

[Federal Register Volume 80, Number 224 (Friday, November 20, 2015)]

[Rules and Regulations]

[Pages 72576-72579]

From the Federal Register Online via the Government Publishing Office [www.gpo.gov]

[FR Doc No: 2015-28883]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2015-0927; Directorate Identifier 2013-NM-172-AD; Amendment 39-18325; AD 2015-23-09]**

**RIN 2120-AA64**

**Airworthiness Directives; Zodiac Aerotechnics (Formerly Intertechnique Aircraft Systems)**

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

**ACTION:** Final rule.

---

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems) flightcrew oxygen mask regulators as installed on, but not limited to, various transport and small airplanes. This AD was prompted by a report that improper maintenance on oxygen mask regulators was found. This AD requires the identification and replacement of all potentially affected units. This AD also requires installation of a placard and revision of the airplane flight manual to include an operational procedure for use in case of depressurization. We are issuing this AD to detect and correct affected oxygen mask regulators, which could lead to inadequate protection to the affected flightcrew against hypoxia. Hypoxia can start from a headache and drowsiness and lead eventually to unconsciousness with severe consequence in terms of airplane controllability.

**DATES:** This AD becomes effective December 28, 2015.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 28, 2015.

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

<http://www.regulations.gov/#!docketDetail;D=FAA-2015-0927>; or in person at the 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.

For service information identified in this AD, contact Zodiac Services, Technical Publication Department, Zodiac Aerotechnics, Oxygen Systems Europe, 61 Rue Pierre Curie–CS20001, 78373 Plaisir Cedex, France; phone: (33) 01 61 24 23 23; fax: (33) 01 30 55 71 61; email: [yann.laine@zodiacaerospace.com](mailto:yann.laine@zodiacaerospace.com); Internet: <http://www.zodiacaerospace.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-2015-0927.

**FOR FURTHER INFORMATION CONTACT:** Ian Lucas, Aerospace Engineer, Boston Aircraft Certification Office (ACO) ANE-150, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7757; fax: 781-238-7170; email: [ian.lucas@faa.gov](mailto:ian.lucas@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems) flightcrew oxygen mask regulators as installed on, but not limited to, various transport and small airplanes. The NPRM published in the Federal Register on April 22, 2015 (80 FR 22438).

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2012-0254R1, dated December 21, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems) flightcrew oxygen mask regulators as installed on, but not limited to, various transport and small airplanes. The MCAI states:

In a repair station, improper maintenance on [flightcrew] oxygen mask regulators was reported to Intertechnique: during an inspection of the oxygen test bench by its manufacturer, incorrect settings were noticed. This test bench setting discrepancy on the oxygen mask regulator could cause an improper mask dilution schedule.

This condition, if not detected and corrected, could lead, in case of a diversion above 10,000 feet after a depressurization event, to the inhalation of air with improper content of oxygen, due to the bad dilution settings, thereby providing inadequate protection to the affected flightcrew member against hypoxia, which can start from a headache and drowsiness and lead eventually to unconsciousness with severe consequence in term of aeroplane controllability.

For the reasons described above, this [EASA] AD requires the identification and replacement of all potentially affected units. This [EASA] AD also requires installation of a placard and [a revision to the airplane flight manual to include] \* \* \* an operational procedure [in case of depressurization] pending replacement of the affected units.

\* \* \* \* \*

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2015-0927-0004>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (80 FR 22438, April 22, 2015) and the FAA's response to each comment. Boeing concurred with the contents of the NPRM.

## **Request To Revise the Air Transport Association (ATA) Code**

Horizon Air requested that we change the ATA code specified in paragraph (d) of the proposed AD (80 FR 22438, April 22, 2015) to "35." The commenter stated that the correct ATA code for oxygen is ATA 35.

We agree with the commenter because this AD addresses an unsafe condition for certain oxygen mask regulators. We have removed the ATA code of "28" and instead we have referred to ATA code "35" in paragraph (d) of this AD.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the change described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 22438, April 22, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 22438, April 22, 2015).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Related Service Information Under 1 CFR Part 51**

Zodiac Services has issued Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012. The service information describes procedures for the identification and replacement of all potentially affected units. 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 of this AD.

### **Costs of Compliance**

We estimate that this AD affects 13 airplanes of U.S. registry.

We also estimate that it will take about 3 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$225 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$6,240, or \$480 per product.

### **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.

## Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-0927>; 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 street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

## 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 adding the following new airworthiness directive (AD):



---

**2015-23-09 Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems):** Amendment 39-18325. FAA-2015-0927; Directorate Identifier 2013-NM-172-AD.

**(a) Effective Date**

This AD becomes effective December 28, 2015.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems) flightcrew oxygen mask regulators having part number MC10, MF10, and MF20 series, with serial numbers listed in Appendix 1 of Zodiac Services Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012. These oxygen mask regulators are installed on various transport and small airplanes, certificated in any category, including, but not limited to, the airplanes of the manufacturers specified in paragraphs (c)(1), (c)(2), (c)(3), (c)(4), (c)(5), (c)(6), and (c)(7) of this AD. An oxygen mask regulator having part number MC10-04-127 with serial number 48573 is affected only if it is part of part number MSE101-27 with serial number 7521.

