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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-22036; Directorate Identifier 2005-NM-009-AD; Amendment 39-14994; AD 2007-06-13]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A300 B4-600, B4-600R, and F4-600R Series Airplanes, and Model C4-605R Variant F Airplanes (Collectively Called A300-600 Series Airplanes); and Model A310 Airplanes; Equipped With General Electric CF6-80A3 or CF6-80C2 Engines

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 airplane models, as specified above. This AD requires installing electro-pneumatic locking bar devices (TRAS lock systems) in the engine nacelles, installing a dedicated and shielded electrical circuit that is segregated from the existing thrust reverser control system, and performing related investigative/corrective actions if necessary. This AD results from the manufacturer's reassessment of the thrust reverser systems in the Airbus airplane models specified above, which showed that the thrust reverser could inadvertently deploy in flight under certain conditions. We are issuing this AD to prevent inadvertent deployment of thrust reversers in flight, which could result in reduced controllability of the airplane.

DATES: This AD becomes effective April 20, 2007.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of April 20, 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 A300 B2 and B4 series airplanes; Model A300 B4-600, B4-600R, and F4-600R series airplanes, and Model C4-605R Variant F airplanes (collectively called A300-600 series airplanes); and Model A310 series airplanes; equipped with General Electric (GE) CF6-80A3 or CF6-80C2 engines. That NPRM was published in the Federal Register on August 8, 2005 (70 FR 45595). That NPRM proposed to require installing electro-pneumatic locking bar devices (TRAS lock systems) in the engine nacelles, installing a dedicated and shielded electrical circuit that is segregated from the existing thrust reverser control system, and performing related investigative/corrective actions if necessary.

Since the Issuance of the NPRM

We have received copies of the following Airbus service bulletins:

Airbus Service Bulletin A300-78-6024, Revision 01, dated April 22, 2005. Revision 01 describes essentially the same procedures specified in the original issue of the service bulletin, dated October 7, 2003 (referenced in the NPRM as one appropriate source of service information). Revision 01 also adds technical notes referring to certain Middle River Aircraft Systems (MRAS) proprietary data 491B1200200, 491B1200201, 491B1200202, and 491B1200203, Revision B, dated September 9, 2003, which provide instructions to install the electro-pneumatic locking bar devices in the nacelles on GE Model CF6-80C2 engines with a full authority digital engine control (FADEC) thrust reverser system, as additional sources of service information.

Airbus Service Bulletin A300-78-6025, Revision 01, dated April 22, 2005. Revision 01 describes essentially the same procedures specified in the original issue of the service bulletin, dated October 7, 2003 (referenced in the NPRM as one appropriate source of service information). Revision 01 also adds technical notes referring to certain MRAS proprietary data 491B1200202 and 491B1200203, both Revision B, both dated September 9, 2003, as additional sources of service information. The proprietary data provide instructions to install the electro-pneumatic locking bar devices in the nacelles on GE Model CF6-80C2 engines with a power management control (PMC) thrust reverser system.

Airbus Service Bulletin A310-78-2023, Revision 01; and Airbus Service Bulletin A310-78-2025, Revision 01; both dated April 22, 2005. These service bulletins were issued to advise operators of the issuance of technical notes referenced in MRAS proprietary data 603A1000, 603A1001, 603A2000, 603A2001, and 603A2100. The proprietary data provides instructions to install the electro-pneumatic locking bar devices, as additional sources of service information. (Airbus Service Bulletin A310-78-2023, dated October 7, 2003; and Airbus Service Bulletin A310-78-2025, dated July 23, 2004; were referenced as appropriate sources of service information in the NPRM.)

Airbus Service Bulletin A310-78-2022, Revision 02, including Appendices 01 and 02, dated July 18, 2006. (The original version of this service bulletin, dated January 7, 2003, was referenced as an appropriate source of service information in the NPRM.) Revision 02 updates certain figures referenced in the original version of the service bulletin.

Comments

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

Request To Withdraw the NPRM

One commenter, American Airlines, states that it appears inconsistent to invest a significant amount of money for additional protection by installing electro-pneumatic locking bar devices (TRAS lock system). The commenter points out that the FAA has previously extended the inspection interval of current mandated inspections in another existing AD that also addresses inadvertent thrust reverser deployment.

We infer that American Airlines is questioning the cost benefit of the additional protection that the AD provides, and would like us to withdraw the NPRM. We acknowledge that, although we have extended the inspection intervals due to positive results of past inspections, the possibility still exists that a directional pilot valve (DPV) leak may occur. This type of leak is a hidden failure that cannot be detected at the system level, and could result in inadvertent thrust reverser deployment. We have determined that installation of electro-pneumatic locking bar devices will ensure an adequate measure of protection for the system. No change is necessary to the AD in this regard.

Requests To Revise the Applicability

Two commenters, Tradewinds Airlines and GE Transportation, request that the applicability stated in the NPRM be revised by removing Airbus Model A300 B2 and B4 series airplanes. One commenter points out that those models are not specified in the French airworthiness directive, and that there are no service bulletins specified in the NPRM that are applicable to those models.

We agree with the commenters. We acknowledge that the Model A300 B2 and B4 series airplanes are not equipped with the affected engines and were inadvertently included in the NPRM. The applicability of this AD is revised to remove those airplane models.

Another commenter, Airbus, requests that the associated modification numbers for the corresponding service bulletins be added to the applicability of the NPRM. Airbus suggests that adding the associated modification numbers will make it easier for operators to comply with the AD and will help operators to avoid having to request alternative methods of compliance.

We partially agree with the commenter's request in this case. The applicability of French airworthiness directive F-2004-165 excludes airplanes on which Airbus Service Bulletins A310-78-2024; A310-78-2025; A310-78-2022; A310-78-2023, A300-78-6022, Revision 1; A300-78-6025; A300-78-6021 original issue or Revision 01; and A300-78-6024; have been accomplished in-service, as well as certain modifications accomplished during production. We agree that revising the applicability of the final rule is necessary to exclude airplanes on which certain modifications have been accomplished during production. However, as is our standard practice, we have not excluded those airplanes that have accomplished certain modifications in service in the applicability of this final rule. Rather, this final rule includes requirements to accomplish the actions specified in the service bulletins that clearly identify the airplanes that the service bulletins affect. The requirements of the specified service bulletins will ensure that the actions required by this final rule are accomplished on all affected airplanes. Operators must continue to operate the airplane in the configuration required by this final rule unless an alternative method of compliance is approved. We have, however, added a new Note 1 and Table 2 to this final rule that provide a list of corresponding modifications with the applicable service bulletins for ease of reference for the operators. We have re-identified subsequent notes and tables accordingly.

Requests To Revise the “Costs of Compliance” Section

Several commenters, including the Air Transport Association (ATA), on behalf of one of its members, American Airlines, and FedEx and GE Transportation, request that the estimated costs of complying with the NPRM be revised to add additional work hours. American Airlines states that the NPRM would require concurrent accomplishment of four service bulletins that are not specified in the NPRM. American Airlines estimates it will take 600 work hours and \$283,042 for parts per each of its airplanes, rather than the costs estimated in the applicable service bulletins in the NPRM for various airplane models. FedEx explains that the cost estimates in the NPRM are not realistic because additional modification requirements are necessary that are described in MRAS and Goodrich/Rohr technical documents. One commenter, GE Transportation, also points out that certain cost information is available in certain service information that is not referred to in the NPRM.

We acknowledge that certain estimated costs were not included in the NPRM. We have obtained the additional service information from MRAS, but it does not contain estimated cost information. We also have requested further information from one of the commenters, GE Transportation, which has provided some new cost information figures to us. We have revised the estimated costs of the AD by including the estimated costs of accomplishing the MRAS service bulletins. We have coordinated those estimated costs with Airbus.

Request To Clarify “Relevant Service Information” Section

GE Transportation suggests certain revised wording regarding the work tasks described in the service bulletins specified in the “Relevant Service Information” section of the NPRM.

We consider that the descriptions of the work tasks in the NPRM adequately describe those tasks. Since that section of the preamble in the NPRM does not reappear in the final rule, no change to the AD is necessary.

Request To Consider the Possibility of No Deployment

American Airlines requests that we consider the possibility that an increase in risk of no deployment on landing may occur with the modification installed. American Airlines states that the modification could affect reliable operations in those airports restricted by short runway lengths when employing the Minimum Equipment List provisions.

We acknowledge the commenter's concern. In its reassessment of thrust reverser reliability, the manufacturer considered the possibility of thrust reverser non-deployment on landing with the third line of defense (TLOD) system installed. The reassessment showed that the thrust reverser without the TLOD could inadvertently deploy in flight under certain conditions, which could lead to decreased aircraft controllability. We have determined that the basic two-line-of-defense architecture does not adequately address the system's vulnerability to damage and long-term maintainability. Therefore, the modification is necessary to prevent the identified unsafe condition. In addition, we have not seen an increase in occurrences of thrust reverser nondeployments on landing for aircraft that have a TLOD or other thrust reverser third lock-type system installed. No change to the AD is necessary regarding this issue.

Request To Use Latest Service Bulletin Revisions

Several commenters, including the ATA, on behalf of one of its members, American Airlines, and FedEx, note that new revisions of certain service bulletins have been issued since the issuance of the NPRM. The commenters are requesting that we mandate the new revisions, which contain test procedures that will take less time for the operators to accomplish.

We agree with the commenters. We have received certain newer revisions of the service bulletins (described previously) from the manufacturer and have specified those revisions in Table 3 of the AD. Additionally, we received new revisions of the service bulletins specified in Table 2 of the AD from the manufacturer. We have revised Table 2 of the AD accordingly.

Explanation of Change to Applicability

We have revised the applicability of the AD to identify model designations as published in the most recent type certificate data sheet for the affected models.

Clarification of Alternative Method of Compliance (AMOC) Paragraph

We have revised this action to clarify the appropriate procedure for notifying the principal inspector before using any approved AMOC on any airplane to which the AMOC applies.

Conclusion

We have carefully reviewed the available data, including the comments 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 significantly increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

This AD affects about 101 airplanes of U.S. registry. (The total number of airplanes in the following table totals more than 101 airplanes because most of the airplanes are required to accomplish two of the specified service bulletins.) The following table provides the estimated costs for U.S. operators to comply with this AD at an average labor rate per hour of \$80.

Estimated Costs for Modifications (Listed by Applicable Service Bulletin)

Airbus Service Bulletins (SB)	Work hours	Parts	Cost per airplane	Number of airplanes	Cost per SB
A300-78-6021, Revision 02	257	\$19,652	\$40,212	36	\$1,447,632
A300-78-6024, Revision 01	206	\$223,649	\$240,129	36	\$8,644,644
A300-78-6022, Revision 02	289	\$19,220	\$42,340	34	\$1,439,560
A300-78-6025, Revision 01	206	\$223,649	\$240,129	34	\$8,164,386
A310-78-2024, Revision 01	262	\$19,119	\$40,079	31	\$1,242,449
A310-78-2025, Revision 01	206	\$194,487	\$210,967	31	\$6,539,977

None of the airplanes required to accomplish the following service bulletins are currently on the U.S. Register. The airplanes affected by the following service bulletins are currently operated by non-U.S. operators under foreign registry; therefore, they are not directly affected by this AD action. However, we consider it necessary to include these airplanes to ensure that the unsafe condition is addressed if any affected airplane is imported and placed on the U.S. Register in the future. The estimated costs apply to any affected airplane should it be imported and placed on the U.S. Register in the future.

Estimated Costs for Modifications For Certain Other Airplanes

Airbus Service Bulletin (SB)	Work hours	Parts	Cost per airplane
A310-78-2022	275	\$19,652	\$41,652
A310-78-2023	206	\$223,649	\$240,129

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):



2007-06-13 Airbus: Amendment 39-14994. Docket No. FAA-2005-22036; Directorate Identifier 2005-NM-009-AD.

Effective Date

(a) This AD becomes effective April 20, 2007.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus series airplanes, certificated in any category, as identified in the service bulletins listed in Table 1 of this AD; except for those airplanes on which the following applicable modifications have been incorporated in production: Airbus Modification 12348, 12349, 12350, 12514, and 12511.

Table 1 – Applicability

Airplane Models	General Electric Engine Model	Airbus Service Bulletin and Revision	Date
A300 B4-605R and F4-605R airplanes	CF6-80C2	A300-78-6024, Revision 01	April 22, 2005
A300 B4-605R and F4-605R airplanes	CF6-80C2	A300-78-6021, Revision 02	June 8, 2005
A300 B4-601, B4-603, B4-605R, and C4-605R Variant F airplanes	CF6-80C2	A300-78-6025, Revision 01	April 22, 2005
A300 B4-601, B4-603, B4-605R, and C4-605R Variant F airplanes	CF6-80C2	A300-78-6022, Revision 02	June 8, 2005
A310 airplanes	CF6-80C2	A310-78-2023, Revision 01	April 22, 2005
A310 airplanes	CF6-80C2	A310-78-2022, Revision 02	July 18, 2006

Airplane Models	General Electric Engine Model	Airbus Service Bulletin and Revision	Date
A310 airplanes	CF6-80A3	A310-78-2024, Revision 01	June 13, 2005
A310 airplanes	CF6-80A3	A310-78-2025, Revision 01	April 22, 2005

Note 1: We have provided a list of corresponding modifications with the applicable Airbus service bulletins in Table 2 of this AD for ease of reference for the operators.

