

NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: September 21, 1981

 Forwarded to:
 Honorable J. Lynn Helms
 Administrator
 Federal Aviation Administration
 Washington, D.C. 20591

SAFETY RECOMMENDATION(S)
A-81-124 through -127

The National Transportation Safety Board has under investigation an in-flight accident involving a World Airways, Inc. DC-10-30 aircraft while en route from Baltimore-Washington International Airport U.S.A., to Gatwick International Airport, U.K., on September 19, 1981.

Preliminary information indicates that a flight attendant was attempting to remove a service cart from the personnel lift in the lower galley when the lift started moving upward. The flight attendant became lodged between the top of the service cart and the top of the lift's doorway opening and as a result sustained fatal injuries.

The reason the lift started moving upward with the lower galley lift door open has not yet been determined. An interlock system is installed to prevent energizing the lift motor and thus raising or lowering the lift while either the upper or lower lift door is open. However, the Safety Board's investigation has disclosed that lifts have been observed to operate with one of the doors open. The Safety Board is thus concerned about the location of the electrical interlock switches. The switches are located in an area where they can be damaged by service carts or accidentally activated by a flight attendant while trying to remove a service cart.

A review of the service history of the galley lift system revealed that in July 1979 the Douglas Aircraft Company issued Service Bulletin 25-266 following two instances in which operators had reported that the galley lift system had operated with a lift door open. The Service Bulletin stated that the electrical interlock switches had failed due to contamination by various types of foreign liquid substances. The Service Bulletin also stated that this condition could result in injury to flight personnel if the lifts are operated while the lift doors are open.

While the Safety Board's preliminary investigation indicates that this Service Bulletin had been incorporated on the accident airplane, we note that this occurrence further exemplifies the extreme hazard of this situation. We believe that in addition to mandatory compliance of the Service Bulletin and interim procedures to prevent another accident, the design of the entire interlock system should be changed to eliminate the potential for damage to the interlock switches.

Furthermore, our preliminary investigation indicates that the trapped flight attendant was not immediately released. Although the reason for the delay has not been determined, the Safety Board is concerned that the other flight attendants may not have been sufficiently knowledgeable about the lift circuitry design and emergency operational methods to have effected a release.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an Operations Alert Bulletin to all operators of DC-10 aircraft notifying them of the circumstances of this accident and informing them to implement procedures or temporary circuitry changes which would prohibit flight attendants in the main cabin service center from activating the galley personnel lift upward from the lower lobe galley without verbal confirmation that all personnel are clear and the lower lift door closed. (Class I, Urgent Action) (A-81-124)

Issue an Airworthiness Directive to require affected DC-10 operators to immediately comply with the Douglas Aircraft Company's Service Bulletin 25-266. (Class I, Urgent Action) (A-81-125)

Require a redesign of the galley personnel and food cart lift doors and door frames to relocate the interlock switches to a position where they would not be susceptible to damage by food service carts, to inadvertant contact by personnel attempting removal of food service carts, and to contamination by foreign substance. (Class I, Urgent Action) (A-81-126)

Review DC-10 operator training programs for flight attendant personnel and flightcrews to assure that they include a description and discussion of the galley lift system including the electrical circuitry, location of circuit breakers, function of door interlock switches, and emergency operating procedures. (Class I, Urgent Action) (A-81-127)

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

By: James B. King
Chairman

