[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0518; Directorate Identifier 2010-NM-150-AD; Amendment 39-17231; AD 2012-21-15]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Airbus Model A300 B4-600, B4-600R, and F4-600R series airplanes, and Model A300 C4-605R Variant F airplanes (collectively called A300-600 series airplanes); and Model A310 series airplanes. This AD was prompted by events of excessive rudder pedal inputs and consequent high loads on the vertical stabilizer on several airplanes. This AD requires either incorporating a design change to the rudder control system and/or other systems, or installing a stop rudder inputs warning (SRIW) modification. We are issuing this AD to prevent loads on the vertical stabilizer that exceed ultimate design loads, which could cause failure of the vertical stabilizer and consequent reduced controllability of the airplane.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For the service information identified in this AD, contact Airbus SAS – EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet http://www.airbus.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone 425-227-2125; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on May 19, 2011 (76 FR 28914). That NPRM proposed to require incorporating a design change to the rudder control system and/or other systems to address the unsafe condition.

Relevant Service Information

Since we issued the NPRM (76 FR 28914, May 19, 2011), Airbus has issued the following service information:

- Airbus Mandatory Service Bulletin A300-22-6055, Revision 01, including Appendix 01, dated May 31, 2012
- Airbus Service Bulletin A300-22-6054, including Appendix 01, dated June 20, 2012
- Airbus Service Bulletin A300-22-6056, dated April 25, 2012
- Airbus Service Bulletin A300-31-6140, dated May 4, 2012
- Airbus Mandatory Service Bulletin A310-22-2064, Revision 01, including Appendix 01, dated May 31, 2012
- Airbus Service Bulletin A310-22-2063, including Appendix 01, dated June 20, 2012
- Airbus Service Bulletin A310-22-2065, dated April 25, 2012
- Airbus Service Bulletin A310-31-2144, dated May 4, 2012

These service bulletins describe procedures related to the SRIW modification. The procedures include installing a SRIW device, activating the SRIW device, upgrading the flight control computer to introduce the SRIW logic, and upgrading the flight warning computer. We have revised paragraph (g) in this final rule to allow accomplishment of this modification as an optional method of compliance with the requirements of the AD.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (76 FR 28914, May 19, 2011) and the FAA's response to each comment.

Support for the NPRM (76 FR 28914, May 19, 2011)

The National Transportation Safety Board (NTSB) and Air Line Pilots Association, International (ALPA), support the intent of the NPRM (76 FR 28914, May 19, 2011).

Requests to Withdraw NPRM (76 FR 28914, May 19, 2011): Unjustifiable Burden on Operators

UPS and FedEx requested that we withdraw the NPRM (76 FR 28914, May 19, 2011).

UPS stated that, in light of its existing operational and monitoring processes, the cost of the NPRM (76 FR 28914, May 19, 2011) would be a severe and unnecessary burden relative to its benefit. UPS stated that its flightcrews operate the airplanes in a manner that would not warrant the need for the proposed systems. UPS described its A300 flight training program, flight operations quality assurance (FOQA) program, and manual changes that were prompted by the incidents, and added that its training and awareness programs have been enhanced to specifically address the inherent high-speed sensitivity or response of the A300 rudder control system. UPS concluded that its flight training program emphasizes proper use of the rudder for which the rudder has been certified, and its robust FOQA program coupled with a review of maximum lateral loading from actual flights demonstrates that UPS flightcrews do not induce heavy side loading with improper rudder use. In addition, UPS stated that the FAA has already taken numerous actions to address this safety issue.

FedEx stated that its current flightcrew training practices have ensured elimination of excessive rudder pedal inputs on FedEx's Model A300-600 and A310 series airplanes. FedEx further detailed that it has monitored and recorded events of lateral G exceedences at FedEx as a result of FAA AD 2002-06-09, Amendment 39-12686 (67 FR 13259, March 22, 2002; corrected at 67 FR 51459, August 8, 2002), and all such events have been a result of something other than pilot rudder pedal input.

