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# NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: May 10, 1984

Forwarded to:

Admiral James D. Watkins  
Chief of Naval Operations  
The Pentagon  
Washington, D. C. 20350

SAFETY RECOMMENDATION(S)

M-84-20 and -21

On the morning of October 12, 1983, the USS WILLIAM V. PRATT, a U.S. Navy guided missile destroyer, was inbound in Pensacola Bay en route to the U.S. Naval Air Station, Pensacola, Florida, for fueling. While the destroyer was backing and turning to port, tension on a towline heeled one of the two assisting tugs, the TECO #2, so far to starboard that water entered the tug's hull through open main deck doors, and the tug sank. No loss of life resulted from this accident, but two persons aboard the TECO #2 were injured seriously. The damage to the tug and salvage costs totaled an estimated \$750,000. <sup>1/</sup>

The PRATT's port shaft throttleman testified that when he received an engine order, his first action would be to acknowledge the order on the engine order telegraph. He said that next he would note the shaft revolution counter reading and the time and would log them and the engine order in the bell book. Next, he would operate the appropriate throttle valve to execute the order.

The maintenance of an accurate bell book is important to efficient engineroom operations. Since it supplies a record of the times and sequences of engine orders and a record of the shaft revolutions, it may be used as a management tool with which the performance of engineroom personnel may be evaluated. A comparison of the various logs on board the PRATT for the date of the accident shows close agreement between the notations in the deck log and the starboard shaft bell book. The notations in the port shaft bell book, however, are markedly different from those contained in the deck log. The discrepancies between the PRATT's deck log and port shaft bell book were probably induced by the high number of tasks that the throttleman had to perform upon receipt of an engine order. The Safety Board holds that, when a ship is maneuvering in restricted waters, two men should be assigned to these tasks: one man to perform the purely administrative tasks of keeping the bell book, and the other man to answer and execute engine orders. With such a system, a more accurate log would be kept, and orders would probably be executed in a more timely manner. Despite the fact that the port shaft bell book notations do not coincide with the notations in the other logs, there is no evidence of undue delay in the throttleman's execution of the engine orders. However, a more accurate log would have removed any doubt concerning the adequacy of his performance.

<sup>1/</sup> For more detailed information, read "Marine Accident Report—Sinking of the U.S. Tug TECO #2 While Assisting in the Docking of the USS WILLIAM V. PRATT, Pensacola, Florida, October 12, 1983," (NTSB-MAR-84-04).

Although the PRATT's conning officer was in training and did not have extensive shiphandling experience, he was closely supervised by the Commanding Officer (CO) and the Officer of the Deck (OOD). They said that the conning officer did not issue an inappropriate order, and that there was no need to relieve him of the conn. The Safety Board, therefore, holds that the inexperience of the conning officer did not contribute to this accident.

The CO requested the pilot to act in an advisory capacity in regard to the piloting of the PRATT, but in a supervisory capacity in regard to the working of the tugs. The effect of this arrangement was to divide the command in such a way that the officer conning the ship (along with those officers who were monitoring him) paid no attention to the tugs, or to the possible effects that the ship's movements would have upon them. In addressing this type of "command structure" one authority 2/ states:

Conning a ship is a one-man job. This is particularly true when tugs are being employed. The responsibility for the conn cannot be divided between two people. It makes no difference how capable either individual might be by himself. Having one person control the ship's propeller and rudder while someone else controls the movement of the tug, with each operating independently of the other, is a sure way of getting into trouble.

The Safety Board holds that dividing the conn not only allowed the ship's officers to relax the attention that they should have paid to the tugs, but similarly allowed the pilot to be less acutely aware of the movement of the ship than was necessary to insure the safety of all of the vessels involved.

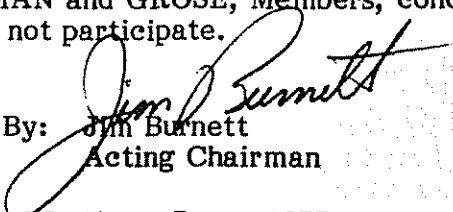
Therefore, the National Transportation Safety Board recommends that the U.S. Navy:

Require all ships not equipped with automatic bell loggers to have two persons at the throttle control station during maneuvering operations in restricted waters to receive engine orders. One person to be assigned the exclusive duty to answer and execute the engine orders while the other person performs the purely administrative task of keeping the bell book. (Class II, Priority Action) (M-84-20)

Require commanding officers when docking a ship with tug assistance to keep the control of the ship and the control of the tug(s) vested in one person. (Class II, Priority Action) (M-84-21)

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "...to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (P.L. 93-633). The Safety Board is vitally interested in any actions taken as a result of our safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter.

BURNETT, Acting Chairman, GOLDMAN and GROSE, Members, concurred in these recommendations. BURSLEY, Member, did not participate.

By:   
Jim Burnett  
Acting Chairman