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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-27015; Directorate Identifier 2006-NM-169-AD; Amendment 39-15215; AD 2007-20-05]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A318-111 and A318-112 Airplanes and Model A319, A320, and A321 Airplanes

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

ACTION: Final rule.

SUMMARY: The FAA is superseding two existing airworthiness directives (ADs). One AD applies to all Airbus Model A319 and A320 airplanes and currently requires repetitive ultrasonic inspections to detect fatigue cracking in the wing/fuselage joint cruciform fittings, and corrective actions if necessary. The other AD applies to all Airbus Model A319, A320, and A321 airplanes and currently requires a revision to the Airworthiness Limitations section (ALS) of the Instructions for Continued Airworthiness (ICA). This new AD requires new revisions to the ALS of the ICA to incorporate service life limits for certain items and inspections to detect fatigue cracking, accidental damage, or corrosion in certain structures; and accomplishment of the repetitive ultrasonic inspections of the wing/fuselage joint cruciform fittings in accordance with the revised ALS of the ICA. This AD also adds airplanes to the applicability. This AD results from issuance of new and more restrictive service life limits and structural inspections based on fatigue testing and in-service findings. We are issuing this AD to detect and correct fatigue cracking, accidental damage, or corrosion in principal structural elements and to prevent failure of certain life limited parts, which could result in reduced structural integrity of the airplane.

DATES: This AD becomes effective November 7, 2007.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of November 7, 2007.

ADDRESSES: You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., 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 Dulin, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2141; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Examining the Docket

You may examine the 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 Operations office (telephone (800) 647-5527) is located on the ground floor of the West Building at the DOT 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 supersedes AD 2004-03-06, amendment 39-13450 (69 FR 5909, February 9, 2004) and AD 2005-02-09, amendment 39-13954 (70 FR 3871, January 27, 2005). AD 2004-03-06 applies to all Airbus Model A319 and A320 airplanes, and AD 2005-02-09 applies to all Airbus Model A319, A320, and A321 airplanes. That NPRM was published in the Federal Register on January 26, 2007 (72 FR 3768). That NPRM proposed to require new revisions to the Airworthiness Limitations section (ALS) of the Instructions for Continued Airworthiness (ICA) to incorporate service life limits for certain items and inspections to detect fatigue cracking, accidental damage, or corrosion in certain structures; and accomplishment of the repetitive ultrasonic inspections of the wing/fuselage joint cruciform fittings in accordance with the revised ALS of the ICA. That NPRM also proposed to add airplanes to the applicability.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been received on the NPRM.

Support for the NPRM

Airbus supports the NPRM. Northwest Airlines and United Airlines agree with the intent of the NPRM.

Request To Incorporate Certain Service Information

The Air Transport Association (ATA), on behalf of its member U.S. Airways, requests that we incorporate the following documents into this AD: Airbus Operator Information Telex (OIT) 999.0049/06, dated April 14, 2006; Airbus OIT 999.0055/06/CL, dated May 4, 2006; and the Airbus A318/A319/A320/A321 Scheduled Maintenance Data (SMD). The commenters further request that we revise this AD to allow operators to use later revisions of Airbus A318/A319/A320/A321 Airworthiness Limitation Items, Document AI/SE-M4/95A.0252/96 (hereafter referred to as the "Airbus ALI"), as acceptable for compliance with the requirements of this AD. As justification for its request, US Airways states that Airbus will be revising the SMD and ALI on a regular basis.

We agree to refer to Airbus ALI, Issue 08, dated March 2006 (approved by the European Aviation Safety Agency (EASA) on January 4, 2007); and Issue 09, dated November 2006 (approved by the EASA on May 21, 2007); as appropriate sources of service information for accomplishing the actions required by paragraph (i) of this AD. We have also revised paragraph (j) of this AD accordingly. In the NPRM, we referred to Airbus ALI, Issue 7, dated December 2005 (approved by the EASA on February 7, 2006), as the appropriate source of service information. Issue 08 of the Airbus ALI adds Model A320-215 and -216 airplanes and Model A321-214 airplanes to the applicability of certain ALI tasks. Since these airplanes have not yet been type certificated in the U.S., incorporating Issue 08 of the Airbus ALI into this AD does not expand the scope of the AD. Issue 09 of the Airbus ALI extends the compliance time for certain ALI tasks and adds new tasks for Model A318-121 and -122 airplanes. This AD does not apply to Model A318-121 and -122 airplanes, since Issue 09 of the Airbus ALI was approved as part of the type certification basis for the Model A318-121 and -122 airplanes. Therefore, incorporating Issue 09 of the Airbus ALI into this AD does not expand the scope of the AD.

