

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

2001-16-07 Boeing: Amendment 39-12375. Docket 2000-NM-275-AD.

Applicability: Model 747-400 and 767 series airplanes, certificated in any category, equipped with General Electric CF6-80C2 series engines; as listed in Boeing Service Bulletin 747-71-2285 or 767-71-0088, both dated October 8, 1998.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the core cowl latches during an engine fire, and consequent in-flight separation of an engine core cowl and its strut fire barrier from the airplane, accomplish the following:

Modification

(a) Within 36 months after the effective date of this AD: Modify the left- and right-hand core cowl assemblies of the engines per the Accomplishment Instructions of Boeing Service Bulletin 747-71-2285 (for Model 747-400 series airplanes) or 767-71-0088 (for Model 767 series airplanes), both dated October 8, 1998.

Note 2: The Boeing service bulletins reference ROHR Service Bulletin TBC/80C2-NAC-71-028, dated August 1, 1998, as an additional source of service information for accomplishment of the modification.

Spares

(b) As of 6 months after the effective date of this AD, no one may install an aluminum core cowl assembly, part number 224-2301-513 (left-hand) or 224-2302-539 (right-hand), on any airplane.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Operations

Inspector or Principal Maintenance Inspector, as applicable, who may add comments and then send the request and any comments to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions shall be done in accordance with Boeing Service Bulletin 747-71-2285, dated October 8, 1998; or Boeing Service Bulletin 767-71-0088, dated October 8, 1998; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(f) This amendment becomes effective on September 24, 2001.

Issued in Renton, Washington, on August 10, 2001.

Vi L. Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01-20698 Filed 8-17-01; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-302-AD; Amendment 39-12376; AD 2001-16-08]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes Equipped With General Electric Model CF6-45 or -50 Series Engines or Pratt & Whitney Model JT9D-3, -7, or -70 Series Engines; and 747-E4B (Military) Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes equipped with General

Electric Model CF6-45 or -50 series engines or Pratt & Whitney Model JT9D-3, -7, or -70 series engines; and all 747-E4B (military) airplanes. That AD currently requires repetitive inspections to detect cracking or fracture of the steel attachment fittings of the diagonal brace to the nacelle struts; and replacement of the attachment fittings with new steel fittings, if necessary. This amendment adds new repetitive inspections of the fasteners of the steel attachment fittings of the diagonal brace to the inboard and outboard nacelle struts to find discrepancies; and mandates certain one-time inspections of the existing attachment fittings, installation of new fasteners, and replacement or rework of the fittings, which terminates the repetitive inspections. This amendment is prompted by a report of fatigue cracking in a steel attachment fitting of the diagonal brace to the number 2 nacelle strut. The actions specified by this AD are intended to prevent such cracking or a fracture, which could result in failure of a nacelle strut diagonal brace load path and possible separation of the nacelle from the wing.

DATES: Effective September 24, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 24, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT:

Tamara L. Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2771; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 99-09-11, amendment 39-11144 (64 FR 19883, April 23, 1999), which is applicable to certain Boeing Model 747 series airplanes and all 747-E4B (military) airplanes, was published in the **Federal Register** on March 29, 2001 (66 FR 17091). The action proposed to continue to require repetitive inspections to detect cracking or fracture of the steel attachment fittings of the diagonal brace

to the nacelle struts; and replacement of the attachment fittings with new steel fittings, if necessary. The action proposed to add new repetitive inspections of the fasteners of the steel attachment fittings of the diagonal brace to the inboard and outboard nacelle struts to find discrepancies; and mandate certain one-time inspections of the existing attachment fittings, installation of new fasteners, and replacement or rework of the fittings, which would terminate the repetitive inspections.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Several comments were submitted by a single commenter, and the FAA has duly considered these comments.

Increase Cost Impact Estimate

The commenter requests that the FAA revise the Cost Impact section of the proposed rule to increase its estimate of the number of work hours from 76 to 476 work hours for the proposed terminating action. The commenter states that 476 work hours is the estimate given for the terminating action in Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000 (which is referenced as the appropriate source of service information for doing the terminating action in the proposed AD). The commenter states that it is appropriate to include the time necessary for access and close-up because the airplane's engines are not normally removed during a "C"-check or heavy maintenance visit, but engine removal and re-installation are necessary for the terminating action in the proposed AD.

