



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0555; Directorate Identifier 2016-NM-183-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Defense and Space S.A. (Formerly Known as Construcciones Aeronauticas, S.A.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2013-02-12, which applies to all EADS CASA (now Airbus Defense and Space S.A.) Model CN-235, CN-235-100, CN-235-200, and CN-235-300 airplanes. AD 2013-02-12 currently requires a one-time inspection to identify the correct polarity for each pair of electrical connectors on each engine fire extinguisher cartridge, and repair if necessary. Since we issued AD 2013-02-12, we have determined it is necessary to add a requirement for modifying the installation of the fire extinguisher circuit harness. This proposed AD would continue to require identifying the correct polarity of each pair of electrical connectors of the affected engine fire extinguisher cartridge, and doing a repair if necessary. This proposed AD would also require modifying the installation of the fire extinguisher circuit harnesses. We are proposing this AD to address the unsafe condition on these products.

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, using the procedures found in 14 CFR 11.43 and 11.45, 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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Airbus Defense and Space Services/Engineering Support, Avenida de Aragón 404, 28022 Madrid, Spain; telephone +34 91 585 55 84; fax +34 91 585 31 27; email MTA.TechnicalService@airbus.com. You may view this 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-2017-0555; 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: Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112; 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-2017-0555; Directorate Identifier 2016-NM-183-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

On January 23, 2013, we issued AD 2013-02-12, Amendment 39-17333 (78 FR 7262, February 1, 2013) (“AD 2013-02-12”), for all EADS CASA (now Airbus Defense

and Space S.A.) Model CN-235, CN-235-100, CN-235-200, and CN-235-300 airplanes. AD 2013-02-12 was prompted by reports of incorrect electrical polarity connections on engine fire extinguishing discharge cartridges. AD 2013-02-12 requires a one-time inspection to identify the correct polarity for each pair of electrical connectors on each engine fire extinguisher cartridge, and repair if necessary. We issued AD 2013-02-12 to detect and correct incorrect polarity connections, which could prevent the actuation of the discharge cartridge in case of automatic fire detection or manual initiation during a potential engine fire, and could result in damage to the airplane and injury to passengers.

Since we issued AD 2013-02-12, a new modification for the installation of the fire extinguisher circuit harness has been developed by the manufacturer. Embodiment of this modification introduces a design solution that avoids maintenance errors during connecting and reconnecting of the affected fire extinguisher circuit harness after accomplishment of maintenance tasks or functional tests.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2016-0201, dated October 11, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Defense and Space S.A. Model CN-235, CN-235-100, CN-235-200, and CN-235-300 airplanes. The MCAI states:

Reports have been received of finding wrong electrical polarity connections of engine fire extinguishing discharge cartridges on CASA CN-235 aeroplanes. The results of the subsequent investigation showed that the incorrect discharge cartridge assembly was caused by production line errors.

This condition, if not detected and corrected, could prevent the actuation of the discharge cartridge in case of automatic fire detection or manual initiation in case of engine fire, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potentially unsafe condition, EADS CASA (Airbus Military) developed instructions to identify erroneous wiring polarity installation and EASA issued AD 2012-0045 [which correlates to FAA AD 2013-02-12, Amendment 39-17333 (78 FR 7262, February 1, 2013)] to require a one-time inspection to verify proper electrical polarity of wiring of each engine fire extinguisher discharge cartridge and, depending on findings, corrective action.

Since [EASA] AD 2012-0045 was issued, Airbus Defence and Space (D&S) developed modification of the installation of the fire extinguisher circuit harnesses, available for in-service installation through Service Bulletin (SB) SB-235-26-0005, which represents technical solution for an unsafe condition addressed by [EASA] AD 2012-0045 for those aeroplanes. Embodiment of this modification introduces a design solution that avoids maintenance errors during (re)connecting of the affected fire extinguisher circuit harnesses after accomplishment of maintenance tasks or functional tests.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2012-0045, which is superseded and requires identification of the correct polarity after each maintenance action involving (re)connecting of the engine fire extinguisher cartridge electrical connector. This [EASA] AD also requires modification of the affected fire extinguisher circuit harnesses.

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-2017-0555.

Related Service Information under 1 CFR part 51

Airbus Defense and Space S.A. has issued EADS CASA Service Bulletin SB-235-26-0005, dated July 9, 2014. The service information describes procedures for modifying the installation of the fire extinguisher circuit harnesses.

