

SHORT SEA SHIPPING: REBUILDING AMERICA'S MARITIME INDUSTRY

(116-23)

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

FIRST SESSION

JUNE 19, 2019

Printed for the use of the
Committee on Transportation and Infrastructure



Available online at: [https://www.govinfo.gov/committee/house-transportation?path=/
browsecommittee/chamber/house/committee/transportation](https://www.govinfo.gov/committee/house-transportation?path=/browsecommittee/chamber/house/committee/transportation)

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39-742 PDF

WASHINGTON : 2020

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U.S. House of Representatives
Washington, DC 20515

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JUNE 17, 2019

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Coast Guard and Maritime Transportation
FROM: Staff, Subcommittee on Coast Guard and Maritime Transportation
RE: Subcommittee Hearing on “Short Sea Shipping: Rebuilding America’s Maritime Industry”

PURPOSE

The Subcommittee on Coast Guard and Maritime Transportation will meet on Wednesday, June 19, 2019, at 2:00 p.m. in 2167 Rayburn House Office Building to examine the state of short sea shipping in the United States. The Subcommittee will hear from the United States Maritime Administration, Maine Port Authority, Lake Carriers’ Association, and Transportation Trades Department, AFL–CIO.

BACKGROUND

Short sea shipping (SSS) refers to the waterborne transportation of commercial freight between domestic ports (from one port in the United States to another port in the United States) through the use of inland and coastal waterways. Since vessels operating in SSS are required by the Jones Act to be built, owned, and crewed by United States citizens, an increased domestic trade would result in significant development for the U.S. maritime industry.

The Department of Transportation’s (DoT) Maritime Administration (MARAD) has determined that increased SSS would result in a number of “public benefits”¹ including:

- Creating and sustaining jobs on U.S. vessels and in U.S. ports and shipyards;
- Increasing the state of good repair of the U.S. transportation system by reducing maintenance costs from wear and tear on roads and bridges;²
- Increasing the environmental sustainability of the U.S. transportation system by using less energy and reducing air emissions per ton-mile of freight moved; and
- Increasing national security by adding to the nation’s strategic sealift resources.³

An opportunity may exist to develop a new SSS policy that will promote the continued development of this method of transportation. While MARAD established the “America’s Marine Highway Program” and a number of limited SSS services exist that take advantage of that resource, the system remains underutilized. For example, in Europe, shipping accounts for 37 percent of intra-EU trade.⁴ Conversely, in the U.S., there are more than 25,000 miles of coastal, inland, and intracoastal waterways that move more than 1.4 billion tons of freight annually which represents approximately only 2 percent of the domestic freight.⁵ Despite their inherent effi-

¹ See <https://www.maritime.dot.gov/grants/marine-highways/marine-highway>

² Francesca Medda & Lourdes Trujillo (2010) Short-sea shipping: an analysis of its determinants, *Maritime Policy & Management*, 37:3, 285–303, DOI: 10.1080/03088831003700678

³ Development of Short Sea Shipping: Hearing before the Subcommittee on Coast Guard and Maritime Transportation of the House Committee on Transportation and Infrastructure, 116th Congress, 2 (2007) (Testimony of Sean Connaughton).

⁴ See European Community Shipowners’ Associations. *Short Sea Shipping*. https://www.ecsa.eu/sites/default/files/publications/ECSA_SSS_Download%201_0.pdf

⁵ https://www.researchgate.net/publication/248989077_Short-sea_shipping_An_analysis_of_its_determinants

ciencies, domestic coastal and Great Lakes shipping carry barely half as much cargo today as they did in 1960.⁶

The majority of water freight shipping systems in the U.S. operate on the Mississippi River, the Great Lakes, and the St. Lawrence Seaway, and typically transport bulk cargoes. Bulk cargo typically consists of commodities that are transported in large unpackaged quantities. SSS is one of the most cost-effective ways to move heavy, lower value, and non-time-sensitive freight (as SSS is a slower mode of transportation than truck, rail, or air). The types of vessels that could be utilized in new SSS trades include towing, small and medium cargo, and roll-on/roll-off vessels.

POTENTIAL BENEFITS OF SSS

Some of the potential benefits of SSS include:

- *Improved Freight Mobility:* The volume of freight transported in the U.S. is expected to continue increasing in the coming years. Also expected to increase is congestion on both our roadways (where trucks carry more than 70 percent of freight by weight) and our rail networks. Increased SSS capacity could offer freight shippers an additional transportation option and help alleviate increased surface congestion with less federal investment.
- *Reduced Environmental Impact:* Transportation on SSS vessels can have significant energy efficiencies over land-based modes of transportation. On average, trucks can carry one ton of freight approximately 145 miles on a gallon of diesel fuel and rail achieves 477 ton-miles per gallon. Meanwhile, a tug and barge operation can get as much as 647 ton-miles of freight to a gallon of fuel and self-propelled vessels may achieve an even greater rate of energy efficiency.⁷ Shifting freight traffic to waterborne commerce can reduce associated vehicle emissions and improve air quality.⁸
- *Increasing Mariner Jobs:* As the U.S.-flagged international fleet has declined, MARAD has identified a shortage of 1,800 mariners. That shortage has a direct negative effect on the Department of Defense's (DoD) readiness. Increasing the number of small and mid-sized vessels operating in the domestic trades would provide additional platforms on which American mariners can work. Additional opportunities for maritime employment would grow the pool of mariners available for military sealift.
- *Increased Shipbuilding Capacity:* Under current law, vessels carrying cargo between U.S. ports are required to be owned, crewed, and built by United States citizens. SSS vessel construction and repair in U.S. shipyards would help to assure the DoD's access to skilled shipbuilding workers and facilities and promote job creation in the commercial shipbuilding sector.

POTENTIAL IMPEDIMENTS TO SSS

Factors that could limit the development of SSS include:

- *Duplicated Harbor Maintenance Tax:* As reported by the Congressional Research Service (CRS) the Harbor Maintenance Tax (HMT) is a levy placed on the value of cargo that is imported to a port within the United States or that is transported between two U.S. ports. The levy is assessed at a rate of 0.125 percent of the value of the cargo. The tax is assessed only once on cargo that is transported between one U.S. port to another; however, cargo that is carried from a foreign port may be taxed twice—once upon arrival at the initial U.S. port, and again if transported aboard a different vessel to another U.S. port. CRS concluded that the tax discourages domestic water shipment of import and export containers.⁹ CRS also noted the tax could be particularly cumbersome for domestic vessel operators carrying containers of mixed cargo assembled by consolidators, because these typically hold shipments from multiple customers.
- *Shipper Reluctance:* There exists a general reluctance among freight shippers to try new, relatively unproven, modes of transportation. Many shippers rely on trucks or trains because they are known modes, and consequently, they may be reluctant to utilize SSS even if it is marginally more cost effective.

⁶See CRS R44831 *Revitalizing Coastal Shipping for Domestic Commerce*. May 2, 2017. <https://crsreports.congress.gov/product/pdf/R/R44831>

⁷Texas Transportation Institute, Center for Ports and Waterways, *A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 2001–2014*, prepared for the National Waterways Foundation, January 2017, p. 7.

⁸Mulligan, Robert F. and Lombardo, Gary A., *Short Sea Shipping: Alleviating the Environmental Impact of Economic Growth*. World Maritime University Journal of Maritime Affairs, Vol. 5, No. 2, pp. 55–70, 2006. Available at SSRN: <https://ssrn.com/abstract=1028845>

⁹See CRS R41590, *Can Marine Highways Deliver?*, January 14 2011.

- *Ship Financing*: It is difficult for potential shipbuilders to secure financing for new ship construction if they do not have freight contracts in place. Freight and logistics companies are often unwilling to enter into those contracts for a service that has not proven itself and at a cost that cannot be specified before the ship is delivered from a shipyard and placed into service. To help overcome ship financing barriers, SSS proponents have advocated allowing the Capital Construction Fund (CCF) program to be used for SSS. The CCF is a tax-deferred program that allows ship owners to defer Federal income taxes on their deposits as long as the withdrawals are used to build ships in a U.S. shipyard (similar to an IRA for ship owners). Others have recommended increased use and funding of MARAD's Title XI loan guarantee program under which the Federal Government will guarantee the mortgage of a ship owner for up to 30 years.
- *Insufficient Port Facilities*: Currently, major container ports are built to service large, ocean-going vessels. It is likely any additional cargo that would enter the Marine Highway System would enter at these ports which are equipped with large cranes to service large container ships. An expansion of SSS may require the construction of right-sized infrastructure that can service SSS vessels, many of which may utilize Roll-on/Roll-off technology (meaning that cargo can be driven or pushed on and off the vessel) rather than crane technology. Additional infrastructure investments may be necessary in smaller ports to ensure their ability to receive SSS cargoes.



Figure 1—America's Marine Highway Program, Maritime Administration. Designation of these Marine Highway Routes is the first step towards reducing landside congestion by focusing public and private efforts on increasing the amount of cargoes and passengers transported on commercially navigable waterways. See <https://www.maritime.dot.gov/grants/marine-highways/marine-highway>.

FEDERAL INVOLVEMENT

Congress established America's Marine Highway Program (AMHP) at MARAD in 2007 in order to reduce landside congestion through the designation of Marine Highway Routes. In 2012, Congress expanded the scope of the program to provide support for projects that generate public benefits by utilizing Marine Highway Routes. Though the AMHP has existed for over a decade and a number of projects have been designated as SSS routes, the system remains underutilized. The Consolidated Appropriations Act of 2019, signed by the President on February 15, 2019, provided \$7,000,000 for the AMHP to be used for Marine Highway Grants for the development and expansion of documented vessels, and port and landside infrastructure.

The AMHP currently includes 25 all-water Marine Highway Routes that serve as extensions to the surface transportation system.¹⁰ Routes are designated by the Secretary of Transportation because they can offer relief to traffic congestion on landside corridors, address excessive air emissions, or other environmental concerns and challenges, or provide new transportation options.

MARAD identifies specific SSS opportunities through the Office of Marine Highways. Every 6 months, MARAD reviews applications and designates new Marine Highway Projects. SSS operators can receive designation through the Office of Marine Highways if their proposal has the potential to offer public benefits and long-term sustainability without long-term Federal support. Once a project has been received designation as a Marine Highway Project, it receives preferential treatment for Marine Highway Grants or any future federal assistance from the DoT and MARAD.

MARAD released its last report on the AMHP in April 2011, where it summarized the motivations behind the Program and federal support required to capture environmental, economic, and security benefits of the Program in addition to steps for implementation.¹¹ The program can work in conjunction with other MARAD grants to improve port and terminal intermodal infrastructure, as well as in collaboration with the Environmental Protection Agency's SmartWay and Clean Ports initiatives.

While MARAD issued grants totaling \$7 million in 2010, the AMHP has not provided the investment, incentives, or assistance needed to jumpstart a robust SSS industry. In 2016 and 2017 the Program received \$5 million from Congress and another \$7 million in 2018.

WITNESS LIST

PANEL I

- Rear Admiral Mark H. Buzby, USN, Ret., Administrator, Maritime Administration

PANEL II

- Mr. Jon Nass, Chief Executive Officer, Maine Port Authority
- Mr. James Weakley, President, Lake Carriers' Association
- Mr. Larry Willis, President, Transportation Trades Department, AFL-CIO

¹⁰ See <https://www.maritime.dot.gov/grants/marine-highways/marine-highway>

¹¹ See <https://www.maritime.dot.gov/sites/marad.dot.gov/files/docs/intermodal-systems/marine-highways/3051/maradamhreporttocongress.pdf>. The report also includes recommendations for leveraging the program through paired grants.

SHORT SEA SHIPPING: REBUILDING AMERICA'S MARITIME INDUSTRY

WEDNESDAY, JUNE 19, 2019

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

The subcommittee met, pursuant to call, at 3:18 p.m., in room 2167, Rayburn House Office Building, Hon. Sean Patrick Maloney (Chairman of the subcommittee) presiding.

Mr. MALONEY. The subcommittee will come to order. I ask unanimous consent that the Chair be authorized to declare a recess during today's hearing. Without objection, so ordered.

Good afternoon. Welcome to today's hearing on short sea shipping. I do apologize to our witnesses, the Members have been detained by votes on the House floor, which just concluded moments ago, so we apologize for keeping you all waiting. It was unavoidable, unfortunately.

So on March 6, the subcommittee examined the state of the maritime industry. In that hearing, the Maritime Administrator and industry representatives repeated a common message: When it comes to growing the American maritime industry, cargo is king.

Now, if you have driven on I-95 recently, you know full well that there is an excess of cargo and, therefore, traffic, on our roads. By 2045, truck freight volume is expected to grow by 43 percent, which without major infrastructure improvements, will further clog our roads and highways. This increased traffic would be significantly alleviated if we shifted cargo to our waterways through short sea shipping.

Short sea shipping is the waterborne transportation of commercial freight between domestic ports through inland and coastal waterways. While our friends in Europe have placed short sea shipping at the center of their transportation policies, moving over 40 percent of all European freight on oceans and inland rivers, we have failed to leverage our existing programs to provide additional support for our domestic shipping industry. An invigorated short sea shipping industry would not only increase the state of good repair of the U.S. roads and bridges by reducing maintenance costs from wear and tear and improve air quality and emissions, but it would also help to address the critical shortage in our merchant mariner workforce.

Administrator Buzby and other Government officials have repeatedly stated that we have 1,800 fewer mariners than what is

needed to address America's sealift needs. That gap would quickly begin to close if we fully utilized America's marine highway and began shipping cargo on coastwise ships.

In order to rigorously promote short sea shipping, we must develop a national multimodal transportation and infrastructure plan that prominently features maritime transportation. The Maritime Administration claims to be working to maintain the health of the merchant marine, yet in the 5 years since Congress tasked MARAD with the development of a comprehensive maritime strategy, we have seen little movement to create a comprehensive plan to promote short sea shipping.

So I look forward to hearing from Admiral Buzby on the status of that strategy, particularly as it pertains to short sea shipping. I also look forward to hearing from our civilian panel on the benefits of short sea shipping, the status of projects that currently exist, and what Congress and the administration can be doing to advance the use of marine highways.

Now I would call on the ranking member, Mr. Gibbs, for his opening remarks.

[Mr. Maloney's prepared statement follows:]

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

Good afternoon and welcome to today's hearing on Short Sea Shipping. On March 6th, the Subcommittee examined the "State of the Maritime Industry." In that hearing, the Maritime Administrator and industry representatives repeated a common message—when it comes to growing the American maritime industry, "cargo is king."

If you've driven on Interstate 95 recently you know full well that there is an excess of cargo, and therefore traffic, on our roads. By 2045 truck freight volume is expected to grow by 43 percent which, without major infrastructure investments, will further clog our roads and highways. This increased traffic would be significantly alleviated if we shifted cargo to our waterways through Short Sea Shipping.

Short Sea Shipping is the waterborne transportation of commercial freight between domestic ports through inland and coastal waterways. While our friends in Europe have placed Short Sea Shipping at the center of their transportation policies, moving over 40 percent of all European freight on oceans and inland rivers, we have failed to leverage our existing programs or provide additional support for our domestic shipping industry.

An invigorated Short Sea Shipping industry would not only increase the state of good repair of the U.S. roads and bridges by reducing maintenance costs from wear and tear and improve air quality and emissions, but would help to address the critical shortage in our merchant mariner workforce. Administrator Buzby and other government officials have repeatedly stated that we have 1,800 fewer mariners than what is needed to address America's sealift needs. That gap would quickly begin to close if we fully utilized America's marine highways and began shipping cargo on coastwise ships.

In order to rigorously promote Short Sea Shipping, we must develop a national multi-modal transportation and infrastructure plan that prominently features maritime transportation. The Maritime Administration claims to be working to maintain the health of the merchant marine. Yet in the 5 years since Congress tasked MARAD with the development of a comprehensive maritime strategy we have seen little movement to create a comprehensive plan to promote Short Sea Shipping. I look forward to hearing from Admiral Buzby on the status of that strategy, particularly as it pertains to Short Sea Shipping. I also look forward to hearing from our civilian panel on the benefits of Short Sea Shipping, the status of projects that currently exist, and what Congress and the Administration can be doing to advance the use of marine highways.

Mr. GIBBS. Thank you, Chairman.

Increased use of waterborne transportation of commercial freight between domestic U.S. ports—short sea shipping—could expand the limited and increasingly crowded freight transportation capacity of the Nation’s rail and road system without the need for large additional public investments. Historically, freight has been moved by water in the United States, and a large portion of bulk shipments still move by water. Increased availability of trains and trucks have reduced the usage of water transportation for movement of higher value freight.

Water is far and away the most fuel efficient way to move freight, but since it is geographically confined by where there is water, it is limited in its ability to get goods to the ultimate destination, the last-mile problem, and every loading, unloading, and reloading of freight adds expense and time delays.

Increased freight volumes, limited dollars to invest in new infrastructure, increased road congestion, and increased interest in reducing air emissions have also been cited in recent years as reasons that short sea shipping should be examined as an alternative source of added transportation capacity. However, movement of container freight on America’s waterways has not increased. The reasons given include the configuration of large ports to handle large vessels, a reluctance of freight shippers to move to new modes of transportation, and the difficulty for potential shipbuilders to secure financing for new ship construction if they do not have freight contracts in place to prove that they can pay off the vessels’ mortgages.

In 2007, Congress established a short sea transportation program to promote the domestic transportation of freight by water. I look forward to hearing from the witnesses today about whether that program has worked and what additional public or private actions can be taken to promote such transportation.

Mr. Chairman, I look forward to the hearing today, and I yield back.

