

PORT SAFETY, SECURITY, AND INFRASTRUCTURE INVESTMENT

**Committee on Transportation and Infrastructure
Serial No. 118-51**

**Committee on Homeland Security
Serial No. 118-58**

JOINT FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON
COAST GUARD AND MARITIME TRANSPORTATION,
COMMITTEE ON TRANSPORTATION AND
INFRASTRUCTURE

AND THE

SUBCOMMITTEE ON
TRANSPORTATION AND MARITIME SECURITY,
COMMITTEE ON HOMELAND SECURITY

HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTEENTH CONGRESS

SECOND SESSION

APRIL 5, 2024
(PortMiami, Miami, Florida)

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CONTENTS

	Page
Summary of Subject Matter	vii
STATEMENTS OF MEMBERS OF THE COMMITTEES	
Hon. Daniel Webster, a Representative in Congress from the State of Florida, and Chairman, Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, opening statement	3
Prepared statement	4
Hon. Salud O. Carbajal, a Representative in Congress from the State of California, and Ranking Member, Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, opening statement	5
Prepared statement	6
Hon. Carlos A. Gimenez of Florida, Chairman, Subcommittee on Transportation and Maritime Security, Committee on Homeland Security, opening statement	6
Prepared statement	8
Hon. Shri Thanedar of Michigan, Ranking Member, Subcommittee on Transportation and Maritime Security, Committee on Homeland Security, opening statement	10
Prepared statement	11
WITNESSES	
PANEL 1	
Hon. Mario Diaz-Balart, a Representative in Congress from the State of Florida, oral statement	12
Prepared statement	14
PANEL 2	
Rear Admiral John C. Vann, Commander, Coast Guard Cyber Command, U.S. Coast Guard, oral statement	18
Rear Admiral Wayne R. Arguin, Assistant Commandant for Prevention Policy, U.S. Coast Guard, oral statement	19
Joint prepared statement of Rear Admirals Vann and Arguin	21
William K. Paape, Associate Administrator for Ports and Waterways, Maritime Administration, oral statement	25
Prepared statement	26
PANEL 3	
James C. Fowler, Senior Vice President and General Manager, Crowley Shipping, oral statement	35
Prepared statement	37
Frederick Wong, Jr., Deputy Port Director, PortMiami, on behalf of the American Association of Port Authorities, oral statement	38
Prepared statement	40
Brent D. Sadler, Captain, U.S. Navy (Ret.), and Senior Research Fellow, The Heritage Foundation, oral statement	42
Prepared statement	43
Ed McCarthy, Chief Operating Officer, Georgia Ports Authority, on behalf of the National Association of Waterfront Employers, oral statement	50
Prepared statement	51
Dave Morgan, President and Chief Executive Officer, Cooper/Ports America, on behalf of the National Maritime Safety Association, oral statement	55
Prepared statement	57

APPENDIX

Questions from Hon. Salud O. Carbajal to:

William K. Paape, Associate Administrator for Ports and Waterways, Maritime Administration	69
Frederick Wong, Jr., Deputy Port Director, PortMiami, on behalf of the American Association of Port Authorities	69
Ed McCarthy, Chief Operating Officer, Georgia Ports Authority, on behalf of the National Association of Waterfront Employers	70
Dave Morgan, President and Chief Executive Officer, Cooper/Ports Amer- ica, on behalf of the National Maritime Safety Association	70

Congress of the United States

Washington, DC 20515

APRIL 2, 2024

JOINT SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Coast Guard and Maritime Transportation and Subcommittee on Transportation and Maritime Security

FROM: Staff, Subcommittee on Coast Guard and Maritime Transportation and Subcommittee on Transportation and Maritime Security

RE: Subcommittee on Coast Guard and Maritime Transportation and Subcommittee on Transportation and Maritime Security Hearing on “*Port Safety, Security, and Infrastructure Investment*”

I. PURPOSE

The Subcommittee on Coast Guard and Maritime Transportation of the Committee on Transportation and Infrastructure and the Subcommittee on Transportation and Maritime Security of the Committee on Homeland Security will meet on Friday, April 5, 2024, at 9:30 a.m. ET in Terminal E of PortMiami to receive testimony at a joint field hearing entitled, “*Port Safety, Security, and Infrastructure Investment*.” The joint field hearing will discuss emerging challenges to safety and security at United States ports as well as the state of port infrastructure and future investment needs. At the hearing, Members will receive testimony from three panels of witnesses. The first panel will include a Member from the United States House of Representatives. The second panel will include representatives from the United States Coast Guard (Coast Guard or Service) and the Maritime Administration (MARAD). The third panel will include representatives from Crowley Shipping, PortMiami, the Heritage Foundation, Georgia Ports Authority, and Cooper/Ports America.

II. BACKGROUND

The United States is a maritime Nation with 95 percent of all cargo entering through the Marine Transportation System (MTS).¹ Cargo activity at United States ports accounts for 26 percent of the United States’ gross domestic product (GDP), generating nearly \$5.4 trillion in total economic activity, and supporting 31 million direct and indirect jobs.² The United States navigable transportation network includes 361 ports on more than 25,000 miles of waterways, including oceans, rivers, and lakes.³ The sheer size and complexity of port facilities, along with the volume of freight handled, can make them difficult to secure despite the critical importance of safeguarding our Nation’s ports.⁴

To ensure the uninterrupted operation of the MTS, the Coast Guard is responsible for the development and implementation of policies and procedures to facilitate commerce and improve United States ports and waterways ensuring they are safe and

¹FACT SHEET, THE WHITE HOUSE, *Biden-Harris Administration Announces Initiative to Bolster Cybersecurity of U.S. Ports* (Feb. 21, 2024), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2024/02/21/fact-sheet-biden-harris-administration-announces-initiative-to-bolster-cybersecurity-of-u-s-ports/>.

²*Id.*

³John Nemerofsky, *Protecting our Ports*, SECURITY MAGAZINE, (Jan. 10, 2022), available at <https://www.securitymagazine.com/articles/96867-protecting-our-ports>.

⁴INTERPOL, *Port Security Project*, available at <https://www.interpol.int/en/Crimes/Maritime-crime/Port-Security-Project>.

operational.⁵ Additionally, the Coast Guard serves as the principal Federal agency charged with ensuring the security and safety of the waters under United States' jurisdiction.⁶ Its responsibilities include securing United States ports against any physical or cybersecurity threats seeking to disrupt operations. To this end, the Coast Guard is responsible for reviewing and approving port facility security plans, conducting site visits to ensure proper physical security measures are being taken, and taking steps to prevent and respond to malicious cyber activities.⁷ United States Customs and Border Protection (CBP), complements the Coast Guard's maritime security efforts by identifying and screening high-risk cargo before it enters the United States.⁸

MARAD, within the Department of Transportation (DOT), is responsible for fostering, promoting, and developing the United States maritime industry so it can meet the Nation's economic and security needs.⁹ MARAD serves as a resource to ports by providing financial assistance to help fund infrastructure improvements and facilitate a more efficient, reliable and operational MTS.¹⁰ The Federal Emergency Management Agency (FEMA) provides additional financial assistance for security-focused projects at ports through its Port Security Grant Program.¹¹

III. PORT SAFETY AND SECURITY

Maritime ports, facilities, and infrastructure worldwide are vulnerable to physical and cybersecurity exposure through domestic and foreign adversarial access to everything from port equipment and infrastructure to supply chain information management systems.¹² These threats pose a serious safety and security risk to our Nation's ports and vessels underway. Furthermore, they threaten to disrupt the supply chain. One of America's largest ports, the Port of Los Angeles, faces approximately 40 million cyber-attacks per month.¹³

PHYSICAL/KINETIC THREATS

The terrorist attacks of September 11, 2001, heightened awareness about the vulnerability of all modes of transportation, including the MTS, to terrorist attacks.¹⁴ A large fraction of maritime cargo is concentrated at a few major ports, making them highly susceptible to threats.¹⁵ Ports face physical security threats ranging from unauthorized access to smuggling to terrorism and beyond.¹⁶ The Coast Guard and its partners attempt to prioritize and assess these threats through a variety of tools, including Notices of Arrival, inspections, and specially trained teams.¹⁷

Additionally, the Coast Guard tries to manage physical security concerns both at the port facility and over the vessels transiting in and around facilities. Under the Maritime Transportation Security Act of 2002 (MTSA) (P.L. 107–295), port facilities must submit a facility security plan to the Coast Guard that outlines how they will

⁵ U.S. COAST GUARD, *Ports and Waterways Safety Assessment (PAWSA)*, available at <https://www.dco.uscg.mil/PAWSA/#:~:text=The%20United%20States%20Coast%20Guard,efficient%2C%20and%20commercially%20viable%20as>.

⁶ U.S. GOV'T ACCOUNTABILITY OFF., GAO–20–33, *ASSESSING DEPLOYABLE SPECIALIZED FORCES' WORKFORCE NEEDS COULD IMPROVE EFFICIENCY AND REDUCE POTENTIAL OVERLAP OR GAPS IN CAPABILITIES*, (2019), available at <https://www.gao.gov/assets/d2033.pdf>.

⁷ *Evaluating High-Risk Security Vulnerabilities at Our Nation's Ports: Hearing Before the Subcomm. on Transp. and Maritime Sec. of the H. Comm. on Homeland Sec.*, 118th Cong. (May 10, 2023).

⁸ CBP, *CSI: Container Security Initiative*, available at <https://www.cbp.gov/border-security/ports-entry/cargo-security/csi/csi-brief>.

⁹ MARAD, *About Us: MARAD at a Glance*, available at <https://www.maritime.dot.gov/about-us#:~:text=Mission%3A%20To%20foster%2C%20promote%20and,nation's%20economic%20and%20security%20needs>.

¹⁰ MARAD, *Ports*, available at <https://www.maritime.dot.gov/ports/ports>.

¹¹ FEMA, *Port Security Grant Program*, available at <https://www.fema.gov/grants/preparedness/port-security>.

¹² MARAD, *2023–002–Worldwide Maritime Port Vulnerabilities—Foreign Adversarial Technological, Physical, and Cyber Influence*, available at <https://www.maritime.dot.gov/msci/2023-002-worldwide-maritime-port-vulnerabilities-foreign-adversarial-technological-physical>.

¹³ Sam Fenwick, *Cyber-attacks on Port of Los Angeles have doubled since pandemic*, BBC (July 22, 2022), available at <https://www.bbc.com/news/business-62260272>.

¹⁴ BART ELIAS ET AL., CONG. RSCH. SERV., R46678, *TRANSPORTATION SECURITY: BACKGROUND AND ISSUE FOR THE 117TH CONGRESS*, (Feb. 9, 2021), available at <https://crs.gov/Reports/R46678?source=search>.

¹⁵ *Id.*

¹⁶ John Nemerofsky, *Protecting our Ports*, SECURITY MAGAZINE, (Jan. 10, 2022), available at <https://www.securitymagazine.com/articles/96867-protecting-our-ports>.

¹⁷ See *supra* note 14; see also *supra* note 12.

implement required physical and cyber security measures.¹⁸ The Coast Guard conducts facility site visits to ensure each port is implementing the proper physical and cyber security measures.¹⁹ It evaluates a ship's country of registration, cargo, crew, vessel security history and last port of call to determine the risk an inbound vessel poses and conduct boardings accordingly.²⁰ Depending on the risk, the Coast Guard may conduct a security boarding at sea prior to entry, provide the vessel an armed escort to protect it from external threats, or place a security team onboard to avoid hijacking or weaponizing the vessel.²¹

Maritime Security Operations is one of the Coast Guard's major operational mission programs. It encompasses activities to detect, deter, prevent, and disrupt terrorist attacks, and other criminal acts in the United States maritime domain.²² It includes the execution of anti-terrorism, counterterrorism, response, and select recovery operations.²³ This mission encompasses the operational element of the Coast Guard's Ports, Waterways, and Coastal Security mission and complements its Maritime Response and Prevention efforts.²⁴ To help carry out this mission, the Coast Guard maintains Specialized Forces units, including the Maritime Security Response Team (MSRT) and Maritime Safety and Security Teams (MSST), who have the capabilities needed to handle high-risk law enforcement, drug interdiction, terrorism, and other threats to the U.S. maritime environment.²⁵

While the focus on ports has recently shifted to cyberattacks, the risk of physical attacks through illicit activity or terrorist actions remains very real and is an ongoing threat the Coast Guard continues to work to prevent.

CYBER THREATS

Beginning in the mid-2000s, the Chinese government developed the National Transportation and Logistics Public Information Platform, known as LOGINK, which is a logistics management system that provides shipment tracking and other logistical services.²⁶ The data collected by the system varies, but can include vessel and cargo locations, transit conditions, specific information on the type of cargo, customs information, and personal and financial data.²⁷

The Chinese government is seeking to spur the adoption of LOGINK, along with its proprietary data standards, among global ports and transportation suppliers by providing the service free of charge. To date, LOGINK has received cooperation agreements with dozens of ports outside of China, including major logistical centers in Europe, Asia, and the Middle East.²⁸ Given the sensitivity of the information collected by LOGINK, including property data on shipment and supply chains, the data could be misused by the Chinese Communist Party to gain access to sensitive business and foreign government data for malign purposes. The James M. Inhofe National Defense Authorization Act for Fiscal Year 2023 (P.L. 117-263), included provisions to protect against malicious Chinese software. Among its provisions is a prohibition on the use of LOGINK by recipients of Port Infrastructure Development Grants and directs the State Department to work with allies that use LOGINK to dissuade its use. Further, H.R. 1836, the Ocean Shipping Reform Act of 2023, which was approved by the United States House of Representatives on March 21, 2024, includes similar provisions.²⁹ Similarly, Chinese-made port equipment, including cranes, presents vulnerability to the safe and efficient operation of ports.

On February 21, 2024, President Biden issued an Executive Order to strengthen maritime cybersecurity.³⁰ Among its provisions, the Executive Order enables the

¹⁸ COAST GUARD, U.S. DEP'T OF HOMELAND SEC., U.S. COAST GUARD, ISPS / MTSA, *History*, available at <https://www.dco.uscg.mil/ISPS-MTSA/>.

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² U.S. COAST GUARD, *Missions*, available at <https://www.uscg.mil/About/Missions/>.

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ U.S. CHINA ECONOMIC AND SECURITY REVIEW COMMISSION, *LOGINK: Risks from China's Promotion of a Global Logistics Management Platform* (September 2022), available at <https://www.uscc.gov/research/logink-risks-chinas-promotion-global-logistics-management-platform>

²⁷ *Id.*

²⁸ *Id.*

²⁹ Ocean Shipping Reform Implementation Act of 2023, H.R. 1836, 118th Cong. (2023).

³⁰ Exec. Order. No. 14116, 89 Fed. Reg. 13971, (Feb. 21, 2024), available at <https://www.govinfo.gov/content/pkg/FR-2024-02-26/pdf/2024-04012.pdf>, see also COAST GUARD, *Executive Order Expands Coast Guard Authorities to Address Maritime Cyber Threats* (Feb. 22, 2024) available at <https://www.news.uscg.mil/maritime-commons/Article/3683564/executive-order-expands-coast-guard-authorities-to-address-maritime-cyber-threa/>.

Coast Guard to establish safety zones to respond to malicious activity, control the movement of vessels that present a suspected or known cyberthreat, and require facilities to take action against cyberthreats that pose a danger to the safety of a vessel, shoreside facility or harbor.³¹ In concert with this Executive Order, the Coast Guard issued Maritime Security Directive 105-4 which requires owners and operators of People's Republic of China manufactured Ship-to-Shore Cranes to take a series of actions on these cranes and their systems and a Notice of Proposed Rule-making which establishes minimum cybersecurity requirements for United States flagged vessels, Outer Continental Shelf facilities, and United States facilities subject to the Maritime Transportation Security Act of 2002.³² The comment period ends on April 22, 2024.³³

The Coast Guard's Cyber Protection Teams (CPTs) help port stakeholders address specific cyber threats and vulnerabilities through consistent proactive engagement with public and private industry organizations.³⁴ Port owners and operators can request CPTs to conduct cybersecurity assessments that include penetration testing and configuration review as well as assessing malware vulnerability.³⁵

Given these threats, the Coast Guard needs to confront the possibility and even probability of kinetic and cyberattacks by improving its capability to protect ports against these rapidly evolving risks.

IV. PORT INFRASTRUCTURE INVESTMENTS

The surge of cargo brought on by the COVID-19 pandemic exposed vulnerabilities in our supply chain with ports and intermodal connections unable to efficiently handle the higher-than-normal container shipping volumes. The resulting supply chain crisis brought greater focus to needs across our Nation's infrastructure. Federal funding opportunities to support landside investments at ports have expanded in recent years to try and address these identified shortfalls, and port and marine terminal operators plan to invest \$163 billion for infrastructure improvements through 2025.³⁶

MARAD is responsible for the administration of the Port Infrastructure Development Program (PIDP), a discretionary grant program that provides awards on a competitive basis to projects at coastal seaports, inland river ports, and Great Lakes ports to improve the safety, efficiency, or reliability of the movement of goods into, out of, around, or within a port.³⁷ Acting as the sole discretionary grant program dedicated to port infrastructure improvements, PIDP has grown exponentially over the last several years with the Infrastructure Investment and Jobs Act (P.L. 117-58) providing advanced appropriations of \$450 million per year through fiscal year (FY) 2026, which is in addition to annual appropriations the program receives.³⁸ Since its initial round of funding in FY 2019, PIDP has distributed over \$9 billion in grant awards.³⁹

V. WITNESSES

PANEL I:

- Hon. Mario Diaz-Balart, 26th District of Florida, Member of Congress

PANEL II:

- Rear Admiral John C. Vann, Commander, Coast Guard Cyber Command, United States Coast Guard
- Rear Admiral Wayne Arguin, Assistant Commandant for Prevention Policy, United States Coast Guard
- Mr. William Paape, Associate Administrator for Ports and Waterways, United States Maritime Administration, United States Department of Transportation

³¹*Id.*

³²*Id.*

³³*Id.*

³⁴ COAST GUARD, *U.S. Coast Guard Cyber Protection Team (CPT)*, available at <https://www.uscg.mil/Portals/0/CPT%20One%20Pager.pdf>.

³⁵*Id.*

³⁶ Jerry Haar, *America's Air, Sea, and Land Ports Require Investment to be Globally Competitive*, WILSON CENTER, (Mar. 2, 2023), available at <https://www.wilsoncenter.org/article/americas-air-sea-and-land-ports-require-investment-to-be-globally-competitive>.

³⁷ MARAD, *Port Infrastructure Development Program*, available at <https://www.maritime.dot.gov/PIDPgrants>.

³⁸ Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429.

³⁹ MARAD, *PIDP Applicant List*, available at <https://www.maritime.dot.gov/grants-finances/federal-grant-assistance/pidp-applicant-list>.

PANEL III:

- Mr. James Fowler, Senior Vice President and General Manager, Crowley Shipping
- Mr. Frederick Wong, Jr., Deputy Port Director, PortMiami, *on behalf of the American Association of Port Authorities*
- Mr. Brent D. Sadler, Senior Research Fellow, Heritage Foundation
- Mr. Ed McCarthy, Chief Operating Officer, Georgia Ports Authority, *on behalf of the National Association of Waterfront Employers*
- Mr. Dave Morgan, President and Chief Executive Officer, Cooper/Ports America, *on behalf of the National Maritime Safety Association*

PORT SAFETY, SECURITY, AND INFRASTRUCTURE INVESTMENT

FRIDAY, APRIL 5, 2024

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COAST GUARD AND
MARITIME TRANSPORTATION,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
joint with the
SUBCOMMITTEE ON TRANSPORTATION AND
MARITIME SECURITY,
COMMITTEE ON HOMELAND SECURITY,
Washington, DC.

The subcommittees met, pursuant to call, at 9:30 a.m., at Terminal E, PortMiami, 1265 North Cruise Boulevard, Miami, Florida, Hon. Daniel Webster (Chairman of the Subcommittee on Coast Guard and Maritime Transportation) presiding.

Ms. LEVINE CAVA, MAYOR, MIAMI-DADE COUNTY. I think it would be wonderful if everyone could take their seats. And in advance of your session, I just wanted to offer some brief words of welcome. Thank you, everyone.

Very good. Good morning. Good morning, everyone. I'm Daniella Levine Cava, your county mayor in Miami-Dade County. I'm thrilled that PortMiami is part of our great county government. So, we want to welcome you officially here.

We're joined by our Chief Operating Officer Jimmy Morales, who has responsibility for the port, the airport, and other critical infrastructure, and of course, much of our leadership here at PortMiami. We're very grateful that you've chosen to do your field hearing here.

So, thank you very much to Chairman Webster from the Coast Guard and Maritime Transportation Subcommittee of the Committee on Transportation and Infrastructure. We think it's fitting and proper because we have such a great operation here, and we hope you'll have a chance to explore and tour and learn more about it.

And, of course, to our local House Representative, Carlos Gimenez, who served in this role as mayor for 10 years and who serves as chairman of the Transportation and Maritime Security Subcommittee of the Committee on Homeland Security. Thank you so much for being here with us today, Congressman. And we are also joined by our Congressman, Representative Diaz-Balart, who has played such a critical role in transportation as well. Thank you.

All right. And to all of our visiting Members, thank you for choosing us for today's hearing. I want to welcome particularly our Ranking Member Carbajal and Ranking Member Thanedar and members of the subcommittees. Thank you.

So, I think you've heard Miami-Dade County is the cruise capital of the world. We're very proud of that fact and fully restored post-pandemic. So, quite remarkable. Cruising has come back with a huge, huge force. People are just loving coming here, and we also have become a global commerce capital for trade, as well. And so, we really are doing very well here at PortMiami, and I believe that there is no better place in our Nation to address these critical topics in the maritime transportation system.

We're the second most important economic engine in Miami-Dade County after our airport. And we contribute \$43 billion annually to the local economy. We support more than 334,000 jobs. It's one of the fastest growing cargo gateways in the country. And last year, we welcomed over 7 million cruise passengers, more than any port in the world.

So, again, we're growing. You can see there's construction for yet another terminal right beside us here, and it's quite a busy waterway when these cruise ships line up and take people on their wonderful vacations.

So, we're a coastal metropolis. We're a growing one. We're always striving to be at the cutting edge of maritime safety and security while building for tomorrow's infrastructure needs and an economic engine. We did a study showing this is a \$64 billion impact right here from our bay and our port.

So, welcome again, everyone. I hope you'll get a chance to tour, as I said, and also learn about our shore power installation. Very proud. That will be coming online in just a short couple of months, and three ships will be able to plug in simultaneously, reducing our fumes and carbon output and providing us a cleaner and safer future for our vessels as well. Thank you, everyone.

Mr. WEBSTER OF FLORIDA. The joint subcommittee hearing between the Subcommittee on Coast Guard and Maritime Transportation of the Committee on Transportation and Infrastructure and the Subcommittee on Transportation and Maritime Security of the Committee on Homeland Security will come to order. We're in order.

I ask unanimous consent that the chairman be authorized to declare a recess at any time during today's joint hearing. Without objection, show that ordered.

I ask unanimous consent that the Members not on the subcommittee, but on either committee's full committee, be permitted to sit with the subcommittee at today's joint hearing and ask questions. Without objection, show that ordered.

As a reminder to Members, if you wish to insert a document into the record, please also email it to DocumentsTI@mail.house.gov. I now recognize myself for the purpose of an opening statement for 5 minutes.

OPENING STATEMENT OF HON. DANIEL WEBSTER OF FLORIDA, CHAIRMAN, SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

Mr. WEBSTER OF FLORIDA. Before we begin, I want to mention the recent tragedy in the Port of Baltimore. First and foremost, our thoughts are with the victims and their families. We greatly appreciate the work of the Coast Guard and other first responders in their heroic efforts in response to this tragedy. As the work gets underway to reopen the channel, rebuild the bridge, and carry out an investigation, the Transportation and Infrastructure Committee will closely monitor developments and work with the families and stakeholders impacted.

Turning to the agenda at hand, we meet today at PortMiami to examine port safety and security and infrastructure investments. I appreciate the mayor, the port's Director and Chief Executive Officer Hydi Webb, and the rest of the team at PortMiami for hosting us.

I'd like to welcome our witnesses joining us today. We will be hearing testimony from three panels.

On our first panel, we'll have Representative Mario Diaz-Balart, who represents Florida's 26th Congressional District.

On the second panel, we have Rear Admiral John Vann, Commander of Coast Guard Cyber Command; Rear Admiral Wayne Arguin, Jr., who is Coast Guard Assistant Commandant for Prevention Policy; and William Paape, Associate Administrator for Ports and Waterways for the Maritime Administration.

On the third panel, we'll hear from James Fowler, senior vice president and general manager of Crowley Shipping; Frederick Wong, Jr., deputy port director of PortMiami; Brent Sadler, senior research fellow at The Heritage Foundation; Ed McCarthy, chief operating officer of Georgia Ports Authority; and Dave Morgan, president and chief executive officer of Cooper/Ports America. Thank you all for being witnesses here and joining us today.

Cargo activity in the United States ports is crucial to our Nation's commerce and accounts for 26 percent of our Nation's GDP, generating nearly \$5.4 trillion in total economic activity and supporting 31 million direct and indirect jobs. To protect this crucial economic engine, we need to make the necessary investments and ensure our ports are effectively confronting the physical and cyber threats.

The Maritime Transportation Security Act was passed in the wake of 9/11 and was originally envisioned to guard primarily against physical threats. However, as technology and automation become more engrained into the port's operations, the risk of cyber attacks grows. For example, we know from public reporting that one of America's largest ports, the Port of Los Angeles, faces approximately 40 million cyber attacks per month.

At the same time, we must also confront the reality of China's influence in the maritime domain. And it's growing and, if left unchecked, threatens to throw up impediments to the maritime transportation sector. Major port equipment, such as terminal cranes, are purchased from China and could present serious vulnerabilities to the supply chain.

LOGINK, a logistics management system developed by China, provides shipment tracking and other logistical services while collecting significant amounts of data that could be used for malign purposes or to gain unfair economic advantage. I'm pleased that the subcommittees were able to work together to include language in last year's NDAA that provides critical protections against this.

In the wake of the global supply chain crisis that caused significant disruptions to commerce, it's critical that our ports and, just as importantly, the intermodal connections that connect our ports to inland cargo destinations, have learned from the experiences during the pandemic and are working to increase the resiliency of the supply chain. I look forward to hearing from our witnesses on how port infrastructure development grant funding is improving the efficient movement of goods through our ports. And I look forward to learning how operators within the supply chain are mitigating the risk of another supply chain crisis and making the maritime transportation system more resilient to future disruptions.

[Mr. Webster of Florida's prepared statement follows:]

Prepared Statement of Hon. Daniel Webster of Florida, Chairman, Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure

Before we begin, I want to mention the recent tragedy at the Port of Baltimore. First and foremost, our thoughts are with the victims and their families. We greatly appreciate the work of the Coast Guard and other first responders in their heroic response efforts. And as work gets underway to reopen the channel, rebuild the bridge, and carry out an investigation, the Transportation and Infrastructure Committee will closely monitor developments and work with the families and stakeholders impacted.

Turning to the agenda at hand, we meet today at PortMiami to examine port safety, security, and infrastructure investment. I appreciate Mayor Cava, the Port's Director and Chief Executive Officer Hydi Webb, and the rest of the team at PortMiami for hosting us. And thank you to all the witnesses for joining us today.

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The Maritime Transportation Security Act was passed in the wake of 9/11 and was originally envisioned to guard primarily against physical threats. However, as technology and automation become more ingrained in port operations, the risk of cyber-attacks grows. For example, we know from public reporting that one of America's largest ports, the Port of Los Angeles, faces approximately 40 million cyber-attacks per month.

