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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0165; Directorate Identifier 2008-CE-055-AD; Amendment 39-16075; AD 2009-23-03]

RIN 2120-AA64

Airworthiness Directives; Hawker Beechcraft Corporation (Type Certificate Previously Held by Raytheon Aircraft Company) Models 1900, 1900C, and 1900D Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) to supersede AD 2006-24-11, which applies to certain Hawker Beechcraft Corporation (HBC) (Type Certificate previously held by Raytheon Aircraft Company) Models 1900, 1900C, and 1900D airplanes. AD 2006-24-11 currently requires you to repetitively inspect the forward, vertical, and aft flanges of both the left and right wing rear spar lower caps for cracks, repair any cracks found, and report the inspection results to the manufacturer. Since we issued AD 2006-24-11, the manufacturer has developed a modification kit to install on the wing rear spar lower caps that will terminate the 200-hour repetitive inspection required in AD 2006-24-11. Consequently, this AD requires installing the new modification kits on the wing rear spar lower caps and terminates the repetitive inspections required in AD 2006-24-11 when the kits are installed. We are issuing this AD to prevent fatigue cracks in the wing rear spar lower caps, which could result in fatigue failure of the wing rear spar lower caps. A rear spar failure could result in complete wing failure and the wing separating from the airplane.

DATES: This AD becomes effective on December 14, 2009.

On December 14, 2009, the Director of the Federal Register approved the incorporation by reference of Hawker Beechcraft Mandatory Service Bulletin 57-3816, Issued: January 2008, listed in this AD.

As of December 11, 2006 (71 FR 70297, December 4, 2006), the Director of the Federal Register approved the incorporation by reference of Raytheon Mandatory Service Bulletin 57-3815, dated Issued: October 2006, listed in this AD.

ADDRESSES: To get the service information identified in this AD, contact Hawker Beechcraft Corporation, Attn: Airline Technical Support, P.O. Box 85, Wichita, Kansas 67201; telephone: (800) 429-5372; fax: (316) 676-8745; Internet: <http://www.hawkerbeechcraft.com>.

To view the AD docket, go to U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, or on the Internet at <http://www.regulations.gov>. The docket number is FAA-2009-0165; Directorate Identifier 2008-CE-055-AD.

FOR FURTHER INFORMATION CONTACT: Steve Potter, Aerospace Engineer, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4124; fax: (316) 946-4107.

SUPPLEMENTARY INFORMATION:

Discussion

On February 19, 2009, we issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain HBC Models 1900, 1900C, and 1900D airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on February 27, 2009 (74 FR 8885). The NPRM proposed to supersede AD 2006-24-11 with a new AD that would require you to install modification kits on the wing rear spar lower caps. The proposed AD would also retain the repetitive inspections currently required in AD 2006-24-11 until the modification kits are installed. The proposed AD would require you to use Raytheon Mandatory Service Bulletin 57-3815, Issued: October 2006; and Hawker Beechcraft Mandatory Service Bulletin SB 57-3816, Issued: January, 2008, to perform these actions.

Comments

We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

Comment Issue: Address Shoring Requirement

Mr. Scott Robert Lewis states that the shoring procedures specified in step 5 of Hawker Beechcraft Mandatory Service Bulletin SB 57-3816, Issued: January 2008, are inadequate and no reference is given.

Mr. Lewis also states that the maintenance manual gives no procedures for shoring the aircraft. Trusses must be made and the aircraft should be supported using approved procedures provided by the manufacturer.

Mr. Lewis requests references to procedures for the shoring process.

We agree with the commenter that there are no specific shoring procedures given to accomplish Hawker Beechcraft Mandatory Service Bulletin SB 57-3816, Issued: January 2008.

We rely on maintenance facilities to use best practices to shore airplanes at the locations specified in the modification kit installation instructions.

For further assistance with procedures for shoring an airplane, you may contact the manufacturer as noted in the Accomplishment Instructions of Hawker Beechcraft Mandatory Service Bulletin SB 57-3816, Issued: January 2008.

We are changing the final rule AD action based on this comment.

Conclusion

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial corrections. We have determined that these minor corrections:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM.

Costs of Compliance

We estimate that this AD will affect 243 airplanes in the U.S. registry and will reduce costs by \$12.8 million because the costs of the repetitive inspections currently required by AD 2006-24-11 will exceed the required modification costs over the life of the affected airplanes.