[Mr. Gibbs’s prepared statement follows:]

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

Increased use of waterborne transportation of commercial freight between domestic U.S. ports—short sea shipping—could expand the limited, and increasingly crowded, freight transportation capacity of the Nation’s rail and road system without large additional public investment.

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Increased freight volumes, limited dollars to invest in new infrastructure, increased road congestion, and increased interest in reducing air emissions have all been cited in recent years as reasons that short sea shipping should be examined as an alternative source of added transportation capacity.

However, movement of container freight on America’s waterways has not increased. Reasons given include, configuration of large ports to handle large vessels; the reluctance of freight shippers to move to new modes transportation; and, the dif-

faculty for potential shipbuilders to secure financing for new ship construction if they do not have freight contracts in place to prove that they can pay off the vessel's mortgages.

In 2007, Congress established the Short Sea Transportation program to promote the domestic transportation of freight by water. I look forward to hearing from the witnesses today about whether that program has worked, and what additional public or private actions can be taken to promote such transportation.

Mr. MALONEY. I thank the gentleman.

I would like to welcome the witness on our first panel, Rear Admiral Mark H. Buzby, Administrator of the Maritime Administration.

Thank you for being here today, sir. I look forward to your testimony.

Without objection, our witness' full statement will be included in the record.

Since your written testimony has been made part of the record, sir, the subcommittee requests that you limit your oral testimony to 5 minutes. Thank you for being here. You may proceed.

**TESTIMONY OF REAR ADMIRAL MARK H. BUZBY, U.S. NAVY
(RET.), ADMINISTRATOR, MARITIME ADMINISTRATION**

Admiral BUZBY. Right. Thank you.

Good afternoon, Chairman Maloney, Ranking Member Gibbs, members of the subcommittee, I appreciate the opportunity to testify this afternoon on the Maritime Administration's efforts to foster, promote, and develop short sea shipping through America's Maritime Highway Program. The marine highway system consists of our Nation's navigable waterways, including rivers, bays, channels, the Great Lakes, St. Lawrence Seaway System, coastal and open ocean routes.

As established by Congress, America's Marine Highway Program aims to reduce road congestion, emissions, conserve energy, improve safety, and reduce landside infrastructure costs. Marine transport of goods offers a safe and efficient option for shippers. One study estimates that in 2014, congestion on our roads, bridges, railways, and in ports cost the United States as much as \$160 billion; trucks accounting for \$28 billion of this cost. Overall, the volume of imports and exports transported by our freight system is expected to more than double over the next 30 years. This will have an implication for ports which handle approximately 70 percent of America's international trade by volume. Expanding existing or establishing new marine highway services on commercially navigable waterways is a cost-effective way to meet some of our freight transportation needs and relieve landside congestion.

America's Marine Highway Program designates routes and projects and provides grant funding. As of this month, DOT has designated 25 marine highway routes comprising a significant portion of our navigable waterways. A semiannual call for projects helps to identify concepts for new or expansion of existing marine highway services that have the potential to offer public benefits and long-term sustainability without long-term financial support from the Federal Government. To date, DOT has awarded \$24 million in competitive marine highway grants, supporting at least six new and two existing marine highway services. America's Marine Highway Program grant-funded services moved 35,215 20-foot

equivalent units, or TEUs, in fiscal year 2016 by water, saving an estimated \$1.5 million in road maintenance and congestion costs. These savings were from the M-64 Express Marine Highway Service, running between Hampton Roads and Richmond, Virginia, the only grant-funded marine highway service operating in the United States at that time.

In fiscal year 2017, savings calculations were estimated at \$3.6 million and increased to more than \$4.9 million in fiscal year 2018; a result of a new Baton Rouge to New Orleans service and a New York Cross Harbor service. While the numbers may be small relative to the initial grant, the equipment will operate for decades, in most cases, and the reductions in infrastructure damage, emissions, and fatalities will be felt for years. We are considering specific ways the Maritime Administration can maximize America's highway benefits, particularly using our marine highways to move Federal cargo. We are also exploring partnerships with the EPA Smart Way program and other such programs to tout the efficiencies of utilizing the marine highway system.

Finally, the Maritime Administration has been proactive in engaging with local and regional officials and private entrepreneurs in analyzing specific logistical challenges where a waterborne solution may offer the best and most sustainable approach.

We are proud of the effect that the America's Maritime Highway Program has had in support of the Jones Act, and are excited about the momentum it is building in such a short period of time, but we are not done. We believe that continued expansion of the use of marine highways can greatly benefit the marine industry generally, while reducing road traffic and emissions and landside infrastructure costs.

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

[Admiral Buzby's prepared statement follows:]

**Prepared Statement of Rear Admiral Mark H. Buzby, U.S. Navy (Ret.),
Administrator, Maritime Administration**

Good afternoon, Chairman Maloney, Ranking Member Gibbs and members of the Subcommittee. I appreciate the opportunity to testify today on the Maritime Administration's (MARAD) efforts to foster, promote and develop short sea shipping in the United States through the America's Marine Highway Program (AMHP).

The Marine Highway System consists of our Nation's navigable waterways including rivers, bays, channels, the Great Lakes, the Saint Lawrence Seaway System, coastal, and certain open-ocean routes. These navigable waterways touch 38 states plus the District of Columbia and Puerto Rico. The purpose of the AMHP is to further incorporate these waterways into the overall U.S. transportation system, especially where marine transportation services are the most efficient, effective, and sustainable transportation option.

Congress established the AMHP through the Energy Independence and Security Act of 2007, P.L. 110-140. Recognizing the potential in the program, in following years Congress expanded and modified the program. The Coast Guard and Maritime Transportation Act of 2012, P.L. 112-213, expanded the program to include efforts to increase the utilization and efficiency of domestic freight and passenger transportation on Marine Highway Routes between U.S. ports. The National Defense Authorization Act of Fiscal Year 2016, P.L. 114-92, broadened the definition of short sea shipping to include more kinds of cargo and cargo or freight vehicles carried aboard commuter ferry boats.

PURPOSES OF THE AMERICA'S MARINE HIGHWAY PROGRAM

The AMHP is intended to, among other things, reduce travel delays caused by congestion, cut greenhouse gas emissions, conserve energy, improve safety, and reduce landside infrastructure costs. Marine transport of goods offers a safe and efficient option for shippers as reflected in the tables below:¹

EMISSIONS		SAFETY		FUEL EFFICIENCY	
Mode	Tons of GHG/ Million Ton-Miles	Mode	Ratio of Fatalities/ Million Ton-Miles	Mode	Ton-Miles/ Gallon
Barge	15.6	Barge	1	Barge	647
Railroads ...	21.2	Railroads ..	21.9	Railroads ..	447
Truck	154.1	Truck	79.3	Truck	145

Congestion on our surface transportation system significantly impacts our economic prosperity and quality of life. One study estimates that in 2014 congestion cost America's urban commuters an estimated \$160 billion in wasted time and fuel; trucks account for \$28 billion of this cost.² Overall, the volume of imports and exports transported by our freight system is expected to more than double over the next 30 years. This will have implications for ports, which handle approximately 70 percent of America's international trade by volume.³ Most of this additional cargo will ultimately move along our surface transportation corridors, many of which are currently at or beyond capacity.

Expanding existing or establishing new marine highway services on commercially navigable waterways is a cost-effective way to meet our freight transportation needs and relieve landside congestion.

The AMHP consists of three elements: Route designation, project designation, and grants.

MARINE HIGHWAY ROUTES

Marine Highway Routes are commercially navigable coastal, inland, and intra-coastal waters of the United States as designated by the Secretary. This includes connections between U.S. ports and Canadian ports on the Great Lakes-Saint Lawrence Seaway System, and non-contiguous U.S. ports. Marine Highway Routes are a component of the Nation's surface transportation system. Public entities may apply to MARAD at any time to request that the Secretary of Transportation designate (i.e., establish) a Marine Highway Route. To be eligible for designation, at a minimum a route must relieve landside congestion along coastal corridors or promote short sea transportation, as well as meet AMHP objectives described in regulations.⁴ As of this month, DOT has designated 25 Marine Highway Routes comprising a significant portion of our navigable waterways.⁵ The Marine Highway Routes are numbered akin to the interstate highways that they generally parallel. The latest route to be designated, the M-H1, are the waters in and around Hawaii.

MARINE HIGHWAY PROJECTS

Marine Highway Projects are planned or contemplated new services, or expansions of existing services, on designated Marine Highway Routes, that seek to pro-

¹ Tables created from data in, *A Modal Comparison of Domestic Freight Transportation Effects on the General Public*, Texas Transportation Institute, Center for Ports and Waterways, as amended (2017): <http://nationalwaterwaysfoundation.org/documents/Final%20TTI%20Report%202001-2014%20Approved.pdf>

² *2015 Urban Mobility Scorecard*, Texas A&M Transportation Institute and INRIX (2015), 2015 Urban Mobility Scorecard [<https://d2dt15nnlpr0r.cloudfront.net/tti.tamu.edu/documents/mobility-scorecard-2015.pdf>].

³ *BTS Freight Facts and Figures 2016*, Figure 2-9, BTS Freight Facts and Figures 2016 [<https://www.bts.gov/bts-publications/freight-facts-and-figures/freight-facts-figures-2017-chapter-2-freight-moved>].

⁴ 46 CFR 393.2

⁵ See attachment 1.

vide new modal choices to shippers, reduce transportation costs, and/or provide public benefits, which include reduced air emissions, reduced road maintenance costs, and improved safety and resiliency impacts. These projects represent concepts for new, or expansion of existing, marine highway services that have the potential to offer public benefits and long-term sustainability without long-term Federal support. The desired outcome is that designated projects will help start new businesses or expand existing ones to move more freight or passengers along America's navigable coastal, inland, and intra-coastal waters. The AMHP publicizes a semi-annual "Call for Projects." In response, applicants propose projects and the Secretary of Transportation may designate qualified projects as "Marine Highway Projects."

MARINE HIGHWAY GRANTS

Competitive grants form the third component of the AMHP. Only Marine Highway Projects designated by the Secretary are eligible to apply for Marine Highway Grants. Grantees may use the funds to develop and expand the availability of documented vessels and port and landside infrastructure. Only projects the Secretary designates are eligible to apply for Marine Highway Grants. Either the grant applicant, or private entities with endorsement by the applicant, are eligible to apply for grant funding. There are currently 25 designated projects.⁶

To date, DOT has awarded \$24 million in Marine Highway Grants supporting six new and two existing marine highway services. In two instances, we funded vessel construction. In another case, interest from users on the inland waterways spurred Taylor Manufacturing of Louisville, MS, to engineer a "negative drop" reach-stacker used to load containers into river hopper barges; that equipment had previously only been available from foreign sources.

The AMHP is clearly having an impact. Metrics we gather to measure that impact include the number of truck road miles that have been eliminated. Using Federal Highway Administration formulas, MARAD estimates the public benefits of funded projects in dollars. In FY 2016 AMHP grant-funded services moved 35,215 twenty-foot equivalent units (TEUs) by water saving approximately \$1.5 million in road maintenance and congestion costs. These savings were from the M-64 Express Marine Highway Service, running between Hampton Roads and Richmond, Virginia, the only grant funded marine highway service operating in the United States at that time. That number has continued to increase. In FY 2017 savings calculations were an estimated \$3.6 million and increased to more than \$4.9 million in FY 2018. This positive momentum is a result of additional new services being added: the Baton Rouge to New Orleans Service and the New York Cross Harbor Service. While the numbers may be small relative to the initial grant, the equipment will operate for decades in most cases, and the reductions in infrastructure damage, emissions, and fatalities will be felt for years.

ACTIONS THAT COULD EXPAND THE AMERICA'S MARINE HIGHWAY PROGRAM'S REACH

We manage the AMHP with an eye toward innovation and constant improvement. To that end, we are considering specific ways MARAD can maximize the program's effects. First, we are exploring opportunities with other Federal entities to transport federally-owned or generated cargo using a short sea transportation project when practical or available. We are also exploring partnerships with the EPA's Ports Initiative and Smart Way Programs, and other such programs, to tout the efficiencies and environmental benefits of utilizing the Marine Highway System. Finally, MARAD has been proactive in engaging with local and regional officials, and private entrepreneurs, in analyzing specific logistical challenges where a waterborne solution may offer the best and most sustainable approach.

CONCLUSION

We are proud of the effect that the AMHP has had and are excited about the momentum it is building in the interest of national security, economic success, and the lives of the American people, but we are not done. We will continue to support innovation through the AMHP.

Mr. Chairman, thank you for the opportunity to discuss the AMHP and MARAD's efforts to expand short sea shipping opportunities. I appreciate the Subcommittee's continuing support for maritime programs and I look forward to working with you on advancing maritime transportation in the United States. I will be happy to respond to any questions you and the members of the Subcommittee may have.

⁶See attachment 2.

ATTACHMENT 1



ATTACHMENT 2

List of Designated Marine Highway Projects

Project Name	Date Established	Marine Highway
New England Marine Highway Expansion Project ...	2010	M-95
James River Container Expansion Project	2010	M-64
Trans-Hudson Freight Connector Project	2010	M-95
Tenn-Tom Freight Project	2010	M-65
Detroit/Wayne County Ferry Project	2010	M-75
Gulf Atlantic Marine Highway Project	2010	M-95 & M-10
Cross Gulf Container Expansion Project	2010	M-10
Cross Sound Enhancement Project	2010	M-95
M-55/M-35 Container on Barge Project	2015	M-55 & M-35
Potomac River Commuter Ferry Project	2015	M-495
New York Harbor Container and Trailer-on-Barge Service	2015	M-95

List of Designated Marine Highway Projects—Continued

Project Name	Date Established	Marine Highway
Baton Rouge-New Orleans Shuttle	2016	M-55
Paducah/McCracken County Container on Barge Marine Highway Project	2016	M-70
Illinois Intrastate Shuttle	2016	M-55
Lake Erie Shuttle Service on the M-90	2016	M-90
Great Lakes Shuttle Service	2017	M-90
Mid-Atlantic Barge Service	2017	M-95
Container on Barge & Heavy-Lift Corridor Service at Freeport TX	2017	M-69
Philadelphia-Canaveral Direct Service	2017	M-95
Port of Davisville/Brooklyn/Newark Container on Barge Service	2018	M-95
Harbor Harvest Long Island Sound Project	2018	M-95
Container on Barge Service on the M-70 and M-35 ..	2018	M-70 & M-35
South Carolina Ports Authority Container on Barge Service	2018	M-95
Port of Everett Container on Barge Service	2018	M-84
Chambers County Container on Barge Expansion Service	2018	M-69

Mr. MALONEY. I thank the gentleman.

I will now proceed to questions. I will be observing a 5-minute rule this afternoon. I will begin by recognizing myself for 5 minutes.

Admiral Buzby, please help us understand what the principal barriers are to marine highway development, and please also comment on when the Congress can expect to see the national maritime strategy, since we have been waiting for some time on that document and that strategy. And would you also refer to the role that short sea shipping would play in such a strategy.

Admiral BUZBY. Yes, sir. Thank you. I will address that strategy piece first.

As you know, Congress has given us now an extension till the 13th of February of next year, 2020, and I fully expect that we will present the strategy within that timeline, sir. It is currently in interagency coordination, and I will be standing by to get it and move it forward to you, sir.

Mr. MALONEY. What can you tell us about it, sir? Give us a preview of coming attractions. Don't ruin the ending. I don't want any spoilers, but surely after 6 years, we have got to have some thoughts on what we are doing, right?

Admiral BUZBY. I can tell you this, foundationally it is built on the Merchant Marine Act of 1936, the Jones Act, cargo preference. It is built on those things that have kept the merchant marine alive and breathing, quite frankly, so that is the basis of it.

I think that you will see that short sea shipping and port development and port modernization play a key role, recognizing that our ports are our economic gateways to this country, the majority of our goods flow through those ports and then are distributed through rail, through highways and hopefully increasingly through maritime highways. So that will be a key element of that, making sure we continue to modernize that flow and, of course, preparing the workforce for the future.

That is a very key element of the strategy to make sure that we are modernizing and bringing enough people in, which is why the National Security Multi-Mission Vessel program is a very key element of that. So while you haven't seen it yet, a lot of the things that we are doing right now, you will recognize in that strategy when you see it. We haven't stopped waiting for that to be approved to move forward.

Mr. MALONEY. And short sea shipping?

Admiral BUZBY. Short sea shipping, the barriers, I think, that are keeping us from really surging ahead thus far, I would say, number one, is probably awareness, education of shippers, that there are these ultimate means. And quite frankly, it is understanding the business case that exists to move things by water.

It takes a little digging into and understanding, especially when you are just used to throwing it on the back of a truck or throwing it on a railcar, understanding that there are other ways to move it that, you know, there may be tradeoffs in time or other certain aspects of it, but in the end, it can have significant impacts in terms of the environment, in terms of savings due to road wear and everything else.

Mr. MALONEY. What are the Europeans doing that we are not?

Admiral BUZBY. Sorry?

Mr. MALONEY. What are the Europeans doing that we are not?

Admiral BUZBY. Well, you know, they have not benefited from the road network and the rail network that we have. We have been very blessed in this country in that we have such an extensive road network that has enabled trucking really to take the place of what rivers do in Europe. We kind of got spoiled in that respect. You think back, our river system, our coastal system, that is how America moved goods in the beginning. Before we had roads, before we had railroads, that is how it all happened. We moved away from that because we got so darn good with our rail system and our road system, both of which are becoming overtaxed now.

So our waterways are our one artery where we still have a lot of capacity to grow into, and if we double our cargo, as we say we think we are going to do over the next 30 years, we won't have any choice; we will have to go into the waterways.

Mr. MALONEY. Mr. Gibbs?

Mr. GIBBS. Thank you.

