

17, 1997; 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 Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. 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.

Note 3: The subject of this AD is addressed in French airworthiness directive 97-116-222(B), dated May 21, 1997.

(i) This amendment becomes effective on November 20, 1998.

Issued in Renton, Washington, on October 6, 1998.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 98-27460 Filed 10-15-98; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 96-NM-260-AD; Amendment 39-10837; AD 98-21-29]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-100, -200, -300, -400, 747SP, and 747SR Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747-100, -200, -300, -400, 747SP, and 747SR series airplanes, that requires a one-time visual inspection to determine the part number of the fuel shutoff valve installed in the outboard engines. The AD also requires replacement of certain valves with new valves, or modification of the spar valve body assembly, and various follow-on actions. This amendment is prompted by reports indicating that, due to high fuel pressure, certain fuel system components of the outboard engines have failed on in-service airplanes. The actions specified by this AD are intended to prevent such high fuel pressure, which could result in failure of the fuel system components; this situation could result in fuel leakage and, consequently, lead to an engine fire.

DATES: Effective November 20, 1998.

The incorporation by reference of certain publications listed in the

regulations is approved by the Director of the Federal Register as of November 20, 1998.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207; or ITT Aerospace Controls, 28150 Industry Drive, Valencia, California 91355. 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: Sulmo Mariano, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington; telephone (425) 227-2686; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 747-100, -200, -300, and -400 series airplanes was published in the **Federal Register** on February 7, 1997 (62 FR 5783). That action proposed to require a one-time visual inspection to determine the part number of the fuel shutoff valve installed in the outboard engines. That action also proposed to require replacement of certain valves with new valves, or modification of the spar valve body assembly, and various follow-on actions.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

One commenter supports the proposed rule.

Request To Revise Applicability of Proposed AD

One commenter, the manufacturer, requests that the FAA limit the applicability of the proposed AD to airplanes having line numbers 629 through 1006 inclusive. Another commenter requests that the proposed AD be limited to only Boeing Model 747-400 series airplanes.

The manufacturer states that the subject fuel shutoff valve with the faulty thermal relief assembly was delivered to them no earlier than January 1986. Therefore, the manufacturer estimates that airplanes starting with line number 629—the first Boeing Model 747 series airplane delivered in January 1986—

could be subject to the identified unsafe condition.

The manufacturer also states that eight in-service events have occurred on Boeing Model 747-400 series airplanes powered by General Electric or Rolls Royce engines that were installed in the outboard positions only. There have been no confirmed events on General Electric or Rolls Royce engines installed in the inboard positions, or Boeing Model 747-400 series airplanes or Boeing 747-100, -200, and -300, 747SP, and 747SR series airplanes (i.e., Classic airplanes) powered by Pratt & Whitney series engines. The manufacturer states that Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996 (referenced in the proposal as an appropriate source of service information), included line numbers 1 through 1006 inclusive because at the time the alert service bulletin was released, a comprehensive installation comparison had not been completed nor had the quantitative risk assessment been concluded.

Since issuance of the alert service bulletin, the manufacturer has concluded that the close location of pneumatic ducts to the fuel lines for the outboard engine increases the possibility of higher pressures in the outboard engine fuel lines after the engines are shut down. The two Rolls Royce in-service events on the fuel cooled oil cooler (FCOC) can be attributed to the fact that the FCOC is a low pressure design.

The second commenter believes that malfunctioning spar valve thermal relief assemblies are a secondary cause of the subject problem. The commenter states that the primary cause is the unique configuration of the outboard strut on Boeing Model 747-400 series airplanes that has an excessive heat source near the fuel line.

The FAA concurs partially. The FAA does not agree with the commenter's request to limit the applicability of the final rule to only Boeing Model 747-400 series airplanes. The FAA points out that the incidents that prompted this AD occurred on certain Boeing Model 747 series airplanes on which the spar valves had a modified thermal relief assembly. Because these spar valves may be installed on airplanes other than Model 747-400 series airplanes, the FAA has determined that these airplanes also are subject to the addressed unsafe condition. In addition, the heat from sources close to the fuel lines do not per se create the problem. However, the FAA does agree with the manufacturer's request to limit the applicability of the final rule to airplanes having line numbers 629

through 1006 inclusive since the Boeing Model 747 series airplane having line number 629 was the first airplane delivered on which the subject valve was installed. Therefore, the FAA has revised the applicability of the final rule accordingly.

