Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 96–NM–65–AD]

RIN 2120–AA64

Airworthiness Directives; Airbus Model A300–600 and A310 Series Airplanes Equipped With Pre-Modification 5844D4829 Rudders

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the supersedure of an existing airworthiness directive (AD), applicable to certain Airbus Model A300–600 and A310 series airplanes, that currently requires repetitive visual inspections and tap tests of the rudder skin panels to detect disbonding; and repairs, if necessary. That AD was prompted by reports of weakening of the bonding material between the core of the rudder and its inner and outer skin, and cracking of the core. The proposed action would add repetitive elasticity laminate checker (ELCH) inspections of the rudder in place of the currently required tap tests. It also would require replacement of the rudder with a modified rudder, which would terminate the repetitive inspections. These actions are intended to detect and prevent disbonding of the rudder, which, if not corrected, could reduce the structural integrity of the rudder, and consequently lead to a reduction in its ability to sustain limit loads.

DATES: Comments must be received by December 2, 1996.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–103, Attention: Rules Docket No. 96–NM–65–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Tim Backman, Aerospace Engineer, Standardization Branch, ANM–113, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (206) 227–2797; fax (206) 227–1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: ‘‘Comments to Docket Number 96–NM–65–AD.’’ The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–103, Attention: Rules Docket No. 96–NM–65–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion

On May 25, 1990, the FAA issued AD 90–12–13, amendment 39–6625 (55 FR 23190, June 7, 1990), which is applicable to Airbus Model A300–600 and A310 series airplanes equipped with pre-modification 5844D4829 rudders. That AD requires repetitive visual inspections and tap tests of the rudder skin panels to detect disbonding and cracking; and repairs, if necessary. That AD was prompted by reports of disbonding and cracking in the layers of the rudder skin panels, as well as rupture of the honeycomb core of the rudder. The requirements of that AD are intended to prevent loss of stiffness in the rudder which, if not corrected, could reduce the structural integrity of the rudder, and consequently lead to a reduction in its ability to sustain limit loads.

At the time AD 90–12–13 was issued, the FAA considered it to be interim action because the manufacturer was attempting to determine the extent and nature of the disbonding and cracking within the fleet, and was developing a repetitive inspection schedule. Additionally, the manufacturer had advised that it was developing a modification of the rudder that would preclude the need for repetitive inspections.

Actions Since Issuance of Previous AD

Since the issuance of that AD, the Direction Générale de l’Aviation Civile (DGAC), which is the airworthiness authority for France, notified the FAA that it has received additional reports indicating that disbonding had occurred on certain Airbus Model A310 series airplanes between the inner skin and the honeycomb core of the rudder; this disbonding had led to cracking and rupture of the core and outer skin of the rudder. The affected airplanes had accumulated between 9,500 and 15,000 hours time-in-service, and between 5,200 and 15,000 flight cycles.

Investigation has revealed that 80 Model A300–600 and A310 series airplanes, among the earliest manufactured, may have a rudder in which the bond between the honeycomb core and the inner and outer skins was made using a bridging layer of aramide carbon hybride laminate. Laboratory analysis has shown that flight cycles,

over time, gradually weaken this bond, leading to areas of disbonding and cracking, which can spread rapidly throughout the rudder. This condition, if not corrected, could reduce the structural integrity of the rudder, and consequently lead to a reduction in its ability to sustain limit loads.

Additionally, the manufacturer recently has developed an elasticity laminate checker (ELCH) inspection, which relies on a vacuum principle to detect and assess areas of disbonding and cracking. This inspection, which can detect disbonding defects as small as 120 mm in diameter, is considered to be more reliable than the tap test that is currently required by AD 90–12–13.

The manufacturer also has developed a modified rudder which, if installed, would eliminate the need for both types of repetitive inspections.

Explanation of Relevant Service Information

Airbus has issued Service Bulletins A300–55–6008 (for Model A300–600 series airplanes) and A310–55–2010 (for Model A310 series airplanes), both dated December 10, 1990, which describe procedures for repetitive visual and ELCH inspections of the rudder to detect disbonding. The service bulletins also describe procedures for repairs. The DGAC classified these service bulletins as mandatory, and issued French airworthiness directive (CN) 90–0098–112(B)R1, dated May 2, 1991, in order to assure the continued airworthiness of these airplanes in France.

