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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2010-0858; Directorate Identifier 2010-NM-183-AD; Amendment 39-16974; AD 2012-05-02]**

**RIN 2120-AA64**

#### **Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes. This AD was prompted by reports of heat damage to the inner wall of the thrust reversers, which could result in separation of adjacent components and consequent structural damage to the airplane, damage to other airplanes, and injury to people on the ground. This AD requires modifying the thrust reverser inner walls, inspecting for damage of the upper and lower inner wall insulation blankets, measuring the electrical conductivity on the aluminum upper compression pads 2 and 3 as applicable, inspecting for discrepancies of the inner wall of the thrust reverser, and corrective actions if necessary. This AD also requires, for certain airplanes, doing various concurrent actions (including replacing the inner wall blanket insulation, installing updated full-authority digital electronic control software, and modifying the thrust reverser inner wall and insulation blankets). We are issuing this AD to correct the unsafe condition on these products.

**DATES:** This AD is effective May 10, 2012.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of May 10, 2012.

**ADDRESSES:** For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; email [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>. For CFM service information identified in this AD, contact CFM International, Technical Publications Department, 1 Neumann Way, Cincinnati, Ohio 45215; phone: 513-552-2800; fax: 513-552-2816; Internet: <http://www.cfm56.com>. You may review copies of the referenced service information at the FAA,

Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Chris Parker, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6496; fax: 425-917-6590; email: [chris.r.parker@faa.gov](mailto:chris.r.parker@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. That NPRM was published in the Federal Register on September 27, 2010 (75 FR 59167). That NPRM proposed to require modifying the inner walls of the thrust reverser (TR), inspecting for damage of the upper and lower inner wall insulation blankets, measuring the electrical conductivity on the aluminum upper compression pads 2 and 3 as applicable, inspecting for discrepancies of the TR inner wall, and corrective actions if necessary. That NPRM also proposed to require, for certain airplanes, doing various concurrent actions (including replacing the inner wall blanket insulation, installing updated full-authority digital electronic control software, and modifying the TR inner wall and insulation blankets).

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (75 FR 59167, September 27, 2010) and the FAA's response to each comment.

### **Request To Withdraw NPRM (75 FR 59167, September 27, 2010)**

Despite fully supporting the implementation of the actions of the NPRM (75 FR 59167, September 27, 2010), Boeing stated that it does not consider thermal overheating on the TR inner walls on the affected airplanes to be a safety issue. The structural integrity of the inner wall may deteriorate due to pre-cooler air ingress behind the blankets, but the Boeing Safety Review Board determined that this does not constitute a safety hazard to the airplane or to persons on the ground. Boeing identified support data for this determination, which included a safety assessment, full-scale test demonstration, and structural analysis.

We infer that Boeing wants us to withdraw the NPRM (75 FR 59167, September 27, 2010), because there is no unsafe condition. We disagree. The thermal overheating could affect the structural capability of the inner wall of the thrust reverser such that, if a pneumatic duct bursts, the inner wall could fail, causing uncontrollable asymmetric thrust during a rejected takeoff, or causing large parts to hit the fuselage or empennage in flight.

## **Request To Remove Model 737-900ER**

Boeing requested that we remove Model 737-900ER series airplanes from the applicability of the NPRM (75 FR 59167, September 27, 2010), since configuration control prevents the intermix of the affected TRs on these airplanes.

We agree. The TR inner walls on Model 737-900ER series airplanes have not been identified as having a thermal overheat issue. We have therefore removed these airplanes from the applicability of this AD.

## **Comments on EASA Proposed AD (75 FR 59167, September 27, 2010)**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, issued Proposed AD 10-087, dated September 30, 2010 (which has since been issued as EASA AD 2010-0244R1, dated May 17, 2011, and corresponds to FAA NPRM (75 FR 59167, September 27, 2010)). Boeing reported that it had requested certain changes (to the compliance time and applicability) to the EASA Proposed AD, and provided a list of the specific requests including changing the compliance time and eliminating language regarding certain "specific airplane(s)."

