



# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

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**Date:** February 6, 1998

**In reply refer to:** M-98-29 and -30

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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 collisions, including the area where the high-capacity

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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).

passenger vessels, gaming vessels, and riverfront properties were located. Analysis of accident 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.

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. 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 that the Coast Guard, the Dock Board, and the property owners did not adequately address the risks posed to moored vessels along the Erato, Julia, Poydras, and Canal Street wharves; as a result, under certain conditions, those vessels were vulnerable to ramming by other marine traffic.

The Coast Guard has overall responsibility for maintaining public safety in the Port of New Orleans area. Under the *Ports and Waterways Safety Act of 1972*, the Congress charged the Coast Guard with monitoring and managing risk in all U.S. ports and taking actions to maintain risk at an acceptable level. In carrying out this role, the Coast Guard must assess and manage the risk that is inherent in all commercial activities within U.S. ports. In fact, in its *1996 Performance Report*, the Coast Guard's Office of Marine Safety and Environmental Protection asserts that managing risk is its primary mission. The Safety Board concurs with this assessment and notes that the Coast Guard has the authority, the responsibility, and the experience to direct a comprehensive assessment of risk in the Port of New Orleans.

Among the factors that must be considered are risks associated with relatively high-speed navigation of the river, high river stage and rapid river current, railroad and highway bridges spanning the waterway, and the carriage of cargoes such as bulk oil or other hazardous materials or chemicals that can cause pollution, fire, or explosion. The Safety Board notes that many of the risk factors associated with river commerce within the port area have already been identified in previous risk-assessment studies and, further, that these factors may be amenable to known risk-reduction or risk-mitigation initiatives. Such initiatives might include reducing vessel speed, opening the Bonnet Carré Spillway on a more regular basis, using tugboats either as escorts or as a "barrier" to protect marine assets, adequately assessing the protection afforded by silting-in of vulnerable areas, and moving the passenger vessels to a safer location.

At the time the vessel lost propulsion, the *Bright Field* was operating at full speed in high-river and high-current conditions. In his testimony, the pilot claimed that it was necessary to operate the *Bright Field* at maximum speed to attain reasonable maneuverability of the vessel in the operating environment of high water, rapid current, and a heavily laden ship designed to be maneuverable at lower speeds.

Several days after the accident, Safety Board investigators boarded a fully loaded vessel of similar size, displacement, and power to the *Bright Field* that was operating downbound in similar high water conditions. During this transit, the pilot did not use full speed to maneuver the ship. Each ship handles differently, but the operation of the *Bright Field* at full speed left no margin for error. For example, the main engine tripped off line because of a temporary loss of lubricating oil pressure. The oil pressure and engine operation were restored within about 2 minutes, which is a reasonable amount of time. However, operating at full speed in high-river conditions, the ship had no room to maneuver out of the emergency. The Safety Board concluded that operating a vessel at full speed in the restricted waters of the Mississippi River may not allow sufficient time or distance to recover from an emergency. The Safety Board is recommending that the Coast Guard take the lead in working with the pilot associations serving the Port of New Orleans to evaluate the impact of operating vessels at full speed in the Mississippi River and incorporate that information in its risk-management and risk-reduction strategies for the port area.

No practical physical barrier aboard ship exists that will safely stop a runaway vessel. In such an emergency, a safe outcome depends on the successful interaction of several physical and operational factors. For example, if main engine power is lost, adequate steering can usually be maintained until the ship slows enough for the anchors to be dropped. If a vessel loses its steering, engine power can be used to either slow the vessel (astern power) or, if it is a twin-screw vessel, to maneuver the ship.

Anchors are perceived as providing some level of protection by serving as "brakes" that will stop or at least slow a ship. But anchors are neither designed nor adequate for stopping a heavily loaded ship traveling at high speed. Had the *Bright Field's* anchors been released, the anchor chain would quite likely have payed out at a speed that could not be controlled by the windlass brake, and the chain would simply have continued to run out until it parted from the ship. In this accident, the dropping of the anchor and paying out of chain could not have been expected to significantly slow, let alone stop, the ship.

Since this accident, the Coast Guard has placed renewed emphasis on having anchors at the ready (backed out of the hawsepipe, disengaged from the windlass, and being held by the brake), with a two-person forecastle watch. While having the anchors manned and at the ready may prove beneficial in certain circumstances, it is unlikely to achieve anything meaningful aboard a heavy vessel operating at relatively high speeds in the Mississippi River. Further, "increased emphasis" on having the anchors at the ready may even provide a false sense of security without effectively addressing the dangers inherent in operating heavy vessels at high speed in proximity to shoreside businesses and other marine traffic.

As a result of its investigation of the *Bright Field* accident, the National Transportation Safety Board makes the following safety recommendations to the Associated Federal Pilots and Docking Masters of Louisiana, Inc.:

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-98-29)

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-98-30)

Also, the Safety Board issued Safety Recommendations M-98-1 through -4 to the U.S. Coast Guard; M-98-5 and -6 to the U.S. Army Corps of Engineers; 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; and M-98-27 and -28 to the Crescent River Port Pilots Association.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter. Please refer to Safety Recommendations M-98-29 and -30 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