ISSUED: November 28, 1979

NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

Forwarded to:	
Honorable Langhorne M. Bond Administrator Federal Aviation Administration Washington, D.C. 20591	SAFETY RECOMMENDATION(S) A-79-88

The National Transportation Safety Board has received information from several owners and operators of Cessna 200 series aircraft that engine turbocharger assemblies are being replaced as the result of foreign object damage to the compressor blades. Examinations of several aircraft indicate a deterioration of the alternate air door's "piano-type" aluminum hinge. As a result, the hinge pin sleeves are breaking away and are being ingested by the turbocharger. FAA's Maintenance Analysis Center records show that 10 such cases have been reported in the past 5 years. Although the Safety Board has not determined that a failure of the hinge has caused an accident, we believe that such a failure does constitute a hazardous condition.

The FAA Engineering and Manufacturing Office at Wichita, Kansas, advised the Safety Board that Cessna changed the material specification of the alternate air door hinge from aluminum to steel and that a production line change was initiated in June 1979 to install the steel hinge on all 200-series aircraft in production. In addition, Cessna has discarded all spare aluminum hinge assemblies.

As of this date, Cessna has not issued any service information regarding the hinge failure problem and its consequence or the corrective action taken to eliminate the problem.

The Safety Board believes that owners and operators of turbocharged 200-series Cessna aircraft should be alerted to the possibility of deteriorated alternate air door hinges. Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an advisory to owners and operators of Cessna 200 series aircraft, through the General Aviation Airworthiness Alerts (AC-43-16), alerting them to the hazards associated with the aluminum hinge failure problem. The Notice should advise owner/operators to inspect the alternate air door hinge and should include information regarding the availability of new steel hinge assemblies. (Class II, Priority Action) (A-79-88)

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

James B. King

Chairman