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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2010-0640; Directorate Identifier 2009-NM-142-AD; Amendment 39-16494; AD 2010-23-05]**

**RIN 2120-AA64**

**Airworthiness Directives; EADS CASA (Type Certificate Previously Held by Construcciones Aeronauticas, S.A.) Model CN-235, CN-235-100, CN-235-200, and CN-235-300 Airplanes, and Model C-295 Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are superseding an existing 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:

Prompted by [an] accident \* \* \*the FAA published SFAR 88 (Special Federal Aviation Regulation 88) \* \* \*.

\* \* \* \* \*

Fuel Airworthiness Limitations arising from the required systems safety analysis are items that have been shown to have failure mode(s) associated with an 'unsafe condition' \* \* \*. These are identified in Failure Conditions for which an unacceptable probability of ignition risk could exist if specific tasks and/or practices are not performed in accordance with the corrective actions(s) developed by the TC [type certificate] holder.

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

**DATES:** This AD becomes effective December 10, 2010.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of December 10, 2010.

**ADDRESSES:** You may examine the AD docket on the Internet at <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.

**FOR FURTHER INFORMATION CONTACT:** Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1112; fax (425) 227-1149.

## **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 June 29, 2010 (75 FR 37339), and proposed to supersede AD 2008-09-22, Amendment 39-15503 (73 FR 23939, May 1, 2008). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Prompted by [an] accident \* \* \*, the FAA published SFAR 88 (Special Federal Aviation Regulation 88). Subsequently, the Joint Aviation Authorities (JAA) recommended the application of a similar regulation to the National Aviation Authorities (NAA) of its member countries. Under this regulation, all holders of type certificates for passenger transport aeroplanes with either a passenger capacity of 30 or more, or a payload capacity of 3 402 kg (7 500 lbs) or more, which have received their certification since 01 January 1958, are required to conduct a design review against explosion risks.

In August 2005, EASA published a policy statement on the process for developing instructions for maintenance and inspection of Fuel Tank System ignition source prevention (EASA D 2005/CPRO), that also included the EASA expectations with regard to compliance times of the corrective actions on the unsafe and the not unsafe part of the harmonised design review results.

Fuel Airworthiness Limitations arising from the required systems safety analysis are items that have been shown to have failure mode(s) associated with an 'unsafe condition' as defined in the FAA memo 2003-112-15 'SFAR 88–Mandatory Action Decision Criteria'. These are identified in Failure Conditions for which an unacceptable probability of ignition risk could exist if specific tasks and/or practices are not performed in accordance with the corrective action(s) developed by the TC [type certificate] holder.

To address these potential unsafe conditions, EASA issued AD 2007-0007, mandating the Fuel System Airworthiness Limitations, comprising maintenance and inspection tasks and Critical Design Configuration Control Limitations (CDCCL) that were, at that moment, defined in issue C of EADS-CASA document DT-0-C00-05001. That document has now been revised and updated to issue D.

For the reasons described above, this EASA AD retains the requirements of AD 2007-0007, which is superseded [and corresponds to FAA AD 2008-09-22], and requires the implementation of the revised Fuel Airworthiness Limitations contained in issue D of EADS-CASA document DT-0-C00-05001 and accomplishment of related modifications.

The required actions are retaining the limitations for fuel tank systems, adding thermal insulation to the air condition compression system, applying double bonding connection on fuel tubes, and modifying the separation between the center wing electrical harness and fuel tubes. The application of double bonding connections on fuel tubes includes doing general visual inspections for damage of the inside of the fuel tanks, and corrective actions if necessary. The corrective actions include contacting EADS CASA for repair instructions and doing the repair. You may obtain further information by examining the MCAI in the AD docket.

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## **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

## **Corrections to Table 1 of This AD**

In the NPRM, the reference to Eaton Component Maintenance Manual (CMM) with Illustrated Parts List 28-10-63, Revision 003, dated June 20, 2006, was incorrectly published as Eaton CMM with Illustrated Parts List 28-0-63. This final rule refers to Eaton CMM with Illustrated Parts List 28-10-63.

We have changed Table 1 of this AD to fix a typographical error, which is specified in EADS CASA CMM with Illustrated Parts List 28-21-12, Revision 003, dated June 15, 2007. The title page of that document specifies "Revision 002." The correct revision level is "Revision 003."

