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REVIEWING AND EXAMINING THE FRANCIS SCOTT KEY BRIDGE FEDERAL RESPONSE

(118–58)

HEARING

BEFORE THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTEENTH CONGRESS

SECOND SESSION

MAY 15, 2024

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MAY 10, 2024

SUMMARY OF SUBJECT MATTER

TO: Members, Committee on Transportation and Infrastructure
FROM: Staff, Committee on Transportation and Infrastructure
RE: Full Committee Hearing on "*Reviewing and Examining the Francis Scott Key Bridge Federal Response*"

I. PURPOSE

The Committee on Transportation and Infrastructure will meet on Wednesday, May 15, 2024, at 10:00 a.m. ET in 2167 of the Rayburn House Office Building to receive testimony at a hearing entitled, "*Reviewing and Examining the Francis Scott Key Bridge Federal Response*." The hearing will discuss the ongoing investigation into the allision[1] of the Motor Vessel *DALI* (*MV DALI* or *DALI*) with the Francis Scott Key Bridge (Key Bridge) and the Federal response to the incident. At the hearing Members will receive testimony from the United States Coast Guard (Coast Guard or USCG), the United States Army Corps of Engineers (Corps or USACE), the Federal Highway Administration (FHWA), and the National Transportation Safety Board (NTSB).

II. BACKGROUND

THE FRANCIS SCOTT KEY BRIDGE INCIDENT

On March 26, 2024, the *DALI*, a Singapore-flagged cargo vessel, allided with the Key Bridge in Baltimore, Maryland, resulting in the collapse of center spans of the Key Bridge into the Patapsco River and significant damage to the vessel.[2] Prior to the allision, the pilot aboard the vessel issued a radio call that the *DALI* had lost power as it approached the Key Bridge.[3] In response, a Maryland Transportation Authority (MDTA) police officer radioed two police officers on either side of the Key Bridge, resulting in the closure of all lanes with access to the Key Bridge and the cessation of bridge traffic, saving countless lives.[4] However, a construction crew consisting of eight individuals were repairing potholes on the Key Bridge at the time of the allision.[5] Two of the workers were rescued from the water due to the efforts

[1] An "allision" is a term of art defined as an event where a vessel strikes a stationary object.
[2] NTSB, *Contact of Cargo Vessel Dali with Francis Scott Key Bridge and Subsequent Bridge Collapse*, (last visited May 2, 2024), *available at* https://www.ntsb.gov/investigations/Pages/DCA24MM031.aspx [hereinafter NTSB Investigation Announcement].
[3] @NTSB—Newsroom, Twitter, (Mar. 27, 2024, 9:14 PM), *available at* https://twitter.com/NTSB_Newsroom/status/1773156557045276972/photo/1.
[4] *Id.*
[5] KEY BRIDGE RESPONSE 2024, *UPDATE 16 Multimedia Release: Unified Command Reflects on Month's Progress During Joint Recovery and Salvage Operations*, (April 16, 2024), *available*

Continued

of first responders.[6] Unfortunately, six individuals died in the collapse and as of May 7, 2024, the bodies of all six victims have been recovered.[7]

A Unified Command and Joint Information Center was established in Baltimore, Maryland, providing a coordinated response and the distribution of information related to the Key Bridge collapse.[8] The Unified Command includes the Coast Guard, the Corps, Maryland Department of the Environment, MDTA, Maryland State Police, and Witt O'Brien's, on behalf of Synergy Marine.[9] Maryland Governor Wes Moore declared a State of Emergency for the State of Maryland on March 26, 2024, allowing Maryland to coordinate and request emergency resources and support.[10] President Biden visited the site on April 5, 2024, and restated his intention for the Federal Government to cover the entire cost of reconstructing the Key Bridge while committing to the use of union labor and American steel.[11] The President also signaled the Administration's commitment to ensuring that the responsible party pays "to repair the damage and be held accountable to the fullest extent of the law."[12] On the same day, Office of Management and Budget (OMB) Director Shalanda Young requested that Congress authorize a 100 percent Federal cost share to rebuild the Key Bridge.[13]

HISTORY OF THE FRANCIS SCOTT KEY BRIDGE

The Key Bridge opened on March 23, 1977, and was the second longest main span continuous truss bridge in the world at the time, measuring 1,200 feet between adjacent towers and supporting pillars.[14] It remained the third longest continuous truss bridge in the world at the time of collapse.[15] Constructed to relieve congestion in the area, the Key Bridge provided a second crossing over the Baltimore Harbor, especially for vehicles transporting hazardous materials that are otherwise prohibited from traveling through the Baltimore Harbor and McHenry tunnels.[16] The Key Bridge carried four toll lanes of Interstate 695 over the Patapsco River, generating 12.4 million toll transactions totaling $56.1 million in revenue during Maryland's

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at https://www.keybridgeresponse2024.com/post/update-16-multimedia-release-unified-command-reflects-on-month-s-progress-during-joint-recovery-and.

[6] NBC News, *Francis Scott Key Bridge: Two Victims Recovered; NTSB Recovers Ship's Voyage Recorder Data*, (Mar. 28, 2024), *available at* https://www.nbcnews.com/news/us-news/live-blog/francis-scott-key-bridge-collapse-live-updates-recovery-mission-starts-rcna145224.

[7] KEY BRIDGE RESPONSE 2024, *UPDATE 20: Authorities Identify Sixth Victim Recovered in the Collapse of the Francis Scott Key Bridge*, (May 7, 2024), *available at* https://www.keybridgeresponse2024.com/post/update-20-authorities-identify-sixth-victim-recovered-in-the-collapse-of-the-francis-scott-key-brid.

[8] KEY BRIDGE RESPONSE 2024, *Unified Command, Joint Information Center Established for Key Bridge Response 2024*, (Mar. 30, 2024), *available at* https://www.keybridgeresponse2024.com/post/baltimore-s-francis-scott-key-bridge-collapses-after-mv-dali-allided-with-bridge-column.

[9] KEY BRIDGE RESPONSE 2024, *Unified Command Response Organizations*, (last visited May 2, 2024), *available at* https://www.keybridgeresponse2024.com/about.

[10] THE OFFICE OF GOVERNOR WES MOORE, *Governor Moore's Statement on the Collapse of the Francis Scott Key Bridge*, (Mar. 26, 2024), *available at* https://governor.maryland.gov/news/press/pages/governor-moore-statement-on-the-collapse-of-the-francis-scott-key-bridge.aspx [hereinafter Maryland State of Emergency Declaration].

[11] THE WHITE HOUSE, *Remarks by President Biden on Rebuilding the Francis Scott Key Bridge and Reopening the Port of Baltimore*, (Apr. 5, 2024), *available at* https://www.whitehouse.gov/briefing-room/speeches-remarks/2024/04/05/remarks-by-president-biden-on-rebuilding-the-francis-scott-key-bridge-and-reopening-the-port-of-baltimore-baltimore-md/.

[12] *Id.*

[13] Letter from the Honorable Shalanda Young, Director, Office of Management and Budget, to Rep. Sam Graves et. al., Chairman, H. Comm. on Transp. and Infrastructure, (Apr. 5, 2024), *available at* https://www.whitehouse.gov/wp-content/uploads/2024/04/Letter-Regarding-Authorizing-Language-for-Rebuilding-Francis-Scott-Key-Bridge.pdf [hereinafter OMB Director Shalanda Young Letter].

[14] Jennifer Hassan, *The History of Key Bridge, Baltimore's Engineering Marvel of the 1970s*, THE WASHINGTON POST, (last updated Mar. 27, 2024), *available at* https://www.washingtonpost.com/local/2024/03/26/francis-scott-key-bridge-history-baltimore; *see also* Wayne Perry, *Named for 'Star-Spangled Banner' Author, Francis Scott Key Bridge Was Part of Baltimore's Identity*, THE ASSOCIATED PRESS, (Mar. 26, 2024), *available at* https://apnews.com/article/key-bridge-collapse-baltimore-national-anthem-d22abe7910d7d4ece6c8437997b6d5a5.

[15] *Id.*

[16] MDTA, *Francis Scott Key Bridge History*, (last visited May 2, 2024), *available at* https://mdta.maryland.gov/keybridgenews.

last fiscal year.[17] An estimated 30,000 vehicles crossed the bridge each day.[18] As a toll bridge on an Interstate that at the time of the incident was not subject to Title 23, United States Code, the Key Bridge had never received Federal-aid funding.[19]

THE DALI

The *DALI*, a then Marshall Island-flagged vessel, was constructed in 2015 by Hyundai Heavy Industries in South Korea and is owned by Grace Ocean Private Ltd. and managed by Synergy Marine Group, both based in Singapore.[20] The now Singapore-flagged vessel was leaving Baltimore for Sri Lanka and was time-chartered to MAERSK, a Danish shipping firm, to carry cargo under contract to MAERSK. Under time charters, the charterer uses the vessel owner or operator's crew, meaning no MAERSK employees were operating the 985-foot container ship. The vessel includes 20 crew members from India and one from Sri Lanka.[21] The vessel has a 10,000 Twenty-foot Equivalent Unit (TEU) capacity and was carrying 4,679 TEUs (roughly 2,340 40-foot containers).[22] The vessel is classed by Nippon Kaiji Kyokai,[23] was last inspected by the Coast Guard on September 13, 2023, at the Port of New York and New Jersey, and made nine calls to United States ports over the last two years.[24]

The largest container vessel in 1977 when the Key Bridge was completed was an SL7.[25] SL7s were owned by Sea-Land, operated by Sea-Land, and carried cargo under contract with Sea-Land.[26] They were built in Europe, but United States-owned, -flagged, and crewed.[27] SL7s were 24,471 gross tons and had a beam of 105 feet.[28] By comparison, the *DALI*, a Neopanamax vessel, is 95,128 gross tons and has a beam of 157 feet.[29]

All vessels making call at United States ports are required to maintain a vessel response plan and hold insurance for the vessel. Following the allision, the Coast Guard activated the *DALI*'s vessel response plan, which brought contracted salvagers at the vessel owner's expense to assist the response operations.[30]

III. FEDERAL AGENCY RESPONSE

UNITED STATES COAST GUARD

Following the collapse of the Key Bridge, the Coast Guard deployed numerous assets to begin search and rescue efforts and to establish a security perimeter around the impacted area. The Coast Guard Cutter *Mako*, an 87-foot Marine Protector-class patrol boat, was deployed to serve as the On-Scene Coordinator, responsible for co-

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[17] MDTA, *Annual Comprehensive Financial Report of the Maryland Transportation Authority—An Enterprise Fund of the State of Maryland*, (Dec. 31, 2023), *available at* https://mdta.maryland.gov/sites/default/files/Files/ACFR/2023__Annual__Comprehensive__Financial__Report.pdf.

[18] THE WHITE HOUSE, *FACT SHEET: Biden-Harris Administration Actions Following the Francis Scott Key Bridge Collapse*, (Apr. 5, 2024), *available at* https://www.whitehouse.gov/briefing-room/statements-releases/2024/04/05/fact-sheet-biden-harris-administration-actions-following-the-francis-scott-key-bridge-collapse/.

[19] Email from FHWA to Staff, H. Comm. on Transp. and Infrastructure, (Mar. 26, 2024, 3:49 p.m.), (on file with Comm.) [hereinafter FHWA March 26 Email].

[20] JOHN FRITTELLI ET AL., CONG. RSCH. SERV., R48028, BALTIMORE BRIDGE COLLAPSE: FREQUENTLY ASKED QUESTIONS (FAQS), (Apr. 12, 2024), *available at* https://www.crs.gov/reports/pdf/R48028/R48028.pdf, [hereinafter *Baltimore Bridge Collapse FAQs*].

[21] Emily Davies and Rachel Weiner, *The Dali Ship Crew is Still on Board After Hitting the Baltimore Bridge*, THE WASHINGTON POST, (Apr. 4, 2024), *available at* https://www.washingtonpost.com/local/2024/03/29/dali-ship-crew-baltimore-bridge-collapse/.

[22] *Baltimore Bridge Collapse FAQs, supra* note 20.

[23] Nippon Kaiji Kyokai is a classification society, which establishes and maintains technical standards for vessels, and they conduct inspections to ensure the vessel maintains those standards.

[24] Email from the USCG to Staff, H. Comm. on Transp. and Infrastructure, (May 1, 2024, 11:57 a.m.), (on file with Comm.).

[25] MARAD, *Vessel History: SS Pollux (T–AK–290/T–AKR–290)*, (last visited May 2, 2024), *available at* https://vesselhistory.marad.dot.gov/documents/34baeea1-6161-4a9d-9ce0-fba137bbbc88.pdf.

[26] *Id.*

[27] *Id.*

[28] *Id.*

[29] BalticShipping.com, *DALI, IMO 9697428*, (last visited May 2, 2024), *available at* https://www.balticshipping.com/vessel/imo/9697428.

[30] Email from the USCG to Staff, H. Comm. on Transp. and Infrastructure, (Mar. 26, 2024, 8:43 a.m.), (on file with Comm.).

ordinating the multiagency search and rescue effort.[31] As the situation progresses, the Coast Guard continues to surge assets to assist with various elements of the response. This includes multiple assets ranging from a 225-foot buoy tender, 154-foot fast response cutters, 87-foot patrol boats, and numerous smallboats, as well as more than 200 Coast Guard members including members from stations outside of the immediate area to support the unified command.[32]

Following the allision, the Coast Guard issued an urgent marine broadcast and set up a 2,000-yard safety zone for surrounding waters.[33] They continue to monitor and enforce the safety zone. The Coast Guard deployed vessels and staff to verify aids to navigation, finding one buoy off station and relocated other aids to navigation to reroute vessel traffic.[34] The USCG National Strike Force, which provides technical experts and specialized equipment, oversaw all salvage dive operations, provided on site aerial assessment with unmanned aerial systems, and supervised Salvage Engineering Response Teams (SERT), which provided initial assessments on stabilization of the bridge and the *DALI*. The National Strike Force also worked to develop a salvage plan and provided a phased removal approach involving the removal of 14 damaged containers carrying hazardous materials from the vessel.[35] The Unified Command determined that these damaged containers largely contained soap and perfume products and noted that no volatile organic compounds or flammable vapors were observed.[36] There were a total of 56 containers on the *DALI* containing hazardous materials.[37] The Marine Spill Response Corporation deployed 1400 feet of boom around the vessel and 41 bales of sorbent bill and has subcontracted Miller Environmental in case of any unforeseen pollution remediation needs.[38] Most recently, 182 containers were removed from the vessel to allow for salvage crews to remove the portion of the Key Bridge lying on top of the *DALI*.[39]

While the NTSB is leading the investigation pursuant to a Memorandum of Understanding between the NTSB and the Coast Guard, on March 26, 2024, the Coast Guard convened a formal Marine Board of Investigation to investigate and issue a report on the allision.[40] The Commandant may designate a Marine Board of Investigation to promote safety of life and property at sea or in the public interest.[41] On April 15, 2024, the Coast Guard's Marine Board of Investigation paused evidence collection efforts to avoid interfering with an ongoing criminal investigation being conducted by the United States Attorney's Office for Maryland and the Federal Bureau of Investigation.[42] Special agents from the Coast Guard Investigative Service (CGIS) are assisting the Department of Justice with the ongoing criminal investigation.[43]

The Coast Guard response is primarily funded through their Operations and Support (O&S) budget. Under current statute, the Coast Guard cannot recoup operating expenses unless there is discharge or the substantial threat of discharge of oil and the Oil Spill Liability Trust Fund (OSLTF) is activated.[44] When the OSLTF is activated, the Coast Guard can recoup costs from the Fund which is then replenished by the responsible party. While the OSLTF has been activated, the amounts used from the Fund have been for limited response actions to mitigate the threat of a

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[31] Email from the USCG to Staff, H. Comm. on Transp. and Infrastructure, (Mar. 27, 2024, 8:28 p.m.), (on file with Comm.) [hereinafter USCG March 27 Email].

[32] Email from the USCG to Staff, H. Comm. on Transp. and Infrastructure, (Apr. 2, 2024, 8:39 a.m.), (on file with Comm.).

[33] USCG, *Coast Guard, Multiple Partner Agencies, Responding to Francis Scott Key Bridge Collapse in Baltimore*, (Mar. 26, 2024), *available at* https://www.news.uscg.mil/Press-Releases/Article/3718320/coast-guard-multiple-partner-agencies-responding-to-francis-scott-key-bridge-co/.

[34] Email from the USCG to Staff, H. Comm. on Transp. and Infrastructure, (Mar. 26, 2024, 4:44 p.m.), (on file with Comm.) [hereinafter USCG March 26 Email].

[35] KEY BRIDGE RESPONSE 2024, *CORRECTION: United Command Continues Key Bridge Response 2024*, (Mar. 28, 2024), *available at* https://www.keybridgeresponse2024.com/post/correction-unified-command-continues-key-bridge-response-2024.

[36] *Id.*

[37] *Id.*

[38] USCG March 26 Email, *supra* note 34.

[39] KEY BRIDGE RESPONSE 2024, *UPDATE 18 Multimedia Release: Key Bridge Unified Command Prepares for Removal of Bridge Piece on Top of M/V DALI*, (May 3, 2024), *available at* https://www.keybridgeresponse2024.com/post/update-18-multimedia-release-key-bridge-unified-command-prepares-for-removal-of-bridge-piece-on-top.

[40] USCG March 26 Email, *supra* note 34.

[41] 46 C.F.R. § 4.09–1.

[42] Email from the USCG to Staff, H. Comm. on Transp. and Infrastructure, (Apr. 15, 2024, 5:38 p.m.), (on file with Comm.).

[43] *Id.*

[44] USCG, *The Oil Spill Liability Trust Fund* (OSLTF), (last visited May 9, 2024), *available at* https://www.uscg.mil/Mariners/National-Pollution-Funds-Center/About__NPFC/osltf/.

discharge of oil from the *DALI*.[45] Once the *DALI* is refloated and moved, the Coast Guard will cease use of the OSLTF. Outside of the OSLTF, no other mechanism exists to recoup costs occurred to their O&S account.[46] While the Coast Guard maintains enough funding to continue the response, the incident has put a strain on the Coast Guard's overextended budget and impacts their ability to perform other missions.[47]

UNITED STATES ARMY CORPS OF ENGINEERS (CORPS)

The Corps is tasked with ensuring the navigability of the Nation's waterways by providing for the safe and reliable movement of commerce.[48] The Corps is leading bridge debris removal efforts within the Baltimore 50-foot navigation channel. The Corps is working to reopen the permanent, 700-foot-wide by 50-foot-deep Federal navigation channel by the end of May 2024, restoring port access to normal capacity.[49] Corps activities include use of dive safety experts, underwater analysis and assessment with remotely operated vehicles and sonar, use of certified bridge safety inspectors and urban search and rescue structural technical specialists, and the deployment of vessels for waterway debris management and hydrographic and topographic surveying.[50] The Corps has employed contractors as part of its process for clearing the damage and debris.[51] The Corps has an ongoing relationship with the Navy Supervisor of Salvage and Diving, who has existing contracts with companies experienced in heavy salvage. These companies repositioned two heavy salvage cranes from Newark, New Jersey to Baltimore to begin the salvage work, including the largest heavy salvage crane on the East Coast. The existing contract allowed the debris removal work to begin quickly after the incident.[52]

The Coast Guard Captain of the Port established three temporary alternate channels (TACs) on either side of the collapsed span.[53] The northern channel (Sollers Point TAC) supporting 11 feet of depth opened on April 1, 2024, the northeastern channel (Fort Carroll TAC) supporting up to 20 feet opened on April 19, 2024, and the southern channel (Hawkins Point TAC) supporting up to 14 feet opened on April 2, 2024.[54] These temporary alternate channels are located in the portion of the Patapsco river outside the Federal channel. A Limited Access Channel (LAC), partially located along the northern alignment of the closed 50-foot Federal navigation channel, opened on April 25, 2024, a week and a half ahead of schedule.[55] This 280 feet wide by 35 feet deep LAC will allow approximately 40 percent of port capacity to return.[56] The Corps announced temporary closure of the LAC from April 30, 2024, through May 10, 2024, to allow for removal of a steel truss from the Key Bridge laying across the *DALI*.[57] These efforts are necessary to complete before removing

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[45] Email from the USCG to Staff, H. Comm. on Transp. and Infrastructure (May 8, 2024, 5:29 p.m.) (on file with Comm.)

[46] *Id.*

[47] Briefing from the USCG to Staff, H. Comm. on Transp. and Infrastructure (April 15, 2024).

[48] USACE, *Navigation*, (last visited May 2, 2024), *available at* https://www.usace.army.mil/Missions/Civil-Works/Navigation/.

[49] Email from the USACE to Staff, H. Comm. on Transp. and Infrastructure (Apr. 29, 2024, 2:42 p.m.) (on file with Comm.) [hereinafter USACE April 29 Email].

[50] USACE, *U.S. Army Corps of Engineers Leading Effort to Clear Fort McHenry Channel Following Key Bridge Collapse*, (Mar. 26, 2024), *available at* https://www.nab.usace.army.mil/Media/News-Releases/Article/3719448/us-army-corps-of-engineers-leading-effort-to-clear-fort-mchenry-channel-followi/.

[51] *Id.*

[52] Briefing from the USACE to Staff, H. Comm. on Transp. and Infrastructure (Mar. 27, 2024).

[53] KEY BRIDGE RESPONSE 2024, *Update 5 Multimedia Release: First Vessel Passes Through Temporary Alternate Channel Around Key Bridge Wreckage*, (Apr. 1, 2024), *available at* https://www.keybridgeresponse2024.com/post/update-5-multimedia-release-first-vessel-passes-through-temporary-alternate-channel-around-key-brid; *see also* KEY BRIDGE RESPONSE 2024, *Update 6 Multimedia Release: Unified Command Opens Second Temporary Alternate Channel Around Key Bridge Wreckage*, (Apr. 2, 2024), *available at* https://www.keybridgeresponse2024.com/post/update-6-multimedia-release-unified-command-opens-second-temporary-alternate-channel-around-key-bri; *see also* KEY BRIDGE RESPONSE 2024, *UPDATE 14 Multimedia Release: Unified Command Opens Third Temporary Alternate Channel*, (Apr. 19, 2024), *available at* https://www.keybridgeresponse2024.com/post/update-14-multimedia-release-unified-command-opens-third-temporary-alternate-channel.

[54] *Id.*

[55] KEY BRIDGE RESPONSE 2024, *UPDATE 15: United Command Opens Limited Access Deep Draft Channel*, (Apr. 25, 2024), *available at* https://www.keybridgeresponse2024.com/post/update-15-unified-command-opens-limited-access-deep-draft-channel.

[56] USACE April 29 Email, *supra* note 49.

[57] *Id.*

additional containers from the *DALI* and floating the vessel to allow it to be relocated before the planned channel reopening at the end of May 2024.[58]

The Corps recently conveyed it has sufficient authorization and available operation and maintenance (O&M) funding to complete the debris removal work in response to the Key Bridge collapse.[59] However, the Corps is using fiscal year (FY) 2024 funds appropriated for operation and maintenance of the Baltimore Harbor and Channels not initially intended to be used for the salvage work, among other funds.[60] While a formal funding request has not yet been made, the Corps has indicated an anticipated need for additional appropriations to replenish diverted funding intended for other projects, including planned maintenance of the Baltimore Harbor.[61] This work is being completed without a non-Federal cost share and therefore is covered entirely by Federal funds.[62]

FEDERAL HIGHWAY ADMINISTRATION (FHWA)

On March 28, 2024, FHWA received and approved an application from the Maryland Department of Transportation for $60 million in Emergency Relief (ER) funding.[63] These "quick release" funds are intended to help with initial emergency response and repair costs and may be released prior to completion of detailed damage inspections and cost estimates.[64] According to FHWA, the $60 million represents approximately five percent of the preliminary estimated project cost of $1.2 billion.[65] The Maryland Transportation Authority has reportedly said the rebuild will cost between $1.7 billion and $1.9 billion, and the target for completion is fall 2028.[66]

ER is a special program within the Highway Trust Fund (HTF) for the repair or reconstruction of Federal-aid highways and roads on Federal lands which have suffered serious damage as a result of natural disasters or catastrophic failures from an external cause.[67] Individual states are responsible for requesting ER funds.[68] Eligibility is dependent on a presidential or gubernatorial disaster declaration.[69] Maryland Governor Wes Moore declared a State of Emergency on March 26, 2024, making repairs to the Francis Scott Key Bridge eligible.[70] States are required to submit an application for ER funding to FHWA within two calendar years of the date of the disaster.[71] The application must include a comprehensive list of all eligible project sites and repair costs.[72]

The ER program receives funding from a permanent annual authorization of $100 million in contract authority from the Highway Trust Fund (HTF) and periodic supplemental appropriations from the General Fund.[73] From FY 1990 to FY 2023, Congress provided nearly $23 billion in supplemental appropriations from the General Fund and HTF for the ER program in addition to the $100 million annual authorization from the HTF.[74] All supplemental appropriations have been derived from the General Fund since FY 2005.[75] The Infrastructure Investment and Jobs Act (IIJA) (P.L. 117–58) amended the period from 180 to 270 days after a disaster during

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[58] *Id.*

[59] Briefing from Vice Admiral Peter Gautier, Deputy Commandant for Operations, USCG, Lt. Gen. Scott Spellmon, Chief of Engineers and Commanding General, USACE, Allison Dane Camden, Deputy Asst. Sec., Office of Multimodal Freight Infrastructure and Policy, DOT, to H. Comm. on Transp. and Infrastructure, (Apr.10, 2024, 3:00 p.m.), (remarks from Lt. Gen. Scott Spellmon) [hereinafter Briefing].

[60] Email from USACE to Staff, H. Comm. On Transp. & Infrastructure, (May 7, 2024, 2:34 p.m.), (on file with Comm.).

[61] Briefing, *supra* note 59.

[62] *Id.*

[63] FHWA, *Biden-Harris Administration Announces $60 million for Emergency Work in Wake of the Collapse of theFrancis Scott Key Bridge in Baltimore*, (Mar. 28, 2024), *available at* https://highways.dot.gov/newsroom/biden-harris-administration-announces-60-million-emergency-work-wake-collapse-francis.

[64] *Id.*

[65] Email from FHWA to Staff, H. Comm. on Transp. and Infrastructure, (March 28, 2024, 4:32 p.m.), (on file with Comm.) [hereinafter FHWA March 28 Email].

[66] Michael Laris and Erin Cox, "*Rebuilding Baltimore's Key Bridge expected to cost up to $1.9 billion*" THE WASHINGTON POST, (May 2, 2024) *available at* https://www.washingtonpost.com/dc-md-va/2024/05/02/baltimore-key-bridge-rebuilding-cost/.

[67] FHWA, *Emergency Relief Program*, (last updated Jan. 23, 2024), *available at* https://www.fhwa.dot.gov/programadmin/erelief.cfm [hereinafter ER Program].

[68] *Id.*

[69] *Id.*

[70] Maryland State of Emergency Declaration, *supra* note 10.

[71] ER Program, *supra* note 67.

[72] *Id.*

[73] *See* 23 U.S.C. § 125; *see also* ER Program, *supra* note 67.

[74] FHWA March 28 Email, *supra* note 65.

[75] *Id.*

which the Federal cost share would be provided at 100 percent for "eligible emergency repairs to minimize damage, protect facilities, or restore essential traffic."[76] After that, the Federal cost share payable is 90 percent or 80 percent, depending on the classification of the project.[77]

Despite being located on Interstate 695, the Key Bridge was not part of the Interstate Highway System. While the bridge was shielded as I–695, it was part of a larger segment that comprises Maryland State Route 695, which includes sections not on the Interstate Highway system, including the Key Bridge.[78] According to FHWA, prior to its collapse, the facility never received any Federal funding.[79] The Key Bridge was historically a toll facility, but because it did not receive Federal funds, it was never required to comply with Federal requirements, including tolling requirements. However, upon the Maryland Department of Transportation's receipt of ER funding, the facility was considered "Federalized," and became subject to all Title 23, United States Code, requirements going forward.[80]

Generally, the Federal share for ER program-funded permanent repairs is 90 percent for interstate highways and 80 percent for all other Federal-aid highways, unless a project meets the conditions for an exception.[81] In 2012, Congress enacted changes to the ER program to allow that "eligible repairs to restore damaged facilities to predisaster condition may amount to 90 percent of the cost of the repairs if the eligible expenses incurred by the State due to natural disasters or catastrophic failures in a Federal fiscal year exceeds the annual apportionment of the State."[82] Maryland's Federal-aid highway program apportionment for FY 2024 is approximately $828.3 million.[83] If the costs of repairing the bridge and other eligible activities, such as emergency traffic services and debris removal, exceed Maryland's FY 2024 highway apportionment, Maryland will be eligible for a Federal share up to 90 percent for repair of the Key Bridge.

Immediately following the collapse, President Biden said, "It's my intention that [the] Federal government will pay for the entire cost of reconstructing that bridge."[84] The Biden Administration has since requested Congress authorize a Federal cost share of 100 percent to cover the entire cost of rebuilding the Key Bridge.[85]

Because ER is a reimbursable program the Federal Government does not provide a state with lump sum payment, but rather a state receives payment after making repairs and submitting vouchers to FHWA for reimbursement of the Federal share.[86] Once the state's eligibility for ER funds has been confirmed by FHWA, Maryland can incur obligations knowing that FHWA will reimburse the state. Prior to the collapse, the Key Bridge was a toll facility.[87] ER funds cannot be used to pay for lost toll revenue.[88]

FHWA issues periodic reports on the total unmet needs for emergency relief for both Federal-aid highways and Federally-owned roads, which represents the total amounts eligible to be reimbursed by the Federal government under the ER program.[89] As of March 26, 2024, there is $2.05 billion in total unmet needs and an ER fund balance of approximately $951 million, resulting in a backlog of nearly $1.1 billion.[90] These figures do not reflect the projected cost to rebuild the Key Bridge. When recently testifying before Congress, Department of Transportation (DOT) Secretary Pete Buttigieg acknowledged that DOT has not yet proposed a specific sup-

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[76] IIJA, Pub. L. No. 117–58, 135 Stat. 429; *see also* 23 U.S.C. § 120(e).
[77] *Id.*
[78] John Lloyd, Maryland.gov, *MDOT SHA Roadway National Highway System*, (see segments), *available at* https://data-maryland.opendata.arcgis.com/datasets/maryland::mdot-sha-roadway-national-highway-system-nhs/explore?location=39.209822%2C-76.584433%2C12.00.
[79] FHWA March 26 Email, *supra* note 19.
[80] *Id.*
[81] FHWA, *Federal-aid Programs and Special Funding*, (last updated Jan. 23, 2024), *available at* https://www.fhwa.dot.gov/programadmin/erelief.cfm.
[82] MAP–21, Pub. L. No. 112–141, 126 Stat. 566.
[83] FHWA, *Apportionment of Federal-aid Highway Program Funds for Fiscal Year 2024*, (Oct. 2, 2023), *available at* https://www.fhwa.dot.gov/legsregs/directives/notices/n4510880.cfm.
[84] THE WHITE HOUSE, *Remarks by President Biden on the Collapse of the Francis Scott Key Bridge*, (March 26, 2024), *available at* https://www.whitehouse.gov/briefing-room/speeches-remarks/2024/03/26/remarks-by-president-biden-on-the-collapse-of-the-francis-scott-key-bridge/.
[85] OMB Director Shalanda Young Letter, *supra* note 13.
[86] FHWA, *Emergency Relief (ER) and Program Administration: Steps for Receiving Reimbursement of ER Expenses*, (last visited May 2, 2024), *available at* https://highways.dot.gov/fed-aid-essentials/videos/other-programs/emergency-relief-er-and-program-administration-steps.
[87] FHWA March 26 Email, *supra* note 19.
[88] 23 C.F.R. § 668.109(c)(9).
[89] FHWA March 26 Email, *supra* note 19.
[90] *Id.*

plemental funding request to cover the cost of rebuilding the Key Bridge and address the existing unmet needs of the ER program.[91]

IIJA makes significant investments in bridges through existing and new programs, including the Bridge Investment Program (BIP) and the Bridge Replacement, Rehabilitation, Preservation, Protection, and Construction Program (BFP).[92] The BIP is a competitive, discretionary grant program that supports funding for states, localities, and other entities to invest in existing bridges and reduce the number of bridges in poor condition.[93] The BFP funding is largely distributed by formula and is generally intended for States to replace bridges in poor condition and rehabilitate bridges in fair condition.[94] From FY 2022 through FY 2026, IIJA provides $36.7 billion in advance appropriations for these two programs, authorizes nearly $3.3 billion from the HTF, and authorizes an additional $3.3 billion in spending subject to appropriation.[95] IIJA also authorized and appropriated tens of billions of dollars for other grant programs where bridge projects are eligible, including for the Nationally Significant Multimodal Freight & Highway Projects (INFRA) program, Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program, and the National Infrastructure Project Assistance (Mega) program.[96] Additionally, IIJA reauthorized formula programs for which bridge projects are eligible, such as the National Highway Performance Program and the Surface Transportation Block Grant Program.[97]

NATIONAL TRANSPORTATION SAFETY BOARD (NTSB)

The NTSB is an independent Federal agency responsible for investigating transportation accidents in the United States and issuing safety recommendations.[98] The NTSB is leading the investigation into the contact of the *DALI* with the Key Bridge and the subsequent collapse of the bridge.[99] The NTSB's general investigative process includes the initial notification and decision to investigate, on-site fact gathering, analysis of facts and determination of probable cause, acceptance of a final report, and advocacy for the acceptance of safety recommendations resulting from the investigation.[100] The NTSB's role while on scene of the Key Bridge collapse is limited to the collection of the perishable evidence, including the documentation and photographs of the scene and confiscation of electronics and other components.[101]

The NTSB and Coast Guard are required by statute and Federal regulations to investigate marine casualties.[102] The Coast Guard is required to conduct a preliminary investigation of marine casualties, including a determination of whether the casualty is deemed a "major marine casualty," and to subsequently notify the NSTB of its determination.[103] The NTSB investigates and establishes probable cause for any "major marine casualty" defined as the loss of six or more lives, the loss of a vessel 100 or more gross tons, property damage initially estimated in excess of $500,000, or a serious threat posed by hazardous materials.[104] The Coast Guard classified the Key Bridge incident as a "major marine casualty," and the NTSB reported the initial estimate of damage to the *DALI* and the Key Bridge exceeded $500,000.[105]

On March 27, 2024, NTSB Chair Jennifer Homendy announced in a media briefing that the NTSB investigation could take an estimated 12 to 24 months to complete and that a preliminary report would be released several weeks following the

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[91] *Budget Hearing—Fiscal Year 2025 Request for the Department of Transportation: Hearing Before the Subcomm. on Transportation, Housing and Urban Development, and Related Agencies of the H. Comm. on Appropriations*, 118th Cong. (2024) (Testimony of Sec. Pete Buttigieg).

[92] IIJA, Pub. L. No. 117–58, 135 Stat. 429 [hereinafter IIJA].

[93] FHWA, *Bridge Investment Program*, (last updated Mar. 5, 2024), *available at* https://www.fhwa.dot.gov/bridge/bip/.

[94] FHWA, *Bridge Formula Program (BFP) Questions and Answers*, (last updated Dec. 23, 2022), *available at* https://www.fhwa.dot.gov/bridge/bfp/qanda.cfm.

[95] IIJA, *supra* note 92.

[96] *Id.*

[97] *Id.*

[98] NTSB, *Who We Are and What We Do*, (last visited May 2, 2024), *available at* https://www.ntsb.gov/Pages/home.aspx.

[99] NTSB Investigation Announcement, *supra* note 2.

[100] NTSB, *The Investigative Process*, (last visited May 2, 2024), *available at* https://www.ntsb.gov/investigations/process/Pages/default.aspx.

[101] NTSB, *NTSB Media Briefing 2—Francis Scott Key Bridge Struck by Cargo Ship Dali*, (Mar. 27, 2024), (Remarks by Chair Jennifer Homendy).

[102] *Baltimore Bridge Collapse FAQs, supra* note 20.

[103] 49 C.F.R. § 850.

[104] 49 U.S.C. § 1131; *see also* 49 C.F.R. § 850.

[105] NTSB Investigation Announcement, *supra* note 2.

Key Bridge collapse.[106] As of the date of this SSM, the NTSB has not yet released its preliminary report.

