Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model included on the same novel or unusual design feature, these special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Boeing Model 737–700 airplane must comply with the fuel-vent and exhaust-emission requirements of 14 CFR part 34 and the noise-certification requirements of 14 CFR part 36.

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type certification basis under § 21.101.

Novel or Unusual Design Features

The Boeing Model 737–700 airplane, as changed, will incorporate the following novel or unusual design features:

The installation of a supplemental therapeutic oxygen system, for medical use, in a private, not-for-hire, not-for-common-carriage airplane.

Discussion

AMAC has applied to modify a private business jet, a Boeing 737–700 airplane, to include an oxygen supply for a dedicated medical-oxygen system. The gaseous passenger-oxygen system will be modified to include additional supply cylinders and several therapeutic oxygen outlets located throughout the airplane cabin. Each therapeutic outlet will provide a constant flow of oxygen at either 2 or 4 liters per minute.

The flightcrew controls the flow of therapeutic oxygen at all times during flight. Therapeutic oxygen systems have been previously certified and were generally considered an extension of the passenger-oxygen system for the purpose of defining the applicable regulations. As a result, the applicable regulations included those that applied to oxygen systems in general, or supplemental oxygen systems.

Section 25.1445 includes standards for oxygen-distribution systems when oxygen is supplied to crew and passengers. If a common source of supply is used, § 25.1445(a)(2) requires a means to separately reserve the minimum supply required for the flightcrew. This requirement was originally added to Civil Air Regulation (CAR) 4b.831 at amendment 4b–13, effective September 21, 1949, and was included in § 25.1445 when the regulations were codified.

The regulation is intended to protect the flightcrew by ensuring that an adequate supply of oxygen is available to complete a descent and land following a loss of cabin pressure. When the regulation was written, the only passenger-oxygen system designs were supplemental-oxygen systems intended to protect passengers from hypoxia in the event of cabin decompression.

Present designs of passenger-oxygen systems do not include design features that allow the crew to offer oxygen to passengers during flight.

Furthermore, the potential hazard that can exist when the oxygen content of an enclosed area becomes too high because of system leaks, malfunction, or damage from external sources, make it necessary to ensure that adequate safety standards are applied to the design and installation of the oxygen system. These potential hazards also necessitate development and application of appropriate additional design and installation standards.

These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

Applicability

As discussed above, these special conditions are applicable to the Boeing Model 737–700 airplane. Should AMAC apply at a later date for a supplemental type certificate to modify any other model included on Type Certificate no. A16WE to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of this feature on the airplane.

The substance of these special conditions has been subject to the notice and comment period in several prior instances and has been derived without substantive change from those previously issued. It is unlikely that prior public notice and comment are unnecessary and impracticable, and good cause exists for adopting these special conditions upon publication in the Federal Register.

The FAA is requesting comments to allow interested persons to submit views that may not have been submitted in response to the prior opportunities for comment described above.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for Boeing Model 737–700 airplanes as modified by AMAC Aerospace Switzerland AG.

The distribution system for the therapeutic-oxygen system must be designed and installed to meet requirements similar to § 25.1445(a) as follows:

When oxygen is supplied to passengers for both supplemental and therapeutic purposes, the distribution system must be designed for either—

1. A source of supplemental supply for protection from hypoxia following a loss of cabin pressure, and a separate source for therapeutic purposes, or

2. A common source of supply, with means to separately reserve the minimum supply required by the passengers for supplemental use following a loss of cabin pressure.

Issued in Renton, Washington, on April 27, 2017.

Paul Bernado,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2017–09173 Filed 5–4–17; 8:45 am]
BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120-AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.
SUMMARY: We are superseding Airworthiness Directive (AD) 2015–15–03 for all General Electric Company (GE) GEnx turbofan engine models. AD 2015–15–03 precluded the use of certain electronic engine control (EEC) full authority digital engine control (FADEC) software on GEnx turbofan engines. This AD requires removing a specific part and replacing it with a part eligible for installation and specifying the EEC FADEC software version for the affected GEnx turbofan engines. This AD was prompted by GE implementing final design changes that remove the unsafe condition. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD is effective June 9, 2017.

ADDRESSES: For service information identified in this final rule, contact General Electric Company, GE Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215; phone: 513–552–3272; email: geae.aoc@ge.com. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781–238–7125.