We do not agree to allow the use of future revisions to the Airbus ALI because we are prohibited from referring to documents that do not yet exist. Additionally, we do not agree to refer to the other service information requested by the commenters, since this AD only mandates incorporation of Issue 7, 08, or 09 of the Airbus ALI and Sub-parts 1-2 and 1-3 of Airbus A318/A319/A320/A321 ALS Part 1—Safe Life Airworthiness Limitation Items, dated February 28, 2006.

Request To Extend Grace Period

United Airlines requests that, if ALI Tasks 552007-01-1 and 552007-01-2 are required, we add an additional grace period for accomplishing these tasks. As justification, United Airlines states that a longer grace period is needed to account for the development of new tooling or a non-destructive inspection method that could produce more conclusive findings than the current inspection method. United Airlines states that it has discussed this subject with Airbus, and that Airbus and the EASA are reviewing the matter. United Airlines further states that Airbus has not provided allowable damage limits in Chapter 55-21-11, page series 101, of the Airbus Structural Repair Manual (SRM) for acceptable findings, which would permit proceeding without repair until the next inspection. United Airlines believes that Airbus is pursuing such relief; however, the timing is unknown.

We agree to extend the grace period for accomplishing ALI Task 552007-01-1 from 20 months to 40 months, in accordance with Issue 09 of the Airbus ALI. As discussed previously, we have revised paragraphs (i) and (j) of this AD to refer to Issue 09 of the Airbus ALI. However, we do not agree to extend the grace period for ALI Task 552007-01-2. The commenter has not recommended a specific amount of time for extending the compliance time, or provided data showing that an extension in the compliance time would provide an acceptable level of safety. If data are submitted to substantiate that such an adjustment would provide an acceptable level of safety, under the provisions of paragraph (l) of this AD, we might approve the request for an adjustment to the compliance time. Further, if the EASA issues a new airworthiness directive to extend the compliance time for these tasks or to revise the task instructions, we will consider further rulemaking. We have not revised this AD in this regard.

Request To Exclude Certain ALI Tasks

The ATA, on behalf of its member United Airlines, and Northwest Airlines (NWA) request that we exclude ALI Tasks 552007-01-1 and 552007-01-2 from the requirements of this AD. These ALI tasks involve thermographic inspections to detect the presence of water in the carbon fiber composite structure of the elevator control surfaces. United Airlines states that, based on inspections it has conducted, this method of inspection has not provided conclusive evidence of water ingress; its findings were limited to manufacturing defects. United Airlines also states that the inspection process

is questionable, and that there is no effective non-destructive verification tool currently available to validate the presence of water. United Airlines asserts that the current process is more destructive to the elevator, as the skins and core in the area were removed and subsequently repaired.

United Airlines also states that these ALI tasks were incorporated into the Airbus ALI without MSG-3 Analysis review by the Industry Structures Working Group. United Airlines states that composite structures are not subject to fatigue-based analysis and, therefore, do not fit into the Airbus ALI. United Airlines also states that, to date, it has not identified any cases of delamination on the elevators inspected by the same techniques in accordance with AD 2002-18-01 and the ALI. United Airlines further states that Airbus has not reported any in-service incidents resulting from elevator aerodynamic limitations.

NWA states that the tasks should be required by an AD-mandated service bulletin instead of including the tasks in the Airbus ALI. NWA asserts that the elevator water ingress resulted from a design problem that would more appropriately be managed through the service bulletin process. NWA states that including the tasks in the ALI document diminishes visibility of the unsafe condition and avoids coordination between the manufacturer and operators in identifying the scope and corrective actions for the unsafe condition. NWA also states that including the tasks into the ALI document increases the risk of record retention and compliance issues. NWA further states that inclusion of non-fatigue-based inspections for easily removable parts into the Airbus ALI could potentially change NWA's maintenance program. NWA asserts that safety items of this complexity demand rigorous and thorough review prior to implementation, which can best be achieved through the airworthiness concern coordination process that has been successfully used for years by the industry.