At the same time, we must also confront the reality that China's influence in the maritime domain is growing, and if left unchecked threatens to throw up major impediments to the maritime transportation sector. Major port equipment, such as terminal cranes, are purchased from China, and could present serious vulnerabilities to the supply chain. LOGINK, a logistics management system developed by China, provides shipment tracking and other logistical services, while collecting significant amounts of data that could be used for malign purposes or to gain unfair economic advantage. I am pleased our subcommittees were able to work together to include language in last year's NDAA that provides critical protections against LOGINK.

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are mitigating the risk of another supply chain crisis and making the maritime transportation system more resilient to future disruptions.

Mr. WEBSTER OF FLORIDA. With that, I recognize our ranking member, Mr. Carbajal, for his opening statement for 5 minutes. You're recognized.

OPENING STATEMENT OF HON. SALUD O. CARBAJAL OF CALIFORNIA, RANKING MEMBER, SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

Mr. CARBAJAL. Thank you, Mr. Chair, Chair Webster and Chair Gimenez, for gathering us here today in this beautiful, beautiful place called Miami for this important bipartisan joint hearing focused on our ports. I also want to extend thanks to the mayor for coming out and welcoming us and to my other colleague who will be providing testimony, Representative Diaz-Balart. You certainly live in a great place, a wonderful piece of paradise in our country. I live in the other paradise, Santa Barbara, California.

But I wanted to make one observation before I start my testimony. It seems that the Democrats are not wearing ties today, and all my Republican colleagues, especially from Miami, are wearing ties. I'm just wondering what is the best way to do Miami. You know, I'm a little confused.

Last week, when a containership struck the Francis Scott Key Bridge in Baltimore, the world saw how easily a major port can come grinding to a stop. I express my sincere condolences to the families of the construction crew who lost their lives.

The collapse of the Key Bridge exposed vulnerabilities and created an economic catastrophe for the country. When a major port shuts, shock waves are felt nationwide. Locally, thousands of individuals depend on a port for their livelihoods and will be out of work. Further away, farmers and miners are also affected as their product will not leave the docks. Baltimore is also the largest car port in the country, which will certainly affect the market for vehicles.

The United States has more than 300 ports nationwide, and more than 95 percent of all cargo spends time on a ship. The U.S. economy depends on our ports. Ports are intermodal connectors integrating water, rail, road, and airborne modes of transportation. Over 11 million containers move through U.S. ports each year.

Ports face both physical and cybersecurity threats on a daily basis. The Coast Guard holds the responsibility to review port security plans, respond to cyber attacks, and monitor daily traffic entering and exiting the ports. President Biden recently signed an Executive order strengthening the Coast Guard's authority to respond to cyber events at ports. This comes at an important time as ports are receiving thousands of cyber attacks each year. I'm interested in hearing from the Coast Guard how they plan to utilize this Executive order and strengthen cybersecurity.

Our ports must be resilient to all threats. Climate change and sea level rise pose one of the largest threats of our generation and can cause an equally devastating disruption to the supply chain. That is why Congress worked together to include over \$2.25 billion

for the Port Infrastructure Development Program in the Bipartisan Infrastructure Law aimed at decarbonizing and making ports more resilient. It's my understanding this port in Miami is moving towards having shoreside power in the very near future.

Ports are vital to our economy and national security. I welcome today's conversation as to how to continue to support our ports and make them more resilient. Thank you, Mr. Chairman. I yield back.

[Mr. Carbajal's prepared statement follows:]

Prepared Statement of Hon. Salud O. Carbajal of California, Ranking Member, Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure

Thank you, Chair Webster and Chair Gimenez, for gathering us here today in beautiful Miami for this important joint hearing focused on our ports.

Last week, when a container ship struck the Francis Scott Key Bridge in Baltimore, the world saw how easily a major port can come grinding to a stop. I express my sincere condolences to the families of the construction crew who lost their lives.

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Ports are vital to our economy and national security; I welcome today's conversation as to how to continue to support our ports and make them more resilient.

Thank you, and I yield back.

Mr. WEBSTER OF FLORIDA. Now I recognize the chairman of the Transportation and Maritime Security Subcommittee, Mr. Gimenez, for 5 minutes for an opening statement.

OPENING STATEMENT OF HON. CARLOS A. GIMENEZ OF FLORIDA, CHAIRMAN, SUBCOMMITTEE ON TRANSPORTATION AND MARITIME SECURITY, COMMITTEE ON HOMELAND SECURITY

Mr. GIMENEZ. Thank you, Mr. Chairman. And on behalf of my constituents in the 28th Congressional District of Florida, I would like to welcome my colleagues and our distinguished witnesses to Miami.

I don't know, Mario, why are we wearing ties? I really don't get it. OK.

Mr. WEBSTER OF FLORIDA. I didn't know y'all had them.

Mr. GIMENEZ. Yes. Well, we found a couple, I think, and so, we put it on just to impress you all. But normally here, especially in the summer, we don't go around—we have something called a guayabera, if you're Latin, that we use for formal things. But I'm with you, Ranking Member. It's a little too formal for me. All right. But anyway, I digress.

Today, our guests will further learn what I have long known: that Miami is a unique, robust, beautiful city that has much to offer to both its residents and its visitors. This venue, PortMiami, is the busiest passenger cruise port in the entire world, not just in United States, but in the entire world. And it's one of the busiest cargo ports in the United States.

I'm excited to use this hearing to further examine the integral role it plays in our city, and more broadly, our country. And the mayor has already touched on how important this port is to the economy of this city and south Florida in general. Over 300,000 jobs are either directly or indirectly related to this port. It's the second largest economic generator in this area. This and the airport combine for probably over 600,000 either direct or indirect jobs.

First, I'd like to offer my sincere condolences to the families of the individuals who passed away or were negatively impacted by the tragic collapse of the Francis Scott Key Bridge in Baltimore last week and express my gratitude to the men and women of the United States Coast Guard and other Federal, State, and local authorities who responded to the incident. While we're not aware of any malicious responsibilities for the incident, the severity of the collapse of the bridge underscores the importance of what we're discussing today.

Before I was elected to Congress, I had the distinct honor to serve 25 years as a firefighter with the city of Miami, later serving as its chief. I then had the privilege of being the city manager of the city of Miami, and then finally I served as the mayor of Miami-Dade County. It was during my time as mayor of Miami-Dade that I saw the critical impact that the PortMiami and maritime-borne trade has on Miami and the State of Florida.

Our port here is not only of commerce, it's a gateway to the world. Major disruptions at the port operations, like what we're witnessing in Baltimore, would severely harm the local economy and hinder the region's connectivity to the rest of the United States and beyond. It is for that reason I worked hard during my tenure as mayor of Miami-Dade and will continue to do so in my current capacity to ensure PortMiami and the Nation's ports have what they need to operate safely, effectively, and securely.

In my current role as chairman of the House Homeland Security Committee's Transportation and Maritime Security Subcommittee, I am continuously concerned by the security threats facing maritime ports across the country.

I'm especially worried by the security vulnerabilities that exist with port equipment that is manufactured or installed in the People's Republic of China. The ship-to-shore cranes hovering over our docks, including the ones here, while instrumental to our port operations, are a focal point of that concern. Most of the U.S. port ship-to-shore cranes—nearly 80 percent—are made by ZPMC, a Chinese

state-owned enterprise under the direct control of the Chinese Communist Party.

This near-monopoly allows for ZPMC to compromise U.S.-bound cranes that could cause malfunction or facilitate cyber espionage at U.S. ports. This situation not only presents cybersecurity threats, but also supply chain vulnerabilities that could be exploited by those who wish to inflict damage to our Nation and could have lasting impacts.

Well, unfortunately, Communist China's influence in the supply chain extends beyond state enterprises like ZPMC. Third-party companies often create the internal operational components for these ship-to-shore cranes.

These components include programmable logic controllers which control many ship-to-shore crane systems as well as crane drives and motors. In most all cases, ZPMC requires, and I repeat, requires that these companies ship their components to the PRC where they can be installed by ZPMC engineers or technicians.

As my subcommittee has discussed in previous hearings, the proliferation of port equipment and operational technology manufactured or installed by engineers in the PRC introduces significant supply chain vulnerabilities into our maritime transportation system. As a country, we must acknowledge and assess these risks, threats, and vulnerabilities and decide how to effectively respond.

In February, the Biden administration signed an Executive order providing the U.S. Coast Guard with new authorities to respond to potential malicious actors targeting our maritime sector, and particularly those from the PRC. While I commend the administration on this initial action, I believe we need to continue examining this critical topic and ensure that our ports are protected from security threats.

To do so, I have brought together a group of members from the China Select Committee and the Committee on Homeland Security to investigate some of the vulnerabilities associated with PRC-manufactured port cranes and the consequences of having a supply chain that is overly reliant upon equipment sourced from our greatest geopolitical opponent.

Additionally, I have introduced legislative solutions such as my Port Crane Security and Inspection Act to ensure that the U.S. Coast Guard and other Federal agencies responsible for safeguarding maritime ports have the tools and authorities necessary to deter hostile actors from operating against our ports.

I am glad to be participating in today's hearing which will allow us to continue to address this critical topic and deliver a strong message to our adversaries interested in meddling in our ports and in the United States, in general. Thank you. And I yield back.

[Mr. Gimenez's prepared statement follows:]

Prepared Statement of Hon. Carlos A. Gimenez of Florida, Chairman, Subcommittee on Transportation and Maritime Security, Committee on Homeland Security

On behalf of my constituents in the 28th District of Florida, I would like to welcome my colleagues and our distinguished witnesses to Miami. Today, our guests will further learn what I have long known: that Miami is a unique, robust city that has much to offer to both its residents and its visitors. Our venue, PortMiami, is

one of the busiest passenger and cargo ports in the United States. I am excited to use this hearing to further examine the integral role it plays in our city and more broadly our country.

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While we are not aware of any malicious actors responsible for the incident, the severity of the collapse of the bridge underscores the importance of what we are discussing today.

Before I was elected to Congress, I served for 25 years as a fire fighter with the City of Miami Fire Department. I then had the privilege of serving as the Mayor of Miami-Dade County and City Manager for the City of Miami. It was during my time as Mayor of Miami Dade that I saw the critical impact that the PortMiami and maritime-born trade has on Miami and the state of Florida.

Our port here is not only a hub of commerce—it is a gateway to the world. Major disruptions to the port’s operations—like what we are witnessing in Baltimore—would severely harm the local economy and hinder the region’s connectivity to the rest of the United States and beyond. It was for that reason I worked hard during my tenure as Mayor of Miami Dade, and will continue to do so in my current capacity, to ensure PortMiami has what it needs to operate safely, effectively, and securely.

In my current role as Chairman of the House Homeland Security Committee’s Transportation and Maritime Security Subcommittee, I am continuously concerned by the security threats facing maritime ports across the country.

I am especially worried by the security vulnerabilities that exist with port equipment that is manufactured or installed in the People’s Republic of China. The ship-to-shore cranes towering over our docks—while instrumental to our port operations—are a focal point of that concern. Most of the U.S. port ship-to-shore cranes—nearly 80 percent—are made by ZPMC, a Chinese state-owned enterprise under the direct control of the Chinese Communist Party. This near-monopoly allows for ZPMC to compromise U.S.-bound cranes that could cause malfunction or facilitate cyber espionage at U.S. ports. This situation not only presents cybersecurity threats but also supply chain vulnerabilities that could be exploited by those who wish to inflict damage on our nation that could have lasting impacts.

Unfortunately, Communist China’s influence in the supply chain extends beyond state-owned enterprises like ZPMC. Third-party companies often create the internal operational components for these ship-to-shore cranes.

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To do so, I have brought together a group of members from the China Select Committee and the Committee on Homeland Security, to investigate some of the vulnerabilities associated with PRC-manufactured port cranes and the consequences of having a supply chain that is overly reliant upon equipment sourced from our greatest geopolitical competitor.

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I am glad to be participating in today’s hearing which will allow us to continue to address this critical topic and deliver a strong message to our adversaries interested in meddling in our ports.

Mr. WEBSTER OF FLORIDA. I now recognize the ranking member of the Transportation and Maritime Security Subcommittee, Mr. Thanedar, for 5 minutes for your opening statement.

OPENING STATEMENT OF HON. SHRI THANEDAR OF MICHIGAN, RANKING MEMBER, SUBCOMMITTEE ON TRANSPORTATION AND MARITIME SECURITY, COMMITTEE ON HOMELAND SECURITY

Mr. THANEDAR. Thank you, Mr. Chair, and good morning to all. I'm used to coming here, not only not in my tie, but also bringing my family, my children, who are excited to go on the cruise. This is the only time I'm here working in this beautiful building and this beautiful city.

But before I begin my remarks, I would like to thank PortMiami for hosting us today. Thank you also to Chairman Gimenez for hosting us in your hometown. And thank you, Chairman Webster and Ranking Member Carbajal, for bringing our two subcommittees together for this important hearing. Finally, thank you, all of our witnesses today, for sharing your time and expertise with us.

The past couple weeks have displayed the importance of the safe and secure functioning of our Nation's maritime ports and the Marine Transportation System. As we all are aware, on March 26, a containership crashed into the Francis Scott Key Bridge in Baltimore, causing the bridge to collapse, claiming the lives of six men who were working on the bridge. My heart goes out to the friends and families of the victims of this tragic accident.

In the aftermath of the bridge's collapse, the Port of Baltimore was forced to shut down all maritime traffic in and out of the port. The incident has demonstrated how critical a single port's operations can be to the whole economy, as industries and communities throughout the country have felt the impact of the port's closure, including the automotive industry in my hometown of Detroit.

But while the incident has highlighted some of the vulnerabilities of our maritime sector, it has also displayed its tremendous resilience. The Coast Guard, along with a host of Federal, State, and local partners, has worked diligently around the clock to respond to the accident, carry out search and rescue missions, assess the damage, contain hazardous material, and begin to clear the waterways. Thanks to their hard work, a temporary channel has already been cleared, allowing the port to reopen to limited traffic. I'm grateful to all the first responders who have worked to save lives and limit the damage caused by the accident.

Today, we will discuss what more can be done to ensure the safe and secure operation of our Nation's seaports and prevent further disruption to the Marine Transportation System. We must ensure that congested waterways can be navigated safely. And since accidents will happen regardless, we must develop better ways to protect infrastructure and prevent catastrophic damage. And while there is absolutely no evidence that the accident in Baltimore was caused by any kind of cyber or physical attack, threats to the maritime sector are very real, and we must ensure the Coast Guard and its partners have the resources and the tools needed to counter them.

As computer systems and networks have grown increasingly prevalent within ports, addressing cyber threats has become especially critical. Cyber attacks on ports in the U.S. and overseas have already had drastic impacts, stalling the transport of cargo and costing hundreds of millions of dollars in economic damage.

In February, the Biden administration announced a series of actions to greatly enhance port cybersecurity, including: an Executive order to address Coast Guard authorities and cyber incident reporting, proposed regulations to establish minimum port cybersecurity requirements, a security directive to address vulnerabilities posed by Chinese-manufactured cranes, and an investment of more than \$20 billion to improve port infrastructure and initiate domestic manufacturing of cranes. These actions will significantly improve port cybersecurity.

I look forward to hearing more from our witnesses on what support is needed to carry out these actions and on other efforts to ensure the safety and security of our Nation's seaports. Thank you again to our hosts, our witnesses; and Chairman, I yield back.

[Mr. Thanedar's prepared statement follows:]

Prepared Statement of Hon. Shri Thanedar of Michigan, Ranking Member, Subcommittee on Transportation and Maritime Security, Committee on Homeland Security

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These actions will significantly improve port cybersecurity.

I look forward to hearing more from our witnesses on what support is needed to carry out these actions and on other efforts to ensure the safety and security of our Nation's seaports.

Mr. WEBSTER OF FLORIDA. OK. Thank you. And we have, as we've said, three different panels. But before we begin those, I'd like to take a moment to explain our lighting system. Green means go, yellow means slow up, and red means stop, kind of like a stop-light.

I'd like to ask unanimous consent that witnesses that have full testimonies and full statements be included in the record. Without objection, show that ordered.

I ask for unanimous consent that the record of today's hearing remain open until such time as the witnesses on all panels have provided answers to any questions that may have been submitted in writing. Without objection, show that ordered.

I ask unanimous consent that the record remain open for 15 days for additional comments and information submitted by the Members or the witnesses to be included in the record of today's hearing. Without objection, show that ordered.

As your written testimony has been made part of the record, we ask that you limit your remarks to 5 minutes.

With that being said, we'll start with our first witness, which is Representative Mario Diaz-Balart, a good friend of mine. We served together in the State house, State senate, and now in Congress, and in Congress, he is recognized as probably one of the top Members of Congress.

So, thank you. You're recognized for 5 minutes.

TESTIMONY OF HON. MARIO DIAZ-BALART, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. DIAZ-BALART. Mr. Chairman, thank you so very much, Mr. Chairman and Ranking Member. This is a very distinguished panel, and I am honored that you would all be here in south Florida.

To you, Mr. Webster—Mr. Chairman, you and I have worked on issues dealing with infrastructure now going back to, well, we'd rather not talk about how long, but I will tell you that this State and the country is better off because of the service, Mr. Chairman, that you have provided. Your leadership on infrastructure issues and other issues, but in particular on infrastructure issues, has been frankly remarkable.

And we are in this beautiful PortMiami, but I can't help to think of all you have done going back to the State legislative years, and you and I worked on those things together. But your leadership there and you continue your leadership on making sure that the ports of this State and now nationally are the best they can be. So, thank you, Mr. Chairman, for your invaluable service to this amazing country of ours.

And I would be remiss, and I'm not—because I have a lot of friends on this panel—but I do want to mention Chairman Gimenez. Chairman Gimenez was obviously a distinguished member of the T&I Committee, is also of the Homeland Security and also of the China Select Committee.

But as I'm sure you know, he's also a bit of an institution in our community here. A firefighter, career firefighter then fire chief and going all the way to mayor. And I will tell you, I don't mean this as disrespectful to any mayor before or after Mr. Gimenez, but this community and the infrastructure in this area has not been better than when Mr. Gimenez was mayor, and he continues to serve. And he's a valuable asset, I know, to your committee, Mr. Chairman, to your committee, Ranking Member. And again, it's a privilege, Mayor, Chief, and friend and colleague, to be here with you.

I did, Mr. Chairman, submit a rather extensive statement, so, I just want to touch a couple of issues if I may. Again, I also thank all of you for mentioning the tragedy in Baltimore.

We are in this beautiful place that all of you have talked about. The amazing thing about PortMiami is that it's a very small port. It's landlocked, and yet it does amazing things for this community, for the State, for the country, in a very small footprint. And every port in the country is different. And this is one of those examples of a port that is on the cutting edge.

And without this port, frankly, this community would not be able to be this thriving community that we all see and that we all cherish and some of us are privileged to live in.

I'm very proud that, as a former chairman of the THUD, Transportation, Housing, and Urban Development Subcommittee of the Appropriations Committee—I'm still on that—I was able to create and fund—actually probably more important, right, than creating—the Port Infrastructure Development Program, specifically for seaports.

As you know, seaports have always had to compete for funding with everything else, and they still do in other areas, but at least we have this program. And I just want to emphasize that because all of us have to be very supportive of making sure that we continue to emphasize seaports because they are such a vital part of our community.

Also, something a little bit unique about this port and, frankly, this community, is that we are affected greatly—other ports and other communities are as well—by what happens in this region and in this hemisphere. We've all seen the tragic situation taking place in Haiti, for example, right now, and it is tragic. And I will tell you that whatever happens in places like Haiti, or we're in a hurricane area, this whole hemisphere is, and when there's a hurricane, this seaport also becomes a hub for humanitarian relief around the entire hemisphere.

But I also want to talk about another little issue that is a little unique for PortMiami and for this part of the State, this part of the country. We happen to be sitting 90 miles away from a state sponsor of terrorism. Think about that. Ninety miles away from us, there is a dictatorship, by the way, that has troops fighting along with the Russians in the Ukraine, that has what the OAS Sec-

retary General has called an army of occupation, in Venezuela just 90 miles away from us.

And so, when we're dealing with security and safety, which is an issue that I know that you all are looking at, one of the things to remember is that while every port has its challenges, this port and this community and this area has some unique challenges and that sometimes I think are either forgotten or ignored.

I was outraged, by the way, when the U.S. Department of State—I deal with them all the time—in coordination with the Department of Homeland Security, recently approved a visit for members of that terrorist regime to go visit the Port of Wilmington in North Carolina. Don't take my word for it. The Representative who represents that area, Mr. Chairman Rouzer, was equally incensed.

And furthermore, to just show you sometimes how folks can be totally tone deaf, one of the things that was mentioned by the Department of State during that so-called visit was that the delegation was meeting with the Cuban counterparts in the United States, the U.S. Coast Guard, the counterparts.

With all due respect, the U.S. Coast Guard are heroes. They sacrifice. They risk their lives to protect commerce, to protect the environment, to protect the American people and, frankly, people from all over the world. And to say that the thugs of the Cuban regime are counterparts to the U.S. Coast Guard not only shows a lack of understanding of reality, but it's just an insult to the men and women, to the heroes of the United States Coast Guard.

Just one example, the so-called counterparts, the Cuban regime's counterparts, remember, they were responsible for the horrific tugboat massacre where they on purpose sank and murdered and with hoses, actually hosed babies and kids, men and women into the ocean who drowned and they sank a tugboat on purpose. To call those folks the counterparts of the U.S. Coast Guard is not only insensitive and insulting, but it shows a lack of understanding of reality.

So, I am so grateful for the fact that all of you are here. I'm grateful for your leadership. I'm grateful for what you do day in and day out, and I'm also incredibly privileged to have the opportunity to work with you all as my role as an appropriator, and I thank you all.

And I know that I've gone way over my time, Mr. Chairman. I apologize for that. That's what happens when you wear a tie, you go over the line, you see. So, anyway, thank you for your kindness, for your indulgence.

I yield back.

[Mr. Diaz-Balart's prepared statement follows:]

**Prepared Statement of Hon. Mario Diaz-Balart, a Representative in
Congress from the State of Florida**

Chairman Webster, Ranking Member Carbajal, Chairman Gimenez, Ranking Member Thanedar, and Members of the Subcommittees:

Thank you for the opportunity to discuss port safety, security, and the future of infrastructure investment for our nation's seaports. Before I begin, I'd like to thank Chairman Daniel Webster, for his leadership and his staunch support of the U.S. Coast Guard and maritime transportation across our country. Many of you may or may not know, Chairman Webster served as Speaker and then Majority Leader in

the Florida State Legislature and has nearly forty years of transportation experience, proving to be an invaluable asset to our Florida Congressional delegation and to the Transportation and Infrastructure Committee. Thank you for always fighting for our mariners, and ensuring our waterways are safe for the American people. Additionally, I'd like to thank Chairman Carlos Gimenez with the Committee on Homeland Security for the kind invitation today as well. Chairman Gimenez has worn many hats over the years: firefighter, fire chief, and as Mayor of Miami-Dade County. Chairman Gimenez's extensive knowledge of transportation and maritime issues facing South Florida, specifically PortMiami as former Mayor, proves to be an invaluable asset to the United States Congress.

Our nation's seaports are huge drivers of economic growth, supporting 31 million jobs, and generating nearly \$5.4 trillion in economic activity. Here in Florida, we are lucky to have some of the best and busiest ports in the country. Our seaports support nearly 900,000 jobs and contribute \$117.6 billion in economic value to our state. For 2023, Florida's system of seaports handled 114.25 million tons of cargo, shattering the 2022 record-high 112.5 million tons of cargo moved¹.

One such seaport is PortMiami, which contributes \$43 billion annually to our local economy while supporting more than 334,000 jobs. Over a million containers of cargo come through PortMiami each year, much of it containing fruits, vegetables, and flowers from South America. Compared to most seaports on large plots of land, PortMiami is limited to a relatively small space, which creates some challenges. For example, the USDA charges a flat fee for fumigation of fruits and vegetables arriving from international destinations. In PortMiami, only a fraction of goods could be fumigated at the rate of larger seaports. This made imports to PortMiami more expensive, and therefore, PortMiami was less competitive compared to other seaports.

This problem was only going to get worse as competition was increasing, and supply chain vulnerabilities were being exposed. I knew that there must be a better solution.

ADDRESSING CRITICAL U.S. PORT INFRASTRUCTURE NEEDS

For years I have worked to improve our states seaports, both during my time in the Florida State Legislature, and now as a Member of Congress. In the U.S. Congress, I had the privilege of serving as Chairman, Ranking Member, and now member of the Transportation, Housing and Urban Development Subcommittee of Appropriations. Our seaports must compete for funds under large, more visible infrastructure programs under the direction of the Department of Transportation. Seaports must compete among airport, road and bridge projects in major metropolitan areas, multimodal projects, and many other sectors of our national transportation system, making it challenging for seaports to obtain sufficient funding and receive the attention that they so desperately need.

As Ranking Member of the Subcommittee when drafting the Fiscal Year 2019 Appropriations bill, I created the first dedicated account specifically for our seaports, which totaled \$293 million. The Port Infrastructure Development Program, also known as the PIDP, has aided in addressing critical infrastructure needs to ports across our country, as well as in my home state of Florida. As a result, PortMiami received \$44 million to help construct a 100,000 square foot state-of-the-art fumigation facility that will ensure the Port remains competitive and efficient, rivaling the ports in the Northeast. The PIDP program is critical for our seaports to have the ability to address necessary infrastructure needs and address supply chain vulnerabilities.

BOLSTERING AMERICAN COMPETITIVENESS AND READINESS

In addition to securing critical port funding, I was also able to solve a problem for our merchant shipping fleet. More than 70 percent of U.S. Coast Guard-licensed officers stem from one of six state maritime academies nationwide². These state maritime academies rely on at-sea training in deck seamanship, navigation, and engineering. This training provides life-saving expertise in safe ship practices, operations, and maintenance.

Regrettably, our future merchant mariners have been training on outdated ships, some of which have obsolete steam-powered propulsion systems, that do not reflect the current world-class vessels in the national fleet. As a fiscal hawk, I have fought to reduce wasteful spending, cut wasteful bureaucracy, and bolster the safety and

¹“Florida Seaports Set Back-to-Back Record-High Cargo Growth, Proving Florida Is America's Supply Chain Solution.” *Florida Ports Council*, Florida Ports Council, 30 Jan. 2024.

²Alfultis, Michael A., et al. “State Maritime Academies—Educating the Future Maritime Workforce.” *The State of the Maritime Workforce*, Jan. 2017.

security of the American people. House Republican Appropriators have fiercely worked to spend less and change the trajectory of federal spending, without short-changing critical investments to our national security interests at home and abroad. Improving our American competitiveness and readiness on the national stage begins by preparing our future mariners at home. With our national security interests in mind, I secured a total of \$1.6 billion in funding for the replacement of the aging school fleet to the new National Security Multi-Mission Vessels (NSMV). These vessels serve a critical role in providing necessary hands-on training for those serving in the maritime industry that cannot be accomplished in a classroom. The next generation of domestic mariner training ships must be more cost effective while also utilizing creative solutions to generate the highly trained and capable mariners. It may be these very mariners who answer the call to serve future U.S. war efforts by transporting shipments of supplies to military bases around the world often being enlisted to transport vehicles, guns, bombs, gasoline, food, and medicine while fully supporting other U.S. logistical needs.

This initiative alone has revitalized shipyards across our country supporting almost 1,200 shipyard jobs during construction and additional jobs at-sea and ashore once completed³. Just late last year, the first NSMV was delivered to SUNY Maritime College, named *Empire State VII*. These new vessels have state-of-the-art navigation equipment, which in turn will prepare the academies to have a standardized and purpose-built training platform for years ahead. The next training vessel is slated delivery to the Massachusetts Maritime Academy later this year. The National Security Multi-Mission Vessel program contributes to our national security interests at home and abroad as we increase the ranks of our well-trained maritime workforce and bolster critical American sectors of our economy.