## **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting the AD with the changes described previously. We determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

## **Differences Between This 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 our FAA policies. Any such differences are highlighted in a NOTE within the AD.

## **Costs of Compliance**

We estimate that this AD will affect about 8 products of U.S. registry.

The actions that are required by AD 2008-09-22 and retained in this AD take about 1 work-hour per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the currently required actions is \$85 per product.

We estimate that it will take about 90 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$61,200, or \$7,650 per product, depending on airplane configuration.

## **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 (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 and placed it in the AD docket.

## **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 the NPRM, 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.

## **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 removing Amendment 39-15503 (73 FR 23939, May 1, 2008) and adding the following new AD:



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**2010-23-05 EADS CASA (Type Certificate Previously Held by Construcciones Aeronauticas, S.A.):** Amendment 39-16494. Docket No. FAA-2010-0640; Directorate Identifier 2009-NM-142-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective December 10, 2010.

**Affected ADs**

- (b) This AD supersedes AD 2008-09-22, Amendment 39-15503.

**Applicability**

(c) This AD applies to EADS CASA (Type Certificate previously held by Construcciones Aeronauticas, S.A.) Model CN-235, CN-235-100, CN-235-200, and CN-235-300 airplanes, and Model C-295 airplanes, all serial numbers; certificated in any category.

**Subject**

- (d) Air Transport Association (ATA) of America Code 28: Fuel.

**Reason**

- (e) The mandatory continuing airworthiness information (MCAI) states:

Prompted by [an] accident \* \* \*, the FAA published SFAR 88 (Special Federal Aviation Regulation 88). Subsequently, the Joint Aviation Authorities (JAA) recommended the application of a similar regulation to the National Aviation Authorities (NAA) of its member countries. Under this regulation, all holders of type certificates for passenger transport aeroplanes with either a passenger capacity of 30 or more, or a payload capacity of 3 402 kg (7 500 lbs) or more, which have received their certification since 01 January 1958, are required to conduct a design review against explosion risks.

In August 2005, EASA [European Aviation Safety Agency] published a policy statement on the process for developing instructions for maintenance and inspection of Fuel Tank System ignition source prevention (EASA D 2005/CPRO), that also included the EASA expectations with regard to compliance times of the corrective actions on the unsafe and the not unsafe part of the harmonised design review results.

Fuel Airworthiness Limitations arising from the required systems safety analysis are items that have been shown to have failure mode(s) associated with an 'unsafe condition' as defined in the FAA memo 2003-112-15 'SFAR 88—Mandatory Action Decision Criteria'. These are identified in Failure Conditions for which an unacceptable probability of ignition risk could exist if specific tasks and/or practices

are not performed in accordance with the corrective action(s) developed by the TC [type certificate] holder.

To address these potential unsafe conditions, EASA issued AD 2007-0007, mandating the Fuel System Airworthiness Limitations, comprising maintenance and inspection tasks and Critical Design Configuration Control Limitations (CDCCL) that were, at that moment, defined in issue C of EADS-CASA document DT-0-C00-05001. That document has now been revised and updated to issue D.

For the reasons described above, this EASA AD retains the requirements of AD 2007-0007, which is superseded [and corresponds to FAA AD 2008-09-22], and requires the implementation of the revised Fuel Airworthiness Limitations contained in issue D of EADS-CASA document DT-0-C00-05001 and accomplishment of related modifications.

The required actions are retaining the limitations for fuel tank systems, adding thermal insulation to the air condition compression system, applying double bonding connection on fuel tubes, and modifying the separation between the center wing electrical harness and fuel tubes. The application of double bonding connections on fuel tubes includes doing general visual inspections for damage of the inside of the fuel tanks, and corrective actions if necessary. The corrective actions include contacting EADS CASA for repair instructions and doing the repair. You may obtain further information by examining the MCAI in the AD docket.

## 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 2008-09-22, With Revised Paragraph Formatting

(g) Do the following actions.

(1) Within 6 months after June 5, 2008 (the effective date of AD 2008-09-22), do the revisions specified in (g)(1)(i) or (g)(1)(ii) of this AD.

