Airworthiness Directives; International Aero Engines AG Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain International Aero Engines AG (IAE) V2500 model turbofan engines. This AD was prompted by a review of investigative findings from an event involving an uncontained failure of a high-pressure turbine (HPT) 1st-stage disk that resulted in high-energy debris penetrating the engine cowling. This AD requires performance of an ultrasonic inspection (USI) of the HPT 1st-stage disk and HPT 2nd-stage disk and, depending on the results of the inspections, replacement of the HPT 1st-stage disk or HPT 2nd-stage disk with a part eligible for installation. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective August 5, 2021.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 5, 2021.

The FAA must receive comments on this AD by September 7, 2021.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: (202) 493–2251.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06118; phone: (800) 356–0140; email: help24@pw.utc.com; website: http://fleetcare.pw.utc.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 (781) 238–7759. It is also available at https://www.regulations.gov by searching for and locating Docket No. FAA–2021–0544.

EXAMINING THE AD DOCKET

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA–2021–0544; 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 street address for the Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT:

Alberto Hernandez, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7329; fax: (781) 238–7199; email: Alberto.J.Hernandez@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

On March 18, 2020, an Airbus Model A321–231 airplane, powered by IAE V2533–A5 model turbofan engines, experienced an uncontained HPT 1st-stage disk failure that resulted in an aborted takeoff. The uncontained failure of the HPT 1st-stage disk resulted in high-energy debris penetrating the engine cowling. The FAA published Emergency AD 2020–07–51 on March 21, 2020 (followed by publication in the Federal Register on April 13, 2020, as a Final Rule, Request for Comments (85 FR 20402)) and AD 2021–01–03 on January 6, 2021 (86 FR 458) to remove the affected disks from service. The FAA is now publishing this AD to require performance of a USI on the remaining high-risk subpopulation of affected HPT 1st-stage disks and HPT 2nd-stage disks and, depending on the results of the USI, removal of the affected HPT disks from service. Compliance time is between 100 and 620 FCs after the effective date of this AD and is based on the specific V2500 IAE turbofan engine model on which the affected disks are, or have been, installed.

This condition, if not addressed, could result in uncontained HPT disk failure, damage to the engine, damage to the airplane, and loss of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

FAA’s Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information Under 1 CFR Part 51


The FAA reviewed P&W SI No. 114F–21, dated May 24, 2021. The SI identifies the affected HPT 2nd-stage disks installed on IAE V2531–E5 model turbofan engines.

The FAA reviewed IAE NMSB No. V2500–ENG–72–0713, Revision 1, dated
On March 18, 2020, an Airbus Model A321–231 airplane, powered by IAE V2533–A5 model turbofan engines, experienced an uncontained HPT 1st-stage disk failure that resulted in an aborted takeoff. The uncontained failure of the HPT 1st-stage disk resulted in high-energy debris penetrating the engine cowling. Based on a review of investigative findings performed since that event, the manufacturer has identified a high-risk population of affected HPT 1st-stage and HPT 2nd-stage disks that are affected by the same unsafe condition and require USI and, depending on the results of the USI, removal from service.

The FAA considers the risk of an uncontained HPT disk failure to be an urgent safety issue. USI of the HPT 1st-stage and 2nd-stage disks must be accomplished between 100 FCs and 620 FCs after the effective date of this AD to prevent additional HPT disk failures and maintain an acceptable level of safety. This unsafe condition, caused by an uncontained HPT 1st-stage disk and HPT 2nd-stage disk failure, may result in damage to the engine, damage to the airplane, and loss of the airplane. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B). In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

Costs of Compliance

The FAA estimates that this AD affects 112 engines installed on airplanes of U.S. registry.

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

<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>Ultrasonic inspection (includes actions necessary to disassemble the engine).</td>
<td>204 work-hours × $85 per hour = $17,340</td>
<td>$0</td>
<td>$17,340</td>
<td>$1,942,080</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary replacement that would be required based on the results of the inspection. The agency has no way of determining the number of
The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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, and

(2) Will not affect intrastate aviation in Alaska.

