[Federal Register, Volume 89 Number 83 (Monday, April 29, 2024)]
[Rules and Regulations]
[Pages 33211-33215]
From the Federal Register Online via the Government Publishing Office [www.gpo.gov]
[FR Doc No: 2024-09110]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1991; Project Identifier AD-2023-00700-E; Amendment 39-22727; AD 2024-07-06]

RIN 2120-AA64

Airworthiness Directives; CFM International, S.A. Engines

AGENCY:

Federal Aviation Administration (FAA), DOT.

ACTION:

Final rule.

SUMMARY:

The FAA is adopting a new airworthiness directive (AD) for certain CFM International, S.A. (CFM) Model LEAP-1A23, LEAP-1A24, LEAP-1A24E1, LEAP-1A26, LEAP-1A26CJ, LEAP-1A26E1, LEAP-1A29, LEAP-1A29CJ, LEAP-1A30, LEAP-1A32, LEAP-1A33, LEAP-1A33B2, and LEAP-1A35A engines. This AD was prompted by a report of multiple aborted takeoffs and air turn-backs (ATBs) caused by high-pressure compressor (HPC) stall, which was induced by high levels of non-synchronous vibration (NSV). Additional manufacturer investigation revealed that wear on the No. 3 bearing spring finger housing can lead to high levels of NSV. This AD requires initial and repetitive calculations of the levels of NSV, inspection of the stage 2 high-pressure turbine (HPT) nozzle assembly honeycomb and HPT stator stationary seal honeycomb and, depending on the results of the calculations and inspections, replacement of certain parts. This AD also requires replacement of certain No. 3 bearing spring finger housings at a certain time. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective June 3, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of June 3, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA-2023-1991; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

• For service information, contact CFM International, S.A., GE Aviation Fleet Support, 1 Neumann Way, M/D Room 285, Cincinnati, OH 45215; phone: (877) 432-3272; email: *aviation.fleetsupport@ge.com*.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

FOR FURTHER INFORMATION CONTACT:

Mehdi Lamnyi, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7743; email: *mehdi.lamnyi@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain CFM Model LEAP-1A23, LEAP-1A24, LEAP-1A24E1, LEAP-1A26, LEAP-1A26CJ, LEAP-1A26E1, LEAP-1A29, LEAP-1A29CJ, LEAP-1A30, LEAP-1A32, LEAP-1A33, LEAP-1A33B2, and LEAP-1A35A engines. The NPRM published in the **Federal Register** on October 11, 2023 (88 FR 70409). The NPRM was prompted by a manufacturer's report of three aborted takeoffs and two ATBs caused by HPC stall. Additional manufacturer investigation revealed that wear on the No. 3 bearing spring finger housing can lead to high levels of NSV, which could induce HPC stall. As a result of its investigation, the manufacturer published service information that specifies procedures for addressing this situation. In the NPRM, the FAA proposed to require repetitive calculations of the levels of NSV and, depending on the results of the calculations, replacement of the No. 3 bearing spring finger housing. The FAA also proposed to require, following the removal and replacement of the No. 3 bearing spring finger housing, inspection of the stage 2 HPT nozzle assembly honeycomb and HPT stator stationary seal honeycomb for rubs and, depending on findings, replacement of the stage 2 HPT nozzle assembly honeycomb and HPT stator stationary seal. This FAA also proposed to require replacement of the No. 3 bearing spring finger housing regardless of calculated level of NSV at a certain time. The FAA is issuing this AD to address the unsafe condition on these products.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from four commenters. Commenters included the Air Line Pilots Association, International (ALPA), American Airlines (AA), Avianca Airlines (AVA), and CFM International (CFM). ALPA supported the NPRM without change. The following presents the comments received from AA, AVA, and CFM on the NPRM and the FAA's response to each comment.

Request To Allow Automated Monitoring

AA requested that the FAA allow for the use of automated condition monitoring solutions as an alternative to the accomplishment of the manual review every 125 cycles required by paragraph (g)(1) of the proposed AD. AA noted that automated monitoring solutions have already been accepted to replace previously FAA required MRB tasks, and allowing automated condition monitoring will provide a safer, more robust solution that exceeds the minimum requirements outlined in CFM Service Bulletin (SB) LEAP-1A-72-00-0504-01A-930A-D, Issue 001, dated June 14, 2023, and the NPRM.

