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NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: January 24, 1984

Forwarded to:

Mr. Mark S. Fowler Chairman Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554

SAFETY RECOMMENDATION(S)

M-84-12

About 0415 on February 12, 1983, the 605-foot U.S. bulk carrier MARINE ELECTRIC capsized and sank during a storm in the Atlantic Ocean about 30 nautical miles east of Chincoteague, Virginia. Thirty-four persons were aboard. Three persons survived the accident, and the bodies of 24 persons were recovered. The other seven persons are missing and presumed dead. The MARINE ELECTRIC currently is resting in three pieces on the bottom of the ocean in about 120 feet of water; its estimated value, including the cargo, was \$12 million. $\underline{1}$ /

During its investigation of the disappearance of the U.S. freighter POET 2/ in October 1980, the Safety Board became aware that the MARTECH Whaler EB-2BW Emergency Position Indicating Radio Beacon (EPIRB) aboard the POET when it disappeared had a history of malfunctions as a result of maintenance problems arising out of the replacement of its battery. On May 12, 1980, the Federal Communication Commission (FCC) reported a 25 percent failure rate of the water activated switch on the MARTECH Whaler EB-2BW EPIRB's which were inspected. In an August 13, 1980 letter, the FCC advised MARTECH, Inc., of a need to modify its service manual for this type of EPIRB. On July 14, 1981, the Safety Board recommended that the FCC:

Monitor the failure rate of the MARTECH Whaler EB-2BW Emergency Position Indicating Radiobeacon's water-activated switch, and require a design change if the present unacceptable failure rate continues. (Class II, Priority Action) (M-82-52)

On January 11, 1982, the FCC replied in part:

MARTECH was asked to modify its service manual to correct this problem and has complied with the Commission's request. We anticipate that use of this new procedure will prevent failure of the switch due to replacing the battery. Should any further failures be detected as a result of our ship station inspection program, appropriate corrective action will be taken.

^{1/} For more detailed information, read Marine Accident Report—"United States Bulk Carrier MARINE ELECTRIC Capsizing and Sinking about 30 Nautical Miles East of Chincoteague, Virginia, February 12, 1983" (NTSB/MAR-84/01).

^{2/} For more detailed information, read Marine Accident Report--"Disappearance of U.S. Freighter SS POET in North Atlantic Ocean about October 25, 1980" (NTSB-MAR-81-6).

On August 19, 1982, the Safety Board classified recommendation M-81-52 as "Closed--Acceptable Action."

The MARINE ELECTRIC was equipped with a MARTECH Whaler EB-2BW EPIRB when it sank on February 12, 1983, but no signal was heard from the EPIRB by rescue personnel. The EPIRB had been inspected by the FCC on June 17, 1982, and the surviving third mate testified that, before the MARINE ELECTRIC capsized to starboard, he stood the EPIRB upright in its box on the port bridge wing. The Safety Board believes that the MARINE ELECTRIC accident indicates there may be a continuing problem with the MARTECH Whaler EB-2BW EPIRB and that the FCC should study a design change to the MARTECH Whaler EB-2BW EPIRB to improve its maintainability and reliability.

Therefore, as a result of its investigation, the National Transportation Safety Board recomends that the Federal Communications Commission:

Require a design change to the MARTECH Whaler EB-2BW Emergency Position Indicating Radio Beacon to improve its maintainability and reliability. (Class II, Priority Action) (M-84-12)

BURNETT, Chairman GOLDMAN, Vice Chairman, and BURSLEY, ENGEN, and GROSE, Members, concurred in this recommendation.

By: Sim Burnett