DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; General Electric Company CF6–45 and CF6–50 Series Turboshop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are superseding an existing airworthiness directive (AD) for General Electric Company (GE) CF6–45 and CF6–50 series turbofan engines with certain low-pressure turbine (LPT) rotor stage 3 disks installed. That AD currently requires initial and repetitive borescope inspections of the high-pressure turbine (HPT) rotor stage 1 and stage 2 blades for wear and damage, including excessive airfoil material loss. That AD also requires fluorescent-penetrant inspection (FPI) of the LPT rotor stage 3 disk under certain conditions and removal of the disk from service before further flight if found cracked. That AD also requires repetitive exhaust gas temperature (EGT) system checks (inspections). This AD requires HPT rotor stage 1 and stage 2 blade inspections and EGT system inspections. This AD also requires FPI of the LPT rotor stage 3 disk under certain conditions, removal of the disk from service before further flight if found cracked, and an ultrasone inspection (UI) of the LPT rotor stage 3 disk forward spacer arm. This AD also requires initial and repetitive engine core vibration surveys and reporting to the FAA any crack findings, disks that fail the UI, and engines that fail the engine core vibration survey.

This AD was prompted by reports received of additional causes of HPT rotor imbalance not addressed in AD 2010–12–10, and two additional LPT rotor stage 3 disk events. We are issuing this AD to prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane.

DATES: This AD is effective February 22, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of February 22, 2011.

We must receive any comments on this AD by March 21, 2011.

ADDRESSES: You may send comments by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
• Fax: 202–493–2251.
• Mail: U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
• Hand Delivery: U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov, 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 Office (phone: 800–647–5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT:


SUPPLEMENTARY INFORMATION:

Discussion

On June 4, 2010, we issued AD 2010–12–10, Amendment 39–16331 (75 FR 32649, June 9, 2010), for CF6–45 and CF6–50 series turbofan engines with certain LPT rotor stage 3 disks installed. That AD requires initial and repetitive borescope inspections of the HPT rotor stage 1 and stage 2 blades for wear and damage, including excessive airfoil material loss. That AD also requires FPI of the LPT rotor stage 3 disk under certain conditions, removal of the disk from service before further flight if found cracked, and repetitive EGT system checks (inspections). That AD resulted from reports received of two additional LPT rotor stage 3 disk events since the original AD 2010–06–15, Amendment 39–16240 (75 FR 12661, March 17, 2010) was issued. We issued those ADs to prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane.
Actions Since AD was Issued
Since we issued AD 2010–12–10, investigations have revealed additional causes for HPT rotor imbalance not addressed in that AD, and two additional LPT rotor stage 3 disk events have occurred.

FAA’s Determination
We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements
This AD requires:
- HPT rotor stage 1 and stage 2 blade inspections and EGST system inspections; and
- FPI of the LPT rotor stage 3 disk under certain conditions and removal of the disk from service before further flight if found cracked; and
- A UI of the LPT rotor stage 3 disk forward spacer arm; and
- Initial and repetitive engine core vibration surveys; and
- Reporting to the FAA any crack findings, disks that fail the UI, and engines that fail the engine core vibration survey.

FAA’s Justification and Determination of the Effective Date
An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because we require near immediate corrective action to address the unsafe condition. Therefore, we find that notice and opportunity for prior public comment are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited
This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA–2010–0068 and directorate identifier 2010–NE–05–AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance
We estimate that this AD will affect 387 CF6–45 and CF6–50 series turbofan engines installed on airplanes of U.S. registry. We also estimate that it will take, about 8 hours to perform the HPT blade inspection, 6 hours to perform a vibration survey, 4 hours to perform an ultrasonic inspection, 2 hours to perform an EGST resistance check, and 1 hour to perform an EGST thermocouple inspection for each engine. The average labor rate is $85 per work-hour. We anticipate no required parts cost. Based on these figures, we estimate the total cost of the AD to U.S. operators to be $690,795.

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
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 (49 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 part 39 of the Federal Aviation Regulations (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) 2010–12–10, Amendment 39–16331 (75 FR 32649, June 9, 2010) and adding the following new AD:

Effective Date
(a) This AD is effective February 22, 2011.

Affected ADs
(b) This AD supersedes AD 2010–12–10, Amendment 39–16331.

Applicability
(c) This AD applies to the following engines with any of the low-pressure turbine (LPT) rotor stage 3 disk part numbers listed in Table 1 of this AD installed in:
(2) These engines are installed on, but not limited to, Airbus A300 series, Boeing 747 series, McDonnell Douglas DC–10 series, and DC–10–30F (KDC–10) airplanes.
Unsafe Condition

(d) This AD results from reports received of additional causes of high-pressure turbine (HPT) rotor imbalance not addressed in AD 2010–12–10, and two additional LPT rotor stage 3 disk events. We are issuing this AD to prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane.

