The U.S.-flag commercial fleet delivers supplies and equipment to deployed forces and to service members and their families stationed overseas during steady-state operations and essential sustainment during long military deployments. Unfortunately, the U.S. commercial presence in the international maritime domain has declined and is currently at the lowest level in its history. Of some 41,000 deep-draft self-propelled oceangoing commercial vessels in the world today, just 181 sail under the U.S. flag, including 81 vessels operating exclusively in international trade, while the total capacity of U.S.-flag containership and roll-on/roll-off vessels is roughly the same as 25 years ago. The other 100 consist of the oceangoing ships in our Jones Act fleet. Further decline of the actively-trading U.S.-flag fleet reduces our Nation's ability to unilaterally project and sustain our forces during war.¹

The Maritime Security Program (MSP), cargo preference laws, and the Jones Act are used to maintain a baseline U.S.-flag fleet. The MSP helps maintain an active, privately-owned, U.S.-flag and U.S.-crewed fleet of 60 militarily useful commercial ships operating in international trade. MARAD provides MSP participants an annual stipend, and their ships and logistics networks are available "on-call" to support DOD's global transportation needs. The MSP facilitates employment for 2,400 U.S. merchant mariners qualified to sail on oceangoing vessels who we can rely upon to crew RRF vessels when activated, and assures DOD access to the critical multibillion-dollar global network of intermodal facilities and transport systems maintained by MSP participants.

Cargo is essential to sustain the vessels and jobs in the U.S.-flag fleet. Cargo preference laws require shippers 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

¹See February 13, 2018 Statement of General Darren W. McDew, Commander, U.S. Transportation Command, before the Senate Armed Services Committee: *"If the fleet continues to lose ships, when the Nation goes to war, the DoD risks protracted deployment timelines or a scenario in which it must deploy U.S. Forces on foreign-flag ships. Moreover, further reduction in the fleet mean waning access to the global commons, contracting our competitive space and threatening the U.S. strategic advantage in this domain."*

non-military Government owned or impelled cargo transported by ocean, must be carried on U.S.-flag vessels subject to vessel availability. Absent other measures, a strong cargo preference mandate supports the sustainment of a U.S.-flagged, privately-owned commercial fleet and to the continued availability of the associated American merchant mariners.

In addition to cargo preference laws, U.S. coastwise trade laws, commonly referred to as the Jones Act, contribute to a baseline of sealift capability and capacity help sustain the U.S.-flag fleet and supports the U.S. shipping industry.² Jones Act requirements support U.S. shipyards and repair facilities. They also keep current the supply chains moving that produce and repair American-built ships (including Navy and Coast Guard vessels). Finally, the Jones Act ensures that vessels navigating daily among and between U.S. coastal ports and inland waterways operate with U.S. documentation and a majority American crew, rather than under a foreign flag with foreign crew, as is the case for 98.5 percent of our Nation's waterborne international trade. The American mariners of the Jones Act fleet are our "eyes and ears" in domestic ports and waters and add an important layer of security to our Nation.

Availability of Mariners

Another challenge to meeting DOD sealift requirements is ensuring enough qualified U.S. merchant mariners are available to operate the surge fleet of 61 Government-owned cargo ships in times of need. The mariners required to operate these vessels are civilians regularly employed on board U.S.-flag, oceangoing commercial ships. I am concerned about the availability of a sufficient number of qualified mariners with the necessary endorsements to operate large ships (unlimited horsepower and unlimited tonnage) and to sustain a prolonged sealift mobilization beyond the first four to six months. While the entire RRF has not been fully activated at one time, there have been more than 600 activations since 1990, over half of which were for reasons other than readiness testing. We seek to ensure there are enough qualified U.S. mariners to safely crew our Government vessels when the need arise.

The FY 2017 National Defense Authorization Act (FY 2017 NDAA) directed MARAD to convene a working group consisting of agency and maritime industry representatives to assess the size of the pool of qualified U.S.-citizen mariners necessary to crew the U.S.-flag fleet in times of national emergency, and recommend actions to enhance the availability and quality of mariner data. MARAD provided the working group's conclusions to Congress in January 2018. In it, the working group estimated a shortfall of 1,800 qualified mariners in the event of a full, prolonged mobilization, but this estimate assumed a "best case" that all qualified mariners would voluntarily report when called upon, and that there will be no ship losses or personnel casualties. Given this assessment, I am working closely with USTRANSCOM, MSC, the USCG, and the commercial maritime industry to develop actions to identify and maintain an adequate number of trained mariners, and ensure they receive training unique to operating in contested waters. Additionally, we are working to better track credentialed mariners who are not sailing, but could serve if needed, and to develop tools to count and understand the characteristics of fully qualified mariners available to meet the Nation's commercial and sealift requirements at any given time.

One opportunity to ensure qualified U.S. mariners are available is continued support for the United States Merchant Marine Academy (USMMA), and the state maritime academies (SMAs). MARAD provides funding and oversight to Kings Point and the SMAs to produce highly skilled and licensed officers for the U.S. Merchant Marine. These institutions graduate most of the USCG-credentialed officers who hold an unlimited tonnage or horsepower endorsement qualified to crew these U.S.-flag ocean-going ships.

I will leave it to Rear Admiral Helis to discuss the Academy's accomplishments and challenges, but I must say that I am proud of what they have done. I have been particularly encouraged during my visits to the Academy by the Midshipmen-driven, on-campus culture change program, "Be KP (Kings Point)." The Midshipmen have taken ownership of efforts to change the climate at the Academy and are now leading this effort. Progress is being made, but more work needs to be done as noted in the recent DOT Office of Inspector General report on the USMMA's Sexual Assault Prevention and Response Program. We appreciate the insight from this report and are addressing the recommendations to continue improving the Academy as a whole.

²The Jones Act requires the use of qualified U.S.-flag vessels to carry goods in domestic commerce, which includes transportation between and among the U.S. mainland, Hawaii, Alaska, and Puerto Rico.

In addition to providing oversight of the USMMA, MARAD provides funding to six SMAs³, which collectively graduate more than three-fourths of the entry-level merchant marine officers annually. As part of this support, MARAD loans training ships to SMAs and covers a portion of those ships' maintenance and repair costs. In addition to being used to train mariners, these vessels, which are part of the National Defense Reserve Fleet (NDRF), are used to respond to national disasters when requested by other Federal agencies. Most recently, MARAD activated RRF and NDRF ships to support Federal relief activities following Hurricanes Harvey, Irma, and Maria. During these deployments MARAD vessels supplied citizens and first responders with housing, meals, logistical support, and relief supplies, including delivering critical Federal Aviation Administration replacement air navigation equipment to the Virgin Islands. These vessels are aging and nearing the end of their life cycles, with two of the vessels more than 50 years old. Ensuring the continued availability of these ships is a high priority for MARAD. Congress recognized this need and provided \$300 million in the FY 2018 Appropriations Act to fund the design and construction of a new common school ship—the National Security Multi-Mission Vessel.

Port Infrastructure

Another challenge we face is the state of Our Nation's 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 2045.¹¹ Without major improvements to multimodal transportation infrastructure and technologies, congestion resulting from greater volumes of freight could lead to growing delays and failures in the supply chain that would reduce our quality of life. There is great potential to improve the efficiency of this system by increasing the efficiency of our ports, which are the interfaces between water and land-based

MARAD is engaged with port communities to leverage existing DOT financing programs such as TIFIA and RRIF, and grant programs such as BUILD and INFRA, to increase Federal and non-Federal investment in port infrastructure and first/last mile intermodal connectivity. MARAD is also exploring ways to use our existing authorities to attract more non-federal investment in port infrastructure. We are also leading the way in identifying the critical challenges in port operations that could be met by increased use of intelligent transportation system technologies to interface more seamlessly between global and domestic transportation systems. We do this work in partnerships with the Federal Highways Administration's Intelligent Transportation System Joint Program Office and the American Association of Port Authorities. Finally, we are working to attract new investment in technologies to more efficiently and safely integrate maritime cargo movement into the overall transportation system.

Other MARAD Programs

In addition to meeting DOD sealift requirements, MARAD programs support the environmentally sound disposal of obsolete Government-owned vessels, innovation to address maritime energy and environmental issues, activities to address infrastructure challenges at our ports and on our inland rivers and waterways, and ship repair. Funding in the FY 2018 Appropriations Act allows MARAD to capitalize on opportunities in each of these areas as highlighted below.

MARAD is the ship disposal agent for Federal Government-owned merchant-type vessels of 1,500 gross tons or greater. Currently, MARAD has 11 obsolete vessels not yet under contract for disposal, which is a historic low. The FY 2018 Appropriations Act provides \$6 million for the disposal of these vessels. MARAD is also responsible for continuing the required protective storage activities for the Nuclear Ship (NS) SAVANNAH until decommissioning and license termination are complete. The FY 2018 Appropriations Act provides \$110 million for the storage, maintenance, and final decommissioning of the NS SAVANNAH.

The FY 2018 Appropriations Act provides \$3 million for MARAD's Maritime Environmental and Technical Assistance (META) program. This program supports applied research and development to facilitate environmental compliance and enhance sustainability in the marine industry. Leveraging resources with the private sector

³The six SMAs are: California Maritime Academy in Vallejo, CA; Great Lakes Maritime Academy in Traverse City, MI; Texas A&M Maritime Academy in Galveston, TX; Maine Maritime Academy in Castine, ME; Massachusetts Maritime Academy in Buzzards Bay, MA; and State University of New York (SUNY) Maritime College in the Bronx, NY.

¹¹DOT Bureau of Transportation Statistics, Freight Facts and Figures 2017, Table 2-1.

and other government agencies, META's goal is to identify economically sustainable solutions to emerging maritime environmental challenges.

MARAD received \$5 million in funding in FY 2017 for the America's Marine Highway Program. The goal of this program is 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, serious implementation of this program represents an opportunity to significantly enhance American supply-chain competitiveness. MARAD is currently reviewing project applications and expects to announce the FY 2017 grant awards later this Spring. In addition, the FY 2018 Appropriations Act included \$7 million in grant funding for the program. We expect to issue a Notice of Funding Opportunity for those grant funds soon.

The Small Shipyard Grant program provides funds to support capital improvements and training at small U.S. shipyards. Small shipyards play a significant role in our shipbuilding and repair activity. The grants support modernization that allow U.S. shipyards to compete more effectively in the global market place. The FY 2018 Appropriations Act provides \$20 million in funding for the grant program. MARAD published a Notice of Funding Opportunity on April 14, 2018, and DOT will award grants by July 23, 2018.

Lastly, the Maritime Administration is an active member of the U.S. Committee on the Marine Transportation System (CMTS). In August 2017, I was appointed by the Secretary to Chair the subcommittee Coordinating Board for one year. The CMTS is an interagency forum through which 25-plus Federal agencies and offices collectively address challenges of the marine transportation system. In October 2017, Secretary Chao approved the National Strategy on the Marine Transportation System: Channeling the Maritime Advantage. The interagency members, which also includes the Saint Lawrence Seaway Development Corporation, U.S. Coast Guard, U.S. Army Corps of Engineers, the National Oceanic and Atmospheric Administration, and Federal Maritime Commission, to name a few, is addressing five areas of focus in the Strategy for system performance, navigation safety, maritime security, energy innovation, and infrastructure investment.

In addition to managing the programs discussed above, MARAD is reviewing recommendations made in a November 2017 National Academy of Public Administration (NAPA) report on the agency. MARAD requested this assessment from NAPA to provide a review of the agency's programs and offer recommendations for improving the alignment of activities to enhance performance and meet MARAD's mission to foster, promote, and develop the maritime industry of the United States. In response to recommendations, MARAD is conducting an internal business process review to ensure MARAD's mission is clear and supports the Administration's policy goals.

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.

Senator FISCHER. Thank you, Admiral.

Next we have Admiral Helis, the Superintendent at the Merchant Marine Academy.

Welcome, sir.

**STATEMENT OF REAR ADMIRAL JAMES HELIS,
U.S. MARITIME SERVICE, SUPERINTENDENT,
U.S. MERCHANT MARINE ACADEMY**

Mr. HELIS. Thank you, Senator. Good afternoon, Chairwoman Fischer, Ranking Member Peters, and members of the Subcommittee. I appreciate the opportunity to provide an update on the U.S. Merchant Marine Academy and the progress we've made since I testified last year.

First, I'm pleased to say that the Middle States Commission on Higher Education fully reaccredited the Academy in November 2017. I am proud of the commitment and efforts shown by our faculty, staff, and midshipmen in achieving this goal in a short period

of time. It speaks to the dedication of the Academy community that so many worked so hard to address the Middle States Commission's concerns.

We are building on this progress as we develop the Academy's 2018 to 2023 strategic plan. Beginning in September 2017, we received input from over 700 individuals, including midshipmen, faculty, staff, and other stakeholders. In March, we hosted over 160 midshipmen, faculty, staff, and representatives of the maritime industry, the Department of Defense, alumni, and parents at a planning summit. We expect to finalize and publish the plan before our June graduation.

I'm also pleased to report that as of April 5, the Maritime Administration has certified 17 eligible commercial operators to host midshipmen for Sea Year training. Sea days available to midshipmen on commercial vessels have returned to pre-stand-down levels.

We are implementing requirements set forth in the Fiscal Year 2018 National Defense Authorization Act, including successfully testing global satellite communication devices for midshipmen at sea. We are now in the process of procuring sufficient devices to equip all midshipmen by the end of 2018, giving them the ability to report any incidents during Sea Year.

We also worked with the Ship Operations Cooperative Program and Trade Association to develop industry standard sexual assault and sexual harassment prevention and response training, training which is now also required for all midshipmen before they start Sea Year and is available to all commercial operators to train crew members. Our staff has also begun visiting midshipmen who are training on commercial vessels. We continue to survey the midshipmen when they return to campus and assess their responses to see how we can improve.

I want to reassert that I am fully committed to eliminating all incidents of sexual assault and harassment on our campus. We are doing this with a focus on midshipmen safety and improving the Academy's culture and climate to ensure that victims are comfortable and confident in reporting all incidents. The past year has seen an increase in reports of sexual assault. While that could reflect an increase in incidents, we think it more accurately reflects a greater confidence by victims to file reports and expect that they will be treated with dignity and respect and the Academy will swiftly and appropriately respond to their reports.

We've continued to build on our Sexual Assault Prevention and Response Program, expanding training for our midshipmen, faculty, and staff and updating procedures for handling reports. The program office now has a sexual assault response coordinator, a Sea Year coordinator, and a victim advocate prevention educator. A second victim advocate prevention educator has been identified and should begin work this summer. A new contract with the Rape Assault Incest National Network, RAINN, will provide a worldwide, 24/7 hotline that midshipmen can call and access a host of resources. This service comes online in May.

As the Department of Transportation Inspector General's report shows, there is still more work to be done. We're working to imple-

ment new procedures mandated by DOT for validating reports and improving the communication of policies to stakeholders.

Sexual assault is a symptom of a culture that tolerates it and doesn't want to accept it as a problem. We're working to reverse that by creating a culture of zero tolerance with respect for differences, inclusiveness, and empathy for victims of all forms of harassment. The Academy's Be KP campaign, for instance, is a campus-wide effort led by midshipmen and with full support of faculty and staff to instill the Academy's core values of respect, honor, and service.

These are just some of the ways we intend to continue to build a campus where everyone is safe, valued, and respected and has the opportunity to reach their full potential.

Thank you for inviting me today to testify. I appreciate your interest and continued support for the Academy, and I'm happy to answer any questions you may have.

[The prepared statement of Mr. Helis follows:]

PREPARED STATEMENT OF REAR ADMIRAL JAMES HELIS, U.S. MARITIME SERVICE,
SUPERINTENDENT, U.S. MERCHANT MARINE ACADEMY

Good afternoon, Chairwoman Fischer, Ranking Member Peters and members of the Subcommittee. Thank you for the opportunity to update you on the U.S. Merchant Marine Academy (USMMA or Academy) and highlight accomplishments made since I appeared before you last year.