IV. OTHER CONSIDERATIONS

FEDERAL REQUIREMENTS

Accepting ER funding has made the repair and replacement of the Key Bridge, and the future operation of the facility, subject to all Title 23, United States Code, requirements. These include environmental review requirements, transportation planning requirements, domestic content requirements for bridge materials, prevailing wage requirements, Federal procurement rules, and other requirements.[107] In general, the Council on Environmental Quality (CEQ), charged with overseeing the National Environmental Policy Act (NEPA) implementation, maintains categorical exclusions (CEs) across Federal agencies.[108] CEs are allowed for actions that "do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required." [109]

There is a FHWA CE that could apply for actions following an emergency declaration by a Governor of a state, including for the "repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility." [110] Specifically, the CE stipulates that this work "occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction)." [111] For reconstruction to qualify for this CE, reconstruction efforts must begin within two years of the Governor of Maryland's emergency declaration.[112] Other Federal requirements to be met could include Endangered Species Act Section 7 consultation and compliance with the requirements of the Clean Water Act associated with construction of the bridge.

LIABILITY

On April 1, 2024, the vessel's owner and operator filed for exoneration from or limitation of liability, arguing that the vessel owner's liability should be capped at $43.67 million, which is the value of the vessel plus pending freight fees, less repair and salvage costs.[113] The petitioners filed in Federal district court under the Limitation of Liability Act of 1851, which generally allows a shipowner to limit its total liability to the diminished value of the vessel and pending freight if the owner lacked privity or knowledge.[114] In response to the vessel owner's liability limitation action, the City of Baltimore filed a lawsuit on April 22, 2024, challenging the limitation assertion, claiming negligence on the part of the vessel owner and crew, and seeking to lift the liability cap.[115]

V. WITNESSES

- Vice Admiral Peter Gautier, Deputy Commandant for Operations, United States Coast Guard
- Major General William (Butch) H. Graham, Deputy Commanding General, Civil and Emergency Operations, United States Army Corps of Engineers
- Hon. Shailen Bhatt, Administrator, Federal Highway Administration, United States Department of Transportation
- Hon. Jennifer Homendy, Chair, National Transportation Safety Board

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[106] *Supra* note 101.

[107] FHWA March 26 Email, *supra* note 19.

[108] CEQ, *Categorical Exclusions*, (last visited May 2, 2024), *available at* https://ceq.doe.gov/nepa-practice/categorical-exclusions.html.

[109] *Id.*

[110] *See* 23 C.F.R. § 771.117.

[111] *Id.*

[112] *Id.*; *see also* ER Program, *supra* note 67.

[113] Brinley Hineman, *Dali Owner, Manager Seek to Cap Liability in Baltimore Bridge Collapse*, YAHOO FINANCE, (Apr. 2, 2024), *available at* https://finance.yahoo.com/news/dali-owner-manager-seek-cap-191833847.html.; *see also* Petition for Exoneration from or Limitation of Liability, (Apr. 1, 2024), *available at* https://storage.courtlistener.com/recap/gov.uscourts.mdd.556480/gov.uscourts.mdd.556480.1.0.pdf.

[114] *See* 46 U.S.C. § 30523.

[115] Sareen Habeshian, *Baltimore Accuses Dali Cargo Ship Owner, Operator of Negligence*, AXIOS, *available at* https://www.axios.com/2024/04/23/baltimore-ship-negligence-claim-bridge-collapse.

REVIEWING AND EXAMINING THE FRANCIS SCOTT KEY BRIDGE FEDERAL RESPONSE

WEDNESDAY, MAY 15, 2024

HOUSE OF REPRESENTATIVES,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
WASHINGTON, DC.

The committee met, pursuant to call, at 10:02 a.m. in room 2167 Rayburn House Office Building, Hon. Sam Graves (Chairman of the committee) presiding.

Mr. GRAVES OF MISSOURI. We will call the committee to order.

I would ask unanimous consent that the chairman be authorized to declare a recess at any time during today's hearing.

And without objection, that is so ordered.

And as a reminder, if Members insert a document into the record, please also email it to DocumentsTI@mail.house.gov.

At this point, I will just recognize myself for the purposes of an opening statement.

OPENING STATEMENT OF HON. SAM GRAVES OF MISSOURI, CHAIRMAN, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

Mr. GRAVES OF MISSOURI. So, we are here today to discuss the initial Federal response to the March 26, 2024, early morning incident involving the cargo vessel *Dali* and the Francis Scott Key Bridge in Baltimore, Maryland, which resulted in the subsequent collapse of the bridge.

And I first want to acknowledge the six workers who, sadly, perished that morning. And on behalf of the entire committee, I want to express our condolences and offer our prayers to their families and their loved ones.

I also want to express the committee's appreciation to the harbor pilot and the Maryland Transportation Authority police officers who saved countless lives by closing the Key Bridge prior to the incident, and to all the first responders who are, obviously, involved in that process.

And finally, I want to commend the Federal, State, and local officials working that night to clear the wreckage and debris and, obviously, continuing that effort, and to reopen the shipping channel that supports the Port of Baltimore.

This committee continues to receive updates from the Federal agencies who are responding and investigating the incident, including those testifying here today.

So, hours after the collapse, President Biden announced his intention for the Federal Government to pay for the entire cost of re-

constructing the Key Bridge, and the committee has received a letter from the administration officially requesting that Congress authorize a 100-percent Federal cost share to rebuild the bridge, and I have personally spoken to Governor Moore about the request on a couple of occasions.

On March 28, the State of Maryland applied for funding from the Federal Highway Administration's Emergency Relief Program, commonly called ER. Within hours of receiving the Maryland Department of Transportation's application, the Federal Highway Administration approved $60 million in quick release funding, which it said represented roughly 5 percent or so of the initial total project cost of $1.2 billion. This funding is intended to assist with eligible repair work, which includes emergency repairs needed to restore essential travel, to minimize damage, or protect the remaining facilities, as well as permanent repairs necessary to restore the highway to its pre-disaster condition.

Under the ER Program, the Federal Government will reimburse the State for qualifying work at 100 percent Federal cost for the first 270 days. After that initial 270 days, States get reimbursed at an 80- to 90-percent rate, depending on the classification, and the program also provides flexibility to allow for reimbursement up to 90 percent in some cases. So, this past Friday, May 10, the Federal Highway Administration informed the committee that they had designated the portion of I–695 that includes the bridge as part of the interstate system effective April 29, meaning that Maryland's reimbursement rate is now going to be guaranteed up to 90 percent.

All that is to say that while the President's request has been received and it is under consideration, Congress still has roughly 6 months to act before any cost share changes might occur. So, despite initial estimates of $1.2 billion to rebuild the bridge, media reports now indicate that the State of Maryland estimates that the bridge may cost somewhere between $1.7 and $1.9 billion. So, it is important that we have a very firm estimate before we take any further action on the cost share.

In addition, if the company that owned and operated the ship is found to be liable, we must make sure that the Government actively works to recover any money that it is owed. That could help offset the bridge funding or be used to make the people and companies who obviously rely on and work at the Baltimore Harbor whole.

So, several members of this committee have visited the site with our Federal partners, and for those who wish to go up there and see it for themselves, the committee will continue to facilitate visits on a regular basis.

So, at this stage we need to make sure that we are not getting ahead of the facts, and let the NTSB and other agencies complete their investigations. But as we continue to learn more, we will ensure that Members of Congress have all the information that is available to them.

And I do want to thank all of our witnesses for being here today, and I look forward to the testimony. I did talk to the Governor just this morning about the hearing coming up, and he is pretty optimistic about the litigation, too, moving forward. I mentioned that

just briefly in my opening statement, but it sounded very interesting and very, very promising.

[Mr. Graves of Missouri's prepared statement follows:]

Prepared Statement of Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Chairman, Committee on Transportation and Infrastructure

We are here today to discuss the initial federal response to the March 26, 2024, early morning incident involving the cargo vessel *Dali* and the Francis Scott Key Bridge in Baltimore, Maryland, that resulted in the subsequent collapse of the bridge.

I first want to acknowledge the six workers who sadly perished that morning. On behalf of the entire Committee, I want to express our condolences and offer our prayers to their families and loved ones.

I also want to express the Committee's appreciation to the harbor pilot and Maryland Transportation Authority police officers who saved countless lives by closing the Key Bridge prior to the incident, and to all first responders involved.

Finally, I want to commend the federal, state, and local officials working day and night to clear the wreckage and debris and to reopen the shipping channel that supports the Port of Baltimore. This committee continues to receive updates from federal agencies that are responding to and investigating the incident, including those testifying here today.

Hours after the collapse, President Biden announced his intention for the federal government to pay for the entire cost of reconstructing the Key Bridge. This committee has received a letter from the Administration officially requesting that Congress authorize a 100 percent federal cost share to rebuild the bridge, and I have personally spoken to Governor Moore about this request.

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This funding is intended to assist with eligible repair work, which includes emergency repairs needed to restore essential travel, minimize damage, or protect the remaining facilities, as well as permanent repairs necessary to restore the highway to its pre-disaster condition.

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All that is to say, while the President's request has been received and is under consideration, Congress still has roughly six months to act before any cost share changes would occur. Despite initial estimates of $1.2 billion to rebuild the bridge, media reports now indicate that the State of Maryland estimates that the bridge rebuild may cost between $1.7 billion and $1.9 billion.

It is important that we have a firmer estimate before we take any further actions on the cost share. In addition, if the company that owned and operated the ship is found to be liable, we must make sure that the government actively works to recover any money it is owed. That could help offset the bridge funding or be used to make the people and companies who rely on and work at the Baltimore Harbor whole.

Several Members of this committee have visited the site with our federal partners, and for those who wish to go up there and see it for themselves, the Committee will continue to facilitate visits on a regular basis.

At this stage, we need to make sure we are not getting ahead of the facts, and let the NTSB and other agencies complete their investigations. But as we continue to learn more, we will ensure that Members of Congress have all available information.

I thank all four witnesses for being here today, and I look forward to your testimonies.

Mr. GRAVES OF MISSOURI. So, with that, I will turn to Ranking Member Larsen for his statement.

OPENING STATEMENT OF HON. RICK LARSEN OF WASHINGTON, RANKING MEMBER, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

Mr. LARSEN OF WASHINGTON. Thank you, Chair Graves, for holding this hearing, and I want to thank each of the administration officials for joining us to discuss the Francis Scott Key Bridge recovery effort.

First, like the chair, I want to express my sympathies with the families of the six transportation workers who lost their lives while on the job, maintaining this important piece of infrastructure. This incident is a reminder of why safety always has to be the top priority in transportation: safety of workers, the traveling public, and the residents of communities adjacent to that infrastructure.

This emergency left in its wake an incredibly complex debris removal challenge, a closed channel and a shuttered port, significant regional economic and global shipping ramifications, and the loss of a bridge essential to freight movement and roadway mobility in the mid-Atlantic region.

Vice Admiral Gautier and General Graham, I want to commend you and your team and your leadership and the tireless efforts of the women and men under your command for their incredible work to safely remove debris and return the channel to the operations that currently exist under extremely challenging circumstances.

The degree of difficulty became clear when I visited the site of the collapse last month. I want to thank the Coast Guard, the Corps, your State partners on the Unified Command, especially the Maryland State Police, for guiding many Members of Congress in our various trips to witness the damage. I look forward to hearing the latest updates from you today on the status of the cleanup and the estimated timeline for the full reopening of the Channel and Port of Baltimore operations.

I am also eager to learn what resources and authorities the Coast Guard and the Corps will need from Congress as the full costs and impacts of the response become more concrete.

The Coast Guard has expended significant fiscal year 2024 operations and support funds to respond to this emergency, and we are grateful the Coast Guard always does what it needs to get the job done. Yet, it is unreasonable to expect the Service to absorb these response costs, which were obviously not budgeted for in advance, without impacting the Coast Guard's ability to perform other missions. So, the Service must be made whole.

Similarly, the Corps, in responding to the emergency, has used fiscal year 2024 operations and maintenance funds appropriated for the Baltimore Harbor and channels. If not replenished, the diverted funding will impact planned maintenance for the Baltimore Harbor once response is complete and in future years.

These amounts were not, however, sufficient to fund the response, and last week, the Corps announced the reprogramming of

$20 million in unused funds to continue the channel clearing work. This level of reprogramming is unprecedented, and demonstrates—in the absence of supplemental funds provided by Congress for this cleanup—the budgetary juggling the Corps has to do to get the bridge out of the water and off the vessel so the Port of Baltimore can reopen. That juggling will continue.

I urge the Corps and the Coast Guard to communicate to Congress early and often on what your needs are in this process, on your plans to ensure this work can finish uninterrupted, and to do so in partnership with the legislative branch.

Beyond the immediate response, I look forward to hearing from Federal Highway Administrator Bhatt about the timeline to replace the bridge and the role the Federal Government is playing in aiding that process.

Congress established the Emergency Relief Program in 1958, as part of the Federal highway program, to provide for the reconstruction of highways and bridges in the event of a disaster. Congress understood that the State could not be expected to cover the costs of an unforeseen emergency loss of infrastructure out of its annual road budget.

That is still true today. Maryland transportation officials estimate it will cost up to $1.9 billion to replace the bridge. Frankly, there are a lot of estimates out there, and it is a broad range, so, I really wouldn't call them estimates at this point, frankly. So, while U.S. DOT has provided $60 million in ER funds to date, we do know that is a fraction of the total need.

Prior to the collapse, the Key Bridge carried 34,000 vehicles a day. Traffic diversion is increasing vehicle crossings in the Fort McHenry and Harbor Tunnels by 18 percent, and truckdrivers carrying hazardous materials currently must add 25 miles to get through Baltimore via alternate routes, including communities that did not expect hazmat trucks to be going through them.

This committee has a role to help rebuild this critical economic artery quickly and efficiently, including ensuring the project can advance without a cost share from Maryland.

Finally, I want to welcome back Chair Homendy, and congratulations on your reconfirmation last night. The NTSB's thorough investigation of this catastrophe will help answer questions about how to prevent future allisions, shore up bridges, save lives, and protect our critical infrastructure. I look forward to what Chair Homendy is able to share about this incident based on the NTSB's preliminary findings, which were released yesterday afternoon, I believe.

So, thank you to each of our witnesses, and I thank the chair for calling this hearing today, and I look forward to what you all have to say.

With that, I yield back.

[Mr. Larsen of Washington's prepared statement follows:]

Prepared Statement of Hon. Rick Larsen of Washington, Ranking Member, Committee on Transportation and Infrastructure

Thank you, Chairman Graves, for holding this hearing, and thank you to each of the Administration officials for joining us to discuss the Francis Scott Key Bridge recovery effort.

First, like the Chairman, I want to express my deepest sympathies with the families of the six transportation workers who lost their lives while on the job, maintaining this important piece of infrastructure.

This incident is a reminder of why safety must always be our top priority in transportation—safety of workers, the traveling public and the residents of communities adjacent to that infrastructure.

This emergency left in its wake an incredibly complex debris removal challenge, a closed channel and shuttered port, significant regional economic and global shipping ramifications and the loss of a bridge essential to freight movement and roadway mobility in the mid-Atlantic region.

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The degree of difficulty became clear when I visited the site of the collapse last month. Thank you to the Coast Guard, the Corps and your state partners on the Unified Command, especially the Maryland state police, for guiding many members of Congress to witness the damage.

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These amounts were not, however, sufficient to fund the response. Last week, the Corps announced the reprogramming of $20 million in unused funds to continue channel clearing work.

This level of reprogramming is unprecedented and demonstrates—in the absence of supplemental funds provided by Congress for this clean up—the budgetary juggling the Corps has to do to get the bridge out of the water and off the vessel so the Port of Baltimore can reopen. That juggling will continue.

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Congress established the Emergency Relief (ER) program in 1958, as part of the federal highway program, to provide for the reconstruction of highways and bridges in the event of a disaster.

Congress understood, then, that a state could not be expected to cover the costs of an unforeseen, emergency loss of an infrastructure asset out of its annual road budget.

That is still true today. Maryland transportation officials estimate it will cost up to $1.9 billion to replace the bridge. While U.S. DOT has provided $60 million in ER funds to date, that is a fraction of the total need.

Prior to collapse, the Key Bridge carried 34,000 vehicles per day. Traffic diversion is increasing vehicle crossings in the Fort McHenry and Harbor tunnels by 18 percent and truck drivers carrying hazardous materials currently must add 25 miles to get through Baltimore via alternate routes, including communities that did not expect hazardous materials and trucks to be going through them.

This Committee has a role to help rebuild this critical economic artery quickly and efficiently—including ensuring the project can advance without a cost share from Maryland.

Finally, I welcome back to this Committee Chair Homendy. Congratulations on your reconfirmation last night. The NTSB's thorough investigation of this catastrophe will help answer questions about how to prevent future allisions, shore up bridges, save lives and protect our critical infrastructure. I look forward to what Chair Homendy is able to share about this incident based on the NTSB's preliminary findings released yesterday afternoon.

Thank you to each of our witnesses for being here today and for your testimony.

Mr. GRAVES OF MISSOURI. So, I would ask unanimous consent that the witnesses' full statements be included in the record.

And without objection, that is so ordered.

I would ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing.

And without objection, that is also so ordered.

I would also ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing.

And without objection, that is so ordered.

So, your written testimony has obviously been included in the record, so, the committee asks that you try to limit your oral remarks to 5 minutes.

And with that, Vice Admiral Gautier, you are recognized for 5 minutes. Thanks for being here.

TESTIMONY OF VICE ADMIRAL PETER GAUTIER, DEPUTY COMMANDANT FOR OPERATIONS, U.S. COAST GUARD; MAJOR GENERAL WILLIAM H. GRAHAM, DEPUTY CHIEF OF ENGINEERS, DEPUTY COMMANDING GENERAL, AND DEPUTY COMMANDING GENERAL FOR CIVIL AND EMERGENCY OPERATIONS, U.S. ARMY CORPS OF ENGINEERS; HON. SHAILEN BHATT, ADMINISTRATOR, FEDERAL HIGHWAY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION; AND HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

TESTIMONY OF VICE ADMIRAL PETER GAUTIER, DEPUTY COMMANDANT FOR OPERATIONS, U.S. COAST GUARD

Admiral GAUTIER. Thank you, Chairman Graves, Ranking Member Larsen, distinguished members of the committee. Good morning.

Thank you, first off, for your kind words about the Coast Guard in your opening remarks, and I appreciate the opportunity to testify before the committee.

In the early hours of March 26, the containership *Dali* struck and collapsed the Francis Scott Key Bridge. Six individuals lost their lives. Baltimore lost a landmark part of its skyline, and the region suffered a blockage of a crucial waterway. We continue to honor the memory of those victims.

Today, at the 51-day point, over 6,000 tons of steel and concrete have been removed from the wreckage field, access has been restored to the Port of Baltimore, with more than 35 large commer-

cial vessels sailing through a limited access channel, and 375 additional commercial and recreational vessels have used 3 shallower, temporary access channels, the first of which was established just 6 days after the bridge collapsed.

The hazardous materials aboard the motor vessel *Dali* were stabilized, as was the ship itself, and I will report today that Unified Command believes that the *Dali* will be able to be refloated and removed from that site—early next week is what they are looking at.

Particularly notable, countless complex steps in this operation have been completed without a single worker injury. These monumental efforts were made possible through the exemplary unity of effort of the Unified Command, rapid mobilization of personnel and resources, strong coordination, and trusted partnerships. The Unified Command formed within the first few hours, per the National Response Framework, our national doctrine for response to disasters and emergencies. The Coast Guard, Army Corps of Engineers, Maryland State Police, Maryland Transportation Authority, Maryland Department of the Environment, and Witt O'Brien's, which represented the owners and operators of the *Dali*, have effectively leveraged each other's jurisdictions, authorities, and capabilities to get us where we are today.

The Coast Guard is proud to be part of this response. Our women and men serve on the front lines of a Nation whose economic prosperity and national security are inexorably linked to our maritime transportation system. We exercised 6 of our 11 statutory missions in this response from the early hours of the search and rescue response to restoring vessel traffic by setting aids to navigation.

The Coast Guard's broad authorities positioned the Service to coordinate activities to assure the safety, security, and stewardship of our waterways, but we are also successful through partnerships and continuously exercising, operating, and coordinating with Federal, State, and local industry partners. One prime example, Chairman, you mentioned is the fantastic work on the quick notification by the pilots to the MTA dispatch, which inevitably saved countless numbers of lives.

But the work is not done. The Unified Command remains sharply focused on the full restoration of the MTS. Active investigations continue in parallel with the response, including the Coast Guard's Marine Board of Investigation, our highest level of marine casualty investigation, to determine the incident's causal factors and support the development of preventative recommendations.

Our investigation is in cooperation with the NTSB, which has taken the lead on the safety investigation. And the Coast Guard investigation is also moving concurrently and separately from the Department of Justice's criminal investigation.

While we look forward to the results of these investigations, it is evident, looking more broadly, that the size and complexity of ships has grown over the years, placing greater demands on our marine transportation infrastructure that may not have kept pace with the increased risks that these vessels pose.

It is time for us to more broadly understand these risks, so, as Deputy Commandant for Operations, I will be convening a nationwide board of inquiry under title 46, U.S. Code, led by my Assist-

ant Commandant for Prevention Policy, Rear Admiral Wayne Arguin. The purpose will be to assess the efficacy of the Coast Guard suite of risk management tools, evaluate how recently they have been used within major ports, and establish a holistic, national level approach to develop risk profiles, identify ways to address vulnerabilities, and propose actions to reduce the risk of major incidents. This board of inquiry is a necessary step to bolster our MTS resiliency and assure the safe and secure and efficient flow of commerce on our waterways. The Coast Guard is ready to lead this effort.

Thank you for this opportunity and for your enduring support of the Coast Guard, and I look forward to your questions.

[Admiral Gautier's prepared statement follows:]

Prepared Statement of Vice Admiral Peter Gautier, Deputy Commandant for Operations, U.S. Coast Guard

Good morning, Chairman Graves, Ranking Member Larsen, and distinguished members of the committee. I am grateful for the opportunity to testify before this committee regarding a unified response to the Motor Vessel (M/V) DALI's allision with the Francis Scott Key Bridge in Baltimore, Maryland. First and foremost, I offer my heartfelt condolences to the families and loved ones of the six individuals who lost their lives. The Coast Guard has strong ties throughout Maryland and the Baltimore community, and our sympathies are with all those impacted by this horrible incident.

The Coast Guard serves on the front lines for a nation whose economic prosperity and national security are inextricably linked to the Marine Transportation System (MTS) and its maritime interests. The Coast Guard assures the safety, security, and stewardship of the nation's MTS, an integrated network that consists of 95,000 miles of U.S. coastline, 25,000 miles of navigable channels, 50,000 aids to navigation, 1,400 intermodal connections, and 361 ports. This responsibility is paramount for the Service. The vast system of ports and waterways that make up the MTS support $5.4 trillion of annual economic activity and account for employment of more than 30 million Americans. Your Coast Guard saves mariners in distress, enforces safety regulations, inspects vessels, maintains aids to navigation, and provides vessel traffic services to keep commerce flowing in a safe, secure, and efficient MTS.

To safeguard the nation's uninterrupted access to domestic and global supply chains from major MTS disruptions the Coast Guard organizes and leads unified responses under the National Response Framework (NRF). While the Coast Guard's broad authorities position the Service to coordinate activities aimed at restoring the flow of commerce, it is the strength of our partnerships that assures our mission success. Continuously training, exercising, and coordinating with federal, state, local, and industry partners are key Service priorities and set the stage for successful operations, like the complex and challenging response to the Francis Scott Key Bridge collapse.

INITIAL EVENTS AND COAST GUARD RESPONSE

On the morning of Tuesday, March 26, 2024, the M/V DALI, a Singapore-flagged container ship, was transiting the Patapsco River outbound from Seagirt Marine Terminal in Baltimore. At approximately 1:30 AM, the M/V DALI lost electrical power, propulsion, and steering, resulting in the vessel striking the Francis Scott Key Bridge, immediately collapsing three bridge span sections into the water. The central bridge span collapsed across the main navigation channel, blocking the channel to shipping and partially landing on the vessel's bow.

Due to the rapid notification of the ship's loss of power by the pilot onboard M/V DALI, the Maryland Transportation Authority (MDTA) quickly halted automobile traffic on the bridge immediately before the allision. Eight construction workers were on the bridge at the time; one was able to run off the bridge, one was rescued from the water, and the remainder were missing. Coast Guard Sector Maryland-National Capital Region (NCR) immediately responded with search and rescue (SAR) teams, which arrived on scene within minutes. Coast Guard SAR teams searched alongside our state and local partners for the remaining victims, using all available

resources—including boats, cutters, and helicopters. The Coast Guard suspended SAR operations after more than 18 hours of searching when it was apparent that no missing workers survived the collapse, and operations transitioned to recovery of remains. The six deceased construction workers were eventually recovered from the wreckage during salvage operations.

While conducting SAR operations, the Coast Guard also closed the Port of Baltimore waterway, established a safety zone, and coordinated with the Federal Aviation Administration to implement area flight restrictions to ensure the safety of the general public around the wreck site. Responding agencies formed a UC and began a major operation to stabilize the site and evaluate risks to public health and the environment. The Coast Guard's proactive environmental response included deployment of 3,250 feet of containment boom around the M/V DALI.

As the initial response continued, Coast Guard surged deployable specialized teams—including a Salvage Engineering Response Team, Atlantic Strike Team, Incident Management Assistance Team, and a Public Information Assistance Team—to lead and support efforts to ensure vessel stability, incident site safety, and comprehensive damage evaluation. The Coast Guard continues to apply its range of capabilities, authorities, and resources to support the unified effort surging more than 200 personnel to the UC since the incident.

Overview of Unified Command Responsibilities

The UC leading the response leverages federal and state agencies' complementary jurisdictions, authorities and capabilities in a way that achieves unity of effort towards accomplishing common objectives. The UC is comprised of the Coast Guard, U.S. Army Corps of Engineers (USACE), Maryland State Police (MSP), MDTA, Maryland Department of the Environment (MDE), and Witt O'Brien's, which represents the owner and operating companies of the M/V DALI.

The UC was established in alignment with the NRF, National Incident Management System (NIMS) Incident Command System (ICS), as well as the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). NIMS/ICS is utilized to provide a common method for developing and implementing tactical plans to efficiently and effectively manage the response to natural and man-made incidents.

The UC established a comprehensive response organization, and aligned objectives and actions around operational priorities, including:

- Ensuring safety of the public and first responders;
- Achieving accountability for missing persons;
- Protecting the environment;
- Safely restoring transportation infrastructure and commerce; and
- Supporting the investigations.

Additionally, the UC established a critical operational path to achieve five milestones:

- Milestone 1: Complete salvage assessment and engineering;
- Milestone 2: Restore navigation;
- Milestone 3: Remove the M/V DALI;
- Milestone 4: Clear remaining wreckage; and
- Milestone 5: Prevent and respond to pollution (continuous)

Consistent with the President's direction to re-open the Port of Baltimore as soon as possible, the UC worked aggressively towards safely and efficiently restoring maritime commerce to and from the Port of Baltimore to minimize economic and social impacts to the region and nation. Continuous coordination and communication amongst UC members, with elected leaders at the federal, state and local levels, and the general public was essential to meeting the UC's objectives safely and rapidly.

Leveraging its combination of authorities, assets, and response capabilities, the Coast Guard is leading operations to stabilize and refloat the M/V DALI while preventing threats to the environment under its Federal On-Scene Coordinator (FOSC) authority and impacts to the Port of Baltimore and MTS under its Captain of the Port (COTP) authority. USACE is leading operations to remove bridge wreckage from the federal channel by mobilizing resources, including the U.S. Navy Supervisor of Salvage (SUPSALV), through its responsibility to maintain federal channels for vessel navigation.

Partnership with State of Maryland leadership is vital to this response. MDTA has primary jurisdiction over the bridge and is overseeing bridge wreckage salvage and removal from the waterways outside of the federal channel. MSP is the lead authority for victim recovery and is working directly with victims' families. MDE continues to provide oversight to prevent environmental threats in coordination with the Coast Guard.

ACCOMPLISHMENTS TO DATE

The UC made significant progress toward meeting objectives through outstanding unity of effort, rapid mobilization of personnel and resources, and strong coordination and communication. The dedication, professionalism, and determination of responders resulted in major objectives being met ahead of schedule and with no injuries to personnel. Presently, more than 350 uniformed and civilian workers from 53 federal, state, and local agencies across the U.S. are deployed to Baltimore to support ongoing recovery and salvage efforts. In addition, 553 contract specialists are actively involved in various roles related to dive, crane, and vessel operations. More than 1,000 individuals contributed to the Francis Scott Key Bridge response mission thus far.

To address the estimated 50,000 tons of wreckage at the Francis Scott Key Bridge site, the UC assembled a substantial fleet of specialized vessels and equipment, including four Coast Guard cutters, more than 10 Coast Guard boats, 36 barges, 27 tugboats, 22 floating cranes, 10 excavators, one dredger, and one skimmer. Progress in the salvage effort is impressive, with thousands of tons of wreckage and debris removed from the site for disposal or recycling and 183 containers removed from the bow of the M/V DALI.

Within the broader unified effort, the Coast Guard facilitated significant progress in re-opening the Port of Baltimore and restoring the MTS. The UC established three alternate channels with controlling depths of 11-feet, 14-feet, and 20-feet. On April 25th, as a result of the extraordinary efforts of the USACE, Navy SUPSALV, and their contractors, a fourth limited access channel with a 48-foot controlling depth was established, with the full opening of the channel to its pre-incident specifications projected by the end of May. As of May 13th, 365 commercial vessels transited the four alternate channels, including all of the vessels that were in port during the incident.

COAST GUARD INVESTIGATION

Upon receiving notification of the major marine casualty on the morning of March 26th, Coast Guard investigating officers from Sector Maryland-NCR deployed to the incident and commenced a preliminary investigation to secure vital evidence, including perishable data from the M/V DALI's voyage data recorder (VDR). In accordance with existing agreements, Coast Guard and the National Transportation Safety Board (NTSB) agreed to proceed with the NTSB serving as the Lead Federal Agency for the concurrent safety investigations due to the multi-modal nature of the incident [1].

On March 26, 2024, I convened a Marine Board of Investigation (MBI), the Coast Guard's highest level of marine casualty investigation, to secure proper resources and assign our most experienced investigators, marine inspectors, and engineers to this critical task. MBI members deployed to the M/V DALI and assumed the lead for the Coast Guard marine casualty investigation on the morning of March 27th.

Under International Maritime Organization (IMO) protocols for marine casualty investigations, the Coast Guard also invited foreign flag administrations with interests in the incident to participate in the investigations. As a result, investigators from Singapore (the flag administration of the M/V DALI) and India (the flag administration for the majority of M/V DALI's crew) deployed on-scene and participated in fact-finding efforts. The MBI continues to evaluate evidence to determine the incident's causal factors and support development of immediate safety measures and preventative recommendations.

PORT RECOVERY

In addition to immediate response and investigation activities, the UC is leading efforts for port recovery and restoration of economic activity in the region. In collaboration with interagency partners and the maritime industry, the Coast Guard established a system for assessing and mitigating long-term disruptions of the MTS. That system was activated and is in action in the port of Baltimore.

Every Coast Guard COTP is required to maintain an all-hazards MTS Recovery Plan. These plans set the foundation for safe, timely, and efficient restoration of the MTS following a significant disruption. While these plans are most frequently used following natural disasters, they apply to any incident that disrupts the MTS, such as the Francis Scott Key Bridge collapse. Included in the plan is a joint protocol

[1] NTSB was designated the lead Federal agency pursuant to the "Memorandum of Understanding Between the National Transportation Safety Board and the United States Coat Guard Regarding Investigations and Related Matters," dated June 17, 2021.

to determine potential national-level needs and priorities developed by the Coast Guard and U.S. Customs and Border Protection. Informed by this protocol, the UC considers the following (in order) when developing recovery priorities: national response and recovery supplies; national defense materials; other national priority cargo; local response and recovery supplies; local energy cargo; local consumption food; and any other local priority cargoes. The protocol does not make operational decisions or establish regional and local priorities, which are being conducted by the UC.

The Marine Transportation System Recovery Unit (MTSRU) within the UC coordinates port recovery efforts by engaging industry stakeholders, identifying broader impacts, and recommending courses of action to prioritize vessels and cargo activities. Several incident-specific factors inform their recommendations, including vessel characteristics such as cargo, draft, height, tonnage, maneuverability; waterway restrictions such as draft restrictions, tides, air gaps for vertical clearance, visibility, sea state concerns, tug and pilotage requirements; and facility restrictions such as berth availability, power availability, security, labor availability. For this response, the UC used the MTS recovery process to enable the flow of limited commercial traffic into and out of the port while also managing complex salvage operations. Immediately following this incident, the shipping industry independently identified alternative ports or transportation modes to re-route traffic and sustain supply chains given the expected long-term closure, limiting a need for commercial transits through the port during salvage operations.

The UC's timely and transparent communications with the public and community stakeholders was critical to recovery efforts. The UC routinely broadcasts waterway status to the port community through Marine Safety Information Bulletins, which provide information on accessing USACE hydrographic survey data, controlling depths for the various alternate channels, transit requirements for deep draft vessels, and other restrictions and limitations such as weather.

As the salvage work progresses, UC continues to leverage the MTSRU to engage with port stakeholders, share information on waterway status, identify any emerging factors that could affect port recovery efforts, and mitigate impacts wherever possible.

CONCLUSION

Through the UC, the Coast Guard is applying its full array of authorities, capabilities, and resources to re-open the Port of Baltimore safely and efficiently. Our ongoing collaboration with international, federal, state, local, and industry partners is essential to facilitating a timely recovery. We are grateful for the tremendous contributions of responders and driven each day by the trust and support of surrounding communities. While encouraged by progress made to date, the Coast Guard remains focused on the work still needed to restore the affected portions of the MTS.

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

Mr. GRAVES OF MISSOURI. Next, we have Major General Graham. Thanks for being here. You are recognized for 5 minutes.

TESTIMONY OF MAJOR GENERAL WILLIAM H. GRAHAM, DEPUTY CHIEF OF ENGINEERS, DEPUTY COMMANDING GENERAL, AND DEPUTY COMMANDING GENERAL FOR CIVIL AND EMERGENCY OPERATIONS, U.S. ARMY CORPS OF ENGINEERS

General GRAHAM. Chairman Graves, Ranking Member Larsen, distinguished members of the committee, thank you for the opportunity to testify before you today to discuss the emergency response by the U.S. Army Corps of Engineers to the collapse of the Francis Scott Key Bridge.

On behalf of the Corps, please allow me to begin today by offering our heartfelt condolences to the families of the six individuals lost to this tragedy. From the outset, we were committed to supporting the efforts to recover their loved ones. Our thoughts and prayers continue to be with them.

Soon after this tragic event occurred, Maryland Governor Wes Moore declared a state of emergency, and the Corps' Baltimore district commander, Colonel Estee Pinchasin, activated the district's emergency operations center. Our state-of-the-art survey vessels, which usually serve to verify the depth and width of the Federal channels, were deployed to support the initial search and rescue dive operations. Our support then evolved as the Army Corps joined a multi-agency effort across all levels of Government to form a Unified Command. I have been in a good many disaster responses over the years, and this Unified Command team, led by Coast Guard Captain David O'Connell, is one of the best I have ever seen.

The guidance from the President was clear from the beginning: clearing the wreckage from the Federal channel was the Army Corps' top priority. We needed three things to immediately execute this mission: authority, current funding, and the right contracting capacity.

Authority. We used the authority for the Baltimore Harbor and Channels Project. Congress authorized the Army Corps to construct and maintain a 50-foot-deep channel. That channel was now fully blocked by the wreckage of the Key Bridge.

Funding. We initially used available fiscal year 2023 and fiscal year 2024 funding for that Baltimore Harbor and channel project. Additional funds, as discussed earlier by Ranking Member Larsen, have been provided through internal emergency reprogramming actions using aged, unused funding just from Harbor Maintenance and Trust Fund projects. The Army Corps has not used this emergency reprogramming authority at this scale for over 15 years.

The third thing we needed was contracting capacity. The Army Corps has a standard interagency agreement with the Navy Supervisor of Salvage and Diving. Led by Captain Sal Suarez and Director Paul Hankins, SUPSALV are true, world-class professionals. They have a suite of contracting tools that give us access to superb salvage companies. In this case, the contractor they are using is Donjon Marine from Newark, New Jersey.

