



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: January 13, 1988

In reply refer to: M-87-113 through -119

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 Commandant
 U.S. Coast Guard
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About 1310 on February 5, 1987, the 55-foot-long, wooden-hulled, U.S. charter fishing vessel FISH-N-FOOL capsized in Mexican territorial waters about 4 nmi west of the western coast of Baja California Norte, Mexico, and about 150 nmi south of San Diego, California. Most of the 12 persons on board were on deck at the time of the capsizing and were thrown into the 62° F seawater. The captain was in the wheelhouse and was not seen after the vessel capsized. Eight persons began swimming toward 2 1/2-nmi-distant San Martin Island shortly after the capsizing; none was wearing a personal flotation device. The alternate operator remained near the capsized vessel and managed to board a lifefloat. The vessel sank several hours later. About 2000, one passenger was rescued from the water by Mexican fishermen from San Martin Island. About 2030, the alternate operator was hoisted from the lifefloat by U.S. Coast Guard helicopter Dolphin 6547. The search continued through the following day, but no more survivors were found. The FISH-N-FOOL was valued at \$175,000. ^{1/}

Shortly after they were thrown into the water, some passengers and the deckhand decided to swim to San Martin Island. According to the surviving passenger, the vessel was on the opposite side of the turbulent water from them and swimming to the island was the "only choice." However, the distance to San Martin Island was significantly greater than the distance around the turbulence to the vessel, none of these persons was wearing a life preserver, and all knew that the vessel was still afloat. Their decision-making abilities might have been adversely affected by the trauma of being unexpectedly thrown into the cold, turbulent water. However, in attempting to reach San Martin Island, they disregarded an accepted axiom of survival at sea--stay with the vessel as long as possible. Because vessels are larger than persons, the probability is higher that vessels will be seen by searchers. Also, and even in the worst circumstances, some lifesaving equipment usually will float free of a sinking vessel, as occurred with the four lifefloats and several life preservers in this case. Although they did not float free immediately, the lifefloats and life preservers were more than sufficient to keep all the passengers and crewmembers afloat. If the passengers and the deckhand had elected to return to the vessel, they probably could have climbed into the lifefloats with the alternate operator. The National Transportation Safety Board concludes that the passengers and the deckhand should have attempted to return to the vessel after the capsizing. They should not have attempted to swim to 2 1/2-nmi-distant San Martin Island.

^{1/} For more detailed information, read Marine Accident Report--"Capsizing of the U.S. Charter Fishing Vessel FISH-N-FOOL, Pacific Ocean at Roca Ben, Baja California Norte, Mexico, February 5, 1987" (NTSB/MAR-87/11).

The circumstances of this accident clearly demonstrate the need for complete passenger safety briefings. The major purpose of a safety briefing is to acquaint persons who are unfamiliar with the marine environment with the lifesaving equipment available and the procedures to follow in an emergency. The briefing described by the alternate operator included the location of the life preservers, but did not include any other instructions regarding lifesaving equipment or emergency procedures. Since no information about the lifefloats was included in the briefing, the passengers might not have realized that the lifefloats would float free if the vessel sank. If the passengers had been instructed in the use and operation of the lifefloats and in the importance of remaining near the vessel, they might have decided to attempt to swim around the turbulence to the vessel, and more of them might have survived. The Safety Board continues to believe that a complete passenger safety briefing is vital to passenger safety on vessels like the FISH-N-FOOL. The Safety Board also believes that the safety briefing should be given to the passengers verbally by a licensed crewmember. A verbal briefing could reinforce the safety information presented in instructive placards and would show that persons in authority, such as the captain and alternate operator, support the safety instructions.

Although the testimony of the Coast Guard marine inspector who last inspected the FISH-N-FOOL clearly indicates the number of deckhands required under various conditions on charter fishing vessels certificated in the San Diego marine inspection zone, the FISH-N-FOOL's Certificate of Inspection is ambiguous in that regard. For vessel operations of not more than 12 hours in a 24-hour period, the Certificate of Inspection states that the vessel may be operated with "1 deckhand (when passengers carried is 25 or less), and passengers carried may be increased to 31."--a patently confusing statement. Thus, the conditions under which only one deckhand is required are not clear. For vessel operations of more than 12 hours in a 24-hour period, the Certificate of Inspection clearly states that four deckhands are required. Thus, in order to comply with the Certificate of Inspection, four deckhands should have been on board when the FISH-N-FOOL departed San Diego. Although the captain might have been aware that the Officer in Charge, Marine Inspection's policy required two deckhands for the FISH-N-FOOL's last voyage, nowhere does the Certificate of Inspection state that only two deckhands are required for vessel operations of more than 12 hours in a 24-hour period when fewer than 25 passengers are on board. Also, Coast Guard officers conducting a routine safety boarding might not be aware of the policy. Regardless, the Certificate of Inspection should clearly indicate the vessel's manning requirements under all conditions of operation so that the captain can ensure that appropriate personnel are on board before a voyage begins and so that law enforcement officials can take action if appropriate personnel are not on board as required.