First, I am pleased to say that the Middle States Commission on Higher Education (MSCHE) fully reaccredited the Academy in November 2017. I am proud of the commitment and effort shown by our faculty, staff, and Midshipmen in achieving this goal in a short period of time. It speaks to the dedication of the Academy community that so many worked so hard to address MSCHE's concerns.

We are building on this progress as we develop the Academy's 2018–2023 Strategic Plan. This March, we invited 161 representatives of the maritime industry, the Department of Defense, alumni, parents, Midshipmen, faculty, and staff to provide input on the plan. In addition, Academy staff solicited input from more than 700 stakeholders over the past few months. Our planning discussions are ongoing and we plan to have a final plan by graduation in June.

In June 2016, the Department paused Sea Year training on commercial vessels. Over the past year, the Academy restored Sea Year training on commercial vessels, and reestablished the mix of Midshipmen who completed Sea Year on commercial and Government vessels to pre-stand down levels. As of April 5, 2018, the Maritime Administration (MARAD) certified 17 commercial operators as eligible to host Midshipmen for Sea Year training.

We have been working hard to implement requirements established in the Fiscal Year 2018 National Defense Authorization Act (FY 2018 NDAA), P.L. 115–91, including testing global satellite communication devices for Midshipmen at sea. Those tests were successful and we are beginning to procure sufficient devices to equip all Midshipmen. MARAD and the Academy also worked with the Ship Operations Cooperative Program (SOCP), an organization with members from across the maritime industry, to develop industry-standard sexual assault and sexual harassment prevention and response training. This training is required for all Midshipmen prior to starting Sea Year and is available to all commercial operators. As required by the FY 2018 NDAA, Academy staff has begun visiting commercial vessels hosting Midshipmen during Sea Year to ensure compliance MARAD Sea Year eligibility requirements. We have also surveyed Midshipmen returning from Sea Year in November 2017 and March 2018 and are analyzing these results to determine where further improvements can be made.

I am committed to the elimination of sexual assault and harassment on our campus and improving the environment at the Academy so that victims are comfortable reporting all incidents and they are confident that Academy personnel will respond appropriately to reported incidents. Over the past year, we have seen an increase in reports of sexual assault, with a total of 12 reports made. While this increase could reflect an increase in the number of sexual assaults taking place, it is more likely that it indicates greater confidence by victims that reports will be responded

to appropriately and therefore more willingness by victims to make reports. The Office of People Analytics (formerly the Defense Manpower Data Center) began the bi-annual survey of Midshipmen in April 2018, which will be the basis for the next annual report to Congress.

The Academy has continued to build on its Sexual Assault Prevention and Response (SAPR) Program, established in 2012, by implementing provisions of the FY 2018 NDAA, including expanding and improving training requirements for Midshipmen, faculty, and staff; updating procedures for handling reports of sexual harassment, dating violence, domestic violence, sexual assault, or stalking; and refining a plan to combat retaliation against Midshipmen who make reports. We have also increased staffing of the SAPR Office, which now includes a SAPR program manager/Sexual Assault Response Coordinator (SARC); a Sea Year coordinator, who is an activated U.S. Navy Reserve Strategic Sealift Officer and an Academy alumnus with commercial sailing experience; and one Victim Advocate/Prevention Educator, with a second in the process of being hired. The Academy also expects to hire an attorney shortly who will be available to provide sexual assault and harassment legal advice to victims. In addition, the Academy has five volunteer Victim Advocates from the faculty trained and certified to receive restricted and unrestricted reports of sexual assault. The Academy has also completed a contract with the Rape Assault Incest National Network (RAINN) to establish and operate a 24/7 worldwide hotline with access to worldwide resources, similar to the Department of Defense Safe Helpline. We expect Midshipmen to have phone, text, and internet-based access to RAINN in May 2018.

While the Academy has made progress in developing its SAPR Program, we know there is more work to be done. The recent Department of Transportation Office of Inspector General (DOT IG) report on the Academy's SAPR Program highlights gaps in prevention sexual assault and sexual harassment, as well as processes for evaluating the effectiveness of the program. The Academy has concurred with the ten recommendations made by the DOT IG to improve the program and is acting to address the recommendations. For example, the Academy is implementing a procedure for validating the Academy's data on reported sexual assault and sexual harassment incidents, which we expect to have finalized very soon. In addition, the Academy is working to improve communication of policies and procedures to all Academy stakeholders.

The Academy has also been focused on addressing the culture at the Academy regarding sexual assault and harassment. The LMI study completed in 2016 identified challenges in Academy culture in terms of inclusiveness, respect for differences, and empathy for victims of sexual assault and all forms of harassment. Sexual assault is a symptom of a culture that tolerates it and does not want to acknowledge or accept it as a problem. Tolerance can arise from peer pressure not to "get someone in trouble" and an absence of inclusiveness that signals a tolerance of these behaviors. This is a core issue that we must address. The entire USMMA community must have zero tolerance for sexual assault and sexual harassment, retaliation, bullying, hazing, coercion, victim blaming, and alcohol misuse/abuse. To begin, we have launched the "Be KP" campaign, which is a campus-wide effort led by Midshipmen, with support from faculty and staff, to focus on Academy values, enhance pride, and build a campus climate in which each individual is valued and has the opportunity to reach their fullest potential. Our approach is to re-emphasize the Academy's core values—Respect, Honor, Service—with the goal of eliminating signals of intolerance that are enablers for those who commit sexual assault and barriers to reporting for victims.

As we look to the future, there are positive trends at the Academy that we intend to build upon. Over the past few years, the quality and diversity of incoming classes has improved and we expect to see continued progress in this area. We are also making great strides in improving campus facilities. We have completed construction and outfitting of Zero Deck of the Midshipmen barracks to include additional fitness rooms, baggage storage for Midshipmen during Sea Year, a recreation center, and club storage and meeting places. The Academy's Wi-Fi network has been expanded to the barracks and new furniture has been installed in two of them. Additional surveillance cameras have been installed primarily in the barracks, the security command center has been upgraded, and improvements have been made across campus on drainage and paving. Thanks to a generous gift from the Academy Alumni Foundation, the gym floor has been refurbished. We have also replaced equipment in one of the gym's weight rooms. Looking ahead, funding provided in the recently passed FY 2018 Consolidated Appropriations Act, P.L. 115-141 will allow facilities improvements to continue, with \$45 million in funding for capital improvements and \$7 million for facilities maintenance, repair, and equipment. These increases will enable us among other things to accelerate the timeline to renovate and

upgrade our Midshipmen health service and athletic facilities, enhance campus lighting and vehicle access control, and continue work to repair the sea wall, roads, and parking areas on campus.

Thank you for inviting me to testify today. I appreciate your interest and continued support for the Academy and will be happy to answer any questions you may have.

Senator FISCHER. Thank you, Admiral.

Next we have Craig Middlebrook, who is the Deputy Administrator of Saint Lawrence Seaway Development Corporation.

Welcome, sir.

**STATEMENT OF CRAIG H. MIDDLEBROOK, DEPUTY
ADMINISTRATOR, SAINT LAWRENCE SEAWAY DEVELOPMENT
CORPORATION, U.S. DEPARTMENT OF TRANSPORTATION**

Mr. MIDDLEBROOK. Thank you. Chairwoman Fischer, Ranking Member Peters, members of the Subcommittee, thank you for the opportunity to testify today on the activities of the Saint Lawrence Seaway Development Corporation. It is an honor to represent the corporation and to appear today before the Subcommittee, and I would ask that my written statement be admitted into the record.

The SLSDC is a wholly owned government corporation within the U.S. Department of Transportation. It has an enacted Fiscal Year 2018 budget of \$40 million, which is appropriated primarily from the user fee-based Harbor Maintenance Trust Fund. Our mission is to operate and maintain the U.S. infrastructure and waters of the Saint Lawrence Seaway while performing trade and economic development activities to increase the utilization of the Great Lakes Saint Lawrence Seaway system.

The SLSDC operates and maintains the two U.S. locks in Massena, New York, and controls commercial vessel traffic in U.S. waters of the Saint Lawrence River and Lake Ontario. Since the Seaway opened in 1959, the SLSDC has partnered with Canada and the Saint Lawrence Seaway Management Corporation to accomplish its mission.

Since 1959, nearly 2.9 billion tons of cargo has transited the Seaway, including grain, iron ore, project cargos, and other bulk commodities. During the 2017 navigation season, the Seaway saw a 9 percent increase in overall commercial traffic, including a 25 percent increase in U.S. exports to foreign markets.

A ship transiting the Seaway crosses the international border 27 times. Because of this geographic fact, the U.S. and Canada created a bi-national approach to governing the Seaway. It was and remains a bold, optimistic, unique, and successful partnership. The Saint Lawrence Seaway directly serves an eight-state, two-province region that accounts for one-quarter of the U.S. gross domestic product, one-half of North America's manufacturing and services industries, and is home to nearly one-quarter of the continent's population.

The Great Lakes region is the world's third largest economy if the eight states and two provinces were considered as one economy, with an annual economic output of nearly \$6 trillion. Virtually every type of bulk and general cargo commodity moves through the Great Lakes Seaway system. A 2011 economic impact study of the system concluded that maritime commerce sustains annually 227,000 U.S. and Canadian jobs, \$35 billion in transportation re-

lated business revenue, \$14 billion in personal income, and \$5 billion in Federal, state, provincial, and local taxes. An updated economic impact study is currently being completed, and new data are expected to be released early this summer, and we will provide the Committee and subcommittee with that information.

The Saint Lawrence Seaway is one of the world's safest waterways, and that safety record continues to improve. The SLSDC has consistently maintained a 99 percent or better reliability rate for its locks. Our global customers rely on the Seaway and its exceptional record of safety, efficiency, and reliability.

Along with the U.S. Coast Guard, Transport Canada, and the Canadian Seaway, the SLSDC ensures strict ballast water management efforts to prevent any new introductions of aquatic invasive species via commercial vessels entering the Seaway. Since 2009, 100 percent of international vessels entering the Seaway have received a ballast water management exam. The Seaway's ballast water inspection program is recognized as a key factor in preventing the establishment of any new invasive species through ballast water in the Great Lakes since 2006, the longest such period of non-detection on record.

Congress authorized and began funding the Seaway's Asset Renewal Program, or, as we call it, ARP, in fiscal year 2009, and we provide Congress with an annual ARP progress report every year. Under the ARP program, the SLSDC has obligated \$139 million on 48 separate projects. In Fiscal Year 2017, the SLSDC obligated \$27.9 million on 11 ARP projects, including \$18.1 million to replace the SLSDC's 60-year-old tug and \$8.1 million for construction work on the new cutting-edge, hands-free mooring technology.

The Seaway's list of cutting-edge technologies implemented over the years is impressive. Currently, we and the Canadians are studying how to enhance our vessel traffic management system for the age of big data and algorithms. This technology could significantly enhance voyage planning and traffic management throughout the Great Lakes.

The SLSDC's enabling statute also provided general authority to undertake trade and economic development activities, and, to that end, we work to increase commercial trade through the Seaway and increase maritime-related jobs in the eight Great Lake states.

SLSDC activities in the budget request support the Secretary's priorities of safety, infrastructure, innovation, and mission efficiency. The Fiscal Year 2019 request level supports the SLSDC's core mission of serving the U.S. intermodal and international transportation system by operating and maintaining a safe, reliable, efficient, and competitive deep-draft waterway.

The Fiscal Year 2019 budget request also highlighted an administration proposal to examine the feasibility of privatizing or commercializing U.S. Seaway operations currently managed by the SLSDC. The Canadian Federal Government commercialized Canadian Seaway operations in 1998.

Next year, 2019, will mark the Seaway's 60th anniversary. For 59 years, the Seaway has been a model of bi-national partnership and one of the safest, most innovative, and reliable transportation routes in the world. With the investments being made in the Sea-

way by the U.S. and Canada today, it will remain so for many years to come.

Thank you again for this opportunity to appear before you today, and I am glad to answer any questions that the members of the Subcommittee may have.

Thank you.

[The prepared statement of Mr. Middlebrook follows:]

PREPARED STATEMENT OF CRAIG H. MIDDLEBROOK, DEPUTY ADMINISTRATOR,
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION, U.S. DEPARTMENT OF
TRANSPORTATION

Chairman Fischer, Ranking Member Peters, Members of the Subcommittee, thank you for the opportunity to testify on the activities of the Saint Lawrence Seaway Development Corporation (SLSDC). It is an honor to represent the Corporation and to appear today before the Subcommittee.

The SLSDC is a wholly owned government corporation within the U.S. Department of Transportation with an enacted FY 2018 budget of \$40 million. The SLSDC's annual funding is appropriated primarily from the user fee-based Harbor Maintenance Trust Fund, not from charging Seaway tolls to commercial vessels. The SLSDC's mission is to operate and maintain the U.S. infrastructure and waters of the St. Lawrence Seaway, while performing trade and economic development activities designed to enhance the utilization of the Great Lakes St. Lawrence Seaway System. The SLSDC is primarily responsible for maintaining and operating the two U.S. Seaway locks located in Massena, New York, and controlling commercial vessel traffic in areas of the St. Lawrence River and Lake Ontario. Since the opening of the St. Lawrence Seaway in 1959, the SLSDC has directly served the marine transportation industries by providing a safe, reliable, and efficient deep-draft international waterway, in cooperation with our Canadian counterpart, the St. Lawrence Seaway Management Corporation (SLSMC).

Over the last 59 navigation seasons, nearly 2.9 billion tons of cargo has transited the St. Lawrence Seaway, including grain, iron ore, iron and steel, project cargoes, and other raw and bulk commodities. During the 2017 navigation season, the Seaway enjoyed a 9 percent increase in commercial traffic, including a 25 percent increase in U.S. exports to foreign markets.

A ship entering the St. Lawrence Seaway at Montreal, Canada, and transiting to Lake Erie crosses the international border 27 times while passing through the St. Lawrence Seaway's 15 locks (2 U.S. and 13 Canadian). As a consequence of this geographic fact, when constructing the Seaway in 1954, the U.S. and Canada created a binational governance approach for the Seaway through an exchange of diplomatic notes, constituting a binding international agreement between the countries. It was and remains a bold, optimistic, and unique governance approach; all other U.S. inland waterways are operated and maintained directly either by the U.S. Army Corps of Engineers or the U.S. Coast Guard. Due to the geography of the St. Lawrence River and the importance of the sovereignty issues involved, the U.S. and Canadian Governments established a binational framework of civilian Federal oversight and control of this international waterway, which today is administered by the SLSDC and the Canadian SLSMC.

To carry out its mission, the SLSDC possesses legal authorities that distinguish it from other operating modes at the Department of Transportation and from most other Executive Branch agencies. The Wiley-Dondero Act of 1954 (Seaway Act), which created, and permanently authorized the SLSDC, incorporated authorities that were first put into law through the Government Corporation Control Act of 1945. The SLSDC was created as a corporation to manage this public infrastructure asset and provide a direct service to customers—moving ships safely and efficiently through a binational waterway. The succinct and efficient nature of the Corporation's enabling statute allows sufficient flexibility to manage its operations like a business. Some of the distinguishing attributes include the ability to make and carry out contracts or agreements (MOUs) as necessary to conduct business as well as the ability to acquire real and personal property and sell, lease, or dispose of such property. Together with its mission of providing 24/7 transportation services, these legal authorities help promote a culture within the SLSDC of accountability and customer service.

