

Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97-ANE-15]

RIN 2120-AA64

Airworthiness Directives; General Electric Company CT58 Series Turboshaft Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to General Electric Company (GE) CT58 series turboshaft engines. This proposal would require removal from service of compressor rear shafts, initial and repetitive inspections of ten rotating parts, and replacement if found cracked, until those parts are removed from service and replaced with improved design parts. This proposal is prompted by a stage 2 turbine wheel incident in 1993 which resulted in an increased awareness of small features on critical rotating parts which could affect part life. The actions specified by the proposed AD are intended to prevent fatigue cracking on specific critical rotating parts, which could result in failure of the part, causing an uncontained engine failure and damage to the aircraft.

DATES: Comments must be received by June 2, 1997.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 97-ANE-15, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ad-engineprop@faa.dot.gov". Comments sent via the Internet must contain the docket number in the subject line.

Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from General Electric Aircraft Engines, Technical Publications, 1000 Western Avenue, Lynn, MA 01910; telephone (617) 594-5102, fax (617) 594-2717. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Diane Cook, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (617) 238-7134, fax (617) 238-7199.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 97-ANE-15." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 97-ANE-15, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

The Federal Aviation Administration (FAA) received a report of a stage 2 uncontained turbine wheel failure on a General Electric Company (GE) Model CT58-140-1 turboshaft engine. The investigation resulted in the issuance of airworthiness directive (AD) 94-07-05 and an increased awareness of all small features on CT58 critical rotating parts. The manufacturer began a review of all small features on critical rotating parts on the CT58 engine that could affect the life capability of that part. A small feature is identified as a fillet radius, breakage, or edge radius that is 0.20 inches or less. Subsequent to the issuance of AD 94-07-05 the FAA has determined that a small feature may be the life limiting area of a critical rotating part and may result in a lower crack initiation part life than what is currently published. Because of the small feature's size, any local departures from the true contour (but still within the tolerance requirements) could affect the part fatigue life, and depending on the nature and location of the local departure(s), this small feature could become the life limiting area and subject to fatigue cracking prior to the published life limit. This condition, if not corrected, could result in fatigue cracking on specific critical rotating parts, which could result in failure of the part, causing an uncontained engine failure and damage to the aircraft.

The FAA has reviewed and approved the technical contents of the following GE Aircraft Engines Service Bulletins (SB's): No. (CT58) 72-181, CEB-284, Revision 1, dated November 29, 1995, that describes procedures for initial and repetitive inspections of life limited rotating parts; and No. (CT58) A72-163 (CEB-258), Revision 5, dated May 12, 1994, that describes procedures for an improved methodology for determining hours and cycles in service for aircraft performing repetitive heavy lift (RHL) operations.

Since an unsafe condition has been identified that is likely to exist or

develop on other products of this same type design, the proposed AD would require removal from service of compressor rear shafts, initial and repetitive inspections of ten rotating parts, and replacement if found cracked, until those parts are removed from service and replaced with improved design parts. The actions would be required to be accomplished in accordance with the SB's described previously.

There are approximately 5,550 engines of the affected design in the worldwide fleet. The FAA estimates that 380 civil engines installed on aircraft of U.S. registry and 2,600 U.S. military engines would be affected by this proposed AD. The FAA estimates that for 95 engines the compressor will need to be debled to accomplish the inspection, that it would take approximately 40 work hours per engine to accomplish the proposed actions, that the average labor rate is \$60 per work hour, and that required parts would cost approximately \$100 per engine. For 285 engines, the inspection can be accomplished during scheduled maintenance, and the inspection would take an estimated 8.33 work hours, with no required parts cost. For 114 engines, the compressor would be required to be removed early, with a pro rated parts cost of \$1,300 per engine. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$528,143.

The regulations proposed herein would not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed regulation (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) if promulgated, 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. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 USC 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

General Electric Company: Docket No. 97-ANE-15.

Applicability: General Electric Company (GE) Models CT58-100-2, -110-1/-2, -140-1/-2, and T58-GE-3/-5/-10/-100 turboshaft engines, installed on but not limited to Boeing Vertol 107 series, and Sikorsky S61 and S62 series aircraft.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking on specific critical rotating parts, which could result in failure of the part, causing an uncontained engine failure and damage to the aircraft, accomplish the following:

(a) Determine hours time in service (TIS) and cycles in service (CIS) in accordance with the improved methodology described in GE Aircraft Engines Service Bulletin (SB) No. (CT58) A72-162 (CEB-258), Revision 5, dated May 12, 1994.