We do not agree to exclude ALI Tasks 552007-01-1 and 552007-01-2 from the requirements of this AD. The commenters have not provided any data to indicate that these inspections are not effective, or that there is no unsafe condition. In addition, section 25.571 of the Federal Aviation Regulations (14 CFR 25.571) does not differentiate between removable and non-removable structures, and tracking elevator time would be required regardless of whether the problem was addressed by a service bulletin or the Airbus ALI. Although we agree that the ALIs primarily deal with fatigue issues, FAA Advisory Circular 20-107A, "Composite Aircraft Structure," dated April 25, 1984, states that the effects of temperature, humidity, and other environmental factors that might result in material property degradation should be addressed in the damage tolerance evaluation. Water ingress in the elevator structure is clearly an environmental factor that could result in an unsafe condition. Operators were given due process by publication of the NPRM and the Airbus ALI. Therefore, we have not changed this AD in this regard.

Conclusion

We have carefully reviewed the available data, including the comments that have been received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

The following table provides the estimated costs, at an average labor rate of \$80 per hour, for U.S. operators to comply with this AD.

Estimated Costs

| Action | Work hours | Cost per airplane | Number of U.S.-registered airplanes | Fleet cost |
|--|-------------------|--------------------------|--|-------------------|
| ALS revision (required by AD 2005-02-09) | 1 | \$80 | 720 | \$57,600 |
| ALS revision (new action) | 1 | \$80 | 720 | \$57,600 |

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 removing amendment 39-13450 (69 FR 5909, February 9, 2004) and amendment 39-13954 (70 FR 3871, January 27, 2005) and by adding the following new airworthiness directive (AD):



2007-20-05 Airbus: Amendment 39-15215. Docket No. FAA-2007-27015; Directorate Identifier 2006-NM-169-AD.

Effective Date

(a) This AD becomes effective November 7, 2007.

Affected ADs

(b) This AD supersedes AD 2004-03-06 and AD 2005-02-09.

Applicability

(c) This AD applies to all Airbus Model A318-111, A318-112, A319, A320, and A321 airplanes, certificated in any category.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (l) of this AD. The request should include a description of changes to the required inspections that will ensure the continued damage tolerance of the affected structure. The FAA has provided guidance for this determination in Advisory Circular (AC) 25.1529-1.

Unsafe Condition

(d) This AD results from issuance of new and more restrictive service life limits and structural inspections based on fatigue testing and in-service findings. We are issuing this AD to detect and correct fatigue cracking, accidental damage, or corrosion in principal structural elements and to prevent failure of certain life limited parts, which could result in reduced structural integrity 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.

Restatement of Requirements of AD 2005-02-09

Revise Airworthiness Limitations Section (ALS)

(f) For all Model A319, A320, and A321 airplanes: Within 6 months after March 3, 2005 (the effective date of AD 2005-02-09), revise the ALS of the Instructions for Continued Airworthiness in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the Direction Générale de l'Aviation Civile (DGAC) (or its delegated agent); or the European Aviation Safety Agency (EASA) (or its delegated agent). One approved method of compliance is incorporating Airbus A318/A319/A320/A321 Maintenance Planning Document (MPD), sub-Section 9-1-2, "Life Limited Parts," and sub-Section 9-1-3, "Demonstrated Fatigue Life Parts," both Revision 06, both dated June 13, 2003.

Note 2: Airbus Service Information Letter 32-098, dated December 22, 2003, may be used as a source of service information for managing life limited and demonstrated fatigue life parts that were not previously tracked.

(g) For all Model A319, A320, and A321 airplanes; except Model A319 airplanes on which Airbus Modifications 28238, 28162, and 28342 were incorporated during production: Within 6 months after March 3, 2005, revise the ALS of the Instructions for Continued Airworthiness in accordance with a method approved by the Manager, International Branch, ANM-116; or the DGAC (or its delegated agent); or the EASA (or its delegated agent). One approved method of compliance is incorporating both Airbus A318/A319/A320/A321 MPD, sub-Section 9-2, "Airworthiness Limitation Items," Revision 06, dated June 13, 2003; and Airbus A318/A319/A320/A321 Airworthiness Limitation Items (ALIs), Document AI/SE-M4/95A.0252/96, Issue 6, dated May 15, 2003 (approved by the DGAC on July 15, 2003).

New Requirements of This AD

Revise ALS To Incorporate Safe Life ALIs

(h) For all airplanes: Within 3 months after the effective date of this AD, revise the ALS of the Instructions for Continued Airworthiness to incorporate Sub-part 1-2, "Life Limits," and Sub-part 1-3, "Demonstrated Fatigue Lives," of Airbus A318/A319/A320/A321 ALS Part 1—Safe Life Airworthiness Limitation Items, dated February 28, 2006 (hereafter referred to as "ALS Part 1"). Accomplish the actions in ALS Part 1 at the times specified in ALS Part 1, except as provided by paragraph (j) of this AD. For Model A319, A320, and A321 airplanes, accomplishing the revision in this paragraph terminates the requirements of paragraph (f) of this AD.