The FAA concurs. We acknowledge that operators must remove the engines (and re-install them) to do the terminating action required by this AD, and that the airplane's engines may not normally be removed at a maintenance visit that will occur during the compliance times required by this AD. We find, though, that the commenter's estimate of 476 work hours is less than the figure of 516 work hours, which the service bulletin provides. Therefore, we have revised the "Cost Impact" section of this final rule to estimate that the terminating action required by this AD will take 516 work hours (including time for gaining access and closing up).

Extend Compliance Time for New Inspection

The commenter requests that the FAA revise paragraph (b) of the proposed AD to revise the compliance time from the

latest of 3,000 total flight cycles on any diagonal brace attachment fitting, within 30 days after the effective date of the AD, and within 150 flight cycles after accomplishment of AD 95-10-16 or AD 95-13-07; to the earlier of 18 months after the effective date of the AD and at the next "C"-check visit after the effective date of the AD. The commenter's rationale is that the repetitive inspections currently required by AD 99-09-01 at the initial inspection threshold and repetitive interval required by that AD have been effective in ensuring that any extensively damaged or failed fittings are found and replaced in a timely manner. The commenter states that it presumes the existing inspections were sufficiently justified and determined to be adequate to maintain the necessary level of safety. The commenter also states that it views the proposed AD's more extensive inspections as supplementing rather than replacing the existing inspections required by AD 99-09-01. The commenter clarifies that, if the FAA grants its request, the repetitive inspections required by AD 99-09-01 should continue until the terminating action in the proposed AD is accomplished.

The FAA does not concur with the commenter's request. In the preamble of AD 99-09-11, we stated that the actions required by that AD were considered to be "interim action," and that further rulemaking was being considered. As stated in the proposed rule, since the issuance of AD 99-09-11, we have reviewed and approved Boeing Service Bulletin 747-54A2196, Revision 1. We have determined that the inspections in that service bulletin provide an increased level of safety over the detailed visual inspections required by AD 99-09-11. We have also received reports that, while doing the new inspections required by this AD, operators have found damaged fittings that would not have been found during the inspections required by AD 99-09-11. For these reasons, the FAA finds it appropriate to supersede the existing AD to require the new inspections at the compliance times specified in Boeing Service Bulletin 747-54A2196, Revision 1. Also note that we have approved that service bulletin (as well as the original issue, dated April 2, 1999) as an alternative method of compliance to AD 99-09-11. No change to the final rule is necessary in this regard.

Extend Compliance Time for Terminating Action

The commenter requests that the FAA revise paragraph (h) of the proposed rule to extend the compliance time for

the proposed terminating action from 36 months (after the effective date of the AD) for the diagonal brace to the inboard nacelle struts and 48 months (after the effective date of the AD) for the diagonal brace on the outboard nacelle struts, to 54 months. The commenter notes that the proposed compliance times allow the work involved with the terminating action on both the inboard and outboard nacelle struts to be spread out over only two "C"-checks. The commenter also notes that there is a lead time of 270 days for obtaining the kit necessary for the terminating action. The commenter states that its recommendation of a 54-month compliance time would allow the work to be spread over two "C"-checks and a partial "D"-check and provide sufficient time to obtain the kit necessary for terminating action.

The FAA does not concur with the commenter's request. In developing an appropriate compliance time for this AD, the FAA considered not only the manufacturer's recommendation, but also the criticality of the strut-to-wing attachments. The commenter did not submit any technical data showing that an extension of the compliance time for the terminating action to 54 months would provide an acceptable level of safety. Thus, the FAA does not find it appropriate to revise the compliance time as requested by the commenter. However, the commenter may submit a request for an adjustment of the compliance times in this AD according to paragraph (i)(1) of this AD. In its request, the operator may want to provide the number of subject airplanes in its fleet, the number of airplanes on which it has done the terminating action, and the schedule for doing the terminating action on the remaining airplanes. The FAA will consider an operator's good-faith attempt to complete the terminating action within the required compliance times. No change to the final rule is necessary in this regard.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither significantly increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 745 Model 747 series airplanes of the affected design in the worldwide fleet. The FAA

estimates that 173 airplanes of U.S. registry will be affected by this AD.

The inspections that are currently required by AD 99-09-11 take approximately 4 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the currently required actions on U.S. operators is estimated to be \$41,520, or \$240 per airplane, per inspection cycle.