The deep degree of trust and operational cross-border interaction that has developed between the U.S. and Canadian Seaway entities over the past 60 years helps maintain a transit experience for Seaway users that is essentially seamless from a

ship captain's perspective. It is a remarkable achievement given the operational complexities and multiple jurisdictions that impact that transit. This close binational partnership is built on institutional and personal relationships, and everyone at the SLSDC works hard to maintain and enhance these relationships. The SLSDC's ability to achieve its mission is directly dependent on its success in sustaining and improving stakeholder interactions.

The St. Lawrence Seaway directly serves an eight-state, two-province region that accounts for one-quarter of the U.S. gross domestic product (GDP), one-half of North America's manufacturing and services industries, and is home to nearly one-quarter of the continent's population. The Great Lakes region is the world's third largest economy with annual economic output of nearly \$6 trillion.¹

Annual commerce on the Great Lakes Seaway System typically exceeds 180 million metric tons and serves U.S. miners, farmers, factory workers, and commercial interests from the Great Lakes region. Virtually every type of bulk and general cargo commodity moves on the Great Lakes Seaway System, including iron ore for the U.S. steel industry; limestone for construction and steel industries; coal for power generation and steel production; grain exports from U.S. farms; general cargo such as iron and steel products and heavy machinery; and cement, salt, and stone aggregates for agriculture and industry.

Maritime commerce on the Great Lakes Seaway System provides shippers with nearly \$4 billion in annual cost savings compared to the next least expensive mode of transportation.² The waterway also produces significant economic benefits to the Great Lakes region. An economic impact study completed in 2011 concluded that maritime commerce on the Great Lakes Seaway System sustains 227,000 U.S. and Canadian jobs, \$35 billion in transportation-related business revenue, \$14 billion in personal income, and \$5 billion in federal, state, provincial, and local taxes each year. An updated economic impact study is currently being completed and new data is expected to be released by early summer. The 2011 study significantly raised awareness about the importance of the Great Lakes Seaway System and this updated report will likely be equally impactful.

Safety/Reliability/Accountability

The continued safety and reliability of our waterway is the foundation upon which we can promote and accommodate increases in maritime cargo. The St. Lawrence Seaway is already one of the world's safest waterways and that safety record continues to improve. Over the last 20 years, the average number of vessel incidents in the Seaway has decreased significantly. An incident is defined as a situation that triggers an on-board inspection by one of the Seaway inspectors. It could include on board injuries and vessel damage. From 1996–2006, the average number of incidents was 19 per year. Over the next 11 years, from 2007 through 2017, the average number of incidents declined to only 6 per year. Despite the harsh weather conditions during this past year's closing period, 2017 was one of the safest Seaway navigation seasons on record with just 4 vessel incidents in the U.S. sector during the 298-day season. This positive development can be attributed to several factors including the implementation of a consolidated U.S.-Canadian Enhanced Ship Inspection (ESI) Program in Montreal in 1997, the development of the Seaway's Automatic Identification System (AIS) vessel traffic management technology, exceptionally skilled SLSDC lock operations and maintenance staff as well as professionals, including pilots and vessel officers and crews, and a major fleet renewal program implemented by many of the Seaway's customers.

In addition, since the Seaway's opening in 1959, the SLSDC has consistently maintained a 99 percent reliability rate for its locks and the U.S. sector of the waterway. The SLSDC calculates the reliability rate by subtracting delays (weather, vessel, and lock-related) from the total hours/minutes during the navigation season. The SLSDC manages the tabulation of this rate in-house and is not dependent on contractor data. This high mark of success is due primarily to the SLSDC's efficient management and operations of the locks and control of vessel traffic. Global customers from nearly 70 countries return each year to use the Seaway because of the waterway's strong safety record, efficient operations, and near-perfect reliability rate.

The Seaway also ensures strict ballast water management efforts to prevent any new introductions of aquatic invasive species via commercial vessels entering Seaway waters. In 2008, the SLSDC and Canadian SLSMC implemented regulations

¹ BMO (Bank of Montreal) Capital Markets Economic Research, Great Lakes-St. Lawrence Region Special Report, Spring 2017, page 1. Author, Robert Kavcic, Senior Economist.

² U.S. Army Corps of Engineers, Great Lakes Navigation System: Economic Strength to the Nation, January, 2009

jointly requiring all ships with no ballast in their tanks to conduct saltwater flushing of the empty ballast water tanks before arriving in the Seaway. The SLSDC, along with the U.S. Coast Guard, Transport Canada, and the SLSMC, formed the Ballast Water Working Group (BWWG) to enforce ballast water inspections of all vessels to ensure these regulations are carried out. The BWWG's inspection efforts are an SLSDC operational performance measurement and an annual summary report documents the group's inspections and findings. The report measures both the performance of the binational inspection team in inspecting the ballast tanks of incoming ocean vessels and the compliance by the oceangoing trade in meeting U.S. and Canadian ballast water management requirements.

In both cases, the results of this year's report are outstanding. In 2017, every ballast tank of every ocean vessel entering the Seaway was assessed. Of these 8,350 tanks, only 68 registered low salinity, which equates to a ship compliance rate of 99.2 percent. In those rare instances where salinity levels do not meet the standard, the ballast tanks are sealed and then re-inspected on the vessel's outbound journey to ensure that the tank was not used on its voyage in the Great Lakes. Since 2009, 100 percent of international vessels entering the Seaway have received a ballast water management exam. The Great Lakes Seaway System has one of the most stringent inspection regimes in world. The effectiveness of the Seaway's ballast water inspection program has been publicly credited as a key factor in preventing the discovery of establishment of any new invasive species through ballast water in the Great Lakes since 2006—the longest such period of non-detection on record.

Infrastructure Modernization

The locks, channels, and accompanying infrastructure of the St. Lawrence Seaway owned and maintained by the SLSDC are “perpetual” transportation assets that require periodic and regular capital reinvestment in order to continue to operate safely, reliably, and efficiently. In 2007, the U.S. Army Corps of Engineers completed a binational assessment of the infrastructure needs of the Great Lakes St. Lawrence Seaway System. That study laid foundational groundwork by identifying the specific infrastructure rehabilitation and modernization projects that were needed throughout the system. After 50 years of continuous operation with only minimal capital reinvestment, Congress approved the authorization and funding for the Seaway's Asset Renewal Program (ARP) beginning in FY 2009. Every penny of the ARP program is accounted for and we provide Congress with an annual ARP progress report. This program will enable the SLSDC to effectively manage the Seaway's assets for the next 50 years.

The projects and equipment included in the ARP address various needs for the two U.S. Seaway locks, the Seaway International Bridge, maintenance dredging, operational systems, and Corporation facilities and equipment. The start of the program marked the first time in the Seaway's 50-year history that a coordinated effort to repair and modernize the U.S. Seaway infrastructure had taken place.

During the ARP's first nine years (FY 2009–FY 2017), the SLSDC obligated \$139 million on 48 separate projects. Several ARP projects involve implementation of new innovations and improved technologies for the operation of the Seaway infrastructure, resulting in reduced maintenance needs and operating costs to Seaway users. In FY 2017, the SLSDC obligated \$27.9 million on 11 ARP projects, including \$18.1 million for the start of the SLSDC's tugboat replacement project and \$8.1 million for construction work for the Hands-Free-Mooring (HFM) system installation at Snell Lock. These are two of our largest planned capital and infrastructure projects, on which work continues in FY 2018.

The SLSDC's tugboat, the *Robinson Bay*, is 60 years old and is the SLSDC's primary watercraft for emergency response, ice breaking operations, navigation aid (buoy) placement/removal, and other operational activities, including moving the SLSDC's 300-ton capacity gatelifter crane barge. It is the only icebreaking asset stationed full-time in the region, and the replacement tug will have even greater icebreaking capabilities. Expenses incurred in maintaining the existing tugboat have increased significantly in recent years. We anticipate delivery of the new tug in the summer of 2019 and look forward to the greater operational and cost saving efficiencies it will bring.

The Seaway's HFM project is the first use of this technology for an inland waterway to safely transit commercial vessels through a lock system. The innovative technology allows commercial ships to transit safely and efficiently, while also enhancing workplace and operational safety conditions. It is estimated that HFM technology will reduce lock transit times by approximately seven minutes per lockage for each vessel, which equates to 3–4 hours of potential time savings on a roundtrip transit. HFM will be operational at all Seaway locks by the end of next year (2019).

Innovation

The SLSDC is always looking to leverage technology to improve system utilization. The list of cutting-edge technologies implemented, or soon to be introduced by the Seaway is impressive. It includes the Automatic Identification System (AIS), the Draft Information System (DIS), and the Hands-Free-Mooring technology. Mandatory Global Positioning System-based (GPS) Automatic Identification System (AIS) carriage became effective on the St. Lawrence Seaway on March 31, 2003. The Seaway became the first inland waterway in the western hemisphere to implement an operational AIS vessel traffic services system. All commercial vessels transiting in Seaway waters from Montreal to mid-Lake Erie are capable of ship-to-ship, ship-to-shore, and shore-to-ship communication under all weather conditions on a 24/7 basis.

A major enhancement to the AIS system occurred in July 2012 with implementation of the Draft Information System (DIS). DIS is an onboard technology, providing Seaway mariners with real-time information on current and projected distances between a vessel's keel and the river bottom using real-time, three-dimensional displays. The Seaway is the first inland waterway in the world to implement this technology. Vessels with DIS technology are permitted to sail at a draft of up to three inches above the published maximum, which could allow for transport of as much as 360 additional metric tons of cargo per voyage. In addition to increasing the productivity and economic competitiveness of the Seaway, AIS and DIS have greatly enhanced the safety and efficiency of the waterway and have improved Great Lakes Seaway System maritime security. By pairing these navigation technologies, precise vessel traffic management has been enhanced more than ever, and ships equipped with these technologies can travel the Seaway more safely and with more cargo.

The SLSDC and Canadian SLSMC are currently assessing how to improve and enhance our joint vessel traffic management system. We are studying how to enhance our existing AIS real-time data to generate precise arrival time calculations between a vessel's current location and waypoints critical to the safety and efficiency of the Great Lakes Seaway System. Ultimately, this technology could form the foundation of a more comprehensive traffic management system that could enable enhanced voyage planning and traffic management not only in the Seaway, but throughout the entire Great Lakes. Although still in the 'concept' stage, this technology innovation has exciting possibilities for Great Lakes Seaway System shipping.

Economic Development

The statute that created the SLSDC provided general authority for the Corporation to undertake trade and economic development activities and this is an important aspect of our mission. The SLSDC devotes resources to trade and economic development activities aimed at increasing commercial trade through the St. Lawrence Seaway and improving economic conditions in the eight Great Lakes states. The primary benefit is the stimulation of U.S. and Canadian port city economies through increased maritime industry activity, including services and employment to support maritime commerce. In 2015, the SLSDC designated a Great Lakes Regional Representative who leads this value-added service for the broad stakeholder community.

Initiative activities include facilitating new trade for Great Lakes Seaway System ports, conducting trade research and analysis to assist Great Lakes Seaway System stakeholders in identifying cargo trends and new business, participating in joint marketing efforts with our Canadian counterparts, promoting the Seaway System to prospective customers, and assessing the economic impact of Great Lakes Seaway shipping.

The SLSDC's trade and economic development activities were instrumental in the launch of the first regularly scheduled international liner service to a U.S. port on the Great Lakes since the 1970s. In 2014, the SLSDC joined the Port of Cleveland and the Dutch carrier company, the Spliethoff Group, in announcing and promoting the launch of the new Cleveland-Europe Express monthly liner service. It is significant in that these vessels carry containers as well as high-value cargoes into and out of the Lakes. The new service runs between the Port of Cleveland and Antwerp, Belgium, via the St. Lawrence Seaway. In 2015, the Spliethoff Group added a second monthly vessel to the program. This year marks the fifth year of operations for this service, and the Spliethoff fleet of vessels is making additional calls at ports throughout the Great Lakes Seaway System while sustaining its dedicated sailing schedule into Cleveland.

Working directly with Great Lakes ports, the SLSDC helps identify ways to increase tonnage traffic in traditional Seaway cargoes as well as in diversifying the types of cargo moving through their port. One example is the Seaway's initiative on increasing U.S. grain exports through the St. Lawrence Seaway system, which led

to a 21 percent increase in U.S. grain transiting the locks in the 2016 shipping season. Overall, during the 2017 navigation season, U.S. exports moving through the St. Lawrence Seaway to foreign markets increased 25 percent, as compared to 2016. In 2017, many U.S. Great Lakes ports identified, developed, secured and promoted new initiatives within their communities, providing new business opportunities that are benefiting their local and regional economies. The Port of Milwaukee, Wisconsin, is a prime example. Over the last several years, the Port, in coordination with the SLSDC, has developed a close working relationship with one of its private tenants, COFCO (formerly Nidera) to find ways to increase Seaway-related grain exports. From 2008 to 2013, only 8 total vessels shipped export U.S. grain from the Port of Milwaukee via the Seaway. Over the last four shipping seasons, however, that number has increased to 40 total vessels, averaging 10 Seaway vessels per year. As a result of these efforts, the Port of Milwaukee and the SLSDC have been able to better utilize the Great Lakes as a reliable maritime artery for commerce of Wisconsin agribusiness.

Likewise, the Port of Monroe, Michigan, is diversifying its cargo traffic and more than doubled its international cargo tonnage in 2017. Last year, the Port of Monroe handled the majority of components of Michigan's largest construction project in 2017, the Arauco Fiberboard Plant in Grayling, Michigan. The Port also constructed a new riverfront dock in 2017. The new dock capabilities, together with its partnership with Spliethoff to move project cargo, should provide for Seaway-related tonnage increases this year.

Additionally, international cruising activity is increasing in the Great Lakes. Two additional ships have been added to the inventory for a total of eight cruise vessels that have itineraries in the Lakes, in what will be the busiest cruise season since 2004. The increase in inventory will offer no less than 85 separate cruises between May and early November this year. The SLSDC continues to work with U.S. Customs and Border Protection to find ways to streamline passenger processing and bring more cruise vessels to more ports in the Great Lakes. Seaway stakeholders and customers alike are realizing the benefits from a modernizing vision of the Great Lakes and the added value the SLSDC and Great Lakes ports are providing to their communities and to the region.

Challenges

Water Levels—Water flows and levels can significantly impact the safe and efficient operation of navigation in the Seaway. In December 2016, the International Joint Commission (IJC), after concurrence by the U.S. and Canadian Governments, adopted a new water level plan for Lake Ontario and the St. Lawrence River, Plan 2014, which replaced the plan in place since 1958. This plan is the successful result of many years of extensive collaboration between and among the U.S. and Canadian governments, the IJC, and other stakeholders who depend on the economic as well as environmental health of Lake Ontario and the St. Lawrence River. The SLSDC was an active participant in the process that led to the adoption of Plan 2014. A part of the discussions that led to Plan 2014, it was recommended that a seat on the Board of the International Lake Ontario-St. Lawrence River Board be provided for DOT/SLSDC. The Board manages water flows and levels on the St. Lawrence River, and the ability for the SLSDC to participate as a Board member would be extremely helpful to our operations. However, this has not yet occurred. As we approach another season of anticipated high water levels similar to last year, there could be significant impacts on commercial shipping, as well as other stakeholders.

Pilotage—All international vessels entering the Great Lakes and St. Lawrence Seaway System (GLSLS) are required by U.S. and Canadian regulations to have a certified vessel pilot on board to assist the vessel's captain in navigating the vessel while transiting the GLSLS. The oversight of pilotage services is a state-regulated activity everywhere in the U.S., except for the Great Lakes, where pilotage is regulated by the U.S. Coast Guard Office of Great Lakes Pilotage pursuant to the Great Lakes Pilotage Act of 1960. In addition to overseeing the three U.S. pilot districts in the GLSLS, the U.S. Coast Guard also establishes the rates that the U.S. pilots may charge for the provision of their services to vessel owners. Changes in the rate adjustment methodology have been controversial and have been met with criticism, and litigation, from various U.S. and Canadian commercial navigation stakeholders. The availability and cost of U.S. pilotage services in the Great Lakes St. Lawrence Seaway System are crucial components of the overall safety and economic competitiveness of the System. It is essential that the availability of Great Lakes Seaway System pilots be maintained in a manner that ensures safety while promoting the competitiveness of the System.

