T_j = Average time spent in failure condition \( j \) (in hours)

\( P_j = \text{Probability of occurrence of failure mode } j \) (per hour)

Note: If \( P_j \) is greater than \( 10^{-3} \) per flight hour, then the flutter-clearance speed must not be less than \( V^* \).

(vi) Freedom from aeroelastic instability must also be shown up to \( V^* \) in Figure 3 above, for any probable system-failure condition, combined with any damage, required or selected for investigation by § 25.571(b).

(4) Consideration of certain failure conditions may be required by other sections of part 25 regardless of calculated system reliability. Where analysis shows the probability of these failure conditions to be less than \( 10^{-9} \), criteria other than those specified in this paragraph may be used for structural substantiation to show continued safe flight and landing.

(e) Failure indications. For system failure detection and indication, the following apply:

(1) The system must be checked for failure conditions, not extremely improbable, that degrade the structural capability of the airplane below the level required by part 25 or significantly reduce the reliability of the remaining system. As far as reasonably practicable, the flightcrew must be made aware of these failures before flight. Certain elements of the control system, such as mechanical and hydraulic components, may use special periodic inspections, and electronic components may use daily checks, instead of detection and indication systems to achieve the objective of this requirement. Such certification-maintenance inspections or daily checks must be limited to components on which faults are not readily detectable by normal detection and indication systems, and where service history shows that inspections will provide an adequate level of safety.

(2) The existence of any failure condition, not extremely improbable during flight, that could significantly affect the structural capability of the airplane and for which the associated reduction in airworthiness can be minimized by suitable flight limitations, must be signaled to the flightcrew. For example, failure conditions that result in a FS between the airplane strength and the loads of part 25, subpart C, below 1.25, or flutter margins below \( V^* \), must be signaled to the crewmembers during flight.

(1) Dispatch with known failure conditions. If the airplane is to be dispatched in a known system-failure condition, the condition must not affect the structural performance, or affects the reliability of the remaining system to maintain structural performance, then the provisions of these special conditions must be met, including the provisions of paragraph (d)(1) of these special conditions for the dispatched condition, and paragraph (d)(2) of these special conditions for subsequent failures. Expected operational limitations may be taken into account in establishing \( P_j \) as the probability of failure occurrence for determining the safety margin in Figure 1. Flight limitations and expected operational limitations may be taken into account in establishing \( Q_j \) as the combined probability of being in the dispatched failure condition and the subsequent failure condition for the safety margins in Figures 2 and 3. These limitations must be such that the probability of being in this combined failure state, and then subsequently encountering limit load conditions, is extremely improbable. No reduction in these safety margins is allowed if the subsequent system-failure rate is greater than \( 10^{-3} \) per hour.

Issued in Renton, Washington, on November 5, 2010.

Jeffrey Duven,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; General Electric Company (GE) CT7–9C and –9C3 Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD requires inspecting certain serial number (S/N) gas generator turbine (GGT) shafts for nonconforming land balance-cuts, and if found, removing the shaft from service. This AD was prompted by reports of a manufacturing quality problem. We are issuing this AD to detect nonconforming GGT shaft land balance-cuts, which could result in the shaft failing before its published life limit, and which could result in an uncontained engine failure and damage to the airplane.

DATES: This AD is effective December 22, 2010.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of December 22, 2010.

ADDRESSES: For service information identified in this AD, contact General Electric Company, GE–Aviation, Room 285, 1 Neumann Way, Cincinnati, Ohio 45215; e-mail geoe.dee@ge.com; telephone (513) 552–3272; fax (513) 552–3329. You may review copies of the referenced 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) 238–7125.

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 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:
Walter Meibaum, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238–7119; fax (781) 238–7199; e-mail: walter.meibaum@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to the specified products. That NPRM published in the Federal Register on July 23, 2010 (75 FR 43099). That NPRM proposed to require inspecting certain S/N GGT shafts, P/N 6068T44P02, for nonconforming land balance-cuts, and if found, replacing the shaft.

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 relevant data and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD affects five engines installed on airplanes of U.S. registry.

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect</td>
<td>1 work-hour x $85 per hour = $85</td>
<td>$28,633</td>
<td>$85</td>
<td>$425</td>
</tr>
<tr>
<td>Replace shaft</td>
<td>1.5 work-hour x $85 per hour = $127.50</td>
<td>$28,633</td>
<td>28,760.50</td>
<td>143,802</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>144,227</td>
</tr>
</tbody>
</table>

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 (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:

TABLE 1—AFFECTED GGT SHAFT S/NS

<table>
<thead>
<tr>
<th>Affected Shaft S/NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GATHHCPC</td>
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<tr>
<td>GATHHM9R</td>
</tr>
<tr>
<td>GATHJ19J</td>
</tr>
<tr>
<td>GATHK2N1</td>
</tr>
<tr>
<td>GATHKF9R</td>
</tr>
<tr>
<td>NCE715DA</td>
</tr>
<tr>
<td>GATHHHJ7</td>
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<tr>
<td>GATHHHWM3</td>
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<tr>
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</tr>
<tr>
<td>GATHK96D</td>
</tr>
<tr>
<td>GATHKRN</td>
</tr>
</tbody>
</table>

Unsafe Condition

(d) This AD results from reports of a manufacturing quality problem. We are issuing this AD to detect nonconforming GGT shaft land balance-cuts, which could result in the shaft failing before its published life limit, and which could result in an uncontained engine failure and damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed at the first shop visit after the effective date of this AD, or within 5,000 cycles-
since-new, whichever occurs first, unless the actions have already been done.