The new detailed visual inspections/torque checks that are required by this AD will take approximately 12 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the inspections/torque checks required by this AD on U.S. operators is estimated to be \$124,560, or \$720 per airplane, per inspection cycle.

The new terminating actions (which include, for the inboard pylon, inspection of the existing steel fittings for cracks or damage; replacement if cracked; rework or replacement if damaged; or installation of new fasteners if no cracks; and, for the outboard pylon, detailed visual inspection of the fitting for damage, high frequency eddy current inspection of fastener holes, and installation of new fasteners) required by this AD will take approximately 516 work hours per airplane (including time for gaining access and closing up) to accomplish, at an average labor rate of \$60 per work hour. Required parts will cost \$13,776 (for airplanes equipped with Pratt & Whitney JT9D series engines) or \$31,083 (for airplanes equipped with GE CF6-45 or -50 series engines). Based on these figures, the cost impact of the terminating actions required by this AD is estimated to be \$44,736 per airplane (for airplanes equipped with Pratt & Whitney JT9D series engines) or \$62,043 per airplane (for airplanes equipped with General Electric CF6-45 or -50 series engines).

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions usually represent only the time necessary to perform the specific actions actually required by the AD. While the cost impact figures given above for the terminating actions include time for gaining access and closing up, cost impact figures in AD rulemaking actions typically do not include incidental costs, such as the time required to gain access and close up, planning time, or

time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-11144 (64 FR 19883, April 23, 1999), and by adding a new airworthiness directive (AD), amendment 39-12376, to read as follows:

2001-16-08 Boeing: Amendment 39-12376. Docket 2000-NM-302-AD. Supersedes AD 99-09-11, Amendment 39-11144.

Applicability: Model 747 series airplanes equipped with General Electric Model CF6-45 or -50 series engines or Pratt & Whitney Model JT9D-3, -7, or -70 series engines; and all 747-E4B (military) airplanes; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance per paragraph (i)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking or fracture of the steel attachment fittings of the diagonal brace to the nacelle struts, which could result in failure of a nacelle strut diagonal brace load path and possible separation of the nacelle from the wing, accomplish the following:

Restatement of Requirements of AD 99-09-11

Repetitive Inspections

(a) Gain access to the attachment fittings of the diagonal brace to the inboard and outboard nacelle struts through the aft fairing doors, and do a detailed visual inspection to find cracking or fracture of the steel attachment fittings of the diagonal brace to the inboard and outboard nacelle struts, at the applicable time specified in paragraph (a)(1) or (a)(2) of this AD.

(1) For airplanes on which the strut and wing modification required by AD 95-10-16, amendment 39-9233, or AD 95-13-07, amendment 39-9287, has not been accomplished: Within 10 days after May 10, 1999 (the effective date of AD 99-09-11, amendment 39-11144), accomplish the detailed visual inspection.

(i) For airplanes equipped with General Electric Model CF6-45 or -50 series engines and/or Pratt & Whitney JT9D-3 or -7 series engines, repeat the inspection thereafter at intervals not to exceed 180 flight cycles.

(ii) For airplanes equipped with Pratt & Whitney JT9D-70 series engines, repeat the inspection thereafter at intervals not to exceed 250 flight cycles.

(2) For airplanes on which the strut and wing modification required by AD 95-10-16, or AD 95-13-07, has been accomplished: Within 30 days after May 10, 1999, or within 150 flight cycles after accomplishment of the modification, whichever occurs later, accomplish the detailed visual inspection.

(i) For airplanes equipped with General Electric Model CF6-45 or -50 series engines or Pratt & Whitney JT9D-70 series engines, repeat the inspection thereafter at intervals not to exceed 600 flight cycles.

(ii) For airplanes equipped with Pratt & Whitney JT9D-3 or -7 series engines, repeat the inspection thereafter at intervals not to exceed 350 flight cycles.

New Requirements of This AD:**Initial/Repetitive Inspections/Checks**

(b) For all airplanes: Do a detailed visual inspection and a torque check of the fasteners of the steel attachment fittings of the diagonal brace to the inboard and outboard nacelle struts to find discrepancies (including cracks, loose or broken fasteners, etc.), at the latest of the times specified in paragraphs (b)(1), (b)(2), and (b)(3) of this AD; per Part 2 of the Accomplishment Instructions of Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000. Repeat the inspections/checks thereafter as specified in paragraph (c) of this AD. Accomplishment of the inspections/checks specified in this paragraph terminates the inspections required by paragraph (a) of this AD.