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–2015–0165; 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 (phone: 800–647–5527) is Document 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:


SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2015–15–03, Amendment 39–18212 (80 FR 42707, July 20, 2015), (“AD 2015–15–03”). AD 2015–15–03 applied to all GE GEnx turbofan engine models. The NPRM published in the Federal Register on November 3, 2016 (81 FR 76540). The NPRM was prompted by GE implementing final design changes that remove the unsafe condition. The NPRM proposed to remove a specific part and replace it with a part eligible for installation and specify the EEC FADEC software version for the affected GEnx turbofan engines. We are issuing this AD to prevent engine failure, loss of thrust control, and damage to the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA’s response to each comment.

Request To Change Compliance

The Boeing Company and GE requested that we amend paragraph (f) to clarify which software versions are prohibited from being installed. They stated that the listed software versions do not contain the highest level of ice crystal icing (ICI) accommodation. We agree. We revised this AD because the listed software versions do not contain the highest level of ICI accommodation features. Also, the change requested makes the prohibition statement consistent with the AD removal requirements.

Request To Add Terminating Action

The Boeing Company requested that we add compliance to this AD as a terminating action to AD 2013–24–01, Amendment 39–17675 (78 FR 70851, November 27, 2013), (“AD 2013–24–01”) since it removes the unsafe condition.

We partially agree. We agree that complying with this AD is terminating action for certain requirements of AD 2013–24–01. Therefore, we added a new terminating action paragraph (h) of this AD. Since complying with this AD is terminating action for certain requirements of AD 2013–24–01, we disagree that complying with this AD is terminating action for all requirements of AD 2013–24–01.

Request To Add Terminating Action

The Boeing Company requests that 747–8 and 747–8F aircraft with GEnx–2B engines that are operating with software, version C075, be granted a relaxation of the requirements in paragraphs (g) and (h) of AD 2013–24–01. They stated that an alternative method of compliance (AMOC) exists that grants a relaxation of the requirements of paragraphs (g) and (h) of AD 2013–24–01 as long as the aircraft engines have the required software versions.

We disagree. Although Transport Airplane Directorate issued aircraft level AD 2013–24–01 and granted an AMOC, those are interim actions. Complying with this AD is required to remove the unsafe condition and is terminating action to certain requirements of AD 2013–24–01. We did not change this AD.

Request To Revise a Definition

GE requested that we revise the definition of an engine shop visit. They suggested that we add “Workscopes involving only externals, including transfer gearbox (TGB) and accessory gearbox (AGB) do not constitute an engine shop visit for the purpose of this AD.”

We disagree. The definition of a shop visit as “the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine case flanges” is a standard industry definition. Workscopes involving the TGB/AGB, or externals, do not separate major mating engine case flanges and do not constitute an engine shop visit for the purpose of this AD.

We did not change this AD.

Request To Change Compliance Time

Cathay Pacific Airways Limited requested that we clarify which parts may be installed into the engine.

We disagree. The FAA does not intend to specify which parts may be installed into the engine, only those parts that may not be installed into the engine. Specifying which parts are eligible for installation may inadvertently prohibit new parts that are introduced from being installed into the engine. We did not change this AD.

Agreement With the Proposed AD

The Air Line Pilots Association expressed agreement with 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 changes described previously. We determined that the changes we made as the result of the comments we received:

• 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.

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

We reviewed GE GEnx–2B Service Bulletin (SB) 72–0241 R00, dated March 16, 2016 that describes removal and installation procedures of fan hub stator assembly booster outlet guide vane; GE GEnx–2B SB 73–0041 R00, dated July 2, 2015 that describes reprogramming procedures for EEC FADEC software, version C075; and GE GEnx–1B SB 73–0044 R00, dated July 1, 2015 that describes reprogramming procedures for EEC FADEC software, version B185.

Costs of Compliance

We estimate that this AD affects 130 engines installed on airplanes of U.S. registry. We estimate that it would take about 1 hour per engine to comply with the software installation required by this AD. We also estimate that 32 engines would require hardware replacement, which would take about 60 hours per engine. Required parts cost about $390,000 per engine. The average labor rate is $85 per hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be $12,654,250.

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 have 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 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

§ 39.13 [Amended]

■ 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) 2015–15–03, Amendment 39–18212 (80 FR 42707, July 20, 2015), and adding the following new AD:


(a) Effective Date
This AD is effective June 9, 2017.

(b) Affected ADs

(c) Applicability
This AD applies to all General Electric Company (GE) GEnx–1B and GEnx–2B turbofan engines.

(d) Unsafe Condition
This AD was prompted by GE implementing final design changes that remove the unsafe condition. We are issuing this AD to prevent engine failure, loss of thrust control, and damage to the airplane.

(e) Compliance
Comply with this AD within the compliance times specified, unless already done.

(1) Thirty days after the effective date of this AD, do not operate any GE GEnx–1B engine with electronic engine control (EEC) full authority digital engine control (FADEC) software, version B180 or earlier, installed.