Thank you, Admiral, for being here.

Some of the options, I know the shipping community has suggested that the harbor maintenance fee, Harbor Maintenance Trust Fund, the law—any cargo that is imported from Canada or between U.S. ports, there is the ad valorem tax for the Harbor Maintenance Trust Fund. Do you know how much is raised annually as a result between the domestic shipments?

Admiral BUZBY. I don't have the number right at the tip of my tongue, but, you know, that is an issue, is when you are doing that sort of domestic shipping, you end up paying twice.

Mr. GIBBS. Do you think it is enough that it is a disincentive to increase short sea shipping?

Admiral BUZBY. It certainly is a factor. Like every form of transportation has cost factors that have to be factored in, this is one that has to be factored in.

Mr. GIBBS. I just raised this because some in the shipping community are raising it—and at least from the Canadian and domestic ports to ports.

Admiral BUZBY. Right.

Mr. GIBBS. You know, we maybe talked about this in the questions from the chairman, but is there anything the Federal Government could do to really try to jump start the short sea shipping?

You talked a little bit about infrastructure. I guess I am just trying to think—this is really a private sector thing and there are challenges, there are obstacles for one to do that. Some of that is getting financing, building new ships, just reluctance from shippers because there is competition between other modes of transportation.

Do you see anything specifically that the Federal Government should be doing to maybe help give confidence to the shippers to want to increase their assets or capabilities?

Admiral BUZBY. I think this program is a great impetus to try and do that because it is not just the fact that we are designating projects and providing grants for those designated projects, which is an incentive, but I think the education piece, as I mentioned before, is really important. It is just not well-known, it is just not well-appreciated, I think, by most shippers and many carriers, that this alternate means exists and it can be beneficial to their business.

At the end of the day, it comes down to a business case, people moving goods around. The business case has to be there in order to do that. The reliability has to be there, costwise it has to work, schedulewise it has to work. In some areas, marine highways work like a champ where we have seven very good, strong programs that are out there working where all of those pieces fit in, but, you know—so that is discovery. People figured that out, so more of that discovery has to occur, so—

Mr. GIBBS. I think most of shipping and short seas maritime is really bulk commodities, for lack of a better word, maybe not so much the containers.

Admiral BUZBY. Right. And this program is specific. It doesn't address bulk, because bulk is moving pretty well. This program was developed to address containers and later on break bulk—

Mr. GIBBS. What was that last part?

Admiral BUZBY. Break bulk, palletized goods. Which, you know, in some areas—I think if you look at New York, if you look at the New York area itself, a lot of the users of goods in New York City or the area don't need a 20-foot TEU worth of stuff; they need a pallet. So to the extent that you can use the harbor to move things around instead of on a truck, in a small vessel or something, move a pallet size and then move it through the streets, I think there is potential there that could be exploited. And I know there are entrepreneurs out there that are looking at that kind of a thing. You know, it is people thinking beyond the normal, we are stuck with this size, this is all we got.

Mr. GIBBS. I guess if they could think outside the box and satisfy what the markets demanding are asking, and I think you just gave an example of that.

Admiral BUZBY. Yeah. There are other projects around that, I think, have great promise. They just need to kind of be fully baked. They are conceptual in many cases. They just have to work through that business case and then they will be ready to go.

Mr. GIBBS. Thank you. I yield back.

Mr. MALONEY. I thank the gentleman.

Mr. Gallagher.

Mr. GALLAGHER. Thank you, Mr. Chairman.

Admiral Buzby, thank you for being here. Thank you for your testimony.

You mentioned the link between short sea shipping—it is very hard to say quickly—and the Jones Act. Obviously, the Jones Act is always the subject of debate. What do you think the biggest misconception out there about the Jones Act is? If you could sort of talk to the American people about why the Jones Act is important and correct sort of some of the misconceptions, what is at the top of that list?

Admiral BUZBY. Well, these days, it is getting to be that the Jones Act is the root of all evil, everything that is wrong is the fault of the Jones Act, and that everything that costs more is a result of the Jones Act, and that is just not borne out in the facts. When you look at the detriment that would be caused to this Nation by the Jones Act going away, in terms of impact of shipbuilding and ship repair, or the 40,000 vessels that are Jones Act vessels that all get built and repaired in U.S. shipyards, to the number of people that are employed, the American mariners that are employed that, oh, by the way, on some of the larger Jones Act ships I depend upon to help crew up our sealift vessels, they would go away. To just the people that are pushing, you know, transiting our waterways, American citizens that are a de facto layer of security for our Nation. They are out there every day. They know what normal looks like. If they see something wrong, they are going to say something is wrong. I don't think we can believe that would ever happen with a foreigner pushing goods up and down our internal waterways, and why would we want to turn our internal commerce over to a foreigner to control. It blows my mind. So, I think for all of those reasons, it is absolutely critical.

Mr. GALLAGHER. I appreciate that. And you mentioned in your testimony that we have congestion on our roadways and, therefore,

we have an advantage when it comes to maximizing our maritime shipping lanes. Can you also speak about the importance of icebreaking for keeping maritime shipping lanes open and our current icebreaking capacity on the Great Lakes?

Admiral BUZBY. Obviously, icebreaking falls into the purview of the Coast Guard, and as we heard the Commandant last time he and I were here speak, he believes he has a plan, for the Great Lakes at least anyway, and he needs obviously some help in the high latitudes with our new Polar Security Cutters. But clearly, especially on those cold winters, icebreaking capacity on the upper reaches of the rivers and the Great Lakes toward the end of the seasons is really vital to ensuring that flow of goods and that flow of commerce. On those years where we have heavy freeze and heavy icing on the upper Mississippi, it wreaks havoc, and even up on the upper Hudson, we have heavy ice years, it wreaks havoc. So I know the Coast Guard has a lot of inland cutters, 140 footers that they task pretty heavily, but they all are a vital part of the entire marine highway system, absolutely.

Mr. GALLAGHER. Thank you. I yield the balance of my time.

Mr. MALONEY. I thank the gentleman.

Mrs. Miller.

Mrs. MILLER. Thank you, Chairman Maloney. And thank you, Admiral, for being here today.

Short sea shipping, especially along our Nation's rivers, is vitally important in my district in West Virginia. The Huntington Tri-State Port is one of the largest inland water ports. It was the largest till Cincinnati got dredged, if I remember correctly, but it ships over 80 million tons of cargo every year. That is 80 million tons of natural resources reaching domestic and foreign markets creating jobs and driving our economy. Our waterways are essential for efficiently shipping our products and staying competitive in the global market.

This is a little bit like Congressman Gibbs's question, but what steps can Congress take to promote maritime careers for hard-working Americans?

Admiral BUZBY. Thank you for the question, and it is a great one because it really speaks to the workforce issue, which is a big focus of mine. And traditionally, MARAD has really focused at the State maritime academies and Kings Point, our Federal maritime academy. We are increasingly looking lower now. We are looking deeper into our educational system down to the high school level. Maritime-focused high schools at community colleges, we are getting ready to fire off the Centers of Excellence for Domestic Maritime Workforce Training and Education. I will be coming out with the advertisement for that for comment here very shortly, but we really see that as the generator of maritime workforce, especially for the inland sector, Jones Act sector, becoming so much more important in the future.

As we see growth on our maritime highways, we need to kind of get ahead of that, if you will, I think, through increased focus at our high school level, and I have asked all of my State maritime academy presidents to reach out in their regions to start interfacing with those folks to start getting it known that maritime education, maritime careers, both ashore and afloat, are really going

to be vital to our Nation and they are good-paying jobs. You will be able to raise a family on them.

Mrs. MILLER. I am glad to hear you say that because there is much more focus on career in technical happening now, and so I think that would be wonderful.

What are the biggest regulatory burdens or unfair taxes imposed on maritime shipping industry that keep it from competing with trucking and rail?

Admiral BUZBY. Well, we talked about the Harbor Maintenance Tax and the fact that that is kind of a double jeopardy thing. That has to probably ultimately be addressed at some point. I am not sure how that is going to go, but that has been raised repeatedly as an issue. We hear it from industry. It has been made to work in some places, but depending on the market, depending on the commodity, depending on the circumstances, it can be more of a challenge to keep those programs moving forward. I think that is probably the biggest thing.

Mrs. MILLER. The maritime highway system includes the section of the Ohio River that connects my district to the rest of the country. How has the program expanded since its enactment, and how can Congress continue to help the Maritime Administration promote maritime highways?

Admiral BUZBY. We have designated 25 marine highway routes, and that really covers most of the navigable waterways. We may have a couple yet to go, but I think we have pretty much—I think we have one that is under consideration actually right now by the Secretary, but we have done a pretty good job, I think, of covering the navigable waters. But, you know, there may be others, and we will certainly look for nominations of those designations, because that is the basis of the program.

You have to have a highway in order to support the project. So once the highway is there, the project can then go forward, and that project designation then enables it to be considered for grant funding based on the merits of the program and I think that will continue to grow. I mean, every year, we see more programs being requested for designation, and we are able to then consider more for grants and that is, you know, we can spread the funding that we get a little bit broader every year with the broader grants, with the broader programs.

Mrs. MILLER. OK. Thank you.

Are the Navy and the Coast Guard continuing to find more effective ways to see that their ship drivers are eligible to receive merchant mariner credentials after they leave the Service?

Admiral BUZBY. Of course, we have the Military to Mariner program, which we continue to push forward on. Of course, the President passed the Executive order a couple of months back that helped that process along. I know I can speak for the Navy, my old Service, they have done a lot of effort to try and start cataloging the sea time and the actual coursework that is done during the course of an officer's career in order to make that transition, if they so choose to do it, much easier than it was even a couple years ago.

So to answer your question, yes, we are moving well in that direction. We will get some people to transition over. Unfortunately, most of the people that leave the Navy do so because they don't

like the family separation, and coming into this line of work, you get a little bit more of that. But we do get naval officers and Coast Guard officers and Army officers, for that matter, that enjoy coming over in the merchant marine.

Mrs. MILLER. OK. Thank you. I yield back my time.

Mr. MALONEY. I thank the lady.

Mr. Garamendi.

Mr. GARAMENDI. First, let me compliment you, Mr. Chairman Maloney, for holding this hearing. It is a very, very important step along the way to maintaining and enhancing our maritime industry.

Admiral, I missed your opening statement. I have been busily trying to catch up in reading it, but I do want to thank you for your attention to the issues of maritime. The work that you did with us on the NDAA and the issues there moves it forward, and hopefully, we will be able to expand the maritime support for our military.

Investing in our Nation's inland and coastal waterways will always reduce roadway congestion and fatalities. Short sea shipping can be competitive, but it needs help.

There are many different pieces to this, Army Corps of Engineers dredging programs, or not, docks and the like that are not exactly or even closely designed for the kind of infrastructure necessary for short sea, which is a whole lot different than across the ocean ships and the infrastructure needed for that. It is interesting that the dredging issue in my district becomes very important, and it is not just for freight, but also for moving people.

The ferry system in the San Francisco Bay area sometimes doesn't work because the ferries can't even get to the dock, and so that brings us to the Army Corps of Engineers and their budget and the allocation of their funds. Also, I noticed the exchange between Interstate 80 and 680 in my district, Fairfield area, is probably going to be a multibillion-dollar interchange when it is finished. I guess I am pleased that we provided some \$7 million for short sea shipping, which is some small, small fraction of the billions that will be spent on one interchange, largely because of the truck traffic coming out of this San Francisco Bay area.

In any case, just a couple of questions. How do we make better use of the taxes that are presently collected, and is it necessary for us to find a way of avoiding the double taxation that will occur in short sea shipping?

Would you go into that in a little detail?

Admiral BUZBY. To the extent I can, yes, sir. As we have sort of discussed here earlier, that has long been an issue in short sea shipping, and that is the double jeopardy for Harbor Maintenance Tax, that it gets tagged twice.

Mr. GARAMENDI. This is something that comes to us, and your earlier testimony, once again, I apologize for missing, should be the foundation for an amendment to our current tax law so that we don't double tax so that we eliminate this financial disincentive. Also, I am going to bring your attention, which I suspect you know, there is a very strong incentive to use the Port of Vancouver rather than the ports in Seattle because of that very same tax. So when that train arrives in the Midwest from Vancouver, maybe that tax ought to apply when it crosses the border. I don't think the MCA

took that up, but it is an issue that harms the industry on the west coast.

What is it going to take here? Is it going to take direct subsidies to the shippers? Does it take better infrastructure? Where would you suspect we spend the next \$7 million or \$20 million or \$21 million?

Admiral BUZBY. In terms of marine highways specifically?

Mr. GARAMENDI. Yes.

Admiral BUZBY. Well, I am always siding on the entrepreneurial sort of spirit in this country. Just about all of these projects, you know, that are up and running now, seven that are running and the many, many—25 that are approved and probably another 30 that are in the queue, are all somebody's brain child. They all looked at a situation and said, that makes more sense to move it by water. And now figuring out the business case to make that happen, you know, it takes a while to do it. It doesn't work in every case, but we have good examples where it makes great sense. Some places should not probably ship by water. It just doesn't work, but I think increasingly as we see the costs mounting and the—

Mr. GARAMENDI. Is it possible for the construction of the vessels themselves? We have had programs in the past that supported the construction of vessels. Is that a good place to invest?

Admiral BUZBY. Yeah. You know, building Jones Act vessels of the size that we are talking about here, tugs and barges for the most part, you know, that is not really an issue. The rest of the world doesn't build tugs and barges as well as we do for the cost that we do. We are very competitive. Our shipbuilding industry is very competitive in tugs and barges, so having to provide a lot of—building subsidies, I don't know that that is specifically the answer. Certainly, in the international side—

Mr. GARAMENDI. Just a couple of—one final point. Rebuilding our maritime industry requires specific legislative support for the industry. Next week, we will be introducing the Energizing American Shipbuilding Act. We appreciate your support for that and the Members, many of the folks that are here on the dais, for their support, and folks in the audience. That will provide at least many of the jobs and much of the industrial construction of the ships, so we will be working on that and maybe fit into this. Thank you very much for your testimony.

Mr. Chairman, I yield back.

Mr. MALONEY. I thank the gentleman.

And seeing no further Member questions, I know we have kept you longer than anticipated already, Admiral Buzby. We do have your written testimony for the record. We appreciate very much those submissions as we lay the necessary predicate for some of the good work we want to do as a committee in this area. Work that, without today's hearing, would not be possible under the new House rules, so we appreciate very much your participation. It does help us in our work.

I would like to move to the second panel, if that is possible, and thank you very much, Admiral.

Admiral BUZBY. Thank you very much.

Mr. MALONEY. Thank you.

Mr. MALONEY. While our witnesses are taking the table, I will go ahead and begin to introduce them.

We are lucky to be joined today by Mr. Jonathan Nass, chief executive officer of the Maine Port Authority; Mr. James Weakley, president of the Lake Carriers' Association; and Mr. Larry Willis, president of the Transportation Trades Department, AFL-CIO.

Thank you all for being here today. We look forward to your testimony.

Without objection, our witnesses' full statements will be included in the record, as the previous panel. Since we have your written testimony and it has been made part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes.

Mr. Nass, you may proceed.

TESTIMONY OF JONATHAN NASS, CHIEF EXECUTIVE OFFICER, MAINE PORT AUTHORITY; JAMES WEAKLEY, PRESIDENT, LAKE CARRIERS' ASSOCIATION; AND LARRY I. WILLIS, PRESIDENT, TRANSPORTATION TRADES DEPARTMENT, AFL-CIO

Mr. NASS. Thank you, Mr. Chairman.

Mr. MALONEY. If I could just recommend to the witnesses, you can pull that box as close to you as needed. It does move. And if you speak into the microphone, it helps our stenographer and the folks watching it on TV. Thanks.

Mr. NASS. Chairman Maloney, Ranking Member Gibbs, and members of the Subcommittee on Coast Guard and Maritime Transportation, my name is Jonathan Nass, and I am the chief executive officer of the Maine Port Authority. Thank you for inviting me to speak today on the exciting topic of short sea shipping.

The Maine Port Authority is a quasi-governmental entity tasked with improving Maine's economy by developing and promoting infrastructure that moves freight domestically and internationally.

Maine has a long history of living from and by the sea. If you drive Route 1 along Maine's coast, you will encounter mansions sea captains built over several hundred years in virtually every town you cross through. These once grand houses are monuments of the prosperity once enjoyed from a thriving coastal freight transportation network. Unfortunately, today, many are in disrepair and suggest a time past and many lost opportunities over the last 50 years.

The Maine Port Authority and many others are currently working to revitalize that maritime shipping heritage. We recently developed a brownfield in the City of Portland into the international marine terminal, a container terminal that in just 5 years has gone from a derelict abandoned eyesore to a vibrant international, logistical, multimodal hub connecting Maine to the world. We are very proud to note that we have had annual growth and volume of over 20 to 30 percent every year.

I believe that we can build on that success by connecting northern New England domestically to ports to our south through establishing water service paralleling the congested I-95 highway system on the east coast.

For those of us that live in port cities, moving freight by water is instinct, but it needs to become intuitive for others as well, especially those who set transportation policy. One only needs to sit for a few frustrating hours in Boston or beltway traffic to appreciate the value of alternative transportation of freight. Moving freight from highway to seaway will improve commerce, decrease air pollution, and reduce fuel consumption and traffic congestion in our largest cities.

I am certainly not the first to suggest that the United States has an infrastructure problem. There is no denying it. In maritime terms, the Nation's surface transportation infrastructure is like a vessel taking on water, fast.

Fortunately, fixing our transportation network is not a political issue. Democrats and Republicans all agree it is broken. Rather, it is a policy issue. How will we as a Nation fix it? How can we help you as Congress to address it?