CONFRONTING OUR NATIONAL SECURITY THREATS AND GUARDING OUR U.S. PORTS

Any discussion of port and maritime safety in South Florida is incomplete unless we address a serious threat to our national security in our hemisphere, which are those in Communist Terrorist Regime in Cuba. I was outraged when I learned that the U.S. State Department, in coordination with the Department of Homeland Security, approved a visit for members of the Cuban regime's Ministry of Foreign Affairs and Ministry of the Interior, which is currently under U.S. sanction for human rights abuses, to the Port of Wilmington in North Carolina. I also note that our colleague who represents the district that includes that port, Representative David Rouzer, roundly condemned on the House Floor the Biden Administration's decision to invite representatives of a U.S.-designated State Sponsor of Terrorism to his district. To our distinguished members of the Coast Guard here and those working hard to keep Americans safe every day, you deserve better. I was further incensed by the State Department spokesperson's defense of the visit that, "The Cuban delegation is meeting with [U.S. Coast Guard] counterparts and joining supervised tours of port facilities in North Carolina . . . The U.S. Coast Guard and Cuban Border Guard have had a collaborative relationship for decades that focuses first and foremost on maritime safety."

First of all, the Cuban regime's operatives are not "counterparts" to members of the U.S. Coast Guard. The members of the U.S. Coast Guard serve with honor to protect the American people and are charged to show compassion to all who they encounter. In sharp contrast, the Cuban regime's thugs who perpetrated the horrific Tugboat Massacre of 1994 that killed dozens of innocent people including children, the chaos of the Mariel boatlift of 1980, and the purposeful ramming of a boat off of Bahia Honda in October 2022 which killed five people, are not your "counterparts." The regime's operatives which were caught smuggling cocaine in 2016, or who were caught smuggling weapons to North Korea, are not your "counterparts." It is an insult to compare our honorable service members as though they are even in the same league as the murderers, weapons smugglers and narcotraffickers of the regime in Cuba. Second, it is patently absurd to engage in maritime safety and port security visits with a terrorist dictatorship that has no respect for human rights, and no respect for the human life. They are not our Coast Guard's "counterparts," and they certainly do not prioritize maritime safety. It collaborates with the terrorist states of Iran and North Korea, as well as Communist China, provides thousands of intelligence agents to keep Maduro in power in Venezuela, sends soldiers to train in Belarus while other Cubans fight for Russia against Ukraine, and harbors terrorist individuals such as Joanne Chesimard and aids terrorist organizations

³"MARAD National Security Multi-Mission Vessel Program." *Maritime Administration*, Department of Transportation—Maritime Administration, www.maritime.dot.gov/. Accessed 2 Apr. 2024.

such as the ELN. It is a dangerous mistake to assume that the anti-American, malign regime in Cuba shares our goals related to port security and maritime safety.

These dangerous adversaries are seeking ways to harm Americans, and the threat from Communist China might be the most insidious. Whether through cyberattacks targeting our critical infrastructure, purchasing land near military bases, and stealing valuable technology, the threat from Communist China is the challenge of our time. Due to the Biden Administration inaction and weakness in confronting multiple foreign adversaries, the Republican Majority is acting. In the Homeland Security Appropriations Act for Fiscal Year 2024, I championed language prohibiting the Department of Homeland Security from entering into contracts or other agreements with entities connected to the Chinese military. This prohibition should not have been necessary, it is just plain common sense. But under the Biden Administration, we must prohibit even the absurd. This language also strengthens cybersecurity at ports by requiring the Departments of CISA, CBP, the Coast Guard, and other related agencies to submit risk assessment reports by the mandatory deadlines, and also to brief the Congress on risks to U.S. ports and the agency efforts to mitigate them. My colleagues and I will continue to remain firm in countering these national security threats.

CONCLUSION

In closing, I'd like to thank Chairman Webster, Ranking Member Carbajal with the Transportation and Infrastructure Committee and Chairman Carlos Gimenez, Ranking Member Thanedar with the Homeland Security Committee for the invitation to testify at today's joint field hearing on Port Safety, Security, and Infrastructure Investments. We have some difficult challenges ahead of us, due to the increasing technological capabilities of our adversaries, and their determination to circumvent our security strategies. I am grateful for the opportunity to speak to you today, and I look forward to working with my colleagues, and other authorizers, to ensure that the United States is able to counter these threats, strengthen vulnerable supply chains, expand the competitiveness of our farmers and other businesses, and protect the American people for generations to come.

Mr. WEBSTER OF FLORIDA. OK. Does anybody on the panel have a question for Representative Diaz-Balart? You're recognized, Mr. Cohen.

Mr. COHEN. Thank you. I am not a subcommittee chairman of the relevant committee, but I am the senior Member of this delegation, and I feel like Rodney Dangerfield.

Moving right along with our bombastic review, I want to express my sincere care for our colleague, Representative Diaz-Balart. He's a good guy. We've been on travels together and got to be friends and bonded and continue, and he does a great job.

He brought up the issue about Ukraine. I hope we get a vote when we come back next week to support the Ukrainians, who are valiantly fighting to maintain democracy, to fight off an authoritarian attack by Russia, just as many in Cuba did when Castro came. And I hope we get that vote. And right now, the Cuban soldiers who are there are having a pretty free range in killing Ukrainians because they've got the bullets and the Ukrainians don't. So, I hope that happens.

And then on a bit of personal privilege, my staff emailed me, and they didn't say anything about me not having a tie. They said, "I like your shirt." Shirts are good.

I'd also like to give note that I'm a 1967 graduate of Coral Gables High School. I probably may be the only, other than Mr. Gimenez, graduate of a Dade County high school in the Congress. And I was a Cavalier, and I went to Ponce Junior and loved Miami and still love Miami. It's changed a lot since I was here. I've visited many times, but from when I was here, growing up, it's changed a ton.

And I've just learned that Mr. Gimenez and I have much in common, Sonny Liston, Cassius Clay, Joe Auer, and so much else. And we'll have lots of time to talk about George Meyer in the future.

Thank you. And it's good to be back in Miami. And also from Mr. Carbajal's note, and he may not know this and it may be an old thing, C-A-L-I-F. That's, Mr. Carbajal, that's abbreviation for California, is it not?

Mr. CARBAJAL. It could be.

Mr. COHEN. When I was growing up, they told me that meant "come and live in Florida." I yield.

Mr. CARBAJAL. Mr. Chair, now we know who to blame for the taste in shirt that Mr. Cohen is wearing.

Mr. WEBSTER OF FLORIDA. Yes, for sure.

Are there any questions for Representative Diaz-Balart from the panel here?

OK. Well, that brings to the close the first panel.

Thank you for appearing, Representative Diaz-Balart. Thank you for your insight. We really appreciate it. You are excused.

So, our second panel today consists of the executive branch Government witnesses, which are Rear Admiral Vann. You are recognized for 5 minutes.

TESTIMONY OF REAR ADMIRAL JOHN C. VANN, COMMANDER, COAST GUARD CYBER COMMAND, U.S. COAST GUARD; REAR ADMIRAL WAYNE R. ARGUIN, ASSISTANT COMMANDANT FOR PREVENTION POLICY, U.S. COAST GUARD; AND WILLIAM K. PAAPE, ASSOCIATE ADMINISTRATOR FOR PORTS AND WATERWAYS, MARITIME ADMINISTRATION

TESTIMONY OF REAR ADMIRAL JOHN C. VANN, COMMANDER, COAST GUARD CYBER COMMAND, U.S. COAST GUARD

Admiral VANN. Thank you so much.

Good morning, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, distinguished members of the subcommittees. I am honored to be here today to discuss the protection, defense, and resiliency of the Marine Transportation System, the MTS, from today's cyber threats. I ask that my written testimony be entered into the record.

Mr. WEBSTER OF FLORIDA. So ordered.

Admiral VANN. First and foremost, I would like to express my deepest sympathies to the six individuals who lost their lives in the terrible accident involving the Francis Scott Key Bridge. The Coast Guard's thoughts are with their loved ones during this difficult time. Furthermore, my thanks go out to the Coast Guard men and women and the many agencies and organizations that continue to heroically respond to that tragic accident.

The Coast Guard is committed to addressing cybersecurity risks and responding to cyber incidents in the marine environment to ensure our Nation's economic and national security. The size, interdependence, complexity, and criticality of the MTS make it a prime target for criminals, activists, terrorists, state-sponsored actors, and adversarial nation states.

The threat of disruptive cyber effects to our critical infrastructure, and specifically to the MTS, require us to be vigilant,

proactive, collaborative, and resourceful. Cyber intrusions and attacks have a devastating impact on critical infrastructure. A successful cyber attack could impose unrecoverable losses to port operations and electronically stored information, hampering national economic activity and disrupting global supply chains.

The increased use of automated systems in shipping, offshore platforms, and port and cargo facilities creates enormous efficiencies and introduces additional attack vectors for malicious cyber actors. With the support of Congress, the Coast Guard has invested in growing and maturing Coast Guard Cyber Command to assess, identify, and respond to cyber risks and threats. CG Cyber currently employs three Cyber Protection Teams, or CPTs, and a Maritime Cyber Readiness Branch.

The CPTs work with local Coast Guard captains of the port to address cybersecurity risks and respond to cyber threats in the MTS. A Coast Guard CPT was the first Federal cyber response team in 2021 to identify probable port network intrusion by a People's Republic of China actor known now as Volt Typhoon. Our ability to share information and critical vulnerabilities with the Cybersecurity and Infrastructure Security Agency, CISA, and law enforcement partners enabled a timely response and rapid mitigation with that port partner.

The Maritime Cyber Readiness Branch employs subject matter experts in cybersecurity and marine safety. They regularly engage with industry support Area Maritime Security Committees for planning and execution of cyber exercises and work with MTS cybersecurity specialists at each Coast Guard area, district, and sector to improve cyber literacy and support Coast Guard captains of the port in measuring cyber risk.

We will soon be releasing the third annual Cyber Trends and Insights in the Marine Environment report, which provides key insights and trends to aid industry and other stakeholders in identifying and addressing current and emerging cyber risks.

Through consistent work in collaboration with other departments, agencies, and industry, CG Cyber shares critical vulnerability information, mitigation strategies, and threat intelligence. Our CPTs regularly deploy with Department of Defense and CISA teams to provide maritime and operational technology subject matter expertise around the globe. We are better and more resilient because we exercise and execute operations together.

I look forward to continuing this conversation and answering your questions. Thank you.

[The joint prepared statement of Rear Admirals Vann and Arguin is on page 21.]

Mr. WEBSTER OF FLORIDA. Thank you very much.

Next we have Rear Admiral Arguin. You are recognized for 5 minutes.

TESTIMONY OF REAR ADMIRAL WAYNE R. ARGUIN, ASSISTANT COMMANDANT FOR PREVENTION POLICY, U.S. COAST GUARD

Admiral ARGUIN. Good morning, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, and Congressman Cohen. I'm honored to be here today to discuss a top priority for the United States Coast Guard: protecting the

Marine Transportation System. I ask that my written testimony be entered into the record.

Mr. WEBSTER OF FLORIDA. So ordered.

Admiral ARGUIN. I'd like to offer my heartfelt condolences to the families and loved ones of the six individuals who lost their lives in the tragic incident involving the Francis Scott Key Bridge. Much like in south Florida, the Coast Guard has strong ties throughout Maryland and the Baltimore region, and our sympathies are with all those impacted by this horrible incident.

Our national security and economic prosperity are inextricably linked to a safe, secure, and efficient Marine Transportation System, or MTS. The vast system of ports and waterways that make up the MTS supports \$5.4 trillion of annual economic activity, accounts for the employment of more than 30 million Americans, and enables critical sealift capabilities, allowing our Armed Forces to project power around the globe.

Florida is a shining example of the benefits brought by a vibrant MTS, employing more than 65,000 men and women and contributing approximately \$15 billion to the State's economy. The increasing connectedness and complexity of the Nation's MTS also brings new vulnerabilities and threats, including in the cyber domain.

In response to dynamic threats, the United States Coast Guard has taken decisive action in our maritime critical infrastructure to harden and build resiliency against cyber attacks. On February 21, the President signed an Executive order which further enables our port security efforts by explicitly addressing cyber threats.

It empowers the Coast Guard to prescribe conditions and restrictions for the safety of waterfront facilities and vessels in ports, including reporting requirements for actual or threatened cyber incidents. With this authority, the Coast Guard issued a directive requiring specific risk management actions for all owners and operators of cranes manufactured by companies from the People's Republic of China. While the specific requirements are deemed sensitive security information and cannot be shared publicly, our captains of the port around the country are working directly with crane owners and operators to ensure compliance.

Also, on February 21, the Coast Guard released a proposed rulemaking to set baseline cybersecurity requirements for vessels, facilities, and Outer Continental Shelf facilities. The public comment period for the proposed rule is open, and the Service stresses the need for public participation in the proposed rulemaking. The diversity of the maritime industry and the dynamic nature of the cyber threat make public comment critical.

While the Coast Guard is focused on implementing these new major efforts, work is far from done. The MTS is indeed a system where an attack on one segment has the potential to affect others. This demands collaboration across Government and industry to ensure unified and coordinated response to cyber challenges in the maritime domain. Like all other risks to the MTS, cyber risk is a shared responsibility.

As such, the Coast Guard will continue its work across all levels of Government and engage with industry to assess security vulnerabilities, determine risk, and develop mitigation strategies.

This layered approach from the local to international level is critical due to the size, diversity, and interconnectedness of the MTS.

As the proven prevention and response framework is applied to prevent or minimize disruptions to the MTS and ports around the country, I'm grateful for the support of this committee to ensure the Coast Guard has the authorities and the resources we need to stay ahead of these threats.

I look forward to your questions on the vital work the Coast Guard does every day to help safeguard America's ports. Thank you for the opportunity to appear before you today and for your continued support of the United States Coast Guard.

[The joint prepared statement of Rear Admirals Vann and Arguin follows:]

Joint Prepared Statement of Rear Admiral John C. Vann, Commander, Coast Guard Cyber Command, U.S. Coast Guard, and Rear Admiral Wayne R. Arguin, Assistant Commandant for Prevention Policy, U.S. Coast Guard

INTRODUCTION

Good afternoon, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, and distinguished Members of the Subcommittees. We are honored to be here today to discuss a top priority for the U.S. Coast Guard: protecting the Marine Transportation System (MTS).

The U.S. Coast Guard offers its heartfelt condolences to the families and loved ones of the six individuals who lost their lives in the tragic incident involving the Francis Scott Key Bridge. The U.S. Coast Guard has strong ties throughout Maryland and the Baltimore community, and our sympathies are with all those impacted by this horrible accident.

At all times, the U.S. Coast Guard is a military service and branch of the U.S. Armed Forces, a Federal law enforcement agency, a regulatory body, a co-Sector Risk Management Agency, a first responder, and an element of the U.S. Intelligence Community (IC). The Service is uniquely positioned to ensure the safety, security, and stewardship of the maritime domain.

Since the early days of the Revenue Cutter Service, the Service has protected our Nation's waters, harbors, and ports. While much has changed over the centuries—with our missions expanding from sea, air, and land into cyberspace—our ethos and operational doctrine remain steadfast. Regardless of the threat, we leverage the full set of our authorities; the ingenuity and leadership of our workforce; and the breadth of our military, law enforcement, and civil partnerships to protect the Nation, its waterways, and all who operate on them.

THE CRITICALITY OF THE MARINE TRANSPORTATION SYSTEM

Our national security and economic prosperity are inextricably linked to a safe and efficient MTS. It is difficult to overstate the complexity of the MTS and its consequence to the Nation. It is an integrated network that consists of 25,000 miles of coastal and inland waters and rivers serving 361 ports. However, it is more than ports and waterways. It is cargo and cruise ships, passenger ferries, waterfront terminals, offshore facilities, buoys and beacons, bridges, and more. The MTS supports \$5.4 trillion of economic activity each year and supports the employment of more than 30 million Americans. It supports critical national security sealift capabilities, enabling U.S. Armed Forces to project power around the globe. The U.S. Coast Guard remains laser-focused on the safety and security of this system as an economic engine and strategic imperative.

PORT SECURITY—A SHARED RESPONSIBILITY AND LAYERED APPROACH

The U.S. Coast Guard is the Nation's lead Federal agency for safeguarding the MTS. The Service applies a proven prevention and response framework to prevent or mitigate disruption to the MTS from the many risks it faces. U.S. Coast Guard authorities and capabilities cut across threat vectors, allowing operational com-

manders to quickly evaluate risks, apply resources, and lead a coordinated and effective response.

The U.S. Coast Guard works across multiple levels of government and industry to assess security vulnerabilities, determine risk, and develop mitigation strategies. This layered approach—from the local to the international level—is critical due to the size and interconnectedness of the MTS.

LOCALLY: VESSEL AND FACILITY SECURITY

Security in U.S. ports and waterways starts with individual vessels, port facilities, and outer continental shelf facilities. The Maritime Transportation Security Act (MTSA) and its implementing regulations place specific requirements on regulated entities to conduct security assessments, analyze the results, and incorporate their findings in U.S. Coast Guard-approved security plans.

These plans set baseline requirements that regulated U.S. vessels and facilities must follow to protect the MTS, including addressing access control, computer systems and networks, restricted area monitoring, communication, security systems, cargo handling, delivery of stores, personnel training, and drills and exercises. U.S. Coast Guard inspectors verify compliance with these plans during scheduled and unannounced inspections throughout a given year.

For foreign-flagged vessels, the approach to security is very similar to that of MTSA-regulated domestic vessels. Per the International Maritime Organization's (IMO) International Ship and Port Facility Security (ISPS) Code, each foreign vessel must conduct a Ship Security Assessment and develop a Ship Security Plan, which must be approved by the ship's Flag Administration prior to a vessel being certificated as compliant with the ISPS Code. This certification is verified by the U.S. Coast Guard during regular compliance examinations when the vessel arrives in a U.S. port.

To enhance security, on February 22, 2024, the U.S. Coast Guard released a Notice of Proposed Rulemaking for new cyber risk management regulations applicable to all MTSA-regulated vessels, facilities, and Outer Continental Shelf facilities. The proposed regulations are primarily based on the Cybersecurity and Infrastructure Security Agency's (CISA) Cross-Sector Cybersecurity Performance Goals and follow the structure and format of existing security regulations in place since 2004. Proposed regulations would require several cybersecurity measures, including account security, device security, network segmentation, data security, training, incident response planning, and drills and exercises. Regulated entities would also be required to identify a Cybersecurity Officer responsible for developing a Cybersecurity Plan and overseeing implementation of new requirements.

REGIONALLY: AREA MARITIME SECURITY COORDINATION

At the regional level, Area Maritime Security Committees (AMSC) are required by MTSA and its implementing regulations to serve an essential coordinating function during normal operations and emergency response. Comprised of government and maritime industry leaders, an AMSC serves as the primary regional body to jointly share threat information, evaluate risks, and coordinate risk mitigation activities. As the Federal Maritime Security Coordinator (FMSC), U.S. Coast Guard Captains of the Port (COTP) direct their regional AMSC's activities.

AMSC input is vital to the development and continuous review of the Area Maritime Security (AMS) Assessment and Area Maritime Security Plan (AMSP). The AMS Assessment must include the critical MTS infrastructure and operations in the port; a threat assessment that identifies and evaluates each potential threat; consequence and vulnerability assessments; and a determination of the required security measures for the three Maritime Security levels.

These AMS assessments then lead to the collaborative development of AMSPs to ensure government and industry security measures are coordinated to deter, detect, disrupt, respond to, and recover from a threatened or actual Transportation Security Incident.

The U.S. Coast Guard COTP and AMSCs are also required by regulations to conduct or participate in an exercise once each calendar year to collectively assess the effectiveness of the AMSP in today's dynamic operating environment.

NATIONALLY: INTERAGENCY COLLABORATION

The U.S. Coast Guard functions on behalf of the Department of Homeland Security as the co-Sector Risk Management Agency (SRMA) for the Maritime Transportation Subsector along with the Department of Transportation. As an SRMA, the

U.S. Coast Guard is responsible for coordinating risk management efforts with CISA, other Federal departments and agencies, and MTS stakeholders.

CISA is a key partner whose technical expertise supports the U.S. Coast Guard's ability to leverage our authorities and experience as the regulator and SRMA of the MTS. CISA integrates a whole-of-government response, analyzes broader immediate and long-term impacts, and facilitates information sharing across transportation sectors. Our relationship with CISA is strong and will continue to mature.

As an element of the IC, the U.S. Coast Guard possesses unique authorities, and has opportunity and capability to collect, analyze, and share information from domestic, international, and non-government stakeholders which operate throughout the MTS. This ability allows the U.S. Coast Guard to gain a collective understanding of threats and vulnerabilities facing the maritime domain, including physical security and cybersecurity.

Our enduring relationship with the Department of Defense (DoD) is also crucial to safeguarding the MTS. In many cases, DoD's ability to surge forces from domestic to allied seaports depends on the same commercial maritime infrastructure as the MTS. The relationship between the U.S. Coast Guard and DoD ensures the Nation's surge capability and lines of communication will be secure and available during times of crisis. By sharing threat intelligence, developing interoperable capabilities, and leveraging DoD's expertise, the U.S. Coast Guard enables national security sea-lift capabilities and jointly supports our Nation's ability to project power around the globe.

The U.S. Coast Guard also supports the Federal Emergency Management Agency (FEMA) in the Port Security Grant Program (PSGP) by providing subject matter expertise in maritime security. The PSGP is designed to support and protect critical port infrastructure from terrorism. FEMA is responsible for the administration and management of the program, which has distributed more than \$3.8 billion to MTS stakeholders since the program's inception in 2002.

INTERNATIONALLY: INTERNATIONAL PORT SECURITY PROGRAM

U.S. Coast Guard efforts to secure the MTS also extend overseas. By leveraging international partnerships, including through the U.S. Coast Guard International Port Security (IPS) program, the U.S. Coast Guard conducts in-country foreign port assessments to assess compliance with the ISPS Code and the effectiveness of security and anti-terrorism measures in foreign ports. In addition, the IPS program conducts capacity building engagements to assist foreign ports in implementing effective anti-terrorism measures, where possible.

If the U.S. Coast Guard finds that a country's ports do not have effective security and anti-terrorism measures, the Service may impose additional security measures called Conditions of Entry (COE) on vessels arriving to the United States from those ports and may deny entry into the United States to any vessel that does not meet such conditions. Verification that a vessel took additional security measures when it was in foreign ports that lacked effective anti-terrorism measures may be required before the vessel is permitted to enter the United States.

THE GROWING CYBER RISKS

Cyber-attacks can pose a significant threat to the economic prosperity and security of the MTS for which whole-of-government efforts are required. The MTS's complex, interconnected network of information, sensors, and infrastructure continually evolves to promote the efficient transport of goods and services around the world. The information technology and operational technology networks vital to increasing the efficiency and transparency of the MTS also create complicated interdependencies, vulnerabilities, and risks.

The size, complexity, and importance of the MTS make it an attractive cyber target. Terrorists, criminals, activists, adversary nation states and state-sponsored actors may view a significant MTS disruption as favorable to their interests. Potential malicious actors and their increasing levels of sophistication present substantial challenges to government agencies and stakeholders focused on protecting the MTS from constantly evolving cyber threats.

Cyber vulnerabilities pose a risk to the vast networks and system of the MTS. Increased use of automated systems in shipping, offshore platforms, and port and cargo facilities creates enormous efficiencies, but also introduce additional attack vectors for malicious cyber actors. A successful cyber-attack could disrupt global supply chains and impose unrecoverable losses to port operations, electronically stored information, and national economic activity.

On February 21, 2024, the President signed an Executive Order (EO) that makes clear that U.S. Coast Guard Captain of the Port authorities apply to threats and

incidents in the cyber domain and also requires reporting of actual or threatened cyber incidents to aid in detection and rapid deployment of an interagency response. With this authority clarified, the U.S. Coast Guard issued a Maritime Security Directive requiring specific cyber risk management actions for all owners or operators of cranes manufactured by companies from the People's Republic of China. Our Captains of the Port around the country are working directly with crane owners and operators to ensure compliance and further mitigate the threats posed by these cranes.

THE U.S. COAST GUARD'S APPROACH

In support of the whole-of-government effort, the U.S. Coast Guard applies a proven prevention and response framework to prevent or mitigate disruption to the MTS from the many risks it faces.

Prevention

The Prevention Concept of Operations—Standards, Compliance, and Assessment—guides all prevention missions, including port security. It begins with establishing expectations in the MTS. Regulations and standards provide a set of baseline requirements and are critical to establishing effective and consistent governance regimes. With effective standards in place, vessel and facility inspectors verify systematic compliance activities to ensure the governance regime is working. This part of the system is vital in identifying and correcting potential risks before they advance further and negatively impact the MTS. Effective assessment is paramount to continuous improvement. It provides process feedback and facilitates the identification of system failures so that corrective actions can be taken to improve standards and compliance activities.

In addition to vessel and facility inspectors, the U.S. Coast Guard also has Port Security Specialists and MTS Cybersecurity Specialists in each Captain of the Port Zone. These dedicated staffs build and maintain port level security-related relationships, facilitate information sharing across industry and government, advise U.S. Coast Guard and Unified Command decision-makers, and plan security exercises.

Response

The U.S. Coast Guard has a proven, scalable response framework that can be tailored for all hazards. Whether a cyber or physical security incident, our operational commanders immediately assess the risk, consider their authorities, and deploy assets or issue operational controls to mitigate risks. Depending on the incident's size and severity, commanders set clear response priorities, request specialized resources to help mitigate risk, and notify interagency partners to help coordinate the response.

For complex responses, the U.S. Coast Guard maintains deployable teams with specialized capabilities that can support operational commanders across a spectrum of needs and domains. These teams include specially trained law enforcement teams that can bolster physical security, and pollution response teams that can address significant oil spills or hazardous material releases.

In addition, the U.S. Coast Guard established three Cyber Protection Teams as commands under U.S. Coast Guard Cyber Command. Leveraging U.S. Coast Guard authorities and unique capabilities, these units assist Captains of the Port with measuring cyber risk and are poised to deploy in support of time-critical or nationally significant cyber activities.

FUTURE FOCUS

Given today's dynamic operational environment, the U.S. Coast Guard is ever vigilant and on watch to identify emerging threats, evaluate associated risk, and apply authorities and capabilities to protect the MTS. While the U.S. Coast Guard has a proven prevention and response framework that has been honed over many years, the Service is dedicated to continually assessing and enhancing the way we execute both enduring and emerging missions. The U.S. Coast Guard's commitment is to continue to lead with the same level of professionalism, efficiency, and effectiveness that the public has come to expect.

Thank you for the opportunity to testify today and thank you for your continued support of the U.S. Coast Guard. We look forward to answering your questions.

Mr. WEBSTER OF FLORIDA. Thank you.
Now, Mr. Paape.

TESTIMONY OF WILLIAM K. PAAPE, ASSOCIATE ADMINISTRATOR FOR PORTS AND WATERWAYS, MARITIME ADMINISTRATION

Mr. PAAPE. Thank you, sir. Good morning, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, and distinguished members of the subcommittees. Thank you for your tremendous support for the Maritime Administration, and thank you for the opportunity to testify today regarding the Port Infrastructure Development Program, or PIDP, which is a discretionary grant program, in its role in bolstering the safety and security of our Nation's ports.

Before I go further, allow me to express on behalf of the Department of Transportation our condolences to the families of those who lost their lives last week when the Francis Scott Key Bridge collapsed.

I also want to express thanks to the United States Coast Guard for spearheading the Federal response at the Port of Baltimore and to all of our Federal partners, as well as Maryland State and local officials, for their ongoing response to the Baltimore bridge collapse. Times like this highlight how important our maritime transportation system is to our economic and national security.

MARAD promotes the development and maintenance of a resilient maritime transportation system, including ports, by providing grants for infrastructure projects, technical assistance, and support for port security initiatives. The Port Infrastructure Development Program is MARAD's largest discretionary grant program.

The primary objective of PIDP is to enhance the safety, the efficiency, or reliability of the movement of goods into, out of, around, or within a port. PIDP grants support efforts by ports and industry stakeholders to improve port and related freight infrastructure to meet the Nation's freight transportation needs and ensure our port infrastructure can meet the anticipated growth in freight volumes.

