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## **DEPARTMENT OF TRANSPORTATION (DOT)**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2004-18681; Directorate Identifier 2004-NM-56-AD; Amendment 39-13748; AD 2004-15-14]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Model A319-131, -132, and -133; A320-231, -232, and -233; and A321-131 and -231 Series Airplanes**

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Airbus Model A319-131, -132, and -133; A320-231, -232, and -233; and A321-131 and -231 series airplanes. This AD requires revising the airplane flight manual (AFM) to advise the flightcrew of procedures associated with the intermittent interruption of the electrical power. Under certain conditions, this AD also requires inspecting for signs of arcing and performing any necessary corrective actions. This AD also provides for optional terminating action for the requirements of the AD. This AD is prompted by reports of fretting and consequent arcing of the electrical harness of the integrated drive generator (IDG) at the pin-to-socket connector at the firewall. We are issuing this AD to prevent transient loss of certain systems and consequent reduced ability of the flightcrew to cope with adverse flight conditions.

**DATES:** Effective August 13, 2004.

The incorporation by reference of certain publications listed in the AD is approved by the Director of the Federal Register as of August 13, 2004.

We must receive comments on this AD by September 27, 2004.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, room PL-401, Washington, DC 20590.
- Fax: (202) 493-2251.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For the service information identified in this AD, contact Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. You can examine this information 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

### **Docket Management System (DMS)**

The FAA has implemented new procedures for maintaining AD docket electronically. As of May 17, 2004, new AD actions are posted on DMS and assigned a docket number. We track each action and assign a corresponding directorate identifier. The DMS AD docket number is in the form "Docket No. FAA-2004-99999." The Transport Airplane Directorate identifier is in the form "Directorate Identifier 2004-NM-999-AD." Each DMS AD docket also lists the directorate identifier ("Old Docket Number") as a cross-reference for searching purposes.

### **Examining the Dockets**

You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is on the plaza level of the Nassif Building at the DOT street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after the DMS receives them.

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

**SUPPLEMENTARY INFORMATION:** The Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, notified the FAA of numerous reports of the intermittent interruption of the electrical power supply. The power interruption has been attributed to arcing of the electrical harness of the integrated drive generator (IDG) at the pin-to-socket connector at the firewall. The affected IDG connectors are installed on Airbus Model A319, A320, and A321 series airplanes equipped with International Aero Engines (IAE) Model V2500. In most of the incidents, the generator control unit (GCU) detected the arcing and shut down the associated IDG with only minor consequences. However, in some cases, the GCU—because of intermittent arcing—did not shut down the IDG. Investigation revealed that the arcing is due to fretting corrosion between the Cannon connector installed on the nacelle side of the firewall and the Souriau connector installed on the pylon side of the firewall. The following events have occurred or could occur during flight as a result of the intermittent loss of electrical power supply:

- Flickering cabin lights;
- Flickering primary flight and navigation displays;
- Transient disconnection of several systems (autopilot, yaw damper, auto throttle), triggering warnings from the electronic centralized aircraft monitoring (ECAM) displays and prompting diversions to the nearest available airport; and
- Loss of IDG power supply on the affected engine.

These conditions, if not corrected, could result in reduced ability of the flightcrew to cope with adverse flight conditions.

## **Relevant Service Information**

Airbus has issued Temporary Revision (TR) 4.02.00/20 to the A318/319/320/321 Airplane Flight Manual (AFM). The TR, dated May 3, 2004, provides background information and operational recommendations regarding the intermittent interruption of electrical power supply.

Airbus has also issued Service Bulletin A320-71-1030, dated February 27, 2003. The service bulletin describes procedures for replacing the IDG harness on the nacelle side of the firewall to eliminate the pin-to-socket arcing. Specifically, harnesses having Cannon connectors are replaced with harnesses having Souriau connectors. The Souriau connector provides a better connection of the IDG electrical harness at the firewall. Airbus Service Bulletin A320-71-1030 refers to International Aero Engines Information Bulletin V2500-NAC-70-0736, dated January 28, 2003, as an additional source of information for the IDG harness/connector replacement.

The DGAC approved these service documents. The DGAC has issued French airworthiness directive F-2004-074, dated May 26, 2004, to ensure the continued airworthiness of these airplanes in France.

## **FAA's Determination and Requirements of This AD**

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. We have examined the DGAC's findings, evaluated all pertinent information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Therefore, we are issuing this AD to prevent transient loss of the systems connected to the affected arcing connector and consequent reduced ability of the flightcrew to cope with adverse flight conditions. This AD requires revising the AFM to advise the flightcrew of procedures associated with the intermittent interruption of the electrical power. Under certain conditions, this AD also requires inspecting for signs of arcing and performing any necessary corrective actions. This AD also provides for optional terminating action for the requirements of the AD. The actions must be done in accordance with the service information described previously, except as described below.

## **Differences Between FAA and DGAC Airworthiness Directive**

The following differences have been coordinated between the FAA and the DGAC.

The French airworthiness directive does not require inspecting an IDG that has been shut down in accordance with the TR or that has been shut down automatically. We have determined that investigative and corrective actions (including an inspection for signs of arcing, and repair or replacement of any discrepant IDG harness/connector with a new harness/connector) are necessary due to the severity of the problem to prevent the unsafe condition from recurring. The inspections and corrective actions must be done in accordance with a method approved by the FAA.

