

AI-4

# NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: July 1, 1981

-----  
Forwarded to:

Mr. James P. Walsh  
Acting Administrator  
National Oceanic and  
Atmospheric Administration  
Department of Commerce  
14th and Constitution Avenue, N.W.  
Washington, D.C. 20230  
-----

SAFETY RECOMMENDATION(S)

M-81-42 and -43

About 0400 P.s.t., on December 31, 1979, the tugboat SENTINEL, outbound from San Francisco Bay while towing general cargo barges, the KONA and the AGATTU, experienced a failure of a towing cable which cast the KONA adrift. About 0445 P.s.t., the other towing cable became caught in the SENTINEL's starboard propeller and was cut, casting the AGATTU adrift. Both barges drifted toward the lee shore and grounded. As a result of this accident, both barges were declared a constructive total loss. Cargo was damaged and lost from both barges. The total economic loss resultant from this accident was estimated at about \$8.2 million. 1/

All vessel traffic entering or leaving San Francisco Bay must cross the San Francisco bar. Testimony from the persons involved in this accident, as well as from San Francisco bar pilots experienced in crossing the bar, indicated that sea conditions outside the bar may vary from conditions encountered on the bar. They further stated that bar conditions can change considerably in a relatively short period of time. If all vessel masters and tug operators were highly trained physical oceanographers, they might be expected, through expert analysis and extrapolation, to arrive at a reasonable approximation of bar conditions based on the coastal marine forecast. However, they are not usually able to make such refined scientific analyses, nor should they be expected to. Furthermore, the National Oceanic and Atmospheric Administration (NOAA) employs the necessary scientific personnel to perform this analysis, has the data gathering instrumentation, and operates a continuously broadcasting radio station for the dissemination of weather information for the San Francisco Bay area. However, bar condition reports are not included in the coastal marine forecasts. Over \$8 million in losses resulted from this accident and, therefore, prevention of a recurrence of this type of accident should be a high priority to all Government agencies that serve the maritime interests in the San

1/ For more detailed information, read Marine Accident Report--"U.S. Tug SENTINEL, Loss of Tow and Resultant Grounding of Barges KONA and AGATTU, Gulf of the Farallones, Pacific Ocean, December 31, 1979" (NTSB-MAR-81-7).

Francisco Bay area. The Safety Board believes that the inclusion of a bar condition report in the coastal marine forecast would significantly aid the mariner in planning a transit of the San Francisco Bay entrance. 2/

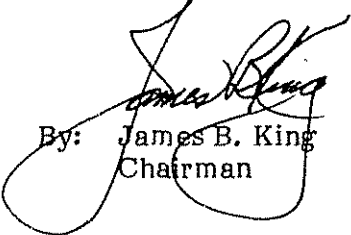
Information of importance to navigation regarding hydrographic phenomena of the coastal waters of the United States is provided in the United States Coast Pilot which is published by NOAA. Volume 7 of this publication includes the area where the accident occurred. The geographical limits of the San Francisco bar are described and water depth information is provided in this text. However, there are no warnings or guidance for the mariner regarding sea conditions likely to be met when crossing the bar. The fact that conditions may be significantly different at the bar from those seaward is not mentioned. The Safety Board believes that, if more detailed information of an advisory nature regarding possible conditions on the San Francisco bar were included in the Coast Pilot, it would alert the mariner to this fact and be of positive use in voyage planning.

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

Include in the coastal marine forecast for the central California coast a report of sea conditions on the San Francisco bar. (Class II, Priority Action) (M-81-42)

Revise the United States Coast Pilot to provide advisory information regarding sea conditions on the San Francisco bar. (Class II, Priority Action) (M-81-43)

DRIVER, Vice Chairman, and McADAMS, GOLDMAN, and BURSLEY, Members, concurred in these recommendations. KING, Chairman, did not participate.

  
By: James B. King  
Chairman

2/ In Marine Accident Report, "Charter Fishing Boat PEARL C, Sinking on the Columbia River Bar Near Astoria, Oregon, September 13, 1976" (NTSB-MAR-77-1), the Safety Board recommended that NOAA: "Develop an oceanographic measurement system to measure, process, and report those sea conditions which are important to the safe navigation of boats crossing the Columbia River Bar." In response, NOAA stated that it was studying this recommendation and that its initial reaction was that an "effective system can be provided." NOAA further stated that any action taken regarding such a system was dependent upon the availability of funds. The Safety Board believes that NOAA should move ahead with the implementation of recommendation M-77-32.