We find these comments to be addressed to EASA Proposed AD 10-087 and do not apply to the FAA proposed AD (75 FR 59167, September 27, 2010). The applicability is the same in the EASA and FAA ADs, and accounts for Boeing's comment concerning Model 737-900ER series airplanes. The compliance time of the EASA AD is different from that of the FAA AD, based on differing AD processes and publication schedules. We have not changed the final rule regarding this issue.

## **Request To Revise Cost Estimate**

Continental Airlines (CAL) disagreed with the fleet cost estimates for the actions specified in Boeing Service Bulletin 737-78-1088, dated May 12, 2010, as proposed in paragraph (i) of the NPRM (75 FR 59167, September 27, 2010). CAL explained that inner wall delamination requires the repair to be performed in an autoclave, which requires disassembly of the TR. (There are two half TR sections per engine.) CAL stated that returning each TR half to service after disassembly and inspection of components could cost from \$16,000 to \$56,000, depending on the hours and cycles on the TR.

We disagree with the request to revise the cost estimate. The economic analysis of the NPRM (75 FR 59167, September 27, 2010) did not consider the cost of conditional actions, such as repairing damage detected during a required inspection. The economic analysis of this AD is limited to the cost of actions that are required of every operator. Such conditional repairs would be required—regardless of AD direction—to correct an unsafe condition identified in an airplane and to ensure that the airplane is operated in an airworthy condition, as required by the Federal Aviation Regulations. We would have no way of determining these on-condition costs, which would depend on the TR condition and vary from operator to operator. We have not changed the final rule regarding this issue.

## **Request To Extend Compliance Time for Modification**

Three commenters requested that we revise the 24-month compliance time for the modification specified in paragraph (g) of the NPRM (75 FR 59167, September 27, 2010).

CAL requested that we extend the compliance time to 30 months, when 116 of its airplanes will also require the inspection specified in paragraph (i) of the proposed AD (75 FR 59167, September 27, 2010). This compliance time extension would reduce CAL's modifications on its fleet from 5 airplanes to 4 airplanes per month. CAL added that, even with this extended compliance time, it

would be difficult to modify 4 (16 TR halves) per month because of the limited number of spare TR halves available.

Southwest Airlines (SWA) reported that it would need to modify 39 of its 946 TRs each month to meet a 24-month compliance time, and therefore suggested a stepped compliance time schedule, ranging from 12 months to 48 months, based on the service life of the TR.

American Airlines (AAL) stated that the 24-month compliance time will have a significant impact on its "light" C check.

We disagree to extend the compliance time for paragraph (g) of this AD. In developing an appropriate compliance time for these actions, we considered the urgency associated with the subject unsafe condition, the practical aspect of accomplishing the required modification and the normal scheduled maintenance times for most affected operators. In consideration of these items and of parts availability, we have determined that the proposed 24-month compliance time for the modification will ensure an acceptable level of safety. According to the provisions of paragraph (o) of this AD, however, we may approve requests to adjust the compliance time if the request includes data substantiating that the new compliance time would provide an acceptable level of safety. We have not changed the final rule regarding this issue.

### **Request To Clarify Service Information**

AAL requested that the service instructions for Boeing Service Bulletin 737-78-1082, dated March 25, 2010; and Boeing Service Bulletin 737-78-1088, dated May 12, 2010; be revised to incorporate general findings and clarifications. AAL asserted that not addressing these issues could adversely affect accomplishment of these service bulletins.

We agree that additional clarification would be beneficial in the identified areas of Boeing Service Bulletin 737-78-1082, dated March 25, 2010; and Boeing Service Bulletin 737-78-1088, dated May 12, 2010. Such minor clarifications, however, are not necessary for compliance with this AD. We have provided AAL's comments to Boeing for review and incorporation, as necessary, into future revisions of those service bulletins, which might be approved as a global alternative method of compliance with this AD if we can substantiate that the revision provides an acceptable level of safety. We have not changed the final rule regarding this issue.

### **Request for Optional Repair**

SWA requested that we revise paragraph (i) of the NPRM (75 FR 59167, September 27, 2010) to allow cold-bonding methods for repairing damaged areas, in addition to the autoclave procedures specified in Boeing Service Bulletin 737-78-1088, dated May 12, 2010. That service bulletin permits curing repaired areas only as specified in the Boeing 737-700 Structural Repair Manual (SRM), which specifies the autoclave procedures. According to SWA, this would require operators to pull TRs for repair at an approved overhaul facility, thereby increasing the turn time for repairs since only five Boeing-approved overhaul facilities have autoclave capabilities.

We disagree with the request to allow the cold-bonding procedure. Boeing and the FAA are unaware of any cold-bonding methods that would be applicable to the composite TR inner wall on the affected airplanes. Current SRM repair methods for composite structure involve either autoclave or vacuum bag/heat blanket cure methods. But Boeing Service Bulletin 737-78-1088, dated May 12, 2010, and the alternative Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010, limit the SRM repairs for the TR inner wall to autoclave cures. For the areas being repaired on the inner wall, the additional plies required to make a structurally adequate vacuum bag-cured repair are excessive and would make the inner wall unusable. We therefore find it appropriate for those service bulletins to specify autoclave curing only. In addition, Boeing has evaluated the potential number of repairs that would be done at overhaul facilities with autoclave capabilities, and does not foresee a problem addressing the corrective actions on the affected airplanes within the compliance times. We have not changed the final rule regarding this issue.

## **Request To Revise Compliance Time for Certain Inspections**

SWA requested that we revise paragraph (i) of the proposed AD (75 FR 59167, September 27, 2010), which proposed certain inspections in accordance with Boeing Service Bulletin 737-78-1088, dated May 12, 2010. SWA recommended a minimum of 48 months, “per [this service bulletin],” for these actions. (The compliance time in the proposed AD ranged from 30 to 96 months.)

We disagree with the request. As stated previously, when we developed the compliance time for this AD action we considered the safety implications of the identified unsafe condition, the average utilization rate of the affected fleet, the practical aspects of performing the inspections on the fleet during regular maintenance periods, and the availability of replacement parts. We have determined that the proposed compliance times are appropriate. We have not changed the final rule regarding this issue.

## **Request for Clarification of Certain Procedures**

AAL described difficulty in accomplishing the actions specified in Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010 (paragraph (n) of the NPRM (75 FR 59167, September 27, 2010)): Seals must be installed individually, the fire seal can tear and need replacement, and the roller edge of the insulation blanket interferes with the upper fire seal support flange insulations. AAL received some additional installation instructions from Boeing and recommended that they be included in this service bulletin.

We agree that additional clarification may be beneficial, but we find that accomplishing the actions specified in the Accomplishment Instructions of Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010, will address the identified unsafe condition. We have provided AAL's comments to Boeing for review and incorporation, as necessary, into a future service bulletin revision, which might be approved as an alternative method of compliance with this AD if we can substantiate that the revision provides an acceptable level of safety. We have not changed the final rule regarding this issue.

## **Additional Changes to NPRM (75 FR 59167, September 27, 2010)**

Paragraph (n) of this AD specifies the optional accomplishment of certain actions in accordance with Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010. That service bulletin incorrectly notes that removal of a compression pad assembly is not necessary if the adjacent inner wall area does not show signs of heat damage, because the compression pad assembly is made from titanium. This AD requires removing the affected compression pads and inspecting the underlying structures as part of this optional action, regardless whether a pad assembly is made of titanium or aluminum alloy. Boeing has indicated that the incorrect notes may be removed in a future revision of that service bulletin; if so, we may approve the revised service bulletin as a global AMOC with the requirements of this AD.

We have revised or added certain headers in this AD. We have also revised the wording in paragraphs (l) and (n) of this AD; this change has not changed the intent of those paragraphs.

## **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the change described previously. We also determined that this change will not increase the economic burden on any operator or increase the scope of the AD.

## Costs of Compliance

We estimate that this AD affects 710 airplanes of U.S. registry. The following table provides the estimated costs for U.S. operators to comply with this AD, at an average labor rate of \$85 per hour.

**Estimated Costs**

<b>Actions (Service Bulletin)</b>	<b>Work hours</b>	<b>Parts</b>	<b>Cost per product</b>	<b>Number of U.S.-registered airplanes</b>	<b>Fleet cost</b>
Modification (Boeing Service Bulletin 737-78-1082, dated March 25, 2010)	14 per engine	\$2,065 or \$3,702	\$4,445 or \$6,082	710	Up to \$4,318,220
Insulation replacement (Boeing Service Bulletin 737-78-1063, Revision 2, dated October 7, 1994)	18 per engine	\$0	\$3,060	15	\$45,900
Software update (CFM CFM56-7B Service Bulletin 73-0135, dated March 30, 2007)	1	\$0	\$85	Up to 710	Up to \$60,350
Inspections (Boeing Service Bulletin 737-78-1088, dated May 12, 2010)	35	\$0	\$2,975	710	\$2,112,250
Modifications (Boeing Service Bulletin 737-78-1069, Revision 4, dated June 16, 2005)	110	\$0	\$9,350	306	\$2,861,100
Inspections and modification (Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010) (if done as an option to Boeing Service Bulletin 737-78-1088 and Boeing Service Bulletin 737-78-1082)	37 per engine	\$2,070 or \$3,391	\$8,360 or \$9,681	Optional action	Optional action

## 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**

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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

## **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 FAA amends § 39.13 by adding the following new airworthiness directive (AD):



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**2012-05-02 The Boeing Company:** Amendment 39-16974; Docket No. FAA-2010-0858; Directorate Identifier 2010-NM-183-AD.

**(a) Effective Date**

This AD is effective May 10, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes; certificated in any category; as identified in Boeing Service Bulletin 737-78-1082, dated March 25, 2010.

**(d) Subject**

Air Transport Association (ATA) of America Code 78: Engine exhaust.

**(e) Unsafe Condition**

This AD results from reports of heat damage to the inner wall of the thrust reversers. The Federal Aviation Administration is issuing this AD to detect and correct such heat damage, which could result in separation of adjacent components and consequent structural damage to the airplane, damage to other airplanes, and injury to people on the ground.

**(f) Compliance**

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

**(g) Modification of Thrust Reverser Inner Wall**

Except as required by paragraph (m) of this AD: Within 24 months after the effective date of this AD, modify the thrust reverser inner wall, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-78-1082, dated March 25, 2010.

**(h) Actions Concurrent With Paragraph (g) of This AD**

Before or concurrently with accomplishment of the requirements of paragraph (g) of this AD, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD, as applicable.



(1) For airplanes identified in Boeing Service Bulletin 737-78-1063, Revision 2, dated October 7, 1999: Replace the inner wall blanket insulation, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-78-1063, Revision 2, dated October 7, 1999.

(2) For airplanes equipped with engines identified in CFM CFM56-7B Service Bulletin 73-0135, dated March 30, 2007: Install updated full-authority digital electronic control (FADEC) software, in accordance with the Accomplishment Instructions of CFM CFM56-7B Service Bulletin 73-0135, dated March 30, 2007.

#### **(i) Inspection/Measurement**

At the applicable time specified in paragraph (j) of this AD: Do the actions specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-78-1088, dated May 12, 2010. If any damage or discrepancy is found, before further flight, do all applicable corrective actions, in accordance with Accomplishment Instructions of Boeing Service Bulletin 737-78-1088, dated May 12, 2010; except as required by paragraph (k) of this AD; and except where the service bulletin refers to “unsatisfactory” findings, this AD assumes those parts or locations are “unserviceable.”

(1) Do a detailed inspection for damage of the engine side and inner wall side of the upper and lower insulation blankets.

(2) Measure the electrical conductivity on the aluminum upper compression pads 2 and 3, as applicable.

(3) Inspect for discrepancies of the thrust reverser inner wall (including an ultrasonic inspection for interply delamination and skin-to-core disbond, a detailed inspection for signs of heat damage as applicable, and a detailed inspection for loose fasteners where the inner wall attaches to the hinge beam and at the fasteners for the compression pads).

#### **(j) Compliance Times for Paragraph (i) of This AD**

Do the actions specified in paragraph (i) of this AD at the applicable time specified in paragraph (j)(1), (j)(2), (j)(3), (j)(4), or (j)(5) of this AD.

(1) For airplanes with thrust reverser part number (P/N) 315A2295-003 through 315A2295-154 inclusive: Do the actions within 30 months after the effective date of this AD.

(2) For airplanes with thrust reverser P/N 315A2295-155 through 315A2295-174 inclusive: Do the actions within 60 months after the effective date of this AD.

(3) For airplanes with thrust reverser P/N 315A2295-175 through 315A2295-190 inclusive: Do the actions within 72 months after the effective date of this AD.

(4) For airplanes with thrust reverser P/N 315A2295-191 through 315A2295-198 inclusive: Do the actions within 84 months after the effective date of this AD.

(5) For airplanes with thrust reverser P/N 315A2295-199 through 315A2295-202 inclusive: Do the actions within 96 months after the effective date of this AD.

#### **(k) Exception to Boeing Service Bulletin 737-78-1088 Procedures**

Where Boeing Service Bulletin 737-78-1088, dated May 12, 2010, specifies to contact Boeing for appropriate action, repair before further flight in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

### **(l) Concurrent Actions for Paragraph (i) of This AD**

For airplanes identified in Boeing Service Bulletin 737-78-1069, Revision 4, dated June 16, 2005: Before or concurrently with the accomplishment of the requirements of paragraph (i) of this AD, modify the thrust reverser inner wall and insulation blankets, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-78-1069, Revision 4, dated June 16, 2005. This paragraph provides credit for the actions specified in Boeing Service Bulletin 737-78-1069, Revision 4, dated June 16, 2005, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 737-78-1069, Revision 1, dated June 13, 2002; Revision 2, dated February 6, 2003; or Revision 3, dated August 5, 2004.

### **(m) Concurrent Actions for Paragraph (i) of This AD Done Before the Compliance Time for paragraph (g) of This AD**

If the actions required by paragraph (i) of this AD are done before the compliance time specified in paragraph (g) of this AD: Before or concurrently with the accomplishment of the actions required by paragraph (i) of this AD, the modification required by paragraph (g) of this AD must be done.

### **(n) Option to Requirements of Paragraphs (g) and (i) of This AD**

Accomplishment of all of the actions (including inspections and modification) specified in Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010, within 24 months after the effective date of this AD, is acceptable for compliance with the requirements of paragraphs (g) and (i) of this AD; except that this AD requires removing the affected compression pads and inspecting the underlying structures regardless whether a pad assembly is made of titanium or aluminum alloy. Accomplishment of all of the actions (including inspections and modification) specified in Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010, within 24 months after the effective date of this AD, is acceptable for compliance with the requirements of this AD provided applicable repairs are done before further flight, and provided the applicable actions specified in paragraphs (h)(1), (h)(2), and (l) of this AD have been done. This paragraph provides credit for the actions specified in Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010, if those actions were done before the effective date of this AD using Boeing Service Bulletin 737-78-1079, dated August 6, 2007; or Revision 1, dated December 17, 2007.

### **(o) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle 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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

### **(p) Related Information**

For more information about this AD, contact Chris R. Parker, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6496; fax: 425-917-6590; email: chris.r.parker@faa.gov.

**(q) Material Incorporated by Reference**

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51:

- (i) Boeing Service Bulletin 737-78-1063, Revision 2, dated October 7, 1999.
- (ii) Boeing Service Bulletin 737-78-1069, Revision 4, dated June 16, 2005.
- (iii) Boeing Service Bulletin 737-78-1082, dated March 25, 2010.
- (iv) Boeing Service Bulletin 737-78-1088, dated May 12, 2010.
- (v) CFM CFM56-7B Service Bulletin 73-0135, dated March 30, 2007.

(2) If you accomplish the optional actions specified by this AD, you must use the following service information to perform those actions, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information:

- (i) Boeing Service Bulletin 737-78-1079, Revision 2, dated June 7, 2010.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; email [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>. For CFM service information identified in this AD, contact CFM International, Technical Publications Department, 1 Neumann Way, Cincinnati, Ohio 45215; phone: 513-552-2800; fax: 513-552-2816; Internet: <http://www.cfm56.com>.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on February 22, 2012.

Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.