Request To Extend Compliance Time of Visual Inspection

Several commenters request that the compliance time for accomplishment of the visual inspection, as specified in paragraph (a) of the proposed AD, be extended from the proposed 12 months. One of these commenters states that a 24-month compliance time will allow the inspection to be accomplished during a regularly scheduled "C" check, and thereby eliminate any significant disruptions in flight schedules. Another commenter suggests a 15-month compliance time.

The FAA concurs that the compliance time can be extended somewhat. The FAA's intent was that the inspection be conducted during a regularly scheduled maintenance visit for the majority of the affected fleet, when the airplanes would be located at a base where special equipment and trained personnel would be readily available, if necessary. Based on the information supplied by the commenters, the FAA now recognizes that 18 months corresponds more closely to the interval representative of most of the affected operators' normal maintenance schedules. Paragraph (a) of the final rule has been revised to reflect a compliance time of 18 months. The FAA does not consider that this extension of an additional 6 months for compliance will adversely affect safety.

Request To Revise Part Numbers

One commenter requests that the FAA reference the suffix letter "A" or "M," as identified in Boeing Alert Service Bulletin 747-28A2199, for part numbers specified in the proposed AD. The FAA does not concur. The commenter is incorrect that these suffixes appear in the subject Boeing alert service bulletin; they appear in ITT Service Bulletin SB125334-28-01. After reviewing the ITT service bulletin, the FAA finds that these suffixes are meant for the parts after they have been modified and are not used for the identification of the appropriate part numbers, as suggested by the commenter. Therefore, the FAA finds that no change to the final rule is necessary.

Request To Perform Inspection on One Valve at a Time

Two commenters request that the FAA allow operators to inspect the fuel shutoff valves [required by paragraph (a)

of the proposed AD] one at a time within the proposed 12-month compliance time. One commenter states that it will not be able to accomplish the proposed inspections and replacement (if required) without scheduling its airplanes out-of-service for extended periods of time. The FAA concurs partially. If an operator elects to inspect the valves one at a time within the specified compliance time, it is the operator's prerogative to do so. The FAA finds no change to the final rule is necessary.

Request for Clarification of Requirements of Proposal

Several commenters question whether the requirement to perform an inspection to detect fuel leaks on all four engines is correct in paragraph (b) of the proposed AD. Other commenters question why this inspection is necessary. Two other commenters believe that paragraph (b) of the proposed AD should address only "the outboard engines" or "engines number 1 and 4," rather than "all four engines." These commenters question the reason for leak checking the inboard engines.

The FAA finds that clarification is necessary. Although the FAA has only received reports of the high pressure occurring in the fuel line of the outboard engines, the FAA notes that an inboard engine could have been located previously in the outboard position. Therefore, as discussed previously in the notice of proposed rulemaking (NPRM), the FAA finds that it is necessary that the subject inspection be accomplished on all four engines. However, if an operator has documentation that demonstrates that the inboard engines have never been located in the outboard position, the FAA has determined that the operator does not have to conduct the inspection on those inboard engines. The FAA has revised the final rule to include a new paragraph (c) specifying this provision.

Request To Reference Another Source of Service Information

One commenter requests that the FAA allow operators to accomplish the inspection required by paragraph (b) of the proposed AD in accordance with Section 28-22-07 of the 747 Airplane Maintenance Manual, rather than Chapter 71. If not, the commenter requests that the FAA reference a specific leak check in Chapter 71. The FAA does not concur. The FAA notes that the procedures for accomplishing the subject inspection are under the heading "Fuel and Oil Leak Checks" in Chapter 71. Therefore, no change to the final rule is necessary.

Request To Revise Proposed Actions Based on Future Service Information

The manufacturer also states that it will revise Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996, to add a step to check the maintenance records for Model 747 series airplanes having line numbers 1 through 1006 inclusive, powered by General Electric and Roll Royce engines. If previous maintenance on the valves has been accomplished, the revised service bulletin would include procedures for inspection of the valve part number, and replacement, if necessary; if no maintenance on valves has been accomplished, the inspection would not be necessary.

