EMERGENCY AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

We post Emergency ADs on the internet at "www.faa.gov"

DATE: December 10, 2004
AD #: 2004-25-51

Send to all owners and operators of Raytheon Aircraft Company (Raytheon) Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplanes.

Discussion

What events have caused this AD? On December 7, 2004, the left wing of a Raytheon Beech Model A45 (T-34A), serial number G-13, separated from the airplane in flight. The airplane, operated by Texas Air Aces, crashed near Montgomery, Texas. The wing was found about a quarter mile away from the crash site.

The left wing center section failed 4 inches inboard of the forward wing attach fitting. In addition, FAA investigation revealed further visual evidence of fatigue (found in other locations) not previously addressed by AD 2001-13-18 R1, which FAA issued as a result of an accident near Conroe, Texas.

A review of maintenance records shows that the accident airplane was in compliance with AD 2001-13-18 R1.

AD 2001-13-18 R1 requires compliance with Raytheon Service Bulletin SB57-3329 to inspect four locations per wing:

- Location (1) - 9 fasteners at W.S. 34 forward spar;
- Location (2) - the lower rear bathtub fitting;
- Location (3) - 1 fastener at W.S. 64 forward spar; and
- Location (4) - 2 fasteners at W.S. 66 rear spar.

The FAA approved four alternative methods of compliance (AMOCs) to AD 2001-13-18 R1 based on front spar replacement or modification and inspections of Location (2) and (4) of the rear spar.

What are the consequences if the condition is not corrected? Cracks found in the wings of the affected airplanes could result in the wing separating from the airplane with consequent loss of control of the airplane.

What has FAA decided? After careful review of all available information related to the subject presented above, FAA has decided to issue an AD to detect and correct cracking in the wing structure of the affected airplanes, which could result in the wing separating from the airplane with consequent loss of control of the airplane.

What does this AD require? This AD requires you to perform an inspection and/or modification program approved specifically for this AD by the FAA Wichita Aircraft Certification Office (ACO).

Presentation of the Actual AD

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958), pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this action.

2004-25-51   RAYTHEON AIRCRAFT COMPANY: Directorate Identifier 2004-CE-44-AD.

When Does This AD Become Effective?

(a) This AD becomes effective upon receipt of this emergency AD.

Are Any Other ADs Affected By This Action?

(b) None. For clarification, this AD provides no relief from the requirements of AD 2001-13-18 R1.

What Airplanes Are Affected by This AD?

(c) This AD affects Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplanes, all serial numbers, that are certificated in any category.

What is the Unsafe Condition Presented in This AD?

(d) This AD is the result of cracks found in a location that was previously inspected and found to comply with AD 2001-13-18 R1; and two new locations. We are issuing this AD to detect and correct such cracking, which could result in the wing separating from the airplane with consequent loss of control of the airplane.

What Must I do to Address This Problem?

(e) The following specifies action you must do per this AD and other pertinent information to address this problem:

Actions	Compliance
(1) Perform an inspection and/or modification program approved specifically for this AD by the FAA Wichita Aircraft Certification Office (ACO).	Prior to further flight after the receipt of this emergency AD.
(2) To return/position the airplane to a home base, hangar, maintenance facility, etc., you may operate the airplane provided you follow the limitations in paragraph (f) of this AD.	You may operate the airplane up to 10 hours time-in-service (TIS) provided the flight(s) occur(s) no later than 30 days after receipt of this emergency AD.
(3) Special flight permits are allowed for this AD. See paragraph (f) of this AD for restrictions.	Use the procedures in 14 CFR part 39 and the restrictions in paragraph (f) of this AD.

(4) To help in the long-term airworthiness solution for the safety and continued airworthiness of these airplanes, FAA is requesting data from every owner/operator on the following on these airplanes:

  (i) Service/Repair History (cracked/fatigued structure);

  (ii) Maintenance Schedule; and

  (iii) Total Hours Time-In-Service (TIS).

Send to Paul Nguyen, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4125; facsimile: (316) 946-4107; e-mail: paul.nguyen@faa.gov.

What are the Flight Restrictions Specified in Paragraph (e)(2) and (e)(3) of this AD?

(f) During the time allowed before compliance with paragraph (e)(1) of this AD or for any approved special flight permit, you must adhere to the following limitations:

(1) NEVER EXCEED SPEED, VNE-175 MPH (152 knots);

(2) NORMAL ACCELERATION (G) LIMITS – 0, and +2.5;

(3) ACROBATIC MANEUVERS PROHIBITED.

(4) FLIGHT INTO KNOWN OR FORECAST MODERATE OR SEVERE TURBULENCE IS PROHIBITED.

(5) DAY VISUAL FLIGHT RULES (VFR) OPERATION ONLY.

(6) PILOT AND ANY ADDITIONAL FLIGHT CREW MEMBER REQUIRED FOR SAFE OPERATION.

Who do I Contact for Further Information?

(g) If you need additional information relating to this AD, contact: Paul Nguyen, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4125; facsimile: (316) 946-4107; e-mail: paul.nguyen@faa.gov.

Issued in Kansas City, Missouri, on December 10, 2004.

David A. Downey,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.