



Airworthiness Directive

AD No.: 2016-0201

Issued: 11 October 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

EADS-CASA

Type/Model designation(s):

CN-235 aeroplanes

Effective Date: 25 October 2016

TCDS Number(s): EASA.A.186

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2012-0045 dated 21 March 2012.

ATA 26 – Fire Protection – Engine Fire Extinguisher Discharge Cartridge Wiring – Inspection / Modification

Manufacturer(s):

EADS-CASA; formerly Construcciones Aeronáuticas S.A. (CASA)

Applicability:

CN-235, CN-235-200 and CN-235-300 aeroplanes, all manufacturer serial numbers.

Reason:

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 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 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 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 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 AD also requires modification of the affected fire extinguisher circuit harnesses.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

- (1) Within 30 days after 04 April 2012 [the effective date of EASA AD 2012-0045], accomplish a one-time inspection to identify correct polarity of each pair of electrical connectors of each engine fire extinguisher cartridge, in accordance with the instructions of Airbus Military Operator Letter (AOL) 235-020.
- (2) From the effective date of this AD, before next flight after each accomplishment of a maintenance task involving disconnection or (re)connection of an electrical connector of an engine fire extinguisher cartridge, identify the correct polarity of each pair of electrical connectors of the affected engine fire extinguisher cartridge, in accordance with the instructions of Revision 1 of Airbus Military AOL 235-020.
- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, erroneous wiring polarity installation is detected, before next flight, contact Airbus D&S for approved instructions and accomplish those instructions accordingly.
- (4) Within 24 months after the effective date of this AD, modify the installation of the fire extinguisher circuit harnesses in accordance with the instructions of EADS CASA SB-235-26-0005.
- (5) After modification of the aeroplane in accordance with the instructions of EADS CASA SB-235-26-0005, the requirements of paragraph (1) and (2) of this AD no longer apply to that aeroplane.

Ref. Publications:

Airbus Military AOL 235-020 dated 09 March 2012 or Revision 1 dated 12 November 2013.

EADS CASA SB-235-26-0005 original issue dated 09 July 2014.



The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 31 August 2016 as PAD 16-126 for consultation until 28 September 2016. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact:
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For US operators, contact alternatively:

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