In fiscal year 2023, MARAD received 153 eligible applications for PIDP from projects across 37 States and 4 U.S. Territories, with a combined funding request exceeding \$2.8 billion, with only \$662 million available. MARAD awarded grants to fund 41 port infrastructure projects across the Nation, including several notable PIDP projects that focused on safety improvements across various ports. These numbers vividly demonstrate the oversubscription of this grant program and highlights the continued urgent need for measures to help continue strengthening the Nation's supply chains.

On the technical assistance front, MARAD chairs the National Port Readiness Network to ensure readiness of commercial strategic seaports to support deployment of military forces and national contingencies. Together with eight other Federal agencies and military commands, this network supports the maintenance of port readiness committees. MARAD further facilitates the collaborative development of port readiness plans, which are voluntary planning documents focused on port facility readiness at commercial strategic seaports.

As our current port security initiative, the FY24 PIDP Notice of Funding Opportunity included two critical provisions addressing cybersecurity and technology concerns. First, the Notice of Funding

Opportunity prohibits the use or provision of LOGINK. This measure aims to safeguard against potential security risks associated with these platforms.

The second provision seeks to ensure projects are consistent with Presidential Policy Directive 21: Critical Infrastructure Security and Resilience, in that each application selected for Federal funding must demonstrate consideration and mitigation of physical and cybersecurity risks relevant to their project. Projects failing to adequately address these risks will be required to do so before receiving funds.

Finally, the FY23 NDAA directed MARAD, in consultation with our other Federal stakeholders, to conduct a study to assess whether there are cybersecurity or national security risks posed by foreign-manufactured cranes at United States ports. Our report will be delivered to Congress soon.

In conclusion, PIDP plays a vital role in enhancing the safety, efficiency, reliability, and resilience of our Nation's ports. I appreciate the opportunity to appear before this subcommittee and thank you for the support you have shown the Maritime Administration. I welcome any questions that you may have.

[Mr. Paape's prepared statement follows:]

Prepared Statement of William K. Paape, Associate Administrator for Ports and Waterways, Maritime Administration

Good morning, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar and Members of the Subcommittees. Thank you for your tremendous support for the Maritime Administration (MARAD) and thank you for the opportunity to testify today regarding the Port Infrastructure Development Program (PIDP), a discretionary grant program, and its role in bolstering the safety and security of our nation's ports.

Before I go further, allow me to express on behalf of the Department of Transportation our condolences to the families of those who lost their lives last week when the Francis Scott Key Bridge collapsed. I also want to express thanks to the United States Coast Guard for spearheading the Federal response at the Port of Baltimore, and to all of our Federal Partners—especially my DOT colleagues at MARAD and FHWA—as well as Maryland state and local officials for their ongoing response to the Baltimore bridge collapse.

Times like this highlight how important our maritime transportation system (MTS) is to our economic and national security. Our MTS, and for that matter, our entire national surface transportation system, is the best in the world. We have the greatest inherent flexibility and redundancy to support the transportation segments of our supply chain.

The collapse of Key Bridge, the COVID surge, the attacks in the Red Sea, and Hurricanes Maria, Sandy, and Irene, to name a few, serve as notable reminders of how vital ports are to our Nation's economic vitality. Equally, our responses to these tragedies have demonstrated our great resolve and ability to respond as a Nation.

Several agencies play key roles in overseeing port security in the United States. These agencies work collaboratively to ensure the safety and security of U.S. ports and the maritime transportation system.

MARAD promotes the development and maintenance of a resilient maritime transportation system, including ports, by providing grants for infrastructure projects, technical assistance, and support for port security initiatives. MARAD's cooperative efforts include chairing the National Port Readiness Network (NPRN) to ensure readiness of Commercial Strategic Seaports to support the deployment of military forces and national contingencies. Together with eight other Federal agencies and military commands, this network supports the maintenance of Port Readiness Committees. MARAD further facilitates the collaborative development of Port Readiness Plans, voluntary planning documents focused on port facility readiness at Commercial Strategic Seaports.

The primary statutory objective of the PIDP is to enhance the safety, efficiency, or reliability of the movement of goods into, out of, around, or within a port. Each project funded through the PIDP must address or advance at least one of these critical objectives. PIDP grants support efforts by ports and industry stakeholders to improve port and related freight infrastructure to meet the nation's freight transportation needs and ensure our port infrastructure can meet anticipated growth in freight volumes. The PIDP provides funding to ports in both urban and rural areas for planning and capital projects. It also includes a statutory set-aside for small ports to continue to improve and expand their capacity to move freight reliably and efficiently and support local and regional economies.

In fiscal year (FY) 2023, MARAD received 153 eligible applications for the PIDP from projects across 37 states and 4 U.S. territories, with a combined funding request exceeding \$2.8 billion with only \$662 million available funding for FY 2023. Similarly, in FY 2023, the United States Marine Highway Program, received 16 eligible applications from projects in 12 states and 2 territories, requesting a total of approximately \$46.4 million in funding with only \$12.123 million available funding for FY 2023. These numbers highlight the continued need for strengthening of the nation's supply chains.

In FY 2023, MARAD awarded grants to fund 41 port improvement projects across the nation, including several notable PIDP projects that focused on safety improvements across various ports:

- Cold Bay, AK: Construction of a new dock with significant operational and safety benefits compared to the old dock.
- Kawaihae, HI: Access and lighting enhancements to improve safety.
- Astoria, OR: Major infrastructure upgrades, including fire protection measures.
- Freeport, TX: Site improvements facilitating safer cargo movement and dedicated truck lanes.
- San Diego, CA: Lighting enhancements to enhance safety.
- Red Wing, MN: Mooring improvements aimed at enhancing safety during barge operations.

Another noteworthy FY 2023 PIDP project incorporating security enhancements is underway at the North Carolina State Port Authority in Wilmington, NC. This comprehensive project involves reconfiguring port access, relocating security checkpoints, installing a gate operating system, enhancing railroad crossings, constructing a truck queuing area, implementing new cybersecurity tools, and constructing guard and badging facilities.

Addressing cybersecurity and technology concerns, the FY 2024 PIDP Notice of Funding Opportunity (NOFO) included two critical provisions:

- LOGINK Prohibition: In compliance with Section 825 of the FY 2024 National Defense Authorization Act (NDAA), the FY 2024 PIDP NOFO prohibits the utilization or provision of certain Chinese transportation logistics platforms. This measure aims to safeguard against potential security risks associated with these platforms.
- Each applicant selected for federal funding must demonstrate consideration and mitigation of physical and cyber security risks relevant to their project. Projects failing to adequately address these risks will be required to do so before receiving funds. MARAD and the Office of the Secretary's Chief Information Officer will conduct risk assessments on all grant projects, with additional cyber risk mitigation activities mandated for moderate or higher risk projects.

Section 3529 of the FY23 NDAA directed MARAD, in consultation with the Secretary of Homeland Security, the Secretary of Defense, and the Director of the Cybersecurity and Infrastructure Security Agency, to conduct a study to assess whether there are cybersecurity or National security threats posed by foreign manufactured cranes at United States ports. Our report will be delivered to Congress soon.

In conclusion, PIDP plays a vital role in enhancing the safety, efficiency, reliability, and resilience of our nation's ports. The projects highlighted underscore our commitment to enhancing and modernizing the Maritime Transportation System which is vital to our national and economic security missions.

I appreciate the opportunity to appear before this Subcommittee and thank you for the support that you have shown the Maritime Administration. I welcome any questions you may have.

Mr. WEBSTER OF FLORIDA. Thank you all for your testimony. And now we turn to members from the second panel and questions for them. And I recognize myself for 5 minutes.

Rear Admiral Vann, the Maritime Transportation Security Act was approved by Congress in 2002. At the time, there were physical problems and those were looked into; now we have cyber problems. Do you think the Coast Guard has the right authority and is striking a balance between cyber and physical threats?

Admiral VANN. Chairman Webster, I'll take an attempt to answer your question and then maybe ask my colleague here who's really—this is his area of expertise.

But to your point, clearly, cyber threats and the risks of cyber attack have increased over time with the advance of technology, particularly in the port environment, with the implementation of automation and various software products, operational technology to increase the efficiency of our ports. What comes with that are increased vulnerabilities, and as I mentioned in my opening remarks, attack vectors.

Our authorities, which will be bolstered by the current rule-making effort, are currently adequate for our team's abilities to assist port partners in addressing risks and responding to attacks.

I'll defer to Admiral Arguin to add to the answer.

Mr. WEBSTER OF FLORIDA. Rear Admiral Arguin, do you have something to add to that?

Admiral ARGUIN. Yes, sir. So, to answer your question directly, the Maritime Transportation Security Act did support or did solve a particular problem when initially enacted and focused primarily on physical security. However, the evolving threats that have been brought about with the cyber domain, we are evolving those same authorities. We can use that same structure.

And our proposed rulemaking really does focus on evolving the requirements that we were putting in place through those baseline cybersecurity requirements to address the emerging threats that cyber places. So, I would say that we're good on the physical side with MTSA. Evolving to incorporate vulnerability closing actions underneath the MTSA is still appropriate; yes, sir.

Mr. WEBSTER OF FLORIDA. So, were there more that you might need for the cyber part of that as far as the Coast Guard needing more authority for port safety and so forth, do you think?

Admiral ARGUIN. Mr. Chairman, I would say that the framework, the structural framework, that system that was put in place underneath the MTSA, is adequate. The authorities that we have underneath the captain of the port authorities to be able to address those emerging threats is adequate. We need to build out the specifics, which is where the notice to propose rulemaking really does focus on setting that baseline.

But the cyber challenge really is an evolving challenge that we're going to have to be nimble and flexible as new vulnerabilities are identified. But I feel very confident that the structure and the system that's in place underneath MTSA is adequate for the purposes of addressing those vulnerabilities.

Mr. WEBSTER OF FLORIDA. So, Rear Admiral Vann, in February, the President signed an Executive order to strengthen cybersecurity in the maritime domain. The Coast Guard has historically been sometimes slow to respond to doing Executive orders and rule-making and so forth. For example, we spent a decade trying to execute rules for the Atlantic coast port access routes.

Cybersecurity is rapidly developing. Do you think that the Coast Guard will have the speed to put together what's needed in order to do that, or are you going to adopt a slower speed?

Admiral VANN. Mr. Chairman, the Executive order clarified captain of the port authorities to respond to cyber threats and attacks immediately as soon as it was instituted. As you know, sir, that same day the Coast Guard released a maritime security directive that specifically addressed the assessment of vulnerabilities in foreign-made ship-to-shore cranes. So, again, that was an immediate response.

And then that same week was the Notice of Proposed Rulemaking, which to your point, sir, there is a process that plays out. We're in the public comment period, and the Coast Guard encourages industry and port partners to take advantage of the opportunity to provide feedback on the draft regulations that have been put forward through that rulemaking process. So, moving with haste, sir.

Mr. WEBSTER OF FLORIDA. Thank you.

OK. Mr. Carbajal, you're recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman.

Mr. Paape, as we so tragically witnessed in Baltimore, the continuous operation of our ports should not be taken for granted. What is MARAD doing to help ports become more resilient to rising oceans and extreme weather events?

Mr. PAAPE. I thank you for that question. We are taking a number of actions, but I think I would like to take that question for the record.

Mr. CARBAJAL. Thank you. Rear Admiral Vann, President Biden issued an Executive order granting the Coast Guard stronger authorities to address cybersecurity. So, building on what my colleague just asked, how is the Coast Guard using this new authority, and could you explain how this differs from the existing authority the Coast Guard already had?

Admiral VANN. Thank you, Member, I appreciate that question. As I indicated before, the Executive order was a clarification of our Magnuson Act authorities where the captain of the port has the authority to respond to risks and threats and attacks, be they physical, be they any threat. This Executive order added cyber to clarify, to your point, existing authorities.

So, the way we are using those authorities is continuing to do our mission in prevention. And then as cyber threats emerge or attacks occur, captains of the port could leverage that authority that comes with the Executive order to respond by directing the movement or the operations of port operations of vessels.

As I mentioned in my previous answer, one of the first actions we took was a maritime security directive in association with the Executive order to direct the assessment of port cranes due to the criticality of that node of the system and the prevalence of foreign-manufactured cranes. So, these are actions that we've taken and that we are poised to take should there be a threat or an attack that occurs.

Mr. CARBAJAL. Thank you. Admiral Arguin, I'd like to take a moment to thank you for your commitment to addressing sexual assault and sexual harassment in the commercial maritime industry.

Your efforts have not gone unnoticed among merchant mariners, the very people who need your help.

How would you assess the state of change in the industry, and how far do we still have to go?

Admiral ARGUIN. Ranking Member, thank you for the compliment, but it is a team sport. We have taken directed efforts to engage with maritime training providers, with industry representatives, seafarers around the Nation to ensure that everyone understands their responsibilities to change the culture associated with maritime.

I think there's not a finish line associated with changing a culture. It is an expectation that there is a culture that is established to ensure that every single person feel safe coming to work and that they feel valued. And so, that's going to be a continuous assessment of culture, and we really get to the point where what happens between two individuals in the engine room or on the bridge and that interaction where both people feel valued, feel respected, that really is the standard. And when that fails or if that fails, that there's an expectation for accountability.

And so, that's going to be a continuous effort. I don't think we get to snap the chalk line and say we're done. I think that's going to be a continuous shared responsibility not only just with industry to change that culture, but then to ensure that, if that culture does not stand forward, we are in a position to hold individuals accountable.

Mr. CARBAJAL. With organizational leadership changes that occur, I would submit to you that real cultural change will be determined on the system's changes that occur within the organization. So, as leadership changes, those are sustainable. And so, I encourage you to look at it from that perspective. Getting achievements now is one thing, but making sure the culture is ever evolving to ensure that we don't have what we've had in the past continue. So, thank you very much,

Mr. Chairman, I yield back.

Mr. WEBSTER OF FLORIDA. Thank you. Chairman Gimenez, you're recognized for 5 minutes for questions.

Mr. GIMENEZ. Thank you, Mr. Chairman.

And Mr. Paape, or anybody who can answer this, in light of what happened in Baltimore—and right now, it looks like every indication was, it was an accident—how many ports do we have in the United States that are vulnerable to either an accident or an attack that's actually not an accident? So, how many ports in the United States would be vulnerable to such a thing where a ship strikes a bridge, the bridge collapses, and then basically the port is out of commission? How many ports do we have like that?

Admiral ARGUIN. Mr. Chairman, I'll take a first shot at that. I would say that every port is vulnerable. I think given the cyber challenges and the interconnectedness, the continued interconnectedness of the Marine Transportation System, and the inherent vulnerabilities with that interconnectedness, that we have to be ever vigilant to continuously evolve efforts to close those vulnerabilities.

Specific to number of ports that may have infrastructure that could impact or cause the closure of a particular port, I don't have

particular numbers, but I think anything that crosses a waterway poses a particular hazard or threat, and we need to be evaluating on a regular basis the—assessing those waterways. As more congestion comes into our ports, we need to understand that and be nimble and flexible to be able to put safeguards in place to ensure the safe and efficient movement of commerce.

Mr. GIMENEZ. I think it'd be wise for the Coast Guard to do an inventory of those critical ports that are critical to the security of the United States and see, either by accident or by intentional act, how those ports can be affected.

I mean, this accident in Baltimore is clear indication. One ship hits a bridge and the port is out of action for some time. A foreign adversary could, say, have a coordinated attack. This is not far-fetched. I mean, this is what happened on 9/11, right? So, coordinated attack to affect our ability to respond around the world, especially our military around the world.

Have we done such an analysis? And if we haven't, I think it should be done to say, OK, these ports are vulnerable in this fashion to being shut down and affecting our ability as a country to respond around the world.

Admiral ARGUIN. Mr. Chairman, so, just to be clear, each of our sector commanders, our captains of port, have real-time information on ongoing threats and hazards within each of those ports, and they are regularly assessing risks on a daily basis to understand the impact to the Marine Transportation System.

A consolidated list of single point failures within those ports, I'll bring that back to the staff to verify that we have done something like that. But on a daily basis, every one of our sector commanders is regularly assessing risks, whether that's weather, whether that's congestion, whether that's impacts to the waterway due to navigation challenges. They're regularly assessing those ports to ensure that we can continue to move cargo on a daily basis. We certainly understand the significance of the—

Mr. GIMENEZ [interrupting]. Yes, but in Baltimore, did anybody assess the risk of a ship hitting that bridge and it causing it to collapse? Did anybody do that?

So, I mean, you've got to think of the stuff that's never happened before. What if? The what if. And I guess because that's my firefighter in me. What if? All right. It's better to prevent something than to say, oh, gee, look, it collapsed. OK? Collapsed because it got struck by a ship.

Was there anything you could have done to that bridge, fortified it, so that if it got struck by a ship, it would not have collapsed?

Admiral ARGUIN. I'm not a bridge expert, sir, but I would certainly say that at the conclusion of the investigation, the causal factors and recommendations that will come through, we'll take those into account.

Mr. GIMENEZ. That's what I'm calling for. So, those critical ports are critical to the security of the United States that if somehow knocked out of commission, what are the ways that you can knock it out of commission and what are the things we need to do to make sure it's not knocked out of commission before it actually happens?

I believe in Murphy's law. All right. And it doesn't mean everything's bad, it just says anything that can happen will. And obviously, look, it happened in Baltimore. It could happen. A ship lost power, it hit the bridge, the bridge collapsed.

Could we have done something to make sure that, even in the event of Murphy's law taking effect, that we had protection around the bridge structure so that it would not collapse? Because now the largest port for vehicles in the United States is knocked out of action and it's going to hurt the economy.

I'm worried more also about our ability to respond around the world and an adversary taking certain actions to make sure that we don't respond around the world, because we do need maritime assets when we're responding around the world. That's my concern. That's all I'm putting on the table.

Admiral ARGUIN. Yes, sir.

Mr. GIMENEZ. Thank you. And I yield back.

Mr. WEBSTER OF FLORIDA. Thank you. Mr. Thanedar, you're recognized for 5 minutes.

Mr. THANEDAR. Thank you, Chairman. Admiral Vann, and all of you, thank you for your testimony here today.

In the aftermath of the Key Bridge accident, there has been a lot of conjecture about the cause of the accident, some of which has been widely irresponsible. I understand that the investigation is ongoing and you're limited in what you can share, but that said, can you say whether at this point there is any evidence at all that the accident was caused by a cyber attack?

Admiral VANN. Ranking Member, as you know, we have representation from Coast Guard Cyber Command on the Coast Guard's Marine Board of Investigation, which is working in partnership with the National Transportation Safety Board's investigation. It is, as you said, sir, much too early in the process to know the causal factors. But the reason for that subject matter expertise is certainly to investigate the potential for that type of a causal factor, some sort of a cyber disruption. So, absolutely being considered and really too early, and I wouldn't be in a position to comment.

Mr. THANEDAR. All right. Thank you so much.

And Admiral Arguin, the waterways near major ports are subject to significant congestion and obstacles that make safe navigation challenging. What are some of the initial lessons to be learned from the Key Bridge incident, both for vessel operators and for port operations?

Admiral ARGUIN. Ranking Member, so, ships that are moving throughout our ports, there's a shared and a layered approach, and there are a variety of different ways that we attempt to prevent the bad thing from happening. And that involves skilled mariners at the helm. It involves pilots that are uniquely positioned and experienced in operating in those particular waters. It's the inspection and investigation of vessels, the oversight of vessels to ensure that the systems that have been designed to meet certain requirements are effectively operating in the way that they're supposed to. It is the aids to navigation to ensure that the channel is properly marked. It's the access to information. All of those pieces of information come together to ensure that commerce can operate safely.

And when any one of those elements fails to meet the expectations, being able to understand why that failed and then build resiliency into that system is important. And we constantly are looking at those challenges on a regular daily basis at our captains of the port.

Mr. THANEDAR. Thank you. Thank you, Admiral. And Admiral Arguin and Admiral Vann, I appreciate your testimony before our subcommittee on some of the same topics back in February. At that hearing, we discussed in detail the actions the administration announced in February to bolster cybersecurity at ports.

These actions will require significant effort from the Coast Guard to implement. Since that hearing, Congress passed funding for the remainder of the current fiscal year, and the President submitted his budget request for next year.

Yesterday, for the better part of the day, I had the pleasure of meeting the officers of the Coast Guard and being on the water with them, and I admire their dedication and their service to our Nation. But I kept seeing the strong need for resources, whether it was infrastructure needs, whether it's needs for personnel. As these challenges continue to grow, to have a well-funded, well-staffed Coast Guard is so important, and that became very apparent as I was traveling through and working with them.

So, what resources does the Coast Guard require to advance and then implement the rulemaking, inspect for compliance, and otherwise ensure the recently announced efforts are carried out effectively? Does the Coast Guard's budget request include the necessary funding?

Admiral ARGUIN. Ranking Member, so, we certainly appreciate the subcommittee's and committee's support, Congress' support for Coast Guard budgets. The Commandant's been very clear. For the Coast Guard to meet its current and future demands, we need to be a \$20 billion organization by 2033 to meet all of those requirements. And I think it's important to recognize that a predictable level of funding gives us the opportunity to recapitalize our assets while also still meeting emerging demands. And so, the support of Congress to ensure that is paramount for us.

Mr. THANEDAR. Thank you. And I yield back.

Mr. WEBSTER OF FLORIDA. The gentleman yields back. Representative Cohen, would you like 5 minutes?

Mr. COHEN. Seven.

Mr. WEBSTER OF FLORIDA. OK. You can have 5.

Mr. COHEN. I'll take 4. Thank you.

I didn't really understand the answer to that question. How much more money does the Coast Guard need than what they were appropriated? You've been asked to do cybersecurity. You've got the awareness of bridges and other infrastructure vulnerable to massive ships and other forces. How much money do you need to protect the American maritime system beyond what you're getting?

Admiral VANN. Congressman, as my colleague mentioned, the fiscal 2024 budget that was approved since we last appeared before the committee and then the President's budget that's been presented for next year and then looking ahead to 2033, Commandant Fagan has been clear about the current roughly \$13 billion Coast Guard being a \$20 billion Coast Guard and looking at a 3- to 5-

percent increase in operating and maintenance funds annually. We've said that publicly, in order to meet those requirements, all those requirements you listed, sir, and many others.

To be specific about cyber, my area of responsibility, I would tell you that we are meeting the current demand signal, but there's no doubt I think anyone has that cyber threats are increasing. Our increasing use of automation is creating more vulnerability. And so, if we are asked to do more, if the required level of effort is going to go up, then the required level of resources would need to go up with it. So, we will be responsible in asking for what we need as those responsibilities increase.

Mr. COHEN. Either of you all want to comment on this?

Admiral ARGUIN. Congressman, the Commandant's been very clear that the status quo is a risk position that we're in right now. Staying steady state does not give the Coast Guard the readiness to be able to meet emerging demands and future demands. And so, the President's budget has a prioritized list of critical assets and critical funding support that will allow us to not only continue to restore readiness for our aging infrastructure and aging assets, but then also be able to meet future demands for service for the Coast Guard.

Mr. COHEN. And I believe you need more money. I believe almost every element of American defense and the homeland security needs more money as we have more and more threats from overseas and from neighbors in Central America. But we have to realize as congresspeople that things cost money. And the continuing resolution hurt you when we had not approved the budget for next year, you all were operating with less funds, and it affected your abilities. We need to be willing to take the difficult votes to pass revenue measures to serve our defense teams, our homeland security teams, and protect our country.

Just putting out jingoistic comments about America and protect us and close our border and build walls and all that kind of stuff doesn't get it. It takes yes, I vote for the budget or I will vote for additional funds. That's what we need in so many areas. And I'm going to be willing to do it. I know in cybersecurity, there's going to be a whole lot more, and you've got trouble dealing with Silicon Valley wanting to take a lot of people you probably want to serve in this important area. These ports are vulnerable, and cyber is a future warfare.

So, I just hope you'll quietly let your voices be known to folks that they need to support funding and not just rhetoric. Thank you for your service. I know what happened in Baltimore is being dealt with, and I guess anything could happen. Mr. Gimenez mentioned that. I don't expect ISIS or somebody to get a gigantic car container, cargo container and have lots of containers on it and be able to bring down a bridge. But they could do something and you're responsible, so, we want to give you the funds to be able to do the job.

Thank you, and I yield back the balance of my time.

Mr. WEBSTER OF FLORIDA. The gentleman yields back. That concludes our second panel. And we thank the witnesses. Thank you for being here. Thank you for your testimony and the information you've given us, and you are excused.

For our third panel, I'd like to welcome them and the witnesses and ask them to get prepared. You're next.

Our third panel consists of industry experts operating in and around ports. As the primary users and operators of ports, they're aware of the safety, security, and infrastructure investment needs not only today, but for long-term sustainability and success.

So, as noted earlier at the beginning of this hearing, your written testimony has been made a part of the record. Therefore, we'd ask you to limit your remarks to the time-allotted 5 minutes.

With that, Mr. Fowler, you are recognized for 5 minutes for your testimony.

TESTIMONY OF JAMES C. FOWLER, SENIOR VICE PRESIDENT AND GENERAL MANAGER, CROWLEY SHIPPING; FREDERICK WONG, Jr., DEPUTY PORT DIRECTOR, PORTMIAMI, ON BEHALF OF THE AMERICAN ASSOCIATION OF PORT AUTHORITIES; BRENT D. SADLER, CAPTAIN, U.S. NAVY (RET.), AND SENIOR RESEARCH FELLOW, THE HERITAGE FOUNDATION; ED MCCARTHY, CHIEF OPERATING OFFICER, GEORGIA PORTS AUTHORITY, ON BEHALF OF THE NATIONAL ASSOCIATION OF WATERFRONT EMPLOYERS; AND DAVE MORGAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, COOPER/PORTS AMERICA, ON BEHALF OF THE NATIONAL MARITIME SAFETY ASSOCIATION

TESTIMONY OF JAMES C. FOWLER, SENIOR VICE PRESIDENT AND GENERAL MANAGER, CROWLEY SHIPPING

Mr. FOWLER. Chairman Webster, Chairman Gimenez, Ranking Members Carbajal and Thanedar, members of the committee, I'm honored to appear here today to discuss critical issues concerning port safety, security, and infrastructure investment.

I'm James Fowler, senior vice president and general manager of shipping at Crowley. We're a U.S. owned and operated maritime, energy, and logistics solutions company serving commercial and Government sectors with over 170 vessels, mostly in the Jones Act fleet, and approximately 7,000 employees around the world—employing more U.S. mariners than any other company. The Crowley enterprise has invested more than \$3.2 billion in maritime transport, which is the backbone of global trade in the global economy.

As a ship owner-operator and transportation services provider with more than 130 years of innovation and a commitment to sustainability, Crowley serves customers in 36 nations and island territories. We sincerely appreciate the committees' continued work towards making America's ports the most efficient, safe, and secure in the world.

Crowley has operations in ports along the U.S. east coast and gulf coast, including Gulfport, Mississippi; Mobile, Alabama; Port Everglades and Jacksonville, Florida; Wilmington, North Carolina; and Eddystone, Pennsylvania. These facilities support our U.S. customers as well as customers in Mexico, the Caribbean, and Central America. We also have significant operations in San Juan, Puerto Rico, and in the U.S. Virgin Islands.

While the investigation of the terrible and tragic collapse of the Francis Scott Key Bridge in Baltimore continues, it reminds us all

that safety is of critical importance to the maritime industry and all transportation modes. We also see that our Nation's intricate supply chain is vulnerable to disruption, and industry must continue to work collaboratively with Federal officials to address these issues.

Post-9/11, our industry has made significant changes to operations and procedures to increase security at all of our ports. As a port stakeholder, we take our obligations in this area seriously, and we work closely with a number of Federal agencies, including CBP, the U.S. Coast Guard, and CISA. While the focus over the past 20 years has been on security physical threats, we've become increasingly prepared for cyber threats.