(2) Thirty days after the effective date of this AD, do not operate any GE GEnx–2B engine with EEC FADEC software, version C068 or earlier, installed.

(3) At the next shop visit after the effective date of this AD, remove from service all GE GEnx–2B67, –2B67B, and –2B677/P fan hub stator assembly booster outlet guide vanes, part number B1316–00720, and replace with a part eligible for installation.

(f) Installation Prohibition
After removing any software, version B180 or earlier, for the GE GEnx–1B engines; or software, version C068 or earlier, for the GE GEnx–2B engines, do not operate those engines with any software, version B180 or C068, or earlier.

(g) Definition
For the purpose of this AD, an “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine case flanges, except for the following situations which do not constitute an engine shop visit:

(1) Separation of engine flanges solely for the purposes of transportation without subsequent maintenance does not constitute an engine shop visit.

(2) Separation of engine flanges solely for the purpose of replacing the fan or propulsor without subsequent maintenance does not constitute an engine shop visit.

(h) Terminating Action

Compliance with this AD, for all engines installed on a specific airplane, is a terminating action for that airplane for paragraphs (g) and (i) of AD 2013–24–01.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(j) Related Information

(1) For more information about this AD, contact Christopher McGuire, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781–236–7120; fax: 781–236–7199; email: chris.mcguire@faa.gov.
DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 97

[Docket No. 31130; Amdt. No. 3743]

Standard Instrument Approach Procedures, and Takeoff Minimums and Obstacle Departure Procedures; Miscellaneous Amendments

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This rule establishes, amends, suspends, or removes Standard Instrument Approach Procedures (SIAPs) and associated Takeoff Minimums and Obstacle Departure Procedures (ODPs) for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, adding new obstacles, or changing air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

DATES: This rule is effective May 5, 2017. The compliance date for each SIAP, associated Takeoff Minimums, and ODP is specified in the amendatory provisions.

Availability: Availability of matters incorporated by reference in the amendment is as follows:

For Examination
2. The FAA Air Traffic Organization Service Area in which the affected airport is located.
3. The office of Aeronautical Navigation Products, 6500 South MacArthur Blvd., Oklahoma City, OK 73169, or,
4. 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.

Availability
All SIAPs and Takeoff Minimums and ODPs are available online free of charge. Visit the National Flight Data Center at nfdc.faa.gov to register. Additionally, individual SIAP and Takeoff Minimums and ODP copies may be obtained from the FAA Air Traffic Organization Service Area in which the affected airport is located.

SUPPLEMENTARY INFORMATION: This rule amends Title 14 of the Code of Federal Regulations, Part 97 (14 CFR part 97), by establishing, amending, suspending, or removes SIAPs, Takeoff Minimums and/or ODPs. The complete regulatory description of each SIAP and its associated Takeoff Minimums or ODP for an identified airport is listed on FAA form documents which are incorporated by reference in this amendment under 5 U.S.C. 552(a), 1 CFR part 51, and 14 CFR part 97.20. The applicable FAA forms are FAA Forms 8260--3, 8260--4, 8260--5, 8260--15A, and 8260--15B when required by an entry on 8260--15A.

The large number of SIAPs, Takeoff Minimums and ODPs, their complex nature, and the need for a special format make publication in the Federal Register expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, Takeoff Minimums or ODPs, but instead refer to their graphic depiction on charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP, Takeoff Minimums and ODP listed on FAA form documents is unnecessary. This amendment provides the affected CFR sections and specifies the types of SIAPs, Takeoff Minimums and ODPs with their applicable effective dates. This amendment also identifies the airport and its location, the procedure, and the amendment number.

The circumstances that created the need for some SIAP and Takeoff Minimums and ODP amendments may require making them effective in less than 30 days. For the remaining SIAPs and Takeoff Minimums and ODPs, an effective date at least 30 days after publication is provided. Further, the SIAPs and Takeoff Minimums and ODPs contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Procedures (TERPS). In developing these SIAPs and Takeoff Minimums and ODPs, the TERPS criteria were applied to the conditions existing or anticipated at the affected airports. Because of the close and immediate relationship between these SIAPs, Takeoff Minimums and ODPs, and safety in air commerce, I find that notice and public procedure under 5 U.S.C. 553(b) are impracticable and contrary to the public interest and, where applicable, under 5 U.S.C. 553(d), good cause exists for making some SIAPs effective in less than 30 days.

The FAA has determined that this regulation only involves an established body of technical regulations on which frequent and routine amendments are necessary to keep them operationally...