

M-197

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: April 22, 1981

Forwarded to:

Dr. Richard E. Halgren
Director
National Weather Service
8060 13th Street
Silver Spring, Maryland 20910

SAFETY RECOMMENDATION(S)

M-81-24

About 0734 e.d.t. on May 9, 1980, the Liberian bulk carrier M/V SUMMIT VENTURE rammed a support pier of the western span of the Sunshine Skyway Bridge in Tampa Bay, Florida. As a result of the ramming, the support pier was destroyed and about 1,297 feet of bridge deck and superstructure fell about 150 feet into the bay. A Greyhound bus, a small pickup truck, and six automobiles fell into the bay and 35 persons died. Repair costs were estimated at about \$30 million for the bridge and about \$1 million for the SUMMIT VENTURE. 1/

At 0030 on Friday, May 9, the National Weather Service (NWS) forecast office at Miami issued the following marine forecast for the coastal waters within 50 miles offshore from Cape Sable to Tarpon Springs:

Small craft should exercise caution. Winds southerly 15 to 20 knots this morning becoming northerly 10 to 15 knots north of Fort Myers during the day Friday and variable around 10 knots elsewhere through Friday night. Seas increasing 4 to 6 feet then diminishing Friday night. Winds and seas higher near scattered thunderstorms today.

The following marine forecast was issued for the same coastal waters at 0425, Friday, May 9:

Small craft should exercise caution. Winds southerly increasing to 15 to 20 knots this morning, becoming northerly 10 to 15 knots north of Fort Myers during today and variable around 10 knots elsewhere through tonight. Winds Saturday mostly northeast 10 knots. Seas increasing 4 to 6 feet today then diminishing tonight. Winds and seas higher near scattered thunderstorms today.

1/ For more detailed information, read "Marine Accident Report--Ramming of the Sunshine Skyway Bridge by the Liberian Bulk Carrier SUMMIT VENTURE, Tampa Bay, Florida, May 9, 1980" (NTSB-MAR-81-3).

Those marine forecasts pertained to the SUMMIT VENTURE's route, and their contents were broadcast from the NWS weather radio station in Tampa. Testimony established that the pilot boats were equipped to receive NWS weather radio broadcasts, but the pilot did not listen to them while en route to the SUMMIT VENTURE because the radio on the pilot boat normally monitored channels 10 and 16; tuning the radio to the NWS weather channel would discontinue reception on other channels. The radio at the pilot station on Egmont Key was not equipped to receive NWS weather radio broadcasts; the NWS forecasts could be obtained by telephone. The radio at the pilot station normally monitored channel 16. The Coast Guard broadcasts severe weather warnings on channel 16 immediately upon receipt from NWS. The dispatchers at the pilot station inform the pilots of the existing weather conditions on Tampa Bay and of any weather warnings that they have received. The pilot testified that he always obtained weather information before going out to a vessel by discussing over the pilot station's radio the current weather with pilots operating other vessels on the bay and by listening for information on channel 16 from the Coast Guard regarding severe weather warnings.

At 0555 on Friday, May 9, the NWS National Severe Storms Forecast Center at Kansas City, Missouri, issued a convective SIGMET for Florida and the surrounding coastal waters. The SIGMET indicated that an area of embedded thunderstorms from 30 nmi south of Crestview, Florida, to 60 nmi southeast of Jacksonville, Florida, to 80 nmi west-southwest of St. Petersburg, Florida, was moving eastward at 25 knots. The maximum height of the top of the thunderstorms was indicated as 50,000 feet above mean sea level. As the area of thunderstorms continued to move eastward and passed over Tampa Bay, the SIGMET was updated hourly. Although convective SIGMETs are readily available to the aviation community, they generally are not broadcast over the NWS weather radio, nor are they readily available to mariners.

The line of thunderstorms which overtook the SUMMIT VENTURE as it proceeded inbound through Tampa Bay was identified by the NWS by 0530 on radar. The line of thunderstorms was known to contain intense rain showers and to be moving east toward the Tampa Bay area. The thunderstorms were of an intensity which could cause weather conditions significantly more severe than originally forecast, and the weather conditions experienced by the SUMMIT VENTURE and other vessels on Tampa Bay were far more severe than those forecasted by the NWS.

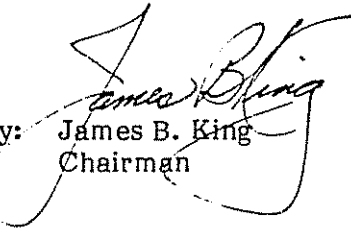
Since the intensity and direction of movement of the thunderstorms were known early enough to process a severe weather warning before the thunderstorms reached the Tampa Bay area, the Safety Board believes that such a severe weather warning should have been issued. Convective SIGMETs had been issued to warn the aviation community of the thunderstorms. Although he had not listened to the NWS weather radio broadcasts, the SUMMIT VENTURE's pilot had made a reasonable effort to ascertain the weather conditions that would be encountered during the inbound transit through Tampa Bay, and he had monitored channel 16 for the majority of the time from 0430 until the accident. If a severe weather warning had been issued, it is likely that the pilot would have heard it himself or would otherwise have been informed of its content. Although the actions that the pilot might have taken in face of a severe weather warning cannot be determined, he did delay the scheduled inbound voyage because of poor visibility. Because the pilot was taken completely by surprise at the intensity of the wind and the rain at a critical point in the approach to the Sunshine Skyway Bridge, he was obliged to make crucial decisions about the navigation of the SUMMIT VENTURE in a short period of time. If the pilot had been aware that severe thunderstorms were expected in the Tampa Bay area, he might

have delayed the inbound voyage until the storms had passed or he might have anchored the vessel as soon as the visibility began to deteriorate. In any case, any decision made by the pilot would have been based upon more complete weather information, and it is possible that he might have taken actions which would have prevented the accident.

Therefore, the National Transportation Safety Board recommends that the National Weather Service:

Establish a program to disseminate the contents of all convective SIGMETs which pertain to coastal areas to mariners by NWS weather radio broadcasts and by other appropriate means as the severity of the weather may require. (Class II, Priority Action) (M-81-24)

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

By:  James B. King
Chairman