



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-8463; Directorate Identifier 2014-NM-226-AD; Amendment 39-18612; AD 2016-16-14]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2013-20-11, for all Airbus Model A318, A319, A320, and A321 series airplanes. AD 2013-20-11 required modifying the passenger emergency oxygen container assembly. This new AD expands the affected group of oxygen containers to include those labeled “DAe Systems.” This AD was prompted by a determination that the unsafe condition also affects oxygen containers labeled “DAe Systems.” We are issuing this AD to prevent a high temperature oxygen generator and mask from falling down and possibly resulting in an ignition source in the passenger compartment, injury to passengers, and reduced availability of supplemental oxygen.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of December 2, 2013 (78 FR 64162, October 28, 2013).

**ADDRESSES:** For Airbus service information identified in this final rule, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.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. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8463.

#### **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-2015-8463; 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 AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind

Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2013-20-11, Amendment 39-17617 (78 FR 64162, October 28, 2013) (“AD 2013-20-11”). AD 2013-20-11 applied to all Model A318, A319, A320, and A321 series airplanes. The NPRM published in the Federal Register on January 20, 2016 (81 FR 3061) (“the NPRM”). The NPRM was prompted by a determination that the unsafe condition also affects oxygen containers labeled “DAe Systems.” The NPRM proposed to continue to require modifying the passenger emergency oxygen container assembly. The NPRM also proposed to expand the affected group of oxygen containers to include those labeled “DAe Systems.” We are issuing this AD to prevent a high temperature oxygen generator and mask from falling down and possibly resulting in an ignition source in the passenger compartment, injury to passengers, and reduced availability of supplemental oxygen.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2014-0207, dated September 16, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition. The MCAI states:

It was determined that oxygen generators, installed on a specific batch of Type 1 (22 min) passenger emergency oxygen container assemblies, may become detached by extreme pulling of the mask tube at the end of oxygen supply. Investigations revealed that such detachment can be caused by the increase in temperature towards the end of

the generator operation, which may weaken the plastic housing in the attachment area of the bracket.

This condition, if not corrected, could make the rivets slip through the plastic housing, causing a 'hot' oxygen generator and mask to fall down, possibly resulting in injury to passengers.

To address this potential unsafe condition, EASA issued AD 2012-0055 (later revised) [which corresponds to FAA AD 2013-20-11, Amendment 39-17617 (78 FR 64162, October 28, 2013)] to require modification of the affected oxygen container assemblies. That [EASA] AD also prohibited installation of unmodified containers on any aeroplane as replacement parts.

Since that [EASA] AD was issued, it was found that the affected containers have not only been marked with company name B/E Aerospace, as was specified, but also, for a brief period, with the former company name DAe Systems.

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2012-0055R1, which is superseded, and expands the affected group of containers to include those that have the name "DAe Systems" on the identification plate.

This [EASA] AD also clearly separates the serial number (s/n) groups of containers into those manufactured by B/E Aerospace and those manufactured by DAe Systems, for which additional compliance time is provided.

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-2015-8463.

### **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.

## **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

## **Costs of Compliance**

We estimate that this AD affects 4 airplanes of U.S. registry.

The actions required by AD 2013-20-11 and retained in this AD take about 2 work-hours per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the actions that are required by AD 2013-20-11 is \$170 per product.

We also estimate that it would take about 2 work-hours per product to comply with the 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 on U.S. operators to be \$680, or \$170 per product.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all available costs in our cost estimate.

### **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 that 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);
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.

**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 Airworthiness Directive (AD) 2013-20-11, Amendment 39-17617 (78 FR 64162, October 28, 2013), and adding the following new AD:

**2016-16-14 Airbus:** Amendment 39-18612; Docket No. FAA-2015-8463; Directorate Identifier 2014-NM-226-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2013-20-11, Amendment 39-17617 (78 FR 64162, October 28, 2013) (“AD 2013-20-11”).

**(c) Applicability**

This AD applies to the Airbus airplanes, certificated in any category, specified in paragraphs (c)(1) through (c)(4) of this AD, all manufacturer serial numbers.

(1) Airbus Model A318-111, -112, -121, and -122 airplanes.

(2) Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Airbus Model A320-211, -212, -214, -231, -232, and -233 airplanes.