The FAA disagrees with the commenter's request to add automated monitoring solutions as an alternative in the final rule. However, if any operator prefers to address the unsafe condition by means other than those specified in the referenced service information, they may request approval for an alternative method of compliance (AMOC) in accordance with paragraph (j) of this AD and, if approved, may use it instead of the procedures specified in the service information and the final rule. The FAA did not change this AD as a result of this comment.

Request To Include Customer Notification Report (CNR) in AD

Avianca requested that the CNR for exceedance of NSV thresholds be included in the NPRM as an additional method of compliance for all operators who have active CFM Diagnostics Monitoring. Avianca noted that under the CFM Diagnostics Program, the parameter NSV TCF Max Vibe Fleeting Event is actively monitored and if any exceedance is detected, a CNR is triggered for NSV exceedance.

The FAA disagrees with the commenter's request to add CNR for NSV thresholds exceedance as an additional method of compliance in the final rule. However, if any operator prefers to address the unsafe condition by means other than those specified in the referenced service information, they may request approval for an AMOC in accordance with paragraph (j) of this AD and, if approved, may use it instead of the procedures specified in the service information and the final rule. The FAA did not change this AD as a result of this comment.

Request To Clarify Replacement Language in Summary

CFM requested that the FAA update the Summary section of the proposed AD to read: “This proposed AD would also require replacement of the No. 3 bearing spring finger housing having P/N 2629M62G01 and a serial number identified in Table 1 of CFM SB LEAP-1A-72-00-0504-01A-93 0A-D.” CFM noted that the focus of the proposed AD should be on NSV monitoring and the actions required when NSV is present. CFM also noted that service bulletins LEAP-1A-72-00-0505-01A-93 0A-D, Issue 001, dated June 05, 2023, and LEAP-1A-72-00-0498-01A-93 0A-D, Issue 001, dated June

05, 2023, include the shop visit workscope recommendations for engines with potential No. 3 bearing spring finger housing wear, regardless of the signs of NSV vibrations.

The FAA partially agrees with the request. The FAA agrees to edit the Summary section of this AD to clarify that only certain No. 3 bearing spring finger housings require replacement. The FAA disagrees with the request to specify the part number and serial number of the affected parts in the Summary section of this AD because that level of specificity is not appropriate for the Summary section. The FAA acknowledges the presence of service bulletins LEAP-1A-72-00-0505-01A-93 0A-D, Issue 001, dated June 05, 2023, and LEAP-1A-72-00-0498-01A-93 0A-D, Issue 001, dated June 05, 2023, and notes that neither of those SBs are incorporated by reference in this AD.

Request To Update Proposed AD Requirements

CFM requested that the FAA update the Proposed AD Requirements in This NPRM section to read: "This proposed AD would also require replacement of the No. 3 bearing spring finger housing having P/N 2629M62G01 and a serial number identified in Table 1 of CFM SB LEAP-1A-72-00-0504-01A-930A-D, regardless of calculated level of NSV, at a certain time."

The FAA agrees with the requested language. However, this section is not included in the final rule. Therefore, the FAA did not change this AD as a result of this comment.

Request To Update Background and Unsafe Condition

CFM requested that the FAA update the Background and Unsafe Condition sections of the proposed AD to include that CFM experience to date has shown that NSV has led to self-recovering HPC stalls. CFM also requested to remove the following portion from paragraph (e): "The FAA is issuing this AD to prevent HPC stall." CFM acknowledged that the manufacturer investigation revealed that wear on the No. 3 bearing spring finger housing can lead to high levels of NSV, which could induce HPC stall.

The FAA disagrees with the request to include information regarding self-recovering HPC stalls in this AD. The FAA also disagrees with the requested change to paragraph (e) of this AD. The FAA notes that the field experience to date does not provide conclusive evidence that NSV-induced HPC stalls will always be self-recovering. The FAA did not change this AD as a result of this comment.

Request To Update Interim Action

CFM requested that the FAA update the Interim Action section of the proposed AD to reflect that this AD is the closing action of paragraph (e) Unsafe Condition of the proposed AD and although there are additional hardware modifications that are being developed by the design approval holder, those modifications are not necessary to address the unsafe condition.

The FAA disagrees with this request. Although at this time the required actions of this AD address the unsafe condition, additional hardware modifications, when developed and FAA-approved, could also address the unsafe condition for the long-term. Therefore, the FAA considers that the monitoring and corresponding actions required by this AD would be an interim action to address the unsafe condition, and the FAA may consider additional rulemaking on this subject. The FAA did not change this AD as a result of this comment.

Request To Update Service Information Incorporated by Reference

CFM requested that the FAA change the SB referenced in the NPRM from "LEAP-1A-72-00-0504-01A-930A-D, Issue 001, dated June 14, 2023" to "LEAP-1A-72-00-0504-01A-930A-D, Issue 002, dated October 17, 2023." CFM noted that SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002, dated October 17, 2023, contains the following revisions that are pertinent to the NPRM;

(1) A note that NSV monitoring can be performed on-wing.

(2) Correction to data labels used in the alternative procedure for NSV Monitoring with ACMS Takeoff Reports.

(3) Correction to vibration units used in the alternative procedure for NSV Monitoring with ACMS Takeoff Reports.

The FAA agrees and has updated the service information incorporated by reference from "LEAP-1A-72-00-0504-01A-930A-D, Issue 001, dated June 14, 2023" to "LEAP-1A-72-00-0504-01A-930A-D, Issue 002, dated October 17, 2023." Requiring this updated service bulletin does not increase the scope of the AD or increase the burden on any operator over that already proposed in the NPRM.

Request To Remove "At the Next Piece-part Exposure" From Required Actions

CFM requested that the FAA remove the reference to "At the next piece-part exposure" in paragraph (g)(5) of the proposed AD. CFM stated that NSV monitoring and actions required when NSV is present are the focus of the proposed AD. CFM noted that the statement related to "At the next piece-part exposure" was taken from SB LEAP-1A-72-00-0498-01A-930A-D, Issue 001, dated June 05, 2023, for shop visit work scope recommendations for engines with potential No. 3 bearing spring finger housing wear. CFM also noted that this is already referenced in Chapter 05 of the LEAP-1A Engine Shop Manual LEAP-1A-05-11-03-01A-0B1B-C.

The FAA disagrees with the request because the commenter did not provide an adequate justification for changing the compliance time. The FAA notes that decision to include a mandatory action to remove all affected parts at the next piece-part exposure was not taken from SB LEAP-1A-72-00-0498-01A-930A-D, Issue 001, dated June 05, 2023. The FAA did not change this AD as a result of this comment.

Request To Add Credit for Previous Actions

CFM requested that the FAA add the following language to the NPRM to allow customers to take credit for NSV monitoring that was performed prior to the effective date of the proposed AD, in accordance with section 5.A of SB LEAP-1A-72-00-0504-01A-930A-D, Issue 001, dated June 14, 2023; "Evaluation of the NSV of an engine, accomplished before the effective date of this AD in accordance with the instructions of section 5.A of SB LEAP-1A-72-00-0504-01A-930A-D original issue (Issue 001) and, as applicable, accomplishment of corrective actions in accordance with the instructions of SB LEAP-1A-72-00-0504-01A-930A-D original issue (Issue 001) are acceptable to comply with the requirements of paragraphs (1) and (2), as applicable, of this AD for that engine (see Note 1 of this AD). Note 1: Evaluation of the NSV of an engine, accomplished in accordance with the instructions of section 5.B (`Alternative Procedure—NSV Monitoring with ACMS Takeoff Reports') of SB LEAP-1A-

72-00-0504-01A-930A-D original issue (Issue 001) is not acceptable to comply with the requirements of paragraphs (1) of this AD."

The FAA disagrees with the request because the FAA does not believe it is necessary to provide such credit because NSV monitoring is required initially at 125 flight cycles after the effective date of the AD and repetitively at intervals of 125 flight cycles. Therefore, there would be no advantage of taking credit for NSV monitoring done before the effective date of this AD. Once the NSV data calculation exceeds the specified limits, then the affected No. 3 bearing spring finger housing must be removed from the engine and replaced with a part eligible for installation, and the AD applicability no longer applies to that engine. The FAA did not change this AD as a result of this comment.

