

Log M-413A

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## National Transportation Safety Board

Washington, D.C. 20594

### Safety Recommendation

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**Date:** February 6, 1998

**In reply refer to:** M-98-5 and -6

Lieutenant General Joe N. Ballard  
Commanding General  
U.S. Army Corps of Engineers  
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Washington, D.C. 20314-1000

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Shortly after 1400 on December 14, 1996, the fully loaded Liberian bulk carrier *Bright Field* temporarily lost propulsion power as the vessel was navigating outbound in the Lower Mississippi River at New Orleans, Louisiana. The vessel struck a wharf adjacent to a populated commercial area that included a shopping mall, a condominium parking garage, and a hotel. No fatalities resulted from the accident, and no one aboard the *Bright Field* was injured; however, 4 serious injuries and 58 minor injuries were sustained during evacuations of shore facilities, a gaming vessel, and an excursion vessel located near the impact area. Total property damages to the *Bright Field* and to shoreside facilities were estimated at about \$20 million.<sup>1</sup>

This accident demonstrates that the many and diverse stakeholders in the area of the Port of New Orleans, including the Coast Guard, the State of Louisiana, the Board of Commissioners of the Port of New Orleans (the "Dock Board"), the pilot organizations, and the owners and operators of riverfront properties and nearby moored passenger ships, did not adequately prepare for or mitigate the risk of a marine casualty affecting people and property within the Port of New Orleans. Some of the stakeholders, most notably the Dock Board, had commissioned partial risk assessment studies at various times for the assets in the harbor area. Despite their limitations (in either geography or scope), these studies did provide adequate information for the stakeholders to recognize the possibility of an accident similar to the one involving the *Bright Field*.

For example, risk assessment projects predicted an increase in accidents involving collisions, rammings, and groundings due to increased river traffic. The Louisiana State University risk assessment project, in 1994, concluded that no sections of the Port of New Orleans waterfront were free of ship allisions, including the area where the high-capacity passenger vessels, gaming vessels, and riverfront properties were located. Analysis of accident

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<sup>1</sup>For more detailed information, read Marine Accident Report—*Allision of the Liberian Freighter Bright Field with the Poydras Street Wharf, Riverwalk Marketplace, and New Orleans Hilton Hotel in New Orleans, Louisiana, December 14, 1996.* (NTSB/MAR-98/01).

data for the Port of New Orleans from 1983 through 1993 (a total of 166 rammings along the left descending bank between miles 91 and 101 AHP) identified a mooring area for gaming vessels that had seen the fewest "historical allisions on the left bank." The study acknowledged, however, that no area of the left descending bank of the river had been completely free of vessel strikes during the 11-year period studied.

Despite this history of sensitivity to risk within the port area, the Riverwalk complex, including the condominium garage and the Hilton Hotel Riverside, were constructed on old warehouse piers on the river side of the levee. This location offered no "crush zone" that could absorb the impact of a marine ramming, and despite the fact that the piers themselves were not built to withstand being struck by a heavy vessel, no physical barriers were constructed outboard of the new buildings to offer them protection.

In contrast, the 1987 Audubon Institute-sponsored risk assessment similarly determined that there had been few allisions at the Bienville Street wharf and that because it is high up in the bend, it faced low risk of being struck by an outbound vessel. Nonetheless, recognizing low incidence, but a potential for high consequences, the Audubon Institute placed the Aquarium of the Americas behind the levee with a 100-foot buffer zone to protect the shoreside structure. No similar safety feature was considered or constructed for the Hilton Hotel or the Riverwalk Marketplace.

International RiverCenter (IRC) obtained construction permits for the riverside expansion of the hotel from the city of New Orleans, the Corps of Engineers, and the New Orleans Levee Board. In addition, the construction plans were approved by the Dock Board. According to the Dock Board, it may make recommendations to the IRC or other stakeholders in the area to widen the wharf, to allow silt to accumulate, or to further increase the robustness of construction in the area immediately outbound of their structures; however, it has no authority to compel such action. Currently, the damaged portions of the Riverwalk Marketplace mall, the parking deck, and the Hilton Hotel are being rebuilt in the same location. No physical barriers have been included in the rebuilding of these facilities. As with the initial construction, all permits were granted, and all plans were approved.

