

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0047; Directorate Identifier 2009-SW-28-AD; Amendment 39-16177; AD 2010-02-07]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Model SE3160, SA315B, SA316B, SA316C, and SA319B Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) for the specified Eurocopter France (Eurocopter) model helicopters. The existing AD requires certain inspections of a main rotor blade (blade) manufactured under a Parts Manufacturer Approval under Supplemental Type Certificate (STC) SH778GL. The AD requires inspecting each affected root end bolt (bolt) and bolt-hole for corrosion or a crack on the blade root end fitting (fitting) or in a bolt-hole. For certain serial-numbered blades, the AD also requires a one-time pull test on each fitting and blade root end doubler (doubler) to detect disbonding. This AD requires certain inspections for voids in any doubler or fitting and for paint cracks along the forward and aft edge of the blade fitting. Also, this AD requires inspecting the blade tip weight housing attachment. This AD also requires replacing unairworthy blades with airworthy blades. This amendment is prompted by reports from the STC holder of disbonds at the fittings, doublers, and the tip weight fitting. The actions specified by this AD are intended to prevent blade failure and subsequent loss of control of the helicopter.

DATES: Effective February 12, 2010.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 12, 2010.

Comments for inclusion in the Rules Docket must be received on or before March 29, 2010.

ADDRESSES: Use one of the following addresses to submit comments on this AD:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from Phlight of Phancy Corp. (PPC), 791 Westport Parkway, Fort Worth, Texas 76177-4511, telephone 817-491-6755, fax 817-491-6759.

Examining the Docket: You may examine the docket that contains the AD, any comments, and other information on the Internet at <http://www.regulations.gov>, or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: DOT/FAA Southwest Region, Martin R. Crane, ASW-170, Aviation Safety Engineer, Rotorcraft Directorate, Rotorcraft Certification Office, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5170, fax (817) 222-5783.

SUPPLEMENTARY INFORMATION: On July 16, 2003, the FAA issued an Emergency AD 2003-15-51. That Emergency AD was published as a final rule on August 28, 2003 (68 FR 51681). The current AD requires certain inspections of a blade manufactured under a PMA issued and based on STC SH778GL. The AD requires inspecting each bolt and bolt-hole for corrosion or a crack on the fitting or in a bolt-hole on each affected blade. For certain serial-numbered blades, the AD also requires a one-time pull test on each fitting and doubler to detect disbonding. That action was prompted by a report from the blade manufacturer of the discovery of a cracked blade. In that action, we stated that the cause of the crack remained under investigation. That condition, if not corrected, could result in failure of a blade and subsequent loss of control of the helicopter.

Since issuing that AD, bond failures continue to be found in certain blades produced under a Parts Manufacturer Approval based on STC SH778GL. These bond failures occurred even after the inspections specified by Rotor Trends LLC Service Bulletin (SB) No. 01.03, dated July 9, 2003 (Rotor Trends SB), and required by AD 2003-15-51. Pflight of Phancy Corp. (PPC), the current STC holder, has issued Service Bulletin No. SB L3160-P-001, dated May 20, 2009 (PPC SB), to supersede the Rotor Trends SB. The PPC SB specifies visual and tap inspections of the blade root fittings and doublers. The PPC SB also specifies replacing certain blades that have voids or paint cracks and inspecting the blade tip weight housing on the outboard end of the blade. Finally, the PPC SB specifies removing all affected blades by May 20, 2010, or 500 hours time-in-service (TIS), whichever occurs first. This AD does not require replacing the blades at 500 hours TIS. However, replacing the affected blades with airworthy blades to which this AD does not apply would be terminating action for the requirements of this AD.

Since an unsafe condition has been identified that is likely to exist or develop on other Eurocopter model helicopters of these same type designs, this AD supersedes AD 2003-15-51 to require the following:

- Within 10 hours TIS, inspect each affected blade in the doublers for a void and in the forward and aft edges for a paint crack.
 - If you do not find a void or paint crack in the doublers or fitting, and the only void you find is isolated in a .25 inch edge band of any doubler or a fitting, repeat the inspection at intervals not to exceed 30 hours TIS.
 - If you find a void in any doubler or either fitting not isolated in a .25 inch band or a paint crack of any length along the forward or aft edge of the fitting at certain blade stations, replace the blade with an airworthy blade before further flight.
- Within 10 hours TIS, tap and visually inspect each affected blade:
 - Remove the paint, and coin tap inspect the upper and lower surface of the No. 2 spar to tip weight housing bond for a bond void.

- Using a 10X or higher magnifying glass, visually inspect the No. 1 spar around through pins for hole elongation, a crack in the spar, and pin movement (pins should be flush with upper and lower spar surfaces). Visually inspect the tip weight housing outboard face for movement relative to the spar (tip weight housing should be flush with the face of No. 1 and 2 spars).
- Measure the thickness of the upper and lower spar by using calipers held against the face of the No. 1 spar in alignment with the through pins.
- If you find any of the following, replace the blade with an airworthy blade before further flight:
 - A void between the No. 2 spar to tip weight housing;
 - In the No. 1 spar, either a crack, an elongated through pin hole, movement of a through pin, or a through pin that is not flush with the spar surface;
 - Movement of the tip weight housing or a tip weight housing that is not flush with the No. 1 or 2 spar; or
 - An upper or lower spar measures less than 0.045 inch.
 - If you do not find any of these discrepancies, repeat the inspection at intervals not to exceed 30 hours TIS.
- Replacing an affected blade with an airworthy blade, with a serial number that is not included in the "Applicability" section of this AD, constitutes terminating action for the requirements of this AD.