Although the FAA agrees with the importance of enhanced training and operational awareness of Model A300 and A310 rudder pedal sensitivity, we disagree to withdraw the NPRM (76 FR 28914, May 19, 2011). The National Transportation Safety Board (NTSB) found that the rudder pedal's sensitivity contributed to the American Airlines flight 587 accident, and, during a recent upset on an airplane with a similar system, the pilot made excessive pedal input, thinking he was actually correcting an airplane malfunction. Even with significant emphasis on training and rudder pedal sensitivity awareness, however, there have been additional full rudder pedal reversal occurrences on airplanes with similar rudder control systems. We have concluded that training alone is inadequate, and we have determined that a modification such as the pedal travel limiter unit (PTLU) or other design modification is necessary to address the unsafe condition. We have not changed the final rule regarding this issue. Based on the best information available on possible flightcrew training and possible design modifications, we have identified the need to incorporate a design change that will further address this unsafe condition. In addition, the FAA has tasked a joint authority-industry group to recommend criteria that might be used to evaluate other models. Upon acceptance of appropriate criteria, the FAA will begin to assess other in-service airplanes. Currently, the group is scheduled to complete its work in late 2013. See the FAA's response to the comments under "Request to Expand Applicability" in this final rule.

Request to Emphasize Training

In addition to supporting design enhancements to prevent inadvertent rudder over control, ALPA stated there should continue to be emphasis on the appropriate use of rudder in training programs.

The FAA agrees with the commenter that training programs are beneficial. Since the American Airlines Flight 587 accident, the FAA has emphasized training with letters to all affected operators notifying them of concerns regarding the need for industry-wide

pilot knowledge and training on proper use of rudder pedals, in addition to the potential consequences of some maneuvers that might exceed the structural limits of the vertical tail. The FAA also tasked a working group to help develop specific training programs for rudder usage on all transport category airplanes. The FAA has also added language in section 25.1583(a)(3) of the Federal Aviation Regulations (14 CFR 25.1583(a)(3)) to warn against control reversals. Training will continue to be emphasized in the future; however, the intent of this AD is to require a design change be made to the airplane to correct the unsafe condition. We have not changed this final rule regarding this issue.

Request for Alternative Solution

Airbus suggested that, in lieu of the PTLU design modification discussed in the NPRM (76 FR 28914, May 19, 2011), we revise the NPRM to add another way to comply — by installing a warning light on the glareshield directly in front of each pilot and an associated "stop rudder inputs" aural warning, in addition to revising the airplane flight manual and reinforced flightcrew training. Airbus noted that flightcrew failure to use proper techniques was a contributing factor to the excessive rudder pedal inputs.

According to Airbus, its warning system will deter pilots from continuing the application of rapid alternating and large rudder pedal inputs, and is a more suitable solution than the PTLU modification proposed by the FAA.

We acknowledge Airbus's suggested solution, which was unavailable for consideration at the time we issued the NPRM (76 FR 28914, May 19, 2011). Following the receipt of the Airbus comments, the FAA has evaluated the Airbus alternative and found the "stop rudder inputs" warning (SRIW) modification combined with suitable flightcrew training programs provides an acceptable mitigation for the unsafe condition. As stated previously, we agree to change this final rule to allow the SRIW modification as an optional method of compliance with the requirements of the AD. In addition, since we issued the NPRM, the European Aviation Safety Agency (EASA), which is the

Technical Agent for the Member States of the European Community, has issued EASA AD 2012-0088, dated June 25, 2012, to require installation of the SRIW modification on Model A300-600 and A310 series airplanes to address this unsafe condition.

Requests for Alternative Compliance Method

Francis Gentile requested that we revise the NPRM (76 FR 28914, May 19, 2011) to include, as one way to comply with the NPRM, the option to tape a yaw string onto the front windows to give the pilot maximum feedback against excessive yaw and pilot-induced oscillation.

We disagree with this request. The unsafe condition presents itself with dynamic yaw excursions linked to rudder pedal reversals. Yaw indicators already present on the flight deck have not proven effective in previous rudder pedal reversal events.

Mr. Gentile also suggested adhering a pointed cone on each rudder pedal to give the pilot the progressive feedback sensation of force applied to the pedal and possibly cause pain in the ball of the foot or a twisting ankle to deter the pilot from making inputs or at least alert the pilot to stop making such an input. The commenter pointed out that this solution might be less expensive than the proposed modification. The commenter noted that the cone might also interfere with other pedal functions such as braking.

We do not agree with this comment. The commenter has provided an unproven design suggestion. There is no evidence that such devices would be effective at preventing the unsafe condition. The rudder pedals are used normally for taxiing and flying the airplane. Adding cone devices to the pedals may interfere with normal pedal usage. There are certain safety-critical conditions where it is necessary for the pilot to apply rapid hard pedal inputs. Anything that interferes with the pilot's ability to make necessary inputs could reduce safety. Such devices might also defeat the purpose of the pedal adjustment feature that allows shorter or taller pilots to use the pedal, and affect appropriate steering and braking. Under the provisions of paragraph (h) of this AD,

however, we will consider requests for approval of different compliance methods if sufficient data are submitted to substantiate that the change would provide an acceptable level of safety.

We have not changed the AD regarding these issues.

Request to Expand Applicability

Airbus questioned the basis for the NPRM (76 FR 28914, May 19, 2011) — that rudder pedal sensitivity is limited to Model A300-600 and A310 series airplanes. Airbus added that rapid alternating and large pilot rudder inputs while enroute are inappropriate and have the potential to be unsafe for a wider fleet of large transport airplanes. Airbus identified several resources supporting this position.

We infer that Airbus wants us to expand the applicability of the NPRM (76 FR 28914, May 19, 2011), or otherwise consider similar rulemaking to extend to other airplane models and airplanes produced by other manufacturers. While the FAA has not determined that an unsafe condition exists on other airplanes, we are considering a number of factors on other airplanes, including pedal reversals, pedal sensitivity, and airplane dynamics and fin loads. NTSB Safety Recommendation A-04-56 recommends developing a revised standard to ensure safe handling qualities in the yaw axis throughout the flight envelope, including limits for rudder pedal sensitivity. Currently an FAA aviation rulemaking advisory committee (ARAC) has been assigned to evaluate this safety recommendation. Pending the ARAC recommendation, the FAA will determine whether other airplanes have a similar unsafe condition that needs to be addressed by rulemaking or airworthiness actions. We have not changed the final rule regarding this issue.

Request to Remove Model A310-200 Airplanes from Applicability

Airbus requested that we revise the applicability of the NPRM (76 FR 28914, May 19, 2011) to remove Model A310-200 airplanes because their remaining service life is short.

We disagree with the request. Service life projections vary among operators and are difficult to accurately determine. Airbus did not provide any specific service life projections. In addition, the utilization rate of these airplanes is low, which can preserve and extend their life. We therefore do not consider this request to have adequate justification. We have not changed the final rule regarding this issue.

Request to Revise Compliance Time: Account for PTLU Development Time

FedEx requested that we extend the proposed compliance time to account for development time for the PTLU.

We disagree with the request. We have determined that the unsafe condition warrants corrective action within the specified time frame. If developing the PTLU and incorporating the mandated changes require additional time, the FAA may consider revising the AD to extend the compliance time, or provide such relief through approval of an AMOC to extend the compliance time of the AD according to the provisions of paragraph (h) of this AD. We have not changed the final rule regarding this issue.

Request to Revise Compliance Time: Allow for New Maintenance Procedures

FedEx requested that we revise the compliance time in the NPRM (76 FR 28914, May 19, 2011) to allow time to incorporate new maintenance procedures to accommodate the proposed modification. Based on past experience, FedEx considered the proposed 48-month compliance time unrealistic to account for changes in maintenance programs. FedEx also requested that we extend the proposed compliance time to 72 months to allow time to revise the master minimum equipment list (MMEL) to support dispatch reliability of the newly installed system. UPS stated that at least 6 years would be needed to install the PTLU on its fleet.

We disagree with the FedEx proposal. In determining the appropriate compliance time for this AD, we considered many factors, including those related to maintenance program adjustments. Further, once the PTLU is developed and ready for incorporation on the fleet, operators may request MMEL relief via an AMOC request to the AD. We determined that the compliance time, as proposed, will maintain the necessary level of safety and allow adequate time for operators to modify their maintenance program. We have not changed the final rule regarding this issue.