(4) Airbus Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 35, Oxygen.

**(e) Reason**

This AD was prompted by a determination that oxygen generators installed on a certain batch of passenger emergency oxygen container assemblies might become detached by extreme pulling of the mask tube at the end of the oxygen supply causing a high temperature oxygen generator and mask to fall down. This AD was also prompted by a determination that the unsafe condition affects oxygen containers labeled “DAe Systems.” We are issuing this AD to prevent a high temperature oxygen generator and mask from falling down and possibly resulting in an ignition source in the passenger compartment, injury to passengers, and reduced availability of supplemental oxygen.

**(f) Compliance**

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

**(g) Retained Oxygen Container Assembly Modification, with Service Information Referenced in a New Paragraph**

This paragraph restates the requirements of paragraph (g) of AD 2013-20-11 with service information referenced in a new paragraph. Except as specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, within 5,000 flight cycles, or 7,500 flight hours, or 24 months, whichever occurs first, after December 2, 2013 (the effective date of AD 2013-20-11): Modify each type 1 (22 minute) passenger emergency oxygen container assembly installed on an airplane, having a part number (P/N) listed in paragraph (g)(1)(i) of this AD and a serial number (S/N) listed in paragraph (g)(1)(ii) of this AD, in accordance with the Accomplishment Instructions of the applicable Airbus service information specified in paragraphs (k)(1) through (k)(7) of this AD.

(1) An oxygen container that has a part number listed in paragraph (g)(1)(i) of this AD and a serial number as listed in paragraph (g)(1)(ii) of this AD, and that has been modified using the instructions of B/E Aerospace Service Bulletin 1XC22-0100-35-006, is compliant with the modification requirement of paragraph (g) of this AD.

(i) Oxygen container part numbers listed in paragraphs (g)(1)(i)(A) through (g)(1)(i)(D) of this AD, where xxxxx stands for an alphanumeric value.

(A) 13C22Lxxxxx0100.

(B) 13C22Rxxxxx0100.

(C) 14C22Lxxxxx0100.

(D) 14C22Rxxxxx0100.

(ii) Oxygen container serial numbers listed in paragraphs (g)(1)(ii)(A) through (g)(1)(ii)(H) of this AD.

(A) ARBC-0182 to ARBC-9999, inclusive.

(B) ARBD-0000 to ARBD-9999, inclusive.

(C) ARBE-0000 to ARBE-9999, inclusive.

(D) BEBF-0000 to BEBF-9999, inclusive.

(E) BEBH-0000 to BEBH-9999, inclusive.

(F) BEBK-0000 to BEBK-9999, inclusive.

(G) BEBL-0000 to BEBL-9999, inclusive.

(H) BEBM-0000 to BEBM-0454, inclusive.

(2) Airplanes on which Airbus Modification 150704 has not been embodied in production are excluded from the requirements of paragraph (g) of this AD, unless an oxygen container with a part number listed in paragraph (g)(1)(i) of this AD and a serial number listed in paragraph (g)(1)(ii) of this AD is installed.

(3) Airplanes on which Airbus Modification 150704 has been embodied in production and that are not listed by model and manufacturer serial number in the applicable Airbus service information specified in paragraphs (k)(1) through (k)(7) of this AD; are excluded from the requirements of paragraph (g) of this AD, unless an oxygen container with a part number listed in paragraph (g)(1)(i) of this AD and a serial number listed in paragraph (g)(1)(ii) of this AD is installed.

Note 1 to paragraph (g) of this AD: The oxygen container assemblies listed in paragraph (g)(1)(i) of this AD and paragraph (g)(1)(ii) of this AD are B/E Aerospace products with the mark “B/E AEROSPACE” on the identification plate.

**(h) Retained Parts Installation Limitation, with Service Information Referenced in a New Paragraph**

This paragraph restates the requirements of paragraph (h) of AD 2013-20-11 with service information referenced in a new paragraph. As of December 2, 2013 (the effective date of AD 2013-20-11), no person may install, on any airplane, an oxygen container with a part number listed in paragraph (g)(1)(i) of this AD, and serial number listed in paragraph (g)(1)(ii) of this AD, unless the oxygen container has been modified according to the applicable Airbus service information specified in paragraphs (k)(1) through (k)(7) of this AD.