Although deckhands are required as part of the crew on small passenger vessels, there are no Coast Guard regulations prescribing qualification standards for deckhands. The intent of the Coast Guard manning regulations for small passenger vessels, as indicated by 46 CFR 186.01-5, is to ensure that each vessel has sufficient crew and licensed operators for proper navigation and operation with "due regard . . . given to the need for protection of the vessel and passengers during emergencies." Since the Coast Guard has not established qualification standards for deckhands, persons unfamiliar with safety procedures and vessel operations could serve as deckhands. Further, it seems that any person, regardless of age, physical or mental ability, or maritime experience or

training, could be designated as a deckhand by the captain whenever necessary to fulfill the requirements of the Certificate of Inspection. The captain need only give "such instructions as are necessary to insure that all hands are familiar with their duties." In this case, if the deckhand had received training in the importance of remaining with the vessel as long as possible and in the use and float-free nature of the lifefloats, he might have attempted to convince the passengers to swim around the turbulence to the vessel. Since deckhands on small passenger vessels are expected to assist passengers during emergencies, the Safety Board believes that qualification standards should be established for deckhands. The Safety Board also believes that charter fishing vessel captains should satisfy themselves that their deckhands meet the qualification standards.

After the FISH-N-FOOL had departed the San Diego area on its voyage to the San Martin Island area, the captain established navigation watches for the alternate operator, the deckhand, and two passengers. Of those four persons, only the alternate operator held a Coast Guard license to operate the vessel. However, Coast Guard regulations only require that the licensed personnel indicated on the Certificate of Inspection be on board--there is no requirement that only licensed personnel navigate the vessel. In addition to meeting experience requirements, applicants for a license as operator of mechanically propelled, oceangoing small passenger vessels must pass an examination on the International and Inland Rules of the Road, use of nautical charts, determining and laying off compass courses, fixing position by bearings to fixed objects, vessel handling in heavy weather, and other important aspects of vessel operation and navigation. Applicants for an operator's license must prove their knowledge of these subjects because the safety of vessels and the lives of passengers depend upon the operator's competency. Untrained and inexperienced passengers obviously cannot satisfactorily perform the duties of the operator. The Safety Board believes that only licensed operators, or persons under the immediate supervision of a licensed operator, should be allowed to navigate a small passenger vessel.

Charter fishing vessels based in southern California frequently venture into Mexican waters where the Mexican government has the primary responsibility for search and rescue operations. Many of those vessels carry emergency position indicating radiobeacons (EPIRB), but the U.S. Coast Guard and the Mexican search and rescue authorities have no established procedures for response to search and rescue satellite-aided tracking system (SARSAT) reports or emergency locator transmitter (ELT)/EPIRB signals that emanate from Mexican territorial waters. In this case, the pilot of Falcon 2128 informed a Mexican air traffic controller of the ELT/EPIRB signal, but received no indication that Mexican authorities would investigate. Although the rescue coordinating center (RCC) controller believed that the Mexican authorities would not respond to "just an ELT," he should have attempted to notify the Mexican authorities as soon as the ELT/EPIRB signal was reported to him. Later, when Falcon 2106 was sent to locate the source of the ELT/EPIRB signal, the controller ordered Falcon 2106 to remain outside Mexican airspace to comply with the Assistance and Salvage Treaty of 1935. If the pilot of Falcon 2106 had not been required to proceed toward San Quintin outside of Mexican airspace or to use time for communications to request permission to enter Mexican airspace, a few minutes, probably no more than 10, might have been saved. However, if Falcon 2128 had not been flying over San Quintin on the logistics mission and, therefore, the pilot had not heard the FISH-N-FOOL's EPIRB signal, the delay in locating the lifefloats and alternate operator would have been significantly longer because the Coast Guard would not have launched search and

rescue units until the second SARSAT report had been received and because the Mexican authorities probably would not have responded to a SARSAT report. The Safety Board concludes that the lack of established procedures for response to SARSAT reports and ELT/EPIRB signals that emanate from Mexican territorial waters slightly delayed the location of the lifefloats and the alternate operator by Falcon 2106, and that such procedures should be developed for the safety of vessels and aircraft operating in that area.

