



March 26, 2024

Baltimore Bridge Collapse: Frequently Asked Questions (FAQ)

At about 1:30 a.m. on March 26, 2024, the MV *Dali*, a container ship departing the Port of Baltimore, struck a support tower of the Francis Scott Key Bridge in Baltimore, MD, causing the bridge to collapse into the Patapsco River. The bridge is a segment of Interstate 695—Baltimore’s beltway—and spans over the Patapsco shipping channel into the harbor.

A pothole repair crew was on the bridge at the time of the collision. There were 22 crew members aboard the ship, but none sustained death or injury. Seven submerged vehicles have been identified thus far, but more are possible. There have been no reports of oil spills from the ship.

Who Is Conducting Search and Rescue Operations?

As of the afternoon of March 26, 2024, a search and rescue operation is underway for people who were traveling over and working on the bridge when it collapsed. The U.S. Coast Guard is the primary federal agency that conducts maritime search and rescue operations; it does so in conjunction with state and local authorities. A key federal official in charge is the local Coast Guard Captain of the Port for Maryland-National Capital Region.

Who Owns and Controls the Ship?

The *Dali* is being chartered (leased) by Maersk, a Danish shipping firm that provides container shipping services worldwide in addition to other types of shipping. The ship is managed by the Synergy Group and owned by Grace Ocean Private Ltd., both based in Singapore. The ship’s crew are from India. It is flagged and homeported in Singapore and was “classed” (meaning certified as meeting construction and maintenance standards) by a Japanese firm, Nippon Kaiji Kyokai (Class NK). The multitude of nationalities involved in operating and administering the ship is typical of the industry.

The ship was built in 2015 by Hyundai Heavy Industries in South Korea (IMO identification number 9697428). It is almost 950 feet in length and about 160 feet in breadth with a capacity to carry 10,000 TEUs of containers (a TEU is a 20-foot container). It could be considered an average-sized container ship today but would be considered a large ship compared with the fleet in the late 1970s when the bridge was built. The ship had sailed from Asia through the Panama Canal and had called at Norfolk and New York before its Baltimore port call. When it struck the bridge, the ship was departing Baltimore for Sri Lanka.

How Do Ships Navigate Through Harbors?

A preliminary report stated that the ship lost power twice as it was approaching the bridge, meaning the ship may have

lost engine power. Reportedly, two Baltimore harbor pilots were aboard the ship; harbor pilots navigate ships in and out of harbors because they have expertise with local navigation conditions. Even when harbor pilots are at the helm, the captain of the ship and the shipping line (Maersk) remain responsible for the safety of the vessel. Tugs typically assist in moving ships into and out of their berths (docking and undocking), and some tugs escort ships through harbors as an emergency safety measure. Reportedly, this ship released the tugs before reaching the bridge as is normal in the harbor.

How Will Port Traffic Be Affected?

The Port of Baltimore was the 17th busiest port by total tonnage in the United States in 2021, the most recent year for which data are available. It was the 10th busiest by dry bulk tonnage and the 15th busiest container port in TEUs. According to the Maryland Port Administration, the port ranks first among the nation’s ports for autos and light truck volume, roll on/roll off farm and construction machinery, and imported gypsum. It is also responsible for nearly \$3.3 billion in personal wages and salaries, \$2.6 billion in business revenue, and nearly \$400 million in state and local tax revenue annually.

Containers currently at the port awaiting export could be moved to other ports by truck or rail; one of the Port of Baltimore’s two container terminals is served by on-dock rail access. Dry bulk—such as coal, the largest commodity by volume handled by the port—and roll on/roll off may be more difficult to move through other ports, as specialized facilities are needed for loading and unloading. The closest large ports to Baltimore are Wilmington, DE, Philadelphia, PA, and Camden, NJ, all of which may be accessed via the Chesapeake and Delaware Canal provided the vessels have a shallow enough draft. Another nearby port, not draft restricted, is the port of Norfolk near the entrance to Chesapeake Bay.