**(i) New Requirement of this AD: Modification of Additional Oxygen Containers**

At the applicable times specified in paragraphs (i)(1) and (i)(2) of this AD: Modify each type 1 (22 minute) passenger emergency oxygen container assembly installed on an airplane, having a part number and a serial number listed in paragraph (j) of this AD, in accordance with the Accomplishment Instructions of the applicable Airbus service information specified in paragraphs (k)(1) through (k)(7) of this AD; except as specified in paragraph (l) of this AD.

(1) For units with “B/E AEROSPACE” on the identification plate and having a part number and a serial number listed in paragraph (j)(1) of this AD: Within 5,000 flight cycles, or 7,500 flight hours, or 24 months, whichever occurs first after the effective date of this AD.

(2) For units with “DAe Systems” on the identification plate and having a part number and a serial number listed in paragraph (j)(2) of this AD: Within 2,500 flight

cycles, or 3,750 flight hours, or 12 months, whichever occurs first after the effective date of this AD.

**(j) New Part Numbers and Serial Numbers for the Parts Affected by Paragraph (i) of this AD**

Affected parts for the actions required by paragraph (i) of this AD are identified in paragraphs (j)(1) and (j)(2) of this AD.

(1) For oxygen containers with “B/E AEROSPACE” on the identification plate: Units having a part number identified in paragraphs (j)(1)(i) through (j)(1)(iv) of this AD, where part number “xxxxx” stands for any alphanumeric value, and a serial number of BEBM-0455 to BEBM-9999, inclusive.

(i) 13C22Lxxxxx0100.

(ii) 13C22Rxxxxx0100.

(iii) 14C22Lxxxxx0100.

(iv) 14C22Rxxxxx0100.

(2) For oxygen containers with “DAe Systems” on the identification plate: Units having a part number identified in paragraphs (j)(1)(i) through (j)(1)(iv) of this AD, where part number “xxxxx” stands for any alphanumeric value, and a serial number identified in paragraphs (j)(2)(i) through (j)(2)(iv) of this AD.

(i) ARBC-0000 to ARBC-9999 inclusive.

(ii) ARBD-0000 to ARBD-9999 inclusive.

(iii) ARBE-0000 to BEBE-9999 inclusive.

(iv) BEBE-0000 to BEBE-9999 inclusive.

**(k) Service Information for the Requirements of Paragraphs (g), (h), (i), and (m) of this AD**

Accomplish the requirements specified in paragraphs (g), (h), (i), and (m) of this AD in accordance with the Accomplishment Instructions of the applicable Airbus service information identified in paragraphs (k)(1) through (k)(7) of this AD.

- (1) Airbus Service Bulletin A320-35-1049, dated June 15, 2011.
- (2) Airbus Service Bulletin A320-35-1053, dated June 15, 2011.
- (3) Airbus Service Bulletin A320-35-1054, dated June 15, 2011.
- (4) Airbus Service Bulletin A320-35-1055, dated June 15, 2011.
- (5) Airbus Service Bulletin A320-35-1056, dated June 15, 2011.
- (6) Airbus Service Bulletin A320-35-1057, dated June 15, 2011.
- (7) Airbus Service Bulletin A320-35-1058, dated June 15, 2011.

**(l) New Exceptions to the Requirements of Paragraph (i) of this AD**

(1) An oxygen container that has a part number and a serial number listed in paragraph (j) of this AD, and that has been modified as specified in B/E Aerospace Service Bulletin 1XC22-0100-35-006, is compliant with the modification requirement of paragraph (i) of this AD.

(2) Airplanes on which Airbus Modification 150704 has not been embodied in production are excluded from the requirements of paragraph (i) of this AD, unless an oxygen container with a part number and a serial number listed in paragraph (j) of this AD is installed.