(b) For engines that have engaged in repeated heavy lift (RHL) operations, as defined in paragraph (e) of this AD, accomplish the following:

(1) For compressor rear shafts, Part Numbers (P/N's) 4000T29P01/P03, 5016T95P01/P04, and 5013T86P03, accomplish the following:

(i) For compressor rear shafts, with either 2,975 or more hours TIS, or 9,550 or more CIS, on the effective date of this AD, remove

compressor rear shafts and replace with a serviceable compressor rear shaft at the next light overhaul or next exposure of compressor rear shafts after the effective date of this AD, whichever occurs first.

(ii) For all other compressor rear shafts, remove compressor rear shafts and replace with a serviceable compressor rear shaft, prior to accumulating 3,000 hours TIS, or 9,600 CIS, whichever occurs first.

(iii) For all compressor rear shafts, remove from service and replace with a serviceable, redesigned compressor rear shaft, P/N 5016T95P06, not later than December 31, 1997.

(2) Initially inspect the ten rotating parts specified in paragraph (d) of this AD for cracks at the times specified in subparagraphs (i) and (ii) of this paragraph, and, thereafter, inspect at each light overhaul or major overhaul until the parts are retired from service. Perform the inspections in accordance with the procedures described in GE Aircraft Engines SB No. (CT58) 72-181, CEB284, Revision 1, dated November 29, 1995. Prior to further flight, replace parts found cracked during these inspections with serviceable parts.

(i) For parts with greater than the baseline time in service (TIS) on the effective date of this AD, inspect at the earliest occurrence of the following after the effective date of this AD: the next light overhaul, the next major overhaul, or the next exposure of the affected parts.

(ii) For parts with less than or equal to the baseline TIS on the effective date of this AD, inspect within 1,000 hours TIS from the listed baseline TIS.

(c) For engines that have never engaged in RHL operations, accomplish the following:

(1) For compressor rear shafts, P/N's 4000T29P01/P03, 5016T95P01/P04, and 5013T86P03, remove compressor rear shafts and replace with a serviceable compressor rear shaft, prior to accumulating 9,600 CIS, or 9,000 hours TIS, whichever occurs first. Prior to December 31, 1999, replace compressor rear shafts with a serviceable, redesigned compressor rear shaft, P/N 5016T95P06.

(2) Initially inspect the ten rotating parts specified in paragraph (d) of this AD for cracks at the times specified in subparagraphs (i) and (ii) of this paragraph, and, thereafter, at each light overhaul or major overhaul until the parts are retired from service. Perform the inspections in accordance with the procedures described in GE Aircraft Engines SB No. (CT58) 72-181, CEB284, Revision 1, dated November 29, 1995. Prior to further flight, replace parts found cracked during these inspections with serviceable parts.

(i) For parts with greater than the baseline TIS on the effective date of this AD, inspect at the earliest occurrence of the following after the effective date of this AD: the next light overhaul, the next major overhaul, or the next exposure.

(ii) For parts with less than or equal to the baseline TIS on the effective date of this AD, inspect within 2,000 hours TIS from the listed baseline hours.

(d) For the purpose of performing the inspections required by paragraphs (b)(2) and

(c)(2) of this AD, the following baseline TIS are established:

(i) For compressor rotor spool assemblies, P/N's 6010T57G04 and 6010T57G08, whether or not used in RHL operations, baseline is 2,000 hours TIS.

(ii) For turbine front shafts, P/N's 5003T35P01 and 573D358P002, whether or not utilized in RHL operation, baseline is 1,000 hours TIS.

(iii) For turbine coupling shafts, P/N's 4001T26P01 and 278D987P002, if utilized in RHL operation, baseline is 1,000 hours TIS; if never utilized in RHL operations, baseline is 2,000 hours TIS.

(iv) For turbine rear shafts, P/N's 4005T29P01 and 37D400244P101, whether or not utilized in RHL operation, baseline is 2,000 hours TIS.