Currently, commercial vessels are unable to enter or exit the Port of Baltimore. Also, the U.S. Coast Guard shipyard at Hawkins Point is upriver from the bridge, and six vessels of the U.S. Department of Transportation’s Ready Reserve Force (available to provide surge sealift capacity to the Department of Defense, if needed) were berthed in Baltimore as of January 2024 and presumably are currently unable to exit the port.

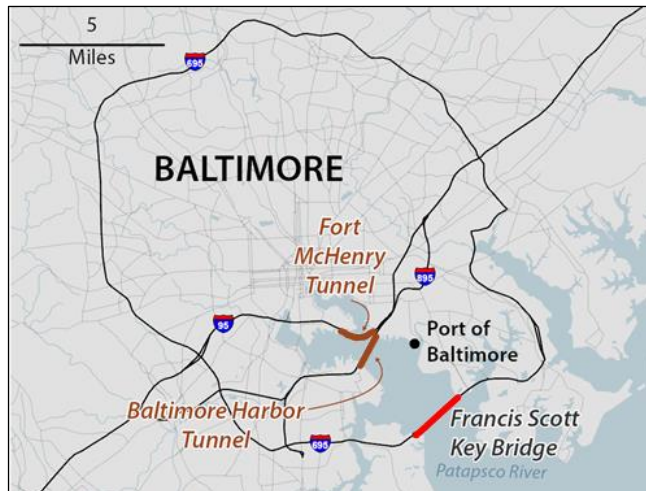
How Much Traffic Did the Key Bridge Handle?

The Key Bridge first opened to traffic in 1977, spanning the Patapsco River connecting Interstate 695 on the southeastern side of Baltimore (see **Figure 1**). It had annual average daily traffic of 33,195 vehicles in 2022 and an

annual average weekday traffic of 38,014 vehicles. It was less heavily used than the Fort McHenry and Baltimore Harbor Tunnels running under the Patapsco River further north. While part of the Interstate Highway System, it is not part of the federally designated Primary Highway Freight System.

Highway traffic could be rerouted through the Baltimore Harbor or Fort McHenry Tunnels or on Interstate 695 to the north of Baltimore City. Some larger vehicles, including all double-trailers, and most shipments of hazardous materials are not permitted in the tunnels, and trucks are not allowed through the Baltimore Harbor tunnel. See **Figure 1** for a map of transportation facilities around Baltimore.

Figure 1. Map of Baltimore Transportation Facilities



Source: Created by CRS using data from the U.S. Census Bureau and ESRI.

Notes: The Fort McHenry Tunnel and Baltimore Harbor Tunnel are marked in brown on the map, and the location of the Key Bridge is marked in red. The Key Bridge location is in line with the southeastern edge of Interstate 695.

Has Anything Like This Happened Before?

In May 1980, the bulk freighter MV *Summit Venture* struck a support column of the Sunshine Skyway Bridge in

Tampa, FL, causing a large portion of the bridge span to collapse and resulting in 35 fatalities. Federal investigators concluded that the probable cause of the collision was unexpectedly sudden and severe weather. Because only one of two parallel spans collapsed, traffic could resume at reduced capacity on the remaining span until a replacement bridge was completed in 1987. Other bridges have collapsed leading to disruptions in maritime and highway transportation as well.

What Actions Can the Federal Government Take?

The U.S. Coast Guard shares responsibilities with the National Transportation Safety Board (NTSB) to investigate major safety incidents. Under the NTSB's governing statutes and regulations, the agency shall investigate any "major marine casualty," defined as one that results in the loss of six or more lives, the loss of a vessel larger than 100 gross tons, property damage initially estimated as at least \$0.5 million, or a release of hazardous materials deemed to be a serious threat. The U.S. Coast Guard is directed to conduct a preliminary investigation to determine whether a major marine casualty event has occurred and notify the NTSB accordingly. The NTSB report for the Florida Skyway Bridge Collapse was published 11 months after the incident occurred, and the collapse of the Fern Hollow Bridge near Pittsburgh in 2022 took two years for the agency to fully investigate.

In other bridge collapses, such as the 2007 I-35 collapse in Minneapolis, state and federal highway departments led the removal and cleanup from the federal navigation channel. The U.S. Army Corps of Engineers is prepared to provide survey capabilities and has some local debris removal capabilities, as well as contract capability if requested and needed.

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