Furthermore, several passenger vessels, including gaming, tour and cruise vessels, were allowed to dock along the left descending bank, the side of the river at highest risk. Had the *Bright Field* lost power some time later and the same accident scenario evolved, the ship would likely have rammed the gambling vessel, resulting in substantial loss of life. The cruise vessels, which had even less warning time, would quite likely also have sustained serious passenger injuries or loss of life.

While silting around the vessels' docking areas may offer some protection from ramming by deep-draft vessels at average river stages, the silt layer did not reduce water depth sufficiently to retard a runaway ship when the river was high, as it was on the day of the *Bright Field* accident. Additionally, no tugboats were used either as escorts or as a "barrier" to prevent a runaway ship from ramming the shore or colliding with another marine asset. And no environmental controls, such as the Corps of Engineers' opening of the Bonnet Carré Spillway, were put in place to reduce river flow or current.

High-river conditions are repeatedly cited as cause for concern. For example, various port risk assessments cite local experts, in interviews and in response to questionnaires, clearly expressing that high river stage is an important factor in river casualties. This opinion is strongly supported by available data. Eleven years of casualty data from the Port of New Orleans and the Coast Guard clearly show a seasonal trend to river casualties. The high-water months of February, March, April, and May experience two to three times the casualties that occur during the low-water months of July through October.

Prior to the *Bright Field* accident, the Bonnet Carré Spillway had only been opened seven times to alleviate high-water conditions, apparently because of the cumbersome and lengthy tasks necessary to do so. Nonetheless, the risks associated with high water and rapid current were considered "unusual" enough that in March 1997, the spillway was opened for the eighth time. The Port of New Orleans, the Coast Guard, and the Corps of Engineers might consider more aggressive use of the Bonnet Carré Spillway to alleviate these high-water conditions and to deal with the safety issues created by them. Further, if the major impediment to opening the spillway is the time and effort it takes to do so, it may be appropriate for the Corps of Engineers to consider ways to make the spillway more usable and to employ it for risk mitigation as well as for flood control.

The property owners and other stakeholders within the Port of New Orleans clearly had the responsibility to establish and maintain a reasonable level of safety in the port area. The Safety Board concluded, however, that the stakeholders within the Port of New Orleans, including Federal, State, and local agencies; private commercial entities; shipowners, and pilot associations have not determined the overall level of risk associated with the full range of activities within the port area and have not provided adequate protection for persons and property in that area.

The National Transportation therefore makes the following safety recommendations to the U.S. Army Corps of Engineers:

Participate with the U.S. Coast Guard and other stakeholders in a comprehensive risk assessment that considers all activities, marine and shoreside, within the Port of New Orleans. (M-98-5)

In cooperation with the U.S. Coast Guard and other stakeholders, including Federal, State, and local agencies; private commercial entities; shipowners; and pilot associations, implement risk-management and risk-mitigation initiatives that will ensure the safety of people and property within the Port of New Orleans. (M-98-6)

Also, the Safety Board issued Safety Recommendations M-98-1 through -4 to the U.S. Coast Guard; M-98-7 and -8 to the State of Louisiana; M-98-9 through -12 to the Board of Commissioners of the Port of New Orleans; M-98-13 through -15 to International RiverCenter; M-98-16 through -18 to Clearsky Shipping Company; M-98-19 through -23 to New Orleans Paddlewheels, Inc.; M-98-24 through -26 to the New Orleans Baton Rouge Steamship Pilots

Association; M-98-27 and -28 to the Crescent River Port Pilots Association; and M-98-29 and -30 to Associated Federal Pilots and Docking Masters of Louisiana, Inc.

Please refer to Safety Recommendations M-98-5 and -6 in your reply. If you need additional information, you may call (202) 314-6450.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in these recommendations.

By:  Jim Hall  
Chairman