Crowley works closely with both the CISA Maritime Modal Sector Coordinating Council and the Customs Trade Partnership Against Terrorism program to address industry cyber and supply chain concerns.

We're also mindful of the concerns raised over the last year involving cranes manufactured by ZPMC. While Crowley does not own any ZPMC cranes, we know they're extensively used in U.S. ports, including some in which we operate. The recent Executive order on this and other cybersecurity matters brings further attention to the critical role that ports in the maritime sector have in our economy, and Crowley looks forward to working with our Government partners on proposals to strengthen the security and resiliency of our Marine Transportation System.

An important part of maintaining resiliency in our supply chains is ensuring that our Nation's port infrastructure receives the investment necessary to accommodate the movement of trade both now and in the future. Crowley is investing in port electrification in coordination with local, State, and Federal partners, particularly MARAD. Port infrastructure development grants have been critical to expanding electrification efforts in ports like Jacksonville, where we're in the early stages of a project to build out electrical connections for hundreds of refrigerated containers. These improvements will decrease our diesel fuel usage and costs, reduce air and noise pollution, and increase equipment uptime and efficiency.

We've also worked with our public-sector partners to utilize PIDP grant funding for desperately needed upgrades to the Crown Bay Terminal in St. Thomas in the Virgin Islands and to begin construction of New England's flagship offshore wind terminal in Salem, Massachusetts.

PIDP grants should continue to be available and expanded to ensure that we don't lose momentum in addressing the needed port improvements across the U.S.

In conclusion, while progress has been made in addressing various challenges facing the maritime industry, continued vigilance and investment are essential to ensure the safety, security, and resilience of our ports and supply chains. I commend the committees' further dedication to these critical issues and stand ready to collaborate in advancing solutions that strengthen our Nation's Marine Transportation System's infrastructure and competitiveness.

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

[Mr. Fowler's prepared statement follows:]

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Prepared Statement of James C. Fowler, Senior Vice President and General Manager, Crowley Shipping

Chairman Webster, Chairman Gimenez, Ranking Members Carbajal and Thanedar, Members of the Committees, I am honored to appear here today to discuss critical issues concerning port safety, security, and infrastructure investment.

I am James Fowler, Senior Vice President and General Manager of Shipping at Crowley. We are a U.S.-owned and -operated maritime, energy and logistics solutions company serving commercial and government sectors with over 170 vessels, mostly in the Jones Act fleet, and approximately 7,000 employees around the world—employing more U.S. mariners than any other company. The Crowley enterprise has invested more than \$3.2 billion in maritime transport, which is the backbone of global trade and the global economy. As a ship owner-operator and transportation services provider with more than 130 years of innovation and a commitment to sustainability, Crowley serves customers in 36 nations and island territories. We sincerely appreciate the Committees continued work toward making America's ports the most efficient, safe, and secure in the world.

PORT SAFETY

While Crowley is not primarily a port operator, we do have extensive operations in ports along the U.S. East and Gulf Coasts including in Gulfport, MS; Mobile, AL; Port Everglades and Jacksonville, FL; Wilmington, NC; and Eddystone, PA. These facilities support our U.S. customers as well as customers in Mexico, the Caribbean, and Central American. We also have significant operations in San Juan, Puerto Rico and in the U.S. Virgin Islands.

At Crowley we have a company-wide safety culture that is imbedded in everything we do. Every employee has the authority and obligation to stop work if they believe it is not safe. Each Crowley meeting or shift change begins with a *Safety Moment*—a brief pause to share a safety tip or idea about how to improve our safety performance. This practice is part of our commitment to continual improvement when it comes to safety and helps us develop new ideas for safety procedures and reinforces the role that safety plays in our performance as a company.

While the investigation of the terrible collapse of the Francis Scott Key Bridge in Baltimore continues, it reminds us all that safety is of critical importance to the maritime industry and all transportation modes. We also see that our Nation's intricate supply chain is vulnerable to disruption and industry must continue to work collaboratively with federal officials to address these issues.

PORT SECURITY

Post 9/11 we as an industry have made significant changes to operations and procedures to increase security at all our ports. As a port stakeholder we take our obligations in this area seriously and we work closely with a number of federal agencies including CBP, the U.S. Coast Guard and CISA. While the focus over the past 20 years has been on physical security threats, we are becoming increasingly aware and prepared for cyber threats. Crowley works closely with both the CISA Maritime Modal Sector Coordinating Council and the Customs Trade Partnership Against Terrorism (CTPAT) program to discuss and work to address industry cyber and supply chain concerns.

We are also mindful of concerns raised over the last year involving cranes manufactured by ZPMC. While Crowley does not own any ZPMC cranes we know they are used extensively at U.S. ports, including some in which we operate. The recent Executive Order on this and other cybersecurity matters brings further attention to the critical role ports and the maritime sector have in our economy, and Crowley looks forward to working with our government partners on proposals to strengthen the security and resiliency of our marine transportation system.

PORT INFRASTRUCTURE

An important part of maintaining resiliency in our supply chains is ensuring that our Nation's port infrastructure receives the investment necessary to accommodate the movement of trade both now and in the future. For Crowley looking toward the future we are investing in port electrification efforts in coordination with local, state, and federal partners, particularly MARAD. Port Infrastructure Development Grants (PIDP) have been critical to expanding electrification efforts in ports like Jacksonville, where we are in the early stages of a project to build out electrical con-

nections for hundreds of refrigerated containers. These improvements will decrease our diesel fuel usage and costs, reduce air and noise pollution, and increase equipment up-time and efficiency.

We have also worked with our public sector partners to utilize PIDP grant funding for desperately needed upgrades to the Crown Bay Terminal on St. Thomas in the U.S. Virgin Islands and to begin construction of New England's flagship offshore wind terminal in Salem, Massachusetts. We believe PIDP grants should continue to be available and expanded to ensure we do not lose momentum in addressing needed port improvements across the U.S.

CLOSING

In conclusion, while progress has been made in addressing various challenges facing the maritime industry, continued vigilance and investment are essential to ensure the safety, security, and resilience of our ports and supply chains. I commend the committees for their dedication to these critical issues and stand ready to collaborate in advancing solutions that strengthen our nation's marine transportation system's infrastructure and competitiveness. Thank you for the opportunity to testify today and I look forward to your questions.

Mr. WEBSTER OF FLORIDA. Thank you very much.
Mr. Wong, you're recognized for 5 minutes.

TESTIMONY OF FREDERICK WONG, JR., DEPUTY PORT DIRECTOR, PORTMIAMI, ON BEHALF OF THE AMERICAN ASSOCIATION OF PORT AUTHORITIES

Mr. WONG. Good morning, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, and Congressman Cohen.

My name is Fred Wong. I'm the deputy port director here at PortMiami. And Miami welcomes you all, and we appreciate you guys addressing critical topics in the maritime transportation system. I respectfully ask that my written testimony be read into the record, sir.

Mr. WEBSTER OF FLORIDA. Without objection, duly done.

Mr. WONG. Thank you. Before I begin, I want to extend my condolences to the families of those lost in the collapse of the Baltimore Key Bridge last week. Our Nation's port industry stands with Baltimore now.

My testimony is given on behalf of the American Association of Port Authorities, AAPA. AAPA represents over 80 U.S. ports on urgent and pressing issues facing our industry, promoting common interests of the port community, and providing critical industry leadership on security, trade, port development, and other operational issues.

According to Ernst & Young, ports moved \$5.4 trillion in imports and exports, or roughly 20 percent of the U.S. economic activity, while supporting 2.5 million jobs.

Ports need robust Federal funding and streamlined construction to expand capacity and reduce emissions at every point in our operations. We simply cannot do this without your Federal support. The ports are concerned because the annual appropriations in the President's budget request for the Port Infrastructure Development Program have all decreased. The President's budget request was lowered by \$150 million, and the appropriations for PIDP was lowered from \$212 million in FY 2023 to only \$50 million in FY 2024 for competitive grants.

Although ports mainly operate independently, they are part of a larger system. A crisis at one port, such as Baltimore, means that all the other ports must absorb all the other cargo flow. The Committee on the Marine Transportation System estimates that every dollar spent on our maritime supply chain returns \$3 of economic activity. We ask Congress to fund port infrastructure projects at a level on par with other modes of transportation across the globe.

To significantly improve project delivery at all ports, the PORT Act has been referred to the Transportation and Infrastructure Committee. This bill will allow MARAD to expand the list of categorical exclusions and increase access to the Federal Permitting Improvement Steering Council.

We are partners with the U.S. Customs and Border Protection, and shortages of CBP officers and agriculture specialists are a chronic problem with most of our seaports. CBP's workload staffing model reveals a deficit of 1,750 officers and 250 agriculture specialists nationally. This deficit significantly impacts processing time at our seaports.

CBP also faces funding shortages for their Federal inspection facilities at our ports. In recent years, CBP has turned to our port authorities to pay for major upgrades and new facilities, which is unsustainable. We thank Congresswoman Lee for introducing the CBP SPACE Act, which will allow CBP to access existing user fees to fund their Federal facilities at seaports and sets guidelines around what ports are expected to provide.

At all of our seaports, cybersecurity is our top priority. We thank Chairman Gimenez for his leadership on maritime security. As the U.S. Coast Guard sets MARSEC Directives, we're requiring certain cybersecurity standards for the maritime sector. AAPA members are weighing in on the Notice of Proposed Rulemaking to ensure regulations comport with facility operations while keeping our industry protected.

Ports are cognizant of the increased use of connected equipment, including ship-to-shore gantry cranes. While our industry works on long-term solutions such as reshoring manufacturing of critical cargo handling equipment, ports and maritime terminals have taken steps to ensure the safety and security of our operations.

Last year, after touring PortMiami with Chairman Gimenez, Congressman Gallagher, chairman of the Select Committee on the Chinese Communist Party, said that he felt that ports were doing what they needed to do to mitigate potential risk only in the short term. The Port Security Grant Program is the only program dedicated to port security improvements and upgrades, but funding has dropped significantly, and we ask Congress to increase the PSGP funding, as well.

As hubs to commerce and trade, our U.S. seaports continue to contribute to the Nation's supply chain. Thank you for the opportunity to testify on behalf of AAPA today, and I look forward to answering your questions, Mr. Chair.

[Mr. Wong's prepared statement follows:]

**Prepared Statement of Frederick Wong, Jr., Deputy Port Director,
PortMiami, on behalf of the American Association of Port Authorities**

Good morning, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, and members of the Subcommittees.

My name is Frederick Wong, and I serve as the Deputy Port Director for PortMiami. Thank you for coming to Miami to address critical topics in the maritime transportation system.

Before I begin, I want to extend my condolences to the families of those lost in the collapse of the Baltimore Key Bridge last week. This tragedy highlights how fragile our supply chain is and how flexible and resilient our industry is. The nation's port industry is standing with Baltimore right now.

ABOUT PORTS AND AAPA

My testimony is given on behalf of the American Association of Port Authorities (AAPA) from the Atlantic, Pacific, and Gulf coasts, the Great Lakes, in Alaska, Hawaii, Puerto Rico, Guam, and the U.S. Virgin Islands. Today, in our nation's capital, AAPA represents over 80 U.S. ports on urgent and pressing issues facing our industry, promoting common interests of the port community, and providing critical industry leadership on security, trade, transportation, infrastructure, environmental, and other port development, and operational issues.

Our U.S. seaports deliver vital goods to consumers, facilitate the export of American made goods, create jobs, and support our local and national economic growth. Ports also have a crucial role in our national defense. This is evident by the designation of 18 "strategic military seaports of significance" by the Department of Defense.

According to Ernst and Young, ports moved \$5.1 trillion dollars in imports and exports in 2023, this represents roughly 20 percent of the U.S. economic activity. The port and maritime industry sustains 2.5 million jobs and has an economic impact of \$311 billion dollars to the U.S. economy.

INFRASTRUCTURE FUNDING

Ports need robust Federal funding to build and maintain their infrastructure. To remain competitive in a global market, we need to expand capacity, purchase more efficient equipment, improve roadways and rail, and reducing emissions at every point in our operations. We simply cannot do this without Federal support.

Although ports are eligible for funding through the U.S. Department of Transportation's INFRA, RAISE, CRISI, and other grants, our signature funding source is the Port Infrastructure Development Program (PIDP), administered by the Maritime Administration (MARAD).

The Ports are concerned because the annual appropriations, authorizations, and the President's Budget Request for PIDP have all decreased. Last year, MARAD lowered the PIDP authorization from \$750 million to \$500 million. The President's Budget Request was lowered from \$230 million to \$80 million. And the appropriation for PIDP was lowered from \$212 million in FY23 to only \$50 million dollars in FY 24 for competitive grants.

Although ports mainly operate independently, they are part of a much larger system. A crisis at one port such as Baltimore, means that other ports across the country must absorb the cargo flow—as we are seeing right now up and down the East Coast. Ports are always planning for growth and for potential disruptions.

Competitive grant funding for ports is an investment in the safety, security, and resilience of the American supply chain. The Committee on the Maritime Transportation System estimates that every dollar spent on our maritime supply chain returns three dollars in economic activity. We ask Congress to fund port infrastructure projects at a level on par with other modes of transportation across the globe.

Infrastructure projects are not limited to land. Ports rely on the Army Corps of Engineers to deepen and maintain Federal navigation channels. We need to ensure the Army Corps has the resources required to deepen and widen our harbors and turning basins for safe navigation, and to conduct routine maintenance to allow commerce to flow year-round.

PERMITTING REFORM

Federal funding is not only a must but the ability to spend those funds efficiently is critical. Unnecessary delays in project construction add significant costs to the port or local project sponsor. These additional costs compel ports to either delay or halt other projects preventing the port from growing.

The PORT Act (H.R. 7587) is currently before the Transportation and Infrastructure Committee and was introduced by members of the Committee. This bill would allow MARAD to update its list of Categorical Exclusions, allow the use of other agencies' Categorical Exclusions, and expand access to the "Federal Permitting Improvement Steering Council", among other policies. This bill, along with the reforms in the "Fiscal Responsibility Act", will significantly improve project delivery at all ports.

SECURITY INFRASTRUCTURE

Ports work hand-in-hand with the Federal Government to keep our country secure. Ports-of-entry are borders too. We are partners with the U.S. Customs and Border Protection (CBP), and they need the staff and resources to process the cargo and passengers at maritime facilities and port-of-entries into the United States.

Shortages of CBP officers and agriculture specialists are a chronic problem at seaports. CBP's Workload Staffing Model reveals a deficit of 1,750 officers and 250 agriculture specialists. This deficit significantly impacts processing times, adding an additional bottleneck to ports, and limiting our ability to keep up with long-term growth in trade and travel.

CBP also faces funding shortages for their federal inspection facilities at ports. In recent years, CBP has turned to port authorities to pay for major upgrades and new facilities. This shifts the burden of financing their inspection mission from the Federal Government onto the ports. This is unsustainable.

We thank Congresswoman Lee for introducing the CBP SPACE Act (H.R. 6409) which will allow CBP to use existing user fees to fund their federal inspection operations at seaports and set guidelines around what ports are expected to provide.

CYBERSECURITY

At all ports, cybersecurity is a top priority. A critical attack on any of these systems could have devastating economic consequences or even a loss of life. The Maritime Transportation System needs resources to continue to harden IT systems to prevent attacks and to respond appropriately when an attack does occur. We thank Chairman Gimenez for his leadership on maritime cybersecurity issues.

Our industry works closely with the U.S. Coast Guard to mitigate and report all cyber threats. As the Coast Guard sets Marsec Directives requiring certain cybersecurity standards for the maritime sector, AAPA members are weighing in to the Notice of Proposed Rule Making (NPRM) to ensure regulations comport with facility operations while keeping our industry protected.

Ports are cognizant about the increased use of connected equipment—including ship-to-shore gantry cranes. While our industry works on long-term solutions such as reshoring manufacturing of critical cargo handling equipment, ports and Marine Terminal Operators have taken steps to ensure the safety and security of their operations. This includes replacing stock IT and Operating Terminal systems on cranes; working with the U.S. Coast Guard, other federal authorities, and private companies to inspect crane systems; segmenting cranes from each other and from public networks; and limiting access to crane systems, both physically and virtually. Last year, after touring PortMiami, Congressman Mike Gallagher, Chairman of the Select Committee on the Chinese Communist Party, said he felt ports were doing what they needed to do to mitigate potential risks in the short-term.

The Port Security Grant Program (PSGP) is the main method by which ports and related groups can make large scale security upgrades to their facilities. The PSGP was created shortly after 9/11 as Congress realized that ports—as critical infrastructure—were vulnerable to threats. However, in the ensuing years, PSGP funding has dwindled to a fourth of its highest appropriated amount. We ask Congress to increase PSGP funding to cover more port projects and ensure that ports are the main recipient of PSGP awards.

CONCLUSION

As hubs to commerce and trade, our U.S. seaports stand ready to continue to contribute to the nation's supply chain. Thank you for the opportunity of testifying on behalf of AAPA today. I look forward to answering any questions you may have.

Mr. WEBSTER OF FLORIDA. Thank you.
Mr. Sadler, you're recognized for 5 minutes.

**TESTIMONY OF BRENT D. SADLER, CAPTAIN, U.S. NAVY (RET.),
AND SENIOR RESEARCH FELLOW, THE HERITAGE FOUNDATION**

Mr. SADLER. Thank you very much. And, again, distinguished Members of Congress, thank you for the opportunity to appear before you in this great city and the Port of Miami. And as a sailor, I've got to say, thank you again for hosting next month's Fleet Week. And as a sailor, I certainly didn't need another excuse, a good excuse to come to Miami, which I will take advantage of.

And the Port of Miami does stand out. I think it's worth kind of commenting a little bit. As it looks to grow its market presence and lead in smart port technology, it has welcomed the world's largest cruise ship, the *Icon of the Seas*. And it can service some of the largest containerships, the Neopanamax containerships.

Sadly, however, the Nation's maritime sector is not as healthy as it needs to be. The American public has become increasingly aware that assumptions their store shelves and gas stations will be stocked can no longer be taken for granted. Since leaving COVID lockdowns, shipping backlogs have ensued, at times due to decisions in Beijing.

In 2021, grounding of a containership shut down the Suez Canal, grain supply disruptions due to the war in Ukraine, Houthi attacks in the Red Sea, and the incident last week, the very unfortunate sad incident last week in the Baltimore Harbor, are making the case that our prosperity, which relies to a great extent on maritime trade, is not as secure as it once was.

No U.S. port ranks in the top 25 of nations in cargo handling. China holds eight of those spots. Asia has the most new commercial shipping entrants, led again by China. The point is not that our ports don't meet today's need in general, but a lack of competitiveness has not generated a vibrancy to modernize nor attract and recruit new mariners and shipyard workers as needed.

One consequence of this malaise is on display in Baltimore Harbor where last week the containership *Dali* collided with the Key Bridge and the unfortunate killing of six people. While investigations and recovery operations are ongoing, and it will be some time before we know all the facts, it's clear our Nation's maritime industrial sector has not been treated as the strategic asset that it is. One only has to look at the limited salvage capacity on hand to reopen the Nation's ninth port.

I go into greater detail about this in my statement. But in short, a national maritime initiative is needed to rectify our overreliance on nonfriendly nations to sustain our economy and ensure safe maritime operations. Such an act would, first, provide adequate American-flag commercial shipping; second, expand shipbuilding repair and salvage capacities and associated workforce; third, harden maritime infrastructure and shipping to cyber attack and material damages.

On the first, existing approaches are inadequate. Change is needed, but only while taking a maritime Hippocratic Oath to do no harm to the legacy Jones Act domestic maritime industrial sector. At the same time, the March 12th petition against unfair Chinese trade practices in the maritime logistics and shipbuilding sectors is an opportunity—an opportunity to not only strengthen U.S. agen-

cies like the Federal Maritime Commission to press America's case, but to rally international support.

Delivering on the second, a stronger and global competitive maritime sector serves as a deterrent to Chinese economic coercion and military ventures. This can be done by fostering a revolution in shipping through a new multimodalism. Achieving this, American trade can proceed with greater confidence and resiliency and better sustain our military.

Lastly, and perhaps most relevant, due to recent events, legal and regulatory frameworks of the post-9/11 era should be reviewed with an eye to adjusting to the new Cold War that we find ourselves in with China. To start with, the Maritime Security Act of 2002, the Container Security Initiative, and the Proliferation Security Initiatives should be updated with China in mind, while placing into law measures of both the 2020 National Maritime Cybersecurity Plan and the recently enacted Executive order to ensure measures that are taken today are sustained which bolster our maritime sector's cyber defenses.

Safeguarding the Nation's ports, economy, and defense requires a national maritime initiative, which begins with an update to the 1989 National Security Directive on Sealift and enabling legislation from Congress that hardens the Nation's maritime infrastructure, strengthens U.S. ability to combat unfair Chinese maritime practices and regain American maritime competitiveness, creates maritime prosperity zones, establishes a maritime innovation incubator, trains more mariners and incentivizes those mariners who maintain their certifications, and creates a naval guard for disaster response as well as crisis management.

This is not easy nor cheap, but failing to address the Nation's sea blindness will further place our Nation's economic and national security in the hands of nonfriendly parties. Thank you again, and I look forward to the questions.

[Mr. Sadler's prepared statement follows:]

**Prepared Statement of Brent D. Sadler, Captain, U.S. Navy (Ret.), and
Senior Research Fellow, The Heritage Foundation**

SECURING AMERICA'S MARITIME SECURITY: A NATIONAL MARITIME INITIATIVE TO
REGAIN AMERICAN MARITIME COMPETITIVENESS

Bottom Line Up Front: The nation has for too long relied on less than friendly nations to transport its trade and has failed to adequately invest in its maritime industrial sector—to include its ports. The costs of this neglect are plainly visible today, with the nation's security and continued prosperity at risk. The recent allision by container ship *Dali* into Baltimore's Francis Scott Key bridge and the subsequent loss of life is only the most recent symptom of this neglect.

Today our nation's prosperity sails on others' ships, while our ports rely on suspect Chinese cranes, and potentially compromised logistic software that risks more than trade. From our ports sails the supplies needed to sustain military operations defending America's interests and citizens. Moreover, our ports and commercial ships serve a critical role in any disaster response, moving critical supplies to areas hit hard such as Puerto Rico by 2017's category five hurricane Maria.

Our maritime situation is a strategic vulnerability, that China could use as leverage against us. In fact, a Chinese proverb says it best with a slight twist this time with the borrower (U.S.) disadvantaged:

借船出海 - "Borrowing a boat to go out on the Ocean"

Key Vulnerabilities:

Reliance on foreign shipping. Of the more than 80,000 ships arriving at American ports, fewer than 200 are U.S.-flagged, -owned, and -crewed.¹ In a war, the Department of Defense concluded in a 2020 Mobility Capabilities Requirement Study that there is insufficient US Flag tanker capacity to meet defense requirements, necessitating enduring need for foreign flag tankers. This shortfall was confirmed in April 2023 testimony by the current Commander of Transportation Command, and while the specific numbers are classified it has been reported that over 80 tankers would be needed—it is unlikely this number considers the upward demand on tankers from closure of Red Hill fuel depot in Hawaii.² This says nothing of the need for sustaining a wartime national economy which would add considerably to the required number of tankers, as well as bulk carriers and container ships not accounted for. Making matters worse, a fractured domestic energy logistic network makes getting fuel to where it is needed tenuous. For instance, New England has almost no pipeline connectivity to domestic sources, and the existing pipelines are maxed out. These are also prone to cyber-attack as demonstrated by a successful May 2021 attack on the Colonial Pipeline. That incident stopped for six days critical energy flows from Gulf Coast refineries to New York City.³ This situation makes movement of fuel by ship critical for sustaining parts of the nation, which in wartime that shipping may not be readily available.

Limited U.S. port infrastructure. Ports in the U.S. able to service the large container ships (i.e. Panamax and bigger) and tankers is limited due to access to rail, water depth, piers, and crane services. This makes the loss of any one of these ports a significant disruption to the national economy and security. For example, the Port of Houston handles just over 70 percent of all maritime container trade in the Gulf coast region.⁴ Such a disruption is playing out now with the closure of Baltimore harbor due to the March 26, 2024, allision already mentioned. Added to limited number of viable ports, specialization has also made the loss of some ports hard to make up in others—case in point, Baltimore is a major port for automotive exports and imports.⁵ Despite the importance of our waterways and ports to the nation's economic and security well-being, the much championed Build Back Better effort has only resulted in relative minuscule amounts of funding. For example, at the end of 2023, after two years and \$400 billion dollars spent, ports and waterways accounted for 4.3% of total budget and 1.1% of the total projects supported.⁶

¹In 2015 the Maritime Administration stated there were 82,044 port calls in U.S. ports, as of January 1, 2024 (last MARAD report) there are currently 185 U.S. flagged ships with 167 militarily useful. Brent Droste Sadler, U.S. Naval Power in the 21st Century: A New Strategy for Facing the Chinese and Russian Threat (Annapolis: Naval Institute Press, 2023), pp. 1–2 and 239–250.

²Caitlin M. Kenney, "Tanker program adds 9 ships to fuel US military in a crisis," Defense One, July 27, 2023, <https://www.defenseone.com/policy/2023/07/tanker-program-adds-9-ships-fuel-us-military-crisis/388924/> (accessed April 1, 2024). HEARING TO RECEIVE TESTIMONY ON THE POSTURE OF UNITED STATES EUROPEAN COMMAND AND UNITED STATES TRANSPORTATION COMMAND IN REVIEW OF THE DEFENSE AUTHORIZATION REQUEST FOR FISCAL YEAR 2024 AND THE FUTURE YEARS DEFENSE PROGRAM, April 27, 2023, pg. 14–15, https://www.armed-services.senate.gov/imo/media/doc/23-39_04-27-2023.pdf (accessed April 1, 2024).

³Kevin DeCorla-Souza, Matt Gilstrap, and CeCe Coffey, "East Coast and Gulf Coast Transportation Fuels Markets," EIA, February 2016, pg. 32, https://www.eia.gov/analysis/transportationfuels/padd1n3/pdf/transportation_fuels_padd1n3.pdf (accessed January 31, 2023) and EIA, "Planned shutdown of Philadelphia refinery will change gasoline and diesel supply patterns for the U.S. East Coast," This Week in Petroleum, July 3, 2019, https://www.eia.gov/petroleum/weekly/archive/2019/190703/includes/analysis_print.php (accessed January 31, 2023).

⁴"Trade Highlights and Performance Data," Port of Houston, 2022, <https://porthouston.com/about/our-port/statistics/> (accessed April 1, 2024).

⁵"2023 Foreign Commerce Statistical Report," Port of Baltimore, 2023, pg. 1, 7 and 10, <https://mpa.maryland.gov/Documents/2023FCSR.pdf> (accessed April 1, 2024). "Top 14 Busiest Container Ports in the United States," GoComet, February 25, 2024, <https://www.gocomet.com/blog/top-container-ports-in-the-united-states/> (accessed April 1, 2024).

⁶"FACT SHEET: Biden-Harris Administration Celebrates Historic Progress in Rebuilding America Ahead of Two-Year Anniversary of Bipartisan Infrastructure Law," The White House, November 9, 2023, <https://www.whitehouse.gov/briefing-room/statements-releases/2023/11/09/fact-sheet-biden-harris-administration-celebrates-historic-progress-in-rebuilding-america-ahead-of-two-year-anniversary-of-bipartisan-infrastructure-law/> (accessed April 1, 2024).

Zero-day dangers in shipyard cranes. Recent reporting has exposed the potential cyber vulnerability built into Chinese sourced heavy lift cranes at U.S. ports. Chinese manufacturer, ZPMC, holds a dominant position in the global crane market, accounting for more than 70 percent of all ship-to-shore container cranes at U.S. ports.⁷ While not uncommon for heavy equipment to have such features for predictive maintenance, the option for including these feature were not part of their purchase agreements. This raises serious concerns given recent reporting by U.S. Coast Guard Cyber Command of long running, concerted Chinese effort to access critical U.S. infrastructure, most notably the recent Chinese cyber-attack known as Volt Typhoon.⁸ Recent efforts have done much to expose this vulnerability but compromised cranes are not the only vector available for cyber espionage and attack.