FY 2019 Budget Request

For FY 2019, the President's Budget request includes an appropriation from the Harbor Maintenance Trust Fund of \$28.84 million to fund the operations and maintenance of the U.S. portion of the St. Lawrence Seaway as well as infrastructure-related projects included in the Seaway's Asset Renewal Program (ARP). The request for the SLSDC's Agency Operations program of \$19.11 million will fund all non-ARP activities and expenses, including all Corporation personnel compensation and benefits for 144 FTEs. For the ARP program, the request is for \$9.73 million for 19 projects, including \$5 million for the completion of the ongoing tugboat replacement project and \$2.5 million for the continuation of maintenance dredging in the U.S. sections of the St. Lawrence River. SLSDC activities in the budget request support the Secretary's priorities of safety, infrastructure, innovation, and mission efficiency. At the FY 2019 request level, the SLSDC will continue to perform its core mission of serving the U.S. intermodal and international transportation system through the operation and maintenance of a safe, reliable, efficient, and competitive deep-draft waterway. The FY 2019 budget request also highlighted an Administration proposal to examine the feasibility of privatizing or commercializing U.S. Seaway operations currently managed by the SLSDC. The Canadian Federal Government commercialized Canadian Seaway operations in 1998, resulting in greater operational efficiencies and enhanced customer service focus.

The SLSDC remains dedicated to safely and efficiently operating the U.S. portion of the St. Lawrence Seaway, while also promoting the economic benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology and innovation to enhance the system's performance and safety. Next year, 2019, will mark the Seaway's 60th Anniversary. For the past 59 years, the Seaway has been a model of binational partnership, ensuring that this international waterway is one of the safest, innovative, and reliable transportation routes in the world. With the investments being made in the Seaway by the U.S. and Canada, it will remain so for many years to come.

Thank you again for the opportunity to appear before you today. I am glad to answer any questions from Members of the Subcommittee.

Senator FISCHER. Thank you, Mr. Middlebrook.

Admiral Buzby, an important part of MARAD's work is understanding the pool of credentialed and available mariners for Sea Lift in times of war or national emergency. A recent report by the Maritime Workforce Working Group recommended replacing the U.S. Coast Guard's merchant mariner licensing and documentation system with a modern database capable of supporting high analytics so MARAD has a better understanding of the mariners available.

Do you concur in that recommendation, and can you provide any additional insight on how MARAD is working to improve its understanding of mariner availability?

Mr. BUZBY. Senator, thank you for the question, and the short answer is yes. I do concur with that. When we were researching to produce that report for Congress, we had a very challenging time interfacing with the Coast Guard database. The Coast Guard database does its mission extremely well, and that's to keep track of merchant mariner documents.

But it's an older program, and it makes it extremely difficult to try and mine useful information out of that in terms of not so much how many documents there are but how many people are attached to those documents. That information is very difficult to ascertain as it's currently situated. So a means to upgrade that program or at least have it interface with our programs more easily would be a great assist going forward.

Senator FISCHER. Thank you. This next question is for both Admiral Buzby and Admiral Helis.

Do you think that there are currently enough Federal and commercial vessels eligible and available for Sea Year training at the Academy? And is there an adequate variety of vessels available for Sea Year training, such as tanker or ferry operations?

Mr. HELIS. Thank you, Senator. I'll start with that. I would say in terms of sheer volume of vessels, first, we do not have the number of vessels or companies that we did prior to the stand-down, and we're continuing to work with the commercial companies primarily through the MARAD Shipboard Climate Compliance Team to encourage companies to apply so we can increase the number of companies and the number of vessels available. So we're continuing to work to increase the numbers. But right now, today, we have an adequate number of vessels to provide training for our midshipmen, and we are at about the same ratio of time on commercial versus Federal vessels as we were prior to the stand-down.

We have improved recently the diversity of training platforms by adding tanker companies. We've brought in a cable laying company, which adds to that. Ferries are still an issue that we don't have, and I think the administrator can address efforts that MARAD is having to bring ferry companies aboard. Some other platforms, like ocean-going tugs, were from the smaller companies. But, broadly, we do have enough vessels to get the training. We have an array of platforms to cover most of the major functions. But, again, we need to continue to increase the pool of vessels available for midshipmen.

Mr. BUZBY. I would concur. I believe that we have enough vessels right now to execute our mission. We're giving our midshipmen quality Sea Year experiences on U.S.-flag ships. Would we like more? Absolutely, we'd like more, and we're dedicated to working with the Maritime Ministry to bring more companies onboard.

We've modified the criteria slightly to reduce the administrative burden on becoming qualified. That immediately opened up several companies who came onboard. It's just a challenging time for them. Most of them are operating with small staffs themselves. So getting through this process is a bit of a challenge for some.

To the Admiral's point, we are sending members of my team out to Washington state and Alaska state next week to qualify those two ferry systems to bring midshipmen back onboard. So we'll have a large number of new ships, ferries, to bring midshipmen on board.

Senator FISCHER. Thank you.

Chairman Khouri, the last 10 years have seen major disruptions in the ocean carrier industry, such as the West Coast ports dispute in 2014 and 2015 and the bankruptcy of Hanjin Shipping in 2016. Can you talk about some of the lessons learned from these events and trends? Is the ocean transportation industry and the FMC prepared to address any future disruptions, and, if so, how?

Mr. KHOURI. Thank you. I don't want to try to say that the prolonged labor dispute that went on in L.A. and Long Beach starting in roughly late July–August 2014 and on into 2015 is a unique situation. Labor unrest pops up on occasion. I would say, in general, from my observations that labor harmony has come to be more the norm rather than the stress right now.

The Hanjin—I'll come back to the labor piece in a minute. The Hanjin bankruptcy—it's interesting. When a company goes into bankruptcy, the ships don't go away. And over the last year and a half or 2 years, a company from Korea that was already in the bulk industry carrying business bought the Hanjin ships out of bankruptcy—it's SM Lines—and just announced last week that they are initiating new service with that equipment that will be connecting China, Korea, Japan, and the Pacific Northwest. If Senator Cantwell and her staff are still here—they'll be calling on Seattle. So from an anti-trust regulator's perspective, it's what's called a "new entrant," which makes us smile. So the business shows itself to be resilient in that regard.

On one hand, Congress, when they did the 1984 Shipping Act, labor issues and labor contracts, et cetera, are specifically excluded by the Shipping Act from our jurisdiction. So it's hard for me to really make too much of a comment in that regard when it comes to labor.

In terms of congestion, in general, we did a survey with all of our regional representatives. We do not have any port congestion as we speak. But we recognize that it could come back and raise its head again.

Where we're having problems right now, Chairman, is not at the seaports, but we're finding problems in the inland legs of container shipping. We just had complaints in Dallas, Chicago, Detroit, where at the railhead end of shipments, there's a shortage of truck drivers and there's a shortage of chassis, and that American cargo owners are saying their equipment is getting stuck—or their cargo is getting stuck in these inland places in congestion.

So just last week, we issued letters of inquiry to a number of the carriers to say, you know, "What are you doing to solve these things?" And we're going to ask for a prompt response from that. Those are the tools that we have to work with, so we address it as promptly as we can when those things do arise.

Senator FISCHER. Thank you, sir.

Senator Peters.

Senator PETERS [presiding]. I think I'll defer to Senator Wicker—you have not voted—so that you'll have a chance to ask your questions, because I've already voted, so I can let you go forward, and then I'll follow up.

**STATEMENT OF HON. ROGER F. WICKER,
U.S. SENATOR FROM MISSISSIPPI**

Senator WICKER. That's very kind of you, and I do very much appreciate that.

Mr. Chairman, I have a statement here to the Committee signed by Christopher DeLacy on behalf of the Coalition For More Efficient Ports dated today, and I'd like to ask that it be admitted into the record at this point.

Senator PETERS. No objection. It'll be entered.

Senator WICKER. Thank you so much.

[The information referred to follows:]

PREPARED STATEMENT FROM THE COALITION FOR MORE EFFICIENT PORTS

Dear Chairman Fischer and Ranking Member Peters:

Thank you for holding this important hearing on the opportunities and challenges facing maritime transportation. As you are aware, both the Maritime Administration (MARAD) and the Federal Maritime Commission (FMC) play a crucial role in ensuring our Nation's port infrastructure is modernized to provide the United States with the opportunity to compete in international trade. However, challenges exist that too often prevent the types of infrastructure investment the United States desperately needs and we believe MARAD and the FMC need additional tools from Congress in order to fulfil their missions.

For MARAD, we believe a port specific infrastructure program at the Department of Transportation (DOT) is essential. Although port infrastructure is technically eligible under existing DOT programs such as INFRA, TIGER, and TIFIA, no port specific infrastructure program currently exists. One option the Subcommittee should consider is to fund the Port Infrastructure Development Program, which was created in the Fiscal Year 2010 National Defense Authorization (P.L. 111-84). This legislation tasked the Secretary of Transportation, through the MARAD Administrator, to establish a port infrastructure development program for the improvement of port facilities. Accordingly, we urge the Subcommittee to work with the Secretary and the MARAD Administrator on developing a port specific infrastructure program.

For the FMC, we believe U.S. infrastructure needs must be a key factor as the Commission works to ensure a competitive and reliable international ocean transportation supply system that supports the U.S. economy. It is no secret that ocean vessels continue to increase in size in a way that accelerates the need for U.S. port infrastructure upgrades. Accordingly, we urge the Subcommittee to work with the Commission to ensure it has all the tools it needs to facilitate infrastructure upgrades at U.S. ports.

Beyond today's hearing, as the Subcommittee works to help develop a national strategy to make crucial investments in America's national infrastructure, we urge the Subcommittee to be an advocate for America's ports. Outdated infrastructure at our Nation's ports threatens to interrupt the supply chain and ultimately the American economy. This critical infrastructure challenge must be met by increased public and private investment in U.S. ports.

As you are aware, ports play a vital role for our economy, serving as the gateway to over 90 percent of America's trade. According to the American Association of Port Authorities, during 2015, U.S. ports supported 23 million jobs and generated more than \$321 billion in tax revenue. According to the Business Roundtable, underinvestment in ports results in increased prices and lost economic opportunity—as much as tens of billions of dollars every year.

In addition to their economic impact, U.S. ports play a strategic role in our national defense and emergency preparedness. From Operation Enduring Freedom to recovery operations after Hurricanes Harvey, Irma, and Maria, America's ports help ensure the success of America's military and emergency responders.

Unfortunately, traditional Federal infrastructure funding programs are generally not comprehensive enough to support the size and scale of the investments needed at U.S. ports. Most port infrastructure investment is now made by private, state, and local sources—which means that investments often lack the necessary strategic and targeted approach that only the Federal Government can provide. This Subcommittee has an opportunity to recalibrate U.S. infrastructure policy to ensure the future success of U.S. ports in a way that is commensurate with their economic and strategic importance.

Our industry has a long track record of leveraging public investment with significant private dollars, and we stand ready to work with the Subcommittee, MARAD, and the FMC to address America's infrastructure needs.

Thank you for your leadership on maritime issues.

Sincerely,

CHRISTOPHER DELACY,

on behalf of the Coalition for More Efficient Ports.

Senator WICKER. Admiral Buzby, let me just quote a few sentences from this letter from the Coalition For More Efficient Ports. "For MARAD, we believe a port-specific infrastructure program at the Department of Transportation is essential. We urge the Subcommittee to work with the Secretary and the MARAD administrator on developing a port-specific infrastructure program." They

conclude on the second page of this letter, “Unfortunately, traditional Federal infrastructure funding programs are generally not comprehensive enough to support the size and scale of the investments needed at U.S. ports.”

I’m told there’s a backlog in current port infrastructure projects. Is that true? And, clearly, you haven’t had a chance to look at this letter. But what do you think of it at first blush, Admiral Buzby?

Mr. BUZBY. Thank you, Senator, for the comment. We have no shortage of good projects that come in every year to take advantage of TIGER grants and INFRA grants that my office handles from the port side, so we have to turn away many more than we get to fund. So I would say in answer to that part of the question there probably is a fairly large backlog of port projects.

Obviously, our ports are our entryways to our economy. They are critical to our economy functioning correctly, and they have to function efficiently and effectively to do that. That would suggest that we have increased emphasis in that area going forward, especially as many of our larger ports are aging and our infrastructure is aging, and we need to keep that efficient, especially with the larger ships coming in. We need to kind of keep a very close focus on that.

Senator WICKER. Are they making a good point about the traditional Federal infrastructure programs not being comprehensive enough in size and scale?

Mr. BUZBY. I can’t say that that is specifically true or specifically false. You know, just last year in TIGER IX that I participated in, we granted, I want to say, three fairly large projects, putting one in Baltimore just up the road that’s going to be quite extensive to expand—take the old Sparrows Point site. So it’s difficult to say conclusively. We still have avenues that we provide funding to ports with. But, of course, any time you have a specific program for a specific purpose—

Senator WICKER. You wouldn’t object to a port-specific program, would you?

Mr. BUZBY. I would not.

Senator WICKER. All right. Let me also just ask you with regard to the Maritime Security Program—I think you agree this program is important to our Nation’s strategic Sea Lift capability. Explain how the stipends received through the MSP work. And if participating companies were to leave the MSP, what negative effects could that have on the U.S. merchant mariner workforce?

Mr. BUZBY. Thank you, sir. The current program is authorized for 60 vessels, with the programs authorized and funded at \$300 million. So that equates to about \$5 million per ship, per stipend, per year. That is to help offset the differential, operating differential, of U.S. flag ships. In comparison to a similar size on a similar run international ship, it’s between \$5 million to \$7 million per year.

Senator WICKER. Is that adequate?

Mr. BUZBY. Right now, our operators say that that plus cargo preference keeps them operational. If you were to take away one or the other, our carriers tell us that they would not be able to continue forward.

Senator WICKER. Thank you very much.

And, Mr. Chairman, thank you for your indulgence.

Senator PETERS. Thank you, Senator.

Mr. Middlebrook, the Saint Lawrence Seaway directly serves eight states, including my own in Michigan. But it's an asset, certainly for the entire nation. Maritime commerce on the Seaway system provides shippers with nearly \$4 billion in annual cost savings compared to the next least expensive mode of transportation, and it sustains about \$35 billion in transportation-related business revenue.

Despite the Seaway's value and importance, many of the locks and dams, as you are well aware, on the Seaway are in need of major repairs, and I'd like to better understand the Corporation's use of the Asset Renewable Program to help identify and fund these needed improvements. So my question is: Is it correct that the projects identified through the Asset Renewable Program, which began in Fiscal Year 2009, were the first efforts to repair and modernize the Seaway in its 50-year history?

Mr. MIDDLEBROOK. Generally speaking, Senator, that is correct. I think up until 2009, the Saint Lawrence Seaway Development Corporation and its Canadian counterparts on their side did basically as good a program as possible without major funding to maintain the locks to the extent they could.

The Seaway locks and channels are renewable assets. Traditionally, infrastructure of that nature has a working life of about 50 years, and with the implementation and approval by Congress of the Asset Renewable Program in 2009, we have been able to invest almost \$140 million, I think, or \$139 million over the last 9 years. This is the tenth year of the program.

And you're correct to identify that it's not only about rehabilitation, so it's not only about repairing or bringing back up to a current state of repairs of existing infrastructure. It also includes modernization—and I can go into some of those projects—but beginning with, in the early part of the program, converting the mechanisms from mechanical to hydraulic on the lock doors right up to our current implementation of what really is cutting edge technology called hands-free mooring, a new way to more safely and efficiently lock vessels into the locks.

