



National Transportation Safety Board

Washington, D. C. 20594

Safety Recommendation

Log M-348

Date: June 1, 1988

In reply refer to : M-88-30 and -31

Admiral Paul A. Yost, Jr.
Commandant
U.S. Coast Guard
Washington, D.C. 20593-0001

About 1202 on April 21, 1987, the USS RICHARD L. PAGE (FFG-5) (PAGE) collided with the fishing vessel CHICKADEE which was being towed by the fishing vessel MARINER. Six feet of the bow of the CHICKADEE was severed, and it immediately started to take on water. All three crewmembers on the CHICKADEE abandoned the vessel just before it capsized and sank. Crewmembers were rescued shortly afterward. No one was injured. The PAGE sustained only minor damage to its port bow lifeline stanchions. As a result of the collision, the CHICKADEE was a total loss. Damage was estimated to be \$112,000. ^{1/}

The only lifesaving equipment required on uninspected fishing vessels, such as the CHICKADEE, is a life preserver or an exposure suit for each person on board. The two fishing vessels had both life preservers and exposure suits and, therefore, exceeded the requirements of the uninspected vessel regulations.

Two crewmembers, the captain and the deckhand/cook, were able to don exposure suits but were unable to fasten them properly before they abandoned the vessel; consequently, water entered the suits, reducing the protection of the suits. They were cold when rescued but suffered only mild hypothermia. Although the exposure suit is designed to keep a person dry, insulated, and afloat, the hood must be properly in place, and it must be zipped closed before a person enters the water; the high-rider ring must be in place and inflated, and the face spray-shield must be fitted snugly in place. When worn correctly, exposure suits reduce the rate of body cooling, and survival is possible even after a number of hours in the water, depending on the water temperature. However, exposure suits do not provide indefinite protection from hypothermia. Physical condition of the wearer, how well the wearer is suited-up, and the condition of the suit are factors that will prolong or reduce the time before the onset of hypothermia in an exposure suit.

The National Search and Rescue Manual (Volume II) survival graph shows that in a 52° F water temperature, 50 percent of persons not wearing an exposure suit will survive for 1 to 4 hours. A person wearing a properly donned exposure suit in 52° F water could

^{1/} For more detailed information, read Marine Accident Report--"Collision Between the USS RICHARD L. PAGE (FFG-5) and the U.S. Fishing Vessel CHICKADEE, the Atlantic Ocean, April 21, 1987" (NTSB/MAR-88/04).

be expected to survive from 21 to 37 hours. ^{2/} Survival time for a person in 52° F shade air temperature, such as might be experienced in a liferaft, would be about 10 days.

The third crewmember, the deckhand/mate, was awakened just before or during the collision. He was unable to function methodically and could not don his exposure suit in the moments after the collision and before abandoning the vessel. His lack of familiarity with the exposure suit could be attributed to his failure to practice donning it. Fortunately, life preservers were available as an alternative when the deckhand/mate could not don the exposure suit. He was able to remain afloat in the 52° F water because he was wearing two life preservers, but they offered little thermal protection.

In times of emergency where there is a possibility that a person may enter the water, the donning of an exposure suit should be a thoroughly familiar task. It should not be a new experience or a learning process. In rapidly occurring emergencies, the crew may not have time to read instructions or may be too nervous to quickly don the suit. Only two of the six fishermen on the two fishing vessels had tried on an exposure suit once, and the others had never tried one on and had not received any training in their use. The Safety Board believes that periodic training in the proper donning of exposure suits is necessary to familiarize a potential user with his equipment. A placard mounted or posted in a conspicuous place on fishing vessels also would be helpful to remind potential wearers how to properly don a suit. The Safety Board also believes that exposure suits should be required on uninspected fishing vessels in addition to, not in lieu of, life preservers.

As a result of its safety study of uninspected commercial fishing vessels, ^{3/} the Safety Board recommended that the Coast Guard:

Seek legislative authority to require basic lifesaving equipment for uninspected commercial fishing vessels including but not limited to:

M-87-53

Exposure suits for each crewmember when the vessel operates in cold waters.

The Coast Guard had not responded to this recommendation as of the date of the report of the investigation of this accident.