Airbus Defense and Space S.A. has also issued Airbus Military All Operator Letter (AOL) 235-020, Revision 1, dated November 12, 2013. The service information describes procedures for identifying the correct polarity of each pair of electrical connectors of the affected engine fire extinguisher cartridge, and repairing the erroneous wiring polarity if necessary.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

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.

Costs of Compliance

We estimate that this proposed AD affects 12 airplanes of U.S. registry.

The actions required by AD 2013-02-12, and retained in this proposed AD take about 4 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts cost about \$0 per product. Based on these figures, the estimated cost of the actions that are required by AD 2013-02-12 is \$340 per product.

We also estimate that it would take about 11 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$3,280 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be about \$50,580 or \$4,215 per product.

In addition, we estimate that any necessary follow-on actions would take about 1 work-hour and require parts costing \$0, for a cost of \$85 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 removing Airworthiness Directive (AD) 2013-02-12, Amendment 39-17333 (78 FR 7262, February 1, 2013), and adding the following new AD:

Airbus Defense and Space S.A. (Formerly Known as Construcciones Aeronauticas, S.A.): Docket No. FAA-2017-0555; Directorate Identifier 2016-NM-183-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 replaces AD 2013-02-12, Amendment 39-17333 (78 FR 7262, February 1, 2013) (“AD 2013-02-12”).

(c) Applicability

This AD applies to all Airbus Defense and Space S.A. (formerly known as Construcciones Aeronauticas, S.A.) Model CN-235, CN-235-100, CN-235-200, and CN-235-300 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 26, Fire protection.

(e) Reason

This AD was prompted by reports of incorrect electrical polarity connections on engine fire extinguishing discharge cartridges. We are issuing this AD to detect and correct incorrect polarity connections, which could prevent the actuation of the discharge cartridge in case of automatic fire detection or manual initiation during a potential engine fire, and could result in damage to the airplane and injury to passengers.

(f) Compliance

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

(g) Retained Inspection, With Revised Service Information

This paragraph restates the requirements of paragraph (g) of AD 2013-02-12, with revised service information. Within 30 days after March 8, 2013 (the effective date of AD 2013-02-12), do a one-time inspection to identify the correct polarity for each pair of electrical connectors on each engine fire extinguisher cartridge, in accordance with the Instructions of Airbus Military All Operator Letter 235-020, dated March 9, 2012; or Airbus Military All Operator Letter 235-020, Revision 1, dated November 12, 2013.

(h) New Requirement of this AD: Repetitive Inspections

As of 30 days after the effective date of this AD: Before further flight after accomplishing each maintenance task involving disconnection or reconnection of an electrical connector of an engine fire extinguisher cartridge, determine the polarity of each pair of electrical connectors of the affected engine fire extinguisher cartridge, in

accordance with the Instructions of Airbus Military All Operator Letter (AOL) 235-020, Revision 1, dated November 12, 2013.

(i) New Requirement of this AD: Corrective Action

If, during any inspection required by paragraph (g) or (h) of this AD, erroneous wiring polarity installation is detected, before further flight, repair the erroneous polarity in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or EADS CASA's EASA Design Organization Approval (DOA).

(j) New Requirement of this AD: Modification

Within 24 months after the effective date of this AD: Modify the installation of the fire extinguisher circuit harnesses, in accordance with the Accomplishment Instructions of EADS CASA Service Bulletin SB-235-26-0005, dated July 9, 2014.

(k) Terminating Action

The modification required in paragraph (j) of this AD terminates the actions required in paragraphs (g) and (h) of this AD.

(l) 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 the attention of the person identified in paragraph (m)(2) of this AD. 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.

(2) Contacting the Manufacturer: As of the effective date of this AD, 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 EASA; or EADS CASA's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0201, dated October 11, 2016, 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-2017-0555.

(2) For more information about this AD, contact Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112; fax 425-227-1149.

(3) For service information identified in this AD, contact Airbus Defense and Space Services/Engineering Support, Avenida de Aragón 404, 28022 Madrid, Spain; telephone +34 91 585 55 84; fax +34 91 585 31 27; email MTA.TechnicalService@airbus.com. You may view this 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 June 6, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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