(1) Before the accumulation of 3,000 total flight cycles on any diagonal brace attachment fitting.

(2) Within 30 days after the effective date of this AD.

(3) Within 150 flight cycles after accomplishment of AD 95-10-16 or AD 95-13-07.

Note 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface

cleaning and elaborate access procedures may be required."

Note 3: Detailed visual inspections and torque checks accomplished before the effective date of this AD per Boeing Alert Service Bulletin 747-54A2196, dated April 2, 1999, are considered acceptable for compliance with the inspections/checks specified in paragraph (b) of this AD.

(c) Except as provided by paragraph (d) of this AD: Repeat the detailed visual inspection required by paragraph (b) of this AD, as specified in Table 1 of this AD. Repeat the torque check required by paragraph (b) of this AD at intervals not to exceed 18 months. Repeat the inspections/checks until accomplishment of paragraph (h) of this AD. Table 1 follows:

TABLE 1.—REPETITIVE DETAILED VISUAL INSPECTION INTERVALS

For the	For airplanes in group	Then repeat at the earlier of
(1) Inboard nacelle struts	(i) 1 or 4 (ii) 2, 3, or 5	Intervals not to exceed 350 flight cycles or 18 months. Intervals not to exceed 600 flight cycles or 18 months.
(2) Outboard nacelle struts	(i) 1, 2, or 4 (ii) 3 or 5	Intervals not to exceed 350 flight cycles or 18 months. Intervals not to exceed 600 flight cycles or 18 months.

(d) For the attachment fittings of the diagonal brace to the inboard nacelle struts only: Instead of doing the repetitive detailed visual inspections per paragraph (c) of this AD, before further flight following the inspections required by paragraph (b) of this AD, do an ultrasonic inspection of the fasteners of the steel attachment fittings to find discrepancies, per Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000.

(1) Repeat the ultrasonic inspection at intervals not to exceed 1,200 flight cycles, until accomplishment of paragraph (h) of this AD.

(2) Repeat the detailed visual inspection and torque check required by paragraph (b) of this AD at intervals not to exceed 18 months, until accomplishment of paragraph (h) of this AD.

Corrective Actions

(e) If any crack indication is found during any inspection/check required by this AD, before further flight, verify the indication per Part 3 or Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000, as applicable. If any cracking is verified, before further flight, replace the fasteners with new fasteners, and rework or replace the fitting, as applicable, per Part 5 of the Accomplishment Instructions of Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000; which terminates the repetitive inspections required by this AD. Where the service bulletin specifies that the manufacturer may be contacted for disposition of certain repair actions, this AD requires such repair to be done per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company

designated engineering representative (DER) who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

(f) If any loose or broken fastener is found during any inspection/check required by this AD, before further flight, do a high frequency eddy current inspection of the fastener hole to find cracking or damage, per Figure 6 of the Accomplishment Instructions of Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000. If no cracking or damage is found, before further flight, oversize the fastener hole and install a new fastener per Part 5 of the Accomplishment Instructions of the service bulletin. If any cracking or damage is found, before further flight, repair per a method approved by the Manager, Seattle ACO, or per data meeting the type certification basis of the airplane approved by a Boeing Company DER who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

(g) If any discrepancy of any attachment fitting is detected during any inspection/check required by this AD, before further flight, replace the fitting with a new steel fitting per a method approved by the Manager, Seattle ACO, or per data meeting the type certification of the airplane approved by a Boeing Company DER who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Terminating Action

(h) Do the terminating action (for the inboard nacelle struts, includes inspection of the existing steel fittings for cracks or damage and replacement if cracked, rework or replacement if damaged, or installation of new fasteners if no cracks; for the outboard nacelle struts, includes a detailed visual inspection of the fitting for damage, HFEC inspection of fastener holes, and installation of new fasteners), per Part 5 of the Accomplishment Instructions of Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000, at the times specified in paragraph (h)(1) or (h)(2) of this AD, as applicable. Accomplishment of the actions specified in this paragraph constitutes terminating action for the repetitive detailed visual inspections/torque checks specified in paragraph (c) of this AD.