Request to Extend Compliance Time: Account for Design Service Goals

Airbus requested that we revise the proposed compliance time to consider the Airbus design service goals (DSGs) for the affected airplanes. Airbus provided a proposed grace period for any airplane close to its DSG value near the end of the compliance time, until the airplane's certificate of airworthiness is withdrawn.

We disagree with the request. This AD includes all airplanes that have the defined unsafe condition regardless if the airplane is currently in operation, or has been removed from service. As Airbus has described the operators may choose to further invest in the airplanes and operate them in what Airbus calls the extended service goals (ESG). This AD does not prevent an airplane from being operated beyond the DSG so a grace period for any airplane close to its DSG does not maintain an adequate level of safety. Under the provisions of paragraph (h) of this final rule, however, we will consider requests to approve an extension of the compliance time if sufficient data are submitted to substantiate that the extension would also provide an acceptable level of safety. We have not changed the final rule regarding this issue.

Concern for Length of Time to Develop and Mandate Fix

Two commenters expressed concern about the length of time it has taken to develop and mandate a fix for the unsafe condition.

The NTSB, although encouraged by the various actions being considered to address the unsafe condition, was concerned about the lack of a definitive fix for the rudder system. Since the exact details of the PTLU fix have not yet been available, the NTSB could not determine the benefit of this system. The NTSB was also concerned about the amount of time spent to make the design change available to operators.

Geoffrey Barrance also questioned this timeframe, and asked whether we have new information about the need to mandate a modification of the rudder system.

The FAA understands the NTSB concern about the lack of definitive PTLU design information provided with the NPRM (76 FR 28914, May 19, 2011), and the concern about the amount of time that has transpired to make a design change available to operators. As stated in the NPRM, there were no service instructions available at that time to address the unsafe condition. However, the FAA determined that taking additional time to develop service information before beginning the corrective action notification process was not in the public's interest. Since the date of the NPRM publication, Airbus has developed a design change that is a more cost-effective solution than the originally planned PTLU, which has also received design approval by the EASA and the FAA.

Request to Clarify Modification Approval Timeframe

Geoffrey Barrance acknowledged the FAA's possible reluctance to limit the corrective action to a single technical approach, but questioned why it would take 3 years to mandate installation of the PTLU.

We have established a compliance time of 4 years to implement the required design change, including an estimated 3-year timeframe for developing and approving a modification that ensures that parts and installation instructions are available. The FAA is confident that a modification will be available in a timely manner and that the

compliance time, as proposed, will leave adequate time for operators to implement the changes required by this AD. We have not changed the final rule regarding this issue.

Request to Clarify Background in NPRM (76 FR 28914, May 19, 2011)

Based on its request for an alternative solution to the unsafe condition, Airbus requested changes to the Discussion section of the NPRM (76 FR 28914, May 19, 2011).

Where the NPRM (76 FR 28914, May 19, 2011) referred to events of "excessive rudder pedal inputs" that resulted in high vertical stabilizer loads, Airbus suggested that we recharacterize the events as "excessive rapid alternating and large pilot rudder pedal inputs." Airbus described the reported conditions that support this finding.

Where the NPRM (76 FR 28914, May 19, 2011) describes the PTLU as one option under consideration for the modification to the rudder control system, Airbus suggested that we also state that the PTLU has no effect on crew awareness that rapid alternating and larger rudder inputs addressed in section 25.1583 of the Federal Aviation Regulations (14 CFR 25.1583) are always inappropriate. Airbus stated that if a flightcrew were to perform such inputs, the loads created would be lower for an airplane fitted with a PTLU than one without a PTLU. But the flightcrew would still have the potential to add to the loads in the same direction induced on the vertical stabilizer by an increasing sideslip. Airbus concluded that high loads to the vertical stabilizer will occur anyway if the pilot continues to use the inappropriate piloting technique, but a given level of high loads and the associated hazard will be reached a few seconds later for an airplane fitted with a PTLU.

We agree that the requested changes might clarify the background information of the NPRM (76 FR 28914, May 19, 2011). The Discussion section, however, is not restated in a final rule, so we have not changed the final rule regarding this issue.

Request to Include Additional Background Information

Francis Gentile requested that we add a journal article to the AD docket. This article indicated the need for design improvements to relieve the limited adaptive capability of pilots.