I would point out as well it's a bi-national system, and the Canadians are doing their part as well, and they have been for the last 10 years. They have invested well over half a billion, over \$500 million, in their locks. So when you add up the collective investments by the U.S. and Canadian governments, it's well over \$700 million in that regard.

Senator PETERS. Well, so that's what you've done since the program began in 2009.

Mr. MIDDLEBROOK. Yes.

Senator PETERS. What more needs to be done? What sort of costs are we looking at? What are some of the major projects that you're focused on?

Mr. MIDDLEBROOK. As I mentioned, right now, we're implementing a new technology, hands-free mooring technology. All the Canadian locks are now equipped with it, or 11 of their 13 locks are equipped. They're not going to equip the other two for various reasons. We are in the process of completing that project. We'll be finished by the end of this year at Eisenhower Lock with the full

installation of that technology, and we'll be finished next year at our other lock, at Snell Lock. That technology, very briefly, will radically change the way that we can more efficiently and more safely lock vessels through our locks.

We have floating plant—we have a 60-year-old tug which installs the—aids the navigation at the beginning and at the end of each season. We're currently in the process with this funding to construct a new tug, down in Louisiana, to do that.

We also have responsibility for an international bridge crossing, the Seaway International Bridge between Canada and the United States, and we have used ARP funding in that project as well. We're using it to completely rebuild our miter gate lock doors, our maintenance dredging of our channels, and renew our waterborne fleet, among other things.

Senator PETERS. Great. Thank you. I'll have more questions for you in the second round.

Senator Hassan.

**STATEMENT OF HON. MAGGIE HASSAN,
U.S. SENATOR FROM NEW HAMPSHIRE**

Senator HASSAN. Thank you very much, Senator Peters.

Welcome and thank you to our panelists for being here this afternoon, and for the work you do for our country.

Admiral Helis, I wanted to start with a question to you about the Academy. Obviously, our Merchant Marine Academy represents one of the most specialized educational institutions in the country, and you've talked a little bit today about the steps you've been taking to make it a safer place for all students there. But the Academy's mission is to educate and graduate licensed merchant mariners and leaders to serve in America's marine transportation and defense roles. I believe that you all should be doing everything you can to recruit students from a broader and more representative pool of applicants.

So I just wanted to start with getting some baseline information. What percentage of the Merchant Marine Academy students are women, and what percentage of the student body are people of color?

Mr. HELIS. Thank you for the question, Senator. Right now, we're at about 16 percent women, and we're at about 24 percent of other minorities. For this year's class coming in, as of yesterday—and, again, the close date for accepting admissions is 1 May—we've had 199 acceptances. We have 108 offers remaining out. Of the 199 acceptances, 56 are women. That would be a record number for women coming into a class in the Academy. We expect that number to go up over the next week, because of the 108 offers still out, a number of them are women.

So we're expecting that this year, we should set a record number for women. We did that in 2014, 2015, and 2016, 3 years consecutively. In 2017, we saw a dip in the number of women. We've seen it rebound to a higher level than we had before. So we've made some very deliberate efforts to recruit a more diverse student body.

One of the tools we have used are the Secretary of Transportation's discretionary appointments, which are, by statute, designed to increase the—to improve the demographic balance at the Acad-

emy. We appreciate the Congress increasing that number from 40 to 50 a year ago. That has enabled us to, again, continue to recruit amongst women.

On the side of minorities, we are a little bit down from last year. We have seen a dip this year, at least to date, in the number of Hispanic applicants. We've seen an increase in the number of Pacific Islander. We're about remaining level with African American, Asian, and others. I don't have an explanation for why we've dipped in Hispanics this year. It's something that we're going to have to dig into as we go forth in recruiting.

But, again, to roll back to five or 6 years ago, we were at about 20 percent to 21 percent minorities. So we have—again, 2014, 2015, and 2016 were very good years for diversity in the classes. Last year, we also saw a dip, but we're seeing recovery this year. And it is something that we do put an emphasis on—is that we have to have a more diverse regiment of midshipmen, and we have to create a culture that is more inclusive and more welcoming.

Senator HASSAN. Well, I agree, and I also think, obviously, when a whole subset of a potential workforce don't feel welcome at a place or aren't recruited and encouraged, we're leaving some great talent on the sidelines. So I thank you for your efforts and would look forward to continuing to work with you on the issue of more diversity at the Academy.

I had one other question for the panel, this one about the Jones Act. For almost 100 years, since the Jones Act was passed in 1920, ships that are owned and crewed by U.S. citizens have transported the Nation's domestic cargo between U.S. ports to U.S. island territories. What have been the primary benefits of the Jones Act for U.S. workers in the maritime economy, and for our national economy? And then I'd also like you just to address what would happen to the industry, to mariners, and to the U.S. maritime sector if Jones Act protections were removed and foreign flag ships entered the domestic maritime trade?

We could just maybe start with you, Mr. Khouri, and move down.

Mr. KHOURI. Thank you. My relationship with Jones Act trade comes very early in my career when I served on Jones Act ships. From the Federal Maritime Commission's perspective, which I represent today, we have no jurisdiction in that area, so it would be difficult for me to really add or detract.

Senator HASSAN. OK. Well, then, Mr. Buzby?

Mr. BUZBY. Ma'am, I'm happy to speak to that. Words such as vital, critical come immediately to mind. The 100 large Jones Act ships that are sailing today form the basis for the majority of U.S. mariners that we have under U.S. flag, so it's absolutely critical not only to the ships themselves, which we need, and to the mariner workforce, but to the ship repair and construction industry that also supports our government ship construction and repair. It's vital across the board. We've got to have it.

Senator HASSAN. Thank you. Admiral?

Mr. HELIS. Senator, mine would go back to Senator Fischer's earlier question. We extensively use Jones Act ships. We train our midshipmen on U.S.-flag vessels. Were those to go out and foreign flag—the number of training platforms we'd have available would drop dramatically very quickly.

And, second, to the Administrator's point, one reason we are able to attract high-quality students is because of the opportunities they have for service as merchant marine officers, service in the armed forces. If those jobs went away in the Jones Act, it would be much more difficult to recruit students because, frankly, the jobs for them would not be there. Right now, the opportunities are a big attractor. So it would have a definite impact on our ability to accomplish our mission.

Senator HASSAN. Thank you.

I know I'm a little over, Senator Peters, but could we ask Mr. Middlebrook if he wants to chime in?

[Nonverbal response.]

Mr. MIDDLEBROOK. I would just say, Senator, that for the Great Lakes Seaway system, the maritime industry is a three-legged stool there, the three different fleets. It's the U.S.-flag fleet, Canadian flag fleet, and international, and the U.S.-flag fleet is a vital component of the economic benefits that accrue to our country as well as to Canada.

Senator HASSAN. Thank you very much.

And thank you for your indulgence, Senator Peters.

Senator PETERS. Thank you.

Senator FISCHER [presiding]. Thank you, gentlemen.

For the second round of questions, I'd like to ask this question for Admiral Buzby and also Chairman Khouri. Port congestion continues to affect many stakeholders utilizing our ports, including ocean carriers, truckers, and shippers. Can both of you talk about the work that MARAD and FMC are doing to increase efficiencies at our ports?

Mr. KHOURI. Thank you for the question. We are currently working on a—let me go back. You mentioned it in your opening statement, Chairman—Commissioner Dye's Port Efficiency Teams, and I think that report was delivered in December of last year, if I remember. And the observations that came out of that—I mean, many, many stakeholders from every aspect of the maritime industry participated in those teams, and the findings were that—Admiral Buzby talked about the infrastructure and capital issues there.

But his written testimony, I noticed, also includes technology, and this was the findings in Commissioner Dye's teams, is that technology is going to be the key to finding more efficiencies through our ports, where when a ship is loaded in Hong Kong or Shanghai, that information is transferred over to the terminal where it's going to berth in either L.A. or Long Beach, and they know where every single box is on that ship of 12,000 boxes and the order it's going to come off, and that the truckers can be queued in—it's this kind of efficiencies that are going to have to be brought into the system.

There's only so much money you can put into a fixed footprint of acreage, and we're going to have to find ways to get more efficiency out of the acreage that we have in these ports. So we are currently working, as I mentioned in my testimony, on a congestion effort. Commissioner Dye is, as we speak today, is in China on a bilateral treaty mission. But she's coming back directly to Los Angeles, where she's going to be having meetings on these new congestion initiatives.

So those are the things that we're doing right now. Obviously, we don't have grant-making authority. So with that, I'll turn it over to the Admiral. Thank you.

Mr. BUZBY. Madam Chairman, as we look at ports in the Maritime Administration, the big thing we're really focusing on going forth is, much as Chairman Khouri said, efficiencies. Because of the age of a lot of our ports and the way they were kind of kluged together over the years, the connectors from those ports are wanting in many cases, and, by this, I mean the rail connections, highway connections out of the ports, and, more importantly, the waterway connections.

You know, the waterways—the barge traffic out of these ports—is the only real area where we have more capacity left to develop. We're getting kind of limited on our rail side and the highway side. But to maximize all of those connectors out of that port and, obviously, the access through channel depths, that sort of thing, into the ports making that flow more efficient is critical.

I was just down in Savannah not too long ago. They just inaugurated an entirely new rail project down there to help that flow in the future. It's a very large, growing port, and it's an example of how they're looking forward.

Senator FISCHER. Thank you.

Admiral Helis, I continue to be concerned about the Academy's ability to respond to and also prevent sexual assault and sexual harassment. I was particularly troubled by the September 2016 alleged incident involving the Academy's soccer team. As you know, this March, the Department of Transportation Office of the Inspector General recently released a report showing that of the 138 recommendations made to the Academy to improve its efforts to respond and prevent sexual assault and sexual harassment, only 62 of those recommendations have been closed.

Could you please outline for the Committee how the Academy will prioritize the implementation of these recommendations?

Mr. HELIS. Thank you, Senator, for the question. I would go back to my opening statement that we are fully committed to eliminating sexual assault on the campus. We're continuing to put more resources toward the issue in terms of increasing the number of staff, increasing the focus that we're placing on the issue.

As we look at the Office of the Inspector General's report, at their recommendations, they're very broad in some ways, and we are at this point going through a complete review of all of our policies and procedures for sexual assault, both prevention and response. Our intent there as we go through this review of policies is to do a better job synchronizing them, making sure that they're better aligned, and identifying any gaps in the policies, as the OIG recommended, and to plug those as we do the policy. So that is the first piece, is to make sure that all of our policies are thoroughly aligned.

Among the recommendations, some of these, honestly, are long-term recommendations, you know, making—a number of them that are not closed out relate to changing the culture, and that, candidly, is going to take years. But we have to put a priority of effort to those, because that is going to be core to addressing the problem, is changing the institutional culture. So that has moved to the top

of our list in terms of priority, but it is one that's going to take a very long time to implement.

Senator FISCHER. Thank you, Admiral. We will continue to monitor this situation and, hopefully, look for improvements to happen that don't take years. Thank you.

Senator Peters.

[Nonverbal Response.]

Senator FISCHER. Senator Peters is going to yield to Senator Capito.

**STATEMENT OF HON. SHELLEY MOORE CAPITO,
U.S. SENATOR FROM WEST VIRGINIA**

Senator CAPITO. Thank you, Senator Peters and Senator Fischer, for yielding to me. I'll take it.

I want to build on Senator Fischer's question to you, Admiral Helis. You testified before the Committee about preventing sexual assault and harassment. You mentioned in your opening statement and also in your response that you're working to make improvements and adhere to the recommendations.

I believe one of the recommendations was a position called Sexual Assault Prevention and Response Program. That position obviously would be charged with overseeing the responses, and it also notes that you have an expected hiring of an attorney for this. I would like to know what has taken so long? My understanding is you haven't filled this position. Is there a problem? Is it lack of applicants? Is it lack of interest? Or is it—have you just sort of been dragging your feet on this?

Mr. HELIS. Senator, for the second Victim Advocate Prevention Educator for that—of the four positions in the Sexual Assault Program Office, one is vacant, the second Victim Advocate Prevention Educator. We had a failed search for that. We did not get a successful applicant. We had to re-advertise, and so that's been the cause for the delay. But we do have someone identified that we expect to be on board this summer. So that would fill—

Senator CAPITO. Will that make a full contingent?

Mr. HELIS. That would make a full contingent of four in the office. For the Victim Advocate Attorney, or the Special Victim Advocate Attorney, this was a new position. There is no analogous position within the Department of Transportation, and so there was a time that we had to spend carefully crafting what the position requirements would be, what the skill sets would be, and we couldn't perfectly model it off of the Department of Defense, because the special victim counsels in DOD operate—because DOD operates under UCMJ, a different legal structure. So it would have to be a slightly different position.

The position is now advertised. I believe the ad closed yesterday, so we should begin moving into the interview and selection process shortly.

Senator CAPITO. Well, that's good news. You know, I think, obviously, being made aware of the issue with the soccer team and some of your actions in reaction to that, I think having proper staff in place obviously—and if you're ever going to get a full contingent or at least a partial contingent of women—but understanding that

these sexual assaults are gender neutral—that it happens on both males and females—it is extremely important.

You also have an opening for your new Academic Dean at the Academy. Could you speak to us about that and what kind of progress you're having there?

Mr. BUZBY. Ma'am, if I could take on that one—

Senator CAPITO. Yes. Thank you.

Mr. BUZBY. We are in the final throes of interviewing the last three or four people. The next level of interview will come to me. I will make that selection, and we expect to do that within the next week or so.

Senator CAPITO. Is that a replacement of a long-term Academic Dean or—I don't know the history behind that.

Mr. BUZBY. We have currently, right now, a GS-15 Dean who's been there. For the last several years, there has been a rotational dean through there out of faculty. We're reinstating this as an SES position, who will be a Dean and Provost. So we're upping the stature of that position to have a more focused set of responsibilities with faculty and the curriculum.

Senator CAPITO. OK. Good.

My last question is on the Sea Year Program. I understand it has been reinstated and that you have a number of companies that have partnered on this. Can you elaborate on the progress and the challenges in restoring that Sea Year Program?

Mr. HELIS. Yes, Senator. Thank you for the question. Currently, we have 17 companies that are certified as eligible to host midshipmen during their Sea Year training. We have restored the balance of days that midshipmen spend on commercial vessels versus Federal vessels to that which we had prior to the stand-down. So that has been normalized.

Lately, we have added companies to the program that have brought tankers in, that have brought in cable-laying ships. Within a few weeks, we hope to have a couple of ferries from the West Coast aboard. So we are increasing the array of different training platforms available to midshipmen.

We are not at the number of companies and vessels we had prior to the stand-down. We're continuing to work to bring in more companies, make more vessels available, but as of today, we have an adequate number of vessels and diversity of vessels to accomplish the mission of preparing our midshipmen to present for their licensing exams.

Senator CAPITO. Thank you.

And thank you again for the time. Thank you.

Senator FISCHER. Thank you, Senator Capito.

Senator Peters.

Senator PETERS. Thank you, Madam Chair.

Mr. Middlebrook, in your testimony, you touched on pilotage rates, an issue that I've heard from a number of constituents about. The oversight of pilotage rates is a state regulated activity everywhere in the United States except in the Great Lakes, where for the last several years, the Coast Guard has set rates. As you know, the Coast Guard's methodology has been contentious and has also led to increased rates across the Great Lakes.

Could you explain for the Committee how the availability and cost of U.S. pilotage services affect the overall safety as well as the economic competitiveness of the system?