(1) For steel attachment fittings of the diagonal brace to the inboard nacelle struts: Within 36 months after the effective date of this AD.

(2) For steel attachment fittings of the diagonal brace to the outboard nacelle struts: Within 48 months after the effective date of this AD.

Alternative Methods of Compliance

(i)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) Alternative methods of compliance, approved previously per AD 99-09-11, amendment 39-11144, are approved as alternative methods of compliance with this AD.

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(j) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(k) Except as provided by paragraphs (a), (e), (f), and (g) of this AD; the actions shall be done in accordance with Boeing Service Bulletin 747-54A2196, Revision 1, dated August 17, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(l) This amendment becomes effective on September 24, 2001.

Issued in Renton, Washington, on August 10, 2001.

Vi L. Lipski,

*Manager, Transport Airplane Directorate,
Aircraft Certification Service.*

[FR Doc. 01-20699 Filed 8-17-01; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-342-AD; Amendment 39-12377; AD 2001-16-09]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A319, A320, and A321 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), which is applicable to all Model A320 series airplanes, that currently requires repetitive measurements of the deflection of the elevator trailing edge; inspections of the elevator servo controls and their attachments; and replacement of worn or damaged parts, if necessary. This amendment requires periodic inspection of the elevators for excessive freeplay, repair of worn parts if excessive freeplay is detected, and

modification of the elevator neutral setting. It also revises the applicability to include additional airplane models. This amendment is prompted by additional reports of severe vibration in the aft cabin of Model A320 series airplanes and studies that indicate that the primary cause is excessive freeplay in the elevator attachments. The actions specified by this AD are intended to prevent excessive vibration of the elevators, which could result in reduced structural integrity and reduced controllability of the airplane.

DATES: Effective September 24, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 24, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tim Dulin, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2141; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: The FAA issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to supersede AD 92-04-06, amendment 39-8177 (57 FR 6068, February 20, 1992). (A correction of AD 92-04-06 was published in the **Federal Register** on April 1, 1992 (57 FR 11137).) AD 92-04-06 is applicable to all Airbus Model A320 series airplanes. The proposed AD was published in the **Federal Register** on March 1, 2001 (66 FR 12913). The action proposed to require periodic inspection of the elevators for excessive freeplay; repair or replacement of worn parts, if excessive freeplay is detected; replacement of the elevator servo controls with modified elevator servo controls; and modification of the elevator neutral setting. The action also proposed to revise the applicability to include additional airplane models.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due

consideration has been given to the comments received.

Support for Proposed AD

Several commenters, including the National Transportation Safety Board, support the proposed AD.

Request To Withdraw the Proposed AD

One commenter (the manufacturer) requests that the proposed AD be withdrawn. The commenter asserts that there is no unsafe condition due to limit cycle oscillation (LCO) of the elevator. The commenter disagrees with the FAA's conclusion that elevator LCO could result in reduced structural integrity and reduced controllability of the airplane. The commenter notes that because LCO is a fixed-frequency vibration with a constant amplitude, it is therefore not a stability problem. The commenter contends that such a phenomenon is well detectable, and the flight crew can determine the significance of the airframe vibration and initiate appropriate corrective action. The commenter claims that, during the period between LCO initiation and uncomfortable vibration, there is no structural concern. The commenter adds that extensive flight tests have been conducted by the manufacturer, with representative backlash configurations combined with low hinge moment, and no adverse effect on handling qualities was found. The commenter considers the actions included in existing tasks in the aircraft maintenance manual (AMM) and service bulletins to be sufficient to address any possible LCO phenomenon. In addition, the commenter does not consider that there would be any benefit from imposing corrective action on an airplane with no vibration reported.

The FAA does not concur with the request to withdraw the proposed AD. The FAA has determined that the A320 elevator LCO, as defined by Airbus, is actually an aeroelastic stability problem (i.e., self-excited and not damped with time), which, if not addressed, could result in reduced structural integrity and reduced controllability of the airplane. The FAA is aware of all of the analytical and experimental investigations conducted by Airbus that have shown that LCO is caused by a combination of low hinge moment and elevator freeplay. The FAA is also aware that the amplitude of the vibration increases with freeplay and airspeed. The FAA disagrees with the Airbus contention that the vibration will be felt by the flight crew, who can initiate the appropriate corrective action. The FAA notes that the modification of the elevator neutral setting would tend to