

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: June 3, 1980

Forwarded to:

Honorable Langhorne M. Bond
Administrator
Federal Aviation Administration
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-80-47 and -48

On November 29, 1979, a Grumman American Model AA-1B, N8971L, departed Melbourne Regional Airport, Melbourne, Florida, on an instrument training flight. There were no communications with the flightcrew after it departed Melbourne. The flight failed to return and was reported missing. The wreckage was located on November 30, 1979, about 8 miles west of Melbourne in a level grass pasture. Both pilots were fatally injured.

The Safety Board's investigation revealed that the handle of the fuel selector valve, P/N SP2358B3, was selected to the right tank position; however, the right port of the valve was blocked completely and the left port was blocked partially by the valve's plastic core. Disassembly of the selector valve showed that the plastic core had separated from the valve handle. A survey of the Federal Aviation Administration's Maintenance Analysis Center records indicated that one other case of a fuel selector valve plastic core failure and eight cases of fuel selector valve binding have been reported over the last 5 years.

The service manual for the aircraft requires disassembly of the selector valve every 500 hours for cleaning and lubrication. This maintenance reportedly was performed on the aircraft involved in this accident at its last annual inspection on March 30, 1979, 163 flight-hours before the accident.

The Safety Board recognizes that the FAA has been active in alerting owners and operators of Gulfstream American Models AA-5A, -5B, and -1 of fuel selector valve difficulties by addressing this information in the August 1978 issue of the General Aviation Airworthiness Alerts and in the September 1977 issue of the General Aviation Inspection Aids Summary.

Because of the circumstances of this accident and the potential for future fatal accidents, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an Airworthiness Directive for all Gulfstream American model aircraft to require disassembly of the fuel selector valve for inspection, cleaning, and lubrication at 100-hour intervals. (Class II, Priority Action) (A-80-47)

Evaluate the design of fuel selector valve, P/N SP2358B3, and require correction of any deficiencies found during the evaluation. (Class II, Priority Action) (A-80-48)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN and BURSLEY, Members, concurred in these recommendations.


By: James B. King
Chairman