

[Federal Register: March 7, 2007 (Volume 72, Number 44)]
[Rules and Regulations]
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[DOCID:fr07mr07-7]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-26707; Directorate Identifier 2006-NM-157-AD; Amendment 39-14973; AD 2007-05-12]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A330 Airplanes and Model A340-200 and -300 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Airbus Model A330 airplanes and Model A340-200 and -300 series airplanes. This AD requires inspecting to determine the part number of certain S4- and MZ-type spoiler servo controls (SSCs). For certain other airplanes, this AD requires inspecting to determine the part number of all SSCs. This AD also requires replacing any affected SSC with a new SSC. This AD results from a new load duty cycle defined by the manufacturer. Additional fatigue tests and calculations done on this basis indicated that the spoiler valve manifold of the S4-type SSCs, and, on certain airplanes, the maintenance cover of the MZ-type SSCs, may crack during its service life due to pressure impulse fatigue. We are issuing this AD to prevent fatigue cracking of certain SSCs, which could result in hydraulic leakage and consequent loss of SSC function and loss of the associated hydraulic system. These conditions could affect all three hydraulic systems, which could result in reduced controllability of the airplane.

DATES: This AD becomes effective April 11, 2007.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of April 11, 2007.

ADDRESSES: You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, Room PL-401, Washington, DC.

Contact Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Tim Backman, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2797; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Examining the Docket

You may examine the airworthiness directive (AD) docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the street address stated in the ADDRESSES section.

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to certain Airbus Model A330 airplanes and Model A340-200 and -300 series airplanes. That NPRM was published in the Federal Register on December 28, 2006 (71 FR 78102). That NPRM proposed to require inspecting to determine the part number of certain S4- and MZ-type spoiler servo-controls (SSCs). For certain other airplanes, that NPRM proposed to require inspecting to determine the part number of all SSCs. That NPRM also proposed to require replacing any affected SSC with a new SSC.

Comments

We provided the public the opportunity to participate in the development of this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

This AD affects about 27 airplanes of U.S. registry.

It takes about 1 work hour per airplane to accomplish the inspection to determine the part number, at an average labor rate of \$80 per work hour. Based on these figures, the estimated cost of the inspection required by this AD for U.S. operators is \$2,160, or \$80 per airplane.

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.

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 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 regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

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 FAA amends 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 Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):



2007-05-12 Airbus: Amendment 39-14973. Docket No. FAA-2006-26707; Directorate Identifier 2006-NM-157-AD.

Effective Date

- (a) This AD becomes effective April 11, 2007.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, -213, -311, -312, and -313 airplanes; certificated in any category; excluding airplanes on which AIRBUS Modification 44670 has been embodied in production.

Unsafe Condition

(d) This AD results from a new load duty cycle defined by the manufacturer. Additional fatigue tests and calculations done on this basis indicated that the spoiler valve manifold of the S4-type spoiler servo controls (SSCs), and, on certain airplanes, the maintenance cover of the MZ-SSCs, may crack during its service life due to pressure impulse fatigue. We are issuing this AD to prevent fatigue cracking of certain SSCs, which could result in hydraulic leakage and consequent loss of SSC function and loss of the associated hydraulic system. These conditions could affect all three hydraulic systems, which could result in reduced controllability of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Determine the Part Number of the SSCs/Replace If Necessary

(f) For Model A330-200 airplanes: Within 70 days after the effective date of this AD, inspect to determine the part number of all SSCs in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3113, Revision 04, dated June 13, 2006.

(1) If the part number is not identified in Table 1 of paragraph 3.B.(1)(a) or 3.B.(2)(a) of the Accomplishment Instructions of the service bulletin: No further action is required by this paragraph.

(2) If the part number is identified in Table 1 of paragraph 3.B.(1)(a) or 3.B.(2)(a) of the Accomplishment Instructions of the service bulletin: Do the applicable actions specified in paragraphs (f)(2)(i), (f)(2)(ii), and (f)(2)(iii) of this AD in accordance with the Accomplishment Instructions of the service bulletin.

(i) If any SSC is installed in positions 2 through 6: Before the accumulation of 6,000 total flight cycles on the SSC since new, replace the SSC with a 138X-type SSC.

