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

DATES: Effective date: March 21, 2013.


SUPPLEMENTARY INFORMATION:

Background

On May 14, 2009, Embraer S.A. applied for a type certificate for their new Model EMB–550 airplane. The Model EMB–550 airplane is the first of a new family of jet airplanes designed for corporate flight, fractional, charter, and private owner operations. The aircraft has a conventional configuration with a low wing and T-tail empennage. The primary structure is metal with composite empennage and control surfaces. The Model EMB–550 airplane is designed for 8 passengers, with a maximum of 12 passengers. It is equipped with two Honeywell HTF7500–E medium bypass ratio turbofan engines mounted on aft fuselage pylons. Each engine produces approximately 6,540 pounds of thrust for normal takeoff. The primary flight controls consist of hydraulically powered fly-by-wire elevators, aileron and rudder, controlled by the pilot or copilot sidestick.

The longitudinal control law design of the Embraer S.A. Model EMB–550 airplane incorporates an overspeed protection system in the normal mode. This mode prevents the pilot from inadvertently or intentionally exceeding a speed approximately equivalent to $V_{FC}$ or attaining $V_{HP}$. Current Title 14, Code of Federal Regulations (14 CFR) part 25 did not envision a high speed limiter that might preclude or modify flying qualities assessments in the overspeed region.

Type Certification Basis


If the Administrator finds that the applicable airworthiness regulations (i.e., 14 CFR part 25) do not contain adequate or appropriate safety standards for the Model EMB–550 airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same or similar novel or unusual design feature, the special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Model EMB–550 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 and the FAA must issue a finding of regulatory adequacy under section 611 of Public Law 92–574, the “Noise Control Act of 1972.”

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 § 21.17(a)(2).

Novel or Unusual Design Features

The Model EMB–550 airplane will incorporate the following novel or unusual design feature: an electronic flight control system which contains fly-by-wire control laws, including envelope protections, for the overspeed protection and roll limiting function. Current part 25 requirements do not contain appropriate standards for high speed protection systems.

Discussion

As further discussed previously, a special condition is necessary in addition to the requirements of § 25.143 for the operation of the high speed protection. The general intent is that the overspeed protection does not impede normal maneuvering and speed control and that the overspeed protection does not restrict or prevent emergency maneuvering. Therefore, 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.

Discussion of Comments

Notice of proposed special conditions No. 25–12–12–SC for the Embraer S.A. Model EMB–550 airplanes was published in the Federal Register on November 20, 2012 (77 FR 69572). No comments were received, and the special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions are applicable to the Model EMB–550 airplane. Should Embraer S.A. apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplanes. It is not a rule of general applicability.

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 Embraer S.A. Model EMB–550 airplanes.

1. In addition to § 25.143, the following requirement applies: Operation of the high speed limiter during all routine and descent procedure flight must not impede normal attainment of speeds up to overspeed warning.

Issued in Renton, Washington, on February 12, 2013.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

Pratt & Whitney Canada Corp. (P&WC) PT6C–67C turboshaft engines. This AD requires initial and repetitive borescope inspections to verify the presence of a retaining ring securing the power turbine (PT) baffle located near the second stage PT disk. If the engine fails the inspection, this AD also requires removing the engine from service before further flight. This AD was prompted by five reported incidents of second stage PT disk damage. We are issuing this AD to prevent damage to the PT disk which, if undetected, could cause uncontained PT disk failure and loss of control of the helicopter.

DATES: This AD becomes effective March 26, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of March 26, 2013.

ADDITIONAL INFORMATION:


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 October 25, 2012 (77 FR 65142). That NPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information states:

There have been 5 reported incidents of second stage Power Turbine (PT) disk damage caused by the PT baffle moving and contacting the downstream side of the second stage PT disk. In two of these incidents, the PT section of the engine failed to rotate (on ground) as a result of baffle interference.

An investigation has determined that the root cause for the PT baffle displacement and the resultant PT disk damage was due to the failure of the retaining ring that holds the PT baffle in its intended position.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 65142, October 25, 2012).

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed (77 FR 65142, October 25, 2012).

Costs of Compliance

Based on the service information, we estimate that this AD will affect about 220 engines of U.S. registry. We also estimate that it will take about six hours per engine to comply with this AD. The average labor rate is $85 per work-hour. We anticipate that two engines will fail the initial inspection. Required parts will cost about $224,636 per engine. Based on these figures, we estimate the cost of the AD on U.S. operators to be $561,472. Our cost estimate is exclusive of possible warranty coverage.

