



[4910-13-P]

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2015-0076; Directorate Identifier 2013-NM-246-AD]

RIN 2120-AA64

**Airworthiness Directives; Airbus Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Airbus Model A330-200, A330-200 Freighter, and A330-300 series airplanes; and Airbus Model A340-200, A340-300, A340-500, and A340-600 series airplanes. This proposed AD was prompted by a report that, during a production flight test, the ram air turbine (RAT) did not pressurize the green hydraulic system. For certain airplanes, this proposed AD would require identification of the part number, serial number, and standard of the RAT pump, RAT module, RAT actuator, and RAT lower gearbox assembly; replacement of the balance weight screw, modification of the actuator coil spring, modification of the actuator, an inspection of the anti-stall valve for correct installation in the RAT pump housing; and corrective actions if necessary. For certain other airplanes, this proposed AD would require re-identification or replacement of the RAT module. We are proposing this AD to prevent loss of the impeller function and RAT pump pressurization capability, which, if preceded by a total engine flame-out, could result in the loss of control of the airplane.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Airbus service information identified in this proposed AD, contact Airbus SAS, Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330 A340@airbus.com](mailto:airworthiness.A330 A340@airbus.com); Internet <http://www.airbus.com>. For Hamilton Sundstrand service information identified in this proposed AD, contact Hamilton Sundstrand, Technical Publications, Mail Stop 302-9, 4747 Harrison Avenue, P.O. Box 7002, Rockford, IL 61125-7002; telephone 860-654-3575; fax 860-998-4564; email [tech.solutions@hs.utc.com](mailto:tech.solutions@hs.utc.com); Internet <http://www.hamiltonsundstrand.com>. You may view the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind

Avenue SW., Renton, WA. 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> by searching for and locating Docket No. FAA-2015-0076; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM 116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1138; fax 425-227-1149.

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-0076; Directorate Identifier 2013-NM-246-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all

comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2013-0274, dated November 15, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A330-200, A330-200 Freighter, and A330-300 series airplanes; and Airbus Model A340-200, A340-300, A340-500, and A340-600 series airplanes. The MCAI states:

During a production flight test of an A330-300 aeroplane, the Ram Air Turbine (RAT) did not pressurize the green hydraulic system. Investigation revealed that the impeller drive (hex) shaft had a reduced length of engagement with the pump drive shaft. This caused the impeller drive shaft to disengage from the pump and disconnect the impeller. It was determined that the disconnection was the result of internal hex dimensions on the pump impeller shaft, which had been changed in a manufacturing drawing. From the investigation analysis, it was possible to identify a list of affected parts.

This condition, if not detected and corrected, could lead to the loss of impeller function and RAT pump pressurization capability, possibly resulting, in case of total engine flame out, to the loss of control of the aeroplane.

To address this unsafe condition, a new design RAT pump shaft has been developed with a decreased hexagonal shaft housing depth, which increases the hexagonal drive shaft engagement in the impeller shaft to carry the impeller torque. Airbus issued Service Bulletin (SB) A330-29-3122, SB A340-29-4093 and SB A340-29-5021 to provide instructions for in-service replacement of the affected RAT hydraulic pumps, or re-identification of the RAT pump and complete RAT module, as applicable.

For the reasons described above, this [EASA] AD requires identification and replacement [modification] or re-identification of all affected RAT hydraulic pumps on A330 and A340-200/300 aeroplanes, and replacement [modification] of all affected RAT modules on A340-500/-600 aeroplanes.

For affected pumps, the required actions also include concurrent actions, as applicable, including replacement of the balance weight screw, modification of the actuator coil spring, modification of the actuator, an inspection of the anti-stall valve for correct installation in the RAT pump housing and re-installation if necessary. For affected pumps, corrective actions include replacement of the RAT hydraulic pump, and re-identification of the part number of the RAT module. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0076.

### **Related ADs**

EASA and the FAA have issued additional ADs related to the RAT. FAA AD 2012-21-19, Amendment 39-17235 (77 FR 65812, October 31, 2012), which corresponds to EASA AD 2011-0197, dated October 10, 2011, requires an inspection of the RAT anti-stall valve in the pump housing for correct setting, re-identification of the RAT pump, performing a functional ground test of the RAT, and replacement of the RAT

pump or the RAT assembly with a serviceable part if necessary. FAA AD 2012-21-19 is applicable to all Airbus Model A330-200 freighter series airplanes; Model A330-200 and -300 series airplanes; and Model A340-200 and -300 series airplanes.

The FAA also issued AD 2012-21-20, Amendment 39-17236 (77 FR 65799, October 31, 2012), which corresponds to EASA AD 2011-0204, dated October 14, 2011. FAA AD 2012-21-20 requires identification of the supplier, part number, and serial number of the RAT actuator, and re-identification of the RAT actuator and RAT, or replacement of the RAT actuator with a serviceable unit and re-identification of the RAT, if necessary. FAA AD 2012-21-20 is applicable to certain Airbus Model A330-200 freighter series airplanes, Model A330-200 and -300 series airplanes, and Model A340-200, -300, -500, and -600 series airplanes.

#### **Related Service Information**

Airbus has issued the following service information, which describes procedures for modification of the RAT pump hex shaft.

- Airbus Service Bulletin A330-29-3122, dated October 25, 2012 (for Model A330-200, -200 Freighter, and -300 series airplanes).
- Airbus Service Bulletin A340-29-4093, dated October 25, 2012 (for Model A340-200 and -300 series airplanes).
- Airbus Service Bulletin A340-29-5021, dated October 2, 2012 (for Model A340-500 and -600 series airplanes).

Hamilton Sundstrand has issued Service Bulletin ERPS06M-29-19, dated August 6, 2012, which describes procedures for checking and replacing the RAT hydraulic pump.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

#### **FAA’s Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

#### **Clarification of Service Information**

Airbus Service Bulletin A330-29-3122, dated October 25, 2012 (for Model A330-200, -200 Freighter, and -300 series airplanes), contains a typographical error in the vendor service bulletin reference. The Airbus service information in some instances references Hamilton Sundstrand Service Bulletin “EPRS06M-29-13,” but the correct reference is ERPS06M-29-19. Airbus is aware of the error and plans to correct it when Service Bulletin A330-29-3122 is revised.

#### **Costs of Compliance**

We estimate that this proposed AD affects 66 airplanes of U.S. registry.

We also estimate that it would take about 14 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$78,540, or \$1,190 per product.

In addition, we estimate that any necessary follow-on actions would take up to 18 work-hours and require parts costing up to \$427,301, for a cost of \$428,831 per product. We have no way of determining the number of aircraft that might need this action.

#### **Authority for this Rulemaking**

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

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

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 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);
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.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Airbus:** Docket No. FAA-2015-0076; Directorate Identifier 2013-NM-246-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD affects AD 2012-21-19, Amendment 39-17235 (77 FR 65812, October 31, 2012); and AD 2012-21-20, Amendment 39-17236 (77 FR 65799, October 31, 2012).

**(c) Applicability**

This AD applies to all airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes.

(2) Airbus Model A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 29, Hydraulic Power.

**(e) Reason**

This AD was prompted by a report that, during a production flight test, the ram air turbine (RAT) did not pressurize the green hydraulic system. We are issuing this AD to prevent loss of the impeller function and RAT pump pressurization capability, which, if preceded by a total engine flame-out, could result in the loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Identification of RAT Components**

For Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, -213, -311, -312, and -313 airplanes: Except as provided by paragraph (i) of this AD, within 36 months after the effective date of this AD, identify the part number, serial number, and standard (through the mod-dots) of the RAT pump, RAT module, RAT actuator, and RAT lower gearbox assembly, in accordance with the Accomplishment Instructions of the applicable Airbus service information specified in paragraphs (g)(1) and (g)(2) of this AD. A review of airplane maintenance records is acceptable in lieu of this identification if the part number, serial number, and standard can be conclusively determined from that review.

(1) For Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes: Airbus Service Bulletin A330-29-3122, dated October 25, 2012.

(2) For Airbus Model A340-211, -212, -213, -311, -312, and -313 airplanes:  
Airbus Service Bulletin A340-29-4093, dated October 25, 2012.

**(h) Corrective and Concurrent Actions**

If the serial number of the RAT hydraulic pump is included in table 7, “Suspect Hydraulic Pump Serial Numbers,” of Hamilton Sundstrand Service Bulletin ERPS06M-29-19, dated August 6, 2012: Within 36 months after the effective date of this AD, do all applicable corrective actions, in accordance with the Accomplishment Instructions of the applicable Airbus service information specified in paragraphs (g)(1) and (g)(2) of this AD. Prior to or concurrently with doing the corrective actions required by this paragraph, do the actions specified in paragraphs (h)(1) through (h)(4) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-29-3122, dated October 25, 2012 (for Model A330-200, -200 Freighter, and -300 series airplanes); or Airbus Service Bulletin A340-29-4093, dated October 25, 2012 (for Airbus Model A340-211, -212, -213, -311, -312, and -313 airplanes).

