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## NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: August 15, 1984

Forwarded to:

Honorable Donald D. Engen Administrator Federal Aviation Administration Washington, D. C. 20591

SAFETY RECOMMENDATION(S)

A-84-85

On August 19, 1983, a Piper PA-31-350 (Navajo), N200VF, operated by Island Air Services, experienced a left main landing gear separation just after takeoff from Kodiak Municipal Airport, Kodiak, Alaska. The flight diverted to Anchorage International Airport, Anchorage, Alaska, and made an emergency landing with the remaining landing gear extended and the left engine shut down. The pilot was not injured, but the airplane was damaged slightly.

Postaccident inspection of the left main gear revealed that two of the four retaining pins, P/N 01821-07, housed in the main gear top bearing assembly, P/N 40247-00, were fractured and two were missing. A visual inspection of the two fractured pins revealed cracks in the neck region of both pins. These gear retaining pins are manufactured by Piper Aircraft.

Two similar incidents involving PA-31-350 main landing gear separation have been reported to the Safety Board. The first incident occurred on June 5, 1978, and involved a Peninsula Airways PA-31-350, N74965, S/N 31-7305114. The second incident occurred on June 15, 1979, and involved a Yute Air Alaska, Inc., PA-31-350, N54265, S/N 31-7405213.

A survey of the Federal Aviation Administration's (FAA) Maintenance Analysis Center records on PA-31-350 main landing gear difficulties indicated that one incident of main gear separation, three incidents of sheared retaining pins, and one incident of worn retaining pins have been reported during the last 6 years.

As a result of the August 19, 1983, incident and other incidents of sheared or worn landing gear upper bearing retaining pins, Piper Aircraft Corporation issued Service Bulletin No. 779, dated May 25, 1984, which recommends replacement of the landing gear upper bearing retaining pins and an inspection of the strut housing assembly within the next 100 hours of operation or the next scheduled maintenance event, whichever occurs first.

In view of these findings and the potentially serious consequences of a main landing gear separation, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an Airworthiness Directive to require compliance with the provisions of Piper Aircraft Corporation Service Bulletin No. 779, dated May 25, 1984, which recommends inspection of the strut housing assembly and replacement of the landing gear upper bearing retaining pins within the next 100 hours of operation or at the next scheduled maintenance event, whichever occurs first. (Class II, Priority Action) (A-84-85)

BURNETT, Chairman, GOLDMAN, Vice Chairman, BURSLEY and GROSE, Members, concurred in this recommendation.

By: Jim Burnett Chairman