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) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

Related Information


Material Incorporated by Reference

(k) You must use Bombardier Temporary Revision MRB–45, dated October 6, 2009, to Section 1–32, Systems/Powerplant Maintenance Program, of Part 1 of the Maintenance Review Board Report of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1–84–7, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Bombardier, Inc., Q–Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y3, Canada; telephone 416–375–4000; fax 416–375–4539; e-mail thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com.

(3) You may review copies of the 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.

(4) You may also review copies of the 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/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on August 23, 2011.

Ali Bahrami,
Manager, Transport Airplane Directorate, Aircraft Certification Service.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; Airbus Model A318, A319, A320, and A321 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above that would supersede an existing AD. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

In service experience has shown a number of events of pin to socket arcing at the Integrated Drive Generator (IDG) feeder cable pylon/nacelle interface connector. The fretting corrosion phenomenon was identified to be the root cause of the pin to socket arcing.

Investigation has identified a non-optimised electrical harness installation as a contributing factor to this phenomenon that could lead to electrical arcs with possible electrical flickering.

* * * * *

[Some operators reported cases of Display Unit (DU) flickering, despite the fact that the engines installed did not belong to the affected batch, and that these aeroplanes had been modified to incorporate one of two terminating actions, * * * *.

[Some intermittent electrical power supply interruptions may not be detectable by the electrical power monitoring system, thereby preventing an automatic disconnection of the failed generator.

* * * * *

The unsafe condition is transient loss of certain systems, which could result in the reduced ability of the flightcrew to cope with adverse flight conditions. This AD requires actions that are intended to address the unsafe condition described in the MCAI.

DATES: This AD becomes effective September 28, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of September 28, 2011.

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in the AD as of August 13, 2004 (69 FR 45243, July 29, 2004).

We must receive comments on this AD by October 28, 2011.

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.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the Docket Operations office 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 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:

SUPPLEMENTARY INFORMATION:

Discussion

On July 16, 2004, we issued AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004), which corresponded to Direction Générale de l’Aviation Civile (DGAC) (the aviation authority for France) AD F–2004–074, dated May 26, 2004. That FAA AD required revising the airplane flight manual (AFM) to include a procedure intended to address an unsafe condition on Airbus Model A319–131, –132, and –133; A320–231, –232, and –233; and A321–131 and –231 series airplanes except those airplanes on which Airbus Modification 32943 has been incorporated into production. That FAA AD also required an inspection of the firewall connector for signs of arcing if
an integrated drive generator (IDG) was shut down in-flight automatically or using the AFM procedure, and corrective action as applicable. That FAA AD also included an optional terminating action to replace the IDG harnesses and connectors. The inspection and replacement actions were not required or provided in French AD F–2004–074. Since we issued AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004), some operators reported cases of display unit (DU) flickering, despite being modified in production, or in service using certain service information. Therefore, to address the unsafe condition associated with DU flickering, Airbus developed a new AFM procedure. We have determined that this new AFM procedure is necessary to address the identified unsafe condition. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2011–0142, dated July 25, 2011 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

In service experience has shown a number of events of pin to socket arcing at the Integrated Drive Generator (IDG) feeder cable pylon/nacelle interface connector. The fretting corrosion phenomenon was identified to be the root cause of the pin to socket arcing. Investigation has identified a non-optimised electrical harness installation as a contributing factor to this phenomenon that could lead to electrical arcs with possible electrical flickering.

These incidents may cause the following symptoms during flight:

—Intermittent flickering of display units, e.g., primary flight display, navigation display, electronic centralized aircraft monitoring (ECAM) and/or multipurpose control display unit (MCDU),

—Transient disconnection of several systems (auto pilot, yaw damper, auto throttle), triggering of aircraft system warnings and/or flags,

—Loss of IDG power supply on the affected engine, and/or

—Flickering of cabin lights.

The Aircraft Flight Manual (AFM) Temporary Revision (TR) 4.02.00/20 was issued as a procedure to be applied in such case. Consequently, EASA AD 2006–0280, which superseded the DGAC France AD F–2004–074 [which corresponds to FAA AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004)], required the amendment of the AFM to impose the limitations as detailed in AFM TR 4.02.00/20 for aeroplanes with certain engines (limited batch of engines, identified by serial number) installed.