China's LOGINK digital logistics risk. Global transportation of goods occurs over various logistic functionalities; freight forwarding services, container/shipment tracking, and national customs data submissions via Port Single Windows. As a logistics management platform, LOGINK was designed to improve cost efficiency of shipping cargo by consolidating various data streams, including price and tracking information. From inception in 2007, LOGINK has been a product of the Chinese Communist Party (CCP), with stewardship since 2019 being the Ministry of Transportation's (MOT) China Transport Telecommunication & Information Center (CTTIC [Editor's note: pinyin omitted]). To encourage LOGINK adoption overseas, the CCP has offered LOGINK free of charge; since 2010 it has been adopted at over 20 ports in Japan, South Korea, Malaysia, Portugal, Spain, United Arab Emirates, Ukraine, Israel, Latvia, Netherlands and Germany.⁹ Widespread adoption of LOGINK standards would provide the CCP a vector to access logistic and trade data, potentially even manipulating data or severing access. Similar non-Chinese logistic management platforms include: Flexport, FreightPOP, Shipwell, Freightview and DHL Salodoo. However, none of these approaches the scope of sources of LOGINK, but competitors like Gnosis Freight offer a compelling alternative as it grows its access to more data streams and customers. Should LOGINK be adopted in the U.S. it would be subject to the Ocean Shipping Reform Act of 2022.¹⁰ That Act, empowers the Federal Maritime Commission to regulate shipping exchanges beginning from 2025; as of April 1, 2024 LOGINK is not registered.¹¹ CCP control of LOGINK poses a national security risk and exposure to predatory market behavior. U.S. antitrust law has struggled to address China anti-competitive behavior, especially Chinese State-Owned Enterprises (SOE), which have claimed sovereign immunity pursuant to the U.S. Foreign Sovereign Immunities Act (FSIA).¹²

Navigational GPS spoofing. In 2019 Iran spoofed the navigation system of the British tanker *Stena Impero* in the Strait of Hormuz.¹³ The ship's crew thought they were in international waters when they were actually in Iranian territory. The ship and its crew were held for 10 weeks by Iran. The same year, NATO military exercises in the Baltic Sea were disrupted by Russian GPS spoofing. Good navigational practices would dictate system redundancies and independent backup navigational positioning (e.g. radar fixes, visual fixes, running fixes) to prevent incidents such as the *Stena Impero*. That said, sophisticated GPS and other navigational spoofing is a risk that calls for enforcement of sound navigational practices and backup measures to ensure ships safely navigate U.S. restricted waters.

Fuel tampering and contamination. The March 26, 2024, allision of container ship *Dali* into the Francis Scott Key bridge in Baltimore has raised the specter of tampered fuel. Speculation over fuel contamination on the *Dali* emerged after an exclusive report in The Wall Street Journal cited a U.S. Coast Guard briefing that talked

⁷"Chinese-Built Port Cranes May Be Able to Call Home On Their Own," The Maritime Executive, March 7, 2024, <https://maritime-executive.com/article/chinese-built-port-cranes-may-be-able-to-call-home-on-their-own> (accessed April 1, 2024).

⁸Testimony of Rear Admiral John Vann, U.S. Coast Guard Cyber Command, "Port Cybersecurity: The Insidious Threat U.S. Maritime Ports," Subcommittee on Transportation and Maritime Security, February 29, 2024, 34min. 21sec., <https://homeland.house.gov/hearing/subcommittee-on-transportation-and-maritime-security-hearing/> (accessed April 1, 2024).

⁹"LOGINK: Risks from China's Promotion of a Global Logistics Management Platform," U.S.-China Economic and Security Review Commission, September 20, 2022, pg. 8-9, https://www.uscc.gov/sites/default/files/2022-09/LOGINK-Risks_from_Chinas_Promotion_of_a_Global_Logistics_Management_Platform.pdf (accessed April 1, 2024).

¹⁰Ocean Shipping Reform Act of 2022, Public Law No: 117-146

¹¹Federal Maritime Commission, April 1, 2024, <https://www2.fmc.gov/FMC1Users/scripts/ExtReportsTOC.asp> (accessed April 1, 2024).

¹²Foreign Sovereign Immunities Act U.S. Code 28 §§ 1603

¹³"MARAD Warns of Iranian GPS Jamming in Strait of Hormuz," The Maritime Executive, August 9, 2019, <https://maritime-executive.com/article/marad-warns-of-iranian-gps-jamming-in-strait-of-hormuz> (accessed April 1, 2024).

of the engines sputtering and a smell of burned fuel in the engine room.¹⁴ While investigations are ongoing, it cannot be ruled out that improper fuel loading or handling could just as likely be to blame for the loss of ship's power. Typically, commercial ships use higher grade fuels in port to meet environmental requirements as well as for greater reliability, shifting to lower grade fuels once in the open ocean. If the fuels were switched while still navigating in port it would represent a procedural violation as well as an opportunity for human operational error at a critical navigational moment. Finally, improper maintenance or poor material conditions could also lead to the loss of propulsion and warrants further investigation. In this case, the consequence of the allision is the loss of six lives, billions of dollars in damages, and the shuttering of the ninth largest U.S. port.

Not Enough Mariners and Shipyard Workers. Too few mariners and shipyard workers has had a deleterious effect on attempts to grow the maritime industry. Moreover, too few American merchant mariners means the nation is too reliant on foreign sealift to meet military operational needs as well as sustain a wartime economy. A 2017 study released by the U.S. Maritime Administration pointed out that the nation had a deficit of 1,839 certified and fit-for-service mariners in case of war—the actual deficit is unknown and likely higher as the 2017 estimate was to support military operations and not to sustain a wartime economy. As that merchant mariner population retires (in 2021 the average American merchant mariner was 47 years old) as the nation's need for sealift grows proportional to a potential war with China, the mariner deficit today is likely much worse. Commercial shipyards and naval shipbuilders alike have faced endemic workforce shortages. This is driven by several factors: uncompetitive wages, too few young workers willing to work in the challenging conditions of America's antiquated waterfronts, and too few Americans with the requisite technical skills (e.g. naval architects, welders, pipe fitters, etc.). The effect has been to outsource American shipping and shipbuilding, and maintenance to Chinese ports. The most notable in the recent past has been U.S. company Matson retrofitting three of its container ships by China's COSCO.¹⁵ While doing repairs or procuring commercial ships from China may be cheaper, it poses a potential vector for material and cyber-attacks and furthers dependencies on a rival nation.

A FEW PORT SAFETY AND SECURITY THOUGHTS ON THE ALLISION IN BALTIMORE:

While it has already been mentioned, the allision of the *Dali* in Baltimore harbor provides several key considerations for port safety and security. Reviewing these in brief:

1. Potential fuel contamination and/or improper handling remains a risk for large commercial ships losing power in constrained waterways. The consequence is collision with other vessels or damage to critical maritime infrastructure (e.g. bridge, gas pipelines).
2. Loss of power on today's very large container ships, represents a hazard that most U.S. infrastructure has not been designed to withstand—the 1977 build Francis Scott Key bridge is a case in point and had no barriers (i.e. dolphins) protecting the bridge's supports and contributed to its collapse. As such, critical ports must be ready to clear their restricted waterways of obstructions (e.g. collapsed bridges, sunk ship etc.) rapidly to resume port operations. In a conflict or natural disaster, delays to regaining operations could be fatal. An example of what is needed are the floating cranes that began arriving on scene several days after the *Dali* incident to remove bridge debris and free the *Dali*.¹⁶ Additionally, the opening of a temporary channel in Baltimore to resume limited harbor operations also points to the need to having dredging equipment nearby as well.¹⁷

¹⁴"Investigators Check *Dali*'s Fuel with Speculation of Possible Contamination," The Maritime Executive, March 28, 2024, <https://maritime-executive.com/article/investigators-check-dali-s-fuel-with-speculation-of-possible-contamination> (accessed April 1, 2024).

¹⁵"Matson Proceeding with Third LNG Conversion for its Containerships," The Maritime Executive, February 6, 2024, <https://maritime-executive.com/article/matson-proceeding-with-third-lng-conversion-for-its-containerships> (accessed April 1, 2024).

¹⁶"Navy barges assist in removing collapsed Baltimore bridge from river," Stars and Stripes, March 31, 2024, <https://www.stripes.com/branches/navy/2024-03-31/navy-barges-baltimore-bridge-collapse-13461242.html> (accessed April 1, 2024).

¹⁷Alejandra Salgado, "Baltimore preps small, temporary channel for essential vessel transit," SupplyChainDive, April 1, 2024, <https://www.supplychaindive.com/news/port-baltimore-alternate-shiping-channel-reopen-operations-debris-cleanup/711863/> (accessed April 1, 2024).

3. Cyber-attacks have not been adequately investigated in shipping incidents. The December 2020 National Maritime Cybersecurity Plan was intended to address these vulnerabilities in the maritime sector, and would have required forensic cyber-attack investigations.¹⁸ While terrorism was ruled out quickly in the *Dali* allision, due diligence investigating cyber-attacks are time consuming and require exquisite skills to detect and have until recently been resisted. A month before the *Dali* allision, the White House issued an executive order to bolster cybersecurity of U.S. ports that granted additional authorities to the U.S. Coast Guard.¹⁹ The day after this order was issued, the U.S. Coast Guard posted proposed cyber security regulation changes for public comment which will conclude on April 22, 2024.²⁰
4. China sourced parts and ship maintenance done in China provides a potential vector for material tampering that could enable future cyber-attack. The case of modems discovered on ZPMC cranes represents only the first of likely more cases. After a prolonged period of review, finally, on the same day the President signed the maritime cyber security executive order, a maritime advisory was issued on LOGINK and ZPMC cranes.²¹ Future advisories should be expected, with the *Dali* investigation serving as a potential benchmark.
5. After the *Dali*'s allision, the bridge debris wedged the ship on the harbor bottom and against high pressure gas lines.²² This raises another port safety and security concern, and how to harden this submerged critical infrastructure to damage from today's larger vessels and potential attack. Finally, the mishap investigation should verify Baltimore Port executed effectively its security plans as mandated by the Maritime Transportation Security Act of 2002, specifically regarding securing the gas pipeline after the allision, and assessments of the Francis Scott Key bridge to resist an allision from modern container ships.
6. In what is an unusual occurrence, the ship's Voyage Data Recorder (VDR)—otherwise known as the ship's black box—stopped recording sensor data at a key moment of the incident.²³ While audio recording continued on backup power, the loss of sensor data should be investigated and remedies offered to prevent future occurrences that may hinder future mishap investigations.

ACTIONS TO DATE NOT ENOUGH—TIME FOR A NATIONAL MARITIME INITIATIVE

Our ports are the gateway to the nation's prosperity and security and are an integral part of a strategically important maritime industrial sector. Safeguarding our ports necessarily means bolstering our maritime resiliency to attack as well as supply chain disruptions, man-made or by an act of God. Doing this will require a national maritime initiative that:

- Provides an adequate American flagged commercial shipping fleet to sustain the nation in a major war; augmented by treaty ally shipping as required.
- Expands shipbuilding and repair capacities and associated workforce to mitigate over-reliance on China or non-friendly nations.
- Hardens maritime infrastructure and shipping to cyber-attack and material damage.

¹⁸ Donald J. Trump, "The National Maritime Cybersecurity Plan," The White House, December 2020, pg. 4–5, <https://trumpwhitehouse.archives.gov/wp-content/uploads/2021/01/12.2.2020-National-Maritime-Cybersecurity-Plan.pdf> (accessed April 1, 2024).

¹⁹ Joseph R. Biden, "Executive Order on Amending Regulations Relating to the Safeguarding of Vessels, Harbors, Ports, and Waterfront Facilities of the United States," The White House, February 21, 2024, <https://www.whitehouse.gov/briefing-room/presidential-actions/2024/02/21/executive-order-on-amending-regulations-relating-to-the-safeguarding-of-vessels-harbors-ports-and-waterfront-facilities-of-the-united-states/> (accessed April 1, 2024).

²⁰ "Cybersecurity in the Marine Transportation System," U.S. Coast Guard, February 22, 2024, <https://www.federalregister.gov/documents/2024/02/22/2024-03075/cybersecurity-in-the-marine-transportation-system> (accessed April 1, 2024).

²¹ "2024-002-Worldwide-Foreign Adversarial Technological, Physical, and Cyber Influence," Maritime Administration, February 21, 2024, <https://www.maritime.dot.gov/msci/2024-002-worldwide-foreign-adversarial-technological-physical-and-cyber-influence> (accessed April 1, 2024).

²² Brandon M. Scott, "March 31st Update from Key Bridge Response Unified Command," City of Baltimore, March 31, 2024, <https://mayor.baltimorecity.gov/news/press-releases/2024-03-31-march-31st-update-key-bridge-response-unified-command> (accessed April 1, 2024).

²³ Gary Howard, "What *Dali*'s black box recorder tells us about Baltimore bridge allision," Seatrade Maritime, April 1, 2024, <https://www.seatrade-maritime.com/casualty/what-dalis-black-box-recorder-tells-us-about-baltimore-bridge-allision> (accessed April 1, 2024).

On the first, the Merchant Marine Act of 1920, known as the Jones Act, was intended to meet this objective.²⁴ Sadly, it has proven inadequate to the task and has not addressed the needs of sustaining a wartime economy needed in a war with China. Case in point, the 2019 Turbo Activation 19-Plus exercise demonstrated that only 64 percent of the Ready Reserve Fleet was able to deploy on time in support of national defense needs—vessels that are intended to be ready to support rapid deployment of military forces. Moreover, the average age of these merchant ships is 45 years, well over the industry end-of-life average of 20 years, and the DOD faces a gap of approximately 76 fuel tankers to meet surge sealift requirements.²⁵ That said, a wholesale repudiation of the Jones Act without additional actions would be counter-productive and not deliver the shipping needed either. In the near term, fostering stronger cooperation with allies (such as Greece, Japan, and South Korea) can help to satisfy some clearly defined national shipping needs in wartime while working to regain American maritime competitiveness. In short, a Hippocratic oath should be taken to “do no harm” to the domestic maritime industrial sector in pursuing initiatives to strengthen the sector. The March 12, 2024 petition to the U.S. Trade Representative to take action against unfair Chinese trade practices in the maritime, logistics and shipbuilding sectors is an opportunity to not only strengthen U.S. agencies like the Federal Maritime Commission to press our case, but to rally international support.²⁶ After decades of neglect, the U.S. maritime sector alone cannot take on China’s goliath state-controlled shipping and shipbuilding sectors, but a consortium of like-minded maritime nations could. Common interests regarding freedom of navigation, free trade, and a shared threat perception of China would bind the group together. This new grouping could together represent a formidable bloc critical for an American-led revolutionary transformation in shipping—an informal Maritime Group of Nations not dissimilar to the current Group of Seven (G7).²⁷

To deliver on the second, regaining America’s maritime competitiveness is required. Fostering a revolution in American shipping can energize a lethargic industrial sector that is critical to the nation’s defense and strengthen it so that it can sustain a wartime economy. This new inter-modalism would combine existing and emerging technologies into a new logistics paradigm comprised of small modular nuclear reactor powered container ships, unmanned drones (ship and vertical lift), smart port technologies, blockchain tracking of smart containers, and additive manufacturing.²⁸ A stronger and globally competitive maritime sector serves as a deterrent to Chinese economic coercion and military adventures. With a more robust maritime sector, American trade could proceed with greater confidence that the U.S. military can sustain combat operations on U.S.-flagged vessels. In addition to serving U.S. security needs, this shipping revolution could mitigate the environmental impacts of shipping, promote domestic production, and expand American exports to global markets, which would spur wider job growth and advance technological innovation in the U.S. The primary task is to create a domestic landscape that can foster a sustainable competitive advantage in American shipbuilding, shipping, and multi-modal logistics. This will require a maritime legislative agenda that incentivizes entry in the maritime workforce, rewards mariners sustaining critical certifications, and establishing maritime development zones.

On the third point, the lessons of the *Dali* bear witness that the status quo is not tenable and new efforts are required. The current Maritime Security Act of 2002 was conceived for a different era where the principal threat was violent extremist

²⁴ Merchant Marine Act of 1920, June 5, 1920, U.S. Code 46, ch. 24, sec. 861, <https://uscode.house.gov/view.xhtml?jsessionid=5142A83A2AAB12A25A2F9AB8A3949F92?req=granuleid%3AUSC-2000-title46a-chapter24&saved=%7CZ3JhbnVsZWlkOIVTQyOyMDAwLXRpdGxINDhLWN0YXB0ZXIyNC1zZWNoaW9uODYx%7C%7C%7C0%7Cfalse%7C2000&edition=2000> (accessed April 1, 2024).

²⁵ Bryan Clark, Timothy Walton, and Adam Lemon, “Strengthening the U.S. Defense Maritime Industrial Base: A Plan to Improve Maritime Industry’s Contribution to National Security,” Center for Strategic and Budgetary Assessments, February 12, 2020, pp. 9–13 and 48, <https://csbaonline.org/research/publications/strengthening-the-u.s-defense-maritime-industrial-base-a-plan-to-improve-maritime-industrys-contribution-to-national-security/publication/1> (accessed April 1, 2024).

²⁶ Petition for relief under section 301 of the Trade Act of 1974, “China’s Policies in the Maritime, Logistics, and Shipbuilding Sector,” March 12, 2024, <https://ustr.gov/sites/default/files/Section%20301%20Petition%20-%20Maritime%20Logistics%20and%20Shipbuilding%20Sector.pdf> (accessed April 1, 2024).

²⁷ Brent D. Sadler and Peter St. Onge, “Rebuilding America’s Maritime Strength: A Shipping Proof-of-Concept Demonstration,” The Heritage Foundation, August 16, 2023, pg. 6–7, https://www.heritage.org/sites/default/files/2023-08/BG3782_0.pdf.

²⁸ Brent D. Sadler and Peter St. Onge, “Regaining U.S. Maritime Power Requires a Revolution in Shipping,” The Heritage Foundation, May 15, 2023, pg. 12–20, <https://www.heritage.org/sites/default/files/2023-05/SR272.pdf>.

and natural disasters. Today the nation confronts a China, which is able to conduct conventional attacks as well as highly advanced asymmetric attacks across the homeland. A new framework is needed that builds on the Maritime Security Act and incorporates and codifies in law the best elements of both the 2020 National Maritime Cybersecurity Plan and the recently enacted executive order (EO 14116). Likewise, two programs that were devised in a post-9/11 world are perhaps ready for an update and revitalization: the Container Security Initiative (CSI)²⁹ and the Proliferation Security Initiative (PSI)³⁰. As of March 24, 2024, there are 112 countries supporting the PSI's effort to prevent the movement of weapons of mass destruction, while CSI is conducting screening of U.S. inbound cargo in 61 overseas ports to interdict terrorist movement of weapons via maritime containers. Moreover, to better respond locally to maritime disasters and provide maritime support to the Department of Defense, a naval component of the National Guard should be established in states with strategically important ports. Already such forces have proven their worth; New Jersey and New York naval militia provided critical support moving material and first responders into lower Manhattan following the September 11th attacks.³¹

Next Steps.

Safeguarding the nation's strategically important maritime industrial sector will be a complex task, and it will only be sustained by regaining America's commercial maritime competitive edge. To do this requires a grand design—a *National Maritime Initiative*. A likely vehicle for this would be an update to the 1989 National Security Directive (NSD-28) with enabling legislation from Congress that:

1. *Harden the nation's maritime infrastructure.* Concerted efforts are needed to harden U.S. maritime infrastructure to cyber, kinetic, and acts of God—to include allision from today and future large commercial shipping. This must include adequate salvage and dredging capacity to rapidly restore harbor operations at critical ports.
2. *Strengthen U.S. ability to combat unfair Chinese maritime business practices and incentivize U.S. shipping.* Currently the principal agencies (i.e. U.S. Coast Guard, Maritime Administration, National Oceanic and Atmospheric Administration, Federal Maritime Commission) responsible for the nation's non-defense maritime sector are scattered across several departments. Structurally this has not fostered coherent sustained nor well-resourced maritime initiatives, reorganizing for task as well as increased investment in the nation's maritime sector are past due.
3. *Create Maritime Prosperity Zones.* Incentivize investment in the maritime industry and waterfront communities, to include attracting treaty allies like Japan and South Korea in common cause.
4. *Establish a Maritime Innovation Incubator.* The incubator would function to mature future maritime capabilities and new concepts of operations (e.g. small modular nuclear reactors, robotic shipping, drones/dirigibles useful for moving cargo at-sea etc.), and to train the next generation of naval architects and shipyard workers to operate and maintain these new methods and technology.
5. *Train More Mariners.* Expand existing and establish new state merchant marine academies to educate and certify merchant mariners. And prioritize existing educational and technical training grants to specialties critical to shipbuilding, e.g. naval architects, welders, and pipefitters.
6. *Incentivize Mariners Who Maintain Certification.* Attract American merchant mariners with favorable tax incentives and personal subsidies, who remain in the maritime sector while sustaining USCG mariner certifications.
7. *Create a Naval Guard.* Expand select state National Guards to include a naval component.

The United States has neglected a core element of its security and prosperity—its historic maritime strength. As a result, American shipping and shipbuilding has atrophied, yet domestic industry and capacity for innovation remain strong. This ad-

²⁹“CSI: Container Security Initiative,” U.S. Customs and Border Protection, March 6, 2024, <https://www.cbp.gov/border-security/ports-entry/cargo-security/csi/csi-brief> (accessed April 1, 2024).

³⁰“About the Proliferation Security Initiative,” U.S. Department of State, <https://www.state.gov/proliferation-security-initiative/> (accessed April 1, 2024).

³¹Brent D. Sadler, “Rebuilding America’s Military: The United States Navy,” The Heritage Foundation, February 18, 2021, pg. 39, <https://www.heritage.org/sites/default/files/2021-02/SR242.pdf>.

vantage needs to be pressed by restoring American maritime competitiveness in pursuit of a new multi-modalism. Doing this at the same time hardening our maritime infrastructure is an imperative to deter Chinese economic coercion and military adventurism.

Mr. WEBSTER OF FLORIDA. Thank you.
Now, Mr. McCarthy, you're recognized for 5 minutes.

**TESTIMONY OF ED MCCARTHY, CHIEF OPERATING OFFICER,
GEORGIA PORTS AUTHORITY, ON BEHALF OF THE NA-
TIONAL ASSOCIATION OF WATERFRONT EMPLOYERS**

Mr. MCCARTHY. Good morning, Chairman Webster and Ranking Members and members of the subcommittee. Thank you for the invitation to testify here at the field hearing today. I thank Chairman Graves' recent visit to us in Savannah and the committee's support of all the initiatives that you're endeavoring in.

I'm the chief operating officer for the Georgia Ports Authority and a member of the National Association of Waterfront Employers. We are very appreciative of the Federal infrastructure grants that will help U.S. ports and marine terminal operators to become more resilient. Thank you for the opportunity to talk about U.S. ports and marine terminal operators on safety, security, and the infrastructure investments that are needed.

The Georgia Ports Authority employs 1,700 direct employees and over 3,000 ILA employees. GPA has invested \$3 billion since 2012, mostly all of that self-financed Georgia Ports' revenues. Georgia Ports plans to spend another \$4½ billion over the next 10 years to build more port infrastructure, which will primarily be financed by the Georgia Ports Authority.

There are two pillars by the Georgia Ports Authority; one, containers which are done in Savannah, Georgia. This is the third ranking volume port in North America, behind L.A.-Long Beach and New York-New Jersey. The second is automobiles and machinery in Brunswick, the fastest growing roll-on/roll-off port and the second largest only behind Baltimore, who our hearts and prayers go out to all those in the Baltimore city region.

Ports are an economic engine, creating jobs and keeping America competitive. According to a recent study by UGA, University of Georgia, Georgia's ports supported more than 600,000 jobs indirectly in the State of Georgia, contributing \$40 billion in income, \$170 billion in revenue, and \$5 billion in local taxes.

The subcommittees' attendance here in the field today demonstrates the importance of ports and marine terminal operators as a foundation of the American economy. The Bureau of Transportation Statistics reports approximately 47.7 million TEUs of equipment of containers were handled by U.S. ports and marine terminal operators. This represents 41 percent of U.S.-international trade value and almost \$1.9 trillion.

In addition, U.S. ports and MTOs directly support the development and sustainment of our U.S. military. Since 9/11, ports have a robust facility security plan, which is approved by the U.S. Coast Guard. Most ports voluntarily, with the U.S. Customs and Border Protection, are certified by a Customs Trade Partnership Against Terrorism. And I concur with Mr. Wong's remarks with funding for CBP and headcount.

Georgia Ports contracts on the ship-to-shore cranes are with a company called Konecranes in Finland. The cranes' technology is made in the U.S., Japan, and China. These ship-to-shore cranes are more expensive, but we think that the higher quality delivers better uptime on the cranes and justifies a total lifetime cost of ownership.

Turning to cybersecurity, this is our primary priority at a multitier level approach working with the U.S. Coast Guard Security Cyber Terrorism Unit and the FBI cyber team. We look forward to working with the U.S. Coast Guard and this subcommittee on these matters.

We greatly appreciate the subcommittees' endeavor today and the important work you are doing for our country. We thank you for this invitation to the field hearing today. I'm truly grateful for the support U.S. ports and marine terminals are securing through the maritime supply chain and your efforts for the U.S. workforce and ports.

I welcome your questions. Thank you.

[Mr. McCarthy's prepared statement follows:]

Prepared Statement of Ed McCarthy, Chief Operating Officer, Georgia Ports Authority, on behalf of the National Association of Waterfront Employers

Good morning, Chairman Webster, Ranking Member Carbajal, and members of the Subcommittee.

My name is Ed McCarthy, and I serve as Chief Operations Officer of the Georgia Ports Authority (GPA). Thank you for the invitation to join you for today's field hearing and site visits.

Chairman Graves recently visited us in Savannah and we would like to thank him for his recent visit to the Port and his and the committee's continued support.

I appreciate the opportunity to discuss the steps that United States ports and marine terminal operators are taking to address port safety and security, as well as federal infrastructure investment opportunities that exist to support such endeavors while enhancing the efficiency of the U.S. maritime supply chain.

Georgia Ports Authority employs 1700 employees directly and approximately 3000 longshore labor employees.

Investment-wise, Georgia Ports Authority has invested \$3.27 billion since 2012 building new port and inland infrastructure.

This amount has been mainly self-financed from Georgia Ports revenues—and has not cost Georgian taxpayers. (Aside from Federal grants).

We're also planning on spending an additional \$4.5 billion the next ten years to build more port infrastructure—which will again be primarily financed by ourselves.

We operate two major ports:

The Port of Savannah—which is one of the fastest growing container ports in the nation. We currently rank third in volumes behind LA/LGB and NY/NJ.

The Port of Brunswick—which is the fastest growing Roll-On/Roll-off port for cars and High and Heavy machinery like excavators and tractors and is ranked 2nd nationally behind Baltimore.

We are investing \$262 million in new improvements to expand capacity in Brunswick.

We expect this year to become the largest automobile port in the nation in both cargo volume and actual physical space.

Ports are economic engines, creating jobs and keeping American business competitive in world markets.

Every country in the world wants access to a competitive port system.

According to a study recently completed by the University of Georgia, in 2023, Georgia's ports and inland terminals supported more than 609,000 jobs throughout the state annually, contributing \$40 billion in income, \$171 billion in revenue and \$5.3 billion in state and local taxes to Georgia's economy.

As part of GPA's community engagement efforts, \$6 million will be donated to communities located near the Port of Savannah to support a multi-year, local workforce housing initiative.

CNBC ranked Georgia #1 in the U.S. for infrastructure in America's Top States for Business in 2023.

