

## Vulnerability assessment could have prevented Dali bridge collapse

NTSB publishes urgent recommendations to bridge owners ahead of releasing further information on Dali and safety risks around large vessels.

[Barry Parker](#), New York Correspondent

March 27, 2025



Image: NTSB

One year after the tragedy in Baltimore, Maryland, where the containership *Dali* stuck the Francis Scott Key Bridge, causing the deaths of construction workers on the bridge as it collapsed, the [US](#) National Transportation Safety Board (NTSB) has issued a series of urgent recommendations.

While the final report on the causes of the accident itself has not been issued, a news conference by the NTSB—timed to coincide with the one year anniversary of the tragedy—focused on spans crossing waterways. Aimed at multiple owners of bridges, the Federal Highway Administration (FHA), the U.S. Army Corps of Engineers (USACE), and the [U.S Coast Guard \(USCG\)](#).

Four urgent recommendations were offered by NTSB Chair, Jennifer Homendy, to owners of 68 crossings in harbours along the US East, West, and Gulf coastlines and in the Great Lakes, to perform assessments of vulnerability and risks of catastrophic collapse from a vessel strike. The recommendations include an assessment of whether the bridge owners need “to implement counter-measures to reduce vulnerability” to a collapse, and, “if warranted, to implement a comprehensive risk reduction plan.” The plans would include short- and long-term strategies to reduce the probability of a bridge collapse from a vessel strike. In Homendy’s speech, she urged the USACE, USCG and FHA to assist the bridge owners in their evaluations.

**Related:** [MAIB calls for stevedore safety improvements after three die on bulker](#)

As part of its efforts during the *Dali* fact-finding, NTSB carried out an evaluation of the Key Bridge using methodologies developed following an incident in Tampa, Florida in the 1980 and using data that the State of Maryland was unable to provide but gathered by the NTSB. Homendy pointed to

recommendations in the 1990s, and in the early 2000's by the American Association of State Highway and Transportation Officials (AASHTO) that owners of bridges over navigable waterways look at vulnerabilities. She highlighted that agencies in Maryland never ran these calculations for the Key Bridge.

"Had [the Maryland agency] run those calculations, they would have been aware that the bridge was almost 30x greater than the risk threshold...for critical essential bridges," Homendy said, adding that the measurement for the bridge piers that were struck measured 15 x greater vulnerability than threshold measurements. The collapse could have been prevented if the Maryland agency had taken action, she said.

One aspect of bridge assessment concerns the vessels travel underneath them. In her remarks, Homendy stressed that "things have changed over time" concerning vessel sizes, noting that vessels can carry 24,000 teu, compared to less than 1,000 in the 1950s. She also noted that the 2016 opening of the widened [Panama Canal](#) brought about an increase in the sizes of vessels calling at East Coast ports like Baltimore. Prior to the widening, vessels above 5,500 teu generally would not have been able to transit the Canal. *Dali* is described as having 9,971 teu capacity; in 2023, a 15,000+ teu vessel, Evergreen Ever Max, called at Baltimore's Seagirt Terminal.

**Related:** [Solong Captain charged in court over fatal collision](#)

In the coming weeks, the NTSB will be releasing information relevant to the actual events of the early morning March 26, 2024, including a report on the safety risks surrounding increased sizes of vessels. Shortly thereafter, the voyage data recorder audio transcripts will be released. The NTSB is still finalising engineering and nautical operations data. The release date for the final report, which will include the analysis of what actually happened, will be during autumn, 2025.