The Army Corps turns to Navy SUPSALV often to leverage their unique expertise. I last worked with SUPSALV in 2022 during Hurricane Ian response in central Florida. Navy SUPSALV helped us pump the upper Kissimmee River backwards for a few days, saving around 12,000 homes south of Orlando from flooding. They are true professionals who know how to deliver outstanding results.

With these three elements in place, we embarked on the complex task of determining how to begin clearing the approximately 50,000 tons of concrete, asphalt, and steel from the Patapsco River. For context, that is over 200 Statues of Liberty worth of material. After conducting extensive engineering analysis, the Army Corps, in collaboration with our partners, developed an ambitious but feasible timeline. Our plan was to initially clear a 35-foot-deep, limited access channel by the end of April, and restore the full 50-foot Federal navigation channel by the end of May.

Certified by the Coast Guard, the limited access channel was opened to one-way vehicle traffic on April 25, a week ahead of schedule. This channel could support approximately 70 percent of the port traffic, particularly the car carriers that are so important

to Baltimore. To open up the full channel, we first had to execute the most difficult task, that of removing the section of bridge that had collapsed onto the bow of the *Dali*. I am delighted to report that on Monday of this week, the team successfully used precision demolitions to cut the bridge away from the ship.

Today, operations continue to remove the *Dali* from the southern edge of the Federal channel. This will facilitate the removal of the remaining bridge wreckage from the river. We remain on track to open the full 700-foot-wide by 50-foot-deep Federal channel by the end of May.

In closing, we are tremendously proud to be part of this stellar unified team who, as mentioned earlier, is safely removing the bridge wreckage from the Federal channel, allowing the Port of Baltimore to resume its role as a key supply chain node and vital economic engine.

Thank you, Chairman Graves, Ranking Member Larsen, and members of the committee, and I look forward to answering your questions.

[General Graham's prepared statement follows:]

Prepared Statement of Major General William H. Graham, Deputy Chief of Engineers, Deputy Commanding General, and Deputy Commanding General for Civil and Emergency Operations, U.S. Army Corps of Engineers

Chairman Graves, Ranking Member Larsen and distinguished members of the Committee, thank you for the opportunity to testify before you today to discuss the ongoing challenging emergency response to the collapse of the Francis Scott Key Bridge in Baltimore, Maryland and, specifically, the role of the U.S. Army Corps of Engineers (Corps) in the recovery effort.

I am Major General Butch Graham, the Corps' Deputy Chief of Engineers, Deputy Commanding General, and Deputy Commanding General for Civil and Emergency Operations.

On behalf of the Corps, please allow me to begin today by offering our heartfelt condolences for the families of the six individuals lost to this tragedy. From the outset of this response, we were committed to supporting the effort to recover their loved ones and our thoughts and prayers are with them.

We also extend our sympathy to the people of Baltimore, the State of Maryland, and the surrounding areas, particularly those whose livelihoods depend on the vitality of the Port of Baltimore. Along with our partners in the Unified Command, we are working tirelessly to restore the uninterrupted flow of critical commerce in and out of Baltimore, and we are incredibly proud of the progress that has been made over the past six weeks.

THE INCIDENT

When the Singaporean-flagged container ship, the Motor Vessel Dali, struck the Key Bridge in the early hours of March 26, we as a Nation were confronted with many challenges. The Dali's collision destroyed a supporting pier and caused a nearly one-mile-long span of the 1.6-mile bridge to fall into the Patapsco River below, raining down approximately 50,000 tons of concrete, asphalt, and steel. Two construction workers survived and were injured, while another six perished.

The bridge's collapse crippled Interstate 695, a major transportation route used by an estimated 12 million motor vehicles each year, and obstructed the Fort McHenry Federal Navigation Channel, blocking access to the Port of Baltimore.

Soon after the incident, Maryland Governor Wes Moore declared a State of Emergency, and the Corps' Baltimore District Commander, Colonel Estee Pinchasin, activated the district's Emergency Operations Center. The Corps team joined the multi-agency effort across all levels of government to form a Unified Command and Incident Command Post to begin the difficult task of determining how to begin clearing the wreckage and restoring vessel transit through the federal navigation channel.

CORPS AUTHORITY

Congress authorized the Baltimore Harbor and Channels, Maryland and Virginia project, and the Corps' operation and maintenance of the 700-foot-wide and 50-foot-deep channel, in various Rivers and Harbors and Water Resources Development Acts.

Additionally, the Rivers and Harbors Appropriation Act of 1899, as amended, (33 USC 409, 411–415) authorizes the Secretary of the Army to remove sunken vessels or similar obstructions/hazards from navigable waters of the United States. Implementing regulations, 33 CFR Part 245, allow the District Commander to fully restore the federal navigation channel in emergency situations where an obstruction impedes or stops navigation for safety and navigation.

PARTNERSHIP

Utilizing our various authorities, the Baltimore District survey teams sprang into action within hours of the incident. The debris vessel, REYNOLDS, and survey vessel, CATLETT, were deployed to support the Maryland Transportation Authority Police, the initial incident commander in the first twenty-four hours of the response. These vessels, along with Baltimore District structural engineers with urban search and rescue experience, supported the search and rescue dive operations. This support continued as the Unified Command was established and the U.S. Coast Guard became the Federal On-Scene Coordinator. By the end of the first day, the mission shifted from search and rescue to recovery operations, and the Corps began clearing floating debris from the channel. Survey crews from the Philadelphia District provided supplemental support for this monumental effort.

For its part in the salvage effort, the Corps utilized an existing interservice support agreement under the Economy Act to partner with the United States Navy Supervisor of Salvage and Diving (SUPSALV). The Baltimore District coordinated with SUPSALV for mobilization under this interagency agreement, starting with $3 million from Baltimore Harbor and Channels 50-foot Project Operations and Maintenance funds. This cost-reimbursable agreement allowed SUPSALV to immediately execute a delivery order to mobilize assets for this salvage mission. Donjon Marine (Donjon) is SUPSALV's emergency salvage contractor for this geographic area.

OPERATIONS

Partnering with the U.S. Navy has been crucial to ongoing operations, offering both technical expertise and additional resources with its salvage capabilities. This collaboration between the Army and the Navy enabled a rapid emergency response, and I want to underscore how quickly this mobilization occurred—SUPSALV coordinated with Donjon to mobilize wreckage removal assets and support deep-water channel remediation and restoration within hours of the bridge falling.

Donjon secured the Chesapeake-1000, one of the largest floating cranes on the Eastern Seaboard, with a maximum lift capacity of 1,000 tons, which has proved to be an invaluable resource. To begin lifting the debris, however, it was critical to understand how the wreckage fell and what the conditions were like under the water. By partnering with SUPSALV, we brought in commercial dive companies to survey and map the underwater hazards and develop and safely execute the underwater salvage plan.

I cannot overstate the danger these divers faced—the Patapsco River is unforgiving, incredibly murky, and very cold. Salvage divers could, at most, see a foot in front of them. These perilous natural conditions were compounded by the jagged, twisted rubble of steel, concrete, and exposed rebar, adding the risk of impalement and snagged air supply hoses.

Through the courageous, methodical work of these divers and our survey crews, we began to develop a clearer understanding of the operational landscape. SUPSALV's initial salvage plan focused on clearing the Fort McHenry Channel, but the overall salvage operation has three lines of effort: (1) the Corps and SUPSALV's efforts, through Donjon, to clear the federal navigation channel; (2) the Maryland Transportation Authority's work, through its contractor, Skanska-Corman-Mclean, to clear the areas outside of the channel; and (3) the Dali's owner, Grace Ocean Private Limited, and operator, Synergy Group, and their contractor, Resolve Marine's, efforts to clear cargo from the vessel, enabling the unified team to ultimately clear remaining wreckage from the vessel.

After the initial planning and scoping, the Unified Command established three principal priorities to be accomplished concurrently: (1) clear the federal navigation channel; (2) refloat and move the vessel; and (3) clear the remaining wreckage from the entire waterway.

Clearing the Federal Channel

Dive and survey operations continued over the course of the first week using highly sophisticated three-dimensional (3–D) sonar and LiDAR imagery captured by the Navy's CODA Octopus 3–D imaging system, which enabled us to map the wreckage field. We learned how challenging the rigging and lifting process would be due to the tangled state of the wreckage and that much of it was submerged below the mudline, in some cases buried up to 30 feet deep. Additionally, the steel was under tension and compression, presenting an engineering challenge and safety hazard. As a result, the wreckage would need to be re-evaluated after removing each piece.

Once the wreckage was mapped, the northern side of the channel, opposite of the Dali, could be cleared to create a smaller, temporary one-way channel. We planned for this "Limited Access Channel" to have a width of 280 feet and a depth of 35 feet, which would allow for more than half of the vessels trapped in the Port of Baltimore to depart. Significant commercial and marine traffic could resume, bringing cargo and commodities into the port even as the salvage effort continued.

After stabilizing the vessel, cutting and rigging wreckage, and extensive engineering analyses, in collaboration with industry partners, we developed an ambitious, but feasible, timeline to reopen the navigation channel. We could clear the Limited Access Channel by the end of April and restore the full federal navigation channel by the end of May. The President announced this plan to the American people during his April 5 site visit. With this timeline in mind, the Unified Command pressed forward, paying careful attention to site safety and environmental concerns while prioritizing victim recovery.

Within the federal channel, we identified five principal sections of truss, the steel supporting structure of the Key Bridge, numbered zero (on the northern side) to four (on the southern side and laying atop the Dali). To open the Limited Access Channel, we had to remove truss sections zero and one.

On April 6, we began with diving, rigging, and cutting, and by April 14, the Chesapeake-1000 lifted the 440-ton piece of truss section one. Two days later, salvors lifted the second half of section one. Section zero, weighing nearly 1,000 tons, was lifted in three pieces as teams removed the final piece late into the night of April 22. Additionally, prior to these lifts the Corps' Engineer Research and Development Center worked with the Association of Maryland Pilots to develop and test simulations that projected the viability of the Limited Access Channel.

The Corps was able to clear the Limited Access Channel a week early and above scope at 300 feet in width by 38 feet deep. After the U.S. Coast Guard's assessments, the Limited Access Channel was open to one-way vessel traffic on April 25, capable of supporting approximately 80 percent of the types of vessels that the port served prior to the collapse.

Refloating and Moving the Motor Vessel Dali

Concurrently, while salvage operations were taking place in and around the federal channel, work had begun to refloat and move the Dali. This involved removing about four percent of the nearly 4,700 containers on the ship, along with removing obstructions from the bow of the ship. To remove the largest section of truss from the Dali, the Unified Command approved a controlled demolition technique involving precision cutting using small charges to break the section safely and efficiently into more manageable, liftable pieces. As of the date of this testimony, the Corps is on track to complete the removal of section four by mid-May and to restore two-way traffic to the federal channel by the end of May 2024.

Clearing the Remaining Wreckage (Federal Channel and Adjacent Areas)

Currently, work continues to remove all remaining wreckage across the full federal channel. On April 20, a 200-ton wreck grab claw arrived onsite that, when rigged to the Chesapeake-1000, removes greater amounts of wreckage from the riverbed, increasing efficiency. All recovered wreckage is moved via barge from the incident site to a location approximately two miles to the east known as Sparrows Point. Skanska-Corman-Mclean, Maryland's contractor, leased ten acres of property on Sparrows Point to establish a wreckage processing operation there.

Once wreckage is deposited, Maryland assumes ownership, and its contractor is responsible for breakdown, processing, and recycling disposal. Much of the wreckage, specifically within the federal channel, is buried deep in the mud, and the lifts of the wreckage are mixed with mud and smaller pieces of steel, concrete, and asphalt. Donjon has been handling this mixed wreckage for offload and further separation and processing.

Outside of the federal channel, temporary alternate channels at Sollers and Hawkins Points, to the north and south of the federal channel respectively, were opened by the Coast Guard on April 1. Shallow-draft vessels and other smaller craft, in coordination with the U.S. Coast Guard, have been transiting these channels since that time. A third temporary alternate channel, Fort Carroll, with a 20-foot depth, was similarly opened by the Coast Guard on April 18 and remains in operation. The Maryland Transportation Authority's efforts to clear wreckage from outside the federal channel continue as of the date of this testimony.

SALVAGE OPERATIONS FUNDING

Acknowledging the emergency nature of this disaster and the critical need to reopen the federal channel quickly, the Corps used the Fiscal Year 2024 funds appropriated to support the operation and maintenance of the Baltimore Harbor and Channels 50-foot project to initiate the salvage efforts.

The Corps obtained additional funds through an internal emergency reprogramming of unused Operation and Maintenance funds from prior year appropriations to continue to support this mission utilizing prior-year. We are taking great care to ensure these reprogramming efforts will not negatively impact other Corps projects. So far, the Corps has obligated approximately $37M on wreckage removal and emergency response.

CLOSING

In closing, I'd like to thank the Committee for having me here today. I'm incredibly proud of our Corps team members, our partners in the Unified Command (U.S. Coast Guard, Maryland Department of the Environment, Maryland Transportation Authority, Maryland State Police), as well as all other associated agencies and industry partners, and for having zero safety incidents on any of the salvors thus far.

From day one, this entire mission was about a commitment to get the job done right and safely, deliver for the people of Baltimore and the Nation, and honor the families whose loved ones were taken from them. I believe we have continued to deliver on that promise, and I will be forever proud of the work we have accomplished together. This challenge is immense, but with a unified effort, it is not insurmountable.

Thank you again for the opportunity to be here today, and I look forward to your questions.

Mr. GRAVES OF MISSOURI. Thank you.

Next, Administrator Bhatt, you are recognized for 5 minutes.

TESTIMONY OF HON. SHAILEN BHATT, ADMINISTRATOR, FEDERAL HIGHWAY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Mr. BHATT. Thank you, Chairman Graves, Ranking Member Larsen, and members of the committee, thank you for the opportunity to appear before you today.

The collapse of the Francis Scott Key Bridge on March 26 was a tragic event for Baltimore, Maryland, and the entire Nation. While the collapse of the bridge itself was shocking, we must not lose sight of the devastating impact this tragedy has had on the victims and their families. The six victims were fathers, husbands, and friends in their homes and communities, and they were valued members of the construction workforce. We will always mourn these six individuals who lost their lives while working to strengthen our transportation system.

I also want to thank the emergency responders who acted quickly to save lives.

I have had the opportunity to visit the site of the bridge collapse, and while I have been engaged in a number of bridge-related incidents during my career, I have never seen anything at this scale. It is a monumental task to clean up the site and rebuild. And yet,

as I appear before the committee today, I have a great feeling of optimism, witnessing the ability of industry and Government entities to work together in times of calamity, as they have done in the weeks since the bridge collapse. Immediately following this catastrophic event, the Federal Highway Administration mobilized internally across multiple offices and externally with local, State, and Federal partners to support the response.

President Biden has been clear in this administration's commitment to reconstruct the bridge. Under Secretary Buttigieg's leadership, FHWA is actively coordinating with other operating administrations and offices within the United States Department of Transportation, the Maryland Department of Transportation, which includes the Maryland Transportation Authority and State Highway Administration, the city of Baltimore, U.S. Coast Guard, the U.S. Army Corps of Engineers, and others to mitigate supply chain impacts, manage traffic, reopen the port, and ultimately reconstruct the bridge.

FHWA is actively supporting the National Transportation Safety Board's investigation of the collapse. FHWA has been in direct communication with MDOT, Maryland DOT, regarding all possible options for reconstructing the bridge, and is committed to supporting these efforts so that the bridge can be reconstructed as quickly and safely as possible. It is critical that we reconstruct this vital connection for people and goods traveling along the east coast. Ensuring that the I–695 corridor is open, operational, and safe for the traveling public at the earliest possible moment is a top priority.

On March 28, within hours of receiving the request for funding assistance from Maryland DOT, FHWA announced the immediate availability of $60 million in quick release emergency relief funds. These funds serve as a downpayment towards initial costs, and additional Emergency Relief Program funding will be made available as work continues. The administration is asking Congress to join it in demonstrating a commitment to aid in recovery efforts by authorizing a 100-percent Federal cost share for rebuilding the bridge, consistent with past catastrophic bridge collapses.

FHWA continues to provide wide-ranging technical assistance to Maryland DOT regarding contract procurement for debris removal, procurement for reconstruction operations, and project delivery strategies to reconstruct the bridge quickly and safely.

FHWA also is working with Maryland DOT to ensure that the new bridge will be built to current design standards and in accordance with all applicable Federal laws.

On March 26, 2024, the day of the collapse, FHWA met with the national transportation liaisons from the U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Advisory Council on Historic Preservation, and the EPA to discuss each agency's respective emergency procedures and considerations to expedite the environmental review and permitting processes for the future reconstruction. FHWA continues to meet with Federal resource agencies to discuss permitting.

Thank you to the State, local, and Federal entities who continue to collaborate in response to this tragic event. Whether it is an

event of this scale and complexity, or the comparatively smaller but still impactful bridge incidents on I–95 in Philadelphia and on I–10 in Los Angeles, I am proud to lead an agency that is playing a part in showing the country what can happen when the Government and industry come together with a common goal. There are no Democratic roads or Republican bridges. Transportation truly unites us. FHWA will continue to do everything it can to support the response. As the President has said, we will not rest until the cement has dried on the entirety of a new bridge.

Thank you again for the opportunity to appear before you today. I would be happy to answer any questions.

[Mr. Bhatt's prepared statement follows:]

Prepared Statement of Hon. Shailen Bhatt, Administrator, Federal Highway Administration, U.S. Department of Transportation

Chairman Graves, Ranking Member Larsen, and Members of the Committee, thank you for the opportunity to appear before you today.

The collapse of the Francis Scott Key Bridge on March 26th was a tragic event for Baltimore, Maryland, and the entire Nation. While the collapse of the bridge itself was shocking, we must not lose sight of the devastating impact this tragedy has had on the victims and their families. The six victims were fathers, husbands, and friends in their homes and communities, and they were valued members of the construction workforce. We will always mourn these six individuals who lost their lives while working to strengthen our transportation system. I also want to thank the emergency responders who acted quickly to save lives.

I have had the opportunity to visit the site of the bridge collapse, and while I have been engaged in a number of bridge-related incidents during my career, I have never seen something on this scale. It is a monumental task to clean up the site and rebuild. And yet, as I appear before the Committee today, I have a feeling of great optimism witnessing the ability of industry and government entities to work together in times of calamity as they have done in the weeks since the bridge collapse.

Immediately following this catastrophic event, the Federal Highway Administration (FHWA) mobilized internally across multiple offices and externally with local, State, and Federal partners to support the response. President Biden has been clear in this Administration's commitment to reconstructing the bridge. Under Secretary Buttigieg's leadership, FHWA is actively coordinating with other operating administrations and offices within the United States Department of Transportation (USDOT); the Maryland Department of Transportation (MDOT), which includes the Maryland Transportation Authority and State Highway Administration; the City of Baltimore; U.S. Coast Guard; the U.S. Army Corps of Engineers; and others to mitigate supply chain impacts, manage traffic, reopen the port, and ultimately reconstruct the bridge. FHWA is actively supporting the National Transportation Safety Board's investigation of the collapse. FHWA has been in direct communication with MDOT regarding all possible options for reconstructing the bridge and is committed to supporting these efforts so that the bridge can be reconstructed as quickly and safely as possible. It is critical that we reconstruct this vital connection for people and goods traveling along the East Coast. Ensuring that the I–695 corridor is open, operational, and safe for the traveling public at the earliest possible moment is a top priority.

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FHWA continues to provide wide-ranging technical assistance to MDOT regarding contract procurement for debris removal, procurement for reconstruction operations, and project delivery strategies to reconstruct the bridge quickly and safely. FHWA also is working with MDOT to ensure that the new bridge will be built to current design standards and in accordance with all applicable Federal laws. On March 26,

2024, the day of the collapse, FHWA met with the National Transportation Liaisons from the U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Advisory Council on Historic Preservation, and the Environmental Protection Agency to discuss each agency's respective emergency procedures and considerations to expedite the environmental review and permitting processes for the future reconstruction. FHWA continues to meet with Federal resource agencies to discuss permitting for reconstructing the bridge.

Thank you to the State, local, and Federal entities who continue to collaborate with FHWA in response to this tragic event. Whether it is an event of this scale and complexity or the comparatively smaller but still impactful bridge incidents on I–95 in Philadelphia and on I–10 in Los Angeles, I am proud to lead an agency that is playing a part in showing the country what can happen when government and industry come together with a common goal. There are no Democratic roads or Republican bridges—transportation truly unites us.

FHWA will continue to do everything it can to support the response. As the President has said, we will not rest "until the cement has dried on the entirety of a new bridge."

Thank you again for the opportunity to appear before you today. I would be happy to answer any questions.

Mr. GRAVES OF MISSOURI. Thanks. Now we will go to Chair Homendy.

TESTIMONY OF HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

Ms. HOMENDY. Thank you. Good morning, Chairman Graves, Ranking Member Larsen, and members of the committee.

With me today is our lead investigator on this accident, Marcel Muise, our acting director of marine safety, Eric Stolzenberg, and other dedicated NTSB staff. Thank you for the opportunity to be here today to discuss our ongoing investigation into the collapse of the Francis Scott Key Bridge.

On behalf of the NTSB, I offer our heartfelt condolences to the families of all those who were lost in this tragedy, and our deepest sympathies to those who were injured or otherwise impacted by this event.

I also want to thank our numerous Federal and State partners for their support on-scene and throughout this investigation.

Yesterday, we released our preliminary report which shows that the *Dali* experienced four total power outages. Preliminary information indicates that the March 25 blackouts were mechanically distinct from those that occurred on March 26. Two were related to routine maintenance in port. Two were unexpected tripping of circuitbreakers on the accident voyage.

On the 25th, a blackout occurred when a crewmember mistakenly closed an engine damper while he was working on the exhaust system in port. This effectively blocked the engine's exhaust gases from traveling out of the vessel's stack, causing the engine to stall. Vessel power was briefly restored, but insufficient fuel pressure to the online generator caused its speed to decrease. Its breaker opened, and a second blackout occurred.

While recovering from this second blackout, the crew switched to a different transformer and set of breakers from those that had been in use for several months. Switching breakers is not unusual, but may have affected operations the very next day on the accident voyage. So, the configuration of the breakers remains under investigation.

On the 26th, when the ship was about 0.6 miles from the bridge, one high-voltage and one low-voltage breaker that were powering most of the vessel's equipment and lighting unexpectedly tripped. As a result, the vessel lost main propulsion. Bridge equipment also lost power, and the voyage data recorder lost system feeds. Bridge audio continued to be recorded.

The crew was able to briefly restore power to the vessel, but another blackout occurred when a different breaker tripped. At this point, the ship was about 0.2 miles from the Key Bridge. The crew regained electrical power right before the *Dali* struck pier 17, but they were unable to restore propulsion.

The ship had an emergency generator, which automatically started following the first blackout on the 26th. However, the generator only powers systems like emergency lighting, navigation, radio equipment, alarms, and a steering pump that allowed for low-speed limited rudder movements. It does not power propulsion, and without the propeller turning, the rudder was less effective. They were essentially drifting.

We are still investigating the exact time the emergency generator started. Going forward, this is a complex investigation. Our investigators have been on-scene consistently since this accident. In fact, they are on board the vessel as I testify today. It is unprecedented to be there that long. We will continue evaluating the design and operation of the *Dali*'s power distribution system, including its breakers. Examination of damage to the vessel will continue when the ship is clear of debris and moved to a shoreside facility.

We are also working with Maryland as they assess pier protection on their other bridges, and we are examining pier protection improvements that have been made following other bridge collapses resulting from marine vessel strikes that we have investigated in the past.

Lastly, there are a lot of questions regarding the fuel. Our investigators found that the ship was running on low-sulphur marine gas oil at the time of the accident, which it had been using since March 21. We directed an independent lab to test all fuels stored on the ship, including the fuel that was being burned at the time of the accident. The test results did not identify any concerns related to the quality of the fuel.

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

[Ms. Homendy's prepared statement follows:]

Prepared Statement of Hon. Jennifer Homendy, Chair, National Transportation Safety Board

Good morning, Chairman Graves, Ranking Member Larsen, and members of the committee. As chair of the National Transportation Safety Board (NTSB), I thank you for the opportunity to appear before you today to discuss the NTSB's ongoing investigation into the cargo vessel *Dali*'s striking of Baltimore's Francis Scott Key Bridge and subsequent bridge collapse. We offer our heartfelt condolences to the families and communities of all those who were lost in this tragedy, and our assurance that this investigation will be thorough and impartial.

The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in the other modes of transportation: railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we

investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, respectively, and we adjudicate appeals of civil penalty actions taken by the FAA.

Our current investigative workload includes over 1,200 active investigations in 47 states and Puerto Rico, in addition to supporting more than 140 foreign investigations in over 50 countries. Throughout a typical year, we work on about 2,200 domestic and 450 foreign cases, and we expect the number of cases annually to remain high and continue to increase in complexity. Our activities include multiple major investigations, such as the in-flight structural failure of a Boeing 737–9 MAX over Portland, Oregon; the derailment of a Norfolk Southern train in East Palestine, Ohio; multiple runway incursions and other near-miss incidents at airports across the country; and, of course, the tragic collapse of Baltimore's Francis Scott Key Bridge after it was struck by the cargo vessel *Dali*, the subject of today's hearing.

Some investigations, understandably, get more public attention than others, but all the NTSB's investigations are critical for improving transportation safety. We owe it to the families of those involved, to the communities where events occurred, and to the traveling public to find out what happened, why it happened, and to make recommendations to help ensure it never happens again. That's exactly what we intend to do in the case of this Baltimore bridge collapse.

Because our investigation into the bridge collapse is ongoing, there are limits to what I can say publicly at this time. As I am sure you can appreciate, I will not undermine the meticulous work of our investigators by speculating prematurely about our eventual analysis and findings. What I will share is information about the facts we have gathered thus far in our investigation, our fact-gathering process, the challenges to date, and the expected direction of our investigation based on what we know today. I will also outline how our agency's needs relate to this investigation.

A comprehensive summary of the facts we have gathered thus far is available in our preliminary report on this investigation, which was released on May 14 and is available to the public at NTSB.gov.[1] I want to stress that these findings are preliminary and, as in any investigation, may be subject to change at a later date as new information comes to light.

NTSB investigators were on scene in Baltimore and onboard the *Dali* until May 10, just last week—nearly 7 weeks after the accident. It is highly unusual for an NTSB investigation that our on-scene fact-gathering remained underway for so long. This unusual occurrence speaks to the immense complexity of this event and, therefore, the immense complexity of the investigation. That said, you can be sure the NTSB and our expert employees are fully prepared to complete a comprehensive investigation on behalf of the American people into the causes of this tragedy, and we will do exactly that.

Our comprehensive investigation is a multimodal effort, drawing on the expertise of our Office of Marine Safety, which is leading the investigation, as well as our offices of Highway Safety, Research and Engineering, and Railroad, Pipeline, and Hazardous Materials Investigations.

Since the inception of the agency in 1967, the NTSB has completed more than 2,000 marine investigations. Of those, 311 were major investigations resulting in safety recommendations. In addition, 30 safety studies, other modal investigations, and other Board projects have generated marine safety recommendations over the years. In total, we have issued 2,636 marine safety recommendations to date, including 67 recommendations related to bridge collapses due to vessel strikes. All 67 of these recommendations are attached for the record.

Our marine safety investigators boast over a combined 400 years of professional expertise in their field, in addition to the decades of combined experience possessed by our highway and bridge, data recorder, and hazardous materials investigators. This investigation is in good hands with their knowledge.

That said, it is also true that the NTSB badly needs additional resources to ensure a major investigation like this does not impede our ability to respond to additional accidents and complete simultaneous investigations in a timely manner. The *Dali* investigation provides a telling example.

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[1] Marine Investigation Preliminary Report, *Contact of Cargo Vessel Dali with Francis Scott Key Bridge and Subsequent Bridge Collapse* [https://www.ntsb.gov/investigations/Pages/DCA24MM031.aspx].

Our Office of Marine Safety currently has 12 investigators. Half of those investigators were deployed to Baltimore and their time will be consumed by this investigation for months to come. In the meantime, that office is also currently investigating 60 other marine safety events and will undoubtedly be called to the scene of additional marine casualties in the months ahead. The other NTSB offices involved in this investigation—whether as investigators or as staff supporting their efforts—must maintain a similar balance.

The NTSB is deeply grateful to Congress for the additional resources provided in our fiscal year 2024 (FY24) appropriations. We know that was a heavy lift at a time when very few agencies received an increase. I am also extremely grateful to this committee for its leadership in including the NTSB in the FAA reauthorization, which authorizes funding increases over the next 5 years that will help us keep pace with growing costs. I must note, however, that more resources are still needed to ensure timely completion of *all* our investigations.

The NTSB received a $10.7 million increase in our FY24 appropriations. However, given the $5.175 million cost of mandatory payroll and benefits increases, and the $1.575 million that will be required for inflationary operational increases, much of that appropriations increase is already accounted for. Subtracting those built-in costs leaves an increase of $4 million over FY23. We intend for this increase to take us from 435 staff on board today up to 450 by the end of FY24, but 4 of those positions will be filled by staff for two new Board members. Operationally, that would equate to an increase of only 11 positions spread across all our departments, a fraction of the need.

The fact is, we need to add over 50 more investigators today to be fully staffed. Our Office of Marine Safety alone needs an additional 5 positions—and that's without growing the number of Marine safety investigators. These positions include our Director of Marine Safety, who passed away suddenly in March; one senior investigator to fill a vacancy; a Naval architect; a program manager; and a mission support specialist.

In addition, we need 16 more aviation investigators, 10 more highway investigators, 10 more pipeline and hazardous materials investigators, and 5 more rail investigators. In our research and engineering laboratories, we need 12 additional employees and $2.4 million dollars to replace aging and obsolete equipment that is critical to conducting robust and comprehensive investigations. And these increases do not even begin to address staffing needs in our support offices, who also play a vital role in achieving our mission.

The NTSB is a small agency relative to our federal partners, both in terms of the size of our budget and our workforce. However, as our recommendation implementation success rate shows, our impact is profound. Everyone at the NTSB plays a role in achieving our mission to make transportation safer. The amounts in our reauthorization and budget requests represent only a modest downpayment on the investments we need to boost transportation safety across all transportation modes nationwide.

When I say that we need more resources, I want to be clear about exactly what we are requesting. Our budget request of $150 million for FY 2025 is for an increase of $10 million, which the President provided. We project that $10 million would allow us to fill just 20 more positions—still far fewer than we need—and provide much-needed program enhancements, including investment in Zero Trust.

Again, our budget request is a modest investment that would allow the agency to advance and grow with the ever-evolving transportation industry. To continue as the world's preeminent safety agency, completing our investigations and developing recommendations that advance safety changes without delays, we must meet the challenges that come with increasing growth and innovation in transportation. Therefore, it is critical for the agency to have additional resources to respond to events without affecting our timeliness, the quality of our work, or our independence.

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

ATTACHMENT

Recommendation Subjects

Rec #: M–08–010, H–04–029, H–94–009, H–04–030, H–04–031, I–94–003, I–94–004, I–94–006, I–94–007, I–95–002, M–94–037, R–94–009, R–94–010, R–94–011, R–94–012, H–94–008, M–94–010, M–94–012, M–94–013, M–94–014, M–89–069, M–89–070, M–89–071, M–89–072, M–89–073, M–89–074, M–89–075, M–89–076, M–89–077, M–89–078, M–89–079, M–89–080, M–89–081, M–89–082, M–89–083, M–89–084, M–81–011, M–81–012, M–81–013, M–81–015, M–81–016, M–81–017, M–81–018, M–81–019, M–81–020, M–81–021, M–81–022, M–81–023, H–78–001, H–78–002, H–78–003, H–78–004, H–78–005, M–78–001, H–74–040, H–74–041, H–74–042, H–74–043, H–72–048, M–74–014, M–74–015, M–74–016, M–74–019, M–74–001, M–74–003, M–74–004, M–74–005

Recommendation #	Overall Status	Date Closed	Subject
H–04–029	CAAA	12/11/09	TO THE FEDERAL HIGHWAY ADMINISTRATION: Revise your sufficiency rating system, which prioritizes bridges for rehabilitation and replacement, to include the probability of extreme events, such as vessel impact. (Supersedes Safety Recommendation H–94–009)
H–04–030	CAAA	01/11/13	TO THE FEDERAL HIGHWAY ADMINISTRATION: Develop an effective motorist warning system to stop motor vehicle traffic in the event of a partial or total bridge collapse.
H–04–031	CAA	11/14/13	TO THE AMERICAN ASSOCIATION OF STATE AND HIGHWAY AND TRANSPORTATION OFFICIALS: Once an effective motorist warning system has been developed, provide guidance to the States on its use.
H–72–048	CAA	01/01/80	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION, THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, AND THE INTERNATIONAL BRIDGE, TUNNEL AND TURNPIKE ASSOCIATION: ESTABLISH POLICIES AND STANDARDS TO INSURE THAT STANDARD TRAFFIC CONTROL DEVICES (GATE, SIGNALS, SIGNS, AND PAVEMENT MARKINGS) ARE INSTALLED ON MOVABLE BRIDGES AT LOCATIONS WHICH WILL HALT TRAFFIC ON A SECTION OF THE BRIDGE THAT IS NOT SUBJECT TO IMPACT BY LARGE MARINE VESSELS. SUCH POSITIONING OF WARNING SYSTEMS WILL PREVENT VEHICLES FROM BEING ON THOSE PORTIONS OF SUCH BRIDGES WHICH MAY COLLAPSE WHEN THEY ARE STRUCK BY A MARINE VESSEL.
H–74–040	CAA	01/01/80	THE NTSB RECOMMENDS THAT THE GREATER NEW ORLEANS EXPRESSWAY COMMISSION TAKE THE FOLLOWING MEASURES: ESTABLISH A SYSTEMATIC PROGRAM TO IDENTIFY AND SURVEY HIGH ACCIDENT LOCATIONS ON THE LAKE PONTCHARTRAIN CAUSEWAY. (THE PROGRAM REQUIRES REVIEW OF INDIVIDUAL ACCIDENTS.) GUIDELINES FOR SUCH A PROGRAM CAN BE FOUND IN FEDERAL HIGHWAY SAFETY PROGRAM STANDARD NO. 9, ''IDENTIFICATION AND SURVEILLANCE OF ACCIDENT LOCATIONS.''

Recommendation #	Overall Status	Date Closed	Subject
H–74–041	CAA	01/01/80	THE NTSB RECOMMENDS THAT THE GREATER NEW ORLEANS EXPRESSWAY COMMISSION TAKE THE FOLLOWING MEASURES: EVALUATE THE PRESENT BRIDGE BARRIER RAIL SYSTEM ON THE WEST SPAN OF THE LAKE PONTCHARTRAIN CAUSEWAY TO DETERMINE IMPROVEMENTS WHICH WILL ASSURE A BARRIER SYSTEM THAT WILL: (A) PREVENT ERRANT VEHICLES FROM PENETRATING OR VAULTING OVER THE BARRIER, AND (B) PROVIDE SAFE REDIRECTION OF ERRANT VEHICLES WITH AMINIMUM EFFECT ON THE VEHICLE AND ITS OCCUPANTS.
H–74–042	CAA	01/01/80	THE NTSB RECOMMENDS THAT THE GREATER NEW ORLEANS EXPRESSWAY COMMISSION TAKE THE FOLLOWING MEASURES: INSTALL A WARNING SYSTEM ON THOSE SECTIONS OF THE LAKE PONTCHARTRAIN CAUSEWAY THAT ARE VULNERABLE TO IMPACT BY ERRANT MARINE VESSELS. THE SYSTEM SHOULD ACTIVATE AUTOMATICALLY TO WARN MOTORISTS OF DANGER AHEAD, SHOULD THE CAUSEWAY SPAN COLLAPSES.
H–74–043	CNLA	08/21/95	THE NTSB RECOMMENDS THAT THE LOUISIANA WILDLIFE AND FISHERIES COMMISSION: MAINTAIN A SAFETY INSPECTION PROGRAM WHICH WILL INSURE COMPLIANCE WITH ITS ''MINIMAL SAFETY RULES APPLICABLE TO TUGS AND TOWS OPERATING IN LAKE PONTCHARTRAIN,'' AS ADOPTED ON JULY 20, 1968.
H–78–001	CR	12/12/78	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: STUDY AND PUBLISH A REPORT ON THE COMPLETENESS AND EFFECTIVENESS OF ITS BRIDGE CLASSIFICATION/INSPECTION PROGRAM UNDER 23 USC 144, 23 CFR 650, AND THE AASHTO ''MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES'' PART 2.5, ESPECIALLY AS TO BRIDGES OVER NAVIGABLE CHANNELS, FOR THEIR ABILITY TO SUSTAIN PIER IMPACT AT WATER LEVEL AND FOR THE DESIGN OF THE TRAFFIC CONTROL SYSTEM ON THE BRIDGES.
H–78–002	CAA	12/05/84	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: WORK WITH THE U.S. COAST GUARD TO DEVELOP SPECIFICATIONS FOR THE DESIGN OF DOLPHINS, FENDERS, AND OTHER ENERGY ABSORPTION AND/OR VESSEL REDIRECTION DEVICES FOR THE PROTECTION OF BOTH BRIDGE AND VESSEL DURING AN ACCIDENTAL IMPACT. ISSUE THESE DESIGN SPECIFICATIONS ALONG WITH GUIDELINES AND REQUIREMENTS FOR THE PLACEMENT OF DOLPHINS, FENDERS, AND ENERGY ABSORPTION AND REDIRECTION DEVICES.
H–78–003	CAA	04/20/84	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: BRING TOGETHER IN ONE PUBLICATON ALL GUIDELINES FOR TRAFFIC CONTROL AT MOVABLE BRIDGES, INCLUDING SIGNS, SIGNALS, PAVEMENT MARKINGS, AND RESTRAINT DEVICES.