The first step in saving a sinking ship is to plug the leaks. The infrastructure policy debate usually centers around one question: Where will the funding come from to rebuild America's highways?

But there is more to the transportation equation than highways. As with any fixed asset, there is also a matter of depreciation and use. If we can reduce the cost of the highway system, reduce the rate of appreciation, and reduce the rate of growth of trucks on our highways, then we are starting to plug the leaks.

By not making an alternative freight transportation system a national priority, especially short sea shipping alternatives, I believe that we are misusing our surface transportation network. We are missing a win-win opportunity to both stop the leaks in the highway infrastructure while fostering a revitalized waterway economy nationally.

What if we can establish a well-utilized marine highway as functional as roads and bridges but without the cost of pavement and steel, without potholes, without traffic jams? A system where at least some long-haul freight bypasses the heavily congested urban areas.

That is exactly what the Maritime Administration's marine highway is designed to do, and it should be a top priority when fixing the entire system.

Since the Eisenhower administration, the United States has focused on a network of expensive fixed transportation assets. The problem is that with constant patching, lost time, money, road rage, accidents, but we have ignored a great opportunity.

In 2010, Secretary Ray LaHood designated the New England marine highway system as part of the national marine highway system. Part of that project was the designing of an articulated barge that is Jones Act-compliant yet is 40 percent CapEx and 40 percent OpEx of a comparable marine vessel.

We have also become a member of the North Atlantic Marine Highway Alliance. This effort funded by the Maritime Administration and managed by the New York City Economic Development Corporation includes parties from the Chesapeake to Maine.

Mr. Chairman, we recently hosted a meeting that brought freight owners together with port owners and shippers in Maine, and I

would be happy to answer questions on that interesting discussion. Thank you, sir.

[Mr. Nass's prepared statement follows:]

Prepared Statement of Jonathan Nass, Chief Executive Officer, Maine Port Authority

Chairman Maloney, Ranking Member Gibbs, and members of the Transportation and Infrastructure Subcommittee on Coast Guard and Maritime Transportation, my name is Jonathan Nass and I am the Chief Executive Officer of the Maine Port Authority.

Thank you for inviting me to speak today on the exciting topic of Short Sea Shipping.

The Maine Port Authority (the MPA) is a quasi-governmental entity tasked with improving Maine's economy by developing and promoting infrastructure that moves freight both domestically and internationally.

Maine has a long history of living from and by the sea. If you drive Route One along Maine's coast you will encounter the mansions sea captains built over several hundred years in virtually every town. These once grand houses are monuments of the prosperity once enjoyed from thriving coastal freight transportation networks. Unfortunately, today, many are in disrepair and suggest a time past and many lost opportunities in the last 50 years.

The MPA and many others are currently working to revitalize that maritime shipping heritage. We recently developed a brownfield in the City of Portland into the International Marine Terminal, a container terminal that in five years has gone from a derelict abandoned eyesore to a vibrant international, logistical, multimodal hub connecting Maine to the world with annual growth in volume of 20 to 30 percent.

I believe we can build on that success by connecting Northern New England domestically to ports to our south by establishing water service paralleling the congested I-95 highway system on the East Coast.

For those of us who live in port cities, moving freight by water is instinct, but it needs to be intuitive for others as well—especially those who set transportation policy. One needs only to sit for a few frustrating hours in Boston or Beltway traffic to appreciate the value of alternative transportation. Moving freight from highway to seaway will improve commerce, decrease air pollution, and reduce fuel consumption, and traffic congestion in our largest cities.

I am not the first to suggest that the United States has an infrastructure problem. There is no denying it. In maritime terms, the nation's surface transportation infrastructure is like a vessel taking on water. Fast.

Fortunately, fixing our transportation network is not a political issue. Democrats and Republicans all agree—it is broken. Rather, it is a policy issue. How will we as a nation will fix it? How can we help you, as a Congress to address it?

The first step to saving a leaking ship is to plug the leaks.

The infrastructure policy debate usually centers around one question—Where will the funding come from to rebuild America's highways?

But there is more to the transportation equation than highways. As with any fixed asset, there is also the matter of depreciation and use. If we can reduce the cost of the highway system, reduce the rate of depreciation, and reduce the rate of growth of trucks on our highways then we are starting to plug the leaks.

By not making alternative freight transportation systems a national priority, especially short sea shipping alternatives, I believe that we are misusing our surface transportation system. We are missing a win-win opportunity to both stop the leaks in the highway infrastructure while fostering a revitalized water-way economy nationally.

What if we can establish a well-utilized marine highway as functional as roads and bridges but without the cost of pavement and steel? Without potholes and traffic jams? A system where at least some long-haul freight by-passes heavily congested urban area?

That's exactly what the Maritime Administration's Marine Highway program is designed to do and it should be a top priority when fixing the entire system.

Since the Eisenhower Administration, the United States has focused on a network of expensive fixed transportation assets—superhighways, bridges and interchanges, with efforts of constant widening, continuous patching, lost time and money, road rage, and accidents.

What we as a nation have largely ignored is the natural highway system that is part of the inherent American geographical make up—our nation’s waterways and coastal routes.

In 2010, then USDOT Secretary Lahood designated the New England Marine Highway project as part of the National Marine Highway System. That project funded the design of an articulated barge, in partnership between the MPA and McCallister Tug, to operate a service between Northern New England and New York/New Jersey.

Last year, the MPA became a member of the North Atlantic Marine Highway Alliance. This effort is funded by the Maritime Administration and managed by the New York City Economic Development Corporation and the Port Authority of New York New Jersey. Its members include interested parties from the Chesapeake to Maine.

We recently hosted a meeting in Portland, Maine that brought interested parties—ports, shippers, barge service operators, the Maritime Administration—to Maine to meet beneficial cargo owners to discuss short sea shipping options.

The Alliance recognizes that freight owners are critical to the success of a reinvigorated short sea shipping network. To convince beneficial cargo owners to make a modal shift of a portion of their supply chain—the new alternative must be cost-competitive and it must be consistent and reliable.

To make this happen, there *must* be a shift in government policy to make short sea shipping a priority. Perhaps not on the scale of the creation of the interstate highway system, but that type of vision is not a bad place to start. Let’s apply the same vision, imagination, and *policy* that brought us the interstate highway system to short sea shipping.

Mr. Chairman, Transportation matters. Transportation policy matters. A national policy, like that managed by the Maritime Administration, to foster and encourage domestic water-borne freight will make domestic businesses more competitive, create jobs on working waterfronts, promote cleaner air, less congested and less damaged roads, and could rebuild America’s maritime industries.

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

Mr. MALONEY. I appreciate that, Mr. Nass. Thank you very much.

Mr. Weakley, you may proceed.

Mr. WEAKLEY. Thank you.

I represent 13 American companies operating 46 U.S.-flag vessels on the Great Lakes. We carry the raw materials that drive the Nation’s economy: iron ore and limestone for steel, aggregate and cement for construction, coal for power generation, and more. Those cargoes generate 103,000 jobs with an economic impact of over \$20 billion.

I will discuss the benefits of marine transportation, the Great Lakes navigation system, our role, the importance of the Jones Act, and maritime infrastructure.

As this graphic demonstrates, it takes less energy to move cargo via water. We move a ton of cargo 607 miles from Duluth to Detroit with 1 gallon of fuel. A truck moves that ton 59 miles per gallon, and rail 202 miles.

Vessels also emit fewer tons of carbon dioxide per ton-mile. Economies of scale help lower energy consumption. One of our lakers can move 70,000 tons of cargo, which is the equivalent of 700 railcars or 3,000 trucks. If trucks operated with vessels’ efficiency, they could be powered with a lawn mower engine.

Prior to the development of the Interstate Highway System, raw materials, lumber, people, vehicles, and finished goods also moved on lakers. The higher value, time-sensitive cargoes now move by faster modes, so low-value, heavy cargoes are our focus. Self-unloading vessels can unload in hours what once took weeks. This

technology and larger vessels combine to make the lakes the world's most efficient system for shipping dry bulk cargo.

In fresh water, vessels last decades longer. We maintain our vessels rather than replace them. Last winter, we invested \$70 million in maintenance. New construction and conversions are also part of our investment plan. Interlake Steamship recently announced the construction of a new laker. VanEnkvort Tug and Barge announced the construction of a new laker-sized barge, and Port City Marine Services completed the conversion of a cement barge.

The Merchant Marine Act of 1920, the Jones Act, requires that vessels moving cargo between U.S. ports be American owned, American built, and American crewed. This bedrock of maritime policy provides the stability necessary to invest in the fleet. The national, economic, and homeland security benefits, and the regulatory certainty it provides allows long-term contracts. The Jones Act encourages Americans to invest huge sums of money in assets that will last decades.

It takes more than vessels. The Corps of Engineers will soon begin construction on a new Soo lock to add system resiliency. No longer will 11 million Americans be dependent on a single point of failure in northern Michigan.

Maintenance of channel depths is also critical. I applaud the Transportation and Infrastructure Committee's efforts to fully spend the Harbor Maintenance Trust Fund. Through your efforts, we have made great strides.

We also need adequate and reliable Coast Guard icebreakers on the Great Lakes, but we appear to be losing ground on that front. Because we carry low-value cargo, we operate on thin margins. We are sensitive to the cost of regulations. Even high-value cargo is sensitive to additional shipping costs such as the Harbor Maintenance Tax being applied a second time to containerized imports that move domestically by ship.

Cargo is king and the transportation industry evolves to serve its needs. We exploit the laws of physics that make shipping the most efficient, environmentally friendly, and socially responsible mode of transportation. We changed the size of our vessels and invented self-unloading technology.

In order to grow the domestic maritime industry, we need: regulatory stability—support the Jones Act, and consider the cost of regulations; infrastructure—dredging, breakwalls, locks, and icebreakers; and we need system resiliency—a new lock in Sault Ste. Marie, Michigan.

Moving low-value, heavy commodities is what we do best. We can and want to do more.

Thank you.

[Mr. Weakley's prepared statement follows:]

Prepared Statement of James Weakley, President, Lake Carriers' Association

Good morning. Thank you for the opportunity to speak to you today. I am Jim Weakley, President of the Lake Carriers' Association (LCA). We represent 13 American companies that operate 46 U.S.-flag vessels on the Great Lakes and carry the raw materials that drive the nation's economy: iron ore and flux stone for the steel industry, aggregate and cement for the construction industry, coal for power genera-

tion, as well as sand and grain. Collectively, our members can transport more than 100 million tons of dry-bulk cargo per year and employ more than 1,600 men and women, all of whom are U.S. citizens or legally admitted aliens, and provide annual wages and benefits of approximately \$125 million. In turn, the cargos our members carry generate and sustain more than 103,000 jobs in the eight Great Lakes states and have an annual economic impact of more than \$20 billion.

I would like to provide a brief overview of the Great Lakes Navigation System (GLNS), its different market segments, how we engage in short sea shipping and are investing in our fleet. Then, I'll focus the majority of my testimony on the economic and environmental benefits of marine transportation. I'll touch on the challenges we face, the importance of the Jones Act and government's role in maritime infrastructure.

THE GLNS

The Great Lakes Navigation System (GLNS) enables maritime commerce on America's Fourth Sea Coast. The five Great Lakes are tied together by three connecting channels (the St. Marys River, the Detroit/St. Clair River system and Welland Canal) and the so-called "Achilles Heel of North American Manufacturing," the USACE navigation locks at Sault Ste. Marie, Michigan (Soo). The St. Lawrence Seaway is the umbilical cord that connects the GLNS and its 68 U.S. ports and 35 Canadian ports to global trade. The Great Lakes are a bi-national system supporting both domestic and international trade. For example, in the Detroit/St. Clair River portion of the system alone the navigation channel crosses the U.S./Canadian border 17 times. If measured as a single region, the eight Great Lakes States and two Canadian Provinces represent the world's third largest economy.

Although there is a great desire to move international *container* traffic through the GLNS, the majority of the cargo moved today is bulk. The international ocean-going fleet, vessels, sometimes referred to as "salties," primarily bring steel into the Great Lakes region and take grain out. Approximately 225 salties call annually on both sides of the border moving 10 million tons of cargo annually.

U.S.-flag "lakers," the vessels LCA represents, are ships and barges specifically designed for the Great Lakes trade. Most are self-unloading dry-cargo vessels, although some lack the self-unloading equipment, and others move liquid bulk material. Both the United States and Canada reserve their domestic waterborne movements of cargo for "coastwise qualified" vessels. Our nation's Jones Act vessels are American-owned, American-built and American-crewed. In 2018, U.S.-flag lakers transported approximately 84 million tons of iron ore, coal, limestone, cement, salt, sand, and grain in domestic moves (between two U.S. points) under the Jones Act, and they carried 2 million tons of cargo between U.S. and Canadian ports. In 2014 (the last year they published cargo data) Canadian-flag lakers transported 69 million tons of cargo. About half of that total moved domestically (between two points in Canada), including Canadian points on the Great Lakes ports, the Canadian Arctic or its East Coast, and about half between U.S. Great Lakes ports and Canadian ports.

GLNS AND SOO LOCK ECONOMIC IMPORTANCE

LCA members are the linchpin of what has been called "one of the nation's most economically vital systems, the iron mining—integrated steel production—manufacturing supply chain . . ." ¹ In general, iron ore, the primary raw material for steel, is transported by our ships from mines in Minnesota and the Upper Peninsula of Michigan to steel mills in Indiana, Ohio, Michigan and Pennsylvania. So crucial is that waterborne supply chain that the Department of Homeland Security (DHS) has warned that an interruption of domestic shipping services through the Poe Lock would have "catastrophic impacts on the regional and National economy," ² including the interruption of steel production and the plunging of the North American economy into a "severe recession." ³

The DHS study estimated that 11 million Americans would become unemployed if shipping through the Poe Lock was interrupted for a 6-month period beginning at the start of the shipping season. According to DHS, the State of Michigan's unem-

¹"The Perils of Efficiency: An Analysis of an Unexpected Closure of the Poe Lock and its Impact," Department of Homeland Security, (October, 2015), at 1. While this report is focused on the impact of a failure of the Poe Lock, through which vessels that are part of this supply chain must pass, the analysis also demonstrates the significant impact of shipping on the Great Lakes economy and beyond.

²Id. at 29.

³Id. at iii.

ployment would reach 22%, exceeding its peak unemployment rate of 15% during the Great Recession of 2008. This is a direct result of interrupting the manufacturing made possible by the 60 million tons of key raw materials transiting the Poe Lock on an annual basis.

However, this is a national problem. In fact, the unemployment spikes in the event of an interruption in Great Lakes shipping will ripple through the United States, a result of the far-reaching impacts of the automobile manufacturing and general steel industries. Three States, Michigan (944,000), Texas (865,000) and Ohio (826,000) would experience job losses in excess of 800,000 people. The DHS study also determined that nearly 100% of North American appliance, auto, construction equipment, farm equipment, mining equipment, and railcar manufacturing would cease. The \$1.1 trillion decrease in gross domestic product would result in widespread bankruptcies and a likely recession. DHS concluded that, "In terms of an impact to the North American economy, it is hard to conceive of a single asset more consequential than the Poe Lock."⁴ Without our vessels to move the raw materials via the GLNS, this North American manufacturing would not be possible.

THIS HEARING

This hearing examines domestic movements of cargo via marine transportation, also known as "short sea shipping." By understanding the dynamics and market forces that make the Great Lakes Navigation System (GLNS) successful, we may be able to expand it to other markets. Recognizing the challenges we face can lead to good investment decisions by government and business.

ECONOMIC AND ENVIRONMENTAL BENEFITS OF MARINE TRANSPORTATION

Comparing Energy Consumption and Air Emissions:

It takes less energy to move cargo via water than it does the other modes of transportation. A U.S.-flag laker can move a ton of cargo 607 miles, the approximate distance from Duluth to Detroit, while consuming only one gallon of fuel. A truck can typically move that same ton of cargo about 59 miles per gallon and rail can move it 202 miles per gallon. Given the lower energy consumption, marine transportation emits fewer tons of carbon dioxide. A laker will emit 19 tons to transport 1,000 tons of cargo 1,000 miles. Trucks making the same cargo movement will emit 190 tons. Attachment 1 provides a modal comparison of fuel consumption and carbon dioxide emissions.

Economies of scale also help us achieve lower energy consumption rates. One of our lakers can move 70,000 tons of cargo. That is the equivalent of 700 rail cars or 3,000 trucks. Another measure of modal efficiency is horsepower per ton. Trucks require 12–20 horsepower for each ton of cargo moved. For rail it is about 1 to 1 and for vessels, it is 0.2–0.3. If trucks could operate with vessel efficiency, they could be powered with a lawnmower engine.

Evolution of the GLNS

Lakers have always moved raw materials. However, there was a time, prior to the development of the interstate highway system, that lumber, people, vehicles and other finished goods moved via lakers. Those higher value and time sensitive cargoes are less suited to domestic maritime movements than they were 100 years ago because other faster modes of transportation have evolved to serve those markets. Low value, heavy cargoes are now our focus. Our self-unloading vessels use a series of conveyor belts running from under the cargo holds to the unloading boom. They can place cargo within 250 feet of the vessel on the dock at a rate of up to 10,000 tons per hour. We can unload in hours what it took days or weeks to do. The combination of self-unloading technology and larger vessels have combined to make the GLNS the most efficient system in the world for handling dry-bulk cargo.

Investing In Our Fleet

Given the fresh water environment of the Great Lakes, our vessels can last decades longer than oceangoing vessels. That means we maintain our vessels rather than replace them. During the winter Soo Lock closure from January 15th until March 25, our owners will do engine overhauls, steel replacement, drydock vessels, and upgrade systems. Last winter, LCA members invested \$70 million to maintain their fleet. That is not unusual. In years when a vessel is repowered, that number can be significantly higher.