(i) Revise the Airworthiness Limitations section of the Instructions for Continued Airworthiness to include the CDCCL data using a method approved in accordance with the procedures specified in paragraph (i)(1) of this AD.

(ii) Revise the Airworthiness Limitations section of the Instructions for Continued Airworthiness by incorporating the information in EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue C, dated October 2006. Where this EADS CASA technical document refers to an EADS CASA component maintenance manual (CMM), use the applicable CMM specified in Table 1 of this AD.

**Table 1 – Applicable CMMs**

<b>CDCCL Number</b>	<b>CDCCL Description</b>	<b>CMM</b>	<b>Revision</b>	<b>Date</b>
8	Fuel pumps	Parker Hannifin CMM with Illustrated Parts List 28-22-12 (replaces CM 1C12-34)	5	January 10, 2008

8	Centrifugal fuel boost pump	Parker Hannifin CMM with Illustrated Parts List CM 1C7-20, -21 (replaces CMM RR54170)	B	November 20, 2006
9	Low level sensor	EADS CASA CMM with Illustrated Parts List 28-21-12	003	June 15, 2007
10	3/4" shutoff motorized valve	Eaton CMM with Illustrated Parts List 28-20-81	2	June 20, 2006
11	2" motorized spherical plug pressure relief valve	Eaton CMM with Illustrated Parts List 28-10-63	3	June 20, 2006
12	Signal conditioner	Gull CMM with Illustrated Parts List 28-40-61	3	June 28, 2007
13	Fuel control unit	Zodiac Intertechnique CMM with Illustrated Parts List 28-41-05	3	September 25, 2006

Note 1: Table 1 of this AD does not include CMMs 28-22-15, CE 400150-E01, and C 17MQ0020-005SE, which are listed in EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue C, dated October 2006. These CMM document numbers no longer apply. In addition, CMM document number 28-21-81 in EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue C, dated October 2006, should be CMM document number 28-20-81.

(2) After accomplishing the actions specified in paragraph (g)(1) of this AD, no alternative CDCCLs may be used unless the CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i)(1) of this AD.

### **New Requirements of This AD**

(h) Do the following actions.

(1) Within 3 months after the effective date of this AD, revise the Airworthiness Limitations section of the Instructions for Continued Airworthiness by incorporating the information in EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue D, dated October 2008. Where this EADS CASA technical document refers to an EADS CASA CMM, use the applicable CMM specified in Table 1 of this AD. Doing this revision terminates the requirements specified in paragraph (g) of this AD.

Note 2: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the fuel airworthiness limitations, as required by paragraphs (g) and (h) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the fuel airworthiness limitations have been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

(2) After accomplishing the actions specified in paragraph (h)(1) of this AD, no alternative CDCCLs may be used unless the CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (i)(1) of this AD.

(3) Within 6 months after the effective date of this AD, accomplish the modifications specified in paragraphs (h)(3)(i), (h)(3)(ii), and (h)(3)(iii) of this AD, as applicable.

(i) For Model CN-235, CN-235-200, and CN-235-300 airplanes having serial numbers identified in EADS CASA Service Bulletin SB-235-21-18, dated August 2, 2007: Add thermal insulation to the air condition compression system, in accordance with the Accomplishment Instructions of EADS CASA Service Bulletin SB-235-21-18, dated August 2, 2007.

(ii) For Model CN-235, CN-235-200, and CN-235-300 airplanes having serial numbers identified in EADS CASA Service Bulletin SB-235-28-18, dated August 2, 2007: Apply double bonding connections on fuel tubes and do general visual inspections for damage inside of the tank, in accordance with the Accomplishment Instructions of EADS CASA Service Bulletin SB-235-28-18, dated August 2, 2007. If any damage is found inside the tank, before further flight, contact EADS CASA for repair instructions and do the repair.

(iii) For Model CN-235, CN-235-200, and CN-235-300 airplanes having serial numbers identified in EADS CASA Service Bulletin SB-235-24-20, dated August 2, 2007: Modify the separation between the center wing electrical harnesses and fuel tubes, in accordance with the Accomplishment Instructions of EADS CASA Service Bulletin SB-235-24-20, dated August 2, 2007.