(v) For Stage 1 front cooling plates, P/N's 37C300055P101, whether or not utilized in RHL operation, baseline is 1,000 hours TIS.

(vi) For Stage 1 aft cooling plates, P/N's 3002T25P01 and 645C334P002, whether or not utilized in RHL operation, baseline is 1,000 hours TIS.

(vii) For Stage 2 front cooling plates, P/N's 3000T88P02 and 645C332P002, whether or not utilized in RHL operation, baseline is 1,000 hours TIS.

(viii) For Stage 2 aft cooling plates, P/N's 3002T27P01 and 645C336P002, whether or not utilized in RHL operation, baseline is 1,000 hours TIS.

(ix) For Stage 1 turbine wheels, P/N 4002T17P02 TF3, if utilized in RHL operation, baseline is 1,000 hours TIS; if never utilized in RHL operation, baseline is 2,000 hours TIS.

(x) For Stage 2 turbine wheels, P/N 4002T96P02 TF3, if utilized in RHL operation, baseline is 1,000 hours TIS; if never utilized in RHL operation, baseline is 2,000 hours TIS.

(e) For the purpose of this AD, the following definitions apply:

(1) RHL operation is defined as performing more than 10 lift-carry-drop cycles per hour TIS without landing, or more than 10 takeoffs and landings per hour TIS.

(2) Light overhaul is defined as scheduled engine maintenance that allows the engine to continue in service until scheduled major overhaul time is reached.

(3) Major overhaul is defined as scheduled engine maintenance including complete engine inspections and tests with repair or replacement of parts or components as necessary.

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office. The request should be forwarded through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR

21.197 and 21.199) to operate the aircraft to a location where the inspection requirements of this AD can be accomplished.

Issued in Burlington, Massachusetts, on March 27, 1997.

James C. Jones,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 97-8475 Filed 4-2-97; 8:45 am]

BILLING CODE 4910-13-U 1

14 CFR Part 71

[Airspace Docket No. 97-AWP-14]

Proposed Revision of Class E Airspace; Sacramento, CA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to revise the Class E airspace area at Sacramento, CA. This action removes from the Sacramento E5 airspace area description that portion of airspace defined as a surface area for Sacramento Executive Airport and corresponding references. Deleting this portion of the description which describes a surface area conforms to the E5 airspace area standard. This surface area is thoroughly and appropriately described in the Sacramento Executive Airport, CA, Class E2 airspace area. A review of airspace classification and air traffic procedures has made this action necessary. The intended effect of this action is to remove overlapping descriptions of controlled airspace.

DATES: Comments must be received on or before April 15, 1997.

ADDRESSES: Send comments on the proposal in triplicate to: Federal Aviation Administration, Attn: Manager, Operations Branch, AWP-530, Docket No. 97-AWP-14, Air Traffic Division, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009.

The official docket may be examined in the Office of the Assistant Chief Counsel, Western Pacific Region, Federal Aviation Administration, Room 6007, 15000 Aviation Boulevard, Lawndale, California 90261.

An informal docket may also be examined during normal business at the Office of the Manager, Operations Branch, Air Traffic Division at the above address.

FOR FURTHER INFORMATION CONTACT: William Buck, Airspace Specialist, Operations Branch, AWP-530, Air Traffic Division, Western-Pacific Region, Federal Aviation Administration, 15000 Aviation

Boulevard, Lawndale, California 90261, telephone (310) 725-6556.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify the airspace docket number and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with the comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Airspace Docket No. 97-AWP-14." The postcard will be date/time stamped and returned to the commenter. All communications received on or before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in light of comments received. All comments submitted will be available for examination in the Operations Branch, Air Traffic Division, at 15000 Aviation Boulevard, Lawndale, California 90261, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of NPRM

Any person may obtain a copy of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the Federal Aviation Administration, Operations Branch, P.O. Box 92007, Worldway Postal Center, Los Angeles, California 90009. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRM's should also request a copy of Advisory Circular No. 11-2A, which describes the application procedures.

The Proposal

The FAA is considering an amendment to part 71 of the Federal Aviation Regulations (14 CFR part 71) to revise the class E airspace area at Sacramento, CA. This action removes from the Sacramento E5 airspace area