New construction and conversions are also part of our member's investment plans. Interlake Steamship recently announced the construction of a new river class laker.

⁴Id. at 55.

VanEnkvort Tug and Barge announced the construction of a laker sized barge. Port City Marine Services recently completed a 21-month conversion of a bulk cargo barge to a cement carrying barge.

Jones Act Remains Critical

The Merchant Marine Act of 1920, also known as the Jones Act, requires that vessels moving cargo between U.S. ports be American owned, American built and American crewed. This bedrock of maritime policy provides the stability necessary for LCA's members to invest in maintaining and adding to their fleet. The national, economic and homeland security implications of the law and the regulatory certainty it provides, allows us to enter into long-term contracts. The Jones Act encourages Americans to invest huge sums of money in assets that will last decades.

Maritime Infrastructure Investments

It takes more than vessels to keep the GLNS operating reliably and efficiently. I've already mentioned the importance of the Soo Locks. We are pleased that the U.S. Army Corps of Engineers will soon begin construction on a second Poe-sized lock. More important than the efficiency gains it will provide is the system resiliency. No longer will we be dependent on a single point of failure. The maintenance of channel depths and harbor breakwalls is also critical to the GLNS. I applaud the Transportation and Infrastructure Committee's efforts to fully spend the Harbor Maintenance Trust Fund. Through your efforts, we have made great strides. On the Great Lakes we also need adequate and reliable U.S. Coast Guard icebreakers, but we appear to be losing ground on that front.

Maritime Regulation

Because U.S. lakers carry low-value cargo and our vessel operators must make large annual investments just to maintain their current fleet, we operate on thin margins. This makes U.S.-flag laker operators sensitive to the cost impacts of regulations. While U.S. federal agencies typically attempt to ensure that these cost impacts on U.S. lakers do not eliminate our economic viability when considering new regulations that directly impact us, this is not the case with Canada.

Transport Canada recently proposed new ballast water regulations that would force U.S.-flag laker operators to either spend hundreds of millions of dollars to comply or give up our portion of the U.S.-Canada maritime trade. The Canadian government knows that their proposed regulations would likely force our vessels out of that trade, leaving Canadian vessels as the only option for U.S. exporters to ship commodities by water to Canada. Although this cargo is a small portion of our overall business, its loss would reduce U.S.-flag laker operators' revenue and our ability to reinvest in our short sea shipping assets.

CONCLUSION

The Lake Carriers' Association was formed in 1880. Our members were and continue to be engaged in short sea shipping. Our business has evolved to meet the needs of our customers. As we often say in the transportation world, cargo is king and the transportation industry evolves to serve its needs. We have changed the size of our vessels and invented self-unloading technology. We have exploited the laws of physics that make the marine mode of transportation the most efficient, environmentally friendly and socially responsible mode of transportation. In order to grow the domestic maritime industry, we need:

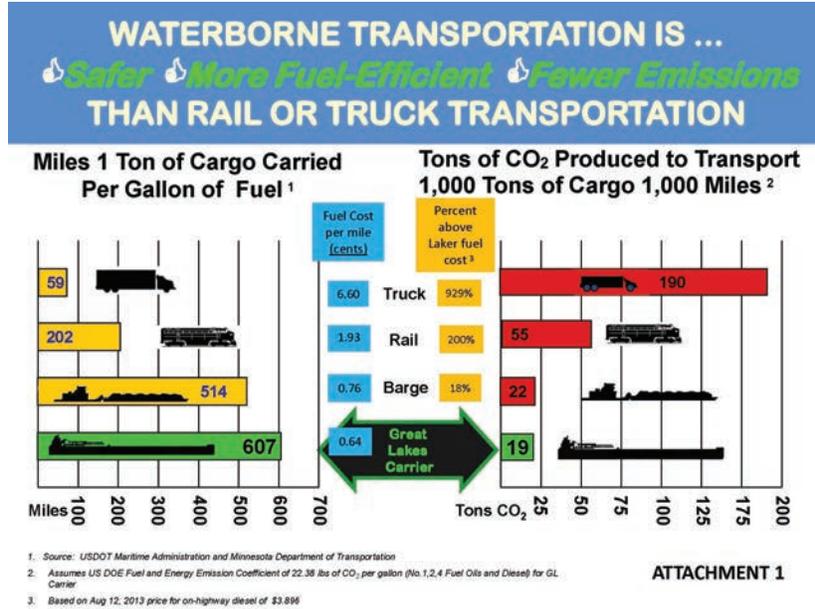
Regulatory stability—support the Jones Act and carefully consider the cost impacts of new regulations

Infrastructure investment—dredging, breakwalls, locks, and icebreakers

System resiliency—a new Poe-sized lock at Sault Ste. Marie, MI

Moving low value, heavy, raw material is what we do best. We have been doing it for over 100 years and I believe will do it for the next 100. We can do more and we will. All it takes is sufficient cargo over enough time to justify the investment.

Thank you for your interest and for the opportunity to provide my perspective. I will answer any questions you may have about these concerns.



Mr. MALONEY. Thank you, Mr. Weakley.
 Mr. Willis.

Mr. WILLIS. Good afternoon, Chairman Maloney, Ranking Member Gibbs. On behalf of the Transportation Trades Department of the AFL-CIO and our affiliated unions, I want to thank you for inviting us to testify this morning, and appreciate the interest of the subcommittee in finding new and innovative ways to grow our U.S. maritime industry.

You know, since the Nation's beginnings, waterborne freight transportation has been key to moving goods in this country. The mariners, the shipbuilders, the dredgers, the longshore workers represented by TTD's unions, we are on the front lines of this industry and we are fully supportive of the swift deployment of short sea shipping.

Better utilizing our marine highways, we can reduce congestion and delays at our major port, which in turn reduces the strain on the entire freight network.

Short sea shipping is also green shipping. It offers a viable freight alternative on vessels that are highly fuel efficient with lower emissions, and this impact is further magnified by cutting idling times and fuel consumption from trucks that service our U.S. seaports.

And as noted, it is a particularly effective method of transporting goods that can be challenging to move via other modes of transportation, including oversized and overweight cargoes.

But today's hearing, it asks a bigger and, I think, an important question of how best to rebuild this industry. And we are here to say that we think utilizing our marine highway is part of that puzzle.

The U.S. maritime sector, this committee knows this, has long suffered due to unfair competition from unscrupulous foreign-flagged shippers. These companies, they have no interest in the fair treatment of workers or safe working conditions, let alone employing Americans. But because most short sea shipping would take place between U.S. destinations on vessels that are U.S. flagged by law, it would guarantee thousands of good-paying jobs in this country. Jobs, quite frankly, that cannot come quickly enough.

In times of humanitarian crisis and war, the Department of Defense calls into service commercial mariners and their vessels. Today, the existing pool is inadequate to meet DoD's sealift needs. The jobs created by short sea shipping, they can close this gap, creating both economic and national security benefits with a single stroke.

Furthermore, short sea shipping would breathe new life into America's shipbuilding industry. Once a point of pride in this country, too many American shipyards struggle to compete with Chinese and Korea shipyards that are heavily and unfairly state subsidized. If we cannot change course on this, we run the real risk of losing our ability to build commercial vehicles in this country and that should be unacceptable.

A steady demand for Jones Act ships would put this industry and the jobs it is able to support on stable footing. And as short sea shipping generates business for ports of all sizes, it will create jobs on the longshore side, unloading and loading new water-bound cargoes.

And I would be remiss if I did not point out that the jobs created in these industries are good jobs, the kind that people can raise families on. Why? Because workers in maritime and related sectors enjoy the benefits of strong union contracts.

The policy and commercial benefits of the marine highway system, they are clear to us, and I think you have consensus on that from this panel, but despite this, we have failed as a Nation to unlock the potential.

We offer several ideas for Congress to consider, not an all-inclusive list, but we should examine existing programs like those meant to assist domestic shipbuilding to determine if they can be modified or applied to support short sea shipping.

Grants, Federal grants, designed to facilitate marine highway services should be significantly increased. The initial cost of acquiring equipment and infrastructure improvements necessary for short sea shipping can be significant, and Federal dollars, we think, are necessary to reduce this market barrier to entry.

But the biggest hindrance to the use of short sea shipping is the double tax imposed under the Harbor Maintenance Trust Fund. By taxing shippers twice, once when their goods reach a port of entry and again when these same exact goods arrive at a secondary port, this law arbitrarily de incentivized shippers from choosing short sea shipping as a viable method to move their products.

We support legislation that will end this double tax and pave the way for the marine highway to become an integral part of our freight network. We stand ready to work with this committee on this policy and others that strengthen the U.S. maritime industry,

create new jobs, and promise all the economic benefits that short sea shipping we know has to offer.

Thank you.

[Mr. Willis's prepared statement follows:]

**Prepared Statement of Larry I. Willis, President, Transportation Trades
Department, AFL-CIO**

On behalf of the Transportation Trades Department of the AFL-CIO and our affiliated unions, I want to first thank Chairman Maloney and Ranking Member Gibbs for inviting me to testify before you today.¹ We deeply appreciate the Subcommittee's interest in taking a fresh look at ways to promote the domestic maritime industry.

It is time to have serious conversations in this country about our national freight network and the ever-increasing demand put on it. In 2015, across all modes of transportation, the U.S. moved 18.1 billion tons of goods worth about \$19.2 trillion. By 2045, the Department of Transportation estimates that we will move 25 billion tons of freight annually. Our existing network is strained as is, and the costs associated with delays and congestion associated with adding even more freight are substantial. It is imperative that we consider how our transportation network can develop and adapt to the needs of our economy. We cannot let economic growth, good jobs and prosperity pass us by because we lack the capability and capacity to take advantage.

Since the nation's beginnings, waterborne freight transportation has been an integral component of how we move goods domestically. As we continue to address our needs, maritime shipping must be a linchpin of any national freight strategy. The maritime industry and the workers we represent look forward to continuing to rise to the challenge.

For this reason, we are pleased the Subcommittee is focused on unlocking the benefits of short sea shipping. A fully developed short sea shipping sector would provide shippers an additional and viable option as they determine how to best direct cargo to its final destination. In most instances, goods arrive at large hub ports like L.A./Long Beach and New York/New Jersey aboard massive Panamax and Post-Panamax vessels and are then transferred to surface transportation shipping options. A short sea shipping model would allow these goods travel down the coasts or through inland waterways to their ultimate destinations or to less congested smaller ports and harbors.

As Congress, the GAO and the Maritime Administration have noted on many occasions, the potential benefits of this model are significant. As cargo volumes at major ports continue to rise, congestion at these facilities presents an increasingly difficult and costly problem. A recent Wall Street Journal story described a trucking company who, due to bottlenecks at the Port of Virginia, can move half as much goods per day as it could last year. We've also heard from our members of two, four, and even ten hour turn times at crowded ports. Moving cargo along the coast or inland waterways to smaller facilities can significantly reduce congestion at larger ports, decreasing the amount of time cargo spends sitting on the dock or in warehouses, and cutting delays for existing freight services.

Short sea shipping is also green shipping. When transporting substantial volumes, utilizing these vessels is highly fuel efficient per cargo ton-mile, and can result in substantially reduced emissions. The environmental benefits of short sea shipping also go well beyond the fuel efficiency of any particular vessel. Delays at ports and on the surface freight network more broadly can result in unnecessary truck idling and wasted fuel. The utilization of short sea shipping can have a multiplier effect, functioning as a green option individually while simultaneously increasing efficiency in other freight modes.

It also makes sense from a commercial perspective. There are innumerable uses of a short sea shipping network, but moving certain cargoes such as heavy, oversized, lower-value, and non-time-sensitive goods can be extremely cost effective. These cargoes can present challenges when shipped over surface modes, but are easily moved on short sea container vessels or barges. Hazardous materials shippers could also take advantage of the network when surface permitting requirements prove too costly.

¹ Attached is a complete list of TTD's 33 affiliate unions.

Today's hearing asks the bigger question of how to best rebuild our maritime industry. We are here because we think short sea shipping is part of that puzzle. The U.S. maritime sector has long suffered due to unfair competition with unscrupulous foreign-flagged shippers. These companies evade responsibility by registering in countries with no labor or environmental protections, pay their mariners poorly, and are known to simply abandon injured or sick mariners in foreign ports with no way back home. We have watched as huge swaths of the industry have abandoned the U.S. to operate under foreign flags. However, as most short sea shipping would take place between U.S. destinations on vessels that are U.S. flagged by law, it would guarantee thousands of good paying mariner jobs in this country, an excellent step in the right direction.

These jobs cannot come quickly enough. Due to partnerships like the Maritime Security Program, many domestic U.S. mariners wear two hats. They work aboard commercial vessels in the course of their normal duties, but they can be called upon to provide sea-lift capacity to the U.S. military in times of war or humanitarian crisis. This additional capacity is of critical importance to national defense, and is something the country simply cannot do without.

As Admiral Buzby highlighted earlier this year, we are 1,800 civilian mariners short of the Department of Defense's needs. As we like to say in the maritime industry, cargo is king. If there is cargo, we will train the mariners and build the vessels needed to carry it. By increasing the availability of cargo moved through a strong short sea shipping network, we have the opportunity to create thousands of good seafaring jobs and address pressing national security needs with a single stroke. For these reasons alone, we should take every action to promote short sea services.

Short sea shipping also holds promise for the American shipbuilding industry. Increases in shipping between domestic ports means increased demand for U.S.-built Jones Act-compliant ships. American shipbuilding companies do not manufacture the types of small to medium-sized container vessels that would be most valuable in coastal short sea shipping. Why? Because the domestic demand for these vessels does not currently exist—a demand that short sea shipping creates. Increased demands could also result in orders for new barges to replace many of the 28,000 aging Jones Act barges currently in service.

These orders could alleviate difficult circumstances for the shipbuilding industry, which employs over 100,000 workers across the country. Many shipyards are struggling to find the reliable orders necessary to keep the lights on, in no small part due to the impossibility of trying to compete with foreign shipyards in China and Korea that are deeply state-subsidized. The further decline of U.S. shipbuilding would be deeply damaging to the U.S. economy and our U.S.-flagged commercial fleet.

If the shipbuilding industry is allowed to erode further, this decline will be difficult to reverse. Skilled tradesmen will move to other sectors, and expensive facilities will be permanently shuttered or repurposed. We will be faced with a scenario in which we cannot produce vessels in either the short or the long term for the first time in our history. This is unacceptable. Creating a steady demand for U.S. built vessels engaged in trade along our coasts will provide a badly needed boost to the industry.

Increased maritime traffic from short sea shipping would also create new longshore jobs. Jobs would be created at hub ports where longshoremen move goods to smaller vessels and also at the smaller ports and harbors which currently receive less traffic. These facilities would be obligated to hire more workers to handle the increase in cargo volumes that short sea shipping would bring.

The benefits of short sea shipping are clear but existing services are minimal. It is incumbent on us to bridge this divide. First, all stakeholders must increase the visibility and explain the viability of short sea shipping. Shippers' familiarity with the service and understanding of its merits is a large hurdle to overcome. Companies simply will not order what they do not know is on the menu of freight options.

Additionally, MARAD must devote its resources towards both promoting short sea shipping and determining what administrative, regulatory, or statutory changes are necessary to achieve the level of service MARAD has previously called for. We also recommend that Congress specifically examine how existing shipbuilding programs like the Federal Ship Financing Program (Title XI), Capital Construction Fund and Construction Reserve Fund could be deployed in the effort to encourage the growth of short sea shipping, and if changes to those programs or new programs entirely may be effectual.

Finally, and perhaps most importantly, Congress must take immediate action to end the Harbor Maintenance Trust Fund's "double tax". Currently, the statute imposes a tax on vessel bound imports when those goods reach their first destination. If those goods are then moved by rail or truck, this is the full extent to which ship-

pers pay into the HMTF. However, if goods are moved onto smaller ships or barges, the tax will be imposed again on arrival at a secondary port or harbor. By applying the tax multiple times, current law arbitrarily disincentivizes short sea shipping, as shippers have no interest in being taxed twice on the same goods.

TTD has previously supported legislation that would enact this overdue fix. We look forward to supporting future legislative efforts in this regard, which will be required if any progress is to be made to make short sea shipping a reality.

We stand ready to work with this committee on policies that strengthen the U.S maritime industry, create new jobs and promote short sea shipping. Thank you for the opportunity to testify.

TTD MEMBER UNIONS

- Air Line Pilots Association (ALPA)
- Amalgamated Transit Union (ATU)
- American Federation of Government Employees (AFGE)
- American Federation of State, County and Municipal Employees (AFSCME)
- American Federation of Teachers (AFT)
- Association of Flight Attendants–CWA (AFA–CWA)
- American Train Dispatchers Association (ATDA)
- Brotherhood of Railroad Signalmen (BRS)
- Communications Workers of America (CWA)
- International Association of Fire Fighters (IAFF)
- International Association of Machinists and Aerospace Workers (IAM)
- International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers (IBB)
- International Brotherhood of Electrical Workers (IBEW)
- International Longshoremen’s Association (ILA)
- International Organization of Masters, Mates & Pilots, ILA (MM&P)
- International Union of Operating Engineers (IUOE)
- Laborers’ International Union of North America (LIUNA)
- Marine Engineers’ Beneficial Association (MEBA)
- National Air Traffic Controllers Association (NATCA)
- National Association of Letter Carriers (NALC)
- National Conference of Firemen and Oilers, SEIU (NCFO, SEIU)
- National Federation of Public and Private Employees (NFOPAPE)
- Office and Professional Employees International Union (OPEIU)
- Professional Aviation Safety Specialists (PASS)
- Sailors’ Union of the Pacific (SUP)
- Sheet Metal, Air, Rail and Transportation Workers (SMART)
- SMART–Transportation Division
- Transportation Communications Union/IAM (TCU)
- Transport Workers Union of America (TWU)
- UNITE HERE!
- United Automobile, Aerospace and Agricultural Implement Workers of America (UAW)
- United Mine Workers of America (UMWA)
- United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union (USW)

These 33 labor organizations are members of and represented by the TTD

Mr. MALONEY. Thank you, sir. And I am very interested in the point you ended on, and I would like to get the perspective of other witnesses as well, about the Harbor Maintenance Tax. For the people who don’t understand, I think you laid it out pretty well.