- (1) Airbus.
- (2) ATR–GIE Avions de Transport Régional.
- (3) The Boeing Company.
- (4) Bombardier, Inc.
- (5) Cessna Aircraft Company.
- (6) Gulfstream Aerospace Corporation.
- (7) Gulfstream Aerospace LP.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by a report that improper maintenance on oxygen mask regulators was found. During an inspection of the oxygen test bench, incorrect settings were noticed. This test bench setting discrepancy on the oxygen mask regulator could cause an improper mask dilution schedule. We are issuing this AD to detect and correct affected oxygen mask regulators, which could lead, in case of mask usage at or above 10,000 feet after a depressurization event, to the inhalation of air with improper content of oxygen, due to the bad dilution settings, thereby providing inadequate protection to the affected flightcrew against hypoxia. Hypoxia can start from a headache and drowsiness and lead eventually to unconsciousness with severe consequence in terms of airplane controllability.

**(f) Compliance**

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

**(g) Inspection**

Within 30 days after the effective date of this AD, inspect each flightcrew oxygen mask regulator to identify the part number and serial number, in accordance with the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012. A review of airplane maintenance records is acceptable to make the determination as specified in this paragraph, provided those records can be relied upon for that purpose, and each flightcrew oxygen mask regulator can be conclusively identified from that review.

**(h) Action for Affected Regulators**

If the part number and serial number, identified as required by paragraph (g) of this AD, are listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012, within 30 days after the effective date of this AD, accomplish the actions specified in paragraph (h)(1) or (h)(2) of this AD.

(1) Replace each affected flightcrew oxygen mask regulator with a part identified in paragraph (h)(1)(i) or (h)(1)(ii) of this AD.

(i) A serviceable part, not having a part number and serial number listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(ii) A part that has been tested and passed the test in accordance with paragraph 3.A.(4) of the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(2) Do the actions specified in paragraphs (h)(2)(i) and (h)(2)(ii) of this AD.

(i) Revise the Emergency Procedures section of the airplane flight manual (AFM) by inserting the statement provided in figure 1 to paragraph (h)(2)(i) of this AD. This may be done by inserting a copy of figure 1 to paragraph (h)(2)(i) of this AD into the AFM.

**Figure 1 to Paragraph (h)(2)(i) of This AD**

In case of depressurization, both pilots must use the mask regulator on 100% demand or Emergency mode only.
---

**Note 1 to paragraph (h)(2)(i) of this AD:** For oxygen over-consumption, refer to applicable airplane type certificate holder limitations, if existing, depending on the airplane configuration and/or flight plan.

**Note 2 to paragraph (h)(2)(i) of this AD:** It is the operators' responsibility to assess the operational consequences of the oxygen over-consumption and ensure that the operational requirements with regard to supplemental oxygen and crew protective breathing equipment are still done. Operators are expected to amend, as applicable, their operations manual(s) accordingly.

(ii) Fabricate and install a placard on the flightcrew oxygen mask container that states: "USE SELECTOR on "100%" OR "EMERGENCY" ONLY."

### **(i) Regulator Replacement**

Within 12 months after the effective date of this AD, unless already accomplished as specified in paragraph (h)(1) of this AD, replace each affected flightcrew oxygen mask regulator identified in paragraph (h) of this AD with a part identified in paragraph (i)(1) or (i)(2) of this AD. After replacement of all affected flightcrew oxygen mask regulators on an airplane, the actions specified in paragraph (h)(2) of this AD are no longer required, the AFM revision specified in paragraph (h)(2)(i) of this AD may be removed from the AFM, and the placard identified in paragraph (h)(2)(ii) of this AD may be removed from the airplane.

(1) A serviceable part, not having a part number and serial number listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(2) A part that has been tested and passed the test in accordance with paragraph 3.A.(4) of the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

### **(j) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g), (h)(1)(ii), and (i)(2) of this AD, if those actions were performed before the effective date of this AD using Zodiac Aerospace Service Bulletin MCF-SBU-35-001, dated October 25, 2012, which is not incorporated by reference in this AD.

### **(k) Parts Installation Limitation**

As of the effective date of this AD, no person may install any flightcrew oxygen mask regulator with a part number and serial number listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012, on any airplane, unless the regulator has been tested and passed the test, in accordance with paragraph 3.A.(4) of the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

### **(l) Alternative Methods of Compliance (AMOCs)**

The Manager, Boston Aircraft Certification Office (ACO), ANE-150, 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 ACO, send it to ATTN: Ian Lucas, Aerospace Engineer, Boston Aircraft Certification Office, ANE-150, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7757; fax: 781-238-7170; email: ian.lucas@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. The AMOC approval letter must specifically reference this AD.

### **(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2012-0254R1, dated December 21, 2012, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2015-0927-0004>.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

**(n) 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.

(i) Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(ii) Reserved.

(3) For service information identified in this AD, contact Zodiac Services, Technical Publication Department, Zodiac Aerotechnics, Oxygen Systems Europe, 61 Rue Pierre Curie–CS20001, 78373 Plaisir Cedex, France; phone: (33) 01 61 24 23 23; fax: (33) 01 30 55 71 61; email: [yann.laine@zodiacaerospace.com](mailto:yann.laine@zodiacaerospace.com); Internet: <http://www.zodiacaerospace.com>.

(4) 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.

(5) 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 November 3, 2015.

Dionne Palermo,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.