From this comment, the FAA infers that the commenter is requesting that the proposed AD be revised to include these procedures. The FAA does not concur. The manufacturer has not issued a revision to the referenced alert service bulletin. The FAA does not consider it appropriate to delay the issuance of this final rule. When the new service bulletin is issued, the FAA will review it and may consider future rulemaking action.

Request To Revise Cost Estimate

One commenter requests that the FAA revise the cost estimate of the proposed AD to reflect the latest values cited in a Notice of Status Change for the alert service bulletin. The FAA does not concur. The FAA is unaware of a Notice of Status Change for Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996.

Explanation of Changes Made to Proposal

The NPRM indicated that the airplanes affected by the proposed AD were Boeing Model 747-100, -200, -300, and -400 series airplanes. The proposed AD was intended to apply to all Boeing Model 747 series airplanes that have the faulty fuel shutoff spar valves installed, including Model 747SP and 747SR series airplanes. The estimate of the affected fleet size that was provided in the NPRM included those airplanes, which many, including the manufacturer, consider to be part of the Model 747-100 series. Those models are listed separately on the Model 747 Type Certificate Data Sheet. Therefore, in order to clarify that this AD does apply to those models, the FAA has revised the final rule to list the affected airplanes as Boeing Model 747-100, -200, -300, -400, 747SP, and 747SR series airplanes.

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 described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 418 Boeing Model 747-100, -200, -300, -400, 747SP, and 747SR series airplanes of the affected design in the worldwide fleet. The FAA estimates that 24 airplanes of U.S. registry will be affected by this AD.

It will take approximately 4 work hours per airplane to accomplish the required one-time visual inspection to determine the part number of the valve, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this visual inspection required by this AD on U.S. operators is estimated to be \$5,760, or \$240 per airplane.

Should an operator be required to accomplish the necessary one-time inspection to detect leaks and cracks (after replacement of the valve or modification of the assembly), it will take approximately 16 work hours per airplane, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this one-time inspection is estimated to be \$960 per airplane.

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.

Should an operator elect to modify the valve body assembly of the fuel system rather than replace a discrepant valve, it would take approximately 20 work hours per airplane, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$404 (2 kits) per airplane. Based on these figures, the cost impact of any necessary modification action is estimated to be \$1,604 per airplane.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects 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, in

accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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 adding the following new airworthiness directive:

98-21-29 Boeing: Amendment 39-10837. Docket 96-NM-260-AD.

Applicability: Model 747-100, -200, -300, -400, 747SP, and 747SR series airplanes, having line numbers 629 through 1006 inclusive, and powered by General Electric or Rolls Royce engines; 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 in accordance with paragraph (d) 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 high fuel pressure in components between the fuel shutoff spar valve and the engine fuel shutoff valve, which could result in failure of the fuel system components, lead to fuel leakage, and, consequently, lead to a possible engine fire, accomplish the following:

(a) Within 18 months after the effective date of this AD, perform a one-time visual inspection to determine the part number of the fuel shutoff valve installed in the left- and right-hand outboard engines, in accordance with Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996.

(1) If a valve having part number (P/N) S343T003-40 (ITT P/N 125334D-1) is installed, no further action is required by this AD.

(2) If a valve having P/N S343T003-40 (ITT P/N 125334D-1) is *not* installed, prior to further flight, accomplish either paragraph (a)(2)(i) or (a)(2)(ii) of this AD.

(i) Replace the valve with a new valve, in accordance with the alert service bulletin. Prior to further flight following accomplishment of the replacement, align the valve(s), perform a check to detect leaks, and correct any discrepancy, in accordance with the alert service bulletin. Or

(ii) Modify the valve body assembly of the fuel system in accordance with ITT Service Bulletin SB125120-28-01, ITT Service Bulletin SB107970-28-01, and ITT Service Bulletin SB125334-28-01; all dated July 15, 1996.

(b) Except as provided in paragraph (c) of this AD, prior to further flight following accomplishment of paragraph (a)(2) of this AD, perform a one-time inspection to detect fuel leaks of the components between the fuel shutoff spar valve and the engine fuel shutoff valve on all four engines, in accordance with the applicable section that pertains to Rolls Royce RB211 series engines or General Electric CF6-80C and CF6-45/50 series engines in Chapter 71 of the Boeing 747 Airplane Maintenance Manual (AMM). If any leak is detected, prior to further flight, replace the part with a serviceable part.

