SUMMARY: We are superseding an existing airworthiness directive (AD) for all GE CF6–80C2B series turbofan engines. That AD currently requires installing software version 8.2.Q1 to the engine electronic control unit (ECU), which increases the engine’s margin to flameout. This new AD requires the removal of the affected ECUs from service. This AD was prompted by two reports of engine flameout ground events. We are issuing this AD to prevent engine flameout or un-commanded engine IFSD shutdowns the engines were capable of restarting. GE stated that these events should not be considered unsafe conditions.

We do not agree. Although a flameout with a consecutive relight or an in-flight shutdown with a consecutive restart during cruise flight is not in itself an unsafe condition, these types of loss of thrust can be unsafe conditions during takeoff or during approach and landing. We did not change the AD.

Request To Clarify Engine Flight Cycle and ECU Cycle Count

Commenter All Nippon Airways (ANA) requested that we clarify the relationship between the engine flight cycles and ECU cycles of operation in the engine, and whether previous ECU history affects the flight cycle count.

We do not agree. The flight cycle intervals in paragraph (g) of the AD refer to the engine start-stop cycles with the affected ECU part numbers (P/Ns) installed, rather than ECU operational cycles. Engine flight cycles accrued before the effective date of the AD are not accounted for in the cycle count. We did not change the AD.

Request To Remove Certain Affected ECU P/Ns From the AD

Commenters Atlas Air, ANA, KLM, and China Airlines requested that we remove from the list of affected ECU P/Ns in Table 2 of the AD, ECUs with software version 8.2.Q1 and 8.2.R, a new front panel assembly (FPA) and an old pressure subsystem (PSS), or an old FPA and a new PSS generation circuit boards.

We do not agree. Dual-channel CPU faults have not been ruled out for the new FPA or the new PSS, therefore any ECU with either a new FPA or a new PSS must be addressed regardless of the version of software installed. We did not change the AD.

Request To Add ECU P/Ns to the AD

Commenter Atlas Air stated that ECUs P/Ns 1471M63P41, 1519M69P31, and 1820M33P14 are not listed in the proposed AD, but should be listed.

We do not agree. Those ECUs have the old generation of FPA and PSS circuit
boards and, therefore, are not susceptible to dual-channel CPU faults. The referenced ECUs also have the latest available version of software installed. We did not change the AD.

**Request To Mandate Software Version 8.2.R or Later**

Commentator Atlas Air requested to add a requirement to install software version 8.2.R or later in all affected engines at specified times, without regard to FPA and FSS circuit board hardware configuration. We do not agree. Certain ECU P/Ns that have software version 8.2.R are susceptible to CPU channel faults. We did not change the AD.

**Request To Modify ECUs**

Commentator Atlas Air requested to modify ECU P/Ns 1471M63P42, 1519M69P12, and 1820M33P15 to ECU P/Ns 1471M63P41, 1519M69P31, and 1820M33P14, respectively. We do not agree. No approved procedure exists to downgrade the ECUs. Engine owners and operators may propose such a procedure for approval, and request an alternative method of compliance to the AD, as specified in paragraph (i) of the AD. We did not change the AD.

**Request To Add ECU Rework Procedures**

Commentator ANA requested that we add rework procedures to the AD to modify affected ECUs into serviceable configurations of ECUs. We do not agree. The AD is written to only remove affected ECU P/Ns from service. Refer to the manufacturer’s service information for upgrading affected ECUs. We did not change the AD.

**Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

**Costs of Compliance**

We estimate that this AD will affect 697 GE CF6–80C2B series turbofan engines installed on airplanes of U.S. registry. We also estimate that it will take about 4 work-hours per engine to perform a removal and replacement of the ECU, and that the average labor rate is $85 per work-hour. A replacement ECU costs about $4,600. Based on these figures, we estimate the total cost of the AD to U.S. operators to be $3,443,180.

**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 have 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, the relationship between the various levels of government, 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:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2007–12–07, Amendment 39–15085 (72 FR 31174, June 6, 2007), and adding the following new AD:


(a) **Effective Date**

This airworthiness directive (AD) is effective March 30, 2012.

(b) **Affected ADs**

This AD supersedes AD 2007–12–07, Amendment 39–15085 (72 FR 31174, June 6, 2007).

(c) **Applicability**


(d) **Unsafe Condition**

This AD results from:

(1) Two reports of engine flameout events during flight in inclement weather conditions; and

(2) Eight reports of engine in-flight shutdown (IFSD) events caused by dual-channel central processing unit (CPU) faults in the electronic control unit (ECU); and

(3) Four reports of engine flameout ground events.

(e) We are issuing this AD to prevent engine flameout or un-commanded engine IFSD of one or more engines, leading to an emergency or forced landing of the airplane.

(f) **Compliance**

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

(g) **ECU Removal**

(1) Remove from service ECUs with part numbers (P/Ns) listed in Table 1 of this AD within 6 months or 450 engine flight cycles after the effective date of this AD, whichever occurs first.

<table>
<thead>
<tr>
<th>Table 1—Affected ECU P/Ns</th>
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<tbody>
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<td>1471M63P13</td>
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**TABLE 1—AFFECTED ECU P/NS—Continued**

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</table>

(2) Remove from service ECUs with P/Ns 2121M37P01, 2121M37P02, 2121M38P01, 2121M38P02, 2121M41P01 and 2121M41P02 within 14 months or 1,050 engine flight cycles after the effective date of this AD, whichever occurs first.

(3) Remove from service ECUs with P/Ns listed in Table 2 of this AD within 60 months or 4,500 engine flight cycles after the effective date of this AD, whichever occurs first.

**TABLE 2—AFFECTED ECU P/NS**

<table>
<thead>
<tr>
<th>ECU P/N</th>
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<td>2121M38P03</td>
<td>2121M39P01</td>
<td>2121M39P02</td>
</tr>
</tbody>
</table>

(b) Installation Prohibition

(1) After the effective date of this AD, do not install any ECU P/N listed in Table 1 of this AD onto any airplane.

(2) After the effective date of this AD, do not operate any airplane with more than one ECU P/N listed in Table 1 of this AD.

(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on February 17, 2012.

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

[FR Doc. 2012–4284 Filed 2–23–12; 8:45 am]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**


**RIN 2120–AA64**

**Airworthiness Directives; CFM International S.A. Model CFM56 Turbofan Engines**

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

**ACTION:** Final rule; correction.

**SUMMARY:** The FAA is correcting an airworthiness directive (AD) that published in the Federal Register. That AD applies to CFM International S.A. Turbofan Engines. The AD was published in the Federal Register. The effective date of this AD remains June 23, 2009.

**DATES:** This final rule is effective February 24, 2012. The effective date for AD 2009–11–02 (74 FR 23305, May 19, 2009) remains June 23, 2009.

**ADDRESSES:** 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.


**SUPPLEMENTARY INFORMATION:** Airworthiness Directive 2009–11–02, Amendment 39–15912 (74 FR 23305, May 19, 2009), currently requires removing certain HPC 4–9 spools listed by P/N and SN in the AD.

As published, in Table 1 of the AD, the HPC 4–9 spool SN GWN05AMO in the 2nd column of the Table is incorrect. No other part of the preamble or regulatory information has been changed; therefore, only the changed portion of the final rule is being published in the Federal Register.

[§ 39.13 [Corrected]]

In the Federal Register of May 19, 2009, on page 23306, in the 3rd column, in Table 1, under the HPC 4–9 Spool SN heading, in the twentieth line of AD