(1) Replace the balance weight screw.

(2) Modify the actuator coil spring.

(3) Modify the actuator.

(4) Do a general visual inspection of the anti-stall valve for correct installation in the RAT pump housing, and if any incorrect installation is found, before further flight, correctly install the anti-stall valve.

**(i) Exception to Service Information Specifications**

Where Airbus Service Bulletin A330-29-3122, dated October 25, 2012 (for Model A330-200, -200 Freighter, and -300 series airplanes), refers to Hamilton Sundstrand Service Bulletin “EPRS06M-29-13” as an additional source of guidance for doing certain actions required by paragraph (h) of this AD, the correct reference should be to Hamilton Sundstrand Service Bulletin ERPS06M-29-19.

**(j) Re-identification of Part Numbers**

If the serial number of the RAT hydraulic pump is not included in table 7, “Suspect Hydraulic Pump Serial Numbers,” of Hamilton Sundstrand Service Bulletin ERPS06M-29-19, dated August 6, 2012: Within 36 months after the effective date of this AD, re-identify the part numbers of the RAT hydraulic pump and RAT module, in accordance with the Accomplishment Instructions of the applicable Airbus service information specified in paragraphs (g)(1) and (g)(2) of this AD.

**(k) RAT Module Replacement (Modification)**

For Airbus Model A340-541 and -642 airplanes having RAT module P/N 772722D, 772722E, 772722F, or 772722G: Within 36 months after the effective date of this AD, replace (modify) the RAT module, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A340-29-5021, dated October 2, 2012.

**(l) Exception to Paragraphs (g), (h), and (j) of this AD**

The actions required by paragraph (g), (h) and (j) of this AD are not required for airplanes on which Airbus Modification 202537 was embodied in production, provided it can be determined that, since the airplane’s first flight, no RAT hydraulic pump or RAT

module having a part number identified in paragraph (n) of this AD is installed on that airplane.

**(m) Terminating Action for Certain Requirements of Other ADs**

(1) For Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and A340-211, -212, -213, -311, -312, and -313 airplanes: Accomplishment of the actions required by paragraphs (g), (h), and (j) of this AD constitutes compliance with the requirements of paragraphs (g)(1) and (g)(2) of AD 2012-21-19, Amendment 39-17235 (77 FR 65812, October 31, 2012); and paragraphs (g)(1) and (g)(2) of AD 2012-21-20, Amendment 39-17236 (77 FR 65799, October 31, 2012).

(2) For Airbus Model A340-541 and -642 airplanes: Accomplishment of the actions required by paragraph (k) of this AD constitutes compliance with the requirements of paragraphs (h)(1) and (h)(2) of AD 2012-21-20, Amendment 39-17236 (77 FR 65799, October 31, 2012).

**(n) Parts Installation Prohibition**

(1) For Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and A340-211, -212, -213, -311, -312, and -313 airplanes: After modification of the RAT module as required by paragraph (h) of this AD, no person may install any complete RAT module having a part number (P/N) identified in paragraph (n)(1)(i) of this AD, or any RAT hydraulic pump having the part number identified in paragraph (n)(1)(ii) of this AD, on any airplane.

(i) RAT module P/N 766351, 768084, 770379, 770952, 770952A, 770952B, 1702934, 1702934A, or 1702934B.

(ii) RAT hydraulic pump P/N 5909522 (Parker P/N 4207902).

(2) For Airbus Model A340-541 and -642 airplanes: After modification of the RAT module as required by paragraph (k) of this AD, no person may install any complete RAT module having P/N 772722D, 772722E, 772722F, or 772722G, on any airplane.

**(o) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** 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 International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM 116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1138; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method

approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(p) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2013-0274, dated November 15, 2013, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0076.

(2) For Airbus service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330A340@airbus.com](mailto:airworthiness.A330A340@airbus.com); Internet <http://www.airbus.com>. For Hamilton Sundstrand service information identified in this AD, contact Hamilton Sundstrand, Technical Publications, Mail Stop 302-9, 4747 Harrison Avenue, P.O. Box 7002, Rockford, IL 61125-7002; telephone 860-654-3575; fax 860-998-4564; e-mail [tech.solutions@hs.utc.com](mailto:tech.solutions@hs.utc.com); Internet <http://www.hamiltonsundstrand.com>. You may view the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on January 14, 2015.

John P. Piccola, Jr.,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2015-00961 Filed 01/22/2015 at 8:45 am; Publication Date: 01/23/2015]