

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: May 4, 1977

Forwarded to:

Honorable Quentin S. Taylor
Acting Administrator
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-77-18 and 19

On August 6, 1976, an Air Chicago Freight Airlines, Inc., North American TB-25N, N9446Z, operating with a limited category airworthiness certificate, crashed while attempting an emergency landing at Midway Airport, Chicago, Illinois. The National Transportation Safety Board's investigation of the accident indicated that corrective action should be taken to reduce the possibility of a similar accident.

The flight was conducted to prepare a pilot for a B-25 type-rating examination and only the trainee and an instructor pilot were aboard. About 5 minutes after takeoff, the pilot advised Midway tower, "Emergency, request straight in 446Z." This was the last radio transmission from the aircraft. About 35 seconds later, the pilot of another aircraft reported that the B-25 had crashed. The aircraft crashed in a populated area and destroyed two houses, two garages, three automobiles, and a boat. An additional 10 houses were damaged. Both crewmembers and one person on the ground were killed and another person on the ground was injured seriously. The aircraft was destroyed by impact and fire.

Our investigation indicates that a massive internal failure occurred in the left engine; the failure resulted in a fire which was not contained and could not be extinguished by the engine's fire extinguisher system. Consequently, the fire spread and caused large amounts of smoke and combustion products to enter the cockpit. The presence of these combustion products apparently caused the flightcrew to lose control of the aircraft. The Board could not determine the precise reason for the engine failure.

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As a part of the Board's investigation, oil samples taken from both engines of the aircraft were analyzed. The analysis disclosed large amounts of wear and corrosion products, evidence of extreme oxidation, high concentrations of wear metals, corrosion products, metal chips, silica, complex silicates, carbonates, and other inorganic matter. There were also large amounts of nitrogen, phosphorus, and chlorine in the samples.

The Safety Board reviewed the maintenance procedures used by the company and found that, although the aircraft was inactive following its purchase in July 1974 until February 1976, the engines had not been prepared for long-term storage or preoiled, as recommended by the manufacturer, before they were started in February 1976.

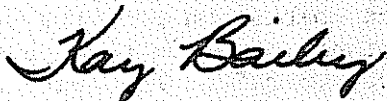
The Safety Board is aware of the special surveillance program of large and transport category aircraft currently being implemented by the FAA's Southern Region, whereby relatively old and inactive aircraft are grounded for obvious maintenance deficiencies. We believe that such a program will be most effective in reducing the utilization of unairworthy aircraft in flight operations.

However, in view of the evidence gathered in the investigation of the Air Chicago crash, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Expand the program currently in effect in your Southern Region to include vintage and military surplus aircraft and rotorcraft, and expand the program to include all FAA Regions. (Class II-Priority Followup.) (A-77-18.)

Review existing maintenance requirements to determine that those in effect are sufficient to assure the maximum level of safety in the operation of surplus and vintage aircraft and rotorcraft. (Class II-Priority Followup.) (A-77-19.)

TODD, Chairman, BAILEY, Vice Chairman, McADAMS, HOGUE, and HALEY, Members, concurred in the above recommendation.


By: Webster B. Todd, Jr.
for Chairman