### **FAA AD Difference**

Note 3: This AD differs from the MCAI and/or service information as follows:

(1) The European Aviation Safety Agency (EASA) AD 2009-0146, dated July 3, 2009, inadvertently refers to the incorrect service bulletins. For applying double bonding connections on fuel tubes and doing general visual inspections for damage inside the tank, we refer to EADS CASA Service Bulletin SB-235-28-18, dated August 2, 2007. For modifying the separation between the center wing electrical harnesses and fuel tubes, we refer to EADS CASA Service Bulletin SB-235-24-20, dated August 2, 2007.

(2) The EASA AD 2009-0146, dated July 3, 2009; and EADS CASA Service Bulletin SB-235-28-18, dated August 2, 2007; do not specify corrective actions if any damage is found inside the tank. If any damage is found inside the tank, this AD requires contacting EADS CASA for repair instructions and doing the repair.

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to Attn: Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1112; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards 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.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

## Related Information

(j) Refer to MCAI EASA Airworthiness Directive 2009-0146, dated July 3, 2009, the CMMs identified in Table 1 of this AD, and the service information identified in Table 2 of this AD, for related information.

**Table 2 – Service information**

<b>Document</b>	<b>Issue</b>	<b>Date</b>
EADS CASA Service Bulletin SB-235-21-18	Original	August 2, 2007
EADS CASA Service Bulletin SB-235-24-20	Original	August 2, 2007
EADS CASA Service Bulletin SB-235-28-18	Original	August 2, 2007
EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001	Issue C	October 2006
EADS CASA CN-235/C-295 Technical Document, DT-0-C00-05001	Issue D	October 2008

## Material Incorporated by Reference

(k) You must use the service information contained in Table 3 of this AD 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 EADS-CASA, Military Transport Aircraft Division (MTAD), Integrated Customer Services (ICS), Technical Services, Avenida de Aragón 404, 28022 Madrid, Spain; telephone +34 91 585 55 84; fax +34 91 585 55 05; e-mail MTA.TechnicalService@casa.eads.net; Internet <http://www.eads.net>.

(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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

**Table 3 – Material incorporated by reference**

<b>Document</b>	<b>Revision/ Issue</b>	<b>Date</b>
EADS CASA CMM with Illustrated Parts List 28-21-12	Revision 003	June 15, 2007
EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001	Issue C	October 2006
EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001	Issue D	October 2008
EADS CASA Service Bulletin SB-235-21-18	Original	August 2, 2007
EADS CASA Service Bulletin SB-235-24-20	Original	August 2, 2007

EADS CASA Service Bulletin SB-235-28-18	Original	August 2, 2007
Eaton CMM with Illustrated Parts List 28-10-63	Revision 3	June 20, 2006
Eaton CMM with Illustrated Parts List 28-20-81	Revision 2	June 20, 2006
Gull CMM with Illustrated Parts List 28-40-61	Revision 3	June 28, 2007
Parker Hannifin CMM with Illustrated Parts List 28-22-12	Revision 5	January 10, 2008
Parker Hannifin CMM with Illustrated Parts List CM 1C7-20, -21	Revision B	November 20, 2006
Zodiac Intertechnique CMM with Illustrated Parts List 28- 41-05	Revision 3	September 25, 2006

(The title page of EADS CASA CMM with Illustrated Parts List 28-21-12 contains an incorrect revision level; the correct revision level is 003. The issue date of EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue C; and EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue D; can only be found on the title page and in the Revisions Record. Certain pages of EADS CASA Service Bulletin SB-235-28-18 have missing or incomplete document numbers and dates; the correct document number and dates for those pages can be found on the first page of that document. The date shown on the List of Effective Pages for Eaton CMM with Illustrated Parts List 28-10-63, and Eaton CMM with Illustrated Parts List 28-20-81, is incorrect; the correct date for that page of those documents is June 20, 2006. The revision level shown on page 7 of Parker Hannifin CMM with Illustrated Parts List CM 1C7-20, -21 (replaces CMM RR54170), is incorrect; the correct revision level for that page is B. The revision level of EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue C; EADS CASA CN-235/C-295 Technical Document DT-0-C00-05001, Issue D; and Eaton CMM with Illustrated Parts List 28-20-81; is located only in the Record of Revisions for those documents.)

Issued in Renton, Washington, on October 20, 2010.  
Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.