Request To Update Compliance Time for Removal From Service

CFM requested that the FAA change compliance time language in paragraph (g)(2) of the proposed AD from, "within 150 FCs of performing the calculation" to "within 150 FCs of the flight when this threshold is exceeded." CFM noted that there is a discrepancy in the removal compliance time language between the NPRM and CFM SB LEAP-1A-72-00-0504-01A-930A-D if NSV data exceeds the limits listed in CFM SB LEAP-1A-72-00-0504-01A-930A-D.

The FAA agrees to update the language in paragraph (g)(2) of this AD from, "within 150 FCs of performing the calculation" to "within 150 FCs of the flight when these limits are exceeded."

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

The FAA reviewed CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002, dated October 17, 2023. This service information identifies affected No. 3 bearing spring finger housings and specifies procedures for monitoring NSV during engine operation. This service information also specifies procedures for replacing the No. 3 bearing spring finger housings, inspecting the stage 2 HPT nozzle assembly honeycomb and HPT stator stationary seal honeycomb, and replacing the stage 2 HPT nozzle assembly honeycomb and HPT stator stationary seal. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Interim Action

The FAA considers this AD to be an interim action. This unsafe condition is still under investigation by the manufacturer and, depending on the results of that investigation, the FAA may consider further rulemaking action.

Costs of Compliance

The FAA estimates that this AD affects 48 engines installed on airplanes of U.S. registry. The FAA estimates that 33 engines installed on airplanes of U.S. registry require replacement of the No. 3 bearing spring finger housing.

The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Calculate NSV data	1 work-hours × $85 per hour = $85	$0	$85	$4,080
Replace No. 3 bearing spring finger housing	17 work-hours × $85 per hour = $1,445	64,590	66,035	2,179,155

The FAA estimates the following costs to do any necessary replacement and inspection that would be required based on the results of the calculation. The agency has no way of determining the number of aircraft that might need these replacements and inspections:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Inspect stage 2 HPT nozzle assembly honeycomb and HPT stator stationary seal honeycomb	4 work-hours × $85 per hour = $340	$0	$340
Replace stage 2 HPT nozzle assembly honeycomb	8 work-hours × $85 per hour = $680	58,536	59,216
Replace HPT stator stationary seal	8 work-hours × $85 per hour = $680	6,855	7,535

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.

The FAA is 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) Will not affect intrastate aviation in Alaska, and

(3) 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

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 adding the following new airworthiness directive:

2024-07-06 CFM International, S.A.: Amendment 39-22727; Docket No. FAA-2023-1991; Project Identifier AD-2023-00700-E.

(a) Effective Date

This airworthiness directive (AD) is effective June 3, 2024.

(b) Affected ADs

None.

(c) Applicability

This AD applies to CFM International, S.A. (CFM) Model LEAP-1A23, LEAP-1A24, LEAP-1A24E1, LEAP-1A26, LEAP-1A26CJ, LEAP-1A26E1, LEAP-1A29, LEAP-1A29CJ, LEAP-1A30, LEAP-1A32, LEAP-1A33, LEAP-1A33B2, and LEAP-1A35A engines with an installed No. 3 bearing spring finger housing having part number (P/N) 2629M62G01 and a serial number identified in Table 1 or Table 2 of CFM Service Bulletin (SB) LEAP-1A-72-00-0504-01A-930A-D, Issue 002, dated October 17, 2023 (CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002).

(d) Subject

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

(e) Unsafe Condition

This AD was prompted by a report of multiple aborted takeoffs and air turn-backs caused by high-pressure compressor (HPC) stall, which was induced by high levels of non-synchronous vibration (NSV), and an additional manufacturer investigation that revealed wear on the No. 3 bearing spring finger housing. The FAA is issuing this AD to prevent HPC stall. The unsafe condition, if not addressed, could result in engine power loss at a critical phase of flight such as takeoff or climb, loss of engine thrust control, reduced controllability of the airplane, and loss of the airplane.