(ii) If any SSC is installed in position 1: Before the accumulation of 11,000 total flight cycles on the SSC since new, replace the SSC with a 138X-type SSC.

(iii) If the total flight cycles on any SSC exceed the total flight cycles specified in paragraph (f)(2)(i) or (f)(2)(ii) of this AD, as applicable, or if the total flight cycles are unknown: Before further flight, replace the SSC with a 138X-type SSC.

(3) If any SSC has a missing identification plate, before further flight, identify the part number of the cylinder housing of the SSC by using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent). Before further flight after determining the part number, accomplish the requirements specified in paragraph (f)(1) or (f)(2) of this AD, as applicable.

(g) For Model A330-300 airplanes and Model A340-200 and -300 series airplanes: Within 70 days after the effective date of this AD, inspect to determine the part number of all SSCs in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3113, Revision 04, dated June 13, 2006; or A340-27-4139, Revision 01, dated June 12, 2006; as applicable.

(1) If the part number is not identified in Table 1 of paragraph 3.B.(1)(a) or 3.B.(2)(a) of the Accomplishment Instructions of the applicable service bulletin: No further action is required by this paragraph.

(2) If the part number is identified in Table 1 of paragraph 3.B.(1)(a) or 3.B.(2)(a) of the Accomplishment Instructions of the applicable service bulletin: Do the applicable actions specified in paragraphs (g)(2)(i), (g)(2)(ii), and (g)(2)(iii) of this AD in accordance with the Accomplishment Instructions of the applicable service bulletin.

(i) If any SSC is installed in positions 2 through 6: Before the accumulation of 14,000 total flight cycles on the SSC since new, replace the SSC with a 138X-type SSC.

(ii) If any SSC is installed in position 1: Before the accumulation of 15,000 total flight cycles on the SSC since new, replace the SSC with a 138X-type SSC.

(iii) If the total flight cycles on any SSC exceed the total flight cycles specified in paragraph (g)(2)(i) or (g)(2)(ii) of this AD, as applicable, or if the total flight cycles are unknown: Before further flight, replace the SSC with a 138X-type SSC.

(3) If any SSC has a missing identification plate, before further flight, identify the part number of the SSC cylinder housing by using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent). Before further flight after determining the part number, accomplish the requirements specified in paragraph (g)(1) or (g)(2) of this AD, as applicable.

Note 1: Airbus Service Bulletins A330-27-3113, Revision 04, dated June 13, 2006; and A340-27-4139, Revision 01, dated June 12, 2006; refer to LIEBHERR Service Information Letters SIL 142, Revision 2, dated September 28, 2005; and SIL 190, dated September 27, 2005; respectively, as additional sources of service information for accomplishing the actions required by paragraphs (f) and (g) of this AD.

Action Not Required

(h) Airbus Service Bulletins A330-27-3113, Revision 04, dated June 13, 2006; and A340-27-4139, Revision 01, dated June 12, 2006; recommend providing LIEBHERR-AEROSPACE with the part number and serial number of the cylinder housing of the SSC if the identification plate is missing; this AD requires identifying the part number of the SSC cylinder housing by using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

Actions Done According to Previous Issues of Service Bulletins

(i) Accomplishing the actions specified in paragraph (f) of this AD is acceptable for compliance with the requirements of that paragraph if done before the effective date of this AD in accordance with the applicable service bulletin identified in Table 1 of this AD.

Table 1 – Previous Airbus Service Bulletins

Service Bulletin	Revision Level	Date
A330-27-3113	Original	September 15, 2003
A330-27-3113	Revision 01	October 3, 2003
A330-27-3113	Revision 02	June 11, 2004
A330-27-3113	Revision 03	March 17, 2006
A340-27-4139	Original	March 17, 2006

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, International Branch, ANM-116, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Related Information

(k) EASA airworthiness directives 2006-0158 and 2006-0159, both dated June 7, 2006, also address the subject of this AD.

Material Incorporated by Reference

(l) You must use Airbus Service Bulletin A330-27-3113, Revision 04, dated June 13, 2006; or Airbus Service Bulletin A340-27-4139, Revision 01, dated June 12, 2006; as applicable, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France, for a copy of this service information. You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 22, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-3855 Filed 3-6-07; 8:45 am]