Recommendation #	Overall Status	Date Closed	Subject
H–78–004	CAAA	04/19/85	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: INCLUDE AS PART OF THE FEDERAL-AID HIGHWAY PROGRAM MANUAL 6.8.3.4 PARAGRAPH 5D(3), ''SPECIAL PURPOSE SURVEILLANCE AND CONTROL SYSTEMS,'' A DESCRIPTION OF SURVEILLANCE AND CONTROL SYSTEMS USED ON MULTISPAN BRIDGES OVER WIDE NAVIGABLE WATERWAYS.
H–78–005	CAA	08/23/83	THE NTSB RECOMMENDS THAT THE COMMONWEALTH OF VIRGINIA: IN REBUILDING THE BENJAMIN HARRISON BRIDGE, COMPLY WITH THE FEDERAL HIGHWAY ADMINISTRATION GUIDELINES IN PROVIDING AND LOCATING WARNING SIGNALS AND GATES AND ALL OTHER REQUIRED TRAFFIC CONTROL DEVICES.
H–94–008	CNLA	10/07/97	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: IN COOPERATION WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS, BROADEN THE APPLICATION OF RISK-ASSESSMENT AND MANAGEMENT PROGRAMS TO EXISTING HIGHWAY BRIDGES. SUCH PROGRAMS SHOULD INCLUDE, AMONG OTHER THINGS, A FORMAL ASSESSMENT OF THE VULNERABILITY OF BRIDGES TO VESSEL COLLISION AND COLLAPSE.
H–94–009	CS	09/09/04	TO THE AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS: In cooperation with the Federal Highway Administration, broaden the application of risk-assessment and management programs to existing bridges. Such programs should include, among other things, a formal assessment of the vulnerability of bridges to vessel collision and collapse. (Superseded by H–04–29)
I–94–003	CAAA	10/27/98	THE NTSB RECOMMENDS THAT THE DEPARTMENT OF TRANSPORTATION: CONVENE AN INTERMODAL TASK FORCE THAT INCLUDES THE COAST GUARD, THE FEDERAL RAILROAD ADMINISTRATION, AND THE U.S. ARMY CORPS OF ENGINEERS TO DEVELOP A STANDARD METHODOLOGY FOR DETERMINING THE VULNERABILITY OF THE NATION'S HIGHWAY AND RAILROAD BRIDGES TO COLLISIONS FROM MARINE VESSELS, TO FORMULATE A RANKING SYSTEM FOR IDENTIFYING BRIDGES AT GREATEST RISK, AND TO PROVIDE GUIDANCE ON THE EFFECTIVENESS AND APPROPRIATENESS OF PROTECTIVE MEASURES.
I–94–004	CAAA	10/27/98	THE NTSB RECOMMENDS THAT THE DEPARTMENT OF TRANSPORTATION: REQUIRE THAT THE FEDERAL RAILROAD ADMINISTRATION AND THE FEDERAL HIGHWAY ADMINISTRATION, FOR THEIR RESPECTIVE MODES, USE THE METHODOLOGY DEVELOPED BY THE INTERMODAL TASK FORCE TO CARRY OUT A NATIONAL RISK ASSESSMENT PROGRAM FOR THE NATION'S RAILROAD AND HIGHWAY BRIDGES.
I–94–006	CAA	04/24/95	THE NTSB RECOMMENDS THAT THE DEPARTMENT OF TRANSPORTATION: CONSIDER THE USE OF RACONS, RADAR REFLECTORS, AND OTHER DEVICES TO MAKE BRIDGES MORE IDENTIFIABLE ON RADAR.

Recommendation #	Overall Status	Date Closed	Subject
I–94–007	CAAA	05/08/00	THE NTSB RECOMMENDS THAT THE U.S. ARMY CORPS OF ENGINEERS: COOPERATE WITH THE U.S. DEPARTMENT OF TRANSPORTATION IN DEVELOPING A STANDARD METHODOLOGY FOR DETERMINING THE VULNERABILITY OF THE NATION'S HIGHWAY AND RAILROAD BRIDGES TO COLLISIONS FROM MARINE VESSELS, FORMULATING A RANKING SYSTEM TO IDENTIFY BRIDGES AT GREATEST RISK, AND PROVIDING GUIDANCE ON THE EFFECTIVENESS AND APPROPRIATENESS OF PROTECTIVE MEASURES.
I–95–002	CAA	07/23/98	THE NTSB RECOMMENDS THAT THE DOT, OFFICE OF INTERMODALISM: ESTABLISH A MECHANISM TO ENSURE THAT A COMPLETE LIST OF BRIDGES VULNERABLE TO IMPACT BY COMMERCIAL MARINE TRAFFIC, WITH EXACT LOCATIONS, IS DISSEMINATED TO ALL EMERGENCY RESPONSE SERVICES SO THAT ALL BRIDGES CAN BE EASILY IDENTIFIED IN AN EMERGENCY SITUATION.
M–08–010	CEX	03/19/10	TO THE BOARD OF NEW ORLEANS-BATON ROUGE STEAMSHIP PILOT EXAMINERS FOR THE MISSISSIPPI RIVER: Verify that the pilots assigned to challenging locations such as the Apex dock have received adequate training in docking and undocking large vessels at such locations.
M–74–001	CAA	06/30/76	EXPEDITE THE PROMULGATION OF REGULATIONS REGARDING VESSEL CONTROL IN THE VICINITY OF THE CHESAPEAKE BAY BRIDGE AND TUNNEL.
M–74–003	CUA	06/21/82	PUBLISH AND MAKE AVAILABLE TO TOWBOAT OPERATORS GUIDELINES FOR SAFE OPERATING PROCEDURES FOR TOWING OPERATIONS. THESE GUIDELINES SHOULD INCLUDE METHODS OF PREPLANNING A VOYAGE, THE PROPER USE OF TOWING HAWSERS, AND ACTIONS TO BE TAKEN IN VARIOUS EMERGENCY SITUATIONS.
M–74–004	CAA	06/13/77	DETERMINE THE NEED FOR ANCHORS ON UNMANNED BARGES AND PRACTICAL METHODS OF CONTROLLING SUCH ANCHORS IN ORDER TO PREVENT DAMAGE TO ANY VESSEL, BRIDGE, OR OTHER STRUCTURE, OR OTHER LOSS TO BYSTANDERS ON THE NAVIGABLE WATERS OF THE UNITED STATES.
M–74–005	CAA	05/04/78	PLACE ADDITIONAL EMPHASIS IN ITS SEARCH AND RESCUE PROCEDURES ON PROTECTING BRIDGES FROM VESSEL IMPACTS.
M–74–014	CR	02/18/86	THE COAST GUARD REQUIRE THAT OCEAN-GOING VESSELS BE ALIGNED WITH ANY CHANNEL BRIDGE OPENING BEFORE THE VESSELS REACH A POINT EQUAL TO THE SHIP'S STOPPING DISTANCE FROM THE BRIDGE.
M–74–015	CUA	07/10/81	THE COAST GUARD REQUIRE THAT EVERY MASTER OF AN OCEAN-GOING VESSEL INFORM HIMSELF OF THE PILOT'S PLAN TO MANEUVER HIS SHIP IN OR OUT OF A HARBOR AND THAT THE MASTER DETERMINE, WITH THE PILOT'S ASSISTANCE, THE CRITICAL ASPECTS OF THE MANEUVER, INCLUDING THE PILOT'S PLAN FOR EMERGENCIES. THE MASTER SHOULD THEN BE REQUIRED TO INSTRUCT HIS CREW TO INSURE THAT HIGH-RISK TASKS RECEIVE PRIORITY.
M–74–016	CAA	06/30/76	THE COAST GUARD EXPEDITE THE ISSUANCE OF REGULATIONS REQUIRING THAT ALL OCEAN-GOING VESSELS BE PROVIDED WITH STOPPING DISTANCES AND TURNING RADII FOR VARIOUS SPEEDS AND LOADING CONDITIONS.

Recommendation #	Overall Status	Date Closed	Subject
M–74–019	CAAA	04/07/77	THE COAST GUARD, IN PROCESSING APPLICATIONS FOR HIGHWAY, RAILROAD, OR PIPELINE BRIDGE CONSTRUCTION, REQUIRE A SAFETY IMPACT STUDY AS WELL AS THE ENVIRONMENTAL IMPACT STUDY. LIFT SPAN BRIDGES WITH NARROW OPENINGS, SUPPORTS IN RELATIVELY DEEP WATER, AND LOCATIONS NEAR CURVED CHANNELS SHOULD BE CONSIDERED RELATIVELY HAZARDOUS.
M–78–001	CAA	09/01/87	EXPEDITE THE SUBMISSION OF THE LEGISLATIVE PROPOSAL AND URGE CONGRESS TO ENACT LEGISLATION, OR AUTHORIZE THE COAST GUARD TO UNDERTAKE RULEMAKING, TO ESTABLISH IN THE NAVIGATION RULES FOR INLAND WATERS A REQUIREMENT FOR VESSELS TO PROCEED AT A SAFE SPEED IDENTICAL TO THE REQUIREMENT ESTABLISHED BY RULE 6 OF THE NEWLY ADOPTED INTERNATIONAL CONVENTION FOR VESSELS ON THE HIGH SEAS WHICH BECAME EFFECTIVE ON JULY 15, 1977.
M–81–011	CAA	05/04/82	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: IMPROVE NAVIGATIONAL AIDS FOR VESSELS PASSING UNDER THE SUNSHINE SKYWAY BRIDGE.
M–81–012	CR	08/01/88	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: PROHIBIT VESSELS FROM MEETING NEAR THE SHUNSHINE SKYWAY BRIDGE.
M–81–013	CAA	09/01/87	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: IN COOPERATION WITH LOCAL PORT AND BRIDGE AUTHORITIES, DETERMINE THE FEASIBILITY OF INSTALLING NONSTRUCTURAL BRIDGE PROTECTION DEVICES FOR THE SUNSHINE SKYWAY BRIDGE.
M–81–015	CAA	09/01/87	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: IN COOPERATION WITH THE FEDERAL HIGHWAY ADMINISTRATION, DEVELOP STANDARDS FOR THE DESIGN, PERFORMANCE, AND LOCATION OF STRUCTURAL BRIDGE PIER PROTECTION SYSTEMS WHICH CONSIDER THAT THE IMPACT FROM AN OFFCOURSE VESSEL CAN OCCUR SIGNIFICANTLY ABOVE AS WELL AS BELOW THE WATER SURFACE.
M–81–016	CUA	04/13/88	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: IN COOPERATION WITH THE FEDERAL HIGHWAY ADMINISTRATION, CONDUCT A STUDY TO DETERMINE WHICH EXISTING BRIDGES OVER THE NAVIGABLE WATERWAYS OF UNITED STATES PORTS AND HARBORS ARE NOT EQUIPPED WITH ADEQUATE STRUCTURAL PIER PROTECTION.
M–81–017	CAA	09/01/87	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: DISTRIBUTE A COPY OF THE RESULTS OF THE COAST GUARD'S STUDIES REGARDING BRIDGE AND PIER PROTECTION SYSTEMS TO EACH APPROPRIATE MEMBER OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.
M–81–018	CAA	05/04/83	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: DEVELOP STANDARDS FOR THE DESIGN, PERFORMANCE, AND INSTALLATION OF BRIDGE SPAN FAILURE DETECTION AND WARNING SYSTEMS.
M–81–019	CAA	05/04/83	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: ESTABLISH CRITERIA TO EVALUATE THE NEED FOR INSTALLING BRIDGE SPAN FAILURE DETECTION AND WARNING SYSTEMS ON EXISTING AND PROPOSED BRIDGES.

Recommendation #	Overall Status	Date Closed	Subject
M–81–020	CAA	12/05/84	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: IN COOPERATION WITH THE U.S. COAST GUARD, DEVELOP STANDARDS FOR THE DESIGN, PERFORMANCE, AND LOCATION OF STRUCTURAL BRIDGE PIER PROTECTION SYSTEMS WHICH CONSIDER THAT THE IMPACT FROM AN OFF COURSE VESSEL CAN OCCUR SIGNIFICANTLY ABOVE AS WELL AS BELOW THE WATER SURFACE.
M–81–021	CAAA	11/19/85	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: IN COOPERATION WITH THE U.S. COAST GUARD, CONDUCT A STUDY TO DETERMINE WHICH EXISTING BRIDGES OVER THE NAVIGABLE WATERWAYS OF UNITED STATES PORTS AND HARBORS ARE NOT EQUIPPED WITH ADEQUATE STRUCTURAL PIER PROTECTION.
M–81–022	CAAA	04/19/85	THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: USE THE RESULTS OF THE STUDY CONDUCTED UNDER RECOMMENDATION M–81–21 TO ADVISE APPROPRIATE BRIDGE AUTHORITIES OF THE BENEFITS OF INSTALLING ADDITIONAL PIER PROTECTION SYSTEMS.
M–81–023	CAA	10/06/92	THE NTSB RECOMMENDS THAT THE STATE OF FLORIDA: PROVIDE STRUCTURAL PIER PROTECTION FOR THE CANTILEVER ARM PIERS AND THE ANCHOR ARM PIERS OF THE SUNSHINE SKYWAY BRIDGE.
M–89–069	CUA	12/08/92	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: REQUIRE OWNERS/OPERATORS OF BASCULE BRIDGES TO INSTALL CAUTION LIGHTS AND DAYLIGHT MARKINGS AT ELEVATION POINTS ON BRIDGE LEAFS WHERE THEY PROTRUDE OVER NAVIGABLE CHANNELS TO IDENTIFY TO MARINERS THE POINT AT WHICH FULL SKYWARD CHANNEL CLEARANCE IS NOT AVAILABLE TO TRANSITING VESSELS; THE LIGHTS SHOULD ACTIVATE WHEN THE BRIDGELEAFS ARE IN THE NORMAL FULLY OPEN POSITION.
M–89–070	CUA	12/08/92	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: REQUIRE THAT BRIDGE OWNERS/OPERATORS PROVIDE IN BASCULE BRIDGE PERMIT APPLICATIONS THE ANGLE OF THE BRIDGELEAF(S), THE MAXIMUM VERTICAL CLEARANCE AT THE FENDERS AND AT THE BRIDGELEAF ENDS, AND THE EXTENT OF HORIZONTAL CHANNEL CLEARANCE OVER WHICH FULL SKYWARD CLEARANCE IS AVAILABLE WHEN THE BRIDGE LEAFS ARE IN THE FULLY OPEN POSITION.
M–89–071	CAA	11/28/94	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: ISSUE A NOTICE TO MARINERS STATING THAT BECAUSE SOME BASCULE BRIDGE LEAFS PROTRUDE OVER THE WATERWAY IN THE FULLY OPEN POSITION, UNLIMITED SKYWARD CLEARANCE MAY NOT BE AVAILABLE TO VESSELS WITH HIGH FREEBOARD, FULL WIDTH SUPERSTRUCTURES FOR THE ENTIRE CHARTED HORIZONTAL CLEARANCE.

Recommendation #	Overall Status	Date Closed	Subject
M–89–072	CUA	11/28/94	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: COORDINATE WITH THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND THE U.S. ARMY CORPS OF ENGINEERS TO INCORPORATE THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE ON CHARTS AND IN NAUTICAL PUBLICATIONS AVAILABLE TO MARINERS OF VESSELS OPERATING IN U.S. NAVIGABLE WATERS: THE VERTICAL HEIGHT FROM THE DATUM WATER LEVEL AT THE BRIDGE TO THE POINT WHERE A BASCULE BRIDGELEAF BEGINS TO PROTRUDE OVER DRAW FENDERS OR THE EDGE OF THE CHANNEL, AND THE VERTICAL HEIGHT FROM THE DATUM TO THE END OF THE FULLY OPEN BASCULE BRIDGELEAF.
M–89–073	CAA	12/08/92	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: COORDINATE WITH THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND THE U.S. ARMY CORPS OF ENGINEERS TO INCORPORATE THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE ON CHARTS AND IN NAUTICAL PUBLICATIONS AVAILABLE TO MARINERS OF VESSELS OPERATING IN U.S. NAVIGABLE WATERS: THE EXTENT OF HORIZONTAL CHANNEL CLEARANCE OVER WHICH FULLY SKYWARD CLEARANCE IS AVAILABLE FROM THE RAISED END OF FULLY OPEN BASCULE BRIDGE LEAF(S).
M–89–074	CUA	11/28/94	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: COORDINATE WITH THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND THE U.S. ARMY CORPS OF ENGINEERS TO INCORPORATE THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE ON CHARTS AND IN NAUTICAL PUBLICATIONS AVAILABLE TO MARINERS OF VESSELS OPERATING IN U.S. NAVIGABLE WATERS: THE ANGLE OF BASCULE BRIDGELEAFS WHEN IN THE FULLY OPEN POSITION.
M–89–075	CUA	11/28/94	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: COORDINATE WITH THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND THE U.S. ARMY CORPS OF ENGINEERS TO INCORPORATE THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE ON CHARTS AND IN NAUTICAL PUBLICATIONS AVAILABLE TO MARINERS OF VESSELS OPERATING IN U.S. NAVIGABLE WATERS: DEPICTIONS SHOWING WHETHER A BASCULE BRIDGE OVER A NAVIGABLE WATERWAY IS SINGLE- OR DOUBLE-LEAF AND, IF SINGLE-LEAF, ON WHICH SIDE OF THE WATERWAY THE BASE PIVOT POINT OF THE LEAF IS LOCATED.
M–89–076	CAA	11/28/94	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: CONDUCT A ONE TIME SURVEY OF DRAWBRIDGES TO DETERMINE THAT THE GREEN NAVIGATION LIGHTS ACTIVATE, BUT ONLY WHEN DRAWBRIDGES ARE AT THEIR NORMAL FULLY OPEN POSITIONS.
M–89–077	CAA	12/08/92	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: CONDUCT PERIODIC INSPECTIONS OF DRAWBRIDGES OVER U.S. NAVIGABLE WATERS TO DETERMINE THAT THEY ARE BEING PROPERLY OPERATED AND THEIR NAVIGATION LIGHTS ARE BEING PROPERLY MAINTAINED.

Recommendation #	Overall Status	Date Closed	Subject
M–89–078	CUA	05/07/91	THE NTSB RECOMMENDS THAT THE FEDERAL RAILROAD ADMINISTRATION: AMEND 49 CFR 219.201 TO INCLUDE SERIOUS ACCIDENTS INVOLVING RAILROAD BRIDGES AND THE OPERATORS OF THESE BRIDGES EVEN WHEN A TRAIN IS NOT INVOLVED.
M–89–079	CAA	11/21/90	THE NTSB RECOMMENDS THAT THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE: INCLUDE ON STRUCTURES TABLES AND CHARTS THE PRECAUTION ON BRIDGE AND CABLE CLEARANCES CURRENTLY CONTAINED IN THE GENERAL INFORMATION SECTION OF THE COAST PILOT PUBLICATIONS SO THAT SUCH CAUTIONARY INFORMATION IS READILY AVAILABLE TO THE MARINER WHILE NAVIGATING.
M–89–080	CR	03/06/95	THE NTSB RECOMMENDS THAT THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE: COORDINATE WITH THE U.S. COAST GUARD TO INCORPORATE ON NATIONAL OCEAN SURVEY NAUTICAL CHARTS THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE OVER U.S. NAVIGABLE WATERS: THE VERTICAL HEIGHT FROM THE WATER LEVEL DATUM AT THE BRIDGE TO THE POINT WHERE A BASCULE BRIDGELEAF BEGINS TO PROTRUDE OVER DRAW FENDERS OR THE EDGE OF THE CHANNEL, AND THE VERTICAL HEIGHT FROM THE DATUM TO THE FULLY OPEN END OF THE BASCULE BRIDGELEAF.
M–89–081	CR	12/08/92	THE NTSB RECOMMENDS THAT THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE: COORDINATE WITH THE U.S. COAST GUARD TO INCORPORATE ON NATIONAL OCEAN SURVEY NAUTICAL CHARTS THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE OVER U.S. NAVIGABLE WATERS: THE EXTENT OF HORIZONTAL CHANNEL CLEARANCE OVER WHICH FULL SKYWARD CLEARANCE IS AVAILABLE FROM THE RAISED END OF THE FULLY OPEN BASCULE BRIDGELEAF(S).
M–89–082	CR	03/06/95	THE NTSB RECOMMENDS THAT THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE: COORDINATE WITH THE U.S. COAST GUARD TO INCORPORATE ON NATIONAL OCEAN SURVEY NAUTICAL CHARTS THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE OVER U.S. NAVIGABLE WATERS: THE ANGLE OF BASCULE BRIDGELEAFS WHEN IN THE FULLY OPEN POSITION.
M–89–083	CR	03/06/95	THE NTSB RECOMMENDS THAT THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE: COORDINATE WITH THE U.S. COAST GUARD TO INCORPORATE ON NATIONAL OCEAN SURVEY NAUTICAL CHARTS THE FOLLOWING INFORMATION CONCERNING EACH BASCULE BRIDGE OVER U.S. NAVIGABLE WATERS: DEPICTIONS SHOWING WHETHER A BASCULE BRIDGE OVER A NAVIGABLE WATERWAY IS SINGLE- OR DOUBLE-LEAF AND, IF SINGLE-LEAF, ON WHICH SIDE OF THE WATERWAY THE BASE PIVOT POINT OF THE LEAF IS LOCATED.

Recommendation #	Overall Status	Date Closed	Subject
M–89–084	CR	03/04/93	THE NTSB RECOMMENDS THAT THE U.S. ARMY, CORPS OF ENGINEERS: COORDINATE WITH THE U.S. COAST GUARD TO INCORPORATE ON CORPS OF ENGINEERS CHARTS THE FOLLOWING ADDITIONAL INFORMATION CONCERNING EACH BASCULE BRIDGE OVER U.S. NAVIGABLE WATERS: THE VERTICAL HEIGHT FROM THE WATER LEVEL DATUM AT THE BRIDGE TO THE POINT WHERE A BASCULE BRIDGELEAF BEGINS TO PROTRUDE OVER DRAW FENDERS OR THE EDGE OF THE CHANNEL, AND THE VERTICAL HEIGHT FROM THE DATUM TO END OF THE BASCULE BRIDGE LEAF.
M–94–010	CAA	02/04/02	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD, AS THE FEDERAL AGENCY RESPONSIBLE FOR NAVIGATION SAFETY: COORDINATE A COOPERATIVE EFFORT WITH THE UNITED STATES ARMY CORPS OF ENGINEERS, THE BOARD OF COMMISSIONERS OF THE PORT OF NEW ORLEANS, AND BRIDGE OWNERS TO REVIEW CONDITIONS AND PRACTICES IN THE INNER HARBOR NAVIGATION CANAL, IDENTIFY HAZARDS TO THE SAFE TRANSIT OF VESSELS THROUGH THE CANAL AND LOCK SYSTEM, AND IMPLEMENT MEASURES TO REDUCE THOSE HAZARDS.
M–94–012	CAA	08/11/00	THE NTSB RECOMMENDS THAT THE U.S. ARMY CORPS OF ENGINEERS: COOPERATE WITH THE U.S. COAST GUARD TO REVIEW CONDITIONS AND PRACTICES IN THE INNER HARBOR NAVIGATION CANAL, IDENTIFY HAZARDS TO THE SAFE TRANSIT OF VESSELS THROUGH THE CANAL AND LOCK SYSTEM, AND IMPLEMENT MEASURES TO REDUCE THOSE HAZARDS.
M–94–013	CAA	07/14/00	THE NTSB RECOMMENDS THAT THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT: COOPERATE WITH THE U.S. COAST GUARD TO REVIEW CONDITIONS AND PRACTICES IN THE INNER HARBOR NAVIGATION CANAL, IDENTIFY HAZARDS TO THE SAFE TRANSIT OF VESSELS THROUGH THE CANAL AND LOCK SYSTEM, AND IMPLEMENT MEASURES TO REDUCE THOSE HAZARDS.
M–94–014	CAA	09/07/00	THE NTSB RECOMMENDS THAT THE BOARD OF COMMISSIONERS OF THE PORT OF NEW ORLEANS: COOPERATE WITH THE U.S. COAST GUARD TO REVIEW CONDITIONS AND PRACTICES IN THE INNER HARBOR NAVIGATION CANAL, IDENTIFY HAZARDS TO THE SAFE TRANSIT OF VESSEL THROUGH THE CANAL AND LOCK SYSTEM. AND IMPLEMENT MEASURES TO REDUCE THOSE HAZARDS.
M–94–037	CAA	07/25/01	THE NTSB RECOMMENDS THAT THE U.S. COAST GUARD: REQUIRE THAT ALL BRIDGES VULNERABLE TO IMPACT BY COMMERICAL MARINE TRAFFIC BEAR UNIQUE, READILY VISIBLE MARKINGS SO THAT WATERWAY AND BRIDGE USERS ARE BETTER ABLE TO IDENTIFY BRIDGES INVOLVED IN AN ACCIDENT WHEN THEY REPORT SUCH ACCIDENTS TO EMERGENCY RESPONDERS.
R–94–009	CAA	12/03/96	THE NTSB RECOMMENDS THAT THE ASSOCIATION OF AMERICAN RAILROADS: IMMEDIATELY BEGIN TO COLLECT DATA ON VESSEL COLLISIONS WITH RAILROAD BRIDGES FROM YOUR MEMBERS AND, IF APPROPRIATE, TAKE STEPS TO INCREASE PROTECTION FOR BRIDGES IDENTIFIED AS VULNERABLE.

Recommendation #	Overall Status	Date Closed	Subject
R–94–010	CAA	12/03/96	THE NTSB RECOMMENDS THAT THE ASSOCIATION OF AMERICAN RAILROADS: COOPERATE WITH THE U.S. DEPARTMENT OF TRANSPORTATION IN DEVELOPING A NATIONAL RISK ASSESSMENT PROGRAM FOR RAILROAD BRIDGES.
R–94–011	CAA	03/27/95	THE NTSB RECOMMENDS THAT THE AMERICAN SHORT LINE RAILROAD ASSOCIATION: IMMEDIATELY BEGIN TO COLLECT DATA ON VESSEL COLLISIONS WITH RAILROAD BRIDGES FROM YOUR MEMBERS AND, IF APPROPRIATE, TAKE STEPS TO INCREASE PROTECTION FOR BRIDGES IDENTIFIED AS VULNERABLE.
R–94–012	CAA	03/27/95	THE NTSB RECOMMENDS THAT THE AMERICAN SHORT LINE RAILROAD ASSOCIATION: COOPERATE WITH THE U.S. DEPARTMENT OF TRANSPORTATION IN DEVELOPING A NATIONAL RISK ASSESSMENT PROGRAM FOR RAILROAD BRIDGES.
Total Number of Recommendations for Recommendation Subjects Report			**67**

Mr. GRAVES OF MISSOURI. Thank you all, and now we will turn to questions, and I will let Rick ask the first one.

Mr. LARSEN OF WASHINGTON. Thank you, Mr. Chair, I appreciate that. The first question is for Administrator Bhatt.

You said that when you look at reconstruction of the bridge, you look at current standards consistent with law. Does the current law allow, in a circumstance like this, a rebuild of a different kind of bridge in order to be eligible for either Federal funds or for the cost share?

Because you could build one under current standards, and that could be in violation of what the law under this circumstance allows you to do. So, can you walk through that a little bit?

Mr. BHATT. Thank you for the question, sir.

Yes, I think what we are examining and working with Maryland DOT on—the original bridge was built in the 1970s, a truss bridge which was common at the time. Today, most of the bridges that are being replaced that are truss bridges are being replaced by cable-stayed bridges, different standards.

Obviously, we are going to want to hear from the NTSB on their final results of that investigation. But under the law, what we want to do is, when we are replacing a structure of that size, we want to build it to current standards. And Maryland DOT will be allowed to do that. What we want to make sure we are not doing is allowing for any "betterments" that did not exist that would be then covered by the ER Program.

Mr. LARSEN OF WASHINGTON. Yes, OK.

Admiral Gautier, the Corps has expended significant resources in the recovery effort. There is no mechanism for the—I am sorry, the Coast Guard has. There is no mechanism for the Coast Guard to recoup that funding, and you are not typically reimbursed for this kind of work. Yet with a workforce shortage of about 10 percent, you are closing, you are downgrading stations within the Coast Guard—not because of this incident, but that is just what is happening in the Coast Guard, and we passed a Coast Guard author-

ization that gets us to $14½ billion for 2025 and $15 billion for 2026, so, we are not near the goal of a $20 billion Service for 2030.

As Congress moves forward with the supplemental appropriations for the Key Bridge, how is the Coast Guard thinking about being part of that supplemental appropriation to get reimbursed to get some cost recovery for your work?

Admiral GAUTIER. Yes, thanks, Ranking Member.

I don't want to get ahead of the administration on the plans, the amounts and so on the details of the supplemental, but the way you have articulated it, first of all, we have been expending operating funds as we do during emergencies like this, like we do for hurricane responses and other things. And we have been keeping close tabs on those. And so far, we have spent about $20 million of direct and indirect funding on this particular response.

But what we see in events like this and others like it is that we do what we call burn readiness, right? So, we have to have other assets around the area, work harder, to cover for the boats, aircraft, people who are working these. We have mobilized now—and I visited the command post—on average, we have had about 200 individuals at the peak in the command post per day. That has gone down. We are mobilizing them from around the country. In fact, most of them are from outside Baltimore right now.

And so, there is an opportunity cost from the commands that provide those individuals, and I think what this exposes, sir, is—and you know us well—is that Coast Guard readiness is becoming more and more brittle as we fail to have the kind of consistent budgets reaching that $20 billion a year that the Coast Guard has articulated. Reaching the $3 billion per year on our procurement, construction, and improvement double what we actually receive in order to do the necessary capitalizations.

And so, this brittleness in our readiness manifests in a whole bunch of different ways, and we really do appreciate congressional support and ask for additional support for appropriations in the future.

Mr. LARSEN OF WASHINGTON. Yes, thanks.

General Graham, now to you. It is kind of the same question, but last week the Corps reprogrammed $20 million in unused funds from fiscal year 2020, including $1 million out of my district and from prior-year funds. Do you have an estimate how many more dollars you might need to reprogram, first?

And second, how are you thinking about a supplemental appropriation for cost recovery for the Corps?

General GRAHAM. Ranking Member Larsen, thank you for that question.

Similar to the Coast Guard, we certainly don't want to get ahead of the administration, but right now, we have been able to use the project funds. And as your opening statement indicated, that dredging work that we had planned to do with those funds in this year will still need to be done.

The emergency reprogramming that I referenced in my opening statement, most of that money we didn't need. So, where does that money come from? Mainly it is bid savings. A lot of these projects had happened during times of COVID, when it was a very favorable bid environment, and we were able to go back to those funds.

A good example of what some of that might be, a contractor might put a claim on a project, a request for equitable adjustment. And a few years later those claims have been adjudicated. And if we didn't have to pay that request, then we would unobligate those funds.

Mr. LARSEN OF WASHINGTON. Yes. Mr. Chairman, I am out of time. I just—if you could indulge me for a moment, not for a question, but I do want to let Chair Homendy know: I will need to absorb your first half of your report. It is rather technical. I am not an engineer, but we will absorb it and get back to you with some questions on it.

And just as a data point for the committee, the Skagit River Bridge collapse in 2013 cost a total of $19 million for the insurer, and took us 10 years to recover $19 million. So, we should not be thinking of waiting to recover costs from insurance, the insurer of the carrier or the bridge or whatever, in order to pay for it. It is going to have to take place first because it took 10 years to get $19 million. If that is the average time to get $19 million, we will all be dead by the time we get the money back from this ocean carrier. So, just a point, just a data point for folks. Thanks.

Mr. GRAVES OF MISSOURI. Mr. Crawford.

Mr. CRAWFORD. Thank you, Mr. Chairman. Thank you all for your testimony today.

I want to start by acknowledging the six workers who lost their lives as a result of the collapse of the Francis Scott Key Bridge. Obviously, our deepest sympathies go out to their families and their loved ones.

Hours after the Francis Scott Key Bridge tragically collapsed, President Biden came out and said it was his "intention" that the Federal Government will pay for the entire cost of reconstructing that bridge. And further, he had "directed his team to move heaven and earth to reopen the port and rebuild the bridge as soon as humanly possible."

Administrator Bhatt, I have a series of questions here as we try to understand the mechanics of the situation before us. And if you would, just give me a yes or no response in the interest of time.

While the bridge was located on I–695 prior to its collapse, it wasn't actually considered a part of the interstate, but rather was Maryland State Route 695. Is that correct?

Mr. BHATT. Yes.

Mr. CRAWFORD. The bridge had previously never received any Federal funding. Is that correct?

Mr. BHATT. Yes.

Mr. CRAWFORD. I understand that Federal Highways has since approved a request by Maryland to designate the bridge as interstate. Is that correct?

Mr. BHATT. Yes.

Mr. CRAWFORD. Meaning the Federal share for reconstruction under the Emergency Relief Program will now be 90 percent. Is that correct?

Mr. BHATT. Yes, instead of 80.

Mr. CRAWFORD. So, what we are talking about here is a delta of 10 percent for a bridge that previously never received any Federal funding.

Mr. BHATT. Yes.

Mr. CRAWFORD. OK. In your testimony you mentioned that authorizing a 100-percent Federal cost share would be consistent with past catastrophic bridge collapses. How many times has Congress authorized a 100-percent Federal share for a fully collapsed bridge?

Mr. BHATT. So, the—I think the reference point we are using is the I–35W collapse in Minnesota.

Mr. CRAWFORD. OK. Some say that we need 100 percent Federal funding so we can get the rebuilding done quickly, but that is not how the ER Program works. It is a reimbursement program, correct?

Mr. BHATT. Absolutely.

Mr. CRAWFORD. As I understand it, the ER financing process, generally, individual States, the division offices, and the program office have a process to make sure that projects are ready to receive funding, and work can be completed in a specified time period. Is that right?

Mr. BHATT. Yes.

Mr. CRAWFORD. So, it doesn't really matter if a project is getting 80 percent Federal share, 90 percent, or even 100 percent. The reimbursement is based on project progress and delivery. Correct?

Mr. BHATT. Yes.

Mr. CRAWFORD. I just want to be clear that nothing is going to move faster if this is 100 percent Federal-funded versus 90 percent or any other percentage. Whether the State contributes money or not, the process for awarding Federal reimbursement is still the same. Correct?

Mr. BHATT. Can I just deviate from the yes-no for a second?

Mr. CRAWFORD. Go ahead.

Mr. BHATT. Yes. However, the 10 percent—so, this is the second largest ER request we have ever received; $2.2 billion for Katrina was the first one, so, $1.7 to $1.9 billion. So, that 10-percent delta is about $170 to $190 million for the State of Maryland that, as they are programing out their multiyear, multibillion-dollar program, it may not be this project, but it may have impacts on other projects.

Mr. CRAWFORD. OK. Let me just briefly, in the time that I have left, let's talk about the regulatory regime that will be applied here.