Airbus also has issued Service Bulletins A300–55–6010 (for Model A300–600 series airplanes) and A310–55–2012 (for Model A310 series airplanes), both dated April 18, 1991, which describe procedures for replacement of the rudder with a modified rudder. Installation of the modified rudder will preclude the addressed cracking and disbonding problems, and will eliminate the need for repetitive inspections of the area for those defects. The DGAC classified these service bulletins as optional.

FAA's Conclusions

These airplane models are manufactured in France and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the DGAC has kept the FAA informed of the situation described above. The FAA has examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, the proposed AD would supersede AD 90–12–13 to continue to require repetitive visual inspections of the rudder skin panels. It would eliminate the currently required tap tests, and instead require ELCH inspections of the rudder skin panels. If defects are detected, repair would be required. All inspections and the repair of smaller areas of disbonding or cracking would be required to be carried out in accordance with the applicable inspection service bulletins described previously; repairs of the largest defective areas, however, would have to be performed in a manner approved by the FAA.

Until an initial ELCH inspection of the complete rudder is performed, the proposal would require visual inspections of the rudder to be performed weekly or prior to the accumulation of 50 flight cycles, whichever occurs first. Thereafter, visual inspections would be carried out at less frequent intervals, as would subsequent ELCH inspections.

Should a visual inspection prior to the initial ELCH inspection, however, detect possible disbonding or cracking, the proposed AD would require an ELCH inspection of the area in which the suspected defects may be located. If that ELCH inspection confirms any defects, repairs would be made prior to further flight. Regardless of the results of the ELCH inspection of the area in which suspected defects may be located, the proposal would still require that an initial ELCH inspection of the complete rudder be conducted.

The proposed AD also would require replacement of the rudder with a rudder modified by the manufacturer; this action would constitute terminating action for the repetitive visual and ELCH inspections. The replacement of the rudder would be required to be accomplished in accordance with the applicable modification service bulletins described previously.

Difference Between Proposed Rule and Parallel French CN

Unlike French CN 90–098–112(B)R1, which permits installation of the modified rudder as an optional terminating action, this proposed AD would require that the modified rudder be installed within 5 years, as terminating action for the inspections. The FAA has determined that long-term, continued operational safety will be better assured by modifications or design changes to remove the source of the problem, rather than by repetitive inspections. Long-term inspections may not be providing the degree of safety assurance necessary for the transport airplane fleet. This, coupled with a better understanding of the human factors associated with numerous repetitive inspections, has led the FAA to consider placing less emphasis on special procedures and more emphasis on design improvements. The proposed modification requirement is in consonance with these considerations.

Cost Impact

There are approximately 44 Model A310 and Model A300–600 series airplanes of U.S. registry that would be affected by this proposed AD.

The tap tests that are currently required by AD 90–12–13 take approximately 4 work hours per airplane to accomplish. The average labor rate is $60 per work hour. Based on these figures, the cost impact of these currently-required actions on U.S. operators is estimated to be $10,560, or $240 per airplane, per tap test.

The visual inspections that are currently required by AD 90–12–13 (and retained in this new proposed AD) take approximately 1 work hour per airplane to accomplish, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of these inspections on U.S. operators is estimated to be $2,640, or $60 per airplane, per inspection.

Each ELCH inspection proposed in this new AD action would take approximately 14 work hours per airplane to accomplish, at an average labor rate of $60 per work hour. Based on these figures, the cost impact these proposed inspections on U.S. operators is estimated to be $36,960, or $840 per airplane, per inspection.

The replacement of the rudder that is proposed by this new AD action would take approximately 42 work hours per airplane to accomplish, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of this proposed replacement action on U.S. operators is estimated to be $110,880, or $2,520 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the current or proposed requirements of this AD action, and that no operator

would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations proposed herein would 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 proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES.**

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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 39–6625 (55 FR 23190, June 7, 1990), and by adding a new airworthiness directive (AD), to read as follows:

Airbus Industrie: Docket 96–NM–65–AD. Supersedes AD 90–12–13, Amendment 39–6625.

Applicability: Model A300–600 and A310 series airplanes; certificated in any category; equipped with pre-modification 5844D4829 rudders having the following part numbers:

A5547150000000
A5547150000200
A5547150000400
A5547150000600
A5547150000800
A5547150001000
A5547150001200
A5547150001400

Note 1: The pre-modification rudders to which this AD applies were installed at the time of delivery on Model A300–600 and A310 series airplanes specified in the effectivity listings of the Airbus service bulletins that are referenced in this AD. However, such rudders may have been installed after delivery on airplanes other than the ones listed in those service bulletins. Therefore, as specified by the preceding applicability provision, the operator of any Model A300–600 or A310 series airplane equipped with the pre-modified rudder is required to comply with the requirements of this AD.