After the introduction of this AFM TR, some operators reported cases of Display Unit (DU) flickering, despite the fact that the engines installed did not belong to the affected batch, and that these aeroplanes had been modified to incorporate one of the two terminating actions, Airbus Service Bulletin (SB) A320–71–1030 (Airbus modification (mod.) 34982) and SB A320–71–1034 (Airbus mod. 32943). The investigations of these occurrences revealed some intermittent electrical power supply interruptions. Analysis showed that these interruptions may fluctuate within the electrical protection limits and in some rare occasions, may affect some of the connected aeroplanes systems. As a consequence, some intermittent electrical power supply interruptions may not be detectable by the electrical power monitoring system, thereby preventing an automatic disconnection of the failed generator.

To address this issue, Airbus has issued a new AFM procedure, applicable to all aeroplanes. This “DISPLAY UNIT FAILURE” procedure, which replaces the one contained in AFM TR 4.02.00/20, allows the flight crew to determine the affected generator, select it OFF and reset the rudder trim.

For the reasons described above, this AD, which supersedes EASA AD 2006–0280, requires amendment of the applicable AFM to ensure that the flight crew applies the appropriate operational procedure.

The unsafe condition is transient loss of certain systems, which could result in the reduced ability of the flightcrew to cope with adverse flight conditions. This AD also expands the applicability of AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004), by including all Model A318, A319, A320, and A321 series airplanes. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Airbus has issued Temporary Revision TR112, Issue 1.1, dated November 29, 2010, to the Airbus A318/A319/A320/A321 Airplane Flight Manual. 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 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 issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between the AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a NOTE within the AD.

FAA’s Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because of the additional in-service events of DU flickering on Model A318, A319, A320, and A321 series airplanes that were not included in the applicability of FAA AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004), or on which the terminating actions of paragraph (h) of that AD were done. Transient loss of certain systems could result in the reduced ability of the flightcrew to cope with adverse flight conditions. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not preclude it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA–2011–0917; Directorate Identifier 2011–NM–157–AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of 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 AD.

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 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 this AD:
1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (49 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 and placed it in the AD docket.

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

§39.13 [Amended]

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 removing Amendment 39–13748 (69 FR 45243, July 29, 2004) and adding the following new AD:


Effective Date

(a) This airworthiness directive (AD) becomes effective September 28, 2011.

Affected ADs

(b) This AD supersedes AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004).

Applicability


Subject

(d) Air Transport Association (ATA) of America Code 31: Instruments.

Reason

(e) The mandatory continued airworthiness information (MCAI) states:

In service experience has shown a number of events of pin to socket arcing at the Integrated Drive Generator (IDG) feeder cable pylon/nacelle interface connector. The fretting corrosion phenomenon was identified to be the root cause of the pin to socket arcing.

Investigation has identified a non-optimised electrical harness installation as a contributing factor to this phenomenon that could lead to electrical arcs with possible electrical flickering.

[Some operators reported cases of Display Unit (DU) flickering, despite the fact that the engines installed did not belong to the affected batch, and that these aeroplanes had been modified to incorporate one of two terminating actions, * *.* * * * *]

[Some intermittent electrical power supply interruptions may not be detectable by the electrical power monitoring system, thereby preventing an automatic disconnection of the failed generator. * * * * * * * * * * *]

The unsafe condition is transient loss of certain systems, which could result in the reduced ability of the flightcrew to cope with adverse flight conditions.

Compliance

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

Restatement of Requirements of AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004), With Revised Method of Compliance:

Revision of Airplane Flight Manual (AFM)

(g) For Airbus Model A319–121, –132, and –133; A320–231, –232, and –233; and A321–131 and –231 series airplanes, except those airplanes on which Airbus Modification 32943 has been incorporated in production:

Within 10 days after August 13, 2004 (effective date of AD 2004–15–14, Amendment 39–13748 (69 FR 45243, July 29, 2004)), 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 this TR into the AFM. When this TR has been included in general revisions of the AFM, those general revisions may be inserted into this AFM, provided the relevant information in the general revisions is identical to that in this TR. Accomplishing the actions required by paragraph (j) of this AD terminates the requirements of this paragraph.

