

Log 1590

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: September 8, 1983

Forwarded to:

Honorable J. Lynn Helms
Administrator
Federal Aviation Administration
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-83-57

On August 15, 1982, a Beechcraft Sierra, Model C24R, N18958, crashed during final approach to the Mercer County Airport at Trenton, New Jersey. The three occupants aboard were killed. Shortly before the crash, the pilot reported to the Trenton tower controller that he had lost engine power.

The Safety Board's investigation disclosed that there was an ample supply of fuel in both the left and right wing fuel tanks. However, engine stoppage occurred as a result of fuel starvation after the pilot inadvertently positioned the small pointer end of the fuel selector valve handle to the aft left "off" detent. When the selector is in this position, the larger opposite end of the valve handle aligns with the right forward green radial on the fuel selector valve guard. This green radial designates the detent position for the right wing fuel tank, and the Safety Board believes that the pilot may have intended to select this tank.

The fuel selector valve on Beech series 19, 23, and 24 airplanes has four detents arranged in a circular pattern: left tank (left forward position); right tank (right forward position); off (left aft position); and off (right aft position). Since the fuel selector valve handle can be rotated freely through 360°, the valve handle may be easily and unintentionally mispositioned to one of the off detents.^{1/} In order to minimize the risk of this happening, the Beech Aircraft Corporation, in July 1980, issued Service Instructions No. 1095, Revision 1, affecting the fuel selector valves in these airplanes. These

^{1/} On September 7, 1979, the Safety Board recommended that the Federal Aviation Administration (FAA) amend 14 CFR Part 23 to require that fuel selector valves incorporate devices that prevent movement to "off" positions without separate lever-release action by the pilot (Safety Recommendation A-79-72). The FAA, in Notice of Proposed Rulemaking (NPRM) 80-21, proposes to adopt such a provision but a final rule based on this NPRM has not yet been issued.

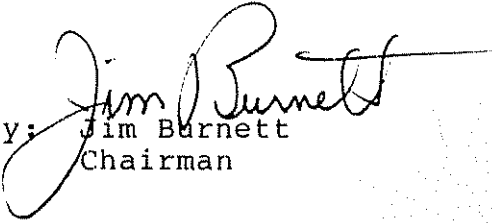
instructions provide for installation of a fuel selector stop which must be depressed before the fuel selector handle can be moved to an off detent. Although Beech considers compliance with these instructions to be essential and safety related, this modification had not been incorporated in N18958.

In recent years, there have been at least three other accidents involving mispositioning of the fuel selector to an off detent in Beech series 19 or 23 airplanes. These occurred at Charleston, West Virginia, on August 17, 1977 (Model C23, N18788); near Gurney, Illinois, on November 9, 1978 (Model B19, N1922); and at Orlando, Florida, on March 9, 1979 (Model C23, N18957). Consequently, in order to prevent the recurrent involvement of Beech series 19, 23, and 24 airplanes in similar accidents, the Safety Board believes that the fuel system modifications outlined in Beechcraft Service Instructions No. 1095, Revision 1, should be made mandatory.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an Airworthiness Directive applicable to Beech series 19, 23, and 24 airplanes, requiring compliance with Beechcraft Service Instructions No. 1095, Revision 1. (Class II, Priority Action) (A-83-57)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY and ENGEN, Members, concurred in this recommendation. McADAMS, Member, did not participate.

By: 
Jim Burnett
Chairman