NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: April 19, 1979

Forwarded to:

Honorable Langhorne M. Bond Administrator Federal Aviation Administration Washington, D.C. 20591

SAFETY RECOMMENDATION(S) A-79-25 and A-79-26

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New York Airways, Inc., Flight 972, a Sikorsky S61L helicopter with 15 passengers and a crew of 3 crashed on Newark International Airport at 1825 on April 18, 1979, shortly after takeoff. Three passengers were killed, 9 others and the crewmembers were injured.

Preliminary evidence obtained in the National Transportation Safety Board's investigation disclosed that a 35-inch outboard section of one of the tail rotor blades separated in flight. It appears that the resultant unbalance caused a massive failure in the tail rotor gear box. The gearbox and the remainder of the tail rotor assembly separated before the aircraft could effect a safe landing.

The failed tail rotor blade was examined in the Safety Board's metallurgical laboratory. This preliminary examination disclosed a fatigue crack through approximately 90 percent of the leading edge spar. The aluminum skin covering the spar also exhibited a fatigue crack extending from the leading edge approximately 2 inches. This crack may not have been detectable by visual examination prior to flight.

The Safety Board believes that the serious consequences of this failure and the potential for other accidents justifies the need for immediate Federal Aviation Administration action. Pending more detailed investigative examination, establishment and implementation of suitable corrective actions, the Safety Board believes that further flight operations with the S61 aircraft should be suspended.

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

Withdraw the airworthiness certificates of Sikorsky S61 helicopters until a means of detecting potential tail rotor blade failures can be devised and implemented. (Class I--Urgent Action) (A-79-25)

Notify foreign operators of Sikorsky S61 aircraft of this action. (Class I--Urgent Action) (A-79-26)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, and HOGUE, Members, concurred in the above recommendations.

James B. irman