



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: February 28, 1994

In reply refer to: A-94-32

Mr. Jeffery Segan
Executive Director
Dallas/Fort Worth International Airport
P.O. Drawer 619428
Dallas/Fort Worth International Airport
Texas 75261-9428

On April 14, 1993, about 0659:43 central daylight time, American Airlines flight 102, a McDonnell Douglas DC-10-30, departed runway 17 left, following landing at Dallas/Fort Worth International Airport, Texas, after a nonstop, overnight flight from Honolulu International Airport, Hawaii. It was raining at the time of the landing, and there were numerous thunderstorms in the area. There were 189 passengers, 3 flightcrew members and 10 cabincrew members aboard the airplane. Two passengers received serious injuries, and 35 passengers, 1 flightcrew member, and 2 cabincrew members received minor injuries during the evacuation of the airplane. The airplane sustained substantial damage.¹

The National Transportation Safety Board has determined that the probable cause of the accident was the failure of the captain to use proper directional control techniques to maintain the airplane on the runway.

¹For more detailed information, read Aircraft Accident Report--"Runway Departure Following Landing, American Airlines Flight 102, McDonnell Douglas DC-10-30, N139AA, Dallas/Fort Worth International Airport, Texas, April 14, 1993" (NTSB/AAR-94/01)

The investigation revealed that the surface texture of the landing runway, 17L-35R, had deteriorated as a result of high levels of jet traffic and weather-related erosion. Federal Aviation Administration (FAA) guidance, as stated in Advisory Circular (AC) 150/5320-12B, addresses runway wear. By definition, "maintenance planning" for this runway was called for, and the friction levels of the majority of the runway fell within acceptable levels for airplane operations. However, a buildup of rubber that was found at the approach end of 17L showed a coefficient of friction below the FAA minimum standards. According to airport records for the past 3 years, rubber removal was conducted at 4- and 8-month intervals. There was an average of 261 landings on 17L each day. FAA guidance suggests a rubber removal frequency every 2 months for runways with a frequency of turbojet landings of more than 210 per day. Although this buildup did not contribute to the loss of directional control on the runway, the Safety Board believes that Dallas/Fort Worth International Airport should monitor the runways more frequently and remove the rubber buildup on all runways, as necessary, in accordance with the AC.

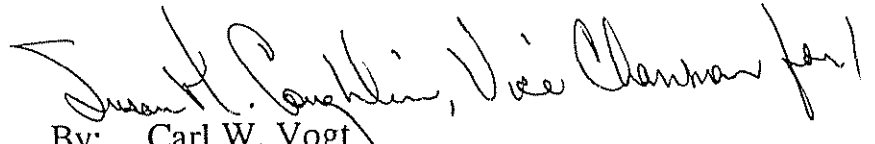
Therefore, as a result of its investigation of this accident, the National Transportation Safety Board recommends that the Dallas/Fort Worth International Airport:

Monitor surface friction on all operational runways on a more frequent basis, including the buildup of rubber on all runways, and perform rubber removal operations as required, in accordance with FAA Advisory Circular 150/5320-12B. (Class II, Priority Action)
(A-94-32)

Also, the Safety Board issued Safety Recommendations A-94-24 through -31 to the Federal Aviation Administration and A-94-33 and -34 to American Airlines, Inc.

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" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation A-94-32 in your reply.

Chairman VOGT, Vice Chairman COUGHLIN, and Members LAUBER, HAMMERSCHMIDT, and HALL concurred in this recommendation.


By: Carl W. Vogt
Chairman