

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: April 13, 1981

Forwarded to:

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

SAFETY RECOMMENDATION(S)

A-81-43

On November 17, 1980, Air Miami Air Taxi Flight 421, a deHavilland DH-114, operating for Air Florida, was being vectored at a point about 30 miles southeast of Fort Myers, Florida, when it encountered an area of light to moderate turbulence. The aircraft experienced "a moderate updraft followed by a severe downdraft" and continued to descend at a high rate with heavy buffeting. At the time, the copilot noticed a section of the right wing leading edge between the No. 3 and the No. 4 engine nacelles was missing. Rather than continue to his destination, the pilot elected to land at Immokalee Airport located about 3 miles away. The pilot landed the aircraft successfully without injuring any of the 3 crewmembers or the 13 passengers aboard.

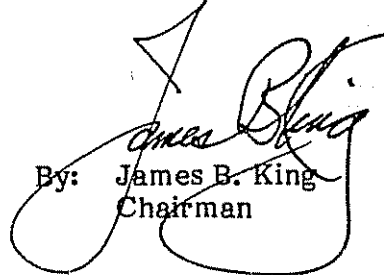
Investigation revealed that the latch fastener arm on the right wing outboard leading edge inspection door moved out of position and the door opened upward into the slip stream, causing a "spoiler" type reaction and partial loss of aircraft control. A major portion of the door's upper structure also separated from the aircraft. The latching mechanism failure was probably caused by a combination of factors, such as flexing of the wing, air flow, or wear.

Prinair of Puerto Rico, operator of a fleet of 25 deHavilland DH-114 aircraft, and Caribbean Aircraft Development, Inc., (CADI), an overhaul facility for the DH-114 aircraft, has advised the Safety Board that a number of similar incidents have occurred and that partial loss of aircraft control had been experienced in each instance. CADI adopted a method of securing each inboard and outboard wing leading edge inspection door latch fastener arm and latch crossbar in the closed and locked position by using MS 9226-05 safety wire. Prinair has prepared and issued Engineering Order 923-1 covering this modification for the internal use of Prinair and CADI.

In view of the above, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an airworthiness directive to require that all deHavilland DH-114 aircraft wing leading edge inspection door latching mechanisms be secured in the closed and locked position in accordance with Prinair's Engineering Order 923-1. (Class II, Priority Action) (A-81-43)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in this recommendation.



By: James B. King
Chairman