Compliance

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

Borescope Inspections of HPT Rotor Stage 1 and Stage 2 Blades

(1) For the borescope inspections required by paragraphs (f)(1), (f)(2), and (f)(3) of this AD, inspect the blades from the forward and aft directions. Inspect all areas of the blade airfoil: Your inspection must include blade leading and trailing edges, and their convex and concave airfoil surfaces. Inspect for signs of impact, cracking, burning, damage, or distress.

(2) Thereafter, repeat the borescope inspection of the HPT rotor stage 1 and stage 2 blades within every 75 cycles-since-last-inspection (CSLI).

TABLE 1—APPLICABLE LPT ROTOR STAGE 3 DISK PART NUMBERS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Part Number</th>
<th>Part Number</th>
<th>Part Number</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9061M23P06</td>
<td>9061M23P07</td>
<td>9061M23P08</td>
<td>9061M23P09</td>
<td>9224M75P01</td>
</tr>
<tr>
<td>9061M23P10</td>
<td>1473M90P01</td>
<td>1473M90P02</td>
<td>1473M90P03</td>
<td>1473M90P04</td>
</tr>
<tr>
<td>1479M75P12</td>
<td>1473M90P04</td>
<td>1479M75P15</td>
<td>1479M75P16</td>
<td>1479M75P01</td>
</tr>
<tr>
<td>1479M75P02</td>
<td>1479M75P03</td>
<td>1479M75P04</td>
<td>1479M75P05</td>
<td>1479M75P06</td>
</tr>
<tr>
<td>1479M75P07</td>
<td>1479M75P08</td>
<td>1479M75P09</td>
<td>1479M75P11</td>
<td>1479M75P13</td>
</tr>
<tr>
<td>1479M75P14</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

TABLE 2—CONDITIONAL BORESCOPE INSPECTION CRITERIA

<table>
<thead>
<tr>
<th>Condition</th>
<th>Then Borescope-Inspect:</th>
<th>Actions Required for Engines With Damaged HPT Rotor Blades</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) An exhaust gas temperature (EGT) above redline</td>
<td>Within 10 cycles.</td>
<td>(g) For those engines that fail any borescope inspection requirements of this AD, before returning the engine to service, fluorescent-penetrant inspect the inner diameter surface forward cone body (forward spacer arm) of the LPT rotor stage 3 disk. If a crack is found or if a circumferential band of fluorescence appears, remove the disk from service.</td>
</tr>
<tr>
<td>(ii) A shift in the smoothed EGT trending data that exceeds 18 °F (10 °C), but is less than or equal to 36 °F (20 °C)</td>
<td>Within 10 cycles.</td>
<td></td>
</tr>
<tr>
<td>(iii) A shift in the smoothed EGT trending data that exceeds 36 °F (20 °C)</td>
<td>Before further flight.</td>
<td>(h) Inspect the EGT thermocouple probe for damage within 50 cycles after the effective date of this AD, before returning the engine to service, fluorescent-penetrant inspect the inner diameter surface forward cone body (forward spacer arm) of the LPT rotor stage 3 disk. If a crack is found or if a circumferential band of fluorescence appears, remove the disk from service.</td>
</tr>
<tr>
<td>(iv) Two consecutive raw EGT trend data points that exceed 18 °F (10 °C) above the smoothed average, but is less than or equal to 36 °F (20 °C)</td>
<td>Before further flight.</td>
<td>(i) Thereafter, repeat the EGT system resistance check within every 750 cycles-since-the-last-resistance check.</td>
</tr>
<tr>
<td>(v) Two consecutive raw EGT trend data points that exceed 36 °F (20 °C) above the smoothed average ........................................................................</td>
<td>Before further flight.</td>
<td>(m) Remove and replace, or repair any EGT system component that fails the resistance system check before further flight.</td>
</tr>
</tbody>
</table>

EGT Thermocouple Probe Inspections

(h) Inspect the EGT thermocouple probe for damage within 50 cycles after the effective date of this AD or before accumulating 750 CSLI, whichever occurs later.

(i) Thereafter, re-inspect the EGT thermocouple probe for damage within every 750 CSLI.

(j) If any EGT thermocouple probe shows wear through the thermocouple guide sleeve, remove and replace the EGT thermocouple probe before further flight, and ensure the turbine mid-frame liner does not contact the EGT thermocouple probe.

EGT System Resistance Check Inspections

(k) Perform an EGT system resistance check within 50 cycles from the effective date of this AD or before accumulating 750 cycles-since-the-last-resistance check on the EGT system, whichever occurs later.