We acknowledge the commenter's request, but the article was not part of the AD development process and would serve no purpose in the AD docket. In light of potential proprietary issues and the appropriateness of posting this type of article in the AD docket, we have not changed the final rule regarding this issue.

Request to Provide Information on Evaluation of Rudder Pedal Sensitivity

ALPA requested an evaluation of rudder pedal sensitivity and means to prevent inadvertent over control.

The FAA has already tasked the ARAC to consider general rulemaking in 14 CFR part 25 to address pedal sensitivity as well as several other considerations to ensure that pilot-commanded pedal reversals are safe or precluded, or that the system design reduces the likelihood of pedal reversals. We have not changed the final rule regarding this issue.

Request for Information

The NTSB requested information on Airbus's development of a flight deck warning light that does not incorporate any mechanical changes to the rudder system. The NTSB is concerned that a warning light alone will not rectify the unsafe condition.

The SRIW warning modification consists of a prominent warning light and a loud verbal warning directing the pilot to cease inputs to the rudder. After reviewing the design, analyses, and simulator demonstrations, the FAA has concluded that these alerts, taken together, are compelling, timely, and will prevent the flightcrew from continuing the inappropriate rudder inputs prior to exceeding the ultimate design loads that could result in failure of the vertical stabilizer. The FAA has determined that the SRIW modification, combined with suitable flightcrew training programs, provides an acceptable mitigation for the unsafe condition.

As explained previously, we have changed the final rule to include the SRIW modification as one approved method for complying with this AD.

Request to Revise Cost Estimate

Airbus noted that the NPRM (76 FR 28914, May 19, 2011) included estimated costs only for the PTLU installation. Airbus requested that we revise the NPRM to include the estimated costs to install an alert warning system. UPS asserted that the NPRM underestimated the costs of the proposed modification, which would involve upgrading computers and installing warning light consoles, switching relays, and associated interconnect wiring.

We agree to revise the cost estimate. Cost information for the alert warning system was not available when we issued the NPRM (76 FR 28914, May 19, 2011). As one of the modifications accepted by the FAA, it should be included. We have revised the Costs of Compliance section accordingly in this final rule.

Request to Change Air Transport Association (ATA) Code

Airbus requested that we revise paragraph (d) of the NPRM (76 FR 28914, May 19, 2011) to add ATA Code 31, Instruments, to reflect Airbus's proposal to install a crew warning as one way to comply with the NPRM.

We agree with the request and rationale. We have changed paragraph (d) in this final rule accordingly.

Questions about Safety Recommendations (SRs)

Mr. Barrance asked whether the NPRM (76 FR 28914, May 19, 2011) addressed NTSB SRs A-04-56 and A-04-57, and whether failure to refer to SR A-04-58 was an omission.

An FAA ARAC is considering general rulemaking to address rudder pedal sensitivity, including factors beyond those specified in this AD. This AD is in response

to SRs A-04-058, A-04-044, and A-04-063. We have not changed the final rule regarding this issue.

Conclusion

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

Costs of Compliance

We estimate that this AD will affect 215 airplanes of U.S. registry.

The unsafe condition may be addressed by installing a PTLU or alert warning system, although these may not be the only acceptable methods. The following table provides the estimated costs for U.S. operators to comply with this AD, based on preliminary information provided by the manufacturer.

Estimated costs

Installation	Work hours	Average labor rate per hour	Parts	Cost per product
PTLU	100	$85	$190,000	$198,500
Alert warning system for products with a flight warning computer standard developed from year 2000 and onwards	32	$85	$70,000	$72,720
Alert warning system for remaining airplanes	32	$85	$105,000	$107,720

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

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

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

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

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

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2012-21-15 **Airbus**: Amendment 39-17231; Docket No. FAA-2011-0518; Directorate Identifier 2010-NM-150-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus Model A300 B4-601, B4-603, B4-620, and B4-622 airplanes; Model A300 B4-605R and B4-622R airplanes; Model A300 F4-605R and F4-622R airplanes; Model A300 C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes; certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls; and 31, Instruments.

(e) Unsafe Condition

This AD was prompted by events of excessive alternating rudder pedal inputs and consequent loads on the vertical stabilizer that exceed ultimate design loads. Such events could lead to failure of the vertical stabilizer and consequent reduced controllability of the airplane.

