

# NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: March 26, 1981

Forwarded to:

Mr. Charles E. Weithoner  
Acting Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-81-29

On July 8, 1980, N36891, a Cessna 414A aircraft, was being operated on a Part 135 charter flight from Sacramento, California, to Fresno, California. About 15 minutes before landing at Fresno, the pilot attempted to press the radial centering knob on the Omni bearing indicator to establish a bearing to the station. However, when he pressed the knob, the instrument dropped partially inside the instrument panel and jammed the elevator control which restricted the aft movement of the elevator control to a position slightly aft of the neutral position. The aircraft was successfully landed at Fresno, California.

Investigation disclosed that the Marion Screw Products' mounting clamp, part number MSP9963, had loosened because one of the four rivets which maintains the clamp retaining capability was missing. When the condition was duplicated, it was found that with the loss of any rivet the instrument could be freed in its clamp and could create the difficulty experienced by the pilot.

Other instruments on the aircraft's instrument panel are mounted with the same type of clamp. Examination of two other clamps revealed a missing rivet from one and a loose rivet that could be moved by hand in the other.

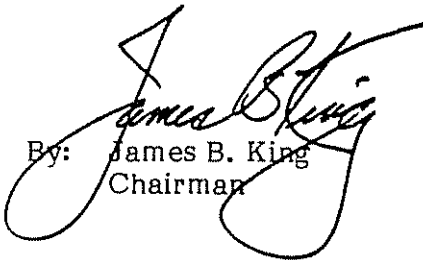
A review of Service Difficulty Reports indicates that other Cessna 400 series aircraft have experienced this problem and, based on information received from the Federal Aviation Administration's Engineering and Manufacturing District Office in Wichita, Kansas, the problem could exist on other aircraft models.

The Cessna Aircraft Company is aware of the instrument mounting clamp problem; however, Cessna does not know whether the problem is caused by excessive torque being applied to the clamp adjusting screw or by a manufacturing defect. Cessna indicated that Service Letter AV79-17 which was issued on May 4, 1979, required the installation of a strap on the instrument mounting clamp to prevent the instrument from moving forward in the event of clamp failure. Service Letter AV79-17 was directed to certain Cessna series 300 and 400 aircraft where the Omni indicators were installed in the lowest position of the pilot's instrument panel, above or adjacent to the control column. Service Letter AV79-17 had not been complied with on the incident aircraft. Cessna also indicated that they plan to release another service letter on the instrument mounting clamps after its investigation is completed.

Although the aircraft was landed successfully, the Safety Board is concerned that this potentially dangerous situation is likely to recur and could contribute to or cause an accident. Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Take action to notify all owners/operators of those Cessna model aircraft identified in Service Letter AV79-17 of the possible elevator control difficulties which can be encountered as a result of the Omni bearing indicator mounting clamp failure. (Class II, Priority Action) (A-81-29)

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

  
By: James B. King  
Chairman