(3) Airplanes on which Airbus Modification 150704 has been embodied in production and that are not listed by model and manufacturer serial number in the Airbus

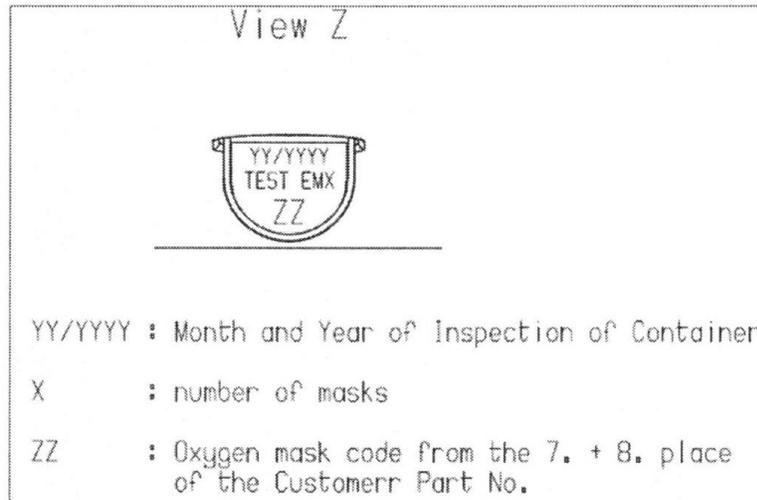
service information specified in paragraphs (k)(1) through (k)(7) of this AD, as applicable, are excluded from the requirements of paragraph (i) of this AD, unless an oxygen container with a part and a serial number listed in paragraph (j) of this AD is installed.

(4) Airplanes on which the design of the passenger oxygen container is not Design A, as defined in figure 1 to paragraph (l)(4) of this AD, are excluded from the requirements of paragraph (i) of this AD for that passenger oxygen container.

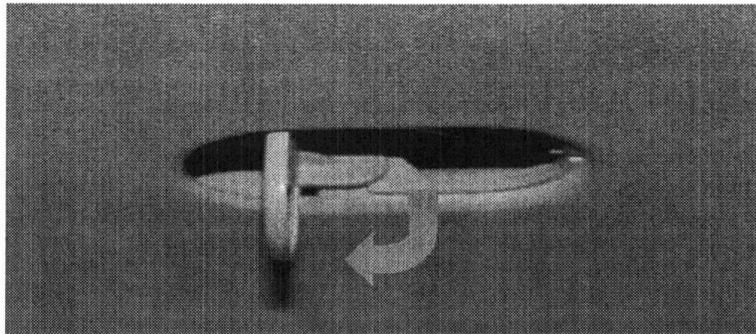
Note 2 to paragraph (l)(4) of this AD: For “Design A,” the placard on the passenger oxygen container test button is as described in “Picture A” in figure 1 to paragraph (l)(4) of this AD. The mask configuration (“ZZ” in “Picture A”) is a number, and the test button is as shown in “Picture B.”

**Figure 1 to Paragraph (1)(4) of this AD – Design A of the Passenger Oxygen Containers**

**Picture A:**



**Picture B:**



**(m) New Requirement of this AD: Parts Installation Limitation**

As of the effective date of this AD, no person may install, on any airplane, an oxygen container with a part number and a serial number listed in paragraph (j) of this AD, unless the oxygen container has been modified in accordance with the Accomplishment Instructions of the applicable Airbus service information specified in paragraphs (k)(1) through (k)(7) of this AD.

**(n) 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 ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(i) 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.

(ii) AMOCs approved previously for AD 2013-20-11 are approved as AMOCs for the corresponding provisions of paragraphs (g) and (h) of this AD.

**(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 European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(o) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2014-0207, dated September 16, 2014, 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-2015-8463.

**(p) Material Incorporated by Reference**

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

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on December 2, 2013 (78 FR 64162, October 28, 2013).

(i) Airbus Service Bulletin A320-35-1049, dated June 15, 2011.

(ii) Airbus Service Bulletin A320-35-1053, dated June 15, 2011.

(iii) Airbus Service Bulletin A320-35-1054, dated June 15, 2011.

(iv) Airbus Service Bulletin A320-35-1055, dated June 15, 2011.

(v) Airbus Service Bulletin A320-35-1056, dated June 15, 2011.

(vi) Airbus Service Bulletin A320-35-1057, dated June 15, 2011.

(vii) Airbus Service Bulletin A320-35-1058, dated June 15, 2011.

(4) For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(5) 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.

(6) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 3, 2016.

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

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