

## **Safety Recommendation A-67-11**

The National Transportation Safety Board (NTSB) issued Safety Recommendation A-67-11 to the Federal Aviation Administration on March 13, 1967, as a result of the NTSB's investigation of the February 28, 1967 accident where a Beechcraft model C-45H, N830K, developed a severe fatigue crack causing it to crash and burn near Summit Air Park Airport in Middletown, Delaware. The pilot and copilot received fatal injuries. Our investigation of this accident revealed that a fatigue fracture had occurred in the elliptical lower cap of the front spar of the left wing. The origin of the fatigue fracture was at the toe of a small weld which circled a bolt hole approximately seven inches outboard of the outer wing panel attach point. A fatigue crack had progressed through the tubular wall of the spar cap in both directions from the origin, resulting in a total crack length of about three inches and severing approximately 50 percent of the cross sectional area of the tube before the final failure occurred. The text of Safety Recommendation A-67-11 is as follows:

To the Federal Aviation Administration: It is therefore recommended that mandatory inspections similar to those required by these directives be specified for the lower spar cap outboard of the outer wing panel attach point, including the welds joining the attach fitting to the spar, the welds around the bolt holes, and the welds in the cluster and "fish mouth" joint that extends to a point approximately 21 inches outboard of the attach point. Particular attention should be given to the edges of weld beads that run transverse to the length of the spar cap. These inspections should be started as soon as possible.

Additional information about the subject accident is below.

# NTSB Identification: DIA67A0011

14 CFR Part 91 General Aviation

Aircraft: BEECH C-45H, registration: N830K

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FILE DATE LOCATION AIRCRAFT DATA INJURIES F  
LIGHT PILOT DATA F S M/N P  
URPOSE  
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2-0164 67/2/28 MIDDLETOWN, DEL BEECH C-45H CR-  
2 0 0 MISCELLANEOUS COMMERCIAL, FL.INSTR.,  
TIME - 1605 N830K PX-  
0 0 0 FERRY AGE 41, 5527 TOTAL HOURS,  
DAMAGE-DESTROYED OT-  
0 0 0 86 IN TYPE, INSTRUMENT

RATED.

NAME OF AIRPORT - SUMMIT AIRPARK  
TYPE OF ACCIDENT PHASE OF OPE

RATION

AIRFRAME FAILURE: IN FLIGHT

TAKEOFF:

INITIAL CLIMB

PROBABLE CAUSE(S)

AIRFRAME - WINGS: SPARS

MISCELLANEOUS ACTS, CONDITIONS - FATIGUE FRACTURE

MISCELLANEOUS ACTS, CONDITIONS - POOR WELD

FIRE AFTER IMPACT

REMARKS-

LOWER CAP OF LEFT WING SPAR FAILED APPROX 8 IN OUTBOARD OF OUTER PANEL ATTAC  
H POINT