

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2002-NE-23-AD]

RIN 2120-AA64

**Airworthiness Directives; General Electric CF34-8C1 Turbofan Engines****AGENCY:** Federal Aviation Administration, DOT.**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The Federal Aviation Administration (FAA) proposes to adopt a new airworthiness directive (AD) that is applicable to General Electric (GE) CF34-8C1 turbofan engines. This proposal would require replacing combustion chamber assemblies, part number (P/N) 4126T87G04, before accumulating a new reduced cyclic life limit. This proposal is prompted by stress and life analysis conducted by GE. The actions specified by the proposed AD are intended to prevent rupture of the combustion chamber assembly and possible engine fire.

**DATES:** Comments must be received by April 8, 2003.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-23-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line.

**FOR FURTHER INFORMATION CONTACT:** Eugene Triozzi, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7148; fax (781) 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 action 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 action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NE-23-AD." The postcard will be date stamped and returned to the commenter.

**Availability of NPRM's**

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-23-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

**Discussion**

GE has conducted a refined stress analysis for low-cycle fatigue (LCF) life on GE CF34-8C1 combustion chamber assemblies, P/N 4126T87G04, and has found a new critical location with a lower LCF life limit than the currently published life limit. Exceeding the LCF life limit could lead to crack initiation and propagation to rupture. This condition, if not corrected, could result in rupture of the combustion chamber assembly and possible engine fire.

**FAA's Determination of an Unsafe Condition and Proposed Actions**

Since an unsafe condition has been identified that is likely to exist or develop on other GE CF34-8C1 engines of the same type design, the proposed AD would require replacing the combustion chamber assembly, P/N 4126T87G04, before accumulating 28,000 cycles-since-new (CSN) and prohibit installation of any combustion chamber assembly, P/N 4126T87G04 that has 28,000 CSN or greater into any engine.

**Economic Analysis**

There are approximately 115 GE CF34-8C1 turbofan engines of the

affected design in the worldwide fleet. The FAA estimates that 75 engines are installed on airplanes of U.S. registry. The FAA also estimates that it would take approximately 24 work hours per engine to perform the proposed actions, and that the average labor rate is \$60 per work hour. Required parts would cost approximately \$75,000 per engine. Based on these figures and the prorated cost of lost life of 9,800 CSN per engine, the total cost of the proposed AD to U.S. operators is estimated to be \$1,600,000.

**Regulatory Analysis**

This proposed rule does not have federalism implications, as defined in Executive Order 13132, because it would 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposed rule.

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 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

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

**General Electric:** Docket No. 2002-NE-23-AD.

**Applicability:** This airworthiness directive (AD) is applicable to General Electric (GE) CF34-8C1 turbofan engines with combustion chamber assembly, part number (P/N) 4126T87G04, installed. These engines are installed on, but not limited to Bombardier Inc. Model CL-600-2C10 (CRJ-700 & 701) airplanes.

**Note 1:** This 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 (c) 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:** Compliance with this AD is required as indicated, unless already done.

To prevent rupture of the combustion chamber assembly and possible engine fire, do the following:

(a) Replace combustion chamber assembly, P/N 4126T87G04, at or before the combustion chamber assembly accumulates 28,000 cycles-since-new (CSN).

(b) After the effective date of this AD, do not install any combustion chamber assembly, P/N 4126T87G04, that exceeds 28,000 CSN.

#### Alternative Methods of Compliance

(c) 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 (ECO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

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

#### Special Flight Permits

(d) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

Issued in Burlington, Massachusetts, on January 30, 2003.

**Jay J. Pardee,**

*Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 03-2995 Filed 2-6-03; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 2002-NE-38-AD]

RIN 2120-AA64

#### Airworthiness Directives; Turbomeca S.A. Arriel -1B, -1D, and -1D1 Series Turboshaft Engines

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The Federal Aviation Administration (FAA) proposes to adopt a new airworthiness directive (AD) that is applicable to Turbomeca S.A. Arriel -1B, -1D, and -1D1 series turboshaft engines. This proposal would require replacement of modules M03 modified to TU 204 standard with modules M03 not modified to TU 204 standard. This proposal is prompted by several reports of 2nd stage gas generator turbine blade failures. The actions specified by the proposed AD are intended to prevent 2nd stage gas generator turbine blade failure resulting in uncommanded engine in-flight shutdown.

**DATES:** Comments must be received by April 8, 2003.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-38-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in the proposed rule may be obtained from Turbomeca S.A., 64511 Bordes Cedex, France; telephone 33 05 59 64 40 00, fax 33 05 59 64 60 80. This information may be examined, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

**FOR FURTHER INFORMATION CONTACT:** Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7751; fax (781) 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 action 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 action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NE-38-AD." The postcard will be date stamped and returned to the commenter.

### Availability of NPRM's

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-38-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

### Discussion

The Direction Generale de L'Aviation Civile (DGAC), which is the airworthiness authority for France, recently notified the FAA that an unsafe condition may exist on Turbomeca S.A. Arriel -1B, -1D, and -1D1 series turboshaft engines. The DGAC advises that at least five incidents of 2nd stage gas generator turbine blade failure have occurred since the introduction of the TU 204 standard to modules M03. Although the TU 204 standard was introduced to provide improved gas generator turbine blade thermal protection, the manufacturer has determined that due to the increased mass of the 2nd stage gas generator turbine blades introduced by the TU 204 standard, the blade root stress level is too high and can lead to blade failure.