Had the MARINER been unable to rescue the CHICKADEE crewmembers shortly after they abandoned the vessel, it is doubtful that the crewmember wearing two life preservers would have survived the effects of hypothermia. Although the PAGE was in the area ready to render assistance, it also may not have been able to quickly locate the man soon enough due to the restricted visibility and rescue him before the severe effects of hypothermia were incurred. However, if the CHICKADEE had been equipped with an inflatable liferaft, the crew could have used it to abandon the vessel, and the urgency of rescue efforts by the MARINER's crew would not have been as critical to their survival in the cold water.

Because even exposure suits will not provide sufficient thermal protection from prolonged exposure to cold water, liferafts are needed for protection from prolonged

^{2/} On Scene, The National Maritime SAR Review, 1/1985.

^{3/} Safety Study--"Uninspected Commercial Fishing Vessels" (NTSB/SS-87/02).

exposure. Currently, there is no Coast Guard requirement for inflatable liferafts on uninspected vessels as there is for inspected vessels. It is estimated that only about 10 percent of uninspected vessels are equipped with them. ^{4/} Inflatable liferafts provide the greatest protection and probability of survival to persons who abandon vessels. The Coast Guard recommends that inflatable liferafts have water ballast systems to minimize the chances of capsizing in wind and waves, a canopy to protect the occupants from the elements, and an inflatable floor to insulate the occupants from the chilling effects of cold water.

As a result of its safety study of uninspected commercial fishing vessels, the Safety Board recommended that the Coast Guard:

Seek legislative authority to require basic lifesaving equipment for uninspected commercial fishing vessels including but not limited to:

M-87-56

Coast Guard approved lifeboats or liferafts sufficient to carry all persons onboard.

The Coast Guard had not responded to this recommendation as of the date of the report of the investigation of this accident.

The Safety Board believes that crewmembers aboard uninspected fishing vessels should be provided the same water safety protection equipment, i.e., exposure suits and liferafts, as crewmembers on inspected vessels.

Although the CHICKADEE and the MARINER were not required to have any radios, they were each equipped with two VHF/FM radios and a citizens band radio. Commercial uninspected fishing vessels should be required to have sufficient radio capability to communicate with the closest land station, other vessels, and rescue units in the event of an emergency, or as a collision avoidance device.

However, having radios on board a vessel is not sufficient. Crewmembers must know how and when to use them. Crewmembers who stand a wheelhouse watch should be given training in the proper use of VHF/FM radios as an item of safety equipment and should be instructed to use them to avoid collisions or to seek assistance. The fishing vessel watchstanders failed to use their VHF/FM radios to warn the PAGE of their presence in the area. Because the PAGE was monitoring channel 16, the collision might have been avoided had the fishing vessel watchstanders broadcast a message (i.e., "High speed vessel heading southeast about 50 miles off the coast of Virginia, you are bearing down on two vessels in tow.") on channel 16.

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

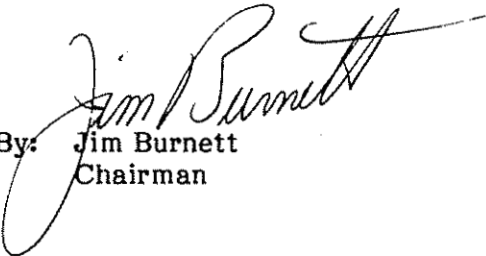
Disseminate information about the circumstances of the accident involving the USS RICHARD L. PAGE and the U.S. fishing vessel CHICKADEE on April 21, 1987, to the fishing industry, citing the importance of exposure suits, radio communications, radar use in fog, and the sounding of fog signals. (Class II, Priority Action) (M-88-30)

^{4/} Ibid., p. 3.

Require a placard with donning instructions for exposure suits to be posted in a conspicuous place on all fishing vessels that carry such suits. (Class II, Priority Action) (M-88-31)

The Safety Board also issued Safety Recommendations M-88-32 through -35 to The Trawler MARINER, Inc., and M-88-36 through -38 to the the U.S. Navy.

BURNETT, Chairman, KOLSTAD, Vice Chairman, and LAUBER and NALL, Members, concurred in these recommendations.


By: Jim Burnett
Chairman