(f) Compliance

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

(g) Modification

Within 48 months after the effective date of this AD, do the actions specified in either paragraph (g)(1) or (g)(2) of this AD to address the unsafe condition identified in paragraph (e) of this AD.

(1) Incorporate a design change to the rudder control system and/or other systems, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA.

(2) Install a stop rudder inputs warning (SRIW) modification by doing the applicable actions specified in paragraph (g)(2)(i) or (g)(2)(ii) of this AD, as applicable.

(i) For Model A300-600 series airplanes: Do the applicable actions specified in paragraphs (g)(2)(i)(A) and (g)(2)(i)(B) of this AD.

(A) Install a SRIW device, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-22-6054, including Appendix 01, dated June 20, 2012. Before or concurrently with the SRIW installation, do the actions specified in paragraphs (g)(2)(i)(A)(1) and (g)(2)(i)(A)(2) of this AD.

(1) Upgrade the flight control computer (FCC) to introduce the SRIW logic, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-22-6056, dated April 25, 2012.

(2) Upgrade the flight warning computer (FWC) to introduce the SRIW aural capability, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-31-6140, dated May 4, 2012.

(B) Activate the SRIW device, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-22-6055, Revision 01, including Appendix 01, dated May 31, 2012.

(ii) For Model A310 series airplanes: Do the actions specified in paragraphs (g)(2)(ii)(A) and (g)(2)(ii)(B) of this AD.

(A) Install a SRIW device, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A310-22-2063, including Appendix 01, dated June 20, 2012. Before or concurrently with the SRIW installation, do the actions specified in paragraphs (g)(2)(ii)(A)(1) and (g)(2)(ii)(A)(2) of this AD.

(1) Upgrade the FCC to introduce the SRIW logic, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A310-22-2065, dated April 25, 2012.

(2) Upgrade the FWC to introduce the SRIW aural capability, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A310-31-2144, dated May 4, 2012.

(B) Activate the SRIW device, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A310-22-2064, Revision 01, including Appendix 01, dated May 31, 2012.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the Manager, ANM-116, send it to the attention of the person identified in the Related Information section of this AD.

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

(i) Related Information

(1) For related information, refer to MCAI European Aviation Safety Agency Airworthiness Directive 2012-0088, dated June 25, 2012, and the service bulletins identified in paragraphs (i)(1)(i) through (i)(1)(viii) of this AD, for related information.

(i) Airbus Mandatory Service Bulletin A300-22-6055, Revision 01, including Appendix 01, dated May 31, 2012.

(ii) Airbus Mandatory Service Bulletin A310-22-2064, Revision 01, including Appendix 01, dated May 31, 2012.

(iii) Airbus Service Bulletin A300-22-6054, including Appendix 01, dated June 20, 2012.

(iv) Airbus Service Bulletin A300-22-6056, dated April 25, 2012.

(v) Airbus Service Bulletin A300-31-6140, dated May 4, 2012.

(vi) Airbus Service Bulletin A310-22-2063, including Appendix 01, dated June 20, 2012.

(vii) Airbus Service Bulletin A310-22-2065, dated April 25, 2012.

(viii) Airbus Service Bulletin A310-31-2144, dated May 4, 2012.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone 425-227-2125; fax 425-227-1149.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Mandatory Service Bulletin A300-22-6055, Revision 01, including Appendix 01, dated May 31, 2012.

(ii) Airbus Mandatory Service Bulletin A310-22-2064, Revision 01, including Appendix 01, dated May 31, 2012.

(iii) Airbus Service Bulletin A300-22-6054, including Appendix 01, dated June 20, 2012.

(iv) Airbus Service Bulletin A300-22-6056, dated April 25, 2012.

(v) Airbus Service Bulletin A300-31-6140, dated May 4, 2012.

(vi) Airbus Service Bulletin A310-22-2063, including Appendix 01, dated June 20, 2012.

(vii) Airbus Service Bulletin A310-22-2065, dated April 25, 2012.

(viii) Airbus Service Bulletin A310-31-2144, dated May 4, 2012.

(3) For the service information identified in this AD, contact Airbus SAS – EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet http://www.airbus.com.

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

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

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