Are we going to expect any kind of waivers or anything like that on NEPA or any other regulatory compliance measures that would be customary on any other construction project?

Mr. BHATT. So, sir, we would not waive NEPA or any of the environmental requirements. But what we have done is coordinated with our agencies who issue permits, and it is our intention, because the bridge previously existed in this relative footprint, that it would be likely a categorical exclusion, which would minimize the time.

Mr. CRAWFORD. Expand on categorical exclusion. What does that mean?

Mr. BHATT. So, when you go through NEPA, you can either do, like, a full environmental impact statement, we could get to a finding of "no significant impact" on environmental assessment. A categorical exclusion is sort of the more time-limited finding. And the reason we would use that basis here is because the bridge pre-

viously existed, and we are putting a bridge back relatively in the same footprint.

Mr. CRAWFORD. You are putting it back in the same spot, but not necessarily—because you are probably going to use a different kind of construction, would there be some associated flow studies, for example, to address the new construction?

Mr. BHATT. So, that is why we are coordinating with our sister agencies who issue the permit, because it is, as I said, relatively in that same footprint but probably going to use different piers, it is probably going to have a little bit of tweaking to the approaches, a different height than was there before. So, that is why I can't say definitively that it will be a categorical exclusion. It is what we are working towards.

Mr. CRAWFORD. So, it sounds to me like there is going to be a great deal of flexibility in the interest of getting this thing restored, rebuilt, and restoring traffic and commerce and everything associated with that bridge. Is that correct?

Mr. BHATT. I am not sure if flexibility is the right word. I think attention from the sister agencies, and understanding that there is a desire to move quickly.

Mr. CRAWFORD. And I am all for that. And I hope that in the future that other projects are given the same consideration because time is money. And I understand that that is certainly the case here, but there are a lot of other projects out there pending that have cost millions in regulatory compliance fees that have really been delayed as a result. So, thank you.

And I yield back.

Mr. BHATT. Yes, sir.

Mr. GRAVES OF MISSOURI. Ms. Norton.

Ms. NORTON. Thank you, Mr. Chairman.

Administrator Bhatt, Department of Transportation data show that traffic crashes rose 29 percent on alternative routes in the weeks following the Key Bridge collapse. The same data show that it now takes between two and four times longer for drivers to travel those alternative routes. That traffic means trucks are delayed in reaching their destinations, commuters are late getting to their jobs or home to their families, and there is more air pollution and wasted fuel.

How has the loss of the Key Bridge hurt traffic safety and reduced mobility for drivers in the Baltimore region?

Mr. BHATT. Thank you for the question.

I think we saw in Philadelphia after I–95—we had that bridge collapse—that there was just all kinds of traffic moving through neighborhoods and trying to find their way, and I think a similar effect is happening in Baltimore.

Usually, when you have an impact where you remove a significant piece of infrastructure, traffic seems to level out after a while. That is not happening here in Baltimore to the same extent, and I think it is because of just the criticality of this artery. It is part of the Northeast Corridor, it is important for Maryland, it is important for Baltimore, but it is also important for the Northeast Corridor.

And so, yes, there are trucks and vehicles moving through neighborhoods that they would not normally be on, and that is why it

is so critically important that we move with as much speed as possible.

Ms. NORTON. Administrator Bhatt, it is clear that we need to restore commerce to the Port of Baltimore and rebuild the bridge to improve safety and mobility in the region. The full Maryland delegation has proposed legislation to provide 100 percent Federal share for the cost of the new bridge. I wholeheartedly support this legislation.

What effect would the 100-percent Federal share have on efforts to rebuild the bridge quickly?

Mr. BHATT. Thank you, Representative, for the question.

I have spent a lot of time running State DOTs in my career. I have been on the private side, so—I was with AECOM before this job that works on bridges across the globe. And I would just say what the benefit of the 100-percent share brings is just it removes an element of uncertainty.

So, right now, I think Maryland—and I have to commend Maryland DOT, just really been consummate professionals throughout this process—right now, what they are contemplating is an ER shortage that we have told them about, that we have $3.7 billion in unmet needs, as the Federal Highway Administration, with about $870 million available for nationwide ER efforts. And so, we are telling them we believe that we will have the ER funding there for you. And then they have the uncertainty of the 90 percent versus the 100 percent. We did remove the 80 percent uncertainty.

And so, as you are planning out these multiyear, multibillion-dollar construction programs, not knowing whether or not that $170 million is going to be there, does it impact things right now at this moment? No, they are going to move forward. But as they are projecting out and as they are trying to build their construction program, other contractors, it just is an element of uncertainty. That would be helpful.

And just to clarify on the 100 percent, obviously, any insurance payments, as the ranking member had mentioned, would be reapplied. So, I can pretty much with certainty guarantee this will not be 100 percent federally funded eventually, because we will recoup all of the insurance payments as possible, and they will go back in to the ER funds. But as the ranking member mentioned, we don't want to wait through all of the litigation and the NTSB investigations, insurance issues for that.

Ms. NORTON. Thank you, I yield back.

Mr. GRAVES OF MISSOURI. Mr. Webster.

Mr. WEBSTER OF FLORIDA. Thank you, Mr. Chairman, for putting this together. It is very informative. Thank you, witnesses.

Last week the Army Corps notified congressional offices that they would be utilizing the emergency reprogramming authority to the program to reprogram approximately $33 million of previously appropriated operation and Harbor Maintenance Trust Fund dollars for recovery costs imposed by the collapse of the Key Bridge.

Nearly $1 million was reappropriated from projects in Florida without any request for input from the congressional delegation, the State, or the people. While the recovery effort in Baltimore is important, this reprogramming of the funds represents a blatant

disregard for Florida and desperately needed improvements to our water resources and infrastructure.

General Graham, if these recently reprogrammed funds were deemed to be in excess, why did the Corps let these funds sit for years and not act sooner to reprogram them towards projects locally in Florida?

And will the Corps plan to reimburse the South Atlantic Division for these funds?

General GRAHAM. Congressman Webster, thank you for that question.

The example I used earlier of some of the funds that we had set aside for when a contractor put a claim, that was from Jacksonville, and that was from the Jacksonville District, and it was Jacksonville Harbor. So, in this case, those funds, I think $300,000-some, are no longer needed for the Jacksonville Harbor project. So, those funds in particular that we had set them aside for a need, and that need didn't materialize, we will not seek recoupment for those.

We did do this work, this emergency reprogramming work, Congressman, very rapidly. And we—as I stated in my opening statement, we haven't used this authority at this scale for 15 years, and we are a little clunky at it in terms of our notification to you and your staffs. If we—and I will use Jacksonville District as an example—if there are some of those funds that they do find a need for, we will figure out a way to make sure that the projects continue.

To your first comment on some of those old funds that have been sitting out there for a while, why hadn't we cleaned up the books sooner? Sir, you are absolutely right. We should have.

Mr. WEBSTER OF FLORIDA. As you know better than most, the Gulf States fought against the National Contingency Plan Unified Command structure response throughout the *Deepwater Horizon* oilspill. The National Incident Commander's Report concluded the States' efforts resulted in the political and social nullification of the oilspill response doctrine and structure governance. It appears that the press reports that meetings with Maryland State officials and a number of staff member trips to the wreck site—that Maryland embraced the National Incident Command structure, and that it has worked well within that structure.

Is the National Incident Command structure still an effective and efficient mechanism for coordinating Federal interagency and State-local-Federal interactions during the incident such as the *Dali*?

Admiral GAUTIER. Congressman, if that is for me, I can't agree more with your statement.

As the chief of staff for Admiral Allen on the *Deepwater Horizon* spill, and now being someone who has been witness to the terrific work in the unified effort on this one, it has been very, very different in terms of cooperation and collaboration. Underpinning that is the absolute necessity and the benefit of the Incident Command System under the National Incident Management System framework that has served this response incredibly well. It is the doctrine of the U.S. Any agency, entity—Army Corps, State—can come together with a common lexicon, a common way of planning to come together and make this work.

But I would also like to highlight a real difference that has made a difference, and that is that elected leadership and the operational leadership has been connected in a very constructive way, from Governor Moore to Mayor Scott to Members of Congress from the Maryland delegation, they have taken it upon themselves to get regular updates and a great interest in the progress and the response. They have handled for the Unified Command a lot of the public affairs and external communications in a very constructive way. And they have actually provided the trade space for the operational response to continue on without pressure, without being rushed. It has been very constructive.

Mr. WEBSTER OF FLORIDA. Thank you very much.

I yield back.

Mr. GRAVES OF MISSOURI. Mr. Cohen.

Mr. COHEN. Thank you, Chairman Graves and Ranking Member Larsen, for holding this important hearing on the Federal response to the Francis Scott Key Bridge collapse in Maryland.

Further, I extend my condolences to the families of the six individuals who lost their lives during the collapse.

I thank our esteemed witnesses for appearing here today, especially Administrator Bhatt, who was with us in Memphis on Monday.

I appreciate your coming to see the I–55 bridge and the urgent need to replace it across the Mississippi River in Memphis and West Memphis. That is, of course, as you well know, a national treasure to have transportation going across the country there at I–40. We had the I–40 bridge—we had a problem last year and shut down. The I–55 bridge could have the same problem, because it is in the New Madrid earthquake fault zone, which is predicted to occur, it has been predicted for about 20 years, but it is going to occur, and it is more likely sooner than later.

As you all look at the damages to the Key Bridge, which were caused partially, I think, because it wasn't built to withstand that large of a boat, it could have been maybe—piers could have been buttressed and made it more stable, is that correct?

Mr. Bhatt, can you answer that?

Mr. BHATT. Thank you, Representative Cohen. And yes, it was good to spend some time with you in Memphis looking at that bridge.

I think one of the things we are waiting for—and it was great to see the preliminary report from the NTSB, but I think we are going to be working closely with the NTSB just to figure out exactly what types of protection might be needed for bridges and what could have been possible. But again, I don't want to step into the NTSB realm.

Mr. COHEN. I am sorry. Please.

Ms. HOMENDY. Thank you, sir. For the Key Bridge, we are, obviously, looking at—there were two dolphins on the east side, two on the west side. They are rather small, and the vessel just sort of bypassed the dolphins. What ended up striking the pier was the starboard side of the bow that hit the column. The pier protection around the column itself is timber, concrete, a little bit of steel, but it is very close in to the pier itself.

Other structures that we are looking at have pier protection that comes out farther so that a vessel can't get to the column. Other dolphins are much larger. So, we are looking at other structures across the United States to see what might be good models.

I think the key here is you have a bridge that was opened in 1977, and over time, it's not the bridge that's getting larger, it's not the waterway that's getting larger, it's the vessels that are getting larger, and not just width, but height, with containers. And so, it is important that States and other bridge owners are looking at, from a risk assessment standpoint, what is now going through, what is the vessel traffic, and how is our infrastructure protected.

Mr. COHEN. So, were there bridges built after 1977 that were built in a fashion that they would have been able to withstand such an impact?

Ms. HOMENDY [to Mr. Bhatt]. You have to——

Mr. BHATT. So, thank you, Congressman, for the question. It is an important question. We are working with our State DOT partners to identify all of the bridges that are subject to seagoing vessels. Also, in the Great Lakes region, barge traffic on the Mississippi and other waterways.

I think what this bridge has done is driven home that need to look at many of our bridges which are older, and look at that protection, and we are going to rely on the NTSB recommendations.

Again, there was a lot of force. I mean, I have heard different analogies of the force, the equivalent of a rocket ship taking off. And so, we just want to be careful in our consideration of how we both protect and build bridges in the 21st century as they are dealing with these new potential threats.

Mr. COHEN. Thank you. I just would like to urge you, as I did in Memphis, that we need to look at preventative measures so we don't have another Francis Scott Key Bridge disaster. And earthquakes would cause that. And there is no place in the United States, I think, more vulnerable than the New Madrid fault and the I–55 bridge that was built before there were seismic standards. They were not part of the bridge.

So, it is deficient, needs to be replaced, and I hope that you will look in terms, just as this disaster, at bridges that we fund under the bipartisan infrastructure bill, be ones that might be susceptible to either earth, God-created—I hate to say God, I hate to give God the responsibility, but disasters that are caused by other than manmade disasters.

I yield back, and I thank you for coming, and Elvis thanks you, too.

Mr. GRAVES OF MISSOURI. Mr. Perry.

Mr. PERRY. Thank you, Mr. Chairman.

I will begin by just offering my condolences to the family. And I think it underscores the circumstance, underscores how potentially horrific, almost unimaginable, what might be seen as mundane work can end up being at a critical moment. It is unimaginable, as you can imagine yourself at 2 or 3 o'clock in the morning, falling 100, 200 feet into the water, steel and concrete crashing around you.

With that, Administrator Bhatt, the Francis Scott Key Bridge was a toll facility that never received any Federal funding prior to the collapse. Right?

Mr. BHATT. Yes, sir.

Mr. PERRY. And how much revenue did the State of Maryland receive or generate from the bridge on an annual basis, if you know?

Mr. BHATT. Sir, I would have to doublecheck. I don't want to give you a false——

Mr. PERRY [interrupting]. OK, I don't know if you would have a different figure than I do. I have got about $56.8 million in 2023, just for your reference. So, that is what they were taking in.

Under the current law and under this administration's plan, the bridge would get 100 percent share. So, the Federal Government would pay 100 percent of that. And while you say that this is consistent with bridge collapse emergencies in the past—and I think you are referring to the I–35 collapse—that was not a toll bridge, right? That was part of the interstate system.

And so, my questions, I guess, center around payment for this. I think we can all agree that we probably and shouldn't wait for the insurance companies and the litigators to work it out, but Maryland had insurance on the bridge, didn't they?

Mr. BHATT. Sir, I am aware of one policy that Maryland has for $350 million.

Mr. PERRY. $350 million, right?

Mr. BHATT. Yes.

Mr. PERRY. So, that should, by all rights, you would assume, be actioned and go towards paying for a portion, whatever portion of the bridge reconstruction it would pay for, right? It would——

Mr. BHATT [interrupting]. Absolutely, sir. We just—I have yet to go through and——

Mr. PERRY [interposing]. I understand.

Mr. BHATT [continuing]. Have our lawyers figure out exactly what is in there. But yes, whatever portion of that $350 million we would apply.

Mr. PERRY. So, I guess, when you say consistent with past emergencies, as you already said, the relief fund is $3.7 billion behind. We are $35 trillion this month in debt at the Federal level. And I wonder if you think it is fair that the American taxpayer should not only pay to reconstruct the bridge, but then pay tolls after which to use the infrastructure they just paid for in their taxes. Is that—because you are going to set a new precedent here. And is that the precedent we are going to set?

Or is there some plan to recoup the cost of reconstruction of the bridge?

And I think, according to the figures we have heard today, upwards of $2 billion, a bridge that originally cost $60.3 million. Is there some plan to recoup that and send that back into the Disaster Relief Fund or to the Highway Trust Fund, which continually needs massive infusions from the general fund just to stay afloat? What is the plan?

Mr. BHATT. Yes, thank you sir, very important questions, and I appreciate your interest. So, let me just try to quickly go through that.

Where this was a Maryland State facility before, now it has been designated as part of the interstate system. They were free before to collect their tolls and use them for maybe Port of Baltimore, whatever they were using them for. Now, since this has been Federalized as a facility, and going forward when the tolls are restored, as part of the interstate system it will now—they will have to use those for title 23-eligible funding, so, whether it is the maintenance of the existing bridge or other title 23 highway purposes in Maryland. So, the American taxpayer will be benefiting from those tolls.

In terms of the precedent, if it was a pre-existing toll facility, they are allowed to toll the facility going forward. But again, it would be using title 23-eligible expenditures on those tolls.

Mr. PERRY. I understand the title 23 expenditures, and understand that they would be used for surface transportation in Maryland. But you are asking the taxpayers from across the country to pay for it. And if you are from Washington State, likely you are never going to travel across that bridge, but you are sure going to pay for it.

And as long as we are setting precedent, I think it would be appropriate at least to consider reimbursing through the tolls the emergency fund or the transportation fund for the entire country before all of the money goes right back to the State that is going to be receiving it where the bridge resides, which arguably I think can be said was not prepared to withstand the traffic impact that it had. Meanwhile, it is right there. I mean, it is not like it was a surprise that the bridge is there, and ships are going under it, and this could happen.

So, with that in mind, with the time that I have already expended and expired, I hope you would consider a plan to reimburse the taxpayer under horrific debt right now who can't afford their groceries, their gas bills, their daycare bills for the cost of this bridge for which one State has been receiving all the money for its entire existence, and apparently is going to receive all the money from the tolls for the rest of its existence.

And with that, Mr. Chairman, I yield the balance.

Mr. ROUZER [presiding]. Mr. Garamendi, you are recognized.

Mr. GARAMENDI. Thank you, Mr. Chairman. Thank you for the hearing.

Witnesses, Vice Admiral and General, you and your teams and the support organizations that you have contracted with are doing extraordinary work, and we thank you for that.

The issue before this committee was pretty much laid out by the chairman in his opening remarks, and I would suggest that we have an opportunity to clarify the responsibilities, some of which we heard from the previous Member just a moment ago. A couple of things here.

First of all, the notion—President Biden is correct, OK? We will put up the full cost of reconstruction. However, that legislation should be written in such a way that the Federal Government will be reimbursed for any money received in the liability issues, the $350 million that the State of Maryland had as an insurance policy on the bridge, as well as whatever other payment may come from lawsuits against the shipping company and the owners of the ship.

So, we should—and this should be, really, the work of this committee—is to carefully structure the legislation so that the Federal Government, ponying up the 100 percent at the outset, would be fully reimbursed by any revenues.

My colleague raised an interesting point about tolls. We should consider that, and how that fits into it, and keep in mind the entire interstate system, where tolls are collected in various places across the United States. So, those are things that are out there.

There is also one other issue that I want to encourage this committee to deal with, in addition to recovering whatever money might be available from lawsuits, and that is the Limit of Liability Act of 1851. It seems as though perhaps even that is—precedes the law in Arizona which dealt with a different issue. That Limit of Liability Act really has to change, and I would urge the committee to take up this issue. I intend to present to the committee at the appropriate time a piece of legislation to do so, so that the owners of these vessels would be held responsible for the cost of their mistakes. And that—right now, that limited liability would hold that the owner of the ship would be limited to $40-some million, even though the ship is worth $90 million or more, and the damage is somewhere around $2 billion, not including the cost of the recovery issues and the expenses that the Coast Guard and the Army Corps of Engineers are now incurring.

So, my point here is to raise this policy issue and, really, the work of this committee as we go forward. I think the chairman correctly pointed out that we don't need to do much for the next couple of months, but this year, we have to pass legislation to clarify the ability of the Federal Government to receive any funds that are available from various lawsuits that are out there.

And also, this committee should, since it is our jurisdictional area, deal with this 1851 law that limits the liability of the shipowner to any accident and problem that they may cause.

Now, I don't know if this is an appropriate question for the general and the vice admiral, but you are welcome to jump in if you would like.

But I think, Mr. Bhatt—and if you might comment on this issue—about how we might structure legislation to recover whatever fee, whatever damages may be in the future from either insurance or lawsuits.

You can look for help, but you won't——

Mr. BHATT [interrupting]. No, I just—you referenced them, and I just—I am taking a lot of answers, so——

Mr. GARAMENDI [interposing]. It's all yours.

Mr. BHATT. I don't want to—I am happy to share the time.

So, under the ER Program, under the existing law as it states, any insurance moneys that are recouped for any ER event across the country do go directly back into the ER fund. So, the ranking member mentioned the $19 million Skagit River Bridge, and I think it was actually about $16.6 million that was recovered through insurance. It went directly back in, but, as he said correctly, 10 years after the incident.

So, whether it is the $350 million insurance policy that Maryland has existing or post-investigation and post-legal activity going on for as long as that may be, we will recover all of that money and

send it back in. But as you correctly point out, there are some questions about how much liability for the shipowner that is out there.

Mr. GARAMENDI. That is a question, really, that should be addressed to the Coast Guard who might want to comment on it.

But I am out of time now, so, I will yield.

Mr. ROUZER. The gentleman's time has expired.

Mr. Babin, you are recognized.

Dr. BABIN. Sir, thank you, Mr. Chairman, and thank you to the witnesses for being here and your testimonies.

I think there is definitely some resentment among my colleagues and the American public about this incident. The perception here is really frustrating, and some of you have already addressed some of these, but I would like to ask my questions.

If you zoom out, the Singapore-flagged vessel crashes into and completely destroys a historic bridge, kills six construction workers, and is now trying to avoid liability for the incident. People have a lot of questions: Is it safe for foreign-flagged vessels to operate in U.S. waterways? Are other bridges safe? I have heard a number of questions wondering whether their bridges are safe. Was this incident a result of foul play or negligence? What can we do to prevent this from ever happening again? And who is going to pay for this thing?

And I appreciate you all for coming and answering questions. My first question is for Admiral Gautier. If anyone else has thoughts, please feel free to jump in.

I know this whole response is a great team effort, but first off, I am told the Coast Guard is doing a great job leading the way in the unified response in Baltimore, so, I want to thank you and the Coast Guard for your commitment and all the hard work that you and the Coast Guard have done.

As you all know better than most, the Gulf States fought against the National Contingency Plan Unified Command structure response throughout the *Deepwater Horizon* oilspill a few years ago in the Gulf of Mexico. The National Incident Commander's Report concluded that the Gulf States' effort resulted in the political and social nullification of the oilspill response doctrine and structure governance.

It appears from press reports, meetings with Maryland State officials, and Member and staff trips to the wreck site, that Maryland embraced the National Incident Command structure, and that the response has worked well within that structure. Is the National Incident Command structure still an effective and efficient mechanism for coordinating Federal interagency and State-local-Federal interactions during incidents such as the *Dali* allision?

Admiral GAUTIER. Congressman, thank you very much, first off, for the compliments to the Coast Guard. I just have to also acknowledge the leadership of Colonel Pinchasin, Army Corps of Engineers; Colonel Butler, Jim Harkins, and Jeff Donoho, who are the State incident commanders. It is a fantastic leadership team.

To answer your question, the Incident Command System is absolutely a fundamental principle by which this incident response has been successful. It is part of U.S. doctrine under the National Incident Management System. It is how we respond to hurricanes, oil-

spills, other types of incidents just like this. I think we now have a great deal of practice in the United States since the *Deepwater Horizon* in doing this.

And I think what I will just observe is that this particular incident had a very tight connection between the operational commanders who were running the incident and elected leaders who all shared the same objectives. The elected leaders took the time and effort—Governor, mayor, Members of Congress—to keep up to date on what was going on and to provide the trade space to allow these folks to get on with the response.

Dr. BABIN. OK, thank you. The second question I would like to address to Administrator Bhatt.

I would like to talk about the path forward from here for the Key Bridge. What is the plan to replace the bridge?

My constituents are not wanting to pay for this thing. In my view, the company or the country responsible for the incident should be footing the bill, not the U.S. taxpayer. If the U.S. is ultimately going to pay for this bridge, it better come out of funds that we have already allocated.

President Biden and Speaker Pelosi authorized trillions for infrastructure, and that should be including bridges. The last thing I want to do is to vote to spend another $1 or $2 billion on a new bridge. So, Administrator Bhatt, talk to me on what you see as a path forward here on the payment for this thing.

Mr. BHATT. Thank you, Congressman. And just in terms of the rebuild path, Maryland DOT plans to issue their RFP close to Memorial Day. They will select a preferred team in August, and then they are looking at construction completion in 2028 as a preliminary schedule.

And in terms of the payment, as I have stated, right now, there is a preliminary estimate, $1.7 to $1.9 billion. There is a $350 million insurance payment that we are working through to see what level of that would be applicable. And any funds that are recovered through legal activity or insurance payouts will go back into the ER funds. We just don't have a path to getting there right now in terms of what is eligible.

Dr. BABIN. OK, I am out of time, so, I yield back, Mr. Chairman. Thank you all.

Mr. GRAVES OF MISSOURI [presiding]. Mr. Johnson.

Mr. JOHNSON OF GEORGIA. Thank you, Mr. Chairman, for holding this very important hearing, and thank you to the witnesses for appearing, and thank you for the work that you have been doing to ameliorate the harm that has been caused by this bridge collapse.

And I also want to offer my condolences to the families of the six construction workers who were killed in this bridge collapse.

And I would like to commend the quick work of the police officers who made sure that traffic was stopped and no other people were on the bridge who could have been killed as a result of this collapse.

And I also want to recognize the collaboration between State and Federal officials and agencies to address this situation.

And I want to get at this issue of perhaps there being some people in the country who are not inside the State of Maryland who resent having to pay for this bridge reconstruction.

Administrator Bhatt, can you tell us how this bridge collapse impacts interstate commerce?

Mr. BHATT. Thank you for your condolences and for the question, Congressman.

I have been the secretary of transportation in Delaware, in Colorado, and I was a deputy in Kentucky. And I think that what is so critically important for our transportation system is that you can drive from New York to Los Angeles across a system that is completely uniform, is set to standards.

And what is happening—I think we have learned through the Port of Baltimore—is that that highway system is tied into ports. It is the third busiest port in the country. So, there are jobs that are being impacted. There are freight movements that are being impacted. There are neighborhoods that are being impacted.

And so, yes, this is not just an issue for Maryland. It is an issue for the Northeast Corridor and for our national economy.

Mr. JOHNSON OF GEORGIA. It is actually having an impact on prices for consumer goods. Is that correct?

Mr. BHATT. Well, that is something that, under the leadership of Secretary Buttigieg, we have been closely looking at many of the goods that move through there. So, there is a lot of coal that moves through that port. There are a lot of automobiles and farm equipment. And so, to the extent—now, there is—a lot of that traffic has been diverted—and I don't want to get outside of the Federal highway lane—to other ports. But there are a lot of movements of goods from, say, ships that have diverted back to Maryland, and that is adding costs for those same vehicles to be finished at the plants nearby.

So, obviously——

Mr. JOHNSON OF GEORGIA [interposing]. All right.

Mr. BHATT [continuing]. Supply chain is important.

Mr. JOHNSON OF GEORGIA. OK, thank you. When is it projected, assuming that funding is in place, that the bridge can be rebuilt and reopened?

Mr. BHATT. Thank you, sir. The projected schedule right now is for a progressive design-build team to be selected this summer, and for construction to begin next year and run through 2028.

Mr. JOHNSON OF GEORGIA. Thank you. And so, it would be 2029 before the bridge would reopen for traffic?

Mr. BHATT. Yes, 2028, 2029. It will be a progressive design-build, so, we will figure out the schedule as we go.

Mr. JOHNSON OF GEORGIA. Thank you.

Chairwoman Homendy, with respect to the causation of this cargo vessel losing power and that causing it, this vessel, to drift into the bridge, are there any concerns?

Or does the fact that there was no—there seems to be no redundancy in terms of the basic power of the vessel—there is no redundancy. You cut it on, you cut it—it gets cut off, there is no secondary situation that would kick in. Am I correct on that?

And if I am correct, what are the implications as we move forward?

Ms. HOMENDY. Yes, I mean, there is certainly redundancy in the electrical system and the circuitbreakers. They switched circuitbreakers after the power outages in port.

With respect to the emergency generator, it would not allow for regaining propulsion. It really focuses on the critical portions of the vessel, which would be radio communication, lighting. If you had any sort of—if you wanted to regain propulsion through any sort of emergency generator, it would literally take a six-story generator on a vessel to do that. There is redundancy in, say, cruise ships. But vessels—the *Dali* is not unlike other vessels.

I think here is really determining, for us, what happened with the electrical system on the accident voyage, what happened in those two blackouts, which is why we have been working very closely with Hyundai, who manufactures the equipment, to try to replicate some of the electrical problems that we are seeing that day, and continue looking and testing each of the components.

Mr. JOHNSON OF GEORGIA. Thank you.

I yield back.

Mr. GRAVES OF MISSOURI. Mr. Graves.

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman.

I first want to join others in wishing condolences to the families of those who were lost in the bridge collapse.

And also, I just find it remarkable, the incredible action of the law enforcement community that came in and stopped traffic. That could have been much worse than it was.

Last week, I had the opportunity to go out to the bridge. And Admiral, I will tell you that—Admiral, it was Gilreath, right? Right. Admiral Gilreath, and Captain O'Donnell, and even Lieutenant Carter, who was behind you a little while ago, just absolutely remarkable.

General, Colonel, your district commander down there—Colonel Pinchasin, I believe—yes, she was awesome. I met her down in New Orleans, and she and her team did a great job. There were folks from DHS that were really, really good. And I just—an incredibly thorough briefing, and gave lots of comfort that things were under control. And I appreciate all the efforts that are underway down there.

Administrator, I want to ask a question. I want to make sure I understand something. You said earlier that what is being done on this bridge is consistent with what has been done in other bridges in the past for disasters. Is that accurate?

Mr. BHATT. Thank you, Representative, I am trying to think of what I said——

Mr. GRAVES OF LOUISIANA [interrupting]. I wrote down that you said consistent with historic bridge disasters. But there is not another bridge where you just—where FHWA came in and just designated that it is going to be part of the interstate system.

Mr. BHATT. No, we only learned that it was not part of the interstate system in light of this event.

Mr. GRAVES OF LOUISIANA. OK. So, that is an anomaly. I just——

Mr. BHATT [interposing]. Absolutely.

Mr. GRAVES OF LOUISIANA. OK, I want to be clear on that.

And then, secondly, so, you have talked about the use of categorical exclusions and doing some type of expedited NEPA. Whether you do a CATEX or you do alternative arrangements, I want to be clear, I am fully supportive of it. But in the past, the Minneapolis

bridge, the I–35 bridge, I believe the bridge in Washington State and others, similar things have been done.

Can you cite where there has been environmental damages or destruction from that approach, as opposed to going through the regular NEPA?

Mr. BHATT. So, just trying to think through your question, citing environmental damage by using the expedited approach?

Mr. GRAVES OF LOUISIANA. Mm-hmm.

Mr. BHATT. No, I can't cite environmental damage——

Mr. GRAVES OF LOUISIANA [interrupting]. And I can't either. And actually, Colonel—excuse me, Major General Graham, sorry about that, I demoted you—General, you recall after Hurricane Katrina, the levees were built using alternative arrangements. Do you remember any type of environmental damages or destruction that was caused from doing the alternative arrangements?

General GRAHAM. No.

Mr. GRAVES OF LOUISIANA. Yes, I don't think so, either. I think it actually worked out really well.

And so, my message to you on this is that right now the average road project takes somewhere around 7 years and 3 or 4 months. As you know, the White House has just released new rules on NEPA in line with the fiscal—well, attempting to be in line with the Fiscal Responsibility Act, but failing on some things, but—that would significantly shorten it. But my message is that this shouldn't be the exception. Environmental damages haven't resulted from using categorical exclusions or alternative arrangements.

Look, I don't know what the traffic impacts are of this bridge. We have a bridge at home that is the source of the fourth worst traffic problem in America. The Mississippi River bridge, I–10, I–10 going from California to Florida, fourth worst traffic in America. We have taken 7 years to narrow a new bridge alignment down to 32 alignments. Like, you can't make this stuff up. This is outrageous. We have urgency there, as well.

Look, I want to be crystal clear. I fully support, fully support Federal funding upfront. Let's get this thing built. Let's get it done as quickly as possible. I fully support categorical exclusion or alternative arrangements. I have been in touch with the Governor of Maryland, and I appreciate him reaching out, but this is a major anomaly. We have got a toll, we have got a responsible party. This isn't a natural disaster, and I think that we need to make sure that we are holding the responsible party accountable.

We had a similar incident in Louisiana in the mid-1990s. The *Bright Field*—the *Bright Field* incident—came and crashed into the Riverwalk in Louisiana. That was a Japanese-built vessel, it was run by Chinese—or excuse me, it was, I think, run by the Chinese and flagged in Liberia.

Admiral, I want to ask you real quick, can you think of any similar incidents with Jones Act vessels that have occurred like this?

Admiral GAUTIER. Not from deep draft vessels. Certainly, there are a number of towing vessels in the rivers——

Mr. GRAVES OF LOUISIANA [interrupting]. Sure, some barges and much more——

Admiral GAUTIER [continuing]. Barges——

Mr. GRAVES OF LOUISIANA [continuing]. Minor incidents.

Chairman, how many—are you aware of anything?

[Nonverbal response.]

Mr. GRAVES OF LOUISIANA. And so, look, one thing I just—I want to point out here—and for the record, she is shaking her head no.

One thing I want to point out here. Look, Jones Act vessels, U.S.-built, U.S.-crewed, U.S.-flagged. We go through annual inspections. A night-and-day difference. And I think that is something else we need to take into consideration here.

Lastly, Administrator, this bridge, it is not going to be built back exactly like it was, will it? It is going to be wider, you are going to have shoulders, you are going to have a different pier configuration, you are going to have different tidal influences, you are going to have bumpers, you are going to have dolphins and other things protecting the pier structures. Is that correct?

Mr. BHATT. Yes, sir.

Mr. GRAVES OF LOUISIANA. OK, all right. I just want to make sure that we are noting that this is actually a different bridge that is being reconstructed with effectively waiving or providing alternative arrangements or categorical exclusions under NEPA.

I yield back.

Mr. GRAVES OF MISSOURI. Ms. Titus.

Ms. TITUS. Thank you, Mr. Chairman. And like everyone here, I, too, offer sympathy to the families of those who were lost. These people represent sometimes the invisible folks who are on the front lines who provide safety and security in our infrastructure, and also the harbor workers and police officers who were there and made the situation much less terrible than it already was.

I would ask the Chairwoman and Administrator Bhatt about one of the things that has been pointed out in the study of the bridge. It seems like it didn't have a reliable fender system—I believe it is called—to protect the piers from the crash. And I wonder if you have reviewed bridges in other major ports to determine whether or not they have those fenders in place? And if not, is there an existing program with funding that might be used to retrofit some of those other bridges to be sure they don't have the same problem we can be—I hate the word, but—proactive about that?

Ms. HOMENDY. Thank you for the question. We have actually been recommending—we recommended back in 1988 that the Coast Guard and the Federal Highways evaluate the adequacy of pier protection on bridges over navigable waterways in U.S. ports and harbors. That recommendation remains "closed, unacceptable" because at the time the Coast Guard said they did not have the authority to take action on that evaluation.

But if I—one thing I will say, and I hope that we walk away from this in considering, is the Federal Government states the bridge owners, they need to evaluate current structures and make sure, if you have navigable waterway, that you are doing a risk analysis to ensure safety, to ensure there is adequate pier protection.

In this situation, we are looking at pier protection. We are looking at, certainly, the dolphins, but then the protection around the piers themselves, and then looking at different bridges across the United States to see how those have been improved over time. In

this situation, you have a bridge that began operations in 1977. And if it was built today, it would be built differently. And so, that has to be taken into consideration.

I will say I am very encouraged by what the Admiral announced, their board of inquiry—about looking at ports across the United States to make sure there is adequate protection. And I assume that it will include some of the structures, as well, including bridges. So, that's great.

Ms. TITUS. Administrator Bhatt, would you like to comment on that?

Mr. BHATT. Thank you, Congresswoman. And yes, we are obviously working closely with the NTSB, and I just really respect their thoughts and guidance.

We have already reached out to our State DOT partners, who are the owners of these bridges. Similar to when there is any kind of bridge tragedy after Minnesota, everybody is reaching out to figure out what fracture critical bridges they had. And so, we are going to go out. We have already got a preliminary list. We are going to continue to identify.

And again, it is the deep draft vessels. It is the barges. It is examining all the threats, and then doing that cost-benefit analysis of what protections are sort of quickly deployable. How do we get these bridges protected, and then how do we update design standards, given the ever-changing nature of the vessels going underneath them?

Ms. TITUS. Well, can you use—I believe the acronym is BFP—Bridge Replacement, Rehabilitation, Preservation, Protection, and Construction Program? Is that available with any kind of funding, or that can be used to retrofit some of these bridges if they don't meet these requirements you are talking about?

Mr. BHATT. Thank you, Congresswoman, yes. So, in the Bipartisan Infrastructure Law, there was $12.5 billion allocated for discretionary grant funding and about, I think, $30 billion on the formula side. Seismic protection, as has been—retrofitting is possible. And this is something that we are going to look into as we work with our State partners who are applying for those funds.

Ms. TITUS. Well, as you look into it, if you find any problems with the program that won't allow it to work towards retrofitting in a situation like this or make it more difficult, will you let us know, so, if we need to make some changes, we can address those legislatively?

Mr. BHATT. Yes, ma'am.

