

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.

ISSUED: June 3, 1976

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Forwarded to:

Honorable John L. McLucas  
Administrator  
Federal Aviation Administration  
Washington, D. C. 20591  
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SAFETY RECOMMENDATION(S)

A-76-77 Through 79

On February 8, 1976, a Mercer Airlines DC-6, YC112A (N901MA), was destroyed and three crewmembers were killed when it made an emergency landing on a golf course in Van Nuys, California. <sup>1/</sup>The National Transportation Safety Board's investigation of the accident revealed that the emergency was the result of an in-flight failure of a Curtiss-Wright Model 632S-B Type 744 hollow steel propeller blade which resulted from a fatigue crack.

The fatigue crack had started on the inside leading edge of the blade in a faulty braze and had progressed through to the outer surface, where it was hidden under a deicing boot or sheath. Investigation disclosed that the blade had been overhauled 85 operating hours before the accident; however, the sheath was not removed during overhaul. Although the inspector at the repair station stated that he followed the station's standard procedure for inspecting the blade, the Safety Board found that this procedure was not the same as prescribed in the manufacturer's overhaul manual. The manual states that all surfaces of the blade must be magnetically inspected with the sheath removed at each overhaul. The Safety Board found that the certificated repair station did not have a current overhaul manual.

Neither the airline nor the FAA District Office responsible for surveillance of the repair station was aware that overhauls were not being accomplished according to the current manual. Since the propeller is no longer being manufactured, the latest revision to the service/overhaul manual is dated March 1, 1962. The repair station copy was dated 1950.

<sup>1/</sup> The Board's full report on this accident will be issued in the near future.

The National Transportation Safety Board is concerned that components and accessories which are no longer being manufactured are not being maintained, repaired, and overhauled according to the most current procedures. Moreover, the Board believes that this investigation has revealed circumstances which may exist in other certificated repair stations.

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

1. Review the overhaul manuals for all metal propeller blades that are sheath equipped and insure that the manuals require that the surfaces of these blades beneath the sheaths be inspected either by removal of the sheath or by an alternate method which will detect cracks underneath the sheath. (Class I--Urgent Followup.)
2. Remind 14 CFR 121 certificate holders of their responsibility for insuring the adequacy of maintenance of their aircraft and components, even if the maintenance is contracted to outside repair stations. (Class I--Urgent Followup.)
3. Review FAA surveillance procedures for certificated repair stations to insure that they are adequate and that all repair stations maintain and use complete and current maintenance manuals. (Class II--Priority Followup.)

TODD, Chairman, McADAMS, HOGUE, BURGESS, and HALEY, Members, concurred in the above recommendations.



By: Webster B. Todd, Jr.  
Chairman

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