

# NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: May 28, 1980

Forwarded to:

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

SAFETY RECOMMENDATION(S)

A-80-45

On July 13, 1979, Ward Air, Juneau, Alaska, dispatched a float-equipped Beech C-18S aircraft on a flight from Juneau to Drake Island, Alaska, and return. The flight was to be conducted under visual flight rules in accordance with 14 CFR 135. The pilot filed a VFR flight plan and was the only occupant on board the aircraft when it departed Juneau. The flight to Drake Island, located in the Glacier Bay area northwest of Juneau, was uneventful. The aircraft landed at Drake Island and the pilot boarded two passengers. One passenger was an ambulatory patient en route to a hospital in Juneau.

The aircraft had departed Drake Island and was climbing through an altitude of 2,500 feet mean sea level when fire appeared behind the copilot seat. The pilot and one passenger used a handheld portable fire extinguisher to put out the fire. The pilot stated that windows and hatches were opened to exhaust the smoke and the flight continued to its Juneau destination. Neither of the two passengers was injured. The pilot received first-degree burns to his hands while he was extinguishing the fire.

The Safety Board's investigation disclosed that a pressurized aerosol can of furniture polish (used onboard as a window cleaner) had been placed on a shelf directly behind the copilot seat next to an uncovered and unprotected electric terminal strip. The shelf was approximately 14 inches above the floor, and there were seven uncovered electrical terminal studs attached to a bracket on the bulkhead adjacent to the shelf. During the flight the aerosol can apparently became displaced from its original upright position and fell across the terminals studs. The pressurized can contacted the studs which caused a short circuit that burned through the thin aluminum wall of the can and ignited the contents of the container. The can burned like a blowtorch and ignited the upholstery, which was made of fiberglass and plastic. The fire quickly spread up to the emergency escape hatch before it was extinguished with the help of the passenger. Had the pilot been alone in the aircraft when the fire erupted, the outcome could have been catastrophic.

In view of the above, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Publish the circumstances of this incident in the Maintenance Notes Section of the General Aviation Airworthiness Alerts, stressing the fact that pilots and maintenance personnel share a responsibility to insure there are no uncovered or unprotected electrical terminal studs exposed in aircraft. The Maintenance Note should also remind pilots of the danger involved when carrying pressurized aerosol cans in an aircraft. (Class II, Priority Action) (A-80-45)

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

By:  James B. King  
Chairman