You know, there is a double tax applied to any cargo transhipped to another U.S. port, whether it is domestic or international in its original origin. How burdensome is the second application of that Harbor Maintenance Tax to develop short sea shipping? Mr. Nass, Mr. Weakley, Mr. Willis, if you want to expand on that. It is a big issue for many of us on the committee.

Mr. NASS. So when we met a couple weeks ago with some beneficial cargo owners and port owners and shippers up and down the east coast, the biggest part of the discussion was you have to be

competitive. A business is not going to move to a mode of transportation that is more expensive than less expensive. It is that simple.

So I believe any way that you can make waterborne transportation more cost effective, more competitive, is going to help get this program going. And I think, really, what we need to do as a Nation is recognize the benefits of moving heavy cargo off the road.

The numbers I have heard, 44 cents, 46 cents, damage to a roadway from a heavy box. I see a win-win here, you know. Let's spend 10 cents on getting that box onto the water. And certainly, the Harbor Maintenance Tax, the notion of even—it sounds like a small amount for your average person, right, .125 in an industry, though, where margins are razor thin and any cost that you add to any of it just makes it that much less competitive.

Mr. MALONEY. Appreciate that.

Mr. Weakley, I don't know if we can get your slide back up. I thought it was actually pretty compelling, and it doesn't even include the point Mr. Nass just made about the external cost of maintaining those roadways, right? That is not included in your number?

Mr. WEAKLEY. Correct, sir, that does not include that external cost of the Harbor Maintenance Trust Fund. I concur with everything Mr. Nass said, as well as Mr. Willis. If I may pick up on a point Congressman Garamendi mentioned, it is not only a disincentive to get around the west coast ports, it is a disincentive for containers to come into the Great Lakes. They are offloaded in Montreal and Quebec, they are put on a rail, and they are railed into Detroit, Chicago. I see them crossing the bridges all the time.

In the Port of Cleveland, they have come up with an innovative approach to subsidize direct containerhips on a more liner basis to Europe. I think they have since stopped subsidizing that. It still survives. However, the exact problem we are talking about prevents Cleveland from being a feeder port, a hub and spoke to Europe because of that second domestic move. So it is a challenge for us on the lakes too, sir.

Mr. MALONEY. Thank you.

With that, I will yield to the gentleman from Ohio, Mr. Gibbs. Mr. GIBBS. Thank you, Chairman.

I do want to welcome Mr. Weakley, because he is a constituent. It is always nice to have a constituent here.

Mr. Weakley, you talk about the Soo locks project in your testimony, and I have always been a strong advocate since my tenure here that that should be of national significant importance. I think during World War II we had a brigade up there guarding it; they were so worried about it.

Can you tell us where we are in the process of getting that redone?

Mr. WEAKLEY. So, Congressman, again, I appreciate all your support over the years, particularly your support through this subcommittee.

Great news on the Soo locks. They have developed a positive benefit to cost ratio. The Army Corps, to its credit, and to OMB to its credit, recognized that this lock is of critical significance well beyond the benefit to cost ratio.

As you mentioned, there were 10,000 troops up there. In fiscal year 2019, we got \$32.3 million out of the work plan. The President's budget proposed \$75.3 million. I think it should be—I think it just passed. Was that one of the things you were just voting on on the omnibus? So we are hoping that will go forward. The project is well underway, and the State of Michigan kicked in \$52 million towards that project.

So I am not an optimist by nature, sir, but I am convinced this project is going to go forward.

Mr. GIBBS. Well, I think I'll just reminiscence here a little bit. When I was chairman of the Water Resources and Environment Subcommittee, Secretary Darcy at the time, we were talking about the cost-benefit analysis. And I said to her, I think we can do this here in 15 minutes. Me and you can get it done. So I am glad to see it is finally moving, because it seemed like to me it was a no-brainer.

Mr. WEAKLEY. Thank you, sir. I should also thank this committee for reauthorizing it in the WRDA 2018. So thank you for that, sir.

Mr. GIBBS. Go back to the Harbor Maintenance Trust Fund fee, the .125 percent. It doesn't sound like a lot of money, but I want to—you know, it is interesting. All three of you in the testimony now, because if you have \$1 million worth of cargo, that is 1,250 bucks. You get charged once. You get charged twice. So, you know, 2,500 bucks. It doesn't sound like a whole lot of money for a big ship if it is \$1 million of cargo, but your competition doesn't have that, is what you are saying.

And then you also got the challenge you are limited to where you can move because of where the water is, and I am glad to hear you say about how much improvement has been made in the infrastructure and unloading and loading, because when that vessel is sitting there, that is time. That is money, right?

And I know when I was over at the Shanghai port in China, I unbelievably heard of when they told us how fast they were turning those ships around. It was sometimes in less than 24 hours, or 36 hours, I guess, depending on the tide. So that is amazing, all those containers. And I know in Cleveland we have had the discussion that you are trying to do that with the containers.

So I guess the point I am just trying to make, emphasize, it doesn't sound like a lot of money, but when you have got the competition with rail and truck and their ability to move that cargo from point A to point B, the faster route, to the end customer, that is what really factors in and makes it a negative for you. Is that correct, right?

Mr. WEAKLEY. Yes, sir. I would agree. Also, time value of money, our ships are moving slower through the water than they are over the road. So we have to make that up by handling point and by economies of scales.

I will defer to Mr. Nass.

Mr. NASS. Absolutely. Efficiency at the dock is the name of the game. That ship is only making money when it is moving.

Mr. GIBBS. The thought that came to my head here, going back 10 years or so, how much change in efficiency at the docks would you estimate we have picked up?

Mr. NASS. Well, sir, in our instance, we didn't exist 10 years ago.

Mr. GIBBS. Oh, OK.

Mr. NASS. So, my timeframe is 5 years.

Mr. GIBBS. OK.

Mr. NASS. And we were the recipient of a FASTLANE grant that brought in some new machinery. And we really struggled at about 10 moves an hour when we first started 5 years ago. With a new vessel, with a new crane, with a great labor force that is getting better and better every day, we are up to 23 moves an hour. That makes a big difference. It means the ship is leaving in a day and not—

Mr. GIBBS. It doubles efficiency. That is good.

Mr. NASS. Yes, sir.

Mr. GIBBS. Mr. Weakley, just quickly, you talked about the ice cutters on the Great Lakes. Do you want to just point about the important—I am meeting with the Commandant tomorrow night. I thought maybe it might be good to get some more information on that.

Mr. WEAKLEY. Well, sir, with the chairman's permission, I will provide some more detailed information for the record. But I can tell you, in the winter of 2013–2014, we left 6.8 million tons on the dock because of inadequate ice-breaking. That cost the U.S. economy 3,800 jobs and \$705 million in lost economic activity because of inadequate ice-breaking. The winter of 2014–2015, similar numbers, 3.2 million tons, 2,000 jobs, \$355 million in lost economic activity.

The reliability is abysmal. This year, four of their nine ice-breakers were out of commission. Last winter, five of their nine ice-breakers simultaneously inoperable.

Mr. GIBBS. OK. That is good to know.

Thank you. I yield back.

Mr. MALONEY. I thank the gentleman.

One bit of housekeeping. Without objection, I would ask unanimous consent to also include a statement by Mr. Percy Pyne of Green Shipping Line into the record.

[The information follows:]

Letter of June 19, 2019, from Percy R. Pyne, Chairman and CEO, Green Shipping Line, Submitted for the Record by Hon. Maloney

JUNE 19, 2019.

United States House Transportation and Infrastructure Committee, Coast Guard and Maritime Transportation Subcommittee

Hearing on "Short Sea Shipping: Rebuilding America's Maritime Industry"

HONORED MEMBERS:

Thank you for this opportunity to offer my thoughts to your Committee.

I am the Chairman and CEO of Green Shipping Line. Our goal is to invigorate the nation's most underutilized mode of transportation and help rebuild America's maritime industry. We intend to build modern, fuel-efficient Jones Act compliant feeder ships for short sea shipping on the American Marine Highways and for the installation and maintenance of wind farms along the coast.

While all other modes of transportation are at or exceeding their capacity, short sea shipping offers a solution to help ease our congested highways, ports, airports and railways. When implemented, short sea shipping will add reliable waterborne options for shippers seeking resiliency and redundancy to their supply chain management.

The United States is a nation that was built on its water systems which dictated its patterns of development. Using our waterways was the preferred choice for transportation and trade until the mid-1960s. Historically, we were the number one ship building nation in the world until the mid-1980s and we produced more than 5,000 marine assets of all kinds in 3 years during WWII.

Today, our nation faces a significant and growing infrastructure and distribution crisis. That being the reality, we at Green Shipping Line have looked to our past to find 21st century solutions for our 21st century problem. Our strong belief is that short sea shipping is the answer and Jones Act commercial shipbuilding is critical to our national security and economic survival.

In order to understand how commercial ship building is performed in other countries today, we travelled the world to view how other ship building nations including Korea, Germany and the Netherlands have adopted, integrated and co-opted our systems.

Having discovered many new techniques, we have formed joint initiatives with German, Dutch and Norwegian companies to bring their knowledge to re-invigorate our small vessel commercial shipbuilding industry. Further, we have sought out and began a long running dialogue with our U.S. shipbuilding and maritime unions and the ILA to engage them in our initiative from the beginning. The Unions are critical to our effort as their members will ultimately build, man, and service our ships. We are working with states such as Maryland to create training programs and exclusively with ABS to ensure that our designs meet both IMO and USCG standards.

One regional yard, Moran Iron Works, has been with us every step of the way on the journey so far. However, the journey is just beginning and we expect more will follow in the future.

What could our government do to help?

- (1) MARAD must promote the America's Marine Highway program (AMH) as defined in the 2007 National Security Law Section C to educate our citizens on the importance of: the unlimited capacity of the AMH that costs nothing to build and little to maintain, our significant existing port networks, green economical water transportation, and containerization.
- (2) Offer Government support in the form of "Completion Guarantees" or "Refund Guarantee" schemes that helped the German KGs and Korean shipbuilders.

In the rest of the world, rail, trucking and water transport all work together to move and distribute goods. (The proportions are roughly equal between the three.) Adding water to our transportation mix will not take away or diminish the need for rail or trucking, but rather compliments it.

In conclusion, we believe that a vibrant short sea shipping network, that every other industrialized economy in the world relies on for transport and distribution of goods, is the only answer that will save our landside transportation networks and allow our economy and population to grow unabated. It's ironic that the United States, the country with the longest coastlines and most developed ports network in the world, *is the only developed country without a short sea network.*

Thank you again for this opportunity to express our views.

Yours sincerely,

PERCY R. PYNE IV
Chairman and CEO, Green Shipping Line

cc: Tom Moran, Moran Iron Works Founder and CEO
Peter Franchot, State of Maryland Comptroller
Tom Trotter, AFL-CIO Legislative Representative Government Affairs
Dennis Daggett, ILA Executive Vice President
Scott Cowan, ILA Vice President
Rich Krueger, ILA Vice President
Don Marcus, MM&P President
Thorsten Schütt, Kongstein Chairman of the Board
Peter Tamm, Tamm Media CEO
Suresh Pisini, ABS Structures Group
Lauren Brand, MARAD Associate Administrator for Intermodal System Development
Brian Davis, White Star International President
Colleen Robertson, Green Shipping Line Managing Director

Mr. MALONEY. Mr. Garamendi.

Mr. GARAMENDI. Somebody mentioned icebreakers? I just wrote down the two numbers here, \$705 million and \$365 million. Is that correct?

Mr. WEAKLEY. \$705 million and \$355 million, sir.

Mr. GARAMENDI. A super heavy icebreaker runs about \$700 million a copy, and that is not for the Great Lakes, that is for the Arctic. Just keep in mind the relative costs and the benefits associated with icebreakers. Thank you for mentioning it. This committee has been super on that issue.

We have talked about the double taxation here, which seems to be maybe not the only issue but a significant issue. We need to get down to the numbers on the potential revenue that is lost currently and the economic activity that could be gained were there no double taxation. So if you gentlemen could help us with that analysis, it would be very useful.

My sense of it is that there is not much tax loss now, should we eliminate the double taxation. But we are going to have to score that. And if there is a tax bill ever, then we would want to have this in it. So we would want to have that kind of detailed information, if you could develop that.

Also, there is another way of going about it, and you mentioned Cleveland and that Cleveland essentially rebated that tax. Once again, numbers would be useful here. We have the annual appropriation of \$7 million, \$10 million, whatever, for the marine highway system, and just thinking of different ways we can get this job done. On the tax side, you can rebate. We could appropriate the money and then it gets rebated or we can eliminate the tax. So, once again, numbers would be very useful for that.

Also, the efficiency of loading and unloading, which is said to be a problem. Appreciate your testimony on the efficiency that you have achieved in Maine. But this may be an infrastructure problem on the ports and the docks themselves. So I would like to get some detail on that. What are we talking about? There is one example in the written testimony here of a method that did that.

So if you could just discuss those things, if you have the numbers, if you have what it takes to make the dock efficient for this purpose. Whichever one of you wants to jump in.

Mr. NASS. Maybe I can touch on the infrastructure end of it. We have invested about \$64 million into our relatively small terminal. Much of that revolves around being more efficient.

For instance, our maintenance facility was on the pier when we started. The wrecking balls are coming today. We built a new maintenance facility out of the way, and the entire notion is to create that ship-to-shore space that just makes it more efficient to unload a vessel. Similarly, we have expanded our pier space and put new equipment on there, and it pays off.

The ROI on this, you know, is a matter of years when the infrastructure lasts an awful long time. Our oldest crane is over 20 years old, and she is still working great. We think it is worth the investment.

Mr. GARAMENDI. Is there a specialty issue here also, the kind of equipment that you need to take from, perhaps not in Maine, but any of the major docks and ports, east coast, west coast, coming off a big ship, putting it on a small vessel or a tug or—excuse me—a barge? Are we talking about different kinds of infrastructure that would be needed?

Mr. NASS. I think the equipment we have at the International Marine Terminal in Portland is the same type of equipment you would use for barge operations, mobile harbor cranes, reach stackers, those types of items.

Mr. GARAMENDI. Very good.

One of the things we did a couple of years ago was to allow the Harbor Maintenance Fund to be used for on-the-dock improvements, which has really not been used very much.

My final point would be a question for us to try to get into, and that is—and I did not ask this of Admiral Buzby. What are the specific projects that are lined up? What we have now created is what I call administrative earmarks. I want to know what his earmarks are. So if we can dig that out and see how they fit into the testimony and the priorities that you have mentioned.

With that, I yield back.

Mr. MALONEY. I thank the gentleman.

Mr. Gallagher.

Mr. GALLAGHER. Thank you, Mr. Chairman.

And I appreciate what I sense to be the bipartisan love of icebreakers on this committee. I would like to probe the depths of that a little bit more. And I want to thank all of our witnesses for being here, for being patient with our schedule.

And thank you, Mr. Weakley, for your eloquent testimony to the importance of the Great Lakes. And I represent Green Bay, Wisconsin, and that is obviously critical to our economic success. The Port of Green Bay in particular is an essential part of maritime trade. We have over 166 vessel arrivals that generate \$147 million in economic impact in the region. As you mention, we move everything from iron ore to Wisconsin soy. But, ultimately, that trade is dependent on shipping lanes on the Great Lakes being open, and in the wintertime, that means icebreakers. It gets cold in my neck of the woods, in case anyone was wondering.

So the Coast Guard right now operates 12 icebreakers that are in high demand for one-quarter of the year, but only one of these, the *Mackinaw*, is of medium size and was intended to work in a pair, meaning that it must cut backwards on each shipping lane without a second *Mackinaw*.

So last month, I questioned, and we had a great dialogue on this committee. I questioned Admiral Schultz from the Coast Guard on the need for a new icebreaker for the Great Lakes, and I know you have already talked about the economic impact, but in your testimony, you mentioned that we are losing ground. You sort of briefly mentioned that we are losing ground with respect to U.S. Coast Guard Great Lakes ice-breaking. And I just wanted to give you a chance to kind of explain and expound upon that comment.

Mr. WEAKLEY. So I will focus on two areas, the 140s and the need for the new Mac. So the 140s are going through their Service Life Extension Program, or their SLEP. The biggest problem with that SLEP program is they are not replacing the engines. Those engines are 30 to 40 years old. They are very expensive to maintain. They are very finicky. They could have put a brandnew tier 4 state-of-the-art, lower energy, lower pollution, more reliable engine with a reliable inventory of spare parts in the commercial industry; that would have streamlined it. In fact, the *Morro Bay*, one

of the ships that was out for a month, was out of commission for a month, and it is a post-SLEP.

A *Biscayne Bay*, 16 months out of commission because of an engine casualty. It took them 8 months to build the ship. It took them 16 months to fix an engine repair. As a former Coast Guard officer and a former engineer in the Coast Guard, I find that somewhat frustrating.