We estimate the following direct costs (the sum of labor and parts costs) to do the inspections:

Labor Cost	Parts Cost	Total Direct Cost Per Airplane	Total Direct Cost on U.S. Operators
10 work-hours X \$80 per hour = \$800	\$20	\$820	\$199,260

We estimate the following direct costs to do the modification:

Labor Cost	Parts Cost	Total Direct Cost Per Airplane	Total Direct Cost on U.S. Operators
250 work-hours X \$80 per hour = \$20,000	\$2,200	\$22,200	\$5,394,600

Given an average usage rate of 1,571 hours time-in-service, AD 2006-24-11 requires approximately 7.9 inspections a year. The approximate annual cost of these repetitive inspections is \$6,500. Based on these figures, a cost savings from incorporating the modification instead of doing the repetitive inspections will occur after 5 years on average. That is, the cost savings on the repetitive inspections no longer required will be greater than or equal to the total cost of the modification.

The results of our cost analysis are summarized in the table below. (See docket for full analysis.)

	Amount per Airplane	Total--U.S. Operators
Direct Costs (the sum of labor and parts)	*\$22,200	*\$5,394,600
Out-of-Service Costs (average)	*\$1,796	*\$436,510
Total Costs	*\$23,996	*\$5,831,110
Cost savings over the life of the airplane on AD 2006-24-11 repetitive inspections that would no longer be required after modification	**\$76,638	**\$18,622,984
Net Cost Savings	\$52,641	\$12,791,873

* Per airplane costs are shown rounded to the nearest dollar. Consequently, the corresponding totals for all U.S. operators may differ slightly from the per airplane costs multiplied by the total number of airplanes.

** Cost savings over the life of the airplane are calculated as follows. For each affected airplane, we use the airplane's estimated usage rate to estimate the number of inspections a year and multiply that figure by \$820 to estimate inspection cost a year. (As noted above, such estimates average to 7.9 inspections a year and about \$6,500 in annual inspection costs.) We then calculate a 7 percent annuity factor for the number of years of the airplane's life remaining to a presumed retirement age of 40. In calculation of the annuity factor, we assume annual inspection costs are discounted at mid-year. The

present value of the inspection costs can then be calculated as the annual inspection cost multiplied by the years-to-40 annuity factor.

Notes: This analysis assumed January 1, 2009, as the effective date of the AD and discount cost savings to that date. Updating to January 1, 2010, to be closer to the actual effective date will have little effect on the results. Costs are undiscounted, as we assume compliance as soon as the AD becomes effective.

These results are based on the assumption that the life-span of the airplanes affected by this AD is 40 years. This assumption is not crucial to the cost-beneficial nature of the rule, since 95 percent of the affected airplanes achieve cost savings on or before age 30.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Pub. L. 96-354) (RFA) establishes as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation.

To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The FAA did make such a determination for this AD. The basis for this determination is now discussed.

This AD will supersede existing AD 2006-24-11. The cost analysis for this AD shows that the modification will have a cost savings from the accumulative repetitive inspection cost now required in AD 2006-24-11, reflecting cost savings for 241 of the 243 affected airplanes. For the two firms that own the two airplanes where the analysis did not show a cost savings, we have identified one as a subsidiary of General Electric Capital Corporation and the other as the subsidiary of a firm that is probably large. General Electric Capital Corporation is not a small entity. We were unable to determine the size classification of the other firm. Even if the corporate parent of the unidentified firm is a small firm, this AD will impact at most one firm, and one firm is not a substantial number.

Therefore, the Acting FAA Administrator certifies that this rule will not impose a significant economic impact on a substantial number of small entities.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD (and other information as included in the Regulatory Evaluation) and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2009-0165; Directorate Identifier 2008-CE-055-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2006-24-11, Amendment 39-14840 (71 FR 70297, December 4, 2006), and adding the following new AD:



2009-23-03 Hawker Beechcraft Corporation (Type Certificate previously held by Raytheon Aircraft Company): Amendment 39-16075; Docket No. FAA-2009-0165; Directorate Identifier 2008-CE-055-AD.

Effective Date

(a) This AD becomes effective on December 14, 2009.

Affected ADs

(b) This AD supersedes AD 2006-24-11, Amendment 39-14840. AD 2006-18-51 relates to the subject of this AD.

Applicability

(c) This AD applies to the following airplane models and serial numbers that are certificated in any category:

Serial Numbers	
Group 1 Model Airplanes	
(1) 1900	UA-3
(2) 1900C	UB-1 through UB-74
Group 2 Model Airplanes	
(1) 1900C (C-12J)	UC-1 through UC-174, and UD-1 through UD-6
(2) 1900D	UE-1 through UE-439

Unsafe Condition

(d) This AD results from the manufacturer developing a modification kit to install on the wing rear spar lower caps that will terminate the 200-hour repetitive inspection required in AD 2006-24-11. We are issuing this AD to prevent fatigue cracks in the wing rear spar lower caps, which could result in fatigue failure of the wing rear spar lower caps. A rear spar failure could result in complete wing failure and the wing separating from the airplane.