Do the actions by following the specified portions of the SB described previously.

The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability or structural integrity of the helicopter. Therefore, inspecting each blade within 10 hours TIS, repeating the inspection at intervals not to exceed 30 hours TIS, and replacing the blades as necessary before further flight are very short compliance times, and this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

The FAA estimates that this AD will affect 30 helicopters. The required actions will take about 3 work hours to inspect a blade and 3 work hours to replace a blade at an average labor rate of \$80 per work hour. Required parts will cost about \$50,000 per blade. There are three blades per helicopter. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$3,588,640, assuming 71 blades are replaced.

Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2010-0047; Directorate Identifier 2009-SW-28-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

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 the regulation:

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 an economic evaluation of the estimated costs to comply with this AD. See the AD docket to examine the economic evaluation.

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 rulemaking action.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to 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. Section 39.13 is amended by removing Amendment 39-13276 (68 FR 51681, dated August 28, 2003), and by adding a new airworthiness directive (AD), Amendment 39-16177, to read as follows:



2010-02-07 Eurocopter France: Amendment 39-16177. Docket No. FAA-2010-0047; Directorate Identifier 2009-SW-28-AD. Supersedes AD 2003-15-51, Amendment 39-13276, Docket No. 2003-SW-34-AD.

Applicability:

Eurocopter France Model SE3160, SA315B, SA316B, SA316C, and SA319B helicopters, with main rotor blade (blade) part number L3160-100-01, serial number (S/N) 600 through 671 (except those identified with both "SB L3160-P-001A" and "SB L3160-P-001B" next to the blade data plate), produced under a Parts Manufacturer Approval based on Supplemental Type Certificate SH778GL, installed, certificated in any category.

Compliance:

Required as indicated.

To prevent failure of a blade and subsequent loss of control of the helicopter, do the following:

(a) Within 10 hours time-in-service (TIS), unless accomplished previously, tap and visually inspect each blade, S/N 600 through 666, 668 through 669, and 671 (except those identified with "SB L3160-P-001A" next to the blade data plate) in the root doublers for a void and in the forward and aft edges for a paint crack in the areas depicted in Figure 1 of Phlight of Phancy Corp. Service Bulletin No. SB L3160-P-001, dated May 20, 2009 (SB), and by following the Accomplishment Instructions, Part A, paragraph 2.a. through 2.e., of the SB.

(1) If there is no void or paint crack in the root doublers or fitting, and the only void you find is isolated in the .25 inch edge band of a doubler or a fitting as depicted in Figure 1 of the SB, repeat the inspection at intervals not to exceed 30 hours TIS.

(2) If you find a void in any doubler or any root fitting not isolated to the .25 inch band as depicted in Figure 1 of the SB or a paint crack of any length along the forward or aft edge of a root fitting between Blade Stations 35.02 and 42.52, replace the blade with an airworthy blade before further flight.

(b) Within 10 hours TIS, unless accomplished previously, inspect each blade, S/N 600 through 671 (except those identified with "SB L3160-P-001B" next to the blade data plate), in the areas depicted in Figures 2 and 3 and by following the Accomplishment Instructions, Part B, of the SB as follows:

(1) Remove the paint and coin tap inspect the upper and lower surface of the No. 2 spar to tip weight housing bond as depicted in Figure 2 of the SB for a bond void. Conduct the inspection by following the Accomplishment Instructions, Part B, paragraphs 2.a. through 2.e. of the SB.

(2) Using a 10X or higher magnifying glass, visually inspect the No. 1 spar around the through pins for hole elongation, a crack in the spar, and pin movement (pins should be flush with upper and lower spar surfaces). Visually inspect the tip weight housing outboard face for evidence of movement relative to the spar (tip weight housing should be flush with the face of No. 1 and 2 spars).

(3) Measure the thickness of the upper and lower spar by using calipers held against the face of the No. 1 spar in alignment with the through pins as depicted in Figure 3 of the SB.

(4) If you find any of the following, replace the blade with an airworthy blade before further flight:

- (i) A void between the No. 2 spar and tip weight housing;
- (ii) In the No. 1 spar, either a crack, an elongated through pinhole, movement of a through pin, or a through pin that is not flush with the spar surface;
- (iii) Movement of the tip weight housing or a tip weight housing that is not flush with the No. 1 and No. 2 spar; or
- (iv) An upper or lower spar with thickness less than 0.045 inch.

(5) If you do not find any of the discrepancies identified in paragraph (b)(4)(i) through (b)(4)(iv) of this AD, repeat the inspections required by paragraph (b) of this AD at intervals not to exceed 30 hours TIS.

(c) Replacing an affected blade with an airworthy blade with a serial number that is not included in the "Applicability" section of this AD constitutes terminating action for the requirements of this AD.

(d) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Rotorcraft Directorate, Rotorcraft Certification Office, ATTN: DOT/FAA Southwest Region, Martin Crane, ASW-170, Aviation Safety Engineer, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5170, fax (817) 222-5783, for information about previously approved alternative methods of compliance.

(e) Special flight permits will not be issued.

(f) The Joint Aircraft System/Component (JASC) Code for the subject of this AD is Code 6210: Main rotor blades.

(g) Inspect the blades by following the specified portions of the Phlight of Phancy Corp. Service Bulletin SB L3160-P-001, dated May 20, 2009. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Phlight of Phancy Corp., 791 Westport Parkway, Fort Worth, Texas 76177-4511, telephone 817-491-6755, fax 817-491-6759. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas or 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.

(h) This amendment becomes effective on February 12, 2010.

Issued in Fort Worth, Texas, on January 8, 2010.
Mark R. Schilling,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.