NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: February 12, 1979

Forwarded to: Honorable John Carlin Governor of Kansas State House Topeka, Kansas 66612

SAFETY RECOMMENDATION(S)

M-79-14 and -15

On June 17, 1978, the steam showboat WHIPPOORWILL overturned while in transit on Pomona Lake, Kansas. A waterspout (a tornado occurring over water) passed near the vessel at the time of the accident. Of the 60 persons on board the vessel, 15 were killed and 6 were injured. The vessel sustained minor damage and was returned to passenger service shortly after the accident. 1/

Because Pomona Lake is not "navigable waters" of the United States, the WHIPPOORWILL did not have to comply with the U.S. Coast Guard's rules and regulations in 46 CFR 179 for small passenger vessels. As designed and constructed, the WHIPPOORWILL did not meet the stability requirements for these vessels. The vessel was subject solely to the laws and regulations of the State of Kansas. The Kansas Boating Act, however, regulates recreational boating and does not address commercial vessel safety issues, such as stability criteria. The Safety Board's analysis of this accident concluded that the WHIPPOORWILL may not have capsized had it met these criteria.

The WHIPPOORWILL's reduction in stability resulted from the free surface effect of water in the No. 2 tank at the time of the accident. More than 2 months after the vessel was salvaged and returned to service, a State inspection found that the vessel listed to port approximately 2 inches and had up to 3 1/2 inches of water in each of its four integral hull tanks. It is possible that the hull was damaged during the salvage operations and is leaking. This leakage could seriously impair the vessel's stability again. Repair of the leaks and an alteration of the WHIPPOORWILL's bilge drainage system would prevent the accumulation of water in its integral hull tanks. A device to accurately determine the presence of water in the tanks would also be beneficial.

I/ For more detailed information read "Marine Accident Report: S/B WHIPPOORWILL Capsizing, Pomona Lake, Kansas, June 17, 1978," (NTSB-MAR-79-2).

The Safety Board determined that the WHIPPOORWILL was not struck by the waterspout. Rather, the vessel sustained a maximum wind speed of about 50 kns produced by the waterspout's peripheral winds and the sharp increase in wind speeds associated with a severe thunderstorm. Although a tornado warning was not issued before the accident, the National Weather Service (NWS) had forecast heavy thunderstorms 2/ for the accident area. Special weather statements issued by the NWS at 1815 and 1830 indicated the possibility of thunderstorms accompanied by strong winds in the area. Furthermore, the NWS issued a severe thunderstorm watch at 1847 for the Pomona Lake area. Safety Board analysis determined that the NWS forecasts were accurate and were made known to the general public in a timely manner.

The importance of obtaining weather forecasts before engaging in boating activities is widely recognized. However, the operator of the WHIPPOORWILL did not attempt to obtain weather information on the day of the accident. It is virtually impossible for passenger vessel operators to assess the relative hazard to their passengers without such information.

Therefore, the National Transportation Safety Board recommends that the State of Kansas:

Amend the Kansas Boating Act and applicable regulations to require all commerical vessels carrying six or more passengers and operating in the State of Kansas to meet the U.S. Coast Guard stability criteria in 46 CFR 179 for small passenger vessels. (Class II, Priority Action) (M-79-14)

Amend the Kansas Boating Act and applicable regulations to require all operators of commercial vessels carrying six or more passengers and operating in the State of Kansas to obtain weather information before departure. (Class II, Priority Action) (M-79-15)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, and HOGUE, Members, concurred in the above recommendations.

ames B hairman

2/ A severe thunderstorm is accompanied by winds of 50 kns or more, or 3/4-inch-diameter or larger hail at the earth's surface.