Compliance

(e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
(1) For Group 1 and Group 2 airplanes: Repetitively inspect both the left and right wing rear spar lower caps for cracks and other damage, such as loose or missing fasteners.	Repetitively inspect at intervals not to exceed 200 hours time-in-service (TIS) after the last inspection required by AD 2006-24-11.	Follow the procedures in Raytheon Mandatory Service Bulletin 57-3815, Issued: October 2006.
(2) For Group 1 and Group 2 airplanes: If cracks are found, repair all cracks by obtaining and incorporating an FAA-approved repair scheme from the manufacturer.	Before further flight after any inspection required by paragraph (e)(1) of this AD where cracks are found.	For the repair scheme, contact Hawker Beechcraft Corporation at P.O. Box 85, Wichita, Kansas 67201-0085; phone: (800) 429-5372; fax: (316) 676-8745; email: tom_peay@rac.ray.com.
(3) For Group 1 and Group 2 airplanes: Report the inspection results to Hawker Beechcraft Company (formerly Raytheon Aircraft Company) using the instructions and forms in the service bulletin. Complete all sections of the required forms. Reporting requirements have been approved by the Office of Management and Budget (OMB) and assigned OMB control number 2120-0056.	Report the repetitive inspection results within 30 days after the inspection.	Follow the procedures in Raytheon Mandatory Service Bulletin 57-3815, dated Issued: October 2006.
(4) For Group 1 airplanes: Install Modification Kit 114-4052-1 and Modification Kit 114-4067-0001.	Upon reaching 22,000 total hours TIS or within the next 3 years after December 14, 2009 (the effective date of this AD), whichever occurs later. Installing the modification kits terminates the repetitive inspections required by paragraph (e)(1) of this AD.	Follow the procedures in Hawker Beechcraft Mandatory Service Bulletin SB 57-3816, Issued: January 2008. For further assistance with procedures for shoring an airplane, you may contact the manufacturer at the address specified in paragraph (h)(3) of this AD.
(5) For Group 2 airplanes: Install Modification Kit 118-4012-1 or 118-4012-3 and Modification Kit 118-4014-0003.	Upon reaching 22,000 total hours TIS or within the next 3 years after December 14, 2009 (the effective date of this AD), whichever occurs later. Installing the modification kits terminates the repetitive inspections required by paragraph (e)(1) of this AD.	Follow the procedures in Hawker Beechcraft Mandatory Service Bulletin SB 57-3816, Issued: January 2008. For further assistance with procedures for shoring an airplane, you may contact the manufacturer at the address specified in paragraph (h)(3) of this AD.

(6) For all affected Group 1 and Group 2 airplanes: You may install the modification kits specified in paragraphs (e)(4) and (e)(5) of this AD at any time before the required compliance times specified in paragraphs (e)(4) and (e)(5) of this AD. Installing the modification kits terminates the repetitive inspections required by paragraph (e)(1) of this AD.	As of December 14, 2009 (the effective date of this AD).	Not applicable.
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Alternative Methods of Compliance (AMOCs)

(f) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Steve Potter, Aerospace Engineer, ACE-118W, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, Kansas 67209, phone: (316) 946-4124, fax: (316) 946-4107. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(g) AMOCs approved for AD 2006-24-11 are not approved for this AD.

Material Incorporated by Reference

(h) You must use Raytheon Mandatory Service Bulletin 57-3815, Issued: October 2006, and Hawker Beechcraft Mandatory Service Bulletin 57-3816, Issued: January 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Hawker Beechcraft Mandatory Service Bulletin SB 57-3816, Issued: January 2008, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) On December 11, 2006 (71 FR 70297, December 4, 2006), the Director of the Federal Register approved the incorporation by reference of Raytheon Mandatory Service Bulletin 57-3815, Issued: October 2006.

(3) For service information identified in this AD, contact Hawker Beechcraft, Attn: Airline Technical Support, P.O. Box 85, Wichita, Kansas 67201; telephone: (800) 429-5372; fax: (316) 676-8745; Internet: <http://www.hawkerbeechcraft.com>.

(4) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(5) You may also review copies of the service information incorporated by reference for this AD at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Kansas City, Missouri, on October 27, 2009.

Kim Smith,
 Manager, Small Airplane Directorate,
 Aircraft Certification Service.