ULTRASONIC INSPECTION (UI) OF THE LPT ROTOR STAGE 3 DISK FORWARD SPACER ARM

(n) Within 75 cycles after the effective date of this AD, perform a UI of the forward cone body (forward spacer arm) of the LPT rotor stage 3 disk. Use paragraphs E. through K. of Appendix A of GE Service Bulletin (SB) No. CF6–50–SB 72–1312, Revision 1, dated October 18, 2010, to do the UI.

Engine Core Vibration Survey

(o) Within 75 cycles after the effective date of this AD, perform an initial engine core vibration survey.

(1) Use approximately a one-minute acceleration and a one-minute deceleration of the engine between ground idle and 84% N2 (about 8,250 rpm) to perform the engine core vibration survey.

(2) Use a spectral/trim balance analyzer or equivalent, to determine the N2 rotor vibration.

(p) Thereafter, within every 350 cycles-since-the-last-engine core vibration survey, perform the engine core vibration survey as required in paragraphs (o)(1) through (o)(2) of this AD.

(q) If the vibration level is above 5 mils Double Amplitude then before further flight, remove the engine from service.

Reporting Requirements

(u) Report to the FAA within 10 days after any of the following:

(1) Any crack findings; and

(2) Any disks that failed a UI performed as required in GE SB No. CF6–50–SB 72–1312, Revision 1, dated October 18, 2010.

(u) Submit these findings to FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-
Paperwork Reduction Act Burden Statement

(5) A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120–0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave., SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES–200.

Definitions

(v) For the purposes of this AD, an EGT above redline is a confirmed over-temperature indication that is not a result of EGT system error.

(vw) For the purposes of this AD, a shift in the smoothed EGT trending data is a shift in a rolling average of EGT that can be confirmed by a corresponding shift in the trending of fuel flow or fan speed/core speed (N1/N2) relationship. You can find further guidance about evaluating EGT trend data in GE Company Service Rep Tip 373 “Guidelines For Parameter Trend Monitoring.”

Previous Credit

(x) A borescope inspection performed before the effective date of this AD using AD 2010–06–15, Amendment 39–16240 (75 FR 6326, March 17, 2010) or AD 2010–12–10, Amendment 39–16240 (75 FR 32649, June 9, 2010) within the last 350 cycles, satisfies the initial borescope inspection requirement in paragraph (f)(1) of this AD.

Omark Industries, Inc., has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(c) Contact Tomasz Rakowski, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781–238–7735; fax: 781–238–7199; e-mail: tomasz.rakowski@faa.gov, for more information about this AD.

Material Incorporated by Reference

(dd) You must use GE Service Bulletin No. CF6–50–SB 72–1312, Revision 1, dated October 18, 2010, to do the ultrasonic inspections required by this AD.

The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

Food and Drug Administration

The Food and Drug Administration (FDA) is amending the animal drug regulations to reflect conditional approval of an application for a new animal drug intended for a minor use filed by AB Science. The application for conditional approval provides for the veterinary prescription use of masitinib mesylate tablets in dogs.

DATES: This rule is effective February 4, 2011.

FOR FURTHER INFORMATION CONTACT: Lisa M. Troutman, Center for Veterinary Medicine (HFV–116), Food and Drug Administration, 7500 Standish Pl., Rockville, MD 20855, 240–276–8322, e-mail: lisa.troutman@fda.hhs.gov.

SUPPLEMENTARY INFORMATION: AB Science, 3 Avenue George V, 75008 Paris, France, filed an application for conditional approval (141–308) that provides for veterinary prescription use of KINAVET–CA1 (masitinib mesylate) Tablets for the treatment of recurrent (post-surgery) or nonresectable Grade II or III cutaneous mast cell tumors in dogs that have not previously received radiotherapy and/or chemotherapy except corticosteroids. In accordance with the Federal Food, Drug, and Cosmetic Act (the FD&C Act), as amended by the Minor Use and Minor Species Animal Health Act of 2004 (MUMS Act), this drug is conditionally approved as of December 15, 2010, and the regulations in part 516 (21 CFR part 516) are amended by adding new § 516.1318.

In addition, AB Science has not been previously listed in the animal drug regulations as a sponsor of an approved application. Accordingly, 21 CFR 510.600(c) is being amended to add entries for this firm.

In accordance with the freedom of information provisions of 21 CFR part 20 and 21 CFR 514.11(e)(2)(ii), a summary of safety and effectiveness data and information submitted to support conditional approval of this application may be seen in the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852, between 9 a.m. and 4 p.m., Monday through Friday.

The Agency has determined under 21 CFR 25.33 that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

KINAVET–CA1 (masitinib mesylate) Tablets for the intended uses conditionally approved by FDA under application number 141–308 qualifies for 7 years of exclusive marketing rights beginning on the date of conditional approval. This new animal drug qualifies for exclusive marketing rights under section 573(c) of the FD&C Act (21 U.S.C. 360ccc–2(c)) because it has