

M-125

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: June 9, 1980

Forwarded to:

Admiral John B. Hayes
Commandant
U.S. Coast Guard
Washington, D.C. 20593

SAFETY RECOMMENDATION(S)

M-80-36

At 0409, on February 25, 1979, the S/T MARINE DUVAL sank after colliding with the S/T MOBIL VIGILANT at a bend in the Neches River near Beaumont, Texas. The total damage to the vessels was estimated at \$6,200,000. No persons were injured. The sunken MARINE DUVAL blocked the river for over 3 days, disrupting deep-draft vessel traffic via the port of Beaumont. 1/

The MOBIL VIGILANT was carrying 41,198 long tons of crude oil cargo at a draft of 36 ft 1 in forward and 36 ft 7 in aft, and was scheduled to arrive at Beaumont between 0430 and 0500 on February 25. It was the first of five scheduled inbound tankers and was under the navigational control of a Sabine Pilots (Association) pilot. Proceeding inbound, the tanker met and passed two outbound vessels and a four-barge tow without difficulty before reaching Smith Bluff. While near Port Neches, the pilot heard by radio that the MARINE DUVAL, originally scheduled to leave the Texasgulf, Inc., sulphur terminal dock at midnight on February 24, had been delayed.

The outbound MARINE DUVAL, carrying 23,866 long tons of molten sulphur cargo at a level trim draft of 33 ft 4 1/2 in, left the Texasgulf sulphur dock at 0345 and was under the navigational control of a Sabine pilot. The pilot said that shortly after 0300 he had initiated a "security call" on VHF-FM radiotelephone channel 13 and received no response; the reason for the lack of response from any vessel in the vicinity is unknown. The Sabine Pilots office in Port Arthur, Texas, had advised the pilot that five tankers were inbound, and the pilot informed the master. The MARINE DUVAL entered the Neches River Channel shortly after 0359.

1/ For more detailed information read "Marine Accident Report—Collision of the S/T MOBIL VIGILANT and the S/T MARINE DUVAL on the Neches River near Beaumont, Texas, February 25, 1979" (NTSB-MAR-80-8).

After entering the Neches River Channel, the MARINE DUVAL's pilot sighted the MOBIL VIGILANT. Radio communication between the vessels was then established and the pilots agreed to a "1-whistle," port-to-port passing. The pilots had expected their vessels to meet in the channel straightaway of the McFadden Bend Cutoff, but the vessels actually met in the river bend above the E.I. du Pont de Nemours & Company (Du Pont) docks where they collided at 0409.

A voluntary traffic control agreement exists on the Sabine-Neches Waterways which was worked out between the Sabine Pilots and industry, and with U.S. Coast Guard participation. The agreement provides guidelines and procedures covering vessel traffic coordination by the Sabine pilots. The movements and operations of the MARINE DUVAL and MOBIL VIGILANT conformed to the provisions of the agreement. The U.S. Army Corps of Engineers (COE) Committee on Tidal Hydraulics, in its evaluations of channel width for navigation, has found that a minimum of about five times the beam of the largest vessel is usually necessary for two-way traffic.^{2/} However, the MOBIL VIGILANT's beam was 104 ft. Therefore, using the COE report criteria, the MOBIL VIGILANT needed a 520-ft-width channel to accommodate a passing situation. On this basis, a passing with the MOBIL VIGILANT should not have been attempted anywhere along the 400-ft-wide Neches River Channel. The Safety Board concludes that the criteria used by the pilots to evaluate passing situations in the Sabine-Neches Waterways should be reviewed to determine if the size of vessels is being considered adequately.

According to the voluntary traffic control agreement, Sabine-Neches Waterways traffic is coordinated by the Sabine pilots. There is no evidence that when he failed to get a response on radiotelephone channel 13 the pilot called the pilots' radio stations using other available radiotelephone channels in an effort to establish contact with the MOBIL VIGILANT. Despite the lack of response to his broadcast and lack of knowledge about the locations of the inbound tankers, the pilot proceeded outbound with the MARINE DUVAL. Because the pilot was aware of the inbound traffic, the Safety Board concludes that the pilot should have tried to establish communications with the inbound tankers through other available radio channels. The Safety Board believes that the local communications related to vessel movements need to be clarified and improved.

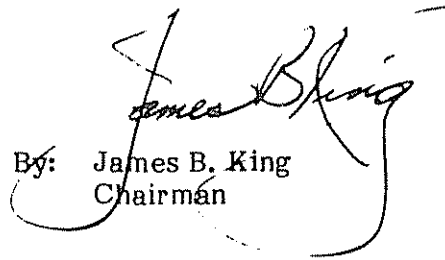
Therefore, the National Transportation Safety Board recommends that the U.S. Coast Guard:

Conduct a review in coordination with the U.S. Army Corps of Engineers (COE) and the Sabine Pilots of the "Voluntary Traffic Control Agreement of the Maritime Industry of the Sabine Waterways" concerning the apparent differences between the "Agreement" criteria and the COE Report No. 3 concerning the maneuvering of large and deep-draft vessels in restricted channels. If necessary, develop revised vessel passing and maneuvering guidelines for the Sabine-Neches Waterways, taking into consideration vessel size, draft, and speed in relation to channel

^{2/} Corps of Engineers, U.S. Army, Committee on Tidal Hydraulics, Report No. 3, "Evaluation of Present State of Knowledge of Factors Affecting Tidal Hydraulics and Related Phenomena," May 1965.

width, depth, and configuration of the waterways. Include in the agreement a section on communications procedures. (Class II, Priority Action) (M-80-36)

DRIVER, Vice Chairman, McADAMS and BURSLEY, Members, concurred in this recommendation. KING, Chairman, and GOLDMAN, Member, did not participate.


By: James B. King
Chairman