

SP-20
Log M-267

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: February 20, 1985

Forwarded to:

Admiral James S. Gracey
Commandant
U.S. Coast Guard
Washington, D.C. 20593

SAFETY RECOMMENDATION(S)

M-85-14 through -17

At 1908 central standard time, on November 23, 1983, the Panamanian-flag M/V AMPARO PAOLA, southbound in the New Orleans, Louisiana, Inner Harbor Navigation Canal, struck the Danziger Bridge on Chef Menteur Highway while maneuvering through the open bridge. Though there were no serious injuries, the AMPARO PAOLA sustained \$50,000 damage; the Danziger Bridge sustained \$750,000 damage and was out of service to vehicular traffic until February 7, 1984. 1/

At 1835, on November 23, 1983, a Crescent River Pilot boarded the AMPARO PAOLA at the Ideal Cement Company docks in the Inner Harbor Navigation Canal, New Orleans, Louisiana, to pilot the vessel through the canal and the Mississippi River - Gulf Outlet to the Gulf of Mexico. The 446-foot, 9,299-gross-ton AMPARO PAOLA has crew accommodations and the navigation bridge combined in a deckhouse at the stern. The navigation bridge wheelhouse extends the full width of the hull. The vessel was in light (unloaded) condition at drafts of 12 feet 01 inch forward and 16 feet 01 inch aft and on even keel when it left its berth.

About 1840, the pilot notified the Danziger Bridge bridgetender by radiotelephone that the AMPARO PAOLA was getting underway and requested that the bridge be opened for vessel transit. The bridgetender reported that the bridge was open.

At 1855, the AMPARO PAOLA's mooring lines were cast off, and the pilot maneuvered the vessel into the canal. A harbor tug, the ALMA S, was used to assist the AMPARO PAOLA from its berth. The tug was then released and it followed the AMPARO PAOLA outbound, about 250 feet astern. Neither the pilot nor the master of the AMPARO PAOLA considered it necessary to keep the tug secured outbound because of the AMPARO PAOLA's good maneuverability which was due to its twin controllable pitch propellers, twin rudders, and a bow thruster.

1/ For more detailed information, read Marine Accident Report--"Collision of the Panamanian Cement Carrier M/V AMPARO PAOLA with the Danziger Bridge, Inner Harbor Navigation Canal, New Orleans, Louisiana, November 23, 1983" (NTSB/MAR-85/01).

The navigation of the AMPARO PAOLA was routine as the vessel proceeded toward the Danziger Bridge. The pilot was at the portside of the wheelhouse, directing the vessel's movements; the master was tending the helm and operating the main engine console; and the third mate was at the starboard side of the wheelhouse, serving as a lookout. The chief mate was on the bow supervising the anchor detail. The vessel's anchors were ready for immediate use. A weather report showed that there was a light drizzle, the visibility was 7 miles, and the wind was from 290° true at 11 knots. The pilot stated that the night was clear and dark, with the winds at 6 to 9 knots, blowing on the starboard side of the vessel.

While approaching the Danziger Bridge opening, the pilot used the main engines at dead slow and slow-ahead speeds to align the vessel with the bridge opening. The pilot estimated the vessel's speed over the ground between 2 and 3 knots, and that there was 1 to 2 knots of following current in the canal. The master estimated the current at not more than 3 knots, but he thought it was stronger at the bridge because the bridge opening acted as a funnel. Since there was no visual navigation range, the pilot used the fender facing on the bridge's east side as a reference to check vessel alignment with the bridge opening. The pilot stated that there appeared to be adequate clearance between the vessel's side and the bridge's east side fender as the vessel approached the bridge opening.

Immediately, the bow of the AMPARO PAOLA entered the Danziger Bridge opening, it struck the east side fender and the vessel then ricocheted to the right, according to the pilot. The pilot attempted to correct the vessel's alignment in the bridge opening by using the bowthruster and the rudders, but the maneuver did not keep the vessel's stern from closing with the bridge's west side fender, and at 1908, the starboard corner of the wheelhouse struck the raised west span leaf.

The Danziger bridgetender had adequate notice that the outbound AMPARO PAOLA would be transiting through the bridge, and there was sufficient time to open fully the bridge. The bridgetender stated that she was able to see the AMPARO PAOLA clearly through the bridge's controlhouse windows. She said that the vessel did not appear to be in midchannel but rather headed toward the controlhouse. The bridgetender stated that the bridge control console switch panel was working normally, according to the indicator lights on the panel, and that both bridge span leaves were in the full open position as the AMPARO PAOLA approached the bridge. She said that the navigation lights, one on each bridge span leaf, were visible, indicating that the bridge was fully opened.

The bridgetender testified that as the AMPARO PAOLA was passing through the bridge opening the vessel struck the bridge's raised west span leaf, and that the impact caused the bridge controlhouse to shake. According to the bridgetender, the collision occurred at 7:13 p.m. (1913).

About 1930, the bridgetender broadcast on marine radio channel 13 that the bridge was closed to marine and highway traffic. Later, vessels were allowed to transit the canal. Repairs to the bridge were completed on February 7, 1984, and the bridge was reopened to vehicular traffic.

The Danziger Bridge is a double-leaf bascule bridge. Bridge plans prepared by the State of Louisiana, Department of Highways, show the bridge as having a horizontal clearance between fenders of 90 feet and a raised open span leaf clearance of 95.6 feet. Two nautical charts, issued by the National Oceanic and Atmosphere Administration, National Ocean Survey, and publications issued by U.S. Coast Guard show the bridge as having a horizontal clearance of 100 feet. A Federal permit was not required for the bridge when it was built in 1932 and none has been issued since.

Several inspections, surveys, and measurements were made of the Danziger Bridge after the accident. It was concluded that a portion of the west side tip of the span leaf did extend into the channel beyond the fenderline at the time of the accident. The Eighth Coast Guard District, Local Notice to Mariners No. 8-84 of February 22, 1984, published after the Danziger Bridge was reopened, showed that the Danziger Bridge provides 90 feet horizontal clearance between fenders, but that the west bascule span extends 18 inches into the channel when the bridge is raised fully.

As a result of its investigation, the National Transportation Safety Board recommends that the U.S. Coast Guard:

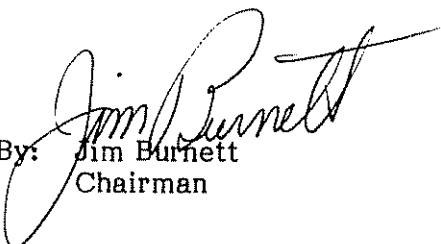
Require bridge owners to conduct a one-time survey of each bascule bridge over the navigable waters of the United States to determine its actual open span clearance and the extent of any intrusion on the published horizontal clearance of the span, and initiate revision of nautical publications and nautical charts as necessary so that the published horizontal clearances correctly reflect the actual clearances. (Class III, Longer-Term Action) (M-85-14)

Require bridge owners to verify periodically the accuracy of the setting of the controls of the navigation lights which indicate to transiting vessels that bridge spans are fully opened. (Class II, Priority Action) (M-85-15)

Require bridge owners to verify periodically the accuracy of the setting of the controls of indicating devices installed at bridge control stations to show bridgetenders that a bridge is fully opened for vessel transit. (Class II, Priority Action) (M-85-16)

Require bridge owners to determine by post-construction measurements that protective fender systems adequately protect bascule bridge structures from damage by vessel superstructures. (Class II, Priority Action) (M-85-17)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in these recommendations.

By: 
Chairman