The French airworthiness directive applies to all Model A319, A320, and A321 series airplanes equipped with IAE V2500 series engines—regardless of the type of connector installed. This AD, however, applies to only those airplanes having Cannon connectors on the nacelle side of the firewall and Souriau connectors on the pylon side of the firewall. There have been no reported problems on airplanes equipped with Souriau connectors on both sides of the firewall. Therefore, the applicability of this AD excludes production airplanes that have been equipped with Souriau connectors on both sides of the firewall on both engines (accomplished via Airbus Modification 32943). This AD also includes a provision for replacing, on both engines, the IDG harnesses having Cannon connectors with IDG harnesses having Souriau connectors; this replacement would terminate the requirements of this AD.

## **Interim Action**

We consider this AD interim action. We may consider further rulemaking at a later date to mandate replacement of the subject connectors, as specified in Airbus Service Bulletin A320-71-1030.

## **FAA's Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD; therefore, providing notice and opportunity for public comment before the AD is issued is impracticable, and good cause exists to make this AD effective in less than 30 days.

## **Comments Invited**

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2004-18681; Directorate Identifier 2004-NM-56-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You can review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you can visit <http://dms.dot.gov>.

We are reviewing the writing style we currently use in regulatory documents. We are interested in your comments on whether the style of this document is clear, and your suggestions to improve the clarity of our communications with you. You can get more information about plain language at <http://www.faa.gov/language> and <http://www.plainlanguage.gov>.

## **Regulatory Findings**

We have determined that 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 the 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. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

## **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):

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.faa.gov](http://www.faa.gov)"*

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The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2004-15-14 Airbus:** Amendment 39-13748. Docket No. FAA-2004-18681; Directorate Identifier 2004-NM-56-AD.

## Effective Date

- (a) This AD becomes effective August 13, 2004.

## Affected ADs

- (b) None.

## Applicability

(c) This AD applies to Airbus Model A319-131, -132, and -133; A320-231, -232, and -233; and A321-131 and -231 series airplanes; certificated in any category; except those airplanes on which Airbus Modification 32943 has been incorporated in production.

## Unsafe Condition

(d) This AD was prompted by reports of intermittent interruption of the electrical power supply due to fretting and consequent arcing of the electrical harness of the integrated drive generator (IDG) at the pin-to-socket connector at the firewall. The FAA is issuing this AD to prevent the transient loss of certain systems and the consequent reduced ability of the flightcrew to cope with adverse flight conditions.

## Compliance

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

## Revision of Airplane Flight Manual (AFM)

(f) Within 10 days after the effective date of this AD, revise the Limitations section of the Airbus A318/319/320/321 AFM to include the information in Temporary Revision (TR) 4.02.00/20, dated May 3, 2004. This may be done by inserting a copy of the TR into the AFM. When the TR has been included in general revisions of the AFM, those general revisions may be inserted into the AFM, provided the relevant information in the general revisions is identical to that in the TR.

## **Post-IDG Shutdown Inspection**

(g) If an IDG is shut down by the flightcrew in accordance with the TR procedures specified in paragraph (f) of this AD, or if an IDG is shut down automatically, do the actions specified in paragraph (g)(1) or (g)(2) of this AD.

(1) Before further flight, inspect the firewall connector of the affected IDG to detect signs of arcing, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA. If any sign of arcing is detected: Before further flight, either repair the connector or replace the connector with a new connector, in accordance with a method approved by the Manager, International Branch, ANM-116.

(2) Operate the airplane with the affected IDG inoperative in accordance with the provisions and compliance periods specified in the FAA-approved Master Minimum Equipment List. Before further use of the affected IDG, do the actions specified in paragraph (g)(1) of this AD.

## **Terminating Action**

(h) Replacement of the IDG harnesses and connectors on both engines in accordance with Airbus Service Bulletin A320-71-1030, dated February 27, 2003, terminates the requirements of this AD.

**Note 1:** Airbus Service Bulletin A320-71-1030 refers to International Aero Engines Information Bulletin V2500-NAC-70-0736, dated January 28, 2003, as an additional source of information for the harness/connector replacement specified in paragraph (h) of this AD.

## **Alternative Methods of Compliance (AMOCs)**

(i) The Manager, International Branch, ANM-116, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

## **Material Incorporated by Reference**

(j) Unless this AD specifies otherwise, you must use Temporary Revision 4.02.00/20, dated May 3, 2004, to the Airbus A318/319/320/321 Airplane Flight Manual; and Airbus Service Bulletin A320-71-1030, dated February 27, 2003; as applicable; to perform the actions that are required by this AD. (Only page 1 of the temporary revision contains the date of the document.) The Director of the Federal Register approves the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. For copies of the documents, contact Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. You can review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., room PL-401, Nassif Building, Washington, DC; or 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

## **Related Information**

(k) French airworthiness directive F-2004-074, dated May 26, 2004, also addresses the subject of this AD.

Issued in Renton, Washington, on July 16, 2004.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service

[FR Doc. 04-16914 Filed 7-28-04; 8:45 am]

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