Note 2: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 (f) 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.

Note 3: The requirements of paragraphs (a) and (b) of this AD are restatements of paragraphs A. and B. that appeared in AD 90–12–13, amendment 39–6625. These paragraphs require no additional action by operators who already have initiated the specified actions. (As indicated in both paragraphs, these actions are to continue until the new actions required by this AD are initiated.)

Compliance: Required as indicated, unless accomplished previously.

To detect and prevent disbonding which, if not corrected, could reduce the structural integrity of the rudder, and consequently lead to a reduction in its ability to sustain limit loads, accomplish the following:

(a) Visual Inspections (as Required by AD 90–12–13). Within 10 landings after June 20, 1990 (the effective date of AD 90–12–13, amendment 39–6625), perform a visual inspection to detect disbonding of the rudder skin panels, left and right, in accordance with Airbus All Operators' Telex (AOT) 55/90/01, Revision 1, dated April 27, 1990. After the effective date of this AD, perform this inspection in accordance with Airbus Service Bulletin A300–55–6008 (for Airbus Model A300–600 series airplanes), or Airbus Service Bulletin A310–55–2010 (for Airbus Model A310 series airplanes), both dated December 10, 1990, as applicable.

(1) If no defects are found, repeat the visual inspection thereafter at intervals not to exceed 7 days or 50 landings, whichever occurs first, until the requirements of paragraph (c) of this AD are initiated.

(2) If defects are found, prior to further flight, perform a tap test in accordance with paragraph (b) of this AD.

(b) Tap Tests (as Required by AD 90–12–13). Within 300 landings after June 20, 1990, perform a tap test to determine the extent of the damage, in accordance with Airbus AOT 55/90/01, Revision 1, dated April 27, 1990.

(1) If disbonding is less than 100 square cm, repeat the tap test of the affected area every 28 days or 200 landings, whichever occurs first, until the ELCH inspection requirements of paragraph (d) of this AD are initiated. For any signs of additional rudder skin panel disbonding, perform drilling procedures in accordance with paragraph 4.2.2.3. of the AOT; and thereafter repeat the visual inspection of the rudder skin panels specified in paragraph (a) of this AD, until the ELCH inspection requirements of paragraph (d) of this AD are initiated.

(2) If disbonding is more than 100 square cm, but less than 5,000 square cm, repair in accordance with paragraph 4.2.2.3. of the AOT. Thereafter, repeat the visual inspection of the rudder skin panels in accordance with paragraph (a) of this AD; and perform repetitive tap tests of the repaired areas at the following intervals; until the visual inspection requirements of paragraph (c) of this AD are initiated:

(i) Perform the tap test of the repaired area every 500 landings for disbonding greater than 100 square cm but less than 300 square cm;

(ii) Perform the tap test of the repaired area every 250 landings for disbonding greater than 300 square cm, but less than 1,000 square cm;

(iii) Perform the tap test of the repaired area every 75 landings for disbonding that is greater than 1,000 square cm, but less than 5,000 square cm.

(3) If disbonding is greater than 5,000 square cm, or if a crack is found, prior to further flight, repair in a manner approved by the Manager, Standardization Branch, ANM–113, FAA, Transport Airplane Directorate.

(c) New Visual Inspection Requirement. Perform a visual inspection of the complete rudder to detect disbonding and cracking of the rudder skin panels, left and right, in accordance with Airbus Service Bulletin A300–55–6008 (for Airbus Model A300–600 series airplanes), or Airbus Service Bulletin A310–55–2010 (for Airbus Model A310 series airplanes), both dated December 10, 1990, as applicable. Initiation of this inspection constitutes terminating action for the requirements of paragraph (a) and specified portions of paragraph (b) of this AD.

(1) Perform the initial inspection at the later of the times specified in paragraph (c)(1)(i) or (c)(1)(ii) of this AD:

(i) Within 7 days or 50 landings after the effective date of this AD, whichever is first; or

(ii) Within 7 days or 50 landings whichever occurs first after the last visual inspection performed in accordance with AD 90–12–13, amendment 39–6625.