The *Mackinaw*, as you mentioned, it is basically a single point of failure. If the Mighty Mac goes down, we are not going to open Sturgeon Bay. We are not going to open our shipyards to get them out of layup. We are not going to get them through Lake Superior. The original plan was to build two *Mackinaws*. They cut that. I think there is some suggestion of combining it with the polar program. The problem I see with that, sir, is that it would waste a \$100 million, you know, to build a *Polar*-class icebreaker for the Great Lakes. We need a second Mac size. We don't need a *Polar*. The ice conditions are different. They are different styles of ice, and it is a different operation. We need more maneuverability than they need in the Arctic.

The old Mac was heavier, wider, did a better job to handle our thousand footers. The new Mac is more maneuverable, but it needed the second. The original plan, had they stuck with it, would have worked. Unfortunately, cost cutting has a cost to us and the economy.

Mr. GALLAGHER. You mentioned the Mac as a single point of failure and that we would have to shut down Sturgeon Bay, et cetera. Is it even possible to quantify the economic impact in such a scenario?

Mr. WEAKLEY. Well, the best I could do is the 2014–2015 numbers I would give you, but really, it would be catastrophic. There is no way to measure the cost of shutting down a steel mill. I think they estimated it would be \$100 million, because if you do a cold shutdown that is not planned, you have to realign the steel mill. It would be catastrophic to the steel mills of Indiana.

Mr. GALLAGHER. I appreciate that.

Mr. Chairman, I yield back. And we have got to break the ice.

Mr. MALONEY. I thank the gentleman for that bipartisan note of consensus.

I don't see any further questions of the committee. I know we have kept you gentlemen well past the time you probably expected. So in the interest of respecting everyone's schedule, I would like to thank all of you for your testimony. Your contribution to today's discussion has been very informative and helpful.

I would ask unanimous consent that the record stays here and remain open until such time as our witnesses have provided the answers to any questions that may have been submitted to them in writing. I further ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing. Without objection, so ordered.

If no other Members have anything to add, with the thanks to our panelists, the committee stands adjourned.

[Whereupon, at 4:29 p.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

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

Thank you, Mr. Chairman. Earlier this year, the subcommittee held a hearing to assess the condition of the U.S. maritime industry and to begin an overdue discussion of what we can do in Congress to stimulate greater job creation and economic opportunity in this vital mode of transportation.

This afternoon's hearing to examine short sea shipping, or, as the Obama administration tagged it, "Marine Highways," is an excellent follow on topic.

As noted by the Committee on the Marine Transportation System, waterborne cargo and associated activities contribute more than \$649 billion annually in personal wage and salary income and local consumption expenditures. Waterborne commerce also sustains an estimated 13.3 million direct and indirect port-related jobs, and contributes over \$212 billion in annual port sector federal, state, and local taxes.

Those are impressive numbers. If projections by the U.S. Department of Transportation's Bureau of Transportation Statistics hold, it is a safe bet that the total volume and value of marine commerce will continue to rise in the coming decade.

Of course, ill-advised trade wars may alter those projections, but I prefer to remain optimistic.

The bottom line is that we are going to have to move substantially more freight around the country. Short sea shipping—currently under-utilized—offers the potential to move greater volumes of freight via the most efficient and cost-effective manner available, bar none.

Moreover, short sea shipping offers other collateral benefits, such as increased transportation options for shippers and reduced congestion on crowded highways. In addition, lower vehicle emissions and better air quality in densely populated metropolitan areas, and increased employment in the longshore and domestic maritime industries, are both desirable outcomes that are good for our economy and our communities.

Considering these attributes and the projections of rising freight volumes, it remains a puzzle as to why short sea shipping has not risen in prominence as a competitive transportation option.

I expect this hearing to identify factors that have thus far stunted greater market interest in short sea shipping.

Yet, I think it is also worth mentioning that we absolutely need to finalize a comprehensive, integrated national freight strategy.

Progress in this endeavor was initiated after Congress passed the Moving Ahead for Progress in the 21st Century Act, or MAP-21, and was further advanced when Congress passed the Fixing America's Surface Transportation (FAST) Act, that directed the Department of Transportation to produce a National Freight Strategic Plan by 2017.

Well, it is now 2019, and we only have a draft plan. We need to do better.

In closing, until we think holistically and long-term about how we plan to move freight around the country, the U.S. freight transportation network will continue to be challenged by congestion, inefficiency, and yes, crumbling infrastructure. And until we accept that no one mode of transportation is the ultimate solution, alternatives such as short sea shipping will continue to be overlooked and under-utilized.

Consequently, the only thing we may succeed in doing is to erode the global competitiveness of our own freight transportation network. We would all be best advised to avoid such an outcome. Thank you.

—————

**Prepared Statement of Hon. Sam Graves, a Representative in Congress
from the State of Missouri, and Ranking Member, Committee on Trans-
portation and Infrastructure**

Thank you, Chairman Maloney.

As a farmer and Member whose district is bounded by both the Missouri and Mississippi Rivers, I understand the importance of shipping commodities by water in the United States.

I look forward to learning more today about ways we can increase the use of America's waterways to ship more of our higher value cargoes.

Moving cargo via Short Sea Shipping can alleviate congestion in other modes.

Unfortunately, Short Sea Shipping requires the additional loading and unloading of vessels which creates expense and delays, as our waterways do not extend to everyone's final destination.

In addition, shippers don't want to enter into contracts to move cargo on ships that aren't built yet, and bankers don't want to fund ship construction unless contracts are in place to move cargo on those vessels.

Therefore, to encourage more Short Sea Shipping, Congress established a program in 2007, and I am particularly interested in hearing what actions the Maritime Administration has taken to implement it.

I yield back the balance of my time.

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**Statement of Kurt Nagle, President and CEO, American Association of Port
Authorities, Submitted for the Record by Hon. Maloney**

Chairman Maloney and Ranking Member Gibbs, thank you for allowing the American Association of Port Authorities (AAPA) to submit testimony following this timely hearing. AAPA looks forward to working with you both throughout the 116th Congress.

AAPA strongly supports the Maritime Administration's (MARAD) Marine Highway Program and the potential it has in providing and incentivizing additional opportunities for shippers and ports. Specifically, a more robust and integrated marine highway system will provide more options to maritime customers, improve the environmental space connecting ports and communities by reducing truck traffic and emissions as well as managing the congestion around ports by providing sustainable waterway options to move freight. A strong Marine Highway Program is a much-needed tool for ports, shippers and communities.

Today's hearing is long overdue. The last time there was a hearing in this Committee on short sea shipping was 2007. Much has changed in the port and shipping industry these past twelve years—and much has changed with the advent of the FAST Act and the creation of dedicated freight programs at the U.S. Department of Transportation.

The FAST Act provided a baseline for freight programs and the coming reauthorization of the FAST Act provides an opportunity for a program such as the Marine Highway Program to become more integrated into our supply chain by incentivizing its use. Additionally, 38 of the 50 states and Washington, D.C., are connected by navigable waterways and marine highway routes. As the Marine Highway Program grows and becomes a viable option for communities, shippers and port authorities, AAPA believes that encouraging more of an emphasis on marine highways in the next generation of state freight plans will be key to further integrating the program as a tool in our country's transportation supply chain.

AAPA has recommended updating the America's Marine Highway Program authorization and including it in the Maritime Freight Supply Chain title, as part of its FAST Act Reauthorization Platform. In the meantime, AAPA has three immediate recommendations to energize the program:

- 1) *Step one*—Wave the Harbor Maintenance Tax (HMT) tax when it is applied a second time in an instance of transshipped cargo. AAPA supports this exemption for certain U.S. port-to-port cargo. This is the issue that is most often raised as the biggest disincentive for shippers to utilize the marine highways.
- 2) *Step two*—Provide shippers with federal incentives or tax credits to utilize marine highways. Some states have put incentives in place, but a federal tax credit would send the message that marine highways are a national priority and that it is a long-term sustainable tool.
- 3) *Step three*—Build off the FAST Act Congestion Mitigation and Air Quality (CMAQ) language and direct and codify more CMAQ funding for marine high-

ways with a focus on marine highway projects that have the long-term potential to reduce emissions and congestion; two key goals of the CMAQ program. Other long-standing AAPA recommendations include:

- Federal funding to support the return of transshipment cargo service to U.S. mainland ports,
- Federal funding support (operating and capital) for short-sea shipping services,
- Development of expertise at the state/MPO level on marine highway alternatives/benefits, and
- Reassessment of federal shipbuilding programs, exploring how they could support marine highway development.

AAPA looks forward to working with you throughout the 116th Congress on these important maritime issues.

**“America’s Marine Highways,” Fact Sheet, Maritime Administration,
Submitted for the Record by Hon. Maloney**

Maritime Administration

www.marad.dot.gov



America’s Marine Highways

U.S. Department of Transportation

As of June 19, 2019

The America’s Marine Highway Program was established by Section 1121 of the Energy Independence and Security Act of 2007. The America’s Marine Highway Program was further amended by Section 405 of the Coast Guard and Maritime Transportation Act of 2012 and Section 3508 of the National Defense Authorization Act for Fiscal Year 2016. The Maritime Administration Office that manages the America’s Marine Highway Program is the Office of Ports and Waterways Planning (MAR-520).

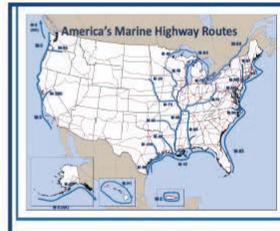


PURPOSE:

The America’s Marine Highway Program is a Department of Transportation-led program to expand the use of our Nation’s navigable waterways to relieve landside congestion, reduce air emissions, and generate other public benefits by increasing the efficiency of the surface transportation system.

PUBLIC BENEFITS:

- Creating and sustaining jobs on U.S. vessels and in U.S. ports and shipyards;
- Increasing the state of good repair of the U.S. transportation system by reducing maintenance costs from wear and tear on roads and bridges;
- Increasing our nation’s economic competitiveness by adding new, cost-effective freight and passenger transportation capacity and reducing landside congestion;
- Increasing the environmental sustainability of the U.S. transportation system by using less energy and reducing air emissions (such as greenhouse gases) per passenger or ton-mile of freight moved. Further environmental sustainability benefits come from the mandatory use of modern engine technology on designated projects;
- Increasing public safety and security by providing alternatives for the movement of hazardous materials outside heavily populated areas;
- Increasing transportation system resiliency and redundancy by providing transportation alternatives during times of disaster or national emergency;
- Increasing national security by adding to the nation’s strategic sealift resources.



Maritime Administration

Department of Transportation

MARINE HIGHWAY ROUTES

The America's Marine Highway System consists of our Nation's navigable waterways including rivers, bays, channels, the Great Lakes, the Saint Lawrence Seaway System, coastal, and open-ocean routes. The Office promotes short sea shipping through the designation of marine highway routes to relieve congestion. Currently the Marine Highway System consists of 25 Designated Routes, 23 Designated Projects, and numerous project components funded through grants throughout the nation.

The System interacts with 17 Strategic ports, over 2000 ports of which, 150 currently handle over 2 million tons of freight annually, and numerous other ports including privately owned facilities on coasts and the inland waterways. Key maritime partners include: USACE, USCG, FHWA Office of Freight & Intelligent Transportation Systems, and numerous industry associations.

MARINE HIGHWAY PROJECTS

Marine Highway Projects are planned or contemplated new services, or expansions of existing services, on designated Marine Highway Routes, that seek to provide new modal choices to shippers, reduce transportation costs, and/or provide public benefits, which include reduced air emissions, reduced road maintenance costs, and improved safety and resiliency impacts.

Upon designation as a Marine Highway Project, the Department Program Office will coordinate with the Project Applicants to identify the most appropriate departmental actions to support the project. Promote the service with appropriate governmental, regional, State, local or tribal government, transportation planners, private sector entities or other decision makers to the extent permitted by law. (ii) Coordinate with ports, State Departments of Transportation, metropolitan planning organizations, localities, other public agencies and the private sector to support the designated service.



MARINE HIGHWAY GRANTS

Only those projects that are designated by the Secretary can apply for grant funding when a "Notice of Funding Opportunity" is published in the Federal Register. The first round of Marine Highway Grants totaling \$7M were awarded in September 2010. In 2016 and 2017, the Program had appropriated \$5M per year. In FY 2018 the Consolidated Budget Act provided a further \$7M in grant funds for the Marine Highway Grant Program. There is currently a Notice of Funding Opportunity published in the federal register for FY 2019 funding. The Program expects to continue to release further notices of funding per the level of appropriations from Congress.



“America’s Marine Highway Program,” Brochure, Maritime Administration, Submitted for the Record by Hon. Maloney

U.S. Department of Transportation
Maritime Administration



America's Marine Highway Program



"Leading the Development of America's Ports and Waterways Infrastructure as a National Strategic Asset"

As of June 19, 2019

The America's Marine Highway Program provide shippers with a modal options to relieve congested road and rail networks while introducing additional resiliency to our Nation's transportation system. With anticipated growth in population there is expected to be significant growth in freight volumes, requiring new transportation alternatives. Our Nation's vast network of inland waterways and coastal routes has substantial excess capacity that can absorb some of this growth and is a viable way to address some of these issues.

About Us

The Maritime Administration has been helping to improve the efficiency of our Nation's 3,350+ The America's Marine Highway Program Team is dedicated to helping America's ports meet tomorrow's needs.

Contact Us

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What is the difference between Marine Highways & Short Sea?

Short sea shipping commonly refers to coastwise waterborne transportation of freight by navigable waterways without crossing open ocean. Marine Highways are short sea routes and inland water routes within the US that have been designated by the Secretary of Transportation. America's Marine Highway Program (AMHP), administered by the Maritime Administration, was formed to help develop new, and expand existing, U.S. flag services that transport containerized, trailered, palletized or unitized freight along Marine Highways.

The System

The Marine Highway System consists of the over 100 miles of inland navigable waterways including our coastlines and the Great Lakes.



What are America's Marine Highways?

America's Marine Highways are navigable waterways that have been designated by the Secretary of Transportation and here to the ability to provide additional capacity to relieve congested landside routes serving freight and passenger movement. Their focus is to increase utilization and efficiency of short sea transportation on designated Marine Highway Routes. Each Marine Highway has a route designation that reflects the congested landside route it parallels. For example, M-95 stretches from Maine to Florida and is the designation for the shipping lane along the Atlantic Coast paralleling interstate highway I-95. Refer to the following for a list of Marine Highways



The AMHP follows a three-step approach when supporting investment opportunities within the Marine Highway System.

Route Designation
 First, Designation of a Marine Highway route. This is the first step towards reducing landside congestion by focusing public and private efforts on increasing freight transported on commercially navigable waterways. A public entity must apply and receive route designation before applying for Marine Highway Project Designation.

Project Designation
 Second, the project must be designated. These projects represent concepts for new services or expansion of existing marine highway services that have the potential to offer public benefits and long-term sustainability without long-term Federal support. A public entity must apply and receive Project Designation before any grant funding.

Marine Highway Grants
 Lastly, Marine Highway Grant funding is provided to successful applicants annually based on funds appropriated by Congress for that purpose. Successful applicants can apply for various components of the marine highway system per eligibility requirements provided the application directly relates to a project that has been designated and is submitted by, or with the approval of, the original applicant for the Project Designation.

How do I apply for Route/Project Designation
 Route Applications must come from public entities are always welcome and accepted at any time. Project Designations may also be submitted in conjunction with a Route Designation and are accepted bi-annually. Contents of the application include a narrative portion that should not exceed 20 pages in length plus an addendum of supporting documentation. Instructions regarding applications are included in the Final Rule for America's Marine Highway program that went into effect January 1, 2016.

What are the benefits of being Designated a Marine Highway Project?
 Designated projects receive preferential treatment from the Department and MARAD. In addition to possible funding assistance, the Office of Marine Highways supported by the Gateway Offices may provide other support services. Once project designation has been received, you do not need to apply in future calls for projects. However, a letter updating the status of your project is required to be submitted every two (2) years. Project designation will remain with the public.

APPENDIX

QUESTIONS FROM HON. ALAN S. LOWENTHAL FOR REAR ADMIRAL MARK H. BUZBY,
U.S. NAVY (RET.), ADMINISTRATOR, MARITIME ADMINISTRATION

Question 1. As you've mentioned in your testimony, coastwise shipping holds tremendous promise to alleviate congestion on our highways and reduce harmful carbon emissions. In my region of Southern California, moving containers on barges can help us grapple with our world-famous traffic and allow our ports to handle more cargo without adding additional truck trips to our highways.

As Vice Chair of the Sustainable Energy and Environment Coalition, I included investments in marine highways as part of our infrastructure proposal, because these investments drive substantial reduction in diesel emissions.

I'm interested to know about some of the barriers to coastwise shipping in my region.

I represent large container ports that have berths and terminals for ships that hold over 10,000 TEUs.

Do container ports now have the infrastructure to allow for smaller container-on-barge operations?

ANSWER. Adequate infrastructure that can best accommodate smaller container-on-barge operations at a container port should include a number of features including a dedicated barge berth adjacent to the large container berth, which is necessary to facilitate transloading of containers from the mother ship to a barge service. A dedicated berth allows for the barge service to maintain a service schedule, ensuring export loads do not miss the mother ship's scheduled departure. Appropriately sized cargo handling equipment will allow loading/unloading of the barge which may include a negative drop top pick or mobile harbor crane vs. a large ship-to-shore crane.

A separate terminal area near the barge berth will allow for aggregation of containers dedicated for the coastwise service. These containers may already be cleared by U.S. Customs and Border Protection, or may be domestic outbound moves, therefore a means to separate them from the general import stack is desired. Non-intrusive scanning of 100% of import containers is mandated. Most ports have such scanners located at the exit gates of the port facility. When moving containers between the mother ship and barge, a method of scanning containers without driving them out of the port gate is needed.