Revise ALS To Incorporate Damage-Tolerant ALIs

(i) For all airplanes, except Model A319 airplanes on which Airbus Modifications 28238, 28162, and 28342 have been incorporated in production: Within 14 days after the effective date of this AD, revise the ALS of the Instructions for Continued Airworthiness to incorporate Airbus A318/A319/A320/A321 Airworthiness Limitation Items, Document AI/SE-M4/95A.0252/96, Issue 7, dated December 2005 (approved by the EASA on February 7, 2006) (hereafter referred to as "Issue 7 of the ALI"); Issue 08, dated March 2006 (approved by the EASA on January 4, 2007) (hereafter referred to as "Issue 08 of the ALI"); or Issue 09, dated November 2006 (approved by the EASA on May 21, 2007) (hereafter referred to as "Issue 09 of the ALI"). Accomplish the actions in Issue 7, Issue 08, or Issue 09 of the ALI at the times specified in Issue 7, Issue 08, or Issue 09 of the ALI, as applicable, except as provided by paragraph (j) of this AD. For Model A319, A320, and A321 airplanes, accomplishing the revision in this paragraph terminates the requirements of paragraph (g) of this AD.

Grace Period for New or More Restrictive Actions

(j) For any new or more restrictive life limit introduced with ALS Part 1, replace the part at the time specified in ALS Part 1 or within 6 months after the effective date of this AD, whichever is later. For any new or more restrictive inspection introduced with Issue 7, Issue 08, or Issue 09 of the ALI, do the inspection at the time specified in Issue 7, Issue 08, or Issue 09 of the ALI, as applicable, or within 6 months after the effective date of this AD, whichever is later.

No Alternative Life Limits, Inspections, or Inspection Intervals

(k) After the actions specified in paragraphs (h) and (i) of this AD have been accomplished, no alternative life limits, inspections, or inspection intervals may be used, except as provided by paragraphs (j) and (l) of this AD.

Alternative Methods of Compliance (AMOCs)

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

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. 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.

Related Information

(m) EASA airworthiness directive 2006-0162, dated June 8, 2006; and EASA airworthiness direction 2006-0165, dated June 13, 2006; also address the subject of this AD.

Material Incorporated by Reference

(n) You must use the service information identified in Table 1 of this AD, as applicable, to perform the actions that are required by this AD, unless the AD specifies otherwise.

Table 1 – Material Incorporated by Reference

| Service Information | Revision/Issue Level | Date |
|--|-----------------------------|-------------------|
| Airbus A318/A319/A320/A321 ALS Part 1 – Safe Life Airworthiness Limitation Items | Revision 00 | February 28, 2006 |
| Airbus A318/A319/A320/A321 Airworthiness Limitation Items, Document AI/SE-M4/95A.0252/96 | Issue 7 | December 2005 |
| Airbus A318/A319/A320/A321 Airworthiness Limitation Items, Document AI/SE-M4/95A.0252/96 | Issue 08 | March 2006 |
| Airbus A318/A319/A320/A321 Airworthiness Limitation Items, Document AI/SE-M4/95A.0252/96 | Issue 09 | November 2006 |

(Issue 7 of Airbus A318/A319/A320/A321 Airworthiness Limitation Items, Document AI/SE-M4/95A.0252/96, contains the following errors: The Summary of Changes is comprised of 11 pages, which are all identified as Page 2–LEP of Section LEP instead of Page 1–SOC [through] Page 11–SOC of Section SOC; the List of Effective Pages only refers to Page 1–SOC for the Summary of Changes. The List of Effective Pages is comprised of two pages, and both of those pages are identified as Page 2–LEP. The first page of Section 2 is identified as Page 6 of Section 1 and is not referred to in the List of Effective Pages. Issue 08 of Airbus A318/A319/A320/A321 Airworthiness Limitation Items, Document AI/SE-M4/95A.0252/96, contains the following errors: Pages 3–ROR and 2–SOC are not referred to in the List of Effective Pages. The List of Effective Pages are identified as Pages 1–SOC and 2–SOC, instead of 1–LEP and 2–LEP. The first page of Section 2 is identified as Page 6 of Section 1 and is not referred to in the List of Effective Pages.) 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 September 21, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-19208 Filed 10-2-07; 8:45 am]