Ms. TITUS. Thank you, I yield back.

Mr. GRAVES OF LOUISIANA [presiding]. Thank you, the gentlelady yields back. The gentleman from North Carolina, Mr. Rouzer, is recognized for 5 minutes.

Mr. ROUZER. Thank you, Mr. Chairman. And I, too, want to extend my condolences to the families and all those who were injured in this very tragic happening.

General Graham, I will start with you. Last week, the Corps announced it would reprogram appropriated dollars specific to other Corps projects towards the efforts at Baltimore Harbor. It is our understanding these funds were appropriated in fiscal year 2020 or earlier, and have been determined to be more than what is needed

for those authorized projects. Is that an accurate portrayal? Is that correct?

General GRAHAM. That is accurate.

Mr. ROUZER. So, this has created a bit of confusion among Members and even the committee here. Back home, for example, we have got—the Wilmington District has seen several projects whose funds have been repurposed. Notably, Wilmington Harbor, Morehead City Harbor, and New River Inlet all had hundreds of thousands of dollars redirected from their maintenance accounts.

Can you provide the committee with the amount of reprogrammed dollars, a list of the projects you are reprogramming those funds from, and which districts those projects are in?

General GRAHAM. Absolutely.

Mr. ROUZER. Because we would greatly appreciate those answers as quickly as possible.

And then the question everybody has got on their mind is: How much money is sitting out there that is in an account that was appropriated in 2020 or earlier that has been left unused? I would like to know the answer to that question, too.

And then, following up, does the Corps plan to use section 101(a)(8) authority again in the future?

And if so, are there any limitations to the number of times the Corps can utilize that authority within a specific timeframe?

General GRAHAM. Thank you, Congressman Rouzer. Probably we will have to use the emergency reprogramming authority again. As I stated in my opening statement, we have not used that authority at this scale for 15 years, and we understand that Congress put specific amounts of money on specific projects, and you intended it to be used for those projects. From these instances, as stated earlier, most of these funds were the result of bid savings, they were the result of we held onto additional money to settle claims with contractors. And so, it is relatively a good-news story that we saved the taxpayers money.

To your statement on our accounting procedures, do those need to be looked at so that those old funds aren't sitting out there? Absolutely, and we are committed to that.

Mr. ROUZER. Thank you. Following up, given these funds are well on their way to being reprogrammed, does the Corps plan to return any funds to those districts? What is your plan there?

And if so, what would that timeline be?

General GRAHAM. To make sure I understand the question correctly, the districts had no uses for these funds, and so, as such, we don't plan to return them. If they come up with and say we do need some of these, we will work with them to make sure that those projects can be delivered.

Mr. ROUZER. Sure. Well, every district has a disaster of some sort at some point, and I suspect that all those Army Corps districts around the country like to be able to have a little flexibility to tap into funding that was allocated specific to projects within their jurisdiction, which is why I asked that question.

And with that, Mr. Chairman, I think that exhausts my line of questioning. I yield back.

Mr. GRAVES OF LOUISIANA. The gentleman of North Carolina yields back. Mr. Carbajal is recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chair. I recently made a visit to the Francis Scott Key Bridge incident with a number of my colleagues to see it firsthand.

Admiral Gautier, the Coast Guard has an obligation to respond to all marine casualties, but incidents of this size have an outsized impact on Coast Guard resources. This incident, unfortunately, comes at a time of strained resources and a 10-percent workforce shortage. What is the operational strain on the Coast Guard's responding to the bridge collapse, and how can Congress help?

And what is the impact on the workforce?

Admiral GAUTIER. Congressman, we have mobilized people from across the country. We have activated reservists to staff the command post and to respond here. We have used cutters and small boats from around the area, helicopters and so on, to do this response. So, there is an immediate area impact to readiness, certainly.

But what we know is that, for unplanned incidents like this, where we mobilize a lot very quickly, there are also readiness impacts that happen well beyond the initial site. And so, I think, in terms of—and going into what is likely to be a pretty severe hurricane season—I think the main thing here is that, in order for the Coast Guard to reconstitute and be ready for the next one, we need to have continued and enduring financial appropriations support from Congress.

We spent about $20 million so far in direct and indirect costs here, but we know that our readiness in the waterways management field is brittle. We are short aids to navigation. There is a cutter that is on-scene as the patrol commander that is 62 years old, the Coast Guard cutter *Sledge*. We are working to recapitalize that class of cutter and the waterways commerce cutter, and this is repeated again and again in terms of aircraft recapitalization, major cutter recapitalization support for our people.

Mr. CARBAJAL. Thank you, Admiral Gautier. The IMO ensures minimum global standards for safe shipping practices. The U.S.-flagged vessels are subject to higher standards and scrutiny. This is one of the several reasons I believe it is unacceptable that we rely on flag-of-convenience vessels to carry over 98 percent of our international cargo.

There is a small minority of my colleagues who believe that the Jones Act should be repealed. I am not one of them. How would your job of ensuring safety in U.S. waters be made more difficult if U.S. vessels sailing in our coastal waterways and inland rivers were supplanted by foreign ships with foreign mariners?

Admiral GAUTIER. Congressman, your question is related to safety and the Coast Guard implications of safety. The Jones Act has been with us for 100 years. It is pretty foundational to how maritime commerce flows in the United States, and the Coast Guard has worked very hard to provide an equivalent level of safety from foreign-flagged vessels, foreign crews, and IMO through established standards.

But what I really can say here is that the Jones Act is crucial for our maritime security elements, in terms of the industrial shipbuilding capability in the United States of America that the Coast Guard and that the Navy and MARAD and others rely on in terms

of construct—our U.S.-flagged military and public vessels, as well. And we do not want in any way, shape, or form to jeopardize that maritime security element of the defense industrial complex through shipbuilding.

Mr. CARBAJAL. Chair Homendy, it is common practice for American mariners working on U.S.-flagged ships to work on board a vessel for 2 to 3 months at a time. Mariners sailing on flag-of-convenience vessels often remain at sea for longer. In the case of the *Dali*, I understand that the engineers have been on board for more than 8 months.

Since your preliminary report showed at least one mistake by the engineer, should we be concerned with the prevalence of flag-of-convenience vessels, which operate with lower standards operating in and around critical U.S. infrastructure?

Ms. HOMENDY. Well, we are still on-scene and evaluating everything about this accident. We will look at any sort of Federal regulations or IMO standards to make sure they are adequate, but it is too early to tell.

Mr. CARBAJAL. What about the standards? If they abide by lower standards, that shouldn't be of concern?

Ms. HOMENDY. I am not saying it is not a concern. I am saying we have to evaluate with this particular accident, what was in place and whether that was adequate or not.

Mr. CARBAJAL. But beyond this incident, is there a concern?

Ms. HOMENDY. I will have to get back to you on that for the record.

Mr. CARBAJAL. Thank you.

Mr. Chair, I yield back.

Ms. MALOY [presiding]. The gentleman yields back. The Chair recognizes Mr. Bost from Illinois for 5 minutes.

Mr. BOST. Thank you, Madam Chair. I want to associate myself with the comments of concern for the families and the prayers for a tragedy such as this, and also to thank the people that responded so well and are doing the work.

But ensuring that our Nation's infrastructure is secure and maintained is an important responsibility of our Congress, but it is also important to have uniform guidelines in place to know how infrastructure is going to be paid for.

Now, in my district, when local communities reach out for assistance with grants to do road work, they know that local cost share is at 20 percent. Now, just recently, my district had a—on Highway U.S. 51, we had to close—and it is going to be closed for quite some time—because a sinkhole opened up, and the local community will need to repair the road, and there will be a cost connected with that work. However, I don't expect the community to try to redesignate the road to be considered part of the Interstate Highway System to take care of that.

Mr. Bhatt, despite being located on Interstate 695, the Key Bridge was not part of the Interstate Highway System. The incident that caused the collapse of the bridge occurred in March, and yet the bridge designation wasn't applied to be changed until April. Are you aware of any other—aware that—of this change, cost share requirement for this road?

And is it normal for a road change to be designated after an incident?

Mr. BHATT. Thank you for the question, Representative. This is the first time I am aware of redesignating a road.

Mr. BOST. Me too. Me too. So, can you explain for the sake of the taxpayers and the people around this country that also have issues how a roadway has a designated change suddenly after repair work was identified?

Because I can tell you the constituents that I represent would like to try to figure out how to do that because that is why we—look, I am just trying to figure it out because we have uniform rules in place. And if we are going to change them, we are the ones you come to. Just——

Mr. BHATT [interposing]. Yes.

Mr. BOST. I need answers.

Mr. BHATT. Yes. Sorry, Representative, I didn't mean to cut you off there.

Yes, and apologies to the community that had the sinkhole. I am sure that is quite an impactful event for that community.

In this case, this portion of I–695 was part of the NHS. It was shielded as part of the interstate since it was built in the 1970s. I think we—there was a—so, for mapping purposes, it was part of it. There were some standards that were a little bit different that, when they applied to have it designated, we had to do the process of waivers, and that got it from the 80/20 share to the 90/10 share. And so, I think our—I think my assumption before this incident was that that bridge and that section of I–695 was part of the interstate. So, this was just at the request of Maryland to have it redesignated as part of it.

And we get those requests. There are parts of the interstate system that are shielded, but not necessarily part—there was an example in Alabama a few years ago.

Mr. BOST. OK, and you do that just through administrative rule, it doesn't require an act of Congress?

Mr. BHATT. It does not. They would need to come in and say, these are the design exceptions, whether it is the curves or some of the other elements that they might have had in there, and then our engineers would have to say, yes, this is why we would approve those exceptions.

Mr. BOST. And you have got to understand the concerns of uniformity. And I understand—believe me, I am not arguing let's not fix it as fast as possible. I am not arguing that, hey, whatever the cost is, as we are trying to recoup, as was mentioned by several people questioning, insurance is not going to pay off overnight. There are going to be arguments, there's going to be all of that, and we are going to fight for that, and we need to get it fixed quickly. It is just other communities around the Nation have issues that come up, and not having a set standard on how it is we respond and how we can get a response back to our own communities makes it very difficult when you do something that isn't normal in this situation, and then we just have to have answers. So, I appreciate that.

And with that, I will yield back.

Ms. MALOY. The gentleman yields back, and I recognize Mr. García for 5 minutes.

Mr. GARCÍA OF ILLINOIS. Thank you, Madam Chair and Ranking Member, for hosting this hearing, and thank you to all of the witnesses.

I want to echo the sentiment of other Members who are remembering the tragic loss of life of six workers, all of them immigrants from Mexico and Central America, all of them seeking a better life in this country, meeting a very tragic fate. So, as we rebuild the Key Bridge, we must also advocate for stronger workplace protections for all, including immigrant workers, and this brings me to my first question.

Administrator Bhatt, the Coast Guard's testimony states that eight construction workers were on the bridge at the time of the collision, and that one worker was able to run to safety. If there had been more time when the ship's loss of power was reported and when the collision happened, is there a protocol in place for bridge worker evacuation in an event such as this collision? And if so, can you describe it?

Mr. BHATT. Thank you, Congressman, for the question and for your concern for the workers.

Obviously, all work zones in America are dangerous places, and we have rules in place for both the State or the city that is procuring the contract and for the companies that are out there.

I want to defer to others here, but what I learned through our discussions is that there was a police officer who was attempting to reach the work crew on the bridge to evacuate them, but just given the proximity of the ship, was unable to make it to the crew before the bridge strike.

Mr. GARCÍA OF ILLINOIS. Do you think the protocol is adequate?

Mr. BHATT. Sir, I would need to think about that and consult with some of our experts. Obviously, this was an unprecedented event, so, I just want to evaluate that and get back to you for the record.

Mr. GARCÍA OF ILLINOIS. Chair Homendy?

Ms. HOMENDY. Yes. Other bridge structures, they have advanced warning systems, and we will look at that as part of our investigation.

But I will just say from the time the pilot's dispatcher called MDTA police and the bridge was ordered closed was 52 seconds—52 seconds. That was the time of—it is almost impossible, in that situation, to get a longer time. And if you just look at the time from the blackout to the bridge strike, it was 4 minutes total.

But I appreciate your question because it is really tragic, what occurred. And we want to prevent that from reoccurring, and that is our whole mission, which is why we will look at advanced warning systems, as well.

Mr. GARCÍA OF ILLINOIS. And thank you for that.

And Administrator Bhatt, if you could get back to me, it would be greatly appreciated.

To Vice Admiral Gautier, the *Dali* had been inspected by the Coast Guard about 6 months prior to the incident with the Key Bridge. It is unusual that a major malfunction like this could occur

with no previous indication of faulty systems after being cleared by an inspection only 6 months prior.

What are the requirements on foreign-flagged, foreign-owned vessels to report any malfunctions to the Coast Guard when operating at a U.S. port?

Admiral GAUTIER. The Coast Guard has a requirement for any vessel that suffers an issue to notify on what we call a reportable marine casualty, and there are a variety of qualifications, sort of circumstances by which you have to notify the Coast Guard of those casualties.

Mr. GARCÍA OF ILLINOIS. Thank you much.

Lastly, very briefly to all of the panelists who would like to chime in, although the NTSB investigation is ongoing and recommendations are forthcoming, what is needed from Congress, if anything, to improve worker safety?

Admiral GAUTIER. So, I will speak first. It is critically important for us to have the fulsome results of the investigation, I think, before we move ahead with any sorts of implementations based on those recommendations.

I will say, so, the Coast Guard is conducting a Marine Board of Investigation in coordination with NTSB in cooperation. If we find something in the near term that we think is important and urgent enough to do an advisory on, we will go ahead and do that.

Mr. GARCÍA OF ILLINOIS. Thank you.

Chair?

Ms. HOMENDY. Sir, this could happen in any of your districts, right? And so, I would say where you have navigable waterways, whoever is owning—I keep reiterating this. If you own a bridge, if a State owns a bridge or other entity owns a bridge, look at the current structure, do a risk assessment. You can do that now. You don't have to wait until we issue an urgent recommendation or come to the conclusion of our investigation. Make sure you are ensuring safety for what is going through on that bridge or in the navigable waterways now.

Mr. GARCÍA OF ILLINOIS. Thank you.

I yield back, Madam Chair. Thank you for your indulgence.

Ms. MALOY. The gentleman yields back. The Chair recognizes Mr. Westerman for 5 minutes.

Mr. WESTERMAN. Thank you, Madam Chair, and thank you to the witnesses. And my first question is going to be for the Coast Guard and the NTSB.

Obviously, everybody just about has offered their condolences to the families of the people who lost their lives. But I am thinking, if I were a family member, I would want more than condolences. I would have questions that I wanted answered. And the first question is, why?

I think, from the information that we have received so far, the explanation would be we had vulnerable infrastructure, and we had a ship that lost power. But I think there is a deeper question as to why, and also, what are we going to do about that so that it doesn't—we don't get a repeat incident?

If the ship had had a tug escort, would it have hit the bridge even after it lost power?

Ms. HOMENDY. We are looking into that as part of our investigation. I can't answer that right now. It is a question that we have, but it is something we are delving into.

General GRAHAM. The same for the Coast Guard. We don't know whether there was sufficient time to have made a difference, or whether it would have added to the casualty or not.

Mr. WESTERMAN. I hope that is something that you are looking into and looking at other places around the country where these large ships are passing by vulnerable infrastructure without tugs. I know Mr. Graves talked about the ship in New Orleans, and from my understanding, all those ships down there now have tug escorts.

Mr. Bhatt, you are here to discuss the need for a massive bridge reconstruction that will require a years-long effort and billions of dollars from the American taxpayer. Meanwhile, those very taxpayers have been waiting for over 2 years for FHWA to perform repairs to a washed-out gravel road on White Rock Mountain in Franklin County, Arkansas, in my district. This road provides access to Forest Service concessionaire facilities, not to mention critical passage for emergency services in the area. The project has already been funded, but is apparently so tied up in redtape that my office can't even get a clear answer from your agency on when the washout will be filled.

If FHWA is unable to reconstruct a gravel road in less than 2 years and counting, why should we trust your agency with billions in funding for a project of this magnitude?

Mr. BHATT. Thank you, Congressman. I am happy to go back and take a look and figure out exactly what is going on with that project and report back to your office.

Mr. WESTERMAN. Thank you. And this, I guess, would be for the Corps and for Mr. Bhatt, but there is an issue that happened in Floyd Bennett Field, which is a National Park Service facility in New York City. And you may ask, what in the world does that have to do with this project, but I will tell you what it has to do.

This administration used alternative arrangements to waive every NEPA and environmental regulation in the Park Service to build a migrant camp, and they did that in less than 2 weeks. They waived all those regulations. I am wondering if the administration has the intent to use alternative arrangements, not just CEs but alternative arrangements, to repair this bridge, which is obviously very vital infrastructure.

Mr. BHATT. Sir, so, we are in close coordination with Maryland DOT. We are not going to waive NEPA, but is a strong likelihood that we will end up with a categorical exclusion because we are replacing a bridge in relatively the same footprint that existed before.

Mr. WESTERMAN. Does the administration have the legal authority to waive NEPA to use alternative arrangements to even go beyond the CE?

Mr. BHATT. Sir, I——

Mr. WESTERMAN [interrupting]. The answer is yes, and they can do that, and it is amazing to me that they would do it on a Park Service facility that 1 million visitors in New York City use to build a migrant camp. Yet, it doesn't seem to be an option on the table to rebuild this vital piece of infrastructure. And I hope the adminis-

tration would not only afford this same luxury to critical infrastructure, but also to a lot of smaller projects around the country that get tied up in the process when the administration has full authority to do that.

Thank you, Madam Chair, and I yield back.

Ms. MALOY. The gentleman yields back. I recognize Mr. Stanton for 5 minutes for questions.

Mr. STANTON. Thank you, Madam Chair. Thank you to each of the witnesses for your hard work in responding to this critical emergency in our country. And like every member of this committee, I do send my deepest condolences to the families of the six human beings, the workers who lost their lives as a result of this tragic incident.

When the *Dali* crashed into the Francis Scott Key Bridge in Maryland, we saw the agencies represented here today jump into action. But the road to rebuild is long, and it requires coordination between our local, State, and Federal Governments. As a former mayor myself, I understand how critical intergovernmental cooperation is for efficiency and speedy results.

Administrator Bhatt, to my understanding, one of the ways the Federal Highway Administration responded to the disaster was by reclassifying the bridge as an interstate. Tell us more about the purpose of that reclassification. And how will that help with speedy bridge repair?

Mr. BHATT. Thank you for the question, Congressman.

We received a request from Maryland DOT shortly after the bridge disaster to reclassify. And so, we went through the usual process that we would do for any State DOT that was asking to come in. I think our assumption had been that it was part of the interstate, since it was shielded and was on maps that way.

Just going back, the difference will be that, instead of being part of the NHS, it is now officially part of the interstate, and goes from an 80/20 cost share to a 90/10.

Mr. STANTON. That's great. Another important action taken at the outset of the disaster was the quick release of Emergency Relief Program funds, a reimbursable program. I understand it was $60 million that was released in March. That is a sizable amount. How was that $60 million number decided?

Mr. BHATT. Thank you, Congressman. So, we have been in close contact with Maryland DOT from the early hours.

Specifically, I think this is a great example of the quick release funding being put to work. They actually had a contractor who could mobilize very quickly, had cranes in the area. And while the Army Corps was focused on the navigable channel, that $60 million is helping to clear wreckage simultaneously from the nonnavigable waterways.

Mr. STANTON. Obviously, the cost will be significant above and beyond the initial amount. Tell us the role that the Emergency Relief Program will play in additional funds for bridge repair and any other Federal highway programs that will likely need to be utilized in this important work.

Mr. BHATT. Yes. And so, as some of the—thank you, Congressman—for some of the questions that have come in, the first 270 days, the emergency repair work is funded at 100. And then longer

term, permanent repair work is funded at 90/10. Traditionally through this program, the initial estimate is around $1.7 to $1.9 billion for the bridge. It will be a 4-year construction. And that is that critical piece where Maryland will have the certainty that that Federal funding will be available so that they can move forward with their procurement.

Mr. STANTON. That's great. Lastly, it is my understanding that one of the primary roles of the Federal Highway Administration currently is to also give technical assistance to the Maryland Department of Transportation. Is there anything you can share with us today regarding those conversations as the Federal partners to Maryland DOT?

Mr. BHATT. Thank you. And Congressman, I do want to recognize our Federal Highway staff that have been on site and in close coordination both in Maryland and in headquarters.

So, we are meeting with them on the emergency work, on getting the ER funding on the procurement, on the elements of the bridge design that are going to be out there. So, it is a really strong partnership that exists.

Mr. STANTON. We appreciate the work of yourself, FHWA, all the other agencies represented today. It is critical that we get the bridge rebuilt as soon as possible not only for the city of Baltimore, the State of Maryland, but the entire economy of the United States of America. So, thank you for your work you have already done and the work you will do on this important, important project.

Thank you, I yield back.

Ms. MALOY. Thank you. The gentleman yields back, and I recognize Mr. Mast for 5 minutes for questions.

Mr. MAST. Thank you, Chairwoman. Thank you all for your testimony.

Mr. Bhatt, would this be an accurate way to categorize you? You are in charge of collecting the checks for the future project?

Mr. BHATT. Sorry, I am in charge of collecting checks for the future project?

Mr. MAST. Money. You are in charge of getting the money for the project.

Mr. BHATT. Yes.

Mr. MAST. OK. Have you received any money from any insurer yet?

Mr. BHATT. No, sir.

Mr. MAST. Which insurers have you sought moneys from?

Mr. BHATT. So, to be clear, the insurance policy that we are talking about is an insurance policy for the Maryland Department of Transportation. And so, we are working with Maryland DOT to work through the elements of that insurance policy.

Mr. MAST. Nothing for any insurance company of Grace Ocean Private, Ltd.?

Mr. BHATT. So, the Department of Justice is leading efforts around the—for the efforts for the United States to recover the funds. So, that is not a Federal Highway function.

Mr. MAST. Nothing also for you in terms of requesting anything from insurers of Maersk who chartered that vessel from Grace?

Mr. BHATT. No, sir. The Federal Highway Administration role in this is the debris removal in the nonnavigable waterway, and then

working with Maryland DOT to rebuild the bridge. We will take back any insurance funds that come in and reimburse the ER Program.

Mr. MAST. What has Department of Justice told you to this point about—have they requested moneys from any of those insurers or any other companies?

Mr. BHATT. Sir, I would not be able to comment on Department of Justice efforts. I know they are working on it, I just—I am not aware.

Mr. MAST. So, they haven't had any contact with you about requesting moneys. You can comment about your involvement, your conversation with them, not necessarily what they have done.

Mr. BHATT. Specifically, sir, the only email that I have received is from DOJ to preserve all of my emails for upcoming and likely years-long litigation.

Mr. MAST. Why is it likely years-long litigation?

Mr. BHATT. Again, sir, I can only speak to my efforts around bridge building and litigation that occurs when there are claims between a contractor and a State, where they don't feel that the product meets—that can take years, so, billions of dollars and international maritime law, I can only assume, will be a fairly lengthy process.

Mr. MAST. None of us are naive enough to say that insurance companies just readily come out and offer us large payouts for things that are insured. I would be naive to say that, it is just not the state of the world. But in the midst of this catastrophe, I guess it is a great word to categorize it.

Have you seen anything or heard anything from DOJ about these insurance companies offering anything or trying to say that they do not have liability for this?

Mr. BHATT. Sir, to be—I would need to come back to you. I would have to check with our chief counsel, our general counsel at DOT and other agencies. But I am happy to come back on that question.

Mr. MAST. I appreciate that. Have you heard anything about whether they have already executed any type of business interruption insurance for the vessel that is not in use right now?

Mr. BHATT. Sir, I am not aware of that.

Mr. MAST. OK. And a lot of these questions, again, I appreciate you listening to. You don't have the answers for them.

Madam Chairwoman, I would encourage this committee to get some of the other entities in here, since we are talking significantly across both sides of the aisle about the funding for this bridge, the timing for it, the repairs of this bridge, things peripheral to that, that we bring in the insurance companies for conversation, the shipping companies for conversation about this, as well. And I would hope that we would do that in the next—maybe next week that we are in session.

But it is certainly sensical that we speak to you all about this, but it is also sensical that we speak to the private entities that are involved in this, as well. I thank you for your testimony.

I thank you for the time, and I yield back.

Ms. MALOY. Thank you. The gentleman yields back, and I now recognize Mrs. Foushee for 5 minutes for questioning.

Mrs. FOUSHEE. Thank you, and thank you to the chairs for holding this hearing, and thank you to the witnesses for being here with us today.

The tragic events that took place in the early morning hours of Tuesday, March 26 were a tragedy not simply for Baltimore or Maryland, but for the Nation. I join my colleagues in mourning the six lives lost in this catastrophic accident.

While I have been heartened by the response of the Baltimore community who have, at last count, already fundraised over half a million dollars to support the families of the Key Bridge victims, it is the responsibility of both the Federal Government and the private sector to ensure something like this never happens again, which is, at least in part, why we are here today.

The Biden administration, the State of Maryland, the Coast Guard, and the U.S. Army Corps of Engineers, among others, have taken commendable initiative and swift action in responding to this crisis, something that has been highlighted by the witnesses here today. I want to thank all of you for being here. I know your time is valuable, especially in the midst of an ongoing situation like this, so, my colleagues and I, we greatly appreciate your time and your testimonies.

I think most of us on this committee understand that this matter is going to require expeditious, bipartisan support here in Congress if we wish to mitigate. At best, we can get to the economic and the supply chain ripple effects of the FSK Bridge collapse. However, I believe it is worth noting that there are also some significant road safety implications here, as well as even further that underscore this need for congressional support.

With the port no longer at full capacity, commercial trucks are being forced to take roads through residential areas that aren't equipped for that kind of traffic. Chairwoman Homendy and Administrator Bhatt, can either of you speak to the traffic safety issues to other vehicles on the roads, to pedestrians, or to the residential road infrastructure that have either already emerged as a result of the FSK Bridge closure or are at risk of emerging, should access to the port remain limited?

Mr. BHATT. Thank you, Congresswoman. Obviously, there is a—thank you for noting the traffic impacts.

I would just, in the interest of time, I would highlight the hazmat traffic that—the hazmat materials are not allowed in the tunnels through Baltimore. And so, that was one of the critical elements of the Francis Scott Key Bridge, was to provide hazmat material to move around. And now what is happening is they are rerouting around the north side of 695. It goes through neighborhoods, and it is suboptimal from a routing perspective. So, that is just one example.

And then, obviously, as you mentioned, there are trucks and other commercial vehicles and just higher levels of traffic working their way through residential areas now, as well.

Ms. HOMENDY. This is an issue that I would typically defer to Federal Highways, just because we are just focused on the investigation itself. So, thank you.

Mrs. FOUSHEE. Thank you.

I, like many of my colleagues, have been particularly concerned about the regional implications on unemployment that the bridge collapse and reduction of port operations are having on the surrounding community, as the State of Maryland has estimated that 270,000 jobs will ultimately be impacted.

Even so, I have been especially encouraged by the efforts thus far of the Biden administration to support the plethora of temporarily displaced workers who have had their employment either directly or indirectly impacted since the events of March 26. For instance, the administration funneled an initial tranche of $3.5 million to the region via its Dislocated Worker Grant program back in April to support temporary cleanup and recovery employment opportunities for those who have lost their jobs due to the FSK Bridge incident, with more support funds on the way.

Vice Admiral Gautier and Major General Graham, can you speak to the efforts of the U.S. Coast Guard and the Army Corps, respectively, about the ongoing efforts to restore services and access to the port, given the widespread ramifications such efforts will have on employment in the region?

Admiral GAUTIER. Well, let me go first, because I want to do a shout out to the Army Corps of Engineers. Commerce is flowing. The depth of the channel has been restored to 48 of 50 feet. It is narrower than what it typically is, but it is sufficient for Coast Guard to put one-way vessel and tug escort controls to get traffic in and out.

And so, we have seen over 20—over 35 deep-draft vessels that have transited, over 300 smaller barges and other things that have been able to transit in and out. And so, I think what we are seeing is that the system is restoring itself to normal functions while we work together in Unified Command to make sure the full channel width and depth is restored.

General GRAHAM. And ma'am, I am working with the port in the State of Maryland to open up as many alternate channels as we could, small craft, and we successfully got to larger and larger craft. As Vice Admiral Gautier said, we were able to get a 35-—now about 40-, 48-foot channel to get those key car carriers moving. And we remain committed to getting the full channel open by the end of this month.

Mrs. FOUSHEE. Madam Chair, that is my time. I yield back.

Ms. MALOY. Thank you. The gentlelady yields back, and I recognize Mr. Yakym for 5 minutes of questions.

Mr. YAKYM. Thank you, Madam Chair.

I, too, want to offer my condolences to the families who lost loved ones in this disaster, and I want to thank our witnesses not just for being here, but also for the tireless work that you and your agencies have done in putting into the recovery efforts, and also the investigative matters that you have undertaken as we look into this disaster even deeper. So, thank you.

Before I get to my questions about the topic at hand, Administrator Bhatt, I feel the need to follow up on a conversation we had in December when you were before this committee. You may recall that we discussed the NEVI and the CFI programs, which have a combined $7½ billion at their disposal to build electric vehicle charging stations. As of the December hearing, NEVI had brought

just one charging station online in 2 years. I asked you how many charging stations you expected those programs would bring online in 2024, and you promised to follow up with a "very specific number."

But in March, you sent a response that contained no specific number, and you noted that hundreds of millions of dollars had gone out the door to build 7,500 ports, but there was no indication as to how many, if any, of those would be brought online this year. And thus far in 2024, NEVI has been responsible for six charging stations—again, with roughly $7½ billion at its disposal—and there doesn't appear to be any public information for the completed CFI chargers.

Administrator Bhatt, I want to give you one more chance here. How many more NEVI- and CFI-funded charging stations do you expect to be brought online for this year?

Mr. BHATT. Thank you, Representative, and thank you for the followup.

So, we are working closely with our State DOT partners and cities across the Nation. We are also working closely with the joint office that has been set up between Department of Energy and Department of Transportation. Since that time, there have been several States that have brought online NEVI chargers. That has been in Vermont, Ohio, Kentucky. Utah is going to have their first. So, there are dozens, and I will get you the specific number, but dozens that we are anticipating coming online just in the next couple of months. Thirty-five of those States have their solicitations out.

And then specifically on CFI, on January 5, we rolled out $623 million in grants in January for CFI nationwide. And those will—we are working with grant agreements now to get those built this year.

Mr. YAKYM. So, again, how many—just give me—how many do you think will be brought online this year total, just to give a ballpark number?

Mr. BHATT. Probably in the hundreds to in the thousands range this year.

And again, I want to differentiate between DFC chargers and the level 2 chargers that are obviously replacing ones that are existing on the network.

Mr. YAKYM. OK. Yes, well, thank you for that. And I do want to make sure that we, as we go throughout the balance of the year, we stay in touch on this particular topic, as we—again, we have allocated $7½ billion. And we are, as of just a few months ago—a month ago, we were at eight total chargers. And we want to make sure that the money that has been appropriated by this Congress is spent wisely.

Turning our attention to the Key Bridge, Administrator Bhatt, I want to build on what Mr. Bost talked about with his redesignation of the bridge as an interstate system. I share his sentiments that we should get this bridge rebuilt quickly, but I believe we should also be mindful of new precedents that we set and establish as we go through this whole process.

You mentioned that part of an Alabama highway was redesignated as a part of the interstate system. How long did that process take from application to approval?

Mr. BHATT. This was back in—sir, I would have to go back to you on the exact dates, but probably a few weeks.

And actually, to be clear, I think that was changing the main line of the interstate with the bypass. So, maybe not exactly apples and apples.

Mr. YAKYM. Maryland's request to redesignate this as an interstate was made after the collapse. Is that correct?

Mr. BHATT. Yes.

Mr. YAKYM. Does your agency have the authority to retroactively designate damaged or destroyed infrastructure as a part of the interstate system?

Mr. BHATT. Sir, I would have to clarify on our exact authority and the retroactive piece. I just know that we received the request after the incident, and we went through our typical process and designated it as part of the interstate.

Mr. YAKYM. Is there any precedent for retroactively designating damaged or destroyed infrastructure as a part of the interstate system?

Mr. BHATT. Sir, I would have to come back to you on that. I am not aware.

Mr. YAKYM. Yes, I would very much like to know if your agency was within its authority to retroactively designate this as an interstate, as opposed to its former designation as a part of the State highway system. So, thank you.

And with that, Madam Chair, I yield back.

Ms. MALOY. Thank you. The gentleman yields back, and I recognize Mr. DeSaulnier——

Mr. DESAULNIER [interposing]. Thank you.

Ms. MALOY [continuing]. For 5 minutes for questions.

Mr. DESAULNIER. Thank you, Madam Chair, and thank you to all the witnesses. Just a horrible event.

Ms. Homendy or all of you, but—I want to direct this question to you. In 2007, near the district I represent in the bay area, there was a similar incident with the San Francisco Bay Bridge. It is the second busiest toll bridge after the George Washington Bridge in the United States, but it is the terminus of Interstate 80. So, what happened there was the fender system—and California had gone further—kept the bridge from being damaged, but it still had to be shut down so that you and Caltrans could go through and make sure it was safe. Plus, it is seismically vulnerable.

So, what do we do in cases like that in 2007, where we—lessons learned are looked at and, sort of consistent with some of the other questions, irrespective of whether it is part of the Federal highway system, and just making sure that State departments of transportation, that they know what the best practices are for their area?

Ms. HOMENDY. Well, for our role as part of an investigation agency, we continue to share lessons learned as part of any investigation, including with State departments of transportation. Certainly, we have conducted a number of investigations involving vessel strikes on bridges, and have shared those lessons learned and continue to do so, and to continue to advocate even for recommendations that have been "closed, unacceptable."

But I will say that the Federal Highway Administration also has close contact, where they're State partners, to continue to highlight safety issues and risk assessment, as well.

Mr. DESAULNIER. Yes, Vice Admiral, this happened very close to your admiral's—the regional—his home was beautiful on Treasure Island. But in that instance also they were required to have bar pilots come in. So, it is the—Oakland is the fourth busiest port in the United States, a lot of traffic goes through there. But again, we have got lots of bridges, and the Bay Bridge closest to it. So, a lot of the operations of that port, they work closely with the Coast Guard to make sure that the management of the transportation system works, and it works properly in terms of the whole transportation system. So, in this case, a heavily traveled bridge.

How does your Department and the Coast Guard coordinate—again, on your experience—around the world on how to make sure that these structures that are run by State transportation agencies, particularly if they are not part of the interstate, has the best information about the dangers of marine traffic, commercial marine traffic?

Admiral GAUTIER. Yes, thank you, Congressman. I am familiar with the *Cosco Busan* incident that you are referring to——

Mr. DESAULNIER [interposing]. Right.

Admiral GAUTIER [continuing]. Many years of operations there in the bay area.

So, we are doing a Marine Board of Investigation, just like we did in the *Cosco Busan*. We do an investigation of findings of fact, and then we recommend and take remedial actions based on that. But I think what we are talking about here is a little bit different in terms of the system as you have mentioned it.

And so, the Coast Guard does have a set of tools, risk management tools, that we get together with stakeholders in any given port to evaluate the totality of the risk if something changes, like if a channel becomes deeper or if a new bridge gets built, and so on. One comes to mind as a port and waterways risk assessment. One was done in Baltimore, but not since 2001.

So, as a result of this incident, the Coast Guard is initiating a board of inquiry under my signature, which will look at how the Coast Guard does these assessments, how recent they are in the ports around the country, and to examine the top 10 ports for some lessons learned, including bridge, bridge fendering systems, hazards to navigation, and so on, together with stakeholders so we can draw some conclusions, and then move out with a refined toolkit to other ports around the country.

Mr. DESAULNIER. Coming back to Ms. Homendy, part of just the most recent report about human error on the boat reminds me of some of our discussions about the aviation industry. There is a lot of pressure on these companies to move product and show a profit. Are you concerned the same thing, that we are not providing enough oversight to the people who are running the ships in the system, and they are being overworked, so, they are missing things, whether it is people who are mechanics repairing the ships or people who are operating the ships?

Ms. HOMENDY. Well, with respect to what occurred in port on March 25, there was routine maintenance going on on the vessel.

And it was not something that stood out to us as—I mean, there is human error in everything we do, routine maintenance and, too, if we are working on our cars in our garage. Sometimes we make mistakes. In this case, a damper was closed and an engine failed. So, in these situations, the crew took action to get everything back up and running, and on the next day, they were on a different set of breakers and a different transformer.