For inland facilities, such as intermodal rail yards, enabling the transfer of heavy freight onto trains to keep trucks away from congested urban port areas is useful. To achieve this, high and wide clearance is necessary for intermodal corridors from ports to inland areas.

MARAD does not systematically collect information from ports about the types of infrastructure they have or do not have to support smaller container-on-barge operations; however, it is our experience that few container ports have such facilities. To our knowledge, PNCT at Port Newark, Mobile and the Port of Virginia each have a dedicated barge berth adjacent to facilities that accommodate larger container vessels. Houston is exploring the viability of implementing a barge berth near their container facilities. Through work performed by the Marine Highway Program, new projects to develop such facilities may assist the following ports in the coming five years: New Orleans, other terminals in New York, Savannah, Oakland and ports in South Florida and Southern California.

Question 2. What kind of investments will these ports need to make to establish smaller barge services to serve coastwise markets?

ANSWER. The types of investments will vary by port, but in general the types of investments include expansions, including dedicated barge berth capacity, dedicated uplands storage facility separate from the general import stacks, and dedicated cargo handling equipment. Some ports may need to invest in training simulators for waterfront labor, such as to help with loading containers on a barge vs. loading

large container vessels. Investments may also be needed on dock or near-dock rail access for ease of loading and discharging overweight cargo. Dredging new berths or rehabilitating berths to ensure access for both vessels and barges has also been a priority for large container ports.

QUESTIONS FROM HON. ALAN S. LOWENTHAL FOR JONATHAN NASS, CHIEF EXECUTIVE OFFICER, MAINE PORT AUTHORITY

Question 1. As you've mentioned in your testimony, coastwise shipping holds tremendous promise to alleviate congestion on our highways and reduce harmful carbon emissions. In my region of Southern California, moving containers on barges can help us grapple with our world-famous traffic and allow our ports to handle more cargo without adding additional truck trips to our highways.

As Vice Chair of the Sustainable Energy and Environment Coalition, I included investments in marine highways as part of our infrastructure proposal, because these investments drive substantial reduction in diesel emissions.

I'm interested to know about some of the barriers to coastwise shipping in my region.

I represent large container ports that have berths and terminals for ships that hold over 10,000 TEUs.

Do container ports now have the infrastructure to allow for smaller container-on-barge operations?

ANSWER. It depends. Large existing container ports have large berths where the larger container ships get priority. The availability of berth space for smaller barges would be based on schedule. This means that smaller feeder barges would have to fit their operations in edgewise to be serviced. More often than not we have found that the restricting factor is the cost-effective availability of labor to work the smaller barges.

If a larger port is at 80% utilization of its existing terminal infrastructure then new additional port infrastructure should be considered. The amount of which should be based on the target amount of trucks we are seeking to move off the road and onto barges. This could be calculated.

Question 2. What kind of investments will these ports need to make to establish smaller barge services to serve coastwise markets?

ANSWER. If new port infrastructure is required the types of investments necessary to support smaller barge services would include: additional pier and terminal infrastructure in larger ports, rebuilt terminal infrastructure in smaller feeder ports, new mobile harbor cranes or gantry cranes, new reach stackers or straddle carriers to move containers around, new chassis (the wheels for the containers turning them into trucks), yard trucks, and potentially new barges/tugs/or similar vessels. The majority of the above list should be considered as qualifying for public investment to incentivize modal shift in America. Port Infrastructure and all related equipment should be considered equivalent to the asphalt of roads and bridges. Financially it is a nominal amount of investment required for port equipment and infrastructure to carry the same amount as trucks or rail.

All investment should be tied to market participation, private sector shippers (beneficial cargo owners AKA BCOs) committing freight for a lower freight rate and the benefit of lower emissions and lower social cost. This will not happen naturally under the present structure where the federal and state governments are subsidizing trucking through huge infrastructure investment without charging that back to the truckers or American shippers.

QUESTIONS FROM HON. BOB GIBBS FOR JAMES WEAKLEY, PRESIDENT, LAKE CARRIERS' ASSOCIATION

Question 1. At the hearing, you were asked to provide information on the importance of ice cutters on the Great Lakes. You elaborated with the economic costs and jobs lost because of inadequate ice breaking but also stated you would provide more details for the record. Please provide that information.

ANSWER. The U.S.-flag vessel delays caused by the inadequate icebreaking during the 2019 ice season resulted in the loss of 5,421 jobs that were dependent upon the U.S.-flagged fleet's ability to deliver cargo throughout the Great Lakes Region. Businesses that depend upon the Great Lakes maritime industry lost over \$1 billion in revenue. The Federal government lost over \$125 million in taxes and state and local governments lost \$46 million. Impacts of delays on Canadian-flag lakers and ocean-going vessels flagged in countries other than the U.S. and Canada calling on the Great Lakes ports (salties) were not calculated.

Although economic losses were not calculated for the 2016–2018 ice seasons, I have attached to this response the economic impacts for ice seasons 2014, 2015 and 2019. All impacts were calculated using the economic model developed by Martin & Associates for Great Lakes shipping. The model was updated in July of 2018. The main reasons for the increased impacts in 2019 are inflation and the use of the updated economic model.

The U.S. Coast Guard (USCG) will report that they met their goal of keeping “major” waterways open 95% of the time during the 2019 ice season. LCA believes this measurement is not an accurate determination of success in regard to their mandate to keep waterways open to navigation by means of icebreaking operations.

First, the USCG is only reporting on the status of four waterways in the Great Lakes which happen to be connecting waterways to the Great Lakes System (St. Marys River, the Straits of Mackinac, the Detroit/St Clair Rivers and Pelee Passage in Lake Erie). They call these waterways Tier 1 waterways and prioritize icebreaking operations with Tier 1 highest priority to Tier 4 lowest. They do not report on the Lakes themselves or the harbors that ships must load out of and deliver goods into. For instance, a ship may not be able to transit out of Duluth, MN, transit Southern Lake Huron or enter Cleveland, OH due to ice, but that is not reported by the USCG. The USCG considers a Tier 1 waterway “open” even if it is unpassable, if no vessel is actively trying to pass through it. In addition, the Canadian Coast Guard (CCG) is not bound to a tiered prioritizing metric, therefore they are often assisting Canadian vessels into and out of their Canadian ports and not in the USCG’s defined Tier 1 waterways. We only recall one day in the spring 2019 ice season when a CCG icebreaker was deployed to a Tier 1 waterway. The vessel deployed to the Straits of Mackinaw was quickly dispatched to the Canadian Port of Thunder Bay, when another CCG icebreaker there experienced an engine casualty.

It is also important to note that the 95% that is reported to Congress is not Great Lakes specific, it is the Great Lakes and Eastern Seaboard aggregated. Therefore, a seldom difficult ice season in the Northeast is ultimately diluting the percentage of closures on the Great Lakes and further pushing the percentage of waterways open up. It is also noteworthy that the tiered waterway approach is a relatively new system and is not consistent with the “reasonable demands of commerce” standard stated in the Executive Order that created the USCG’s icebreaking mission. LCA also questions the consistency of its application on the East Coast and the Great Lakes.

Second, the USCG also does not take transit time into account when reporting their performance. A normal round trip from Duluth to Cleveland may take 96 hours. With difficult ice conditions on just one Lake or connecting waterway, delays can stretch the trip to over a week. With a defined shipping season from mid-March to mid-January, every shipment is critical and delays shorten the season even further. One U.S.-flag operator, based on the ice conditions and the USCG’s decision not to keep an icebreaker on Lake Superior after the Soo Locks closed, delayed sailing its entire fleet. This delayed sailing is not captured by the USCG metric. In fact, given the way the USCG calculates waterway availability, delayed sailings contribute to their claimed success. If all of the vessels delayed sailing until May, given the USCG’s metrics, they could claim “100% availability of major waterways” without logging any icebreaking effort.

Third, the USCG waterway availability statistic does not measure whether commercial vessels can safely transit the waterway without an icebreaker escort. It measures whether they tried to make the transit, misjudged the ice conditions and got stuck. The USCG waterway availability statistic has little correlation with the availability of its Great Lakes icebreaker fleet because of commercial vessel operators’ knowledge of that availability (or unavailability). Low availability of USCG icebreakers, however, definitely drives commercial vessel operators’ winter voyage planning, which drives how much cargo will be shipped or left ashore during the winter season. Commercial vessels don’t get underway if their operators know they are going to get struck for an extended period of time. They may not only delay sailing for the season, they will often wait at the dock until USCG assistance is available.

LCA’s economic impact analysis, given in the first paragraph, is based on how much cargo was not shipped because:

- 1) Commercial vessels either could not risk a voyage due to the unavailability of an icebreaker.
- 2) Commercial vessels proceeded with a transit through the ice without adequate icebreaker escort, but made no or slower progress than they would have if an icebreaker had been available to properly escort them.

U.S.-flag lakers lost a total of 1,796.5 hours due to inadequate icebreaking during the 2019 ice season, which delayed or prevented a total of 4.9 million tons of cargo. LCA believes its economic analysis is a better measurement of the impact of USCG icebreaker availability than the USCG's major waterway availability statistic because commercial vessel operators have an economic incentive to attempt to ship cargo, but not get stuck in the ice (which consumes operating costs and risks expensive damage to the vessel). The greater the availability of USCG icebreakers, the less likely cargo shipments will be delayed or foregone. The USCG waterway availability statistic does not capture this dynamic. Nor does it capture the status of ports or waterways other than the connecting channels. The USCG often cites the number of vessels and tons assisted during the ice season. That is a measure of industry's efforts, not the USCG's. If a vessel is stuck for two days or two weeks in port, it is not captured in the USCG's metrics. In one instance last winter, the USCG ordered a U.S.-flag laker to slow down so one of the largest U.S.-flag lakers could serve as the icebreaker for the Canadian-flag tug barge unit that was too under powered to be the Tier 1 waterway (Straits of Mackinaw).

Industry needs a predictable Federal icebreaking response in order to make logical business decisions. The current state of the USCG icebreakers is bleak. The USCG Service Life Extension Program (SLEP) for the 140-foot Bay Class icebreakers did not address the heart of the vessel, two main diesel engines. These engines are failing at a rapid pace and the 40-year-old icebreakers are not reliable. Last year the USCG Great Lakes icebreakers lost 246 operating days during the ice season, primarily because of icebreaker engine failures. One of the post-SLEP 140's missed the entire spring icebreaking season this year due to an engine casualty. The USCG has no plans to replace the most critical pieces of machinery. The engines could easily be replaced by commercial shipyards on the Great Lakes. This could be accomplished independent of the SLEP program.

ATTACHMENT A—ECONOMIC IMPACTS RESULTING FROM 2014 ICE DELAYS

To estimate the economic impact of the unusually long ice season on the Great Lakes during the 2013–2014 winter season, year over year tonnage comparisons were made between December 2012–May 2013 and December 2013–May 2014. The data, showing tons by commodity, carried by the U.S.-flagged Great Lakes fleet, was supplied by the Lakes Carriers' Association. Using the *2010 Economic Impact study of the Great Lakes and St. Lawrence Seaway—U.S. Flagged Fleet*, jobs per ton and revenue per ton ratios were developed for iron ore, coal, limestone/aggregates and other dry bulks. These ratios were then applied to the net decrease in tonnages from the 2013 winter shipping season to the 2014 winter shipping season. This methodology assumes that demand for these cargoes did not change from 2013 to 2014. From December 2013 through May 2014, cargo moved by the U.S.-flagged fleet decreased by 6.8 million tons from the previous year due to lost transit days caused by heavy ice. The economic impacts of these delays are presented in terms of jobs and business revenue in Table 1.

Table 1—Economic Impact of Lost Tonnages due to Heavy Ice

	2014 Ice-Delay Impacts
JOBS	
Direct Jobs	1,311
Induced	1,298
Indirect	1,221
Total	3,830
BUSINESS REVENUE (1,000)	\$705,145

The vessel delays caused by the 2014 ice season resulted in the loss of 1,311 jobs that are directly dependent upon the U.S.-flagged fleet's ability to deliver cargo throughout the Great Lakes Region. This results in the additional loss of 1,298 induced jobs that had been supported by direct job holders as they re-spent their wages/salaries within the regional economy. Businesses that depend upon the region's maritime industry lost over \$705 million in revenues because of the ice delays. As businesses use their revenue to purchase goods and services, they sup-

port indirect jobs. The decrease in revenue and corresponding decline in purchases of goods and services resulted in the loss of 1,221 indirect jobs. In total, 3,830 dependent jobs were lost due to the 2014 ice delays.

ATTACHMENT B—ECONOMIC IMPACTS RESULTING FROM DECREASED TONNAGE DURING THE 2015 ICE SEASON

To estimate the economic impact of the 2015 winter ice season on the Great Lakes, tonnage comparisons were made between the January 2015–April 2015 period and the average tonnage carried during those months from 2010–2013. Because the winter of 2014 was exceptionally severe, it was excluded from long-term average calculations so as not to skew the data. Tonnages carried by the U.S.-flagged Great Lakes fleet were provided for separate commodity groups by the Lakes Carriers' Association. Using the *2010 Economic Impact study of the Great Lakes and St. Lawrence Seaway—U.S. Flagged Fleet*, jobs per ton and revenue per ton ratios were developed for iron ore, coal, limestone/aggregates and salt. These ratios were then applied to the net decrease in tonnages of each commodity, again comparing the 2015 winter shipping season against the average tons carried during the 2010–2013 winter shipping seasons. This methodology assumes that demand for these cargoes has remained constant and that the lost tonnages correlate to lower production levels by the end users. From January 2015 through April 2015, cargo moved by the U.S.-flagged fleet decreased by 3.2 million tons from the 2010–2013 average due to lost transit days caused by heavy ice. The economic impacts of these delays are presented in terms of jobs and business revenue in Table 1.

Table 1—Economic Impact of Lost Tonnages due to Heavy Ice

	2015 Ice-Delay Impacts
JOBS	
Direct Jobs	674
Induced	667
Indirect	628
Total	1,970
BUSINESS REVENUE (1,000)	\$355,578

The vessel delays caused by the 2015 ice season resulted in the loss of 674 jobs that are directly dependent upon the U.S.-flagged fleet's ability to deliver cargo throughout the Great Lakes Region. This results in the additional loss of 667 induced jobs that had been supported by direct job holders as they re-spent their wages/salaries within the regional economy. Businesses that depend upon the region's maritime industry lost over \$355 million in revenues because of the ice delays. As businesses use their revenue to purchase goods and services, they support indirect jobs. The decrease in revenue and corresponding decline in purchases of goods and services resulted in the loss of an estimated 628 indirect jobs. In total, 1,970 dependent jobs were lost due to the 2015 ice delays.

ATTACHMENT—ECONOMIC IMPACTS RESULTING FROM 2019 ICE DELAYS

To estimate the economic impact of the typical ice season on the Great Lakes during the 2018–2019 winter season, we asked U.S.-flag carriers to report their delays in hours and the number of tons carried during their delays. The types of delays included being beset in the ice, at anchor awaiting an icebreaker, having to slow down due to inadequate icebreaking, waiting for Coast Guard permission to proceed, and waiting for a convoy to form. In addition we recorded hours lost due to repairing ice damage to vessels and the hours lost by vessels that delayed their initial sailing times due to inadequate icebreaking. We aggregated the fleet's lost hours and tons delayed and determined that a total of 409,729 tons of coal were delayed for 206 hours. We also calculated that 2,186,361 tons of iron ore were delayed for a total of 1,586.5 hours. Since the vessels operating were a combination of "footers" and smaller vessels, we used an average of 42,000 tons per trip. We also assumed that a typical round trip for a U.S.-flag laker takes 96 hours. Using those baseline assumptions, we determined that we could have carried *879,210 additional tons of*

coal and 4,032,000 tons of iron ore had the fleet not lost time. In other words, we lost 21 trips of coal and 860 trips of iron ore among the 31 vessels reporting delays.

The data, showing tons by commodity, lost by the U.S.-flagged Great Lakes fleet, was supplied by the Lakes Carriers' Association to Martin Associates. The July, 2018 updated *Economic Impact study of the Great Lakes and St. Lawrence Seaway—U.S. Flagged Fleet*, developed jobs per ton and economic impact per ton ratios for iron ore, coal, limestone/aggregates and other dry bulks. These ratios were then applied to the estimated loss of 4,000,000 tons of iron ore and 900,000 tons of coal for the relatively average winter of 2018/2019. The economic impacts of these delays are presented in terms of jobs and business revenue in table below.

Economic Impact of Lost Tonnages due to Inadequate Icebreaking in the Average
Winter of 2018/2019

4,000,000 ton loss of iron ore and 900,000 ton loss of coal due to ice delays

JOBS	
Direct Jobs	1,925
Induced	1,666
Indirect	1,829
Total	5,421
PERSONAL INCOME (1,000)	
Direct	\$106,912
Re-Spending/Local Purchases	\$203,098
Indirect	\$80,454
Total	\$390,464
BUSINESS REVENUE (1,000)	\$1,044,044
LOCAL PURCHASES (1,000)	\$187,193
STATE AND LOCAL TAXES (1,000)	\$46,429
FEDERAL TAXES (1,000)	\$125,518

Source: Martin Associates

The vessel delays caused by the 2018/2019 ice season resulted in the loss of 5,421 jobs that are dependent upon the U.S.-flagged fleet's ability to deliver cargo throughout the Great Lakes Region. *Businesses* that depend upon the region's maritime industry lost over \$1 billion in revenues because of the ice delays. Due to the lost business revenue, the federal government lost over \$125 million in taxes in addition to the \$46 million lost by state and local governments.