Mr. MIDDLEBROOK. Certainly, Senator. Thank you for that question. There are a few stakeholders who are involved with maritime commerce on the Great Lakes Seaway System, particularly as it deals with international commerce, that are more important than pilots. As you know, every international vessel that enters the Seaway, both the U.S. and Canadian pilots board those vessels. They have the local knowledge of the different waters to pilot them through. So, first and foremost, they have a direct impact on the safety of the system, and when you look historically at the excellent safety record of the Great Lakes Seaway System, they play a very vital role in maintaining that track record.

The system is also primarily a bulk commodity system, and low value bulk commodities that move on that. So it doesn't take much to impact economic decisions on how cargo will move, whether it will move by mode or whether it will move geographically. Balancing those two issues, availability of pilots and the cost of pilots, is the balance that the Office of Great Lakes Pilotage at the U.S. Coast Guard works to maintain, and we rely on the U.S. Coast Guard to do that.

Several years ago, as you mentioned, they did modify their existing methodology, rate-making methodology, and I think it has taken a number of years for all parties concerned—the Office of Great Lakes Pilotage, international carriers, the industry, as well as the pilots—to work through that. Part of the aim, as I understand it, of the methodology was to increase the availability of pilots.

However, traffic through the Seaway, chronologically, over the course of the year, is not uniform. There are times when there are peak times, and there are times when there are troughs. So, again, that is a very unique and difficult balance that they have to maintain.

I think what's interesting in the approach, just to add to that, is that there are different models out there about how different entities oversee pilotage, and I would just—I would provide—the Canadian example is it allows for more direct negotiations between the service providers, the pilots, and the service users, the commercial entities, to negotiate, ultimately, the rates on that. The current system on our side—parties provide the information to the Coast Guard, and the Coast Guard acts as the rate-making regulator on that.

But, yes, you are correct. They have a vital impact on both safety and on the competitiveness.

Senator PETERS. Mr. Middlebrook, your testimony also noted that the Corporation's annual funding comes primarily from the Harbor Maintenance Trust Fund and not from charging tolls to commercial vessels, yet the Administration's 2019 budget indicates that, and it seems to be the case with most of the Nation's infrastructure that the Administration is studying the option of commercializing portions of the Seaway, presumably, than charging tolls on the Seaway.

The budget doesn't define commercialization. But do you believe tolls are under consideration at this time? Is that something you're actively looking at?

Mr. MIDDLEBROOK. Well, the study hasn't gotten underway yet, Senator, and the Administration's budget proposes a study to include questions just like that that you pose, what would be the best way to generate revenue to support the Seaway, whether that's— one area of inquiry is privatization, where the public assets would be sold or long-term leased to a private entity or, in the commercialization case, the assets would remain owned by the U.S. Government, but they would contract with an entity to maintain those.

You're right. One of the very key questions is how to effectively— and not to adversely affect the competitiveness of the system—generate sufficient revenue for a new model to operate and maintain the system. We are currently user fee-based. It comes from an ad valorem tax, as you point out, on the Harbor Maintenance Trust Fund, the Harbor Maintenance Tax. We do charge some tolls on certain types of commercial traffic, but, uniformly, it is based on the ad valorem tax of the Harbor Maintenance Trust Fund.

That will certainly, I would imagine, be a very key question on any study once it gets underway, is how do you preserve the efficiency and the effectiveness of the current wholly owned government corporation approach if you go down the commercialization or privatization approach without damaging the competitiveness of the system.

Senator PETERS. My understanding is the study does not have any congressional authorization. It's being paid for with existing agency funding. Is that correct?

Mr. MIDDLEBROOK. Well, actually, in the Fiscal Year 2018 omnibus report, there was language that prevents the expenditure of any Fiscal Year 2018 funds from undertaking a new study such as this one. So right now, no funds are being expended in that regard.

Senator PETERS. So the study is not going forward, though?

Mr. MIDDLEBROOK. At this time, right now, it is not.

Senator PETERS. In terms of the question of tolls, right now, the Port of Norfolk or Long Beach—you don't pay a toll to use those port facilities. Why should a vessel calling on Detroit be put into a different economic position and probably an economic disadvantage with tolls?

Mr. MIDDLEBROOK. Again, a very key question, because right now, they do—the Harbor Maintenance Tax is a tax that's paid by the shipper, not the carrier. In the case of tolls, that would be the carrier that would pay that tax. There is a fee associated with commerce, U.S. directed commerce in the Great Lakes Seaway System. It just doesn't happen to be primarily toll-based. The Canadians, on their part, still charge regular tolls on the carriers that come through.

So the policy question becomes: How do you impose the necessary costs to maintain that system? The last time that there was a consideration of re-imposing tolls on the Seaway, that very question that you pose came up: How do you find a way between the Harbor Maintenance Trust Fund and potentially any new tolls to make that work? And there were different discussions, both in the discussion of the bill with the Congress and the Administration, of

waiving Harbor Maintenance Tax proposal, or the tax on cargo, at that time. That, ultimately, was not successful. Tolls were not re-imposed on the U.S. Seaway. But you put your finger on a very important question, not to have double costs imposed.

Senator PETERS. Well, I hope a key part of your position is to make sure that the Seaway is competitive and that we can increase trade into the heartland of America through the Great Lakes, particularly at a time when our coastal ports are at capacity and require substantial investments. To be able to move cargo right into the heartland of the United States using the Seaway seems to me a very cost-effective way of increasing maritime trade. Would you agree, and is that a principal focus of your work?

Mr. MIDDLEBROOK. Thank you for saying so. I would agree, absolutely. I mentioned earlier that the Canadian and U.S. governments have invested over \$700 million in the infrastructure, on the respective infrastructures. I would also add—and it's in my written testimony—that the private sector on both sides of the border has invested upwards of \$6 billion in various forms, so almost \$7 billion of investment that has gone into the system.

For us, that the private sector as well as the public sector is expending real money, significant money, shows that they believe in the need for the system, the competitiveness of the system, and the viability of the system. We are operating at only about 50 percent capacity, so there is room to grow there and to work cooperatively with other modes and other waterways to better align the nation's transportation system.

Senator PETERS. Great. Thank you.

Thank you, Madam Chair.

Senator FISCHER. Thank you, Senator Peters.

I would like to thank our witnesses today for being on the panel. Your information has been very helpful to us, and I would remind you that the hearing record will remain open for two weeks. If Senators have questions, they will be submitted to you in writing, and we ask that you respond promptly.

Thank you very much for the testimony today, and with that, the hearing is adjourned.

[Whereupon, at 3:50 p.m., the hearing was adjourned.]

A P P E N D I X

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN THUNE TO
HON. MICHAEL A. KHOURI

Question. In April, the members of the West Coast Marine Terminal Operators Agreement (WCMTOA) at the Ports of Los Angeles and Long Beach submitted their amendment outlining changes to the PierPass program on file at the Federal Maritime Commission. The proposal includes moving from the original model that charged fees for daytime terminal access to a fee system with mandatory appointments and charges to all cargo, regardless of the time of day.

a. In the course of its preliminary review of the agreement, does the Commission believe the proposed changes would still meet the original congestion mitigation goals of the PierPass program?

Answer. Agreements filed with the Commission for review under the Shipping Act of 1984 include a wide variety of authorities for collective activity designed to allow agreement parties to achieve different objectives in various ways. In the instant case, the proposed changes to the PierPass program would (1) change the current traffic mitigation fee (TMF) to a flat fee, and (2) implement an agreement-wide truck appointment system. According to the agreement parties, these changes are targeted at continuing the West Coast Marine Terminal Operator Agreement's (WCMTOA) goal of combating truck congestion in the San Pedro Bay (Port of Los Angeles and Port of Long Beach) area.

While the filing party's objectives vary from agreement to agreement and the means employed to achieve such objectives likewise vary; in its review of any filed agreement, the Commission is statutorily limited to a primary issue—the effect of the agreement on competition in the ocean freight context. The Commission evaluates filed agreements based on the standard set forth in the Shipping Act of 1984. This standard—the “6(g) standard”—allows the Commission to take action against agreements that “are likely, by a reduction in competition, to produce an unreasonable reduction in transportation service or an unreasonable increase in transportation cost.”

Agreements filed with the Commission go into effect automatically in 45 days unless the Commission determines that the agreement is anticompetitive under the 6(g) standard. In order to prevent the agreement from going into effect, the Commission must bring a civil action in the United States District Court for the District of Columbia to enjoin the operation of the agreement. The burden of proof is on the Commission.

This focused multi-step analysis and review by the Commission requires sufficient information for the Commission to make a determination of the agreement's impact on competition. Because the Commission determined that it needed additional information to fully and appropriately analyze the competitive impact of the changes to PierPass requested by WCMTOA, the Commission requested additional information from the agreement parties necessary to conclude its competition analysis under the 6(g) standard. This action postponed the effective date of the proposed agreement amendment until 45 days after the agreement parties submit the requested information.

Based on the above discussion, the Commission has not developed an opinion on whether the proposed changes to the agreement will meet the original traffic congestion mitigation goals of the PierPass program. PierPass management has published third party consultant reports that conclude that the proposed appointment system will continue to spread truck traffic across all terminal gate operating hours, thereby mitigating congestion. Further, please see our response to question 2, below.

b. Has the Commission previously undertaken a review to determine if the current PierPass program has substantially reduced congestion? If so, what were the findings of the report?

Answer. As noted above, in its review of any filed agreement the Commission is statutorily mandated to focus on a single question—the effect of the agreement on

ocean transportation competition. The Commission may only take action against agreements that “are likely, by a reduction in competition, to produce an unreasonable reduction in transportation service or an unreasonable increase in transportation cost”—the “6(g) standard.” The Commission monitors the activities of WCMTOA and the PierPass Program and reviews data about the TMF to determine any effect on transportation cost and services.

PierPass senior managers have provided the Commission with annual updates on various San Pedro Bay port performance measurements, including gate utilization statistics for the day, night and weekend shifts. Based on those PierPass reports, approximately 42 percent of former day traffic now uses the night/weekend gate shifts.

The Commission is concerned generally with supply chain issues, including overall port congestion, that undermine supply chain efficiencies in our international oceanborne commerce. In 2014, as a response to reports of problems with port congestion, the Commission held four separate one-day listening sessions in different regions of the country—New York/Mid Atlantic area, Hampton Roads through South Atlantic area, Gulf Coast area, and West Coast ports—to investigate and hear first-hand the problems that ports, their customers, and other partners in the U.S. intermodal system were facing as a result of problems brought on by contemporary developments in container liner shipping.

Following those listening sessions, the Commission’s Bureau of Trade Analysis (BTA) issued a comprehensive eighty-three-page summary report of the proceedings at these FMC port forums—“U.S. Container Port Congestion & Related International Supply Chain Issues: Causes, Consequences & Challenges.” Though not exclusively focused on PierPass or the TMF, a section of the BTA overview titled “Extended Hours, PierPass, and Congestion Pricing” highlighted the efforts of the San Pedro Bay ports to address and mitigate congestion—both truck issues outside of the port gates, and container/truck/chassis issues inside of the terminals. The report reflects the stakeholder discussion at the listening sessions about this subject and outlines stakeholder suggestion and proposed fixes. A copy of the relevant portion of the 2015 summary report is attached.

ATTACHMENT

EXTENDED HOURS, PIERPASS, AND CONGESTION PRICING

Framing the issues

Extending the hours that terminal gates are open to truck traffic is one method by which truckers could conceivably increase the number of turns they are able to make in a shift. However, except in unusual circumstances, there are few examples of permanently extended gate operations at terminals in U.S. ports.⁹⁴ Marine terminals do not typically accommodate cargo pick-up and delivery outside of daytime weekday hours primarily because of longshore labor costs. Longshore labor contracts provide for differential shift pay, overtime pay, minimum hour guarantees, and minimum size of labor work units. Terminal operators strive to keep cargo pick-up and delivery activities to a single day shift because to do otherwise would raise their operating costs significantly.

In most places outside of the SPB ports, evening and weekend operating hours are typically limited to special arrangements with an ocean carrier or preferred customers moving large numbers of containers. Another reason for the widespread absence of extended gates is said to be resistance from drayage drivers and some customers.⁹⁵ Off-peak work, for example, means an extended work day for the truck driver or a shift in the driver’s schedule to a less family friendly night shift. Warehouses, distribution centers, manufacturers, and steamship line help desks, also must be available to help process cargo during off-peak hours and, in some locations, zoning ordinances prohibit night or weekend deliveries.

The first large scale, permanent extended-hours program was implemented ten years ago at the ports of Los Angeles and Long Beach. However, several precursor schemes preceded the eventual launch of permanent extended gates at the SPB ports. Between 2000 and 2004, the two SPB ports experienced rapid growth with container volumes expanding by 32 percent.

⁹⁴Transportation Research Board, National Cooperative Freight Research Program (NCFRP) Report 23, *Synthesis of Freight Research in Urban Transportation Planning*, p. 52. Washington, D.C. (2013).

⁹⁵Ibid.

Numerous groups in the local community benefited by this surge in growth, but other groups were negatively affected. Motor carriers encountered longer queue times to pick up or drop off containers. Likewise, large retail importers incurred significant problems moving their import containers from the terminals to their warehouses and distribution centers. Furthermore, local residents complained of severe traffic congestion and poor air quality as local highways became congested with more and more drayage trucks. The idea of extending the ports' operating hours as a solution to these growing problems gained local impetus and influence.

Frustrated by the slow progress to extend terminal operating hours, the California Truckers' Association (CTA) lobbied state officials to legislate efficiencies at the SPB ports. Then State Senator Alan Lowenthal (now a member of the U.S. House of Representatives) drafted legislation (AB 2650) that passed by an overwhelming majority in the California Assembly and was signed into law in August 2002.⁹⁶ To encourage off-peak operations, this bill imposed a penalty of \$250 on terminal operators for each truck that idled more than 30 minutes waiting to enter the gates at the SPB ports and the Port of Oakland. Exemptions were provided for those terminals that *either* operated gates for at least 70 hours per week *or* provided an appointment system.⁹⁷

The legislation had limited impact according to a study by Giuliano and O'Brien which pointed out that no terminal at the SPB ports extended its hours of operation because of AB 2650.⁹⁸ At terminals that implemented appointment systems, the authors found no record of improved operating efficiency. Likely this was because such systems provide appointments only to enter the terminal gates, rather than appointments for the actual loading or unloading of the container. In other words, terminals did not use appointments to pre-stage containers in advance for the advantage of truckers. Instead, they were used for the advantage of the terminal to obtain an advance indication of workload. Moreover, the 30-minute limit on truck idling time outside the gate probably also produced the unintended effect of transferring congestion from outside the gate to inside the terminal, with terminals admitting trucks in order to avoid fines. However, once inside the terminals, drivers found themselves having to wait for containers to be removed from the stacks before loading onto chassis, and vice versa.

PierPASS, an extended hours of operation program, was implemented in July 2005. In close consultation with the Waterfront Coalition, this program was developed collectively by 13 container terminal operators at the SPB ports in response to proposed action by State Senator Lowenthal that would have *legislatively* mandated off-peak hours.⁹⁹ However, he agreed to withdraw his proposed legislation when the private sector terminals themselves developed an extended gate program to achieve the same goal of mitigating peak period road congestion and reducing air pollution caused by port drayage operations. The PierPASS off-peak program was developed and implemented under the authorities of the West Coast Marine Terminal Operators' Agreement (FMC Agreement No. 201143).

The West Coast Marine Terminal Operator Agreement's (WCMTOA) members decided to impose a traffic mitigation fee (TMF) for at least two reasons. First, terminals incur considerable costs when providing off-peak gates. Compared to labor rates for the regular daytime shifts, labor rates are one-third to one-half higher during the night and weekend shifts. Second, the terminals wanted to make sure the off-peak shifts were well used by encouraging a portion of the daytime traffic to move to the off-peak gates as a result of imposing a fee on daytime moves. Consequently, PierPASS charges a TMF on certain loaded containers that move in or out of the SPB gates between 8 am and 5 pm. The fees collected on gate moves during the daytime help defray the cost of providing extended off-peak gate operations. Usually, each terminal provides four off-peak gates Monday through Friday between 6 pm and 3 am and a weekend gate, usually on Saturday, from 8 am to 5 pm. Use of the off-peak gates has far exceeded the program's initial expectations.

