

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: June 3, 1981

Forwarded to:

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

SAFETY RECOMMENDATION(S)  
A-81-61 and -62

On November 21, 1980, a Continental Airlines/Air Micronesia, Inc., Boeing 727-92C, N18479, landed short of the runway at Yap Airport, Yap, Western Caroline Islands. The right main landing gear separated at touchdown. Extensive damage to the right wing was sustained when the aircraft slid along the ground resulting in fuel spillage and fire which engulfed the right wing and most of the right side of the fuselage as the aircraft skidded to a stop. The galley door and the two overwing emergency window exits on the right side of the aircraft were not used because of the fire. All 73 occupants, except two crewmembers, escaped through the two left overwing emergency window exits. Those occupants in the rear of the cabin were almost overcome by smoke when they crowded at the ventral airstair door which could not be opened by the flight attendant. 1/

The aircraft cabin was configured to carry both passengers and cargo. The cargo was situated in front of the passengers on two pallets in the forward cabin. With the aircraft in this configuration, the forward left main cabin door was unusable. This configuration was permitted by the Federal Aviation Administration (FAA) when it issued the Boeing Company an exemption from compliance with the certification requirements of Civil Air Regulation (CAR) 4b. However, the FAA required Boeing to install a ventral airstair door emergency opening system on Boeing 727-100 aircraft which could be so configured. This same emergency system also was required on the 131-passenger Boeing 727-100 aircraft before issuing the exemption. 2/ The emergency opening system for the ventral airstair door was necessary to insure the availability of an emergency exit under adverse conditions. The system was designed to provide a positive minimum opening clearance if the normal system failed.

Inspection of the wreckage showed that the control for the emergency opening system for the ventral airstair door had not been activated. The flight attendant stationed in the rear of the aircraft had not been trained in the operation of the

1/ For more detailed information, read Aircraft Accident Report--"Continental Airlines/Air Micronesia, Inc., Boeing 727-92C, N18479, Yap Airport, Yap, Western Caroline Islands, November 21, 1980" (NTSB-AAR-81-7).

2/ A Boeing Company letter, reference 6-7330-1855, dated August 19, 1964, describes the reason for, and the operation of, the ventral door emergency exit system on Model 727 aircraft.

emergency system and was not aware of the system. Other Air Micronesia flight attendants subsequently were questioned about the ventral airstair door emergency opening system, and none of those questioned was aware of its existence. Examination of Continental's Emergency Procedures Handbook (EPH) revealed no reference or mention of the emergency system. However, the emergency system was described in the FAA-approved flight manual. In fact, the flight manual listed a minimum necessary air pressure for the operation of the emergency opening system as a requirement on the minimum equipment list when the aircraft was flown in the cargo/passenger configuration. After the Yap accident, Continental trained its flight attendants and those of Air Micronesia on the operation of the emergency opening system. Continental also revised its EPH and changed its training simulator to duplicate the emergency controls for the ventral airstair door.

A second problem which became apparent during this investigation involved the inadequate marking and location of the emergency system controls for the ventral airstair door. The controls for both the normal and emergency systems are inside the tailcone area. They are positioned on the left stairwell wall looking aft near the rear pressure bulkhead. Individual access doors cover the controls for both systems. The access door for the normal control is forward of the access door for the emergency control and about 2 1/2 times larger. When the normal access door is opened, it completely hides the emergency system access door. This could be corrected simply by allowing the normal access door to hinge to the left rather than to the right, by relocating the emergency control, or by depicting the location of the emergency control with adequate placards.

Boeing records indicate that as many as 318 of its Boeing 727-100 series aircraft could have been equipped with the ventral airstair door emergency opening system. Records show that 91 of the Boeing 727-100C cargo/passenger aircraft and 164 Boeing 727-100 all-passenger aircraft were manufactured with this system. Subsequently, 63 modification kits were sold. The Safety Board is concerned that operators of these aircraft may not have provided the necessary training on the emergency opening system of the ventral airstair to their crewmembers, as was the case in this accident.

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

Require that air carriers operating applicable Boeing 727 aircraft include emergency procedures for operation of the ventral airstair door in their training programs for cabin crews. (Class I, Urgent Action) (A-81-61)

Issue an Airworthiness Directive on applicable Boeing 727 aircraft to require that the location of the emergency operating control for the ventral airstair door be readily apparent regardless of the position of the access door for the normal system control. (Class I, Urgent Action) (A-81-62)

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

  
By: James B. King  
Chairman