(2) If no disbonding or cracking is detected during this inspection accomplish the actions specified in paragraphs (c)(2)(i) and (c)(2)(ii) of this AD:

(i) Repeat the visual inspection at intervals not to exceed 7 days or 50 landings,

whichever occurs first, until the initial ELCH inspection is accomplished in accordance with paragraph (d) of this AD. And

(ii) After the initial ELCH inspection required by paragraph (d) of this AD has been accomplished, repeat these visual inspections thereafter at intervals not to exceed 350 landings, in accordance with the applicable service bulletin.

(3) If any disbonding or cracking is detected, prior to further flight, conduct an ELCH inspection of the suspected area for signs of disbonding, and accomplish follow-on actions in accordance with the Flow Chart, Figure 2, of the applicable service bulletin. If the confirmed extent of disbonding, however, is greater than 400 square cm in Area I, or greater than 800 square cm in Area II, as those areas of the rudder are defined in the applicable service bulletin, prior to further flight, repair and accomplish subsequent inspections in accordance with the requirements of paragraph (d)(3) of this AD.

(d) ELCH Inspections. Within 6 months after the effective date of this AD, conduct an initial elasticity laminate checker (ELCH) inspection of the complete rudder, in accordance with Airbus Service Bulletin A300–55–6008 (for Model A300–600 series airplanes) or Airbus Service Bulletin A310–55–2008 (for Model A310 series airplanes), both dated December 10, 1990, as applicable. Initiation of this inspection constitutes terminating action for the requirements of paragraph (a) and specified portions of paragraph (b) of this AD.

(1) If no disbonding or cracking is detected, repeat the ELCH inspection at intervals not to exceed 2 years or 3,500 landings, whichever occurs first.

(2) If disbonding or cracking is confirmed by ELCH inspection, and the extent of the disbonding is equal to or less than 400 square cm in Area I, or equal to or less than 800 square cm in Area II, as those areas of the rudder are defined in the applicable service bulletin: Prior to further flight, accomplish follow-on actions in accordance with Flow Chart, Figure 2, of the applicable service bulletin.

(3) If disbonding or cracking is confirmed by ELCH inspection, and the extent of the disbonding is greater than 400 square cm in Area I, or greater than 800 square cm in Area II, as those areas of the rudder are defined in the applicable service bulletin: Prior to further flight, accomplish either paragraph (d)(3)(i) or (d)(3)(ii) of this AD:

(1) Repair in a manner approved by the Manager, Standardization Branch, ANM–113, FAA, Transport Airplane Directorate. Thereafter, continue to conduct ELCH inspections in a manner and at intervals approved by the Manager, Standardization Branch, ANM–113.

(ii) Replace the rudder in accordance with Airbus Service Bulletin A300–55–6010 (for Model A300–600 series airplanes) or Airbus Service Bulletin A310–55 2012 (for Model A310 series airplanes), both dated April 18, 1991, as applicable. After this replacement is accomplished, no further actions are required by this AD.

(e) Terminating Action. Within five years after the effective date of this AD, replace the rudder in accordance with Airbus Service Bulletin A300–55–6010 (for Model A300–600 series airplanes) or Airbus Service Bulletin A310–55 2012 (for Model A310 series airplanes), both dated April 18, 1991, as applicable. This replacement constitutes terminating action for the inspection requirements of this AD.

(f) 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, Standardization Branch, ANM–113. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Standardization Branch, ANM–113.

Note 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Manager, Standardization Branch, ANM–113.

(g) 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.

Issued in Renton, Washington, on October 16, 1996.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 96–27125 Filed 10–22–96; 8:45 am]

BILLING CODE 4910–13–U

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14 CFR Part 39

[Docket No. 96–NM–76–AD]

RIN 2120–AA64

Airworthiness Directives; Construcciones Aeronauticas, S.A. (CASA) Model CN–235 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to all CASA CN–235 series airplanes. This proposal would require repetitive eddy current inspections to detect fatigue cracks in the nose landing gear (NLG) turning tube, and replacement of cracked tubes. This proposal is prompted by a report of the failure of an NLG turning tube during landing roll; the failure was attributed to fatigue cracking in the turning tube. The actions specified by the proposed AD are intended to ensure that fatigue cracking in the NLG turning tube is detected and corrected before it could cause the failure of the tube and, consequently, degrade the structural integrity of the NLG.

DATES: Comments must be received by December 2, 1996.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–103, Attention: Rules Docket No. 96–NM–76–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Construcciones Aeronauticas, S.A., Getafe, Madrid, Spain. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Greg Dunn, Aerospace Engineer, Standardization Branch, ANM–113, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (206) 227–2799; fax (206) 227–1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

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