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 this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: (800) 647–5527) is provided 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

§ 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 adding the following new AD:

2013–03–14 Pratt & Whitney Canada Corp:


(a) Effective Date

This airworthiness directive (AD) becomes effective March 26, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Pratt & Whitney Canada Corp. (P&WC) PT6C–67C turboshaft engines that have not had P&WC Service Bulletin (SB) No. PT6C–72–41056 incorporated.

(d) Reason

This AD was prompted by five reported incidents of second stage power turbine (PT) disk damage. We are issuing this AD to prevent damage to the PT disk which, if undetected, could cause uncontained PT disk failure and loss of control of the helicopter.

(e) Actions and Compliance

Unless already done, do the following actions.
SUMMARY: We are adopting a new airworthiness directive (AD) for certain serial number Pratt & Whitney Canada turboshaft engines.

We received no comments on the NPRM (77 FR 66767). That NPRM proposed to correct a problem that was determined that the power turbine disk can fail prematurely, which could result in engine damage and loss of helicopter control.

DATES: This AD becomes effective March 26, 2013.

ADDRESS: The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.


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 November 7, 2012 (77 FR 66767). That NPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information states:

Certain power turbine (PT) disks were made to specific heat codes that may not achieve the maximum in-service life. This AD requires re-identification of the PT disk to a part number (P/N) with a lower life limit. We are issuing this AD to prevent possible uncontained PT disk failure and loss of helicopter control.

DATES: This AD becomes effective March 26, 2013. The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 26, 2013.

1. Borescope Inspections
   (1) Borescope-inspect to verify the presence of a retaining ring securing the PT baffle located near the second stage PT disk, as follows:
      (i) For engines with 2,200 PT cycles or more on the effective date of this AD, inspect within 100 operating hours or 150 PT cycles, whichever occurs first.
      (ii) For engines with more than 1,400 PT cycles but fewer than 2,200 PT cycles on the effective date of this AD, inspect within 250 operating hours, 350 PT cycles, or before exceeding 2,350 PT cycles, whichever occurs first.
      (iii) For engines with 1,400 PT cycles or fewer on the effective date of this AD, inspect within 500 operating hours, 750 PT cycles, or before exceeding 1,750 PT cycles, whichever occurs first.
   (2) Thereafter, repetitively borescope-inspect to verify the presence of the retaining ring securing the PT baffle located near the second stage PT disk, on or before an additional 600 flight hours or 900 PT cycles, whichever occurs first.
   (4) If the retaining ring is missing or the PT baffle is out of position, then remove the engine from service before further flight.

2. Optional Terminating Action
   Performing the engine improvement modifications in P&W Alert SB No. PT6C–72–A41056, Revision 5, dated January 17, 2013, paragraphs 3.A. through 3.C.(12) and 3.E.(1) through 3.E.(15), is an optional terminating action to the repetitive inspections required by this AD.

3. Credit for Previous Actions
   (1) If you performed the initial borescope inspection before the effective date of this AD using P&W Special Instruction No. 45–2011R2, dated July 27, 2011, or P&W Alert SB No. PT6C–72–A41060, dated August 12, 2011, or Revision 1, dated September 29, 2011, or Revision 2, dated February 10, 2012, you met the requirements of paragraph (f)(1) of this AD.
   (2) If you performed the engine modification before the effective date of this AD using P&W Alert SB No. PT6C–72–A41056, dated April 1, 2011, or Revision 1, dated June 17, 2011, or Revision 2, dated October 6, 2011, or Revision 3, dated February 3, 2012, or Revision 4, dated February 13, 2012, you met the requirements of this AD and no further action is required.

4. Alternative Methods of Compliance (AMOCs)
   The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

5. Related Information
   (2) Refer to Transport Canada AD CF–2012–24, dated August 2, 2012, for related information.

6. 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 the AD specifies otherwise.
   (3) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, JG 1A1; phone: 800–268–8000; fax: 450–647–2888; Web site: http://www.pwc.ca.
   (4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781–238–7123.
   (5) You may view this service information 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 Burlington, Massachusetts, on February 1, 2013.

Colleen M. D’Alessandro,
Assistant Manager, Engine & Propeller Directorate, Aircraft Certification Service.

[FR Doc. 2013–03266 Filed 2–15–13; 8:45 am]

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