Jog M-384B

## NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C. 20594

Safety Recommendation

June 25, 1993

In Reply Refer To:

M-93-28 and -29

Dr. D. James Baker Under Secretary and Administrator National Oceanic and Atmospheric Administration

On August 7, 1992, the United Kingdom passenger vessel RMS (Royal Mail Ship) QUEEN ELIZABETH 2 (QE2) was outbound in Vineyard Sound, Massachusetts, when the vessel grounded about 2 1/2 miles south of Cuttyhunk Island. No injuries or deaths resulted from this accident. However, damage was significant; temporary and permanent repairs cost about \$13.2 million. In addition, the total revenue lost for the period before the vessel returned to service on October 2, 1992, was estimated at \$50 million.<sup>1</sup>

Date:

One of the safety issues explored by the Safety Board during its investigation of this accident was the adequacy of the survey information on National Oceanic and Atmospheric Administration (NOAA) charts.

The Safety Board concluded that although NOAA's navigation charts and U.S. Coast Pilot volumes lack the necessary depth survey information for mariners to effectively evaluate the safety of waterways, the charts did provide sufficient information for the master and pilot of the QE2 to plan a course that would have avoided the 39-foot sounding and rocky area.



Washington, D.C. 20230

<sup>&</sup>lt;sup>1</sup>For more detailed information, read Marine Accident Report-Grounding of the United Kingdom Passenger Vessel RMS QUEEN ELIZABETH 2 Near Cuttyhunk Island, Vineyard Sound, Massachusetts, August 7, 1992 (NTSB/MAR-93/01).

However, the Safety Board also believes that improved navigational information would greatly aid mariners in formulating navigation plans.

For instance, the *Coast Pilot* does not currently provide data concerning bottom surveys, such as when they were accomplished, by what method the soundings were taken, or what the frequency of sounding line spacing was. This information would be helpful to a mariner in voyage planning by providing information on the degree of data quality, thus allowing navigators to use their own judgment regarding the accuracy of the data for a particular route.

In addition, unlike charts, U.S. Coast Pilot volumes are not limited by space in printing navigational information. Therefore, additional information that cannot be presented in a chart without obscuring necessary navigational information could be included in the applicable Coast Pilot volume to provide thorough and complete data to the navigator. The Safety Board also supports the use of source diagrams for navigation charts.

During the Safety Board's investigation, the QE2's navigator testified that the British Pilot Book, which contains information similar to the U.S. Coast Pilot, recommended that deepdraft vessels pass southeast of the "NA" buoy when entering (or leaving) Vineyard Sound. The U.S. Coast Pilot volume covering Vineyard Sound and Buzzards Bay, however, does not give a similar recommendation concerning entry to or exiting from Vineyard Sound for deep-draft vessels. The Coast Pilot does give specific information on the eastern approach from Nantucket Sound, Wood's Hole, Oak Bluffs, Vineyard Haven, and other channel approaches in the area. The Safety Board believes that similar information on the western approach for deep-draft vessels entering Vineyard Sound should be included in volume 2, chapter 5, of the U.S. Coast Pilot.

Therefore, the National Transportation Safety Board recommends that the National Oceanic and Atmospheric Administration:

Include information on U.S. coastal charts and in U.S. Coast Pilot volumes concerning depth survey dates and brief descriptions of survey methodology, including such items as survey trackline separation, sounding method, and sounding accuracy for pilotage waters. (Class II, Priority Action) (M-93-28)

Include a description of the western approach to Vineyard Sound for deep-draft vessels in volume 2, chapter 5, of the U.S. Coast Pilot. (Class II, Priority Action) (M-93-29)

Also, the Safety Board issued Safety Recommendations M-93-17 through -26 to the U.S. Coast Guard, M-93-27 to the Department of Transportation, M-93-30 through -33 to Cunard Lines, Ltd., and M-93-34 to State pilot commissions. The Safety Board is also reiterating Safety Recommendations M-91-6 and -28 to the U.S. Coast Guard. If you need additional information, you may call (202) 382-6850.

Chairman VOGT, Vice Chairman COUGHLIN, and Members LAUBER, HART, and HAMMERSCHMIDT concurred in these recommendations.

Carl W. Vogt Chairman

By: