



# National Transportation Safety Board

Washington, D.C. 20594  
Safety Recommendation

---

Date: May 28, 1993  
In reply refer to: A-93-66  
through 68

Mr. Joseph M. Del Balzo  
Acting Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

---

On April 5, 1993, a Boeing 767-200, N767TA, operated by TACA International Airlines (El Salvador) as flight 510, crashed while landing at La Aurora International Airport in Guatemala City, Guatemala. The flight originated in San Salvador and was making an intermediate stop in Guatemala City en route to Los Angeles, California. There were two pilots, seven flight attendants, and 215 passengers on board. The National Transportation Safety Board is participating in the investigation being conducted by the Direccion General De Aeronautica Civil of Guatemala under the provisions of Annex 13 to the Convention on International Civil Aviation.

The airplane landed after a rain shower. Control tower personnel had advised the crew of slippery runway conditions. Touchdown occurred approximately 3,500 feet down the 9,200-foot runway at a speed of 153 knots. With 500 feet remaining, the captain determined that the airplane would not stop before the end of the runway. He intentionally steered the airplane to the left. The airplane exited the runway at a speed of 76 knots, went through the perimeter fence, traveled down a hill, and struck several residences before it came to rest 810 feet from where it had left the runway.

All of the 224 occupants safely evacuated the airplane, and only minor injuries were reported. No one on the ground was injured, and there was no postimpact fire.

Although the investigation continues, the Safety Board has identified a safety issue which it believes the Federal Aviation Administration (FAA) should take immediate action to correct.

The Boeing 767 is equipped with an off-wing escape slide system. This system deploys inflatable evacuation slides for passengers who exit onto the wings, which are 13 feet above the

ground in a normal attitude and could be higher depending on terrain conditions. The slides are stored in compartments which are located along the fuselage at the trailing edge of each wing and inflate automatically when the compartment doors are opened.

Four latches hold each escape slide compartment door closed. These latches are operated by a sliding latch train. When the latch train is moved forward, the latches are closed; when the latch train is moved aft, the latches are opened. Opening the overwing emergency exit door activates a squib-fired actuator which pulls the latch train aft to open the latches.

When the evacuation began, the left overwing emergency exit door was opened by a passenger. However, the off-wing escape slide compartment door did not open, and thus, the slide did not deploy. Several passengers jumped from the wing to the ground while others climbed back into the airplane to seek a safer means of egress. It is not known how many passengers may have been injured when they jumped from the wing.

During the accident investigation, it was determined that the slide compartment door did not open because the forward latch was installed upside-down. When the squib-fired actuator pulled the latch train aft, three of the latches moved to their open positions. However, the forward latch moved to its closed position, which prevented the door from opening. According to Boeing, the latches are designed to be interchangeable for use in right or left wing slide compartments. Thus, the latch that was incorrectly installed in the left wing compartment would have been oriented correctly for a right wing compartment.

In 1991, Boeing became aware that an operator was unable to open an off-wing escape slide compartment door on a Model 767 airplane during scheduled service. The reason was determined to be a worn latch. In response to this finding, on August 15, 1991, Boeing issued Service Bulletins (SB) 767-25A0174 and 747-25-2591. (The same latches are installed on Model 747 series airplanes.) These SBs called for replacement of the latches with an improved design latch. About 200 Model 767 series airplanes and 400 Model 747 airplanes were affected by these SBs.

In October 1992, the FAA issued Airworthiness Directive (AD) 92-16-17, which required installation of the improved design latches within 18 months. Since improved design latches were found on the accident airplane, the Safety Board believes that the upside-down latch was installed by TACA while attempting to comply with the AD.

In 1993, Boeing became aware that operators could install the latches upside-down when complying with the AD. On February 18, 1993, Boeing issued Revision 1 to SB 767-25A0174. This revision added instructions and diagrams to help Model 767 operators properly install the latches. While this revision is helpful, the

Safety Board does not believe it eliminates the possibility of upside-down latch installation.

Latches can be installed upside-down during airplane manufacture as well as during the latch replacement required by the AD. The Safety Board is concerned that other Boeing 767 and 747 airplanes may have escape slide compartment door latches installed upside-down which, if not corrected, will prevent the escape slides from deploying. The Safety Board believes that urgent corrective measures are necessary to prevent incorrect installation of these latches.


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

Issue an emergency Airworthiness Directive to inspect all Model 767 and Model 747 series airplanes for improper installation of the off-wing escape slide compartment door latches. Require that any latch found installed improperly be removed and reinstalled properly before the airplane returns to service. (Class I, Urgent Action) (A-93-66)

Issue an immediate revision to Airworthiness Directive 92-16-17 to include the additional information provided in Revision 1 to Service Bulletin 767-25A0174, which provides operators information on how to install the escape slide compartment door latches properly. (Class I, Urgent Action) (A-93-67)

Require Boeing to modify Model 767 and Model 747 escape slide compartment door latches to prevent the possibility of incorrect installation. (Class II, Priority Action) (A-93-68)

Chairman VOGT, Vice Chairman COUGHLIN, Members LAUBER, HART, and HAMMERSCHMIDT concurred in these recommendations.

  
By: Carl W. Vogt  
Chairman