I am also here today on behalf of the National Association of Waterfront Employers (NAWE), of which the GPA is a proud member.

NAWE is a non-profit trade association whose member companies are public operating port authorities, privately-owned stevedores, marine terminal operators (MTOs), and other U.S. waterfront employers.

NAWE's member organizations and companies engage in business at all major U.S. ports on the Atlantic and Pacific Coasts, the Gulf of Mexico, the Great Lakes, and Puerto Rico.

In that manner, NAWE, as the voice of operating ports and MTOs in Washington, DC, ensures that there are open lines of communication between Congress, regulatory agencies, and the gateways to our Nation's international commerce.

IMPORTANCE OF PORTS AND MARINE TERMINAL OPERATORS

The Subcommittee's attendance in the field today further evidences the fact that ports and MTOs are a foundational element of the American economy.

Operating ports and MTOs employ and ensure the safety of hundreds of thousands of American waterfront workers, fund the purchase of cargo handling equipment and security infrastructure at U.S. ports, and connect the U.S. economy to the world.

We serve the nation's agriculture, retail and manufacturing sectors—both large businesses and small rely on American ports to deliver their goods.

Operating ports and MTOs transition cargo between various modes of transportation (ships, trucks, and rail cars), while managing the orderly, safe, and secure collection and distribution of cargo between countless transportation stakeholders.

This dynamic environment—with the constant movement of containerized, bulk, rolling, and project cargo, intermodal equipment, and cargo handling machinery—creates endless safety risks to the waterfront workforce and stakeholders entering marine terminals that must be accounted for, and materially mitigated, by ports and MTOs.

In addition, as the critical connection point of the U.S. international trade and projection of economic power, security risks are an ever-present reality of port and MTO operations that require constant diligence, oversight, and investment to identify and mitigate.

The latest Bureau of Transportation Statistics reports that in 2021 approximately 47.7 million twenty-foot equivalent units (TEUs) were handled by U.S. ports and MTOs, representing 41 percent of U.S.-international trade value in 2021—almost \$1.9 trillion.

As the critical connection of the leading transportation mode for U.S.-international trade in goods, efficient port and MTO operations are foundational to the success of the U.S. economy.

In addition, U.S. ports and MTOs directly support the deployment and sustainment of the American military, serving as the baseline point for the projection of U.S. power throughout international areas of operation.

Correspondingly, U.S. ports and MTOs can become critical physical and cyber security targets for actors looking to negatively impact U.S. trade and military operations.

As such, U.S. ports and MTOs must be ever-vigilant regarding such security threats, constantly identifying potential risks and developing best practices and procedures—while making the accordant infrastructure investments—to mitigate such risks.

Working with our Government partners, including this Subcommittee, the U.S. Coast Guard, and Customs and Border Protection, is a key aspect of success in ensuring the security of the U.S. port environment.

In addition, to meet the just-in-time delivery focus of the modern supply chain, U.S. ports and MTOs must leverage new technologies and advanced infrastructure to ensure that the skilled waterfront workforce can meet stakeholder needs in a safe operating environment that seeks to mitigate the risk of injury.

Quite simply, there are no days off at U.S. ports, as evidenced by the fact that ports and MTOs maintained continuous operation during the entirety of the COVID-19 pandemic, working tirelessly to meet unprecedented consumer demand and mitigate the associated supply chain congestion effects.

Accordingly, developing new safety procedures and investing in cleaner and safer cargo handling equipment is critical to ensuring the efficient operation of the maritime supply chain to meet consumer demand.

PORT SECURITY IN A UNIQUE ENVIRONMENT

Security of the maritime supply chain and the safety of the waterfront workforce are of paramount importance to ports and MTOs.

To address ever-present security risks, and in accordance with the Maritime Transportation Security Act of 2002, GPA developed a robust and dynamic Facility Security Plan (FSP), which has been approved by the U.S. Coast Guard under applicable regulations at 33 CFR Part 105.

The FSP addresses, among numerous other areas, screenings for dangerous devices and substances, restrictive access control measures, proactive patrols, monitoring of the facilities and surrounding areas for suspicious activity, training, information sharing and multilevel collaboration.

GPA is also a certified partner of the Customs Trade Partnership Against Terrorism (CTPAT), a voluntary program led by U.S. Customs and Border Protection (CBP) focused on improving security from point of origination and throughout the global supply chain to point of distribution.

In accordance with CTPAT, GPA has entered into an agreement that outlines GPA's commitments to protect the supply chain, identify security gaps, and implement specific security measures and best practices.

GPA's Port Police force numbers approximately 180 sworn officers and 40 additional security personnel and are leaders in their field of practice.

Many of our Police have joined from local police departments which means they bring local awareness of nearby towns and have strong working relationships with Law Enforcement at Federal, State and Local levels.

Port Police are physically present and visible every time a ship enters the port. They observe the docking procedure and then also check gangway access and manning to ensure secure procedures and staffing is in place.

Port Police also work closely with CBP and USCG to ensure every vessel entering the port has passed a security and safety check with both agencies.

Port Police are also working in tandem with State of Georgia Officials to prevent Human Trafficking as part of a multi-level approach to this issue.

LET'S TALK ABOUT SHIP-TO-SHORE CRANES AT PORTS

Georgia Ports uses ship-to-shore cranes (STS) constructed by a Finland-based company called Konecranes.

Finland is a recent and critical NATO partner to the United States.

- These cranes use technology made in the U.S., Japan and Taiwan.
- We're the only port in the U.S. that use these cranes.
- These cranes are more expensive than other crane brands on the market, but their higher quality delivers very high uptime usage which justifies their total cost of ownership over the lifetime of the cranes.

TURNING TO CYBERSECURITY—THIS TOPIC REMAINS A PRIMARY CONCERN OF ALL U.S. PORTS AND MTOs

Given the importance of the maritime supply chain to the overall U.S. economy, the risk of cyber-attacks upon U.S. ports and MTOs cannot be overstated.

However, to address such risks, GPA has developed a sophisticated cybersecurity plan:

Cybersecurity is the number one priority and is a multi-level approach to thwart this issue, working closely with the USCG Security Cyberterrorism unit and the FBI.

We use best practices for industry hygiene which means we keep all systems up-to-date.

We immediately install fixes and patches as driven by our IT software and hardware vendors—along with ethical testing of our employees to train and retrain them on phishing and other cyber tactics.

We keep a constant dialogue with our IT vendors on the current cyber threats.

GPA and NAWA are currently reviewing the Notice of Proposed Rulemaking on Cybersecurity in the Marine Transportation System published by the U.S. Coast Guard on February 22, 2024.

Our primary concern is that any cybersecurity standards developed by the U.S. Coast Guard must be specific to U.S. ports and MTOs to address the unique threats and operating environment of our industry.

Generic cybersecurity recommendations, even when developed in coordination with the U.S. Government's leading cybersecurity experts, can add unnecessary cost without appropriately mitigating cybersecurity threats faced by ports and MTOs on a daily basis.

We look forward to working with both the U.S. Coast Guard and this Subcommittee to ensure that any ultimate regulations governing port and MTO cybersecurity measures will be consistent with industry threats and operational realities, and to identify and develop opportunities for federal support to implement any necessary infrastructure, network, training, and workforce enhancements.

PORT AND MTO INVESTMENTS IN SAFER CARGO HANDLING EQUIPMENT

With a workforce exceeding 1,700 employees and numerous partners contributing to operations within GPA terminals, safety remains paramount in our daily activities.

Annually, we facilitate the movement of over 5 million TEUs and 600,000 vehicles through GPA terminals, underscoring the critical importance of maintaining a safe work environment.

To further enhance the safety culture, the GPA has introduced the Safety NONSTOP program.

This comprehensive initiative ensures that safety awareness remains a constant focus for all employees and partners, around the clock, seven days a week.

Through Safety NONSTOP, we prioritize proactive measures like training, hazard reporting, and observations to safeguard the well-being of everyone involved in our operations, reinforcing our commitment to a culture of safety excellence.

Last fiscal year, we achieved significant improvements in our safety performance, being 37% below the recordable rate and 60% below the lost time rate compared to the most recent BLS Industry Average (2022).

This positive trend continues into this fiscal year, with a continued decrease in injuries.

This success is attributed to the unwavering safety commitment across all levels of our organization.

Now let me touch on the future of biofuels . . .

One key aspect of creating a safer, healthier, and a cleaner working environment for the waterfront workforce is transitioning from diesel-driven cargo handling equipment to lower emission alternatives.

The Inflation Reduction Act (IRA) appropriates \$3 billion for maritime decarbonization to help ports and MTOs switch to zero- or near-zero emissions equipment to decarbonize port operations and improve air quality in port communities.

NAWE are extremely grateful to Congress for its leadership in passing the IRA and supporting investment in next-generation cargo handling equipment.

However, although U.S. ports and MTOs want cleaner, safer, and healthier ports, the IRA's timelines for getting new equipment are challenging for several reasons, including:

1. The much higher cost of electric equipment;
2. Lost value in replacing existing equipment before the end of its useful life;
3. The need for expensive electric or alternative fuel infrastructure; and
4. The availability of U.S.-manufactured zero- or near-zero emissions cargo handling equipment.

NAWE and its members continue to investigate the anticipated costs and timelines of switching from existing cargo handling equipment to zero- or near-zero emissions equipment.

However, given the above-listed challenges, we anticipate that the aggregate costs to bring U.S. ports into compliance with the IRA's decarbonization goals will be in the tens (and possibly hundreds) of billions of dollars and will far exceed the IRA's timelines, even if U.S. manufacturing of next-generation cargo handling equipment can be rapidly expanded.

Given these challenges, GPA and NAWA will continue to engage with Congress to find flexibility in the IRA and other port investment opportunities—such as the Port Infrastructure Development Program and private investment supported by the Capital Construction Fund as proposed by H.R. 4993—to account for the realistic costs, timelines, and U.S. equipment availability to achieve port decarbonization.

While the IRA is outside this Subcommittee's jurisdiction, we appreciate the members' support for our efforts, including with regard to programs within the Subcommittee's jurisdiction.

I encourage your support for a study to deepen the Savannah harbor in the upcoming WRDA as requested by the entire GA delegation.

While that legislation does not go through this subcommittee, it is the larger T&I Committee that puts it together.

- Georgia Ports is seeking authorization for a Savannah Harbor Improvement Project study in the 2024 Water Resources Development Act (WRDA).
- The study would define the optimal depth and width of the Savannah Harbor in a potential future improvement program, balancing cost-benefits for the nation and environmental impact.
- With greater channel depth, the Port of Savannah will reduce shipping costs and delays while maximizing access for the global fleet of container ships.
- Widening the river would allow more opportunities for two-way vessel traffic, improving safety and preventing delays for American commerce. Faster vessel service will enable the Port of Savannah to handle more ships each year.
- Savannah Harbor improvements will benefit the nation, not just Georgia, and keep pace with the global shipping industry's future ships.
- Enhancing the channel would not only allow larger, more cost-effective and sustainable vessels to call on Savannah. Addressing impediments to larger ships at the Port of Savannah will allow carriers to deploy 18,000- to 24,000-TEU vessels to the entire U.S. East Coast.
- Each ship could take on more cargo and transit the channel more quickly, getting U.S. exports to global markets with greater efficiency, lower cost and lower emissions.
- Modernizing the shipping channel will expedite the flow of cargo for mega-ships transiting the Savannah River. American exporters will have greater opportunity to move goods overseas, because ships will be able to take on more cargo.

In closing, let me thank you all for the important work you do for our country. Thank you for inviting me to join you for this field hearing to share first-hand updates and concerns on the critical safety and security issues that impact our industry. I am truly grateful for your support of U.S. ports and marine terminal operators in ensuring a secure maritime supply chain and safe working environment for our waterfront workforce.

And now, I welcome any questions you may have.

Mr. WEBSTER OF FLORIDA. Thank you so much for your testimony. Mr. Morgan, you're recognized.

TESTIMONY OF DAVE MORGAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, COOPER/PORTS AMERICA, ON BEHALF OF THE NATIONAL MARITIME SAFETY ASSOCIATION

Mr. MORGAN. Good morning, Chairman Webster and Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, and Congressman Cohen. It's a pleasure to be here.

My name is Dave Morgan. I'm the president of Cooper/Ports America, and also I am the current president of the board of directors at the National Maritime Safety Association, better known as NMSA. And I can assure the committee that being from Texas, I never have a tie on, ever, ever, ever. However, today, it's an honor to wear a tie for the system, but it's also a Ports America Baltimore tie in honor of my colleagues and families up in the Baltimore area.

By way of background, Cooper/Ports America is a joint venture between Cooper, the Cooper group of companies, and Ports America. C/PA operates in the Texas ports. We handle approximately 25 percent of the container volume handled in Houston and about 82 percent of the general cargo handled in the Port of Houston and outports in Texas. We employ over 3,300 company and international longshoremen union labor and operate an average of about 1.65 million man-hours annually.

On port safety, at C/PA, safety drives everything we do and is led by the participation of all personnel. A safe workplace will result from positive attitudes, behaviors, and beliefs of our C/PA team. We strive to create a healthy and injury-free environment for

all employees and visitors to our facilities and operations. We measure our business success by safety excellence and will never waver in this commitment.

Very similarly, in parallel, the focus and purpose of NMSA is marine cargo handling safety, which has been our mission since NMSA was formally established in 1972 through the Occupational Safety and Health Act of 1970. Prior to that formation, NMSA's predecessor was the Management Advisory Cargo Handling Safety Committee that was launched in 1956.

NMSA is a diverse association focused on safety, and one of the main objectives of NMSA is to maintain a network of professionals capable of addressing the evolving safety issues of the cargo handling industry. NMSA members are all dedicated volunteers, and this collective of progressive expertise serves as a primary resource to the industry to keep workers healthy and injury-free.

NMSA also has a Technical Committee that holds regular meetings at ports across North America and invites guests from port employers; local, State, and Federal agencies; and local union representatives to join our discussions to promote maritime safety. During these open meetings, ports are toured, safety management is discussed, accidents and injuries are examined for increased hazard recognition and new preventive methods, new safety training products are prepared, and experts are invited to present technical aspects of equipment, including technical engineering details. Importantly, professional networks are expanded through this collegial information sharing environment and continually drive a proactive approach for addressing safety at the workforce.

Some of NMSA's current areas of focus are: the safety of alternative fuel sources for cargo handling equipment; anti-collision technologies to detect people working around machines; fulfilling OSHA's new requirements for e-filing of injury and illness data; improving pre-shift safety talks; ensuring safety on elevated working surfaces when working on gondola railcars; recognizing and addressing drug and alcohol matters; heat illness prevention best practices; training workers on powered industrial trucks, PIT; mooring line snapback injury prevention; lockout tagout program best practices; and split rim wheel safety best practices.

We are also very concerned on security. We and the MTOs follow the local and State and Federal guidelines on security, and we have our own internal systems on security—that's all part of my testimony.

And in closing, I encourage both of your committees and your key staff to engage with NMSA and its Technical Committee to share information and any concerns about the maritime transportation system. I would also like to extend an invitation to committee members and your staff to come visit our terminals in Texas and meet the hard-working people that keep cargo moving and play an integral role in our supply chain. Our industry experts stand ready to answer any questions you may have, serve as a resource on any safety related matters, and assist you in any way we can.

Thank you for providing me with the opportunity to be with you at today's field hearing and share my perspectives on critical safety and security issues. Again, I appreciate the attention of your two committees on ensuring the safety and security of U.S. ports, ma-

rine terminal operators, and all the workers we employ in our maritime supply chain.

I welcome any questions. Thank you.

[Mr. Morgan's prepared statement follows:]

Prepared Statement of Dave Morgan, President and Chief Executive Officer, Cooper/Ports America, on behalf of the National Maritime Safety Association

Good morning, Chairman Webster, Chairman Gimenez, Ranking Member Carbajal, Ranking Member Thanedar, and members of the Coast Guard and Maritime Transportation and Transportation and Maritime Security Subcommittees. My name is Dave Morgan, and I am President and CEO of Cooper/Ports America.

It is an honor to appear before you today. I applaud both of your committees' interest in port safety, security, and infrastructure investment and desire to better understand how the marine cargo handling industry works with the U.S. Maritime Administration (MARAD) and U.S. Department of Homeland Security (DHS) to support and secure our maritime supply chain. We are at a critical juncture for port safety and security and given the recent tragic incident in Baltimore this hearing could not be more timely.

Cooper/Ports America, LLC (C/PA) is a joint venture operation that is the combined businesses of Ports America and The Cooper Group and integrated Shippers Stevedoring, Chapparral Stevedoring, and Integrated Marine Services (IMS). C/PA is the premier provider of full-service stevedoring, terminal operations, container stuffing and stripping, container yard depots, container and chassis maintenance and repair, and truck brokerage and logistics in the Texas markets. The Cooper Group and Ports America merged their breakbulk operations in the Houston and surrounding ports on October 1, 2016. C/PA currently operates at Houston City Docks, Barbours Cut, Bayport, Beaumont, Point Comfort, Corpus Christi, Freeport, Galveston and Brownsville. C/PA has a long-term contract with USTRANSCOM and handles 25,000 pieces of US Army assets via truck, rail, and vessels annually. C/PA has approximately 28% & 25% of the total market share of the BCT-BPT total TEU's respectively and 82% of the total tonnage in 2023 that moved across the City Dock Terminal. C/PA employs over 3,300 company and International Longshoremen's Association Union Labor & operates at an average of 1.65M labor hours annually.

I also appear before you today as President of the Board of Directors of the National Maritime Safety Association (NMSA). NMSA is the forum for maritime industry leaders and Labor to gather and discuss proactive and preventive safety measures with the goal of protecting the health and safety of our dedicated waterfront workers at U.S. marine terminals. C/PA is a longtime member of NMSA, and we take great pride in not only C/PA's commitment to safety, but our industry's overall commitment to protecting the men and women that work at ports and terminals around the country day and night so they can return home safely to their loved ones when their shift is over.

While intricately connected, consistent with the theme of the hearing title, I have divided my written testimony into three parts: the first part addressing "port safety," second focusing on "security," and third addressing "infrastructure investments."

PORT SAFETY

At C/PA, safety drives everything we do, and is led by the participation of *all* personnel. A safe workplace will result from positive attitudes, behaviors, and beliefs of our C/PA team. We strive to create a healthy and injury-free environment for all our employees and visitors to our facilities and operations. We measure our business success by safety excellence and will never waver in this commitment.

Similarly, the focus and purpose of NMSA is marine cargo handling safety which has been our mission since NMSA was formally established in 1972 through the Occupational Safety & Health Act of 1970. Prior to its formation, NMSA's predecessor was the Management Advisory Cargo Handling Safety Committee (MAXIE) that was launched in 1956.

NMSA is a diverse association focused on safety, and one of the main objectives of NMSA is to maintain a network of professionals capable of addressing the evolving safety issues of the cargo handling industry. NMSA members are all dedicated volunteers, and this collective of progressive expertise serves as a primary resource to the industry to keep workers healthy and injury free.

NMSA also has a Technical Committee (TC) that holds regular meetings at ports across North America and invites guests from port employers, Local, State and Federal Agencies, and local union representatives to join our discussions to promote maritime safety. During these open meetings, ports are toured; safety management is discussed; accidents and injuries are examined for increased hazard recognition and new prevention methods; new safety training products are prepared; and experts are invited to present technical aspects of equipment—including technical engineering details. Importantly, professional networks are expanded through this collegial information sharing environment and continually drive a proactive approach for addressing safety on the worksite.

Some of NMSA's current areas of focus are:

- The safety of alternate fuel sources for cargo handling equipment
- Anti-collision technologies to detect people working around machines
- Fulfilling OSHA's new requirements for e-filing of injury and illness data
- Improving pre-shift safety talks
- Ensuring safety on elevated working surfaces when working on gondola rail cars
- Recognizing and addressing drug & alcohol matters
- Heat illness prevention best practices
- Training workers on Powered Industrial Trucks (PIT)
- Mooring line snapback injury prevention
- Lockout tagout program best practices
- Split rim wheel safety best practices

SECURITY

Cooper/Ports America and other stevedore companies and marine terminal operators (MTOs) are central pillars of the global intermodal marine transportation system. We have extensive systems, practices, and processes in place to address the full and evolving spectrum of threats—from those of a physical nature to those in the cyber realm. C/PA and other MTOs have a system of layered physical and cybersecurity countermeasures in accordance with the Marine Transportation Security Act (MTSA), the Department of Homeland Security, the Department of Justice and the Cybersecurity and Infrastructure Security Agency at the federal level and with support from appropriate state and local law enforcement agencies.

Since the enactment of the MTSA in 2002 and its implementation by the United States Coast Guard, MTOs are required to have an approved Facility Security Plan (FSP) and a designated Facility Security Officer (FSO). C/PA's FSOs work closely with the U.S. Coast Guard within the MTSA framework to address the ever-evolving nature of threats we face at our facilities. In addition, C/PA is currently reviewing the Coast Guard's recently published Notice of Proposed Rulemaking on Cybersecurity in the Marine Transportation System. C/PA and its team of security terminal operators will work with other MTO's to ensure that any ultimate regulations governing port and MTO cybersecurity measures will be consistent with industry threats and operational realities, and to identify and develop opportunities for federal support. We look forward to continue working with the U.S. Coast Guard on this endeavor. Of note, C/PA falls under the Port Authority's FSP in all ports in Texas.

Regarding cyber threats, C/PA partners with government entities like the National Institute of Standards and Technology (NIST) to replicate frameworks created by the U.S. Department of Commerce to protect critical infrastructure. In addition to government partnerships and programs, terminal operators have a high isolation level on crane control and auxiliary function systems, and monitoring access is strategically implemented to detect and capture threats. C/PA, like other MTO's, proactively engage with control system and auxiliary system providers regarding their latest offerings and demand the highest level of security.

NMSA also is focused on security threats to marine terminal operations that could jeopardize the safety of our waterfront workers, and our association has been closely tracking such threats for some time. Through our Technical Committee, NMSA proactively engages experts from within and outside the industry to assess and understand potential risks, gather data, investigate and conduct fact-finding reports, review and evaluate best practices, and disseminate and encourage adoption of solutions to improve safety for waterfront workers.

Protecting cargo handling equipment from cyber intrusions, damage, or sabotage—particularly systems where our workers are at risk of injury or potentially life threatening injury—is a significant concern for NMSA and C/PA, and we are work vigilantly to safeguard all of our systems and workers. This is why in February of 2023, NMSA's Technical Committee received a presentation from officials with the

U.S. Coast Guard Sector's Jacksonville Cyber Division on cyber threats at U.S. ports and marine terminals. We plan to continue this discourse both internally and publicly to ensure comprehensive and protective measures are in place and that our workforce remains safe and secure in their operations.

INFRASTRUCTURE INVESTMENTS

Forecasts projecting continued growth in international trade and E-commerce are expected to drive a significant increase in the volumes of goods transported across the globe over the next few decades. The greatest volume of this cargo will be transported via shipping containers handled by our workforce. Congress and the Biden Administration's recent investments in port infrastructure through federal grant programs such as the Port Infrastructure Development Program (PIDP) and the new EPA Clean Ports program are very helpful and we thank you. Unfortunately, even if robustly funded for the next decade, these programs alone will not be sufficient to address the anticipated increase in cargo volumes.

Other approaches to infrastructure development and transportation network expansion will be required to meet global demand in the maritime cargo and intermodal freight transportation systems. One such innovative approach would be the enactment of legislation to expand the Maritime Administration's (MARAD) Capital Construction Fund (CCF) program to allow MTOs to use a portion of their own revenues, on a tax-deferred basis, to purchase new and replace aging cargo handling equipment with new, zero-emission equipment that has built-in state-of-the-art safety features manufactured here in the U.S. as proposed in H.R. 4993. It has the added benefit of not requiring appropriated funding and is distinctly beneficial to U.S. taxpayers.

H.R. 4993 is a bipartisan bill introduced by Congressmen Mike Ezell (R-MS) and Troy Carter (D-LA) and has 17 cosponsors so far. Chairman Webster, we are grateful that you are one of them. I respectfully urge all of you take a look at this bill and consider cosponsoring this important legislation.

Another approach that should be considered is to increase cargo volumes at U.S. ports that currently have excess capacity for additional volume or have room to expand their terminal operations with additional investments. For instance, the U.S. Army Corps of Engineers should be authorized and adequately funded to carry out additional projects to deepen and expand navigation channels and approaches to several ports—particularly in the Gulf of Mexico. Such investments will not only expand our port capacity to move higher freight volumes, they will also strengthen the resiliency of the entire U.S. Maritime Transportation System (MTS); a need made abundantly clear by the recent collapse of the Francis Scott Key Bridge and closure of the vessel traffic to the Port of Baltimore.

In closing, I encourage both of your committees and your key staff to engage with NMSA and its Technical Committee to share information and any concerns about the marine transportation system. I would also like to extend an invitation to committee members and your staff to come visit our terminal in Houston and meet the hardworking people that keep cargo moving and play an integral role in our supply chain. Our industry experts stand ready to answer any questions you may have, serve as a resource on any safety related matters, and assist you in any way we can.

Thank you for providing me the opportunity to be with you at today's field hearing and to share my perspectives on the critical safety and security issues that affect our industry. Again, I appreciate the attention of your two committees on ensuring the safety and security of U.S. ports, marine terminal operators and all the workers we employ, and our maritime supply chain. I welcome any of your questions.

Mr. WEBSTER OF FLORIDA. Thank you all for your testimony. We now turn to the questions for the third panel, and I recognize myself for 5 minutes.

Mr. Fowler, given the large range of vessels that Crowley operates, are there any categories on the shoreside part of this that are lacking and that don't quite meet the needs that are necessary?

Mr. FOWLER. Thank you, Mr. Chairman. I appreciate the question. I want to make sure I answer your question adequately. Specifically as it relates to the shoreside, how can I direct my response?

Mr. WEBSTER OF FLORIDA. Well, just from the—are there certain services that are lacking—

Mr. FOWLER [interposing]. Understood.

Mr. WEBSTER OF FLORIDA [continuing]. That need to be provided?

Mr. FOWLER. Thank you. I appreciate the question. So, Crowley operates many, many different types of vessels, right? We operate container vessels, we operate petroleum and chemical transportation vessels, we operate general cargo vessels, we operate Government vessels. So, as our vessels come in and out of the U.S. ports, the U.S. ports are adequate. They offer great service for us.

The areas in which we operate when we talk about after—in the COVID and the congestion that occurred on the west coast, the areas that Crowley is operating, servicing the Caribbean, servicing the islands, servicing South America, really weren't met with those challenges. And so, we have a great system that operates well, and in conjunction with our partners and ports across the country, we've had great service here and in large part of the continued investment in those ports.

Mr. WEBSTER OF FLORIDA. So, from an operator's perspective, what are the most pressing immediate needs for our Nation's ports?

Mr. FOWLER. Thank you for your question. For us operating—Mr. Chairman, I'll say that the greatest challenges that we as operators face right now relate to mariner shortage. And this is something that we can take action on. And it's something that's of critical importance to us in ensuring that our vessels maintain in operation.

Today, we have vessels that at times are not operating because of inadequate mariner levels that we'd need to operate those vessels. And so, I would put that in two different categories. The first category would be in attracting new talent to our system and making aware our industry. And this is an industrywide problem. We need the support from MARAD and others to make aware and bring in more to our industry.

The second I would say is that we have, as it relates to the mariner shortage, we have mariners who want to continue to progress through the system and upgrade their licensing and are struggling to do so. In some cases, it will take 100-plus days of classroom time and up to \$80,000 of their personal funding to see those upgrades. And you can imagine that if you've been at sea for 120 days, to come back then on your off time, when you want to be with your family who you've been away from, to have to then go spend 100 days in a classroom and to invest significant dollars. There are ways for us to modernize that process, to reduce the financial burden, to have more internet delivery, e-delivery of that material that makes it easier for those mariners to upgrade their licensing.