So, we will look at that as part of the investigation, including any sort of human error that occurred on the 25th or the 26th.

Mr. DESAULNIER. And I wasn't inferring a blame on the crew's part, just the pressure on the company to make profits.

Thank you, Madam Chair.

Ms. MALOY. Thank you. The gentleman yields, and I recognize Mr. LaMalfa for 5 minutes for questions.

Mr. LAMALFA. Thank you, Madam Chair, and I appreciate panelists coming here today. I have been looking forward to this hearing on this topic here. We have a lot of bridge history in this country, especially in recent years, and expediting the reconstruction of this is critical, I am certain, to Baltimore and the eastern seaboard, as it would be in any area of the country with an artery like that.

So, what I am especially interested in is what is being done—and anybody on the panel that wants to weigh in—to truly expedite this process. Because when I—when you read about it, when you get information about it, it sounds like there is a lot of preliminaries that are, of course, necessary with the demolition of the old bridge and such.

But where I get frustrated is a bog down of studies and NEPA and things of that nature with an already existing structure. This is not a pristine area. And so, what is being done to make a concurrent effort to do that stuff and get categorical exclusions, but also at the same time be moving forward as quickly as possible?

And some examples I have of successes, as just Mr. DeSaulnier alluded to in California now, there was the Bay Bridge 1989 earthquake during the World Series, you may remember, where about a 250-ton chunk of that collapsed. And I am not sure how quickly they got that put back up, but it wasn't terribly long when they put their minds to it.

On the obverse side of that coin, you have the actual replacement of the Bay Bridge took 24 years. In 1989, when you decided there was a problem with the bridge—it was decided—it wasn't completed until 2013. They started construction in 2002 and completed it in 2013. So, that is an 11-year actual construction time, but a 24-year decision to actually—and to completion.

The 1994 Northridge earthquake knocked down significant chunks of freeway in southern California, and the initial estimates, I believe at the time, by Caltrans or others was like, oh, this is going to take 3 years, which would just put a giant crimp in movement and commerce in southern California. So, the State and the Governor, Governor Wilson, put out a call for shortening that timeline from basically 3 years to 140 days. And one of the people involved was this company called C.C. Myers Construction Company. They got it done not just in 140 days, but 66 days, with a large incentive, a large bonus possible.

So, on one hand—and then the MacArthur Maze in Oakland during—not my time here, but there was a problem there. I believe that was the fire. Anyway, they got that done in 27 days with a bonus involved, as well, with the C.C. Myers Company. Unfortunately, they are out of business now. Mr. Myers passed.

So, what can be done as far as incentives to actually speed up the process and not take 6 years of paralysis of Baltimore, but set aside bureaucracy and get it done in 3, let's say, OK? I mean realistically. So, anybody on the panel.

Mr. BHATT. So, Congressman, just—and thank you for your question and your examples that you have provided.

I would just say that we share your desire to reopen the bridge as quickly as possible. I would say that Federal Highways worked with Maryland to get a programmatic CE for the debris removal in April so that they weren't waiting around for an approval to get the debris out of the channel. And we are working. They are going to issue their RFP later this month, hopefully get somebody under contract by August, which is within 5 months of the incident, and we will hopefully be able to get them to a categorical exclusion. And they are looking at 4 years of construction.

So, the plan right now is for that bridge to be reopened in 2028, which—I don't know that there is any other authority that we could exert to get that done any faster.

Mr. LAMALFA. OK, thank you.

Currently, the movement of goods and commerce is very important. So, is there anybody—I mean, Ms. Homendy or others—a look at maybe providing a waiver for trucker hours? Because they are going to have to face 2 or 3 hours of delays. Is there a way that a trucker's hours can be—have flexibility for time of duty on that, as well as the ability to use the tunnels there for—ordinarily what trucks wouldn't be allowed to do.

Mr. BHATT. Thank you, sir. That would actually be under U.S. Department of Transportation and FMCSA working with the State. They can make waiver requests for truck weight and also—I am not sure on the trucker hours. I will be happy to get back to you for the service hours, but certainly——

Mr. LAMALFA [interrupting]. Yes, please look into that. If locals are saying that would be helpful in order to complete—you wouldn't want to run out by 2 hours or something with what the initial delay would be.

But also, is there an issue of the tunnel being available to all types of trucking and others, restrictions on certain types of trucking that could be helpful? Could you have a waiver on maybe hazardous materials, having a certain time of day that they could access it, for example, that maybe they can't otherwise?

I am just looking for ways for flexibility. That is what I would be asking. Would those be possible thoughts, do you think?

[Pause.]

Ms. MALOY. The gentleman's time has expired.

Mr. LAMALFA. OK, thank you. Can he answer that?

Ms. MALOY. Yes, quickly.

Mr. LAMALFA. Thank you.

Mr. BHATT. I am happy to follow up with your office, sir, on those questions.

Mr. LAMALFA. All right, thank you.

Thank you, Madam Chair.

Ms. MALOY. Thank you. The gentleman yields back, and I recognize Mrs. Sykes for 5 minutes for questions.

Mrs. SYKES. Thank you, Madam Chair, and thank you to Chairman Graves and Ranking Member Larsen for convening this full committee hearing today.

And to our witnesses, thank you for your testimony and for working diligently to respond to the tragedy that struck the Francis Scott Key Bridge in March.

And I join my colleagues in expressing my sympathy to the families who lost loved ones and lives, as well as the greater Baltimore and Maryland community.

Coming from Ohio, this is really important. We have the Nation's second highest number of bridges, and this is a very important conversation for us. And even just last week, we presented two checks to our county engineer and county executive for nearly $10 million to replace a decommissioned over-70-year-old bridge that was identified as critical infrastructure. So, bridge security and safety is very important to us in Ohio's 13th district and across the State of Ohio.

But I want to highlight something different. Less than 2 months after this disaster struck in Maryland, the majority on this committee was able to organize and hold a very timely and necessary hearing on the incident. And this hearing and the witnesses today are a perfect example of Federal Government fulfilling its role to support State and local efforts from disasters with Federal dollars and resources when they are needed most. This partnership between governing bodies is what I hoped to see more of when I was elected to Congress 2 years ago.

So, you all can understand my disappointment when, in the over a year since the train derailment devastated the community of East Palestine and its way of life, the majority on this committee has not shown the same sense of urgency and has yet to notice a hearing to discuss the state of rail safety in Ohio. What about the people of Ohio and East Palestine who have been begging us—this question is to the majority—who have been begging us to do something on rail safety?

And even on the Committee on Transportation and Infrastructure Subcommittee on Railroads, Pipelines, and Hazardous Materials, the subcommittee would not hold a hearing to discuss the Norfolk Southern train derailment or the broader issue of rail safety, leaving Democrats to host a rail safety roundtable without Members of the majority present.

And while I don't represent East Palestine geographically, I am the only Ohioan on this committee, and East Palestine does not currently have a Member of the United States House of Representatives serving in Congress. So, I have no problem speaking up for my neighbors to the east of me.

And since the derailment in East Palestine, two additional trains have derailed in Ohio alone, and many others across the country. And the communities, local and State, are still burdened with contaminated local waterways and some airways across the Nation.

Even more recently, on March 2 of this year, three trains crashed and derailed in eastern Pennsylvania, leaving at least seven crewmembers injured, with the estimated damages to the equipment and track to be about $2.5 million. Emergency personnel responding to the scene found diesel fuel had spilled from one of the train cars, but containment booms were deployed to clean up the spill before the situation worsened. It was by luck that a derailment of those three trains was not worse, or anything like we saw in eastern Ohio.

It is very clear that the issue of train derailments is not going away, and turning a blind eye to the issue is clearly not the path that Congress or this committee should take. Americans across the political spectrum, including the former President, the Biden-Harris administration all agree we must pass commonsense rail safety legislation to prevent future train derailments and keep our community safe.

I am proud that Ohio Democrats and Republicans came together to introduce the bipartisan RAIL Act last year, and now it is time for the House Republican majority to pass the RAIL Act to protect Ohioans and communities across the country. The RAIL Act would implement effective measures to keep our communities safe, hold railroad corporations accountable, and ensure that no American living close to our 140,000 miles of railroad track has to worry about the threat of a toxic train derailment in their backyard.

Finally, I would like to take a moment to recognize the administration, our State and local partners in the State of Ohio, and public servants who are continuously uplifting East Palestine, even though this committee and the United States House of Representatives has turned a blind eye and turned their back to the people of Ohio.

And I would also like to take a moment to recognize Ms. Homendy and thank her and the rest of the National Transportation Safety Board for their investigation into the cause of the Norfolk Southern train derailment, and their work in investigating other accidents across the country with, no doubt, fewer people than you need.

You have continued to fill in the gap where Congress has refused to act, holding hearings and townhalls with residents in East Palestine, providing preliminary information that we could act upon, and a sense that people in the administration and the Federal Government do care about them, even if this committee and this Congress has refused to. I look forward to reviewing the Board's findings and hopefully considering their recommendations as we look to rail safety in America. And thank you again for filling in the gaps where this committee has failed the people of East Palestine.

Thank you, Mr. Chair, I yield back.

Ms. MALOY. The gentlelady yields back, and I recognize Mr. Burlison for 5 minutes for questions.

Mr. BURLISON. Thank you.

Ms. Homendy, it was just mentioned about the derailment in East Palestine, and we have had some other derailments that have made the news. But overall, would it not be accurate to say that trains and that—ultimately, they are more safe? It is probably the

safest mode of transportation for goods and services, goods to be transported.

Ms. HOMENDY. For transportation, over 40,000 people are dying on our Nation's roads. So, as far as transporting goods and people, rail is incredibly safe. It doesn't mean that a tragedy doesn't occur, and that is where we come in and investigate.

Mr. BURLISON. OK, so, I think it would be dangerous if we started trying to steer activity more away from rail because of these events. How many people died in East——

Ms. HOMENDY [interrupting]. I would like more things to go on rail.

Mr. BURLISON. Right. How many people died in East Palestine?

Ms. HOMENDY. No one died in East Palestine.

Mr. BURLISON. I think it is important to note that. While it might have been an environmental hazard, I think it is important to recognize the actual numbers.

Mr. Barrett—or is it Barat—or Bhatt, sorry, Mr. Bhatt. My question has to do with the Francis Scott Key Bridge, which has been the subject for this entire hearing. As I understand, there are about 15,000 jobs that are dependent on the port and another 140,000 that are linked to the port. Many of the individuals are worried that they could lose their jobs because of no longer having access because of the collapse of the bridge. How long will it take to construct the new bridge?

Mr. BHATT. Thank you, Congressman, for the question. And yes, the port—and I think that is part of the critical efforts of the Army Corps and the Coast Guard to get that port reopened so that those jobs can resume. I think the bridge itself, once the port reopens, is on a 2028 schedule right now is the preliminary estimate to get that bridge back open.

Mr. BURLISON. So, a 4-year estimate. What about the cost for the bridge?

Mr. BHATT. So, right now, the way that the RFP is being structured, it will be a progressive design-build. So, you go in and you say, "This is the structure that we need to build," and then the benefits of progressive design-build is they can bring in different elements. So, that is why the cost and the schedule will update as the different elements come in. But right now it is estimated at $1.7 to $1.9 billion.

Mr. BURLISON. Have there been any environmental concerns or any other issues that we might be able to look to sign any waivers that might expedite the construction of the bridge?

Mr. BHATT. Yes. So, on the environmental side, and through NEPA, that is why we are likely going to get to a categorical exclusion, because we are putting a bridge back where one existed relatively within the same footprint. We will work with our permitting agencies to make sure that we are not missing anything, but that is our plan.

Mr. BURLISON. And you served as the head of transportation for the State of Colorado prior to this role. Is that correct?

Mr. BHATT. And Delaware.

Mr. BURLISON. OK. And so, in that role, what is your experience? I know we just had the—a new rule that—or Executive order that was put in place under this administration that requires project

labor agreements for anything, I think it is, above $35 million. Is that the cost?

Mr. BHATT. I would have to come back on the exact numbers.

Mr. BURLISON. So, in your experience in—on both the State level and the Federal level, do requiring project labor agreements improve the timeline of projects?

Mr. BHATT. Sir, I would need to come back to you with specific examples on the timeline and the——

Mr. BURLISON [interrupting]. What about the costs?

Mr. BHATT. Again, sir, I don't want to speculate. I want to come back with specific data.

Mr. BURLISON. And I am not trying to press on you. We had a great conversation before. But surely, you have enough years of experience to understand the distinction and the difference between the costs of a project, whether or not a project labor agreement is required.

Mr. BHATT. Yes. The one project I would think about—and it wasn't a PLA that was required, but we did do what I would call the first sort of local hiring preference in Denver when we replaced the I–70 viaduct. And the goal is—and I think it is similar to where the administration is here—is trying to create good-paying jobs and create a workforce for the future and ensure that we are building the Nation's infrastructure and building out great jobs——

Mr. BURLISON [interrupting]. But if the taxpayer were going to get more bang for their buck, if they are going to get more bridges, more roads, it would be without a project labor agreement.

Mr. BHATT. Again, sir, I want to come back to you with the specific data on that.

Mr. BURLISON. I think the answer is yes.

Thank you, my time is expired.

Ms. MALOY. Thank you. The gentleman yields back, and I recognize Mr. Menendez for 5 minutes for questions.

Mr. MENENDEZ. Thank you, Madam Chair.

And just quickly following up, I had the opportunity to visit the Portal North Bridge, which runs through New Jersey, a critically important part of the Gateway Program, to mark the 50-percent completion of the project. It is largely being built by labor. It is on time and on budget. So, I thank my friends in labor for the incredible work that they do to continue to develop and build our critical infrastructure.

I want to thank all of our witnesses today for their testimony, their ongoing work regarding the Francis Scott Key Bridge collapse.

I want to join my colleagues in recognizing the six workers who lost their lives during this tragic accident, immigrants who are making not just our infrastructure stronger, but our Nation stronger. My thoughts are with their families and the communities that they were a part of.

New Jersey's Eighth Congressional District is home to the largest port on the east coast. Following the collapse of the Key Bridge, the Port of New York and New Jersey was ready to accommodate additional vessels to ensure our supply chain remained intact. This is thanks in large part to the Port Authority of New York and New

Jersey, their dedicated teams, the operators of our ports, and the incredible men and women of ILA who keep our region moving.

Administrator Bhatt, your testimony notes that the Federal Highway Administration will work to ensure that the new bridge is built to current design standards. Can you describe how design standards have changed since the Key Bridge was built in 1977 and the challenges posed by increasingly large vessels calling at our ports?

Mr. BHATT. Thank you Congressman, for the question.

I think just—if you look at the bridge, it was a truss bridge, and they are very strong and made of steel. And that was the prevailing design at that time. When you look at many of the truss bridges that are being replaced today, they are being replaced by cable-stayed bridges, for the most part. There are a lot of advantages from cost, strength. You can precast the concrete sections, bring them into place. And so, I think that is probably the likely design that will come forward.

With regard to design standards, obviously, there is vertical load and lateral load that we have to account for. And then I think specifically what the Francis Scott Key Bridge has brought forward, and what we are going to be working very closely with Chair Homendy—and I echo her call to any bridge owner to begin examining their bridges right now—is what is the appropriate level of protection that we need to design so that we don't have another similar situation.

Mr. MENENDEZ. And taking into consideration the size of the vessels that are coming through our ports and through our channels, given that they have increased in size over—definitely since 1977, that would be part of the analysis, is that correct?

Mr. BHATT. Absolutely, sir, yes.

Mr. MENENDEZ. Yes, I appreciate that.

The Port Infrastructure Development Program provides grants to support efforts to improve port and related infrastructure and meet our supply chain needs. Between 2019 and 2023, this program received $9 billion in applications, but only received $2.25 billion in appropriations over 5 years in the Infrastructure Investment and Jobs Act.

Mr. Bhatt, should we be doing more to invest in landside infrastructure?

Mr. BHATT. Thank you, Representative. I have been actually at a bunch of ports just this week. I served on the port board in Wilmington, Delaware. And I would say there is a critical need for infrastructure everywhere, including for the one that you mentioned.

Mr. MENENDEZ. And how would increased appropriations to the Port Infrastructure Development Program potentially help prevent future tragedies?

Mr. BHATT. Sir, I would want to consult with the folks at MARAD to get you a specific answer to that question.

Mr. MENENDEZ. OK, fair enough.

To Chair Homendy, I understand that you are limited today in what you can share regarding this particular incident, but can you touch on what features may be implemented on both new and existing bridges to better protect them from potential impacts like what we saw in Baltimore?

Ms. HOMENDY. Yes, this is what we are looking at as part of our investigation, and we are working with Maryland to evaluate their other bridges. And then we are looking at other areas in the United States where bridge owners have improved bridge infrastructure after a vessel strike, including any sort of fender systems, pier protection, dolphins. That is exactly what we are looking at. We don't have recommendations today on that.

But again, I would stress that States and bridge owners should be evaluating, especially with older bridges, what is going through as far as in their navigable waterways now, what is the risk, and how should they address that.

Mr. MENENDEZ. And quickly, a followup. Do you anticipate or have a sense of timing of when those recommendations might be made available, just given sort of the timely importance of making sure that the existing infrastructure throughout the country is up to date?

Ms. HOMENDY. So, we often issue urgent safety recommendations—and we may in this case decide to issue an urgent safety recommendation—at any time, including before we issue a final report. We are aiming for 18 months on a final report. But again, we may have updates to the investigation that we release, and we may issue urgent safety recommendations, as well.

Mr. MENENDEZ. I think this might make sense in this instance to ensure that people feel secure when they are crossing any types of these bridges.

Thank you, Madam Chair, I yield back.

Ms. MALOY. Thank you. The gentleman yields back, and I recognize Mr. Ezell for 5 minutes for questions.

Mr. EZELL. Thank you, Madam Chairman, and thank you all for being here today. I appreciate all of you and your hard work and dedication.

Vice Admiral, we have a town in my county named after you, but we pronounce it a little different there in south Mississippi. So, Gautier is the way we say it, but we will just leave that to us. So, anyway, as you know, one of the few remaining United States shipbuilders is in my county district, Huntington Ingalls. And what can be done to encourage the greater use of United States-flagged vessels to ensure that ships coming through our ports are held to the highest mechanical standards?

Admiral GAUTIER. Yes, thanks, Congressman. I think I might be named after somebody who grew up in that town.

But the Coast Guard works very hard to assure that, with the number of foreign-flagged vessels that call on U.S. ports every single day, that we maintain an equivalent level of safety. We do this through the International Maritime Organization. Actually, they are meeting this week on a number of issues of emerging technologies.

So, we have done things like worked on the standards of training, watchkeeping, and certification for all mariners, U.S. and international, and we want to do this in a way, sir, that doesn't disadvantage our U.S. mariners so we can have the equivalent levels that global shipping and global crews on vessels have to adhere to.

Mr. EZELL. Thank you. Additionally, do you think this incident could be a cause for recommending harbor tugs escort large ships through larger channels?

And if so, do you think this incident could have been avoided?

Admiral GAUTIER. It may be, but we don't know yet. It is too early in the investigation to understand whether tugs would or would not have helped in this circumstance.

Although what I will say is that there are some areas in some ports around the U.S. that have tug escort requirements for a variety of reasons, and they are all different. For example, under the Verrazzano Bridge, for example, the State of California, for tank vessels entering into the San Francisco Bay area, those determinations are typically made by harbor safety committees, with all stakeholders getting together to understand the totality of risks, not just the Coast Guard, and then agreeing on what tug requirements might be particular to that area of risk.

Mr. EZELL. Very good.

Administrator Bhatt, I noticed in the DOT fiscal year 2025 appropriations budget request that there were no additional funds provided beyond the annual $100 million authorization in the emergency relief fund. Given the backlog of requests and unmet needs, especially in Mississippi, how do you anticipate fulfilling the request for all highway projects and this bridge?

Mr. BHATT. Thank you, Congressman, for that question. I know that the OMB director was part of a tour of the site a few weeks ago.

I don't want to get ahead of the administration, but I believe that, generally speaking, the ER backlog has been topped up through supplementals historically, and I believe that may be part of the discussion.

Mr. EZELL. Thank you. Continuing with you, along with ensuring the process moves along quickly, how do you plan to coordinate with the State of Maryland and other stakeholders to ensure that proper funds are obligated quickly?

Mr. BHATT. Thank you, Congressman. It is absolutely top of mind. And having worked in the private sector, I know that projects delivered on time and on budget are always our target. And so, we are moving with great speed, working in close coordination with them to make sure that they are hitting all of the timelines. And they have set an aggressive schedule, as well.

Mr. EZELL. Very good.

Chair Homendy, it has been reported, the actions taken by the vessel and the State police who took swift action to minimize the casualties. In the future, how can we better improve the communication between vessels, people on the bridge, and emergency responders?

Ms. HOMENDY. Well, that is part of our investigation, and we will look at that. It was key, when the pilots reached out to the dispatchers, and the dispatchers called MDTA police, it was a very quick notification to shut down operations on the bridge. And everyone just involved in that was—it was a heroic effort, certainly. So, we will look at that as part of our investigation to determine what should be the standard going forward.

Mr. EZELL. Thank you. And thank you all again for being here today.

And Madam Chairman, I yield back.

Ms. MALOY. Thank you. The gentleman yields, and I recognize Mr. Auchincloss for 5 minutes for questions.

Mr. AUCHINCLOSS. Thank you, Madam Chair.

Some of my colleagues today have indicated their support for the concept of Federal moneys being repaid through tolling on the bridge. I would associate myself with that concept and with interest in that concept. I think in general, tolling on critical infrastructure is an appropriate way to fund it in the long run. And I would encourage the relevant agencies in Congress to consider that not just for this bridge, but for all bridges going forward as we think about how to responsibly fund critical infrastructure and address the backlog.

Vice Admiral, I appreciate your testimony, and I appreciate also, the unified response in Baltimore that you have been part of. And I am concerned, though, about the strain on the Coast Guard, and whether that is going to further exacerbate the Service's challenges in operating with a budget and workforce deficit.

Since the surge in Baltimore wasn't anticipated, there will be downstream effects on other Coast Guard missions and stations. If the Service does not receive additional resources from Congress, what are the likely short- and long-term consequences for operations in a place like Massachusetts?

Admiral GAUTIER. Congressman, as you know, we surge resources to the top priorities at the moment, whether that be a bridge collapse or a hurricane response, or a search and rescue case.

But to your point, more often we do that and with insufficient budget to make sure that we can do things like recapitalize our assets. And to close this urgent workforce gap that we have in enlisted ranks, our ability to do that is going to be eroded over time.

Mr. AUCHINCLOSS. So, articulate the tradeoffs that we might have to make. What should Congress understand about tradeoffs that have to happen if you are not resourced appropriately?

Admiral GAUTIER. So, take, for example, this near 10-percent enlisted workforce shortfall. If we do not have the resourcing or the—I am sorry, the recruiting and retention capability within the Coast Guard in order to get that back up to normal, then we are going to have to continue on doing the sorts of things that we have done like not completely staffing certain stations around the country where there might be some redundancies. We might not——

Mr. AUCHINCLOSS [interrupting]. And then what does that mean for your mission set? So, can you not do, for example, law enforcement for recreational boating? Can you not do a legal fisheries law enforcement? Like, what are some of the missions that might get eroded if you don't have the resourcing?

Admiral GAUTIER. That's right. We are going to have to make tough choices to deliberately back off of doing certain things that we would normally do, like some recreational boardings, like some fisheries law enforcement boardings, like some lower priority aids to navigation around the country.

Mr. AUCHINCLOSS. Good. I think it is important to be specific about the tradeoffs, because I want Congress to understand that you can't get something for nothing, and we have to fund the Coast Guard's vital 11 missions.

I know you are also, conducting an Atlantic Coast Port Access Route Study, one of the goals of which is to reduce the risk of marine casualties and increase the efficiency of vessel traffic on the Atlantic coast. How is the Coast Guard reevaluating this study in light of the Baltimore accident?

And how should ports evaluate potential risks to their infrastructure going forward?

Admiral GAUTIER. I think Baltimore is a sober reminder of the consequences when you have large vessels, and then you have a mishap, and then you have some critical infrastructure, and then we have the results that we have seen.

What we are doing in terms of the port access route study is exactly to prevent those sorts of circumstances. As we know that there will be more fixed objects—i.e., wind turbines, wind farms offshore starting in New England and then working down to other parts of the country—we need to have assurances that there are shipping lanes that will be free from the construction of offshore wind farms so that maritime transportation can continue at low risk to collisions and allisions.

Mr. AUCHINCLOSS. I appreciate it, and I will yield back.

Ms. MALOY. Thank you. The gentleman yields back, and I recognize Mr. Williams for 5 minutes for questions.

And I apologize for skipping you earlier. Sorry.

Mr. WILLIAMS OF NEW YORK. That is all right. Thank you, Madam Chairman.

Thank you all for being here and for your expert testimony. I have read through the accident report, such as it is, and would like to follow up on some details of that, just to try to understand it.

And maybe, Madam Chairwoman, I will start with you. Do we know—I am sure we do—are we looking at the manufacturers of HR1, LR1 breakers, the tie bus, the transformer, the control system, all of those things that appear in the switchboard cabinet? In your report, you have the inspector that is taping those shut. Have we identified the manufacturer of all of those components, including the subassemblies and the things that are inside?

Ms. HOMENDY. Yes. So, we are currently working with Hyundai, who manufactured many of the components, and they are a party to our investigation and have come to Baltimore to work with us to do testing on board the vessel. And our engineers are back on board the vessel today.

Mr. WILLIAMS OF NEW YORK. So, I understand that Hyundai would assemble the control system—the panel, if you will—like a panel shop would. But the individual components inside, whether that is a PLC or a SCADA system or sensors, actuators, whatever those things are, are we looking all the way down into the components, the whole supply chain that made up all those components?

Ms. HOMENDY. We are.

Mr. WILLIAMS OF NEW YORK. And is there—when you represent the transformer, the ICMS, the integrated control and monitoring system, you are saying all of that comes from Hyundai?

Ms. HOMENDY. Not every——

Mr. WILLIAMS OF NEW YORK [interrupting]. This is——

Ms. HOMENDY [continuing]. Not every single feature or sensor comes from Hyundai. But if we are looking at any sensors or pumps or any other component on the vessel, then we will work with whoever that manufacturer is.

Mr. WILLIAMS OF NEW YORK. Is there an investigation into cybersecurity that is being evaluated for all these components?

Ms. HOMENDY. Well, currently we have no evidence at this time to suggest that this was a cybersecurity threat. It has been stated at Unified Command that the Coast Guard and FBI also did not believe this was a cybersecurity issue. We have a memorandum of understanding with the FBI that, if there is any evidence of that, we have to turn this over immediately to them.

Mr. WILLIAMS OF NEW YORK. Is there a criminal investigation going on at all?

Ms. HOMENDY. I am aware that there is some work being done by the Department of Justice, but that is not within the NTSB's purview.

Mr. WILLIAMS OF NEW YORK. So, in a cybersecurity or a cyber attack, there is a lot of concern about embedded systems embedded into what is called a real-time operating system, or inside the control logic, or inside the control elements there. That would require an enormous amount of sophisticated forensics to evaluate. And I would think—which would require dismantling that whole switchboard and doing a component-by-component search. Is that kind of investigation underway?

Ms. HOMENDY. Our investigators have over 400 years of experience who are investigating this accident itself, and they go where the evidence takes them.

As far as anything the Department of Justice or FBI is doing, that is not something I can speak to.

Mr. WILLIAMS OF NEW YORK. Well, in terms of 400 years of experience, it is probably just the last 5 that are relevant in terms of cybersecurity, particularly in industrial controls.

Ms. HOMENDY. Right. My point, though, is they have significant expertise on——

Mr. WILLIAMS OF NEW YORK [interposing]. I understand.

Ms. HOMENDY [continuing]. Safety——

Mr. WILLIAMS OF NEW YORK [interrupting]. I understand your point, and I have significant expertise, as well.

And so, the point of my question is, as we have seen in embedded systems and in very integrated components from a wide variety of vendors, that understanding the entire supply chain, understanding and evaluating things all the way down to the operating system or even the BIOS and other features deep in the systems is critically important.

As I read through the accident report, it is not clear to me that anybody knows why those breakers tripped, why the transformer tripped offline, what dumped the bus. And it seems like, until we know the origin of the actual accident, that all of these things should be taken as likely or at least possible. Would you agree?

Ms. HOMENDY. Yes. This is a preliminary report, and what we released yesterday was preliminary. We are still conducting our investigation. And we go where the evidence takes us.

Mr. WILLIAMS OF NEW YORK. And that includes a forensics on the actual components that are there, which would require significant disassembly and evaluation, in my opinion.

Ms. HOMENDY. We will follow the evidence, and anything security-wise, if we find anything, we will turn it over immediately to the criminal authorities.

Mr. WILLIAMS OF NEW YORK. Thank you very much.

I yield back.

Ms. HOMENDY. Thank you.

Ms. MALOY. Thank you. The gentleman yields back, and I recognize myself for 5 minutes for questioning.

You have all been sitting here for a long time. You have been pretty thoroughly questioned. I just want to wrap up with, is there anything any of you want to highlight for your respective agencies that will be helpful to this committee that you haven't already covered?

I will start with Vice Admiral Gautier and we will move down the line.

Admiral GAUTIER. Congresswoman, a factual statement. I think that this has been pretty thoroughly questioned.

In terms of the—I have been asked several questions in terms about Coast Guard resourcing, and I think it bears repeating from our perspective, we are incredibly proud of the folks in the field who have responded. They have done an amazing job with their counterparts to do this.

We cannot guarantee over time that the Coast Guard is going to be able to perform at that level—whether that be a search and rescue case, or a patrol in Asia, or patrolling for the potential for mass migration in the Caribbean—without substantial support and enduring support from Congress and the appropriations side in terms of recapitalizing our aging assets and improving our procurement, construction, and improvement support from Congress, the things that help the people in terms of training that leads us to successful operations like this.

So, I appreciate the opportunity to convey that to you.

Ms. MALOY. Major General Graham?

General GRAHAM. Thank you. Thank you for that question and the opportunity to be here today.

Probably two points I would just like to wrap up with. We talked a lot about safety of the general public. I just want to commend the teams on site, from the Coast Guard to the port to the various agencies—knock on wood right now—it has been an amazingly safe operation. It was probably some of the riskiest diving operations you can have, tethered divers going down, water you certainly can't see to the end of your fingers with. We were guiding them by sonar, really. Steel sticking out. And they did it amazingly safely. The job is not over yet, and our commitment is to continue that safety record until the Federal channel is completely cleared.

There was a lot of discussion on the resiliency of infrastructure. About 3 weeks after the *Dali* hit the bridge, some barges broke away on the Ohio River near Pittsburgh, and they bounced off of

two of the locks and dams that the Corps runs on the upper reaches of the Ohio River. And the infrastructure withstood those strikes because it was designed to withstand those strikes.

Right now we are trying to stretch taxpayers' dollars as far as we can, and we are looking at some of the gates on those structures to see if we can go from steel to fiber reinforced polymers. And one of the things we are taking a look at is to see, well, if we do build them from fiber reinforced polymer, will they withstand barge strikes and whatnot as well as steel does. And so, all that is to make a shameless plug for research and development funding that we agencies need to continue to advance the state of engineering. Thank you.

Ms. MALOY. Thank you. Shameless plug noted.

Mr. Bhatt?

Mr. BHATT. Thank you, Madam Chair. I would just end where I started, which is: I have been around a number of these sort of bridge disasters or disasters, and just the confidence I feel that this response, whether it is through the Unified Command or the Army Corps or the Coast Guard, Federal Highways, all the various parts of U.S. DOT, I feel like it has just been such an exemplary response and a message to send to the American people that, when disaster strikes, the Government is there, working in close coordination with the private sector.

I appreciate a lot of the questions from the majority around the funding of the bridge. I appreciate their concern for fully funding it, open to looking at the different methodologies that they brought forward.

I would just highlight, from a Federal Highways perspective, that there is $3.7 billion, including the bridge, of unmet need across the country in red States and blue States, and the ER Program, as it is designated, we want to follow the law, and it doesn't really matter the color of the State. We are going to show up, and we want to make sure that the funding is available for ER Programs across the country.

Ms. MALOY. Thank you.

Ms. Homendy?

Ms. HOMENDY. Thank you. First of all, let me thank this committee.

On a bipartisan basis you led the effort to reauthorize the NTSB as part of FAA reauthorization. So, thank you very much for that.

You also led the way on fully funding the NTSB, along with House appropriators, for our request for fiscal year 2024. We hope you will do the same for fiscal year 2025.

But our fiscal year 2024 funding came in a little bit lower. Again, we fully appreciate it because it is higher than we receive now. But if you just look at this investigation, we have 12 people in our Office of Marine Safety. They need an additional five. That doesn't include all the other modes within the NTSB that need people and the supporting offices, as well as dealing with unfunded mandates, lab equipment, and training needs. So, the $10.7 million that we got in an increase in fiscal year 2024 actually translated into a little over $5 million, because we had to take on a 5.2-percent pay raise. Well deserved, but we have to think about the impact on the smaller agencies there.

And so, we have about $5 million, and we have to figure out, OK, what 11 positions out of the hundreds can we fund. So, for the Office of Marine Safety itself, 12 people on their staff, half of which are dedicated to this particular accident, and they have over 60 other cases, and what happens is those get pushed a little bit so they could focus on the next major one. So, any support you can provide for fiscal year 2025 is really appreciated.

Ms. MALOY. Thank you. One more really quick question.

Major General Graham, does the Corps have an updated timeline for when the full Federal navigation channel will open?

General GRAHAM. Our commitment is to have it fully open by the end of this month. Sooner, if possible.

Ms. MALOY. OK, thank you. I am way over my time, but they gave me the gavel, so, nobody is stopping me. Thank you.

I yield back. Are there any further questions from any members of the committee who have not been recognized?

Seeing none, that concludes our hearing for today.

I would like to thank each of the witnesses for your testimony.

And the committee stands adjourned.

[Whereupon, at 1:08 p.m., the committee was adjourned.]

SUBMISSIONS FOR THE RECORD

Letter of May 15, 2024, to Hon. Sam Graves, Chairman, and Hon. Rick Larsen, Ranking Member, Committee on Transportation and Infrastructure, from Hon. Kweisi Mfume, Member of Congress, Submitted for the Record by Hon. Rick Larsen

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
WASHINGTON, DC 20515,
MAY 15, 2024.

The Honorable SAM GRAVES,
Chairman,
Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC 20515.

The Honorable RICK LARSEN,
Ranking Member,
Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC 20515.

DEAR CHAIRMAN GRAVES AND RANKING MEMBER LARSEN:

Our nation experienced a terrible tragedy in the early morning of March 26, 2024, when a large cargo ship, by the name of the Dali, collided into and collapsed the Baltimore Francis Scott Key Bridge into the Patapsco River—leading to the tragic loss of six lives and contributing to a major disruption of the nation's supply chain.

This unimaginable disaster claimed the lives Dorlian Castillo Cabrera, Miguel Luna, Maynor Yassir Suazo Sandoval, Alejandro Hernandez Fuentes, Carlos Hernandez, and Jose Mynor Lopez.

The six hardworking men who were taken from us too soon were husbands, fathers, and brothers, and their passing serves as a solemn reminder to cherish the lives of those we care about so deeply. These men gave their heart, sweat, and soul to our country. Their families can never be reminded enough of our condolences, prayers, or sympathies.

In this time of great tragedy, I commend the heroic, fast-acting first responders who jumped into action within minutes of the Dali's mayday call. I, and others, are exceedingly grateful for their coordinated and skillful efforts, which prevented further loss of life.

I would be remiss if I didn't also acknowledge the efforts of the Unified Command team, who were some of the first boots on the ground, and have responded to this crisis with calmness, diligence, and precision. Their hard work to reopen the Patapsco River's main shipping channel expeditiously is awe-inspiring.

Amidst the trials and tribulations of this tragedy, our unified Team Maryland composed of the Governor, all members of our Congressional delegation, and the Mayor and County Executive of Baltimore, has never ceded to the challenges we have faced.

However, this isn't a "Baltimore issue," it's an "American issue," and I am appreciative of all the support from my congressional colleagues, on both sides of the aisle, and from all corners of the nation.