Under the program, terminals initially agreed to provide complete off-peak services; that is to say the aim was to duplicate the daytime truck handling capacity

⁹⁶The historical and legislative events leading to implementation of a permanent extended hours program at the ports of Los Angeles and Long Beach (called PierPASS) were spelled out by (now) U.S. Congressman Lowenthal at the FMC port forum conducted at the Port of Los Angeles. A city council member at the time, U.S. Congresswoman Janice Hahn provided additional background at the forum on historical events leading to the creation of PierPASS.

⁹⁷Op. cit., NCFRP Report 23, p. 51.

⁹⁸Giuliano, G and O'Brien, T. *Evaluation of the Gate Appointment System at Los Angeles and Long Beach Ports*. METRANS Transportation Center, 2008.

⁹⁹The Waterfront Coalition is a group of shippers, transportation providers, and other businesses in the International supply chain that is concerned with promoting efficient and technologically advanced ports.

of the terminals at night and during the weekend off-peak shift. Anecdotal reports indicate this aim has not been achieved. For example, trouble tickets are more challenging to resolve at the off-peak gates because steamship line customer service centers are less available. Other services, such as container flips, are sometimes not available during off-peak hours. Additionally, the reduction in volumes following the Great Recession caused some terminal operators to reduce the number of off peak gates provided, some of which have not been fully restored.

The PierPASS program has shifted about 50 percent of all truck traffic to nights and weekends. In this respect, it has been successful in reducing the number of truck trips made in the morning rush hours, and to a lesser extent in the evening, but has not reduced the aggregate number of trips. As a result, the program has not eliminated the environmental and social impacts associated with drayage truck trips. Nevertheless, in the last decade PierPASS has diverted more than 30 million containers from peak to off-peak gate shifts. Additionally, the PierPASS program has more or less doubled access to the gates. For example, the SPB ports handled almost 800,000 TEU in June 2004, just prior to PierPASS being implemented, compared to just over 900,000 TEU in June 2014. Without extended gate hours, congestion at SPB terminals would be worse than it is now.

Currently, the TMF is set at \$66.50 per TEU (twenty-foot equivalent unit) or \$133 per FEU (forty-foot equivalent unit). The fee is imposed on loaded container movements through the gates during peak hours from 8 am to 5 pm. Certain container transactions are exempt, including containers arriving or leaving the ports through the Alameda rail corridor, containers leaving for or arriving from the near-dock and downtown rail facilities, and trucks carrying empties, bobtailing or bringing in or taking out a bare chassis. As a result of the exemptions, less than 20 percent of all containers handled by the SPB terminals in 2012 incurred the TMF. Between 2005 and 2006 the TMF remained at \$40 per TEU or \$80 per FEU. It was then adjusted to \$50 per TEU or \$100 per FEU. Since 2011, subsequent increases have been linked to ILWU labor cost increases. A potentially unsustainable tension exists in the program between the level of fees and the proportion of non-exempt container movements that still use the peak hour gates. The more the fee increases, the more likely users will divert to using the off-peak gates. Any such shifts, however, mean that the cost of sustaining the off-peak gates will be borne by proportionally fewer non-exempt movements during peak hours and the terminals in the off-peak hours will become more congested, not less. Ostensibly, the fee is for the account of the beneficial cargo owner (BCO). However, some BCOs may negotiate different arrangements with their motor carrier or cargo intermediary.

Cross-section of stakeholder viewpoints

Comments on the operation of the PierPASS program and its initial and current contribution to congestion mitigation efforts in and around the SPB ports were provided by several participants at the port forum in Southern California. As stated earlier, *PierPASS* was created in 2005 as a response to Assembly Member Alan Lowenthal's traffic and congestion mitigation bill AB 2650 which aimed to expedite truck traffic throughput in the ports' complex. MTOs responded to the traffic mitigation challenge by opening up nighttime and some weekend operations at the ports that historically had operated during the daytime Monday through Friday. One participant at the Southern California forum suggested that previous attempts to open night gates had been unsuccessful due to poor and unreliable staffing of the gates and container yards. According to another participant, the original draft design of the program, developed with input provided by the Waterfront Coalition, called for sun-setting the fee after three years or when night gate moves had reached 30 to 35 percent of total gate moves. However, somewhere in the development process the sunset provision disappeared by the time the program was finally adopted by the WCMTOA. Although the traffic mitigation fee is charged to the BCO, the shipper may dictate to the trucker to only pull containers after 6 pm when the fee is not applicable.

One of the biggest problems with the night gates is that they reportedly are unpredictable and not uniform. For example, there are times at some terminals when off-peak gates may be unavailable for up to five consecutive days.¹⁰⁰ This interferes with a shipper's or motor carrier's ability to ship containers exclusively through the off-peak gates. Staffing hours are said to be somewhat irregular. Gates are supposed to operate from 6 pm to 3 am, but truckers report there are times when a terminal

¹⁰⁰ Each month a Thursday night shift is cancelled because of union meetings. If no weekend shift has been arranged at the terminal, then no access to off-peak gates is possible from Wednesday night through the following Monday night, despite the fact that ship arrivals at the SPB ports tend to bunch late in the week.

will cease operations at midnight or 1 am. Among a segment of the port community in Southern California, there is a belief that if PierPASS went away truckers would shift back to using only the day shifts. However, one participant argued that, in the current climate of congestion, as long as gates are open, accessible, and productive truckers will utilize them no matter the time of day.

A prominent, high-volume shipper of refrigerated protein products submitted a written statement that focused in part on the operational difficulties PierPASS has caused that company. While acknowledging that the program's initial goals had been accomplished, this shipper asserted BCOs had to pay extra fees to cross-dock operators to hire truckers willing to work nights (as much as \$30 per load) and were dealt several other inequities, such as, night gates having been reduced. With respect to the Port of Oakland and the consolidation of terminals that had taken place at that port, according to this shipper, with carriers no longer providing chassis what was previously a one-stop move has grown to 2–3 stops within the same terminal or multiple terminals. These added steps, lengthen truck turn times. Special tri-axle chassis are often required for heavy reefer containers which require a “flip” in order to obtain an empty container for the return leg, yet in some cases the night or weekend shifts do not provide flip service which forces the company's motor carrier to work the high-volume day gates that are subject to the TMF. This shipper provided a set of specific PierPASS fixes, including:

- Moving the International Longshore and Warehouse Union's (ILWU) monthly Thursday “stop work” meeting to Wednesday to help manage weekend volumes or, instead, to always have a Saturday gate to recover off-peak capacity lost to the monthly Thursday stop work meeting.
- Saturday gates to provide full service
- Longer advance notice given to warehouse operators and draymen of any shift closings to allow them to re-work their schedules
- Establish designated lines for (high-value) reefer cargo deliveries that are often delayed behind less time sensitive, low-value, high-volume cargo, such as waste paper and scrap metal export containers
- Have reefer containers and “gensets” in the same area of a terminal to minimize unproductive truck trips

A senior PierPASS official pointed out that a less tangible contributor to congestion is the delivery container process—a process of complete and total random access to a specific container number at any time of the day or night that results in a predictably slow rate of eight to ten container mountings per transtainer per hour. He argued that if the industry wants to change the truck turn-time outcome, it needs to seriously consider changing this process: “Doing the same things incrementally faster will not solve the periodic periods of congestion.”

Participants from different segments of the industry expressed a variety of viewpoints on 24/7 gate operations as a way to deal with congestion. According to an ocean carrier, there are too many terminals at which gate hours are not sufficient to cope with current container volumes and expected growth. This ocean carrier emphasized that ports and terminals need to look at extending gate hours whenever possible and examine what is needed to accomplish that. This sentiment was echoed by several motor carriers who said that terminals should at least be kept open longer if a second shift is not economically feasible. A West Coast terminal operator said it currently operates two shifts most days, but probably gets the equivalent of only 1 percent shifts worth of throughput. Recently, this terminal had begun offering more gates on Friday night and Sunday, as well as flex-gates, but reportedly they were not being used very heavily.

The representative of a large terminal operating company that manages seven terminals on the West Coast that account for 25 percent of all longshore man hours used along that coast said he was sympathetic about lengthy turn-times but was not sure about what could be done. He did not believe, for example, that 24/7 gate operations was the answer even at a complex as large and as busy as the SPB ports.¹⁰¹ He stressed that gate shifts are expensive to provide—around \$100,000 to \$130,000 per day in labor alone.¹⁰² He acknowledged that truckers were not getting

¹⁰¹ It was reported by a participant at the port forum in Southern California that 1,000 registered motor carriers and 11,000 registered drayage trucks use the San Pedro Bay ports complex and transact 35,000 gate moves per day.

¹⁰² This MTO representative indicated that a well-running terminal would hire 100 to 130 longshore personnel per shift each costing \$900 to \$1,300 per shift, who may handle sometimes as many as 400–500 trucks an hour.

in and out of terminals in the time they need, but placed the blame foremost on chassis shortages. Much of the congestion problem would go away, in his view, if there were sufficient chassis. The second problem he described concerned the typical work pattern of many drayage drivers which splits the day across two shifts at the terminals, coming on duty in late morning and ending their duties well before midnight.¹⁰³ As a consequence, the terminals are comparatively empty early in the day (e.g., from 8am to 10 am) and after the night shift lunch break which ends at 11 pm. In the meantime, however, the terminals are paying for two full shifts. He wanted to see a more even flow of trucks coming in the gates across the two shifts.

In response to comments about the desirability of 24/7 operations, a PierPASS representative drew attention to the fact that the SPB terminals already provide 35 extra off-peak gate hours per week in addition to 40 hours of regular daytime access—more hours of gate access than any modern terminal complex in the U.S. or in most other countries. And, within these hours there are some hours that register little or no truck activity. He argued that extending hours to provide for 24/7 operations would not necessarily increase the number of containers processed (as available truck capacity is relatively fixed), but would significantly increase the cost of operating a marine terminal. According to the PierPASS official, the off-peak gates program costs \$188 million annually and extending gate access to encompass 24/7 operations would add another \$167 million and, without a commensurate increase in the number of containers processed, the added expense of providing 24/7 operations would inflate supply chain costs. Another participant cautioned that the demand for 24/7 gates is emanating from next generation mega ships which cause terminal capacity issues and argued that it does not make sense to have vessels being worked around the clock while restricting container delivery and receiving operations to 8 hours on some days and 16 hours on other days.

There were several calls among participants for a “PierPASS Version 2.0” that they hoped would take the program to the next level to better address the SPB ports’ current problems. In this context, U.S. Representative Lowenthal suggested, “It is time to raise the bar again” and wondered, “How do we move the ball forward?” One of the port directors believes information technology needs to be a substantial component of any PierPASS Version 2.0. In his view, integrating information flows into operations could go a long way toward facilitating the efficient flow of trucks, trains, and cargo movements in and around the ports. A Joint Powers Authority (JPA) similar to the governance structure for the Alameda Corridor was a topic of discussion. Under this proposed Idea (presently dubbed GATES for Gate Appointment and Terminal Efficiency System) the JPA could also run an appointment system to enable marine terminals to more accurately predict yard labor demand and develop real-time intelligence software to better share information among port users. Opponents of 24/7 operations—primarily the terminal operators and steamship lines—point to the added cost of running operations around the clock. Proponents, on the other hand, counter with the question: “What is the cost of doing nothing?”

Stakeholder suggestions and proposed fixes

WCMTOA which owns and operates the PierPASS program has made relatively few changes to the program since its inception ten years ago. Other members of the port community, on the other hand, including BCOs, truckers, and the Port Authorities, have not been reticent in pointing out areas of the program that need attention. The suggestions listed below were made at the FMC port forums or in other communications with the Commission:

- *Ongoing dialog is needed.* There seems to be increasing recognition that an ongoing dialogue among all port stakeholders is needed regarding how best to improve the number of turns per day truckers are able to make in the SPB complex. Queue and dwell times at the terminals have been increasing, making it more difficult for truckers to cover the cost of operating the more expensive clean trucks now required to enter the terminals. Such dialogues could take place through the recently amended Los Angeles and Long Beach Port Infrastructure and Environmental Programs Cooperative Working Agreement (FMC Agreement No. 201219).
- *Measures could be taken to ensure that the off-peak gate shifts provided by the 13 terminals occur on the same weeknights and weekend days.* Currently, most terminals offer four week-night shifts and one weekend shift, but the specific days offered by each MTO tends to vary. Additionally, off-peak shifts are some-

¹⁰³ Late starts in Southern California allow drayage drivers access to the free PierPASS off-peak night gates for some portion of their shift.

times cancelled or changed on short notice. These practices unduly disrupt a motor carrier's ability to dispatch trucks efficiently.

- *Off-peak gates should have all the same services made available during daytime shifts.* For example, a service that allows heavy reefer containers to be flipped from tri-axle chassis so as to allow the return of an empty reefer container reportedly is unavailable during off-peak shifts at some terminals. Similarly, the resolution of trouble tickets during off-peak shifts reportedly is difficult because steamship line customer service staff are less available at these times.¹⁰⁴
- *WCMTOA could be more transparent about what it costs to operate the PierPASS program.* A segment of the port user community is unconvinced that the program is not covering its costs.
- *The costs of the program perhaps could be shared more equitably.* Almost everyone benefits from reduced congestion, yet only a small fraction of containers passing through the ports are assessed the TMF to help defray the cost of providing the congestion-reducing off-peak shifts.
- *Consider 24/7 gate access.* With so much cargo being diverted to the off-peak shifts, PierPASS should consider cost effective ways to expand those shifts, perhaps ultimately leading to 24/7 gate access.
- *Share performance metrics.* As a result of the mechanism PierPASS has established to collect the TMF, the program possesses an extensive set of data. WCMTOA could share metrics about truck queue and dwell times to further encourage dialogue and explore ways to improve cargo flow through the terminals.
- *Find ways to deal with known congested periods.* Ways should be found to ease queue times during known periods of congestion. For example, Individual terminals probably could provide more flex gates during lunch breaks and the periods between shift changeovers. Similarly, the TMF could be differentiated by time, for example, by having a lower fee in the run-up to the opening of the off-peak shifts at 6 pm in order to avoid the early formation of long lines waiting to gain access to the off-peak gates.
- *Find ways to incentivize terminals to provide optimum levels of service.* The current program returns TMF revenue to the terminals (after deduction of administrative expenses) based on each terminal's total container throughput regardless of the amount of service provided or volumes handled in the peak or off-peak hours. WCMTOA could explore ways to distribute the TMF revenue back to the terminals in ways that incentivize providing higher levels of service. For example, they could use the TMF revenue distribution process to reward terminals that have shorter truck queue and dwell times or return those revenues in proportion to the resources each terminal devotes to off-peak gates (i.e., in proportion to off-peak expenditures).

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JAMES INHOFE TO
HON. MARK H. BUZBY

Question 1. The Maritime Administration (MARAD) is charged with promoting the use of waterborne transportation and maintaining the health of intermodal facilities such as ports. In Oklahoma, we have the McClellan-Kerr Arkansas River Navigation (MKARNS) which provides inland water navigation from the Mississippi River to the Ports of Catoosa and Muskogee.

While I know that the Army Corps of Engineers is the core agency that develops and constructs our water resources, I am interested in ways all Department of Transportation modes, along with the Army Corps can work together to better leverage resources to ensure that inland waterway projects are moving forward.

a. Do you see the role for MARAD if the Department of Transportation were to implement a new program or expand existing freight programs to help fund maritime freight projects?