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

§ 39.13 [Amended]

(1) Is not a “significant regulatory action” under Executive Order 12866, and

(2) Will not affect intrastate aviation in Alaska.

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:


(a) Effective Date

This airworthiness directive (AD) is effective August 5, 2021.

(b) Affected ADs

None.

(c) Applicability

This AD applies to International Aero Engines AG (IAE) V2522–A5, V2524–A5, V2525–D5, V2527–A5, V2527M–A5, V2527M–D5, V2528–D5, V2530–A5, V2531–E5, and V2533–A5 model turbofan engines with an installed:

(1) High-pressure turbine (HPT) 1st-stage disk, part number (P/N) 2A5001, with a serial number (S/N) listed in Accomplishment Instructions, Table 1, of Pratt & Whitney (P&W) Special Instruction (SI) No. 112F–21, dated May 24, 2021 (P&W SI No. 112F–21); or

(2) HPT 2nd-stage disk, P/N 2A4802, with an S/N listed in Accomplishment Instructions, Table 2, of P&W SI No. 112F–21, that has only been installed in an IAE V2522–A5, V2524–A5, V2525–D5, or V2527–A5 model turbofan engine during operation, within 385 flight cycles (FCs) after the effective date of this AD, perform an ultrasonic inspection (USI) of the HPT 1st-stage disk using the Accomplishment Instructions, paragraph 6, of IAE NMSB V2500–ENG–72–0713, Revision 1.

(3) For an HPT 1st-stage disk, P/N 2A5001, with an S/N listed in Accomplishment Instructions, Table 1, of P&W SI No. 112F–21, that has only been installed in an IAE V2522–A5, V2524–A5, V2525–D5, or V2527–A5 model turbofan engine during operation, within 220 FCs after the effective date of this AD, perform a USI of the HPT 1st-stage disk using the Accomplishment Instructions, paragraph 6, of IAE NMSB V2500–ENG–72–0713, Revision 1.

(4) For an HPT 2nd-stage disk, P/N 2A4802, with an S/N listed in Accomplishment Instructions, Table 2, of P&W SI No. 112F–21, that has only been installed at any time in an IAE V2522–A5, V2527M–A5, V2527M–D5, V2530–A5, or V2533–A5 model turbofan engine during operation, within 385 FCs after the effective date of this AD, perform a USI of the HPT 2nd-stage disk using the Accomplishment Instructions, paragraph 7, of IAE NMSB V2500–ENG–72–0713, Revision 1.

(5) For an HPT 2nd-stage disk, P/N 2A4802, with an S/N listed in Accomplishment Instructions, Table 1, of P&W SI No. 114F–21, that has only been installed in an IAE V2531–E5 model turbofan engine during operation, within 385 FCs after the effective date of this AD, perform a USI of the HPT 2nd-stage disk using the Accomplishment Instructions, paragraph 7, of IAE NMSB V2500–E5–72–0015.

(f) Compliance

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

(g) Required Actions

(1) For an HPT 1st-stage disk, P/N 2A5001, with an S/N listed in Accomplishment Instructions, Table 1, of P&W SI No. 112F–21, that has been installed at any time in an IAE V2527E–A5, V2527M–A5, V2528–D5, V2530–A5, or V2533–A5 model turbofan engine during operation, within 100 flight cycles (FCs) after the effective date of this AD, perform an ultrasonic inspection (USI) of the HPT 1st-stage disk using the Accomplishment Instructions, paragraph 6, of IAE NMSB V2500–ENG–72–0713, Revision 1.

(2) For an HPT 1st-stage disk, P/N 2A5001, with an S/N listed in Accomplishment Instructions, Table 1, of P&W SI No. 112F–21, that has only been installed in an IAE V2522–A5, V2524–A5, V2525–D5, or V2527–A5 model turbofan engine during operation, within 100 FCs after the effective date of this AD, perform a USI of the HPT 1st-stage disk using the Accomplishment Instructions, paragraph 7, of IAE NMSB V2500–ENG–72–0713, Revision 1.

(3) For an