The billions of dollars of products and commodities that flow into and out of the Port of Baltimore each year cannot be understated. The closure of the Port's main shipping channel strains the Nation's supply chain, impacting the shipments of automobiles, farming and machinery equipment, sugar, coal, and aluminum nationwide.

That is why I, along with the entire Maryland Congressional delegation, introduced H.R. 7961, the Baltimore BRIDGE Relief Act. This bicameral, bipartisan legislation would authorize the federal government to fully fund the replacement of the Francis Scott Key Bridge and its approaches in Baltimore, Baltimore County, and

Anne Arundel County, Maryland. Equally as important, there is also a liability section in the Baltimore BRIDGE Relief Act that restates a preexisting regulation requiring the federal government to be reimbursed to the full amount received from any compensation derived from insurance claims or any other source of compensation related to the bridge collapse.

While the exact contents of potential legislation have not yet been finalized, the Maryland delegation stands united in our commitment to securing funding that covers 100 percent of the Francis Scott Key Bridge rebuild.

With so much at stake, it is imperative to have a successful American response to this disaster. I urge my colleagues on both sides of the aisle to keep these important details in mind when responding to this national disaster.

Sincerely,

KWEISI MFUME,
Member of Congress.

Report, "The Impacts of Project Labor Agreements on Competition, Costs, Apprenticeships, and Diversity: Evidence from Port of Seattle Projects," Frank Manzo IV, M.P.P. and Robert Bruno, Ph.D., May, 7, 2024, Submitted for the Record by Hon. Rick Larsen

The 28-page report is retained in committee files and is available online at https://illinoisupdate.com/wp-content/uploads/2024/02/ilepi-pmcr-port-of-seattle-pla-study-final.pdf

Statement of Rear Admiral Benjamin K. Evans, Director, Office of Coast Survey, National Oceanic and Atmospheric Administration, Submitted for the Record by Hon. Daniel Webster

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S (NOAA'S) RESPONSE TO THE DALI/FRANCIS SCOTT KEY BRIDGE ALLISION

NOAA had a significant presence at the Unified Command for the Francis Scott Key Bridge incident.

Upon learning of the bridge collapse in the middle of the night, NOAA's National Weather Service (NWS) forecasters were proactive, preparing to send a forecaster to assist the effort. The Maryland Emergency Operations Center is under construction, so NWS staff drove in the middle of the night to the Francis Scott Key Bridge area, knowing their forecast decision support services would be needed. The call for forecast support from the Maryland Department of Emergency Management (MDEM) came first thing in the morning, and the NWS forecaster was immediately on site to provide the needed forecast decision support services. NWS meteorologists were deployed to Maryland's Emergency Operations Center from March 26–March 31 to provide forecasts for first responders as well as other weather information to support response efforts. Forecasts supporting the operation continued, with on-site support no longer required after March 31. Russell J. Strickland, Secretary, Executive Office of Maryland Department of Emergency Management and current President of the National Emergency Managers Association, was extremely appreciative of the NWS efforts to support the response.

NOAA's Office of Response and Restoration's (OR&R) Disaster Preparedness Program activated the National Ocean Service Incident Management Team to collect information and enhance coordination across NOAA's National Ocean Service on personnel, mission, infrastructure, and response activities to support messaging up to NOAA leadership and beyond. The NOAA Mid-Atlantic Scientific Support Coordinator responded on-scene to support USCG hazmat and pollution assessment and develop protection strategies and contingency plans. The OR&R Emergency Response Division Scientific Support Team completed hazmat assessments that informed the risk and reactivity for the 56 Dangerous Goods containers on board. Detailed assessments were specifically conducted for the 13 containers located in the forward stacks crushed by the collapsing bridge and identified as containing hazardous materials. At the request of the USCG Federal On-Scene Coordinator, the Scientific Support Team also produced oil trajectory forecasts every 48 hours for the seven week response for situational awareness to plan how to respond should a worst case scenario from the *M/V DALI* have occurred.

At the request of the USCG, the Office of Coast Survey Navigation Response Team-New London (NRT–NL) deployed to Baltimore, accompanied by the Mid-Atlantic Navigation Manager. NRT–NL arrived on March 29 and began conducting hydrographic surveys through March 31 to identify safe shallow-draft channels through the remaining spans of the bridge. The team collected 157 linear nautical miles of multi-beam data, which was processed each night and provided to Unified Command. The team also collected laser scan data of the undamaged bridge spans to determine the height and width available to vessels transiting the alternate route. This data allowed USCG to identify and buoy a safe alternate route for vessel traffic. The Office of Coast Survey data was provided to the USACE, all of which was to aid in calculations for how much material needed to be removed. NRT–NL returned to Baltimore on April 17 to conduct additional multibeam sonar surveys to create high resolution bathymetric maps of the increasingly deeper channels as the salvage teams worked to remove materials.

Coast Survey rapidly integrated all available data into a new NOAA Electronic Navigational Chart which was made publicly available on April 3rd. The rapid response required testing a new mode of operation for chart production. Historically, chart updates have taken weeks or months, but the new mode of operations allowed for daily chart updates.

The National Geodetic Survey and the Office of Marine and Aviation Operations NOAA King Air conducted two mission flights under their own authority on March 28 and March 29, collecting 5 cm resolution imagery of the bridge and surrounding channel in support of NOAA nautical charting needs, hazardous material removal, marine debris collection, and other coastal management needs, which was immediately shared with Unified Command. The high resolution imagery served as the baseline coastal dataset for the event and helped inform debris removal needs. This data is further anticipated to support future engineering needs.

On April 4th, the Center for Operational Oceanographic Products and Services (CO–OPS) deployed a temporary Real-Time Currents Buoy (CURBY) to provide real-time measurements for currents and key meteorological parameters [https://tidesandcurrents.noaa.gov/ports/ports.html?id=cb1501&mode=show_all] (wind, air temperature, water temperature, air pressure and salinity) for Unified Command decision support. A longstanding bridge air gap system and a standalone meteorological station affixed to the structure were destroyed in the incident. An additional standalone meteorological station on a concrete dolphin adjacent to the bridge and water level observations from a nearby NOAA National Water Level Observation (NWLON) station remained operational providing uninterrupted data for recovery and salvage efforts. On June 4th, CO–OPS installed a temporary Hawkins Point meteorological station [https://tidesandcurrents.noaa.gov/ports/ports.html?id=8574731&mode=show_all] on the western section of the bridge that remains standing. These new meteorological observations have been integrated into NOAA's Chesapeake Bay Physical Oceanographic Real Time System (PORTS) [https://tidesandcurrents.noaa.gov/ports/index.html?port=cn].

APPENDIX

QUESTION TO VICE ADMIRAL PETER GAUTIER, DEPUTY COMMANDANT FOR OPERATIONS, U.S. COAST GUARD, FROM HON. SAM GRAVES

Question 1. With bridge safety at the forefront of everyone's mind, including in the Midwest just north of my district where a barge struck the Fort Madison Bridge and shut down operations for a few hours, do you think an evaluation of the Truman-Hobbs list of bridges makes sense and should Congress look for resources to fund those critical infrastructure assets? Please explain your position.

ANSWER. A response was not received at the time of publication.

QUESTION TO VICE ADMIRAL PETER GAUTIER, DEPUTY COMMANDANT FOR OPERATIONS, U.S. COAST GUARD, FROM HON. BRUCE WESTERMAN

Question 1. What challenges do you envision during the period of construction relative to maintaining the shipping channel? For example, will construction of the new bridge be particularly challenged by the circumstances in the shipping channel?

ANSWER. A response was not received at the time of publication.

QUESTIONS TO VICE ADMIRAL PETER GAUTIER, DEPUTY COMMANDANT FOR OPERATIONS, U.S. COAST GUARD, FROM HON. PATRICK RYAN

Question 1. What challenges do you envision during the period of construction relative to maintaining the shipping channel? For example, will construction of the new bridge be particularly challenged by the circumstances in the shipping channel?

ANSWER. A response was not received at the time of publication.

Question 2. Is it important that the new bridge be taller and/or have a wider clear span to accommodate future maritime needs? If so, how do those maritime requirements reconcile with the desire to limit NEPA to a categorical exclusion?

ANSWER. A response was not received at the time of publication.

QUESTION TO MAJOR GENERAL WILLIAM H. GRAHAM, DEPUTY CHIEF OF ENGINEERS, DEPUTY COMMANDING GENERAL, AND DEPUTY COMMANDING GENERAL FOR CIVIL AND EMERGENCY OPERATIONS, U.S. ARMY CORPS OF ENGINEERS, FROM HON. BRUCE WESTERMAN

Question 1. What challenges do you envision during the period of construction relative to maintaining the shipping channel? For example, will construction of the new bridge be particularly challenged by the circumstances in the shipping channel?

ANSWER. Bridge construction during maintenance dredging within the federal channel will require coordinated operations between bridge construction crews, the port, the US Coast Guard, and the Corps. Post construction surveys also will be necessary to update NOAA's nautical charts.

A similar successful model is the recent Arthur Ravenel Jr. Bridge construction across the Cooper River in Charleston, SC, which allowed the port to be at 100% operational during construction operations.

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A similar successful model is the recent Arthur Ravenel Jr. Bridge construction across the Cooper River in Charleston, SC, which allowed the port to be at 100% operational during construction operations.

Question 2. Is it important that the new bridge be taller and/or have a wider clear span to accommodate future maritime needs? If so, how do those maritime requirements reconcile with the desire to limit NEPA to a categorical exclusion?

ANSWER. The Federal Highway Administration (FHWA) would be the lead federal agency for the new bridge and NEPA compliance. The US Coast Guard has the primary responsibility to issue permits for bridges over navigable waterways, ensuring the safe navigability into and out of the Port of Baltimore. As plans and designs are finalized, the FHWA, USCG, and the Corps will continue to work with State and Federal agencies involved in bridge construction to address any potential impacts during or after construction to the federal channel.

QUESTIONS TO HON. SHAILEN BHATT,[†] ADMINISTRATOR, FEDERAL HIGHWAY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION, FROM HON. ERIC A. "RICK" CRAWFORD

Question 1. Administrator Bhatt, during the hearing, you confirmed that the Federal Highway Administration (FHWA), on April 29, 2024, approved a request by the Maryland Department of Transportation (MDOT) to designate a segment of highway including the Francis Scott Key Bridge ("the Bridge") as part of the Interstate System.

I understand that MDOT sought a concurrent process for its request to designate the Bridge as part of the Interstate System, meaning it submitted requests to both FHWA and the American Association of State Highway and Transportation Officials (AASHTO) at the same time.

Question 1.a. Are such requests routinely submitted and/or considered concurrently?

ANSWER. Approval of modifications to the Interstate Highway System are made by the Administrator. This includes the numbering of segments on the Interstate Highway System. FHWA regulations on Interstate System modifications require States to coordinate proposed numbering of Interstate Highway System segments with the Route Numbering Committee of the American Association of State Highway and Transportation Officials (AASHTO). FHWA considers that committee's decisions in route numbering approvals. The AASHTO Route Numbering Committee's decisions are made via a rolling review process.

Question 1.b. If yes, please provide examples.

ANSWER. FHWA does not track specific dates of the submission of requests to AASHTO. States often submit their proposed numbering schemes to AASHTO in advance of submitting modification requests to FHWA. However, sometimes the submissions to AASHTO and FHWA occur close in time.

Question 2. Due to the collapse of the Bridge, the MDOT letter requesting the Bridge be designated as part of the Interstate System asked FHWA for "expedited approval." Understanding that the MDOT request was submitted to FHWA on April 19, 2024, and subsequently approved on April 29, 2024, that represents a ten-day timeline.

[†]Administrator Bhatt resigned from the Federal Highway Administration (FHWA) effective September 10, 2024. These responses are provided on behalf of FHWA.

Question 2.a. Is that considered an "expedited process?"
ANSWER. "Expedited process" is an informal term that States use when they would like to have a modification request considered more quickly. This can occur for a number of reasons, but often it is because a governor or local officials would like to hold an event (such as a ribbon cutting) to commemorate the opening of an Interstate Highway segment. FHWA works closely with States to support their timelines, when possible.

Question 2.b. How often has FHWA approved such requests accommodating an expedited process?
ANSWER. FHWA does not track requests for an expedited process, but they are not common. As noted above, FHWA works closely with States to support their timelines, when possible.

Question 2.c. Please explain and provide examples.
ANSWER. FHWA processed an expedited request by the State of Indiana to add a section of congressionally designated future I–69. The State held an event on August 6, 2024 to commemorate the opening of the last section of the I–69 corridor between Evansville and Indianapolis

Question 3. Please detail FHWA's typical process and timeline for approval of Interstate designations.
Question 3.a. Does this process typically take weeks, months, or years?
ANSWER. Once the highway segment meets all standards of a highway on the Interstate System and is a logical addition or connection to the Interstate System, the State can request the segment's addition to the Interstate Highway System. The duration of the approval process varies, depending on the complexity of the request. In addition to working with the requestor, FHWA coordinates with AASHTO on the route number, as noted above.

Question 3.b. Please provide examples.
ANSWER. The length of the approval process varies, depending on the complexity of the request. Below are some recent examples:

	Received	Approval
New York I–86	June 2024	Pending.
Indiana I–69	June 2024 (revised version)	July 2024.
Maryland I–695	April 2024	April 2024.
Nevada I–11	February 2023	November 2023.
Indiana I–69	September 2022	December 2022.
Texas I–69E	June 2022	September 2022.
North Carolina I–587	May 2021	November 2021.
Arkansas I–555	January 2021	April 2021.

Question 4. Are there other instances of a facility being designated as part of the Interstate System when that facility no longer exists?
Question 4.a. If yes, please provide examples.
ANSWER. In the case of the segment of I–695 that included the Francis Scott Key Bridge, part of the facility still exists (the designation was for an 18.8-mile segment). FHWA is unaware of any examples of a designation where no facility exists.

Question 5. Historically, has FHWA retroactively designated facilities as part of the Interstate System following either a natural disaster or a catastrophic failure from any external cause?
Question 5.a. If yes, please explain and provide examples.
ANSWER. FHWA is not aware of any examples, or requests by States to make such a designation. The portion of MD–695 that included the Francis Scott Key Bridge was signed as an Interstate, and anyone using the facility before the bridge collapsed would have thought it was already on the Interstate System. States request modifications only a few times a year, and none of the recent requests were under similar circumstances.

Question 6. I understand that prior to its collapse, the Bridge was a toll facility. How much revenue did tolls on this facility generate in 2023?
ANSWER. FHWA does not track toll revenue for specific facilities. For the most accurate responsive information, we defer to the source, the Maryland Transportation Authority (MDTA), which reported toll revenue for the Francis Scott Key Bridge for fiscal year 2023 of approximately $56 million.

Question 7. In your testimony, you discussed how discretionary funding may be pursued to repair the Bridge. Please provide a comprehensive list of the existing programs, discretionary and formula, for which bridge projects are eligible for funding.

ANSWER. Bridge projects are eligible for funding under a number of FHWA formula programs, subject to program-specific requirements: the Surface Transportation Block Grant Program (STBG), the National Highway Performance Program (NHPP), the Bridge Formula Program (BFP), and the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation Program (PROTECT) Formula Program. Bridge construction is also an eligible expense for a number of discretionary grant programs, subject to program-specific requirements, including:

- National Infrastructure Project Assistance Program (MEGA);
- Rebuilding American Infrastructure with Sustainability and Equity (RAISE);
- Bridge Investment Program (BIP);
- Infrastructure for Rebuilding America Program (INFRA);
- PROTECT;
- Rural Surface Transportation Grant Program (RURAL);
- Reconnecting Communities Pilot Program; and
- Competitive Highway Bridge Program (CHBP).

Question 8. I appreciate the Federal Motor Carrier Safety Administration's (FMCSA's) efforts to provide regulatory relief for commercial motor vehicle drivers following the collapse of the Bridge. I understand FMCSA has extended this relief since its initial issuance in late March. How has this regulatory relief helped maintain commerce?

ANSWER. FHWA has conferred with FMCSA to provide this response. The relief both supported the unprecedented emergency work relating to the Francis Scott Key Bridge, as well as supply chains impacted by the collapse that relied on the Port of Baltimore or Baltimore's nationally significant freight infrastructure. For example, the relief allowed motor carriers engaged in emergency-related activities, such as salvage and recovery operations, to conduct the necessary work of removing bridge debris, without violating Federal requirements, including hours of service. Additionally, it helped in the efficient and safe rerouting of freight flows to other East Coast ports because of the collapse and the transport of critical fuel products to and from the Port of Baltimore that support the surrounding megaregion, especially regional industries, military bases, and aircraft operations at BWI Airport. Fuel and other hazardous material commodities experienced the most transportation impacts as the FSK Bridge was the key hazardous materials route through Baltimore along the I–95 corridor, and rerouting around the region significantly added to travel times. The two additional hours of service helped fuel-related businesses to complete their runs in the region efficiently and with a level of flexibility until adjustments in operations were made to accommodate new travel times in the region.

Data indicates that diversion routes (as of mid-May) were taking 2 to 4 times longer for some traffic and trucks compared to prior to the bridge collapse. Collisions also increased along alternate routes. I–95 experienced an increase in traffic (on average) of 12% following the collapse of the bridge. More recent data shows some of this is improving but still remains elevated. This is likely to change as commodities and freight begin to fully return to Baltimore. FMCSA is actively monitoring these impacts and working with the State of Maryland, Maryland Motor Truck Association, and other stakeholders to assess travel impacts and truck parking challenges.

Question 9. You mentioned at the hearing that the Bridge rebuilding process would likely utilize a FHWA Categorical Exclusion (CE).

Question 9.a. Can you detail exactly which CEs FHWA will be using?

ANSWER. On July 23, 2024, FHWA determined the reconstruction of the Francis Scott Key Bridge is appropriately classified as a Categorical Exclusion (CE) in accordance with Council on Environmental Quality (CEQ) regulations and 23 CFR 771.117(c)(9) and 23 CFR 771.117(d)(13). The Project, which proposes rebuilding the Francis Scott Key Bridge connection along I–695 over the Patapsco River, does not involve any significant environmental impacts.

The Project will benefit socioeconomic resources by restoring community connectivity and commerce across the Patapsco River. The anticipated impacts to natural resources are minimal and will comply with the required permits and stormwater management approval to further minimize impacts. Unanticipated impacts to cultural resources, if any, will be addressed per the Section 106 Programmatic Agreement for the project. The Project will not provide additional capacity or provide new access points. As a result, the Project will not induce significant

foreseeable alterations in land use or affect development and growth beyond what is already expected to occur.

Question 9.b. Please provide an explanation of which CEs have been used previously for similar projects.

ANSWER. Similar projects involving a bridge collapse over a navigable waterway were also processed as categorical exclusions due to the limited scope of the bridge replacements within existing rights-of-way along similar alignments as the previous structures. Example projects include the I–35W Bridge over the Mississippi River in Minneapolis, Minnesota, and the I–10 Bridge over Escambia Bay in Florida.

Question 9.c. If no similar projects have been permitted to use CEs, please provide an explanation of exactly how this Bridge project differs from previous projects.

ANSWER. As noted above, similar projects involving a bridge collapse over a navigable waterway have also been processed as CEs.

QUESTIONS TO HON. SHAILEN BHATT,[†] ADMINISTRATOR, FEDERAL HIGHWAY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION, FROM HON. BRUCE WESTERMAN

Question 1. Maryland transportation officials stated in a public forum last week that the bridge replacement would be handled under a categorical exclusion—is that true, and how did FHWA arrive at that determination? What restrictions will a categorical exclusion place on the design of the new bridge and is it realistic?

ANSWER. The project is currently proceeding with a Categorical Exclusion (CE), since the Maryland Department of Transportation (MDOT) has limited the project scope of the bridge replacement to occur within existing Maryland Transportation Authority (MDTA) right-of-way along the current centerline of the bridge and its approaches. Reconstruction is expected to begin within two years of Governor Moore's declaration of a state of emergency. FHWA approved the CE for reconstruction of the Francis Scott Key (FSK) Bridge on July 23, 2024. The CE provides the appropriate level of information to allow for a streamlined permitting approach with the respective resource agencies. As the project progresses to final design, FHWA may change the NEPA class of action and require a higher level of documentation, based on level of impacts or other criteria established in FHWA's NEPA regulations.

Question 2. What is the likelihood that FHWA might require a higher degree of NEPA study later in the process, such as after MD has selected a design-builder?

ANSWER. As the project progresses to final design with the selected design-builder, re-evaluations may be necessary to determine whether supplemental analysis and documentation is needed. A re-evaluation is a review conducted by FHWA of any proposed change in action, affected environment, anticipated impact, applicable requirements, or mitigation measures as they relate to the environmental document or decision. As noted above, as the project progresses to final design, FHWA may change the NEPA class of action and require a higher level of documentation, based on level of impacts or other criteria established in FHWA's NEPA regulations.

Question 3. Is it important that the new bridge be taller and/or have a wider clear span to accommodate future maritime needs? If so, how do those maritime requirements reconcile with the desire to limit NEPA to a categorical exclusion?

ANSWER. The U.S. Coast Guard (USCG) has jurisdiction over the replacement bridge's vertical clearance and a clear navigation span width. This determination is made by the USCG independent of the NEPA process considering maritime needs.

FHWA and the Maryland Department of Transportation (MDOT) used the USCG determined minimum vertical and horizontal clearance for the approved CE. The USCG determination for the minimum vertical and horizontal clearance did not change the CE determination and approval since the new bridge is expected to be built within the existing right-of-way on the same alignment.

[†]Administrator Bhatt resigned from the Federal Highway Administration (FHWA) effective September 10, 2024. These responses are provided on behalf of FHWA.

QUESTIONS TO HON. SHAILEN BHATT,† ADMINISTRATOR, FEDERAL HIGHWAY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION, FROM HON. PATRICK RYAN

Question 1. Has a categorical exclusion been granted for reconstruction of the Francis Scott Key Bridge? If so, how did FHWA arrive at that determination? What restrictions will a categorical exclusion place on the design of the new bridge and is it realistic?

ANSWER. The project is currently proceeding with a Categorical Exclusion (CE), since the Maryland Department of Transportation (MDOT) has limited the project scope of the bridge replacement to occur within existing Maryland Transportation Authority (MDTA) right-of-way along the current centerline of the bridge and its approaches. Reconstruction is expected to begin within two years of Governor Moore's declaration of a state of emergency. FHWA approved the CE for reconstruction of the Francis Scott Key (FSK) Bridge on July 23, 2024. The CE provides the appropriate level of information to allow for a streamlined permitting approach with the respective resource agencies. As the project progresses to final design, FHWA may change the NEPA class of action and require a higher level of documentation, based on level of impacts or other criteria established in FHWA's NEPA regulations.

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ANSWER. As the project progresses to final design with the selected design-builder, re-evaluations may be necessary to determine whether supplemental analysis and documentation is needed. A re-evaluation is a review conducted by FHWA of any proposed change in action, affected environment, anticipated impact, applicable requirements, or mitigation measures as they relate to the environmental document or decision. As noted above, as the project progresses to final design, FHWA may change the NEPA class of action and require a higher level of documentation, based on level of impacts or other criteria established in FHWA's NEPA regulations.

QUESTIONS TO HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD, FROM HON. JEFFERSON VAN DREW

Question 1. In your tenure as Chair of the National Transportation Safety Board, could you please explain how these protective structures such as "dolphins" and "fenders" can effectively ensure that an incident like the Francis Scott Key Bridge Incident does not occur?

ANSWER. Cell dolphins and pier fenders are intended to passively protect bridge piers from errant (off course) vessel impact damage through course redirection and energy absorption. Design guidelines for these protective structures are based on several factors, including a vessel's size and speed as well as the density of vessel traffic normally operating under a given bridge.

The NTSB has investigated numerous marine accidents in which pier fenders have limited damage from inland barge tows—and, in some cases, larger ocean-going vessels—that were off course (see Appendix: Miscellaneous Reports and Guidelines). Although we have investigated marine accidents involving inland tows and protective cell dolphins, we have not investigated any accidents involving larger ocean-going vessels striking dolphins near a bridge.

Dolphins and fenders are only two components that may be used to protect a bridge and, as such, should be considered holistically as one part of a systemwide analysis of how best to protect a pier. Many factors, such as crew/pilot navigation errors, severe weather, or loss of critical vessel systems, such as propulsion or steering, can result in a vessel impacting a bridge. Countermeasures to address these factors need to be examined, taking into consideration the effectiveness, timeliness, and practicality of their implementation.

Question 2. Would proper implementation of these protective devices have been effective if they were in place on the Franscis Scott Key Bridge?

ANSWER. The dolphins and fendering system used to protect the Francis Scott Key Bridge were designed and installed using the engineering judgement available in the late 1970s. Much has changed since that time, most notably the size (height, length, width, and weight) of cargo and cruise vessels, and the guidance used to de-

†Administrator Bhatt resigned from the Federal Highway Administration (FHWA) effective September 10, 2024. These responses are provided on behalf of FHWA.

sign and place pier-protection structures. Although a dolphin designed today may effectively counter a strike by an ocean-going cargo vessel like the Dali, there is no guarantee that the dolphin would be able to protect a bridge from all future vessels calling on Baltimore.

We are evaluating the adequacy of the Key Bridge's existing protection as part of our investigation and examining whether alternative dolphin designs could have provided better protection, given constraints such as the navigation channel width and horizontal clearance between the supporting piers.

It is critical—for the Port of Baltimore and all ports with bridges over navigable channels in the nation—to examine the issue of bridge protection using a Safe Systems approach, where all stakeholders share the responsibility of building and reinforcing multiple layers of prevention and protection. A variety of solutions must be considered to create an effective, long-term safety solution—an approach the NTSB has been promoting for decades.

Question 3. Given the expansive list of bridges in urgent need of repair nationwide, would you prioritize defensive feature installation on these projects and how can this be done in the most cost-effective manner?

ANSWER. Although there are thousands of highway bridges within the United States that could benefit from maintenance, the number of bridges over navigable waterways used by large ocean-going vessels is far fewer. However, providing physical protection for even a subset of bridges would be costly and take many years to accomplish. The vulnerability of a given bridge is based on its unique specifications, including the bridge design, location, water depth at its supports relative to the channel, and the span's width and vertical clearance. The expense and long timeframe necessary to implement such protection make it imperative to understand fully the risks that increasingly larger vessels pose to the nation's critical port and navigable waterway infrastructure. Potential countermeasures to these risk factors include crew training and decision-making; modifications to port operations, including tug escorts; enhanced reliability of vessel propulsion, steering and electrical power systems; and the use of technology to aid in ship maneuvering.

APPENDIX: MISCELLANEOUS REPORTS AND GUIDELINES

Support Pier Contacts

- 1993: *Chris*/Judge William Seeber Bridge, New Orleans, Louisiana, May 28, 1993. Report NTSB HAR–94–03.

  Towboat *Chris*, pushing the empty hopper barge DM 3021, collided with a support pier of the eastern span of the Judge William Seeber Bridge in New Orleans, Louisiana. The Judge William Seeber Bridge, known locally as the Claiborne Avenue bridge, carries Highway Route 39 over the New Orleans Inner Harbor Navigation Canal, known locally as the Industrial Canal. The impact severed bent 21, causing two approach spans (about 145 feet of bridge deck) and the two-column bent to collapse onto the barge and into the shallow waters of the canal. Two automobiles carrying three people fell with the four-lane bridge deck, resulting in one death and serious injuries to the other two people. (See Safety Recommendation M–94–12)

- 1996: *Julie N*/Portland-South Portland (Million Dollar) Bridge, Portland, Maine, September 27, 1996.

  The 560-foot-long Liberian tankship *Julie N*, carrying a cargo of heating oil, collided with the south bascule pier of the Portland-South Portland (Million Dollar) Bridge in Portland, Maine, on September 27, 1996. (See Vessel Operations Group Factual Report and Postaccident Testing for Alcohol and Other Drugs in the Marine Industry and the Ramming of the Portland-South Portland [Million Dollar] Bridge at Portland, Maine, by the Liberian Tankship *Julie N* on September 27, 1996).

- 2002: U.S. Towboat *Robert Y. Love* Allision with Interstate 40 Highway Bridge Near Webbers Falls, Oklahoma, May 26, 2002.

  Towboat *Robert Y. Love*, pushing two empty asphalt tank barges, was traveling northbound on the McClellan-Kerr Arkansas River Navigation System, near Webbers Falls, Oklahoma. As the tow approached the Interstate 40 highway bridge at mile 360.3, it veered off course and rammed a pier 201 feet west of (outside) the navigation channel. The impact collapsed a 503-foot section of the bridge, which fell into the river and onto the barges below. According to witnesses, highway traffic continued to drive into the void in the bridge created by the collapsed spans. When traffic stopped, eight passenger vehicles and three

truck tractor-semitrailer combinations had fallen into the river or onto the collapsed portions of the bridge.

- 2015: *Gayle Force*/Norfolk Southern Bridge #7, Chesapeake, Virginia, April 26, 2015.

  The starboard bow of the *Gayle Force* struck the southeast fendering dolphin and concrete piers supporting the NS#7 bridge span. The barge was making a speed of 4.4 knots when it struck the bridge. The timber dolphin was crushed and deformed, and the piers shifted laterally 15 inches toward the north.

Fender Contacts—Protected/Probably Protected

- 2007: Allision of Hong Kong-Registered Containership M/V *Cosco Busan* with the Delta Tower of the San Francisco-Oakland Bay Bridge San Francisco, California November 7, 2007.

  Containership M/V *Cosco Busan* impacted the fendering system at the base of the Delta tower of the San Francisco-Oakland Bay Bridge.

- 2016: Allision of *Kodiak* Tow with North Landing Bridge.

  Tugboat *Kodiak* impacted the North Landing Bridge at mile marker 20.2 in Chesapeake, Virginia. Just before the allision, the tow had run over a mooring dolphin located on the north side of the river 750 yards from the bridge.

- 2019: Contact of Tanker *Dank Silver* with Sunshine Bridge.

  Bulk liquid cargo vessel *Dank Silver* was transiting downbound on the Mississippi River, near Donaldsonville, Louisiana, when it struck the fender of the western pier to the main (channel) span of the Sunshine Bridge.

Dolphins/Protection Cells

- 2002: U.S. Towboat *Robert Y. Love* Allision with Interstate 40 Highway Bridge Near Webbers Falls, Oklahoma.

  Although the Oklahoma Department of Transportation installed pier protection cells inside the navigation channel, the I–40 bridge accident occurred outside the navigation channel. Such occurrences demonstrate that most bridges over navigable water can be struck either within or outside the regular navigation channel by barge tows and individual commercial vessels, thus increasing the complexity of bridge protection.

- 2019: Barge Breakaway and Contact with Interstate 10 Bridge.

  The protective cell dolphins absorbed most of the barge's momentum. Damage to the western cell just outside the channel consisted of crushed and splintered wooden fendering, a collapsed cap, and fractured concrete exterior on the northeast side that caused the cell to crumple and fold inward. Erosion from floodwaters removed the interior dirt that helped anchor the protective cell and provide absorbing energy from impacts. Damage to the eastern cell closest to the channel consisted of crushed and splintered wooden fendering and exterior fractures on the northwest side, including an inward-collapsed concrete bulkhead. The entire cell also shifted from the impact, and erosion occurred around the base.

- 2019: Contact of *Dewey R* Tow with CSX Railroad Bridge Protection Cell.

  As the *Dewey R* neared the bridge, a freight train carrying vehicles passed over the CSX Railroad Bridge, and the pilot stated that the shiny surfaces on the sides of the train cars and vehicles reflected the light from his spotlights and created a visual distraction. At 0123, the bow of the lead barge ATC 3404 struck the protection cell on the south side of the bridge at a speed of 5.75 mph. The southern protection cell was displaced over 4 feet in the direction of the pier. An engineering firm determined the protection cell to be extensively damaged with a fractured sheet pile that split open and exposed the concrete within the cell. Also, several pieces of its fendering system had been dislodged and were no longer in place. The south corner of the bridge's concrete pier was also damaged, with an approximate 12-square-foot shallow concrete spall adjacent to the displaced protection cell, buckled vertical posts, and damaged fenders.

- 2020: Contact of *William C* Tow with Rock Island Railroad Bridge Protection Cell.

  Once the vessel had passed through the bridge, there were only about 1,200 feet for the pilot to maneuver the approximately 662-foot-long tow back to the center of the channel before reaching the Rock Island Railroad Bridge protection cell near the left descending bank. The pilot attempted to move the tow to star-

board, but, since the following current was pushing against the tow, it continued toward the left descending bank. When the pilot determined there was not enough time to move the vessel to avoid striking the bridge, he reversed both engines to slow the vessel, which reduced the force of the impact but did not prevent the barges from hitting the bridge's protection cell.

Other

AASHTO Guide Specification and Commentary for Vessel Collision Design of Highway Bridges 2009 (2nd Edition)

- Fenders
  - p. 97, C7.3.1: "In general, fender systems are adequate to absorb the collision energy and loads associated with medium to small vessels at low impact speeds and at oblique angles. For larger vessels and higher impact speeds, other types of protection are usually required. Exceptions occur for those bridges with very massive pier structures and high shear and overturning resistance."
- Piles
  - p. 104, C7.3.2: "[Piles] are designed to elastically resist the mooring and berthing forces imparted by merchant vessels. In contrast to mooring operations in which the relatively low impact energies can be absorbed elastically by piles, the far greater energies associated with ship collision can usually only be absorbed by plastic deformation and crushing of the pile structure."
- Dolphins
  - p. 114, C7.3.3: "The circular shape of the dolphins can help deflect aberrant vessels away from the pier. The cell should, however, be designed for the maximum loading case of a head-on impact. If the dolphin is stronger than the vessel, then the vessel will absorb most of the impact energy through the crushing of its bow. If the dolphin is weaker than the vessel, then the dolphin absorbs most of the energy by large translational (sliding) and rotational deformations."
    - Outerbridge Crossing, Perth, Australia (p. 118)
      - 1979: "A loaded 45,000-DWT tanker struck Cell No. 4 head-on in front of main pier 'D' at an estimated collision speed of 2.5 knots. The collision took place during dense fog conditions and while the vessel was proceeding upstream under a two-tug escort. Only the center dolphin was hit during the impact, and the ship continued forward 50 ft before it was dragged to a stop. The ship suffered only minor damage to its bow. An inspection after the accident revealed that the steel sheet piling of Dolphin No. 4 had burst open, spilling out sand, and that the piling on the ship impact side had been pulled out. The remaining pilings of the cell were bent over at the river bottom. The 45-ft diameter by 5-ft thick concrete cap was found completely intact but displaced 50 ft due to the collision."
      - 1987: "The dolphin protection of the same main pier of the Outerbridge Crossing was again tested when a 48,000-tanker collided with and destroyed Cell No. 5. The cell was 45 ft in diameter and similar to Cell No. 4 described above."
    - Sunshine Skyway Bridge, Tampa Bay, Florida (p. 119–120)
      - "The Sunshine Skyway Bridge pier protection system developed by Greiner, Inc. for the Florida Department of Transportation utilizes a combination of dolphin and island protection. The main piers are protected by islands whereas the five approach piers on each side of the main piers are protected by a dolphin system. The use of dolphins to protect the high-level approach piers was a result of the risk analysis which indicated that the high-level approach piers were vulnerable to a catastrophic vessel collision. The 60-ft diameter cells were designed to withstand a collision from either a loaded 23,000-DWT or an empty 87,300-DWT bulk carrier; the 54 ft-4 in. diameter dolphins from impacts with a loaded 25,000-DWT barge, or an empty 70,000-DWT vessel; and the 47-foot diameter cells to withstand impacts from a loaded 15,000-DWT barge or an empty 35,000-DWT ship. All design impact speeds were 10 knots."
- Island Protection
  - p. 126, C7.3.4: "The construction of protective islands around vulnerable bridge piers is considered by most investigators to provide the highest level of ship collision protection. The islands typically consist of a sand or rock core

which is protected by outer layers of heavy rock armor to provide protection for the island against waves and currents."

FHWA Technical Advisory: Pier Protection and Warning Systems for Bridges Subject to Ship Collisions (1983)

"Because of the tremendous momentum achieved by modern ocean-going vessels even while traveling at low speeds in inland channels, it may be extremely difficult to retrofit some existing bridge piers with protective systems which can successfully withstand the anticipated impact loadings. For this reason, it becomes particularly important to recognize the potential hazards from ship collisions and to locate and design piers on new bridges in such a way that the risks of collision are reduced to an acceptable level."

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