Post-IDG Shutdown Inspection

(h) For Airbus Model A319–121, –132, and –133; A320–231, –232, and –233; and A321–131 and –231 series airplanes, except those airplanes on which Airbus Modification 32943 has been incorporated in production:

If an IDG is shut down by the flightcrew in accordance with the TR procedures specified in paragraph (g) of this AD, or if an IDG is shut down automatically before the effective date of this AD, do the actions specified in paragraph (h)(1) or (h)(2) of this AD. If no IDG is shut down automatically on or after the effective date of this AD, do the actions specified in paragraph (h)(3) 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 or in accordance with a method approved by the Manager, International Branch, ANM–116. Before further use of the affected IDG, do the actions specified in paragraph (h)(1) of this AD. As of the effective date of this AD, operate the airplane in accordance with a method approved by the Manager, International Branch, ANM–116.

Note 1: Guidance on provisions and compliance periods for operating the airplane with an inoperative, affected IDG can be
found in the FAA-approved Master Minimum Equipment List.

Terminating Action for Paragraphs (g) and (h) of This AD if Done Before the Effective Date of This AD

(i) For Airbus Model A319–131, –132, and –133; A320–231, –232, and –233; and A321–131 and –231 series airplanes, except those airplanes on which Airbus Modification 32943 has been incorporated in production: Replacement of the IDG harnesses and connectors on both engines in accordance with Airbus Service Bulletin A320–71–1030, dated February 27, 2003, before the effective date of this AD terminates the requirements of paragraphs (g) and (h) of this AD.


New Requirements of This AD:

Revision of AFM

(j) For all airplanes: Within 10 days after the effective date of this AD, revise the applicable section of the Airbus A318/319/320/321 AFM to include the information in Figure 1 of this AD or the information in Airbus TR TR112, Issue 1.1, dated November 29, 2010, to the Airbus A318/319/320/321 AFM. This may be done by inserting a copy of this AD or Airbus TR TR112, Issue 1.1, dated November 29, 2010, in the AFM. Accomplishing the actions required by this paragraph terminates the requirements of paragraph (g) of this AD.

Note 3: When the information in Figure 1 of this AD or Airbus TR TR112, Issue 1.1, dated November 29, 2010, to the Airbus A318/319/320/321 AFM, has been included in the applicable section of the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM, provided the relevant information in the general revisions is identical to that in Figure 1 of this AD or Airbus TR TR112, Issue 1.1, dated November 29, 2010.
(k) For all airplanes: If an IDG is shut down in accordance with the TR procedures specified in paragraph (j) of this AD, or if an IDG is shut down automatically on or after the effective date of this AD, do the actions specified in paragraph (k)(1) or (k)(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. 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 a method approved by the Manager, International Branch, ANM–116. Before further use of the affected IDG, do the actions specified in paragraph (k)(1) of this AD.

Note 4: Guidance on provisions and compliance periods for operating the airplane...
with an inoperative, affected IDG can be found in the FAA-approved Master Minimum Equipment List.

**FAA AD Differences**

Note 5: This AD differs from the MCAI and/or service information as follows: The MCAI does not require inspecting an IDG that has been shut down in accordance with Airbus TR TR112, Issue 1.1, dated November 29, 2010, 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 Manager, International Branch, ANM–116.

Other FAA AD Provisions

(1) The following provisions also apply to this AD:

1. **Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM–116, 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: Sanjaya Alhalal, Aerospace Engineer International Branch, ANM–116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057–3356; telephone (425) 227–1405; fax (425) 227–1149.

5. **You may also review copies of the service information that is incorporated by reference 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.**

* * * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

**DATES:** This AD becomes effective October 18, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 18, 2011.

**ADDRESSES:** You may examine the AD docket on the Internet at [http://www.regulations.gov](http://www.regulations.gov) or in person at the U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC.


**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 was published in the Federal Register on May 23, 2011 (76 FR 29673). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

> It was noticed in production that the distance between the wire harnesses 5376VB/2M and 5377VB/1M which are above the left-hand (LH) and right-hand (RH) door 4, and the air conditioning duct could be too small. This could result in collision between the flexible air conditioning hose and wire harnesses. This condition, if not corrected, could lead to the short circuit of wires dedicated to oxygen, which, in case of emergency, could result in a large number of passengers' oxygen masks not being supplied with oxygen, possibly causing personal injuries.

* * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

> It was noticed in production that the distance between the wire harnesses 5376VB/2M and 5377VB/1M which are above the left-hand (LH) and right-hand (RH) door 4, and the air conditioning duct could be too small. This could result in collision between the flexible air conditioning hose and wire harnesses. This condition, if not corrected, could lead to the short circuit of wires dedicated to oxygen, which, in case of emergency, could result in a large number of passengers’ oxygen masks not being supplied with oxygen, possibly causing personal injuries.

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