(c) For airplanes having maintenance records that positively demonstrate that the inboard engines have never been located in the outboard position: Prior to further flight following accomplishment of paragraph (a)(2) of this AD, perform a one-time inspection to detect fuel leaks of the components between the fuel shutoff spar valve and the engine fuel shutoff valve on the outboard engines only, in accordance with the applicable section that pertains to Rolls Royce RB211 series engines or General Electric CF6-80C and CF6-45/50 series engines in Chapter 71 of the Boeing 747 AMM. If any leak is detected, prior to further flight, replace the part with a serviceable part.

(d) 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, Transport Airplane Directorate. 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.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(e) 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.

(f) Except as provided by paragraphs (b) and (c) of this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 747-28A2199, dated August 1, 1996; or ITT Service Bulletin SB125120-28-01, ITT Service Bulletin SB107970-28-01, and ITT Service Bulletin SB125334-28-01; all dated July 15, 1996. 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; or ITT Aerospace Controls, 28150 Industry Drive, Valencia, California 91355. 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.

(g) This amendment becomes effective on November 20, 1998.

Issued in Renton, Washington, on October 6, 1998.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 98-27459 Filed 10-15-98; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-NM-187-AD; Amendment 39-10840; AD 98-21-32]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A300, A310, and A300-600 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to all Airbus Model A300, A310, and A300-600 series airplanes, that currently requires performing a ram air turbine (RAT) extension test; removing and disassembling the RAT uplock mechanism; performing an inspection to detect corrosion of the RAT uplock mechanism, and

replacement with a new assembly, if necessary; and cleaning all the parts of the RAT control shaft and its bearing component parts. This amendment requires modification of the RAT unlocking control unit, which constitutes terminating action for the repetitive tests and inspections. This amendment also limits the applicability of the existing AD. This amendment is prompted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by this AD are intended to prevent corrosion of the RAT uplock pin/shaft and needle, which could result in failure of the RAT to deploy and consequent loss of emergency hydraulic power to the flight controls in the event that power is lost in both engines.

DATES: Effective November 20, 1998.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of November 20, 1998.

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of December 2, 1997 (62 FR 55726, October 28, 1997).

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:** Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 97-22-06, amendment 39-10177 (62 FR 55726, October 28, 1997), which is applicable to all Airbus Model A300, A310, and A300-600 series airplanes, was published in the **Federal Register** on August 13, 1998 (63 FR 43349). The action proposed to continue to require performing a ram air turbine (RAT) extension test; removing and disassembling the RAT uplock mechanism; performing an inspection to detect corrosion of the RAT uplock

mechanism, and replacement with a new assembly, if necessary; and cleaning all the parts of the RAT control shaft and its bearing component parts. The action also proposed to require modification of the RAT unlocking control unit, which constitutes terminating action for the repetitive tests and inspections. Additionally, the action proposed to limit the applicability of the existing AD.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the single comment received.

The commenter supports the proposed rule.

Explanation of Correction Made to This Final Rule

In paragraph (a) of the proposed rule, the FAA inadvertently referenced Airbus Service Bulletins A300-29-0108, dated April 1, 1996; A310-29-2076, dated April 1, 1996; and A300-29-6037, dated April 1, 1996; for accomplishment of the action required by paragraph (a)(1) of the NPRM. However, the Airplane Maintenance Manual is the correct reference for accomplishment of the action required by paragraph (a)(1). Paragraph (a) of this final rule has been revised accordingly.

Conclusion

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

Cost Impact

There are approximately 126 Model A300, A310, and A300-600 series airplanes of U.S. registry that will be affected by this AD.

The actions that are currently required by AD 97-22-06, and retained in this AD, take approximately 10 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Required parts will be provided by the manufacturer at no cost to the operators. Based on these figures, the cost impact of the previously required actions on U.S. operators is estimated to be \$75,600, or \$600 per airplane.

The new modification that is required in this AD action will take approximately 9 work hours per airplane to accomplish, at an average