Table 2 – Corresponding Modifications

Airbus Service Bulletin	Modifications
A310-78-2022 and A300-78-6022	12348, 12350, 12351, and 12514
A310-78-2023 and A300-78-6025	12512
A310-78-2024	12552 and 12553
A310-78-2025	12564
A300-78-6021	12348, 12349, 12350, and 12514
A300-78-6024	12511

Unsafe Condition

(d) This AD results from the manufacturer's reassessment of the thrust reverser systems in the Airbus airplane models specified in Table 1 of this AD, which showed that the thrust reverser could deploy in flight under certain conditions. We are issuing this AD to prevent inadvertent deployment of thrust reversers in flight, 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.

Installing TRAS Lock Systems and Accomplishing Modifications

(f) For airplanes identified in the service bulletins specified in Table 3 of this AD: Within 36 months after the effective date of this AD, install the electro-pneumatic locking bar devices (TRAS Lock Systems) in the thrust reverser system of the nacelles, in accordance with the Accomplishment Instructions of the applicable service bulletin.

Table 3 – Installing TRAS Lock Systems

Airplane Models	General Electric Engine Model	Airbus Service Bulletin and Revision	Date
A300 B4-605R and F4-605R airplanes	CF6-80C2	A300-78-6024, Revision 01	April 22, 2005
A300 B4-601, B4-603, B4-605R, and C4-605R Variant F airplanes	CF6-80C2	A300-78-6025, Revision 01	April 22, 2005
A310 airplanes	CF6-80C2	A310-78-2023, Revision 01	April 22, 2005
A310 airplanes	CF6-80A3	A310-78-2025, Revision 01	April 22, 2005

Note 2: Airbus Service Bulletin A310-78-2025, Revision 01, dated April 22, 2005, references draft Goodrich Service Bulletin 71-065 as an additional source of service information. After the issuance of Airbus Service Bulletin A310-78-2025, the Goodrich service bulletin was reissued as Rohr Service Bulletin CF6-80A3-NAC-71-065, dated April 28, 2005.

(g) For airplanes identified in the service bulletins specified in Table 4 of this AD: Prior to or concurrent with the accomplishment of the applicable service bulletin specified in paragraph (f) of this AD, accomplish all the modifications and actions related to an independent third line of defense on the thrust reversers, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in Table 4 of this AD.

Table 4 – Prior or Concurrent Accomplishment

Airplane Models	Airplanes Equipped with General Electric Engine Model	Airbus Service Bulletin and Revision	Date
A300 B4-605R and F4-605R airplanes	CF6-80C2 (with full authority digital engine control (FADEC))	A300-78-6021, Revision 02, including Appendices 01 and 02	June 8, 2005
A300 B4-601, B4-603, B4-605R, and C4-605R Variant F airplanes	CF6-80C2 (without FADEC)	A300-78-6022, Revision 02, including Appendices 01 and 02	June 8, 2005
A310 airplanes	CF6-80C2 (without FADEC)	A310-78-2022 Revision 02, including Appendices 01 and 02	June 18, 2006
A310 airplanes	CF6-80A3	A310-78-2024 Revision 01, including Appendices 01 and 02	June 13, 2005

Actions Accomplished According to Previous Issues of Service Bulletins

(h) Actions accomplished in accordance with the following service bulletins are acceptable for compliance with the requirements of this AD, as applicable, if done before the effective date of this AD:

Table 5 – Service Bulletins Accomplished Previously

Airbus Service Bulletin	Revision Level	Date
A300-78-6021	Original	April 8, 2003
A300-78-6021	01	October 7, 2003
A300-78-6022	01	January 7, 2003
A300-78-6024	Original	October 7, 2003
A300-78-6025	Original	October 7, 2003
A310-78-2022	Original	January 7, 2003
A310-78-2022	01	June 8, 2005
A310-78-2023	Original	October 7, 2003
A310-78-2024	Original	October 15, 2003
A310-78-2025	Original	July 23, 2004

Alternative Methods of Compliance (AMOCs)

(i)(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) Before using any AMOC approved in accordance with 14 CFR 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

(j) French airworthiness directive F-2004-165, dated October 13, 2004, also addresses the subject of this AD.

Material Incorporated by Reference

(k) You must use the applicable Airbus service bulletins specified in Table 6 of this AD 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>.

Table 6 – Material Incorporated by Reference

Airbus Service Bulletin	Revision Level	Date
A300-78-6021, including Appendices 01 and 02	02	June 8, 2005
A300-78-6022, including Appendices 01 and 02	02	June 8, 2005
A300-78-6024	01	April 22, 2005
A300-78-6025	01	April 22, 2005
A310-78-2022, including Appendices 01 and 02	02	July 18, 2006
A310-78-2023	01	April 22, 2005
A310-78-2024, including Appendices 01 and 02	01	June 13, 2005
A310-78-2025	01	April 22, 2005

Issued in Renton, Washington, on March 5, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-4734 Filed 3-15-07; 8:45 am]