The pilot of Falcon 2128, the duty officer at Coast Guard air station (CGAS), San Diego, and the RCC controller had no way to know that the FISH-N-FOOL had capsized and that persons were in the water when the FISH-N-FOOL's EPIRB signal was first received. However, all three were aware of the very high rate of false alarm ELT signals, the frequent location of ELT false alarms at airports, and the location of several airports near San Quintin. All three were aware of the nature of Falcon 2128's logistics mission. All three were aware of the requirements for initiating search and rescue operations in Mexican airspace and waters. Although the RCC controller's initial reaction to the report of the ELT signal was to divert Falcon 2128, there was at that time no confirming indication of "known distress," and he agreed to seek some further indication of the location of the ELT/EPIRB before diverting Falcon 2128 to search for it. Because of the high number of detected ELT/EPIRB signals and the high probability that any individual signal will be a false alarm, the Coast Guard generally attempts to obtain confirming information that a true distress might exist before sending a search and rescue unit to investigate a report of an ELT/EPIRB signal. However, the Coast Guard has no written response procedures that recognize the high false alarm rate. For the few minutes that Falcon 2106 was attempting to receive the signal, Falcon 2128 continued south at 500 knots toward La Paz and away from the indicated direction of the signal. By the time that Falcon 2128 was ordered to divert to search for the source of the ELT/EPIRB signal, about 30 minutes had elapsed from the time that the signal was first heard. As indicated previously, 20 minutes could have been saved by refueling Falcon 2106 at San Diego International Airport. In accordance with usual Coast Guard procedures, such delays ordinarily would not occur after receipt of a voice "Mayday" message specifying a location near a search and rescue unit, and probably would not have occurred in this case if 97 percent of detected ELT/EPIRB signals were not false alarms. If the pilot of Falcon 2128, the duty officer, or the RCC controller had been reasonably sure that the ELT/EPIRB signal received by Falcon 2128 indicated a true distress, any one of them could have and would have diverted Falcon 2128 immediately. The Safety Board concludes that the high percentage of false alarms transmitted by ELTs delayed the Coast Guard search for the source of the FISH-N-FOOL's EPIRB signal.

Search and rescue missions for maritime accidents involving U.S. citizens and vessels in foreign territorial waters require consideration of two often conflicting principles--the sovereign rights of individual nations to control entry into their territory, and the humanitarian exigency to relieve suffering and distress quickly. International agreements and treaties, such as the Assistance and Salvage Treaty of 1935 between Mexico and the United States, are made to help resolve conflicts between those principles. In this case, even though initially it was unknown whether a true distress existed, and in spite of the high false alarm rate of ELTs, the RCC controller authorized Falcon 2106 to penetrate Mexican airspace. He was somewhat reluctant to do so until a brief search outside of Mexican territory had confirmed the report from the SARSAT system that the source

of the ELT/EPIRB signal was probably within Mexican territory. The RCC controller realized that there was no other way to ensure a reasonably timely investigation of the ELT/EPIRB signal. After the lifefloats and the alternate operator were sighted, the RCC controller made several attempts to contact Mexican authorities by telephone, but, according to the controller, the calls were not answered. Regardless, he continued to pursue the case. The U.S. Defense Attache Officer was briefed, and additional U.S. search and rescue units were sent to the scene. If Mexico observed a policy of automatic entry for search and rescue units similar to the policies of several Central American countries, the RCC controller might not have been quite so concerned about Dolphin 6547's ability to complete the mission without refueling, and the helicopter might have been able to depart CGAS, San Diego, a few minutes sooner. Individuals involved in search and rescue missions must make timely decisions based upon the circumstances of the case, and international treaties and agreements should encourage those decisions that, when necessary, place preservation of life above territorial sovereignty.

As a result of its investigation, the National Transportation Safety Board recommends that the U.S. Coast Guard:

Amend 46 CFR 185.25-1(d) to require that a licensed crewmember present a verbal passenger safety briefing, which includes all the subjects listed in 46 CFR 185.25-1(d)(1) through (4), to all passengers before getting underway. (Class II, Priority Action) (M-87-113)

Conduct a one-time review of the manning requirements of the Certificates of Inspection issued to small passenger vessels by the Officer in Charge, Marine Inspection, San Diego, California, and amend any certificates that do not clearly state the manning requirements for all conditions of operation. (Class II, Priority Action) (M-87-114)

Amend 46 CFR Part 187 to establish qualification standards for deckhands on small passenger vessels. (Class II, Priority Action) (M-87-115)

Amend 46 CFR Part 185 to require that small passenger vessels be navigated by licensed operators or by persons under the immediate supervision of a licensed operator. (Class II, Priority Action) (M-87-116)

Through the U.S. State Department, establish specific procedures with the Mexican government for U.S. Coast Guard and/or Mexican response to search and rescue satellite-aided tracking system reports and emergency locator transmitter/emergency position indicating radiobeacon signals that emanate from Mexican territorial waters. (Class II, Priority Action) (M-87-117)

Review existing Coast Guard response procedures and, where necessary, establish new response procedures that recognize the high false alarm rate of emergency locator transmitter/emergency position indicating radiobeacon signals and of search and rescue satellite-aided tracking system reports. (Class II, Priority Action) (M-87-118)

Through the U.S. State Department, establish an agreement with the Mexican government that allows U.S. search and rescue units to fly over and land on Mexican soil when involved in a search and rescue mission. (Class II, Priority Action) (M-87-119)

Also as a result of its investigation, the Safety Board issued Safety Recommendations M-87-120 and -121 to the U.S. Department of State and M-87-122 and -123 to the Sportfishing Association of California.

BURNETT, Chairman, and LAUBER, NALL, and KOLSTAD, Members, concurred in these recommendations. GOLDMAN, Vice Chairman, did not participate.


By: Jim Burnett
Chairman