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National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: May 23, 1986
In reply refer to: M-86-37

Honorable Mark Fowler
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

About 0324 on October 31, 1984, as the 660-foot-long United States-registered chemical tankship PUERTO RICAN was preparing to disembark a pilot about 8 miles west of the Golden Gate Bridge, San Francisco, California, an explosion occurred in the vicinity of the vessel's center void space No. 6. The main deck over the void and adjacent wing tanks was lifted up, blown forward, and landed inverted over center cargo tank Nos. 4 and 5 and their adjacent wing tanks. An intense fire erupted and burned out of control for several hours. A few hours after the explosion, the vessel was towed farther offshore in an effort to avoid polluting the coastline if the vessel sank. Several days later the vessel broke in two while in heavy seas, and the stern section sank. The bow section remained afloat and was later towed to a shipyard. The pilot and one crewmember were injured, and one crewmember is missing and presumed dead. The PUERTO RICAN was valued at $35 million. 1/

Since the explosion of the PUERTO RICAN occurred close to San Francisco enabling the use of VHF-FM radio for communication with United States Coast Guard Group San Francisco and nearby boats and aircraft, coordination of emergency response from other boats and aircraft was simplified. If the accident had occurred beyond the relatively short VHF-FM radio range, an emergency response might have been delayed because the explosion destroyed the PUERTO RICAN's long-range radio antennas, which extended from the deckhouse to the kingposts located on the deck that was inverted by the explosion. Since the fire prevented another antenna from being installed in the same location, the Safety Board believes that an easy-to-rig spare antenna should be available on vessels that do not have another long-range radio antenna and on vessels that have antennas extending over locations such as cargo tanks where they might be destroyed by explosions. The antenna should be designed to be rigged in a location different from the original antenna in case the original location is damaged.

Therefore, the National Transportation Safety Board recommends that the Federal Communications Commission:

> Require a simple-to-install spare radio antenna on oil and product tankers whose radio antennas extend over cargo tanks where they are vulnerable to damage from an explosion or fire. (Class II, Priority Action) (M-86-37)

1/ For more detailed information read Marine Accident Report--"Explosion and Fire Onboard U.S. Chemical Tankship PUERTO RICAN in the Pacific Ocean near San Francisco, California, October 31, 1984" (NTSB/MAR-86/05).

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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 actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation M-86-37 in your reply.

GOLDMAN, Acting Chairman, and BURNETT, LAUBER, and NALL, Members, concurred in this recommendation.

Patricia A. Goldman

By: Patricia A. Goldman
Acting Chairman