Answer. MARAD personnel and existing programs could bring critical skills and experience to any effort to improve the delivery of maritime freight projects across the maritime industry. Ports and the U.S. marine transportation system are critical to our economy and our maritime and freight systems needed for current and future challenges. We work with public and private sponsors to improve intermodal port-based facilities on the Great Lakes, and on our inland and coastal waterway sys-

¹⁰⁴Trouble tickets are caused by the truck driver lacking information or having misinformation contained in documents. At the Southern California port forum, PierPASS reported that five to seven percent of all truck transactions experience trouble tickets which takes the driver out of the container delivery process until the issue is resolved.

tems. Given the need to meet current and anticipated freight network requirements and the growing demands placed on ports and related infrastructure, MARAD and the Department are working to help meet the infrastructure needs of our Nation's freight and port infrastructure through several programs, including:

- The Port Infrastructure Development Program (PIDP)—MARAD's primary program to help improve port facilities. MARAD calls the PIDP "StrongPorts" to reflect the need for keeping our Nation's ports in a state of good repair. "StrongPorts" is designed to deliver tools, such as the Port Planning and Investment Toolkit, and technical assistance to ports to encourage full integration of ports and maritime transportation into the larger U.S. surface transportation system. The program provides a planning and investment framework that brings together all stakeholders, including private companies and local, state, and Federal agencies.
- The Better Utilizing Investments to Leverage Development, or "BUILD" Transportation Discretionary Grant program, which replaced the Transportation Investment Generating Economic Recovery (TIGER) program provides opportunities for the Department to invest in road, rail, transit and port projects aimed at achieving national objectives. Congress has dedicated nearly \$5.6 billion for nine rounds of national infrastructure investments to fund projects that have a significant local or regional impact. This included a \$6.4 million grant, as part of a \$12 million project, to the Tulsa Port of Catoosa to renovate its main dock area. The project was completed in May 2016. Under the BUILD/TIGER programs, 51 ports grants have been awarded totaling more than \$680 million.

The Fixing America's Surface Transportation (FAST) Act, which Congress passed in 2015, includes significant opportunities for ports, including freight system planning and development and funding. Funding is set-aside for projects of national or regional significance that will affect the movement of freight and people, and for freight infrastructure, including multi-modal projects. There have been seven port projects totaling \$130 million awarded under this program.

b. How do you believe MARAD could be further involved in the development of inland waterway projects?

Answer. The StrongPorts infrastructure development program will continue to support inland ports. Additionally, MARAD operates a short sea shipping program, known as the America's Marine Highways Program, which encourages the use of maritime transportation as an extension of the surface transportation system to relieve landside congestion along coastal corridors. The America's Marine Highway Program has assisted several ports and marine highway providers to start or expand the use of Marine Highway services. The FY 2018 Consolidated Appropriations Act, P.L. 115-114, provided \$7 million in funding for the program. MARAD uses the funds to encourage shippers around the country to choose the use of waterborne transportation for freight.

We continuously look for innovative ways that MARAD might help further develop the entire marine transportation system, including our critical inland waterways. A key issue that we have seen across the country is the need for greater integration of maritime issues into state and local transportation planning. MARAD will continue to focus our resources on removing this and other critical barriers to inland waterway development.

Question 2. The Maritime Administration is responsible for administering the Maritime Security Program (MSP). MSP exists to ensure the United States has the military sealift capacity in time of war and national emergency. As Chairman of the Readiness Subcommittee of the Senate Armed Services Committee, I know that our military was gutted under President Obama. Under sequestration, Defense accounted for 50 percent of the cuts, but only 16 percent of spending. As a result, our military equipment is aging and our base infrastructure requires critical maintenance and upgrades. We have seen impacts on personnel; pilots are leaving the military because they are not getting flight hours to maintain their skills. Today, we have an Administration that will support the necessary funding to rebuild our military—and Congress went above and beyond the President's request in the Omnibus bill to give our men and women in uniform the resources required to answer the call quickly and effectively.

a. How would you characterize the state of readiness for the Maritime Security Program today?

Answer. The MSP is fully subscribed up to the 60 vessel Congress authorized. The readiness of the vessels in the MSP fleet is excellent. The program has consistently achieved more than 96 percent availability of both ships and mariners over the past several years. In addition, the MSP fleet's militarily useful capacity is now at the

highest level in the program's history, including more than 3.1 million square feet of roll-on roll-off (RO/RO) and heavy-lift vessel capacity, and more than 114,000 TEU container capacity available to meet U.S. Department of Defense (DOD) requirements.

The MSP is a vital component of U.S. sustainment. The program provides DOD with assured access to a fleet of 60 privately-owned, militarily useful, U.S. flag commercial ships operating in international trade, as well as the multibillion-dollar global network of intermodal facilities and transport links maintained by MSP participants.

b. I know that participation in MSP is voluntary; how can Congress encourage more participation in this important program?

Answer. As stated above, MSP is fully subscribed. In addition, almost all MSP carriers are participants in the Voluntary Intermodal Sealift Agreement (VISA), the DOT/DOD emergency preparedness program created to ensure that both sealift and intermodal capacity are available to meet DOD requirements in time of war or other national emergency. Carriers enrolled in VISA must provide DOD with assured access to these assets during contingencies, and in return for their VISA commitment, receive priority consideration for peacetime DOD and civilian agency cargoes. Unlike other VISA participants, MSP carriers also receive the annual retainer or "stipend" payment to provide assured access to ships and intermodal resource.

c. How do you believe MARAD could be further involved in the development of inland waterway projects?

Answer. See MARAD's response to this question above.

d. To what extent is the ability of the United States Merchant Marine Academy to train future United States Coast Guard licensed mariners and U.S. Navy Strategic Sealift Officers still being impacted by previous sequestration policies?

Answer. The United States Merchant Marine Academy's ability to educate and graduate leaders of exemplary character who are inspired to serve the national security, marine transportation, and economic needs of the United States as licensed merchant marine officers and commissioned officers in the Armed Forces is not adversely affected today by past sequestrations.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BILL NELSON TO
HON. MARK H. BUZBY

Foster Growth in Maritime Industry. Florida is a major maritime state that relies on a robust maritime industry to support its shipping and shipyard construction and repair activities. This requires a strong U.S. merchant marine.

Question 1. In your view, what can be done to further bolster this important industry?

Answer. As Maritime Administrator, my focus is to work with Congress and maritime stakeholders to identify ways to make the U.S. maritime industry more competitive, and foster policies that result in more U.S. jobs in the maritime sector. Part of this focus includes supporting shipyards and related industries that are part of the Nation's shipbuilding and repair industrial base through MARAD administered programs. Properly designed programs and training to support our shipyards and a skilled American shipbuilding and repair workforce can contribute to strengthening, maintaining and moving towards growth in this critical industry. One existing program is the Maritime Administration's (MARAD) Small Shipyard Grant Program, which fosters efficiency and competitiveness in shipbuilding and ship repair. Grants provided through this program are targeted at modernizing shipyard facilities and closing the technology and productivity gap with foreign competitors.

Another possible avenue for bolstering the American maritime industry would be to continue our efforts through the America's Marine Highway Program to promote the expansion of domestic short sea shipping, particularly along our Nation's coasts. The United States is well behind competing economies in its employment of this highly effective mode of freight transportation, and the benefits to the broader economy could be profound. Enhancing domestic supply chain logistics for American producers, expanding the domestic market for American LNG, optimizing port utilization, and alleviating congestion and unnecessary wear and tear from our highways are just a few of the possible benefits. Promoting this alternative to terrestrial freight transportation modes could deliver significant growth for our Nation's coastwise trade fleet, the associated merchant mariner pool, and the Nation's shipyard construction and repair industrial base. A future that includes more vessels built by Americans at a competitive price would promote industry growth and a stronger, sustainable employment base for the U.S. merchant marine. This would enhance

our defense readiness and begin to deliver on the immense latent potential of American maritime commerce.

El Faro. The sinking of the *El Faro* cargo ship was a tragedy—over thirty mariners were lost. Both the National Transportation Safety Board and the Coast Guard have identified ways to prevent this kind of catastrophe from happening again, including better preparing mariners.

Question 2. How is MARAD, through its funding and oversight of the Maritime Academy and training programs, ensuring that mariner training has improved so that such tragedies could be avoided in the future?

Answer. Through oversight of the U.S. Merchant Marine Academy (USMMA) and regular communication with the State Maritime Academies (SMAs), MARAD emphasizes continuous curriculum improvement, including improvements in response to real-world incidents. The U.S. Coast Guard (USCG) establishes training requirements that maritime academies must meet and has sole authority to modify training protocols required for students to be issued officers' credentials. The USMMA and the SMAs modify their curricula as the USCG dictates. In addition, MARAD encourages the academies to incorporate lessons learned from real world incidents, like the loss of the EL FARO, into their curricula.

The incident is already used as a case study to improve training at U.S. maritime institutions. For example, the USMMA has used reports regarding the EL FARO incident provided by TOTE Inc. (the company that owned the ship) and the Committee on the Marine Transportation System to integrate best practices into its curriculum for courses focused on meteorology and seamanship.

Below are examples of training designed to prepare mariners to respond to varying at-sea conditions. The EL FARO incident can be used during this training to give cadets the opportunity to learn from a real-world situation.

- At the USMMA and SMAs, deck cadets and midshipmen must complete the required U.S. Coast Guard (USCG) training and assessments to obtain a Standards of Training, Certification and Watchkeeping (STCW) endorsement as Officer in Charge of a Navigation Watch (OICNW) on vessels of 500 gross tons or more. This training and assessment is accomplished and reinforced throughout the academies' four-year curricula. In addition to classroom and practical training ashore, cadets and midshipmen receive shipboard training on commercial vessels, the academies' training vessels, or a combination of both. This experience at sea provides an invaluable opportunity to learn and experience the actual shipboard environment.
- NOAA's Vessel Observing System (VOS) Port Meteorological Officers (PMOs) provide meteorological training and support to the maritime academies. The PMO serves as a "Sea Term" instructor. At sea, the PMO provides formal classroom instruction designed to enhance the cadet's ability to determine expected weather conditions, and to make, record, and transmit accurate weather observations.
- At the USMMA, midshipmen are taught to appreciate the forces impacting a vessel by factoring in varying sea states, including heavy weather operations. Mariner "rules-of-thumb" are taught to aid comprehension and memory. Emphasis is placed on operational considerations for navigating near tropical cyclones. Midshipmen are taught to understand and appreciate the difference between the forecasted "significant wave height" and the highest wave heights that might be expected; significant wave height represents the average of the highest one-third of waves, whereas larger waves could very well be encountered at sea. Class discussions incorporate recent scientific analyses of extreme occasional wave heights (rogue waves) and vessel operational limitations.

Response to Hurricane Maria. Hurricane Maria devastated Puerto Rico and left the island without power for months on end. One of the most important issues was how to get supplies, food and water to the island.

Question 3. What role does the maritime industry play in providing support?

Answer. The primary role of the maritime industry is to deliver cargo. U.S. Jones Act carriers played a central role in responding to the effects of Hurricane Maria by ensuring that the flow of commerce was restored as quickly as possible via reliable, regularly-scheduled services. Jones Act carriers provided not only regular commercial goods, but also supported the delivery of relief supplies for the response and recovery effort. To meet the increased demand for shipping services, these carriers added nine vessels to the regular trade, bringing the total number of U.S.-flag vessels servicing Puerto Rico to 25. If required, Jones Act carriers were prepared to provide additional vessels.

One vessel from MARAD's Ready Reserve Force was used to carry emergency relief supplies to Puerto Rico. In addition, SMA training vessels provided support, including living space for first responders.

Although U.S.-flag vessels transported many of the necessary goods from U.S. ports, the significant hurricane-related damage to port facilities in Puerto Rico constrained the flow of key merchandise and commodities over land. Seaports play a critical role in the response and recovery efforts and are necessary for the flow of commerce. Absent reliable port infrastructure and the efficient transfer of freight among ships, barges, and trucks, rapid recovery is hampered significantly. Many of the secondary ports in Puerto Rico were also substantially damaged by Hurricane Maria, further constraining recovery efforts.

Anticipating future hurricanes, MARAD is encouraging the use of Jones Act carriers to stage critical supplies in target locations. Before the storm, carriers can coordinate with customers and partners to ensure the ships are able to deliver the most critical relief supplies, including generators, oversized power and electrical poles, bucket trucks, and petroleum products.

Question 4. What were some of the challenges and successes of getting aid to Puerto Rico?

Answer. After Hurricane Maria, roads and bridges were damaged or blocked by structure debris, utility lines and poles, and other detritus. Thus, truck drivers could neither access nor depart the ports. Widespread power outages and damage meant that warehouses outside of the port could not receive refrigerated cargo delivered to the port. Shore-side labor was displaced or otherwise unavailable, including truckers, warehouse workers, and terminal operators. Cellular phone service was largely out of order making transport coordination extremely difficult. Because of these infrastructure challenges, import cargo began to back-up in the ports. For weeks, the ports received more cargo by water than could be delivered overland resulting in an ever-increasing backlog.

In anticipation of Hurricane Maria making landfall, Jones Act carriers staged critical supplies in San Juan, Puerto Rico, and acquired additional 53-foot containers and more trucks to support increased deliveries to the island. Some carriers increased vessel speeds to reduce transit times between the mainland and Puerto Rico, while simultaneously adding more voyages to their schedules. Carriers extended their terminal operations to seven days a week to ensure a steady flow of supplies. As noted above, carriers also added additional vessels the regular trade.

Jones Act carriers also delivered specialized cargoes to the island. In addition to the regular deliveries of commercial and relief cargo, the island needed atypical cargoes such as utility trucks, tanker trucks, large generators, and communication equipment. For example, Jones Act carriers reconfigured vessels to accommodate the delivery of thousands of utility poles needed to rebuild the island's electrical grid. The industry further increased transport capacity to the island by adding a vessel into service to deliver 7,000 twenty-foot equivalent unit (TEU) containers of water to Puerto Rico in one week, and even moved charitable donations to the island free of charge. Immediately after the storm, U.S.-owned and U.S.-chartered vessels were used as floating hotels to provide temporary housing and meals for first responders. Finally, Jones Act carriers partnered with government agencies to help manage "final mile" delivery, including using their own truck distribution network on the island to deliver supplies.

The National Defense Reserve Fleet (NDRF) and Ready Reserve Force (RRF) vessels of the Maritime Administration, which received mission assignments from FEMA, were tasked with providing support to relief workers and first responders. In Puerto Rico, the Training Ships (TS) KENNEDY and EMPIRE STATE provided over 18,000 berths¹ and nearly 40,000 meals to workers. During the 2017 hurricane season, these two vessels, plus the TS GENERAL RUDDER and the aviation maintenance ship WRIGHT, provided more than 23,000 personnel berths and over 53,000 meals. These efforts helped free-up living space for displaced residents and provided centralized support for relief workers in Texas, Florida, Puerto Rico, and the U.S. Virgin Islands.

These activated vessels delivered water, food, and WRIGHT loaded FEMA support vehicles, mission cargo, and Federal Aviation Administration Very High Frequency Omni Directional Range (VOR) equipment that was critical for restoring air service to the U.S. Virgin Islands. Additionally, one of MARAD's contracted Ready Reserve Force Ship Managers supported FEMA operations through their shore side logistics

¹MARAD counts each person staying on the ship overnight as one berth. For example, if one person stays on a ship for a week, it is counted as seven berths. During the Puerto Rico response, some people stayed on a ship for one night and some stayed there for the entire time the ship was available.

network both on the Eastern seaboard and within the Caribbean Sea region, using service assets already in place. Leveraging this capability increased the amount of response assets and the timeliness of delivery.



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