(f) Compliance

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

(g) Required Actions

(1) Within 125 flight cycles (FCs) after the effective date of this AD and thereafter at intervals not to exceed 125 FCs, calculate the NSV data in accordance with the Accomplishment Instructions, paragraphs 5.A.(1) and 5.A.(3), or 5.B.(1) and 5.B.(3) of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002.

(2) If, during any calculation required by paragraph (g)(1) of this AD, the NSV data exceeds the limits specified in the Accomplishment Instructions, paragraph 5.A.(4)(a)1 or 5.B.(4)(a)1 of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002, discontinue the calculations required by paragraph (g)(1) of this AD and within 150 FCs of the flight when these limits are exceeded:

(i) Remove from service the No. 3 bearing spring finger housing having P/N 2629M62G01 and a serial number identified in Table 1 or Table 2 of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002, and replace with a part eligible for installation.

(ii) Inspect the stage 2 high-pressure turbine (HPT) nozzle assembly honeycomb for rubs in accordance with the Accomplishment Instructions, paragraphs 5.A.(4)(a)3b1) or 5.B.(4)(a)3b1) of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002.

(iii) Inspect the HPT stator stationary seal honeycomb for rubs in accordance with the Accomplishment Instructions, paragraphs 5.A.(4)(a)3b2) or 5.B.(4)(a)3b2) of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002.

(3) If, during the inspection required by paragraph (g)(2)(ii) of this AD, the stage 2 HPT nozzle assembly honeycomb fails to meet the serviceability criteria referenced in the Accomplishment Instructions, paragraphs 5.A.(4)(a)3b1) or 5.B.(4)(a)3b1) of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002, before further flight, replace the stage 2 HPT nozzle assembly honeycomb.

(4) If, during the inspection required by paragraph (g)(2)(iii) of this AD, the HPT stator stationary seal honeycomb fails to meet the serviceability criteria referenced in the Accomplishment Instructions, paragraphs 5.A.(4)(a)3b2) or 5.B.(4)(a)3b2) of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002, before further flight, replace the HPT stator stationary seal.

(5) At the next piece-part exposure after the effective date of this AD, but before exceeding 9,900 cycles since new, replace the No. 3 bearing spring finger housing having P/N 2629M62G01 and a serial number identified in Table 1 of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002, with a part eligible for installation.

(h) Terminating Action

Replacement of the No. 3 bearing spring finger housing having P/N 2629M62G01 and a serial number identified in Table 1 or Table 2 of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002 with a part eligible for installation, as specified in paragraphs (g)(2)(i) and (g)(5) of this AD, constitutes terminating action for the calculations required by paragraph (g)(1) of this AD.

(i) Definition

For the purpose of this AD, a “part eligible for installation” is a No. 3 bearing spring finger housing that does not have P/N 2629M62G01 and a serial number identified in Table 1 or Table 2 of CFM SB LEAP-1A-72-00-0504-01A-930A-D, Issue 002.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, AIR-520 Continued Operational Safety Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the Manager, AIR-520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (k) of this AD and email it to: *ANE-AD-AMOC@faa.gov*.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) For service information that contains steps that are labeled as Required for Compliance (RC), the following provisions apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, that are required by paragraph (g) of this AD must be done to comply with this AD. An AMOC is required for any deviations to RC steps required by paragraph (g) of this AD, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(k) Additional Information

For more information about this AD, Mehdi Lamnyi, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7743; email: *mehdi.lamnyi@faa.gov*.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) CFM International, S.A. Service Bulletin LEAP-1A-72-00-0504-01A-930A-D, Issue 002, dated October 17, 2023.

(ii) [Reserved]

(3) For service information, contact CFM International, S.A., GE Aviation Fleet Support, 1 Neumann Way, M/D Room 285, Cincinnati, OH 45215; phone: (877) 432-3272; email: *aviation.fleetsupport@ge.com*.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit *www.archives.gov/federal-register/cfr/ibr-locationsoremailfr.inspection@nara.gov*.

Issued on March 29, 2024.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2024-09110 Filed 4-26-24; 8:45 am]

BILLING CODE 4910-13-P