**Inspection for Nonconforming Land Balance-Cuts**

(i) For CT7–9C and –9C3 engines with a GGT shaft, P/N 6068T44P02, that has a S/N listed in Table 1 of this AD, installed, inspect the shaft for nonconforming land balance-cuts. Use the Accomplishment Instructions 3.A.(1) through 3.A.(4) of GE CT7–TP Alert Service Bulletin 72–A0501, Revision 01, dated March 3, 2010, to perform the inspection.

(g) If you find any nonconforming land balance-cuts, remove the shaft from service.

**Alternative Methods of Compliance**

(h) The Manager, Engine Certification Office, 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**

(i) For more information about this AD, contact Walter Meibaum, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238–7119; fax (781) 238–7199; e-mail: walter.meibaum@faa.gov.

**Material Incorporated by Reference**

(j) You must use GE CT7–TP Alert Service Bulletin 72–A0501, Revision 01, dated March 3, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of GE CT7–TP Alert Service Bulletin 72–A0501, Revision 01, dated March 3, 2010, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact General Electric Company, GE–Aviation, rotating 285, 1 Neumann Way, Cincinnati, Ohio 45215; e-mail geae.aoc@ge.com; telephone (513) 552–3272; fax (513) 552–3329.

(3) You may review copies of the service information at the FAA, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238–7125.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202–741–6030, or go to [http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Burlington, Massachusetts, on October 29, 2010.

Peter A. White,
Assistant Manager, Engine & Propeller Directorate, Aircraft Certification Service.

[FR Doc. 2010–28449 Filed 11–16–10; 8:45 am]

**BILLING CODE 4910–13–P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**


**RIN 2120–AA64**

**Airworthiness Directives; Various Aircraft Equipped With Rotax Aircraft Engines 912 A Series Engines**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

- This Airworthiness Directive (AD) results from reports of cracks in the engine crankcase. Austro Control GmbH (ACG) addressed the problem by issuing AD No 107R3 which was superseded by ACG AD A–2004–01.
- The present AD supersedes the ACG AD A–2004–01. On one hand, introduction by Rotax of an optimized crankcase assembly has permitted to reduce applicability of the new AD, when based on engines’ serial numbers (s/n). On the other hand, applicability is extended for some engines that may have been fitted with certain crankcase s/n, supplied as spare parts.
- In addition, accomplishment instructions given through the relevant Service Bulletins (SB) have been detailed to better locate engine’s areas that are to be scrutinised.
- We are issuing this AD to require actions to correct the unsafe condition on these products.

**DATES:** This AD becomes effective December 22, 2010.

On December 22, 2010, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

**ADDRESSES:** You may examine the AD docket on the Internet at [http://www.regulations.gov](http://www.regulations.gov) or in person at 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 service information identified in this AD, contact BRP–Powertrain GMBH & Co KG, Welser Strasse 32, A–4623 Gunskirchen, Austria; phone: (+43) (0) 7246 601–0; fax: (+43) (0) 7246 6370; Internet: [http://www.rotax.com](http://www.rotax.com). You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816–329–4148.

**FOR FURTHER INFORMATION CONTACT:**

Sarjapur Nagarajan, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329–4145; fax: (816) 329–4090 e-mail: sarjapur.nagarajan@faa.gov.

**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](http://www.federalregister.gov) on May 21, 2010 (75 FR 28504). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

This Airworthiness Directive (AD) results from reports of cracks in the engine crankcase. Austro Control GmbH (ACG) addressed the problem by issuing AD No 107R3 which was superseded by ACG AD A–2004–01.

The present AD supersedes the ACG AD A–2004–01. On one hand, introduction by Rotax of an optimized crankcase assembly has permitted to reduce applicability of the new AD, when based on engines’ serial numbers (s/n). On the other hand, applicability is extended for some engines that may have been fitted with certain crankcase s/n, supplied as spare parts.

In addition, accomplishment instructions given through the relevant Service Bulletins (SB) have been detailed to better locate engine’s areas that are to be scrutinised.

**Comments**

We gave the public the opportunity to participate in developing this AD. We have considered the comment received.

**Request To Change AD 2002–16–26**

Robert Seton of Rotech Research Canada Ltd. requested information regarding if AD 2006–16–26 would be changed to incorporate the same terminating action specified in this AD. We infer that he wants us to supersede...