

more of the trimming port covers became displaced and this permitted the ingress of water to the fish hold. The fact that the level of fish was observed 5 to 6 feet below the displaced cover on the portside indicates the existance of void areas which would permit a shift of cargo. The sudden development of the starboard list also indicates a cargo shift. It would appear that a quantity of water entering the starboard side of the fish hold would reduce the surface adhesion in the pile of fish in that area, with a resulting shift of bulk to a void or less densely packed area. The deep starboard list then permitted boarding seas to enter the hold through the open hatch. The release of the starboard boat and the ballasting of the port tank, together with the increased volume of water in the hold, caused a second shift of cargo and an even greater list to port. As the flooding progressed, stability continued to deteriorate and the vessel capsized and sank.

#### PROBABLE CAUSE

The National Transportation Safety Board finds that the probable cause of this casualty was the failure of the Master to have the main hatch covered when the vessel encountered heavy weather. A contributing cause was the failure to install and maintain the trimming hatch covers in a secure manner. Also contributing to the loss of the vessel were the steps taken by the crew to offset the starboard list.

Contributing to the effects of this casualty was the lack of primary lifesaving equipment which would be readily available and would provide exposure protection. Also, waterproof battery-powered lights attached to the lifepreservers might have enabled rescue forces to detect the individuals in the water early enough to reduce the loss of life.

#### RECOMMENDATIONS

The Safety Board concurs with the Commandant relative to the recommendations of the Marine Board. In addition, the Board

makes the following commendations and reiterates recommendation made by the Board in its action on the Marine Board report of the loss of the PANOCEANIC FAITH relative to lights for life preservers:

M-70-1

1. The Coast Guard, in its study of fishing vessel safety, consider the need for legislative authority to require sufficient inflatable liferaft capacity to accommodate all persons on board fishing vessels in ocean and coastwise service.

M-70-2

2. The Coast Guard consider amending the applicable regulations to require that each life preserver be equipped with a waterproof battery-powered light.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

Adopted this 31st day of December, 1969:

John H. Reed  
John H. Reed, Chairman

Oscar M. Laurel  
Oscar M. Laurel, Member

Francis H. McAdams  
Francis H. McAdams, Member

Louis M. Thayer  
Louis M. Thayer, Member

Isabel A. Burgess  
Isabel A. Burgess, Member

not participating