But if you're—from an operator standpoint, the critical need that we have now is ensuring that we have adequate mariners in our system. Today, we're in a mariner shortage, and it's a crisis across our industry, and we certainly need some support in ensuring that we can solve this together.

Mr. WEBSTER OF FLORIDA. It's kind of a crisis everywhere.

Mr. FOWLER. It is.

Mr. WEBSTER OF FLORIDA. For every kind of worker.

Mr. Wong, during the pandemic, we saw substantial supply chain disruptions driven by numerous factors, all kinds of inability just to move cargo. Have you seen any improvement in the intermodal side of what's happening?

Mr. WONG. Thank you, Mr. Chair, for the question.

Absolutely. Here at PortMiami and the majority of the Florida seaports, beneficially, we didn't really have as much of the stock hold of vessels out in anchorage. Be that as it may, the Florida seaports, they have efficient operations and sufficient equipment.

As far as the challenges that I think the Nation ended up encountering was most definitely staffing, rotation of shifts, to make sure that everyone wasn't hit by COVID at the same time. There were a lot of mechanisms that ports had to take as an industry as a whole to be safe during COVID. But as far as the Florida seaports as a whole, we were blessed that we didn't have any of that congestion here in our Florida seaports.

Mr. WEBSTER OF FLORIDA. Chairman Gimenez, you are recognized for 5 minutes. Or did I—no, I've got Carbajal, sorry.

Mr. CARBAJAL. It's OK. I'm easy.

Mr. WEBSTER OF FLORIDA. OK. You're recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman.

Mr. Wong and Mr. McCarthy, the Bipartisan Infrastructure Law provided \$2.25 billion in advance appropriations for the Port Infrastructure Development Program. How important is that funding to your ports, and how will it help you lower emissions from your facilities? It's a softball for a good answer.

Mr. WONG. All right. I'll take it first since it's a softball. Thank you. Thank you, Congressman.

As far as funding goes, one thing I would say about the maritime industry and infrastructure, nothing is cheap in the maritime industry. Infrastructure, such as specifically PortMiami, we have a lot of infrastructure that we're operating on, but it's towards the end of life.

And as far as processes, funding that's available, let me tell you, our port will take any funding available. Our north bulkhead, for example, where almost all of our cruise vessels end up berthing at—we only have one cruise terminal on the south side specifically for smaller vessels—but our entire north side, our entire bulkhead needs to get replaced. And that infrastructure and that funding is essential for us to continue to grow and just to continue to operate on a daily basis.

The phasing of construction is essential as well. And when you talk about aging infrastructure, we're talking about upwards of \$500 million on estimates as far as our north bulkhead. So, it is expensive. It is a length of time for construction, especially during operations.

Mr. CARBAJAL. Great.

Mr. MCCARTHY. Thank you for the question.

The infrastructure bill and the amount of funds is critical to the United States and to ports and the infrastructure. For Georgia Ports Authority, as you could see by what we submitted as our attachment, three pages of grants over the last 36 months that we have been blessed to get from Congress and Federal grant programs. We are currently applying for a resilient grant to make our

electric more robust so we can shift from rubber-tired gantry cranes to electric gantry cranes in our yard. So, the infrastructure bill is critical not only to Georgia, but to the entire Nation. Thank you.

Mr. CARBAJAL. Thank you.

Mr. Fowler, first, I wanted to give you credit for Crowley stepping up to embrace the EMBARC program. There's still a lot of work that needs to be done. So, with that praise comes great responsibility. But I do want to recognize how your company stepped up and led on that issue.

So, with that, domestic cabotage laws require vessels carrying cargo between two U.S. ports be built, owned, and crewed by Americans. Those vessels are also governed by stricter Coast Guard regulations. What role does the Jones Act have on economic security and port security?

Mr. FOWLER. Thank you, and thank you for your comments. I very much appreciate the recognition of our embrace of the EMBARC program.

The Jones Act is critically important for our Nation's security. So, Jones Act, of course, we have U.S. mariners on these vessels. And I think with the conflict going on around the world, there's a heightened sense and awareness of the importance of having U.S. mariners that are not only coming in and out of our ports, but in our inland waterway system, that we have U.S. mariners where you don't have the robust security of a port, but in our inland waterway system along the coastal U.S. It's critically important to our Nation's security that those are American vessels owned by American companies and crewed by American mariners.

So, in terms of the reliability, of course, you talked about the heightened regulations around U.S. vessels as it relates to vessel requirements, it relates to audits, as it relates to crew training, crew regulations. It gives us a, certainly, resiliency in having those Americans on those vessels, creates great economic impact for those families. Many of these jobs are six-figure jobs, well into six figures. These are high-paying jobs that support American families across the country, and they ensure at a greater level that our ports remain resilient and safe.

Mr. CARBAJAL. Thank you. This is to all the panel. I'm going to be out of time, so, I'm going to submit this question for the record and ask that you follow up with an answer, if you could, to all the witnesses. This question is for all the witnesses, as I mentioned.

Every maritime port obviously happens to be on the water and is therefore subject to rising sea level and extreme weather events. What are you doing to prepare for the future, and how expensive is that preparation? I'll submit that for the record, if you could follow up, that would be great. Mr. Chairman, I yield back.

Mr. WEBSTER OF FLORIDA. Mr. Gimenez, you are recognized, Chairman, for 5 minutes.

Mr. GIMENEZ. Thank you very much, Mr. Chairman.

Mr. Wong, are you familiar with all the cruise ships that dock here at Port of Miami? Home port here?

Mr. WONG. Yes, Mr. Chair.

Mr. GIMENEZ. How many were built in the United States?

Mr. WONG. From what I can recollect, none of the cruise vessels that are coming here right now.

Mr. GIMENEZ. None of the cruise ships are—

Mr. WONG [interposing]. That's correct, sir.

Mr. GIMENEZ. Are you familiar with most of the cargo ships that dock here?

Mr. WONG. Yes, Mr. Chair.

Mr. GIMENEZ. How many of those were built in the United States?

Mr. WONG. From what I can recollect, none, sir.

Mr. GIMENEZ. Mr. Sadler, that's a sad state of affairs, to say the least. What has caused this? I'm going to give a little bit of a brief history. During a World War II, for every aircraft carrier that the Japanese built, we built six. If we were to get into a conflict with China now, we would be Japan and they would be us, although much worse. How did we get to this, and how do we rectify it? How do we strengthen our shipbuilding capacity here in the United States? Also another little tidbit, the largest navy in the world now is the navy of the PRC.

Mr. SADLER. No. I love this question, and I'll be very cognizant of the limited time that we have on this. Looking forward, I mean, we can go and look at the history, but looking forward, the way that we can best address this is focusing on our competitiveness. I mean, we have a legacy fleet and the Jones Act, which has been that way for 100 years.

We have to get more competitive in the global marketplace. We have to change and reorganize for the task. Our maritime agencies are scattered about several different departments. We need to organize for task, we need to focus on competitive measures. Make it lucrative to be a merchant mariner, make it lucrative to be a shipyard worker, because those are high-paying jobs. We just need more people there. We need to start building more competitively than we have been.

Mr. GIMENEZ. Does the PRC—are they engaged in some unfair practices that give them an advantage?

Mr. SADLER. Absolutely. It's a state-owned enterprise, and so, they benefit both from direct and also indirect subsidies. They also take their orders, most often, not from an economic perspective, but from a Communist Party's perspective. So, they are not a free market entity. And so, that allows them to put national assets behind whatever their strategic interests are. If it's buying access into a port, if it's designing ships at a lower cost so that they can elbow in or to take over market share, they'll do it.

Now, there's still a lot of comparative advantages that our allies and that we have in this sector. We just have not taken full advantage of it, and that's probably where the solution lies where we are today.

Mr. GIMENEZ. Is there legislation needed to accomplish this?

Mr. SADLER. Absolutely. I think there's probably a family of legislation that can't come soon enough, quite frankly.

Mr. GIMENEZ. OK. Since this is an interesting or a great kind of melding of the three committees that I actually serve on—I serve on HASC, Armed Services; I serve on the Select Committee on China; and I obviously serve on Homeland Security—I would love

to get all of your perspectives on the legislation that we need in order to keep America safe.

I mean, we're talking about port security, but now we're really talking about the security of the United States. And it really concerns me that of all the ships that come here, none of them are built in the United States. Probably none of them either are staffed by American sailors. They're probably staffed by foreign sailors.

So, final question, on the licensing, Mr. Fowler, which you talked about. Are the licensing requirements different for U.S. sailors versus maritime personnel from around the world?

Mr. FOWLER. Thank you for your question. And certainly there are differences. And so, for us, some of the challenges that we face in applying for those licenses today, to give you some perspective, we've got at Crowley 100 jobs today that, if we could work through a more efficient licensing process, could be immediately filled. Over 100 jobs that are waiting to be filled that mariner licensing, if we could expedite that process, would resolve. Today—

Mr. GIMENEZ [interrupting]. All right. I need to cut you off because I've got one more thing that I want to follow. I only have 30 seconds.

The ships that dock here that don't have American sailors, they have different licensing requirements, but yet we allow them to dock in American ports. Is that a disadvantage for American sailors also? I mean, why do we have these licensing requirements for our folks and yet we allow folks from other countries that aren't licensed the same way to operate on U.S. ports if, in fact, it's all about safety?

Mr. FOWLER. It should be about safety, Congressman, and I would ask that we defer to the Coast Guard to understand the differences and to provide that detail to make sure that that safety element is being satisfied.

Mr. GIMENEZ. Fair enough. Thank you, and I yield back.

Mr. WEBSTER OF FLORIDA. Thank you. Mr. Thanedar.

Mr. THANEDAR. Thank you, Chairman Webster. And again, thank you, Mr. Wong, for hosting us here today in this beautiful venue. The collapse of the Key Bridge impacted all of your organizations in one way or another. What lessons, if any, can we learn from this collapse and look from a point of safety?

And my second question is, do we have the right perspective in terms of our spending, our budget, our spending on security, protecting our homeland in general? Are certain areas given a higher emphasis than other areas, and is that justified? Are we leaving some areas so vulnerable to the attacks because we are all focused on certain different areas?

So, I just wanted to get a perspective from all of you on lessons learned and how do you see the budgets and how does that impact?

Mr. SADLER. I'll take the first stab at it. Great question. And first up, on the bridge, I mean, we are still in the process of discovery, but there are clearly, clearly a few lessons that—right, first off, one, protective dolphins, which would have prevented or deflected the full force of the *Dali* from taking out the bridge, were not in place. This was based on a similar incident that happened in 1980, but yet in the intervening years, nothing was done.

How many other bridges are likewise not hardened because shipping has changed dramatically in the intervening years? So, there's a task that doesn't take very long to figure out that needs to get done.

When it comes to priorities, which is what I really think the issue is, on resourcing, it's been easier to focus on other areas. It's been easy to kick the can down the road because we had the best infrastructure, we had the best fleets, but now our competitors have caught up. And a lot of that infrastructure, the educational for merchant mariners, and the ability for us to have that present, the market share, has been eroded. So, it's time now to basically kind of get back to the gym and to get competitive again, in my mind.

Mr. THANEDAR. Thank you, Mr. Sadler.

Mr. MCCARTHY. I'll take the next part of it. It really comes down to infrastructure, that it's not just the bridges that need to be resilient or tunnels that need to be constructed to remove those impediments. But it's also about the infrastructure of our waterways. Some of our waterways in the country are not deep enough or wide enough, and we need funding for that. I know the WRDA bill is being discussed at the T&I Committee and deepening harbors and widening them.

I know Savannah is requesting a study being done for the Savannah River, and I know there are other regions of the country that need more infrastructure, as a lesson learned and what we need to do.

As far as the cost and the funding goes, it's in the trillions of dollars, if you look at the whole country. And what you are doing with the Federal grants is very appreciated as a step for us to get moving in the right direction. Thank you.

Mr. THANEDAR. Thank you.

Mr. SADLER. Just one thing, to come back. One of the other lessons from the Baltimore issue is the salvage capacity that we have. I think that's something that needs to be looked at. The ability to dredge as well as to remove debris. We're 10 days into it. It took less time to clear the Suez Canal. So, we need to do better. We do have vulnerable ports, based on that question in the last session.

Mr. THANEDAR. Thank you so much. Quick question. How should I say this? Are we more reactive to attacks and dangers as opposed to being proactive in anticipating what could happen?

Mr. SADLER. I think we have been probably worse than reactive. We have been complacent for far too long. We need to get more proactive in the competitive spirit with our adversary, China, because we have a lot of vulnerabilities to their economic state craft that we need to get up to speed to.

But when it comes to the threat, we were focused and fixated on a terrorist threat, a physical terrorist threat, and we need to update our framework and our approaches to look at a great power competitor. And it's not just China, it's also the Russians and the Iranians that are in this space that are harming us day to day.

Mr. THANEDAR. All right. Thank you so much. I'm out of time. So, Chairman, I yield back.

Mr. WEBSTER OF FLORIDA. Thank you very much. Mr. Cohen, you're recognized.

Mr. COHEN. Thank you, sir.

What is the liability of a shipping company? And maybe Mr. Fowler would be appropriate. I'm not sure who would be the right person. Right now, when there's a disaster like such has happened in Baltimore, are there limits on liability in statute?

Mr. FOWLER. Thank you for your question. I appreciate that. I'd like to follow up with you after about the specifics, and I'll get our staff involved to make sure that we're providing you the adequate results on that.

Mr. COHEN. Well, my staff can do that for me afterwards, but for right now, tell me what your liability is.

Mr. FOWLER. So, our liability would be to respond. And so, we have contracts in place that would ensure that in the event that we would respond accordingly. Take, for example, in this particular instance you're referring to in Baltimore, they had salvage contracts and responding contracts already in place, so that immediately in hours after, those salvage responders were immediately responding to that incident. I know that because we were in communication with some of our services to offer our services and support to do that.

So, what's going on in Baltimore is a joint effort. And beyond, the shipowner plays a part, but absolutely, we would have the responsibility to respond and would do that proactively.

Mr. COHEN. How about—I mean, I thought I read there were damages and there was a limitation on damages because of some old statute. And if this shipping company was negligent, what's the liability?

Mr. FOWLER. Thank you again, Congressman. I'll come back with some more details, the specifics of that and—

Mr. COHEN [interrupting]. All right. Well, I'll find out from my staff. But what I'm getting at is there could be liability on the companies, and there shouldn't be limitations that are on some ancient law. The limitations, if there any at all, they ought to be current.

But we shouldn't give a free pass to the maritime industry if they are negligent in causing a damage to a bridge or other facility that causes an injury to a port, which causes an economic injury to the community. So, we'll look into that.

Is there any particular port, Mr. Wong, in your opinion, that's more vulnerable than another right now?

Mr. WONG. Thank you for your question, Congressman. I think as the Coast Guard alluded to this morning, they do risk assessments with ports every single day. Our port here in Miami is vulnerable as well. We continuously train, we drill for response in active mitigation for what we can control.

But to answer your question more precisely, I do think every port has specific critical infrastructure that will hinder their operations. Here at PortMiami, we're a 522-acre island. We have two points of access through our bridge, which is critical, and through our tunnel, which is another critical infrastructure. But as far as our waterways, we have one single inbound and outbound channel. It is not a two-way channel. So, when a parade of vessels is going in, they're going in. When a parade of vessels is going out, it's single out.

We recently, last November, had an issue where we had a down recreational vessel strike a barge. She did go down in the channel. There was one fatality in the channel. The response was we had five cruise vessels cutting water, standing by to come in. We had thousands of passengers coming inbound, thousands of passengers on hold on the outbound, and three container vessels as well. So, when you talk about planning, mitigation, Coast Guard, our local sheriffs, our community here, as port stakeholders, we drill, we take it very seriously to react as quickly as possible.

Mr. COHEN. Thank you, Mr. Wong.

Mr. WONG. Yes, sir.

Mr. COHEN. Mr. McCarthy, you mentioned safety as being paramount to port operations, which, of course, they are. Based on what you know so far, could anything have been done differently with the Francis Scott Key Bridge? I read a lot about some kind of supports they could have put around the pylons and that would have diffused the impact. Could that have happened and—

Mr. MCCARTHY [interrupting]. I'm not privy to the details of the Francis Scott Key Bridge. I can talk about what's going on in Georgia around the Sidney Lanier Bridge, which is down in Brunswick, Georgia. There are actually 2-acre rock walls around the abutment of the bridge to protect the stanchions of the bridge down in the Sidney Lanier Bridge down in Brunswick.

Mr. COHEN. Were they constructed when the bridge was constructed, or were they added later?

Mr. MCCARTHY. I'll have to get back to you on the details of that question.

Mr. COHEN. Do you know how old that bridge is approximately?

Mr. MCCARTHY. I do not. I'll have to get back to you on that as well.

Mr. COHEN. Because that was an issue about—I think they said there had been—they could have gone back in Baltimore and reinforced those stanchions, but it hadn't been done. Do you know of situations, or anybody on the panel know of situations where folks have gone back and refortified the stanchions to guard against a potential strike?

Mr. MCCARTHY. I do not.

Mr. SADLER. I think Tampa, the incident in 1980, they actually did, but there are other cases, I'm sure, just not in the top of my mind right now.

Mr. COHEN. There was something that happened in New Orleans some years ago. I'm not quite sure what it was. A friend of mine was in NTSB back in the nineties, and he said after that there was a need for a major study, and it was mandated by Congress, then it never took place. Can you edify us on that, Mr. Sadler?

Mr. SADLER. I'm not familiar with the specifics of that, but I'm not surprised that other issues, other priorities at the time intervened to make it not possible, too expensive, not urgent.

Mr. COHEN. Thank each of you for what you do. And thank you, Mr. Wong, for being the first person to recognize me today. I appreciate that very much. I yield back the balance of my time.

Mr. WEBSTER OF FLORIDA. All right. So, that concludes the joint subcommittees' hearing today, and I'd like to thank each of the wit-

nesses for coming and testifying and giving some insightful information about what's going on in the industry.

So, the joint subcommittees, between Coast Guard and Maritime Transportation of the Committee on Transportation and Infrastructure and the Subcommittee on Transportation and Maritime Security of the Committee on Homeland Security, stand adjourned. Thank you for coming.

[Whereupon, at 11:54 a.m., the subcommittees were adjourned.]

APPENDIX

QUESTION TO WILLIAM K. PAAPE, ASSOCIATE ADMINISTRATOR FOR PORTS AND WATERWAYS, MARITIME ADMINISTRATION, FROM HON. SALUD O. CARBAJAL

Question 1. Mr. Paape, at the hearing I asked, “what is MARAD doing to help ports become more resilient to rising oceans and extreme weather events?” of which you requested to take it for the record. Please provide that answer.

ANSWER. The Port Infrastructure Development Program (PIDP) authorized by Congress in 2009 and first funded in 2019, funds projects that address a number of factors, including resilience. As provided in 46 U.S.C. 54301(a)(6)(B)(iii), the Secretary shall, in making grant awards, assesses whether, and how well, a proposed project improves a port’s resilience as part of its review of PIDP funding requests.

The Notice of Funding Opportunity for Fiscal Year 2024 PIDP grants defines port resilience as the ability to anticipate, prepare for, adapt to, withstand, respond to, and recover from operational disruptions and sustain critical operations at ports, including disruptions caused by natural or climate-related hazards (such as sea level change, flooding, and extreme storms) or human-made disruptions (such as terrorism and cyberattacks).

In considering a project’s role in improving a port’s resilience to natural or climate-related hazards, reviewers consider how well the project incorporates evidence-based climate resilience and adaptation measures or features. Projects will score more highly on this element of the criterion if the narrative demonstrates that the project: uses best-available climate data sets, information resources, and decision-support tools (including DOT and other federal resources) to assess the climate-related vulnerability and risk of the project; develops and deploys solutions that reduce climate change risks; is included in a Resilience Improvement Plan or similar plan incorporates nature-based solutions/natural infrastructure; advances objectives in the National Climate Resilience Framework; follows the Federal Flood Risk Management Standard, consistent with current law; and includes plans to monitor performance of climate resilience and adaptation measures.

Many PIDP projects include elements that improve resilience by elevating, strengthening, or relocating critical port infrastructure or otherwise implementing systems and strategies to make port facilities better able to withstand rising sea levels and extreme weather events.

QUESTION TO FREDERICK WONG, JR., DEPUTY PORT DIRECTOR, PORTMIAMI, ON BEHALF OF THE AMERICAN ASSOCIATION OF PORT AUTHORITIES, FROM HON. SALUD O. CARBAJAL

Question 1. Mr. Wong, every maritime port is subject to rising sea level and extreme weather events. Following up from the hearing, what are you doing to prepare for the future, and how expensive is that preparation?

ANSWER. Recognizing the potential impact of sea level rise, the Port understands that climate resilience must be integrated into future decision-making for operations, maintenance, and capital investments. Therefore, the Port proactively approached future flood resilience by developing an initial Sea Level Rise Vulnerability Assessment and Adaptation Guidance document. The document identified areas of the Port that are projected to be exposed to sea level rise hazards through the coming decades, provided an overview of the Port’s asset vulnerabilities, presented a suite of strategies to adapt the Port over time and provided a framework to consider future sea level conditions in the Port’s capital planning process. By preparing for future sea levels, the Port will become more resilient to future flood and storm events and remain a solid economic engine locally, regionally, and nationally.

The costs of implementation vary. Grant funding is being pursued, with success, for projects that improve Port resilience. Other costs are associated with modifying projects to ensure the longevity and resilience of new construction in the coming years. The aforementioned study did include a range of anticipated construction costs for each strategy as well as the cost of inaction over the coming years.

These efforts reflect PortMiami's commitment to building resilience against climate-related challenges, ensuring the Port's continued functionality and safety in the face of environmental changes.

QUESTION TO ED MCCARTHY, CHIEF OPERATING OFFICER, GEORGIA PORTS AUTHORITY, ON BEHALF OF THE NATIONAL ASSOCIATION OF WATERFRONT EMPLOYERS, FROM HON. SALUD O. CARBAJAL

Question 1. Mr. McCarthy, every maritime port is subject to rising sea level and extreme weather events. Following up from the hearing, what are you doing to prepare for the future, and how expensive is that preparation?

ANSWER. The Port of Savannah is located on the Savannah River 18 nautical miles from the ocean which is a different environment than a seacoast port.

Extreme weather events such as hurricanes are covered in our Georgia Ports Authority Hurricane Plan which is reviewed annually with the U.S. Coast Guard Captain of the Port of Savannah.

From an infrastructure standpoint, Georgia Ports (Port of Savannah, Port of Brunswick) are well-suited for any sea-level rise that may occur over the next century because our terminals in Savannah are built with the 7-foot tide differential of the Savannah River taken into account, eliminating any long-term flooding impacts.

Our Port of Brunswick facilities are being raised with a combination of FEMA grants and Georgia Ports costs totaling \$14.9 million while any facilities built since 2016 have all been designed to be above the 100-year storm surge.

In the last 8 years, Georgia has weathered six Tropical Force Storm winds in the region. Each storm was slightly different regarding storm track, wind force and water surge. No storm has impacted Georgia Ports in a significant manner and the highest storm surge was from Hurricane Matthew which was still below our Savannah berths.

QUESTION TO DAVE MORGAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, COOPER/PORTS AMERICA, ON BEHALF OF THE NATIONAL MARITIME SAFETY ASSOCIATION, FROM HON. SALUD O. CARBAJAL

Question 1. Mr. Morgan, every maritime port is subject to rising sea level and extreme weather events. Following up from the hearing, what are you doing to prepare for the future, and how expensive is that preparation?

ANSWER. All Marine Terminal Operators (MTOs) are governed by their respective US Coast Guard Captains of The Port (COTP) with regards to hurricane/weather preparations (copy of Houston/Galveston attached). The pre and post work for a hurricane is funded 100% by the MTO's with no external sources of revenue to offset the cost of this work. These preparations include directives from the US Coast Guard that warn MTOs to prepare for operational interruptions that could extend into 96 hours both during and after storm passage, and may have a direct effect on public safety, energy, and transportation needs¹.

Nearly all MTO's employ Union Labor such as the International Longshoremen's Association (ILA), and the International Longshore and Warehouse Union (ILWU), and our pre and post work is paid at full wage and fringe benefit scales according to our Collective Bargaining Agreements. In the US Gulf Coast and US East Coast alone there are historically 12 or more hurricanes per season which require these pre and post preparations, and in polling Port Authorities and MTO's, most budget for these preparations, but can spend in excess of \$100,000.00 per hurricane season which is non-recoverable to the Ports and MTO's.

Further to the point made in your question regarding sea level rise the Cybersecurity and Infrastructure Security Agency (CISA) has indicated that every 3–20 years we may expect a 100-year storm surge which has the potential to cost billions in direct damages resulting from only one foot of sea-level rise². CISA further estimates that higher seas will cause increases in flooding in nearly all U.S. mainland and Pacific Island coastlines by the mid-2030s, and a third of coastal sites in the US will experience 100-year storm surges becoming 10-year or more frequent events

by 2050². It has been estimated that some of the world's largest Ports, including here in the U.S., may become unusable by 2050 due to rising sea levels³.

The National Maritime Safety Association closely monitors and engages the work of industry stakeholders and Subject Matter Experts regarding this issue. As an example, the Southeast Florida Regional Climate Change Compact has reported that a NOAA assessment shows high-tide flooding days has been increasing for locations along the U.S. East Coast, and offered Miami as an example in that it will likely suffer 60 days of high-tide flooding per year by 2050 with this number possibly exceeding 150 days per year (Figure A-7, personal communication, Sweet et al., 2018) (Sweet et al., 2018)⁴.

It has been further reported that tropical cyclones have caused extensive damages that present crippling costs towards recovery including Category 5 Hurricane Katrina causing approximately \$2.2B in damages to Category 1 Hurricane Sandy causing approximately \$147M in damages⁵. As an example of costs related to guarding against sea level rise port elevation is a one accepted engineering control against this risk. However, a recent study approximated that raising port infrastructure could cost \$71–101B to elevate all existing commercial coastal ports in the United States to address sea level rise by 2070⁵.

NMSA and its maritime transportation stakeholders remain diligent to protect our vital supply chain in the face of these challenges, but any assistance is not only welcomed, it is critical to ensure the stability of our Nation's infrastructure. It is well noted that the Maritime Transportation System Emergency Relief Act (MTSERA), authorized in the FY 2021 National Defense Authorization Act (NDAA) would greatly assist our industry of ports, terminal operators and approximately 40 additional eligible maritime partners by providing relief to maritime industry entities from declared national and regional disasters and emergencies.

The MTSERA program, administered by the U.S. Maritime Administration (MARAD), has yet to have appropriations provided by Congress. NMSA is ready to engage in further discussion how this program would directly protect, and affect, billions of dollars at risk by lack of protective actions and recovery operations resulting from extreme weather changes and sea level rise due to insufficient funding in these endeavors.

It is our understanding that Congress has recognized and authorized an authority to allow financial assistance, and we encourage this Subcommittee to consider, and agree to support, funding this critical program through appropriations. MTSERA Grants would allow MARAD to provide financial assistance to stabilize our maritime industry when it suffers a national emergency or disaster⁶.

A resilient and efficient maritime supply chain is fundamental to protecting American citizens and our economy. Congress has long recognized the critical importance of the maritime supply chain by virtue of establishing a permanent Harbor Maintenance Trust Fund to maintain and ensure the approaches, channels, and berthings in our ports so they remain open, safe, and of sufficient depth to ensure safe and reliable vessel traffic which in turn assures the movement of trade.

In addition to the far-reaching benefits of MTSERA we also ask that this Subcommittee consider a smaller, but permanent fund, to provide an expeditious source of revenue that addresses the immediate needs of ports and MTOs damaged after natural disasters. NMSA feels it would benefit our industry, and the Nation's economic stability, for Congress to take this holistic approach to our supply chain by assigning a percentage of excise tax revenue to provide emergency response for ports and MTOs.

We thank you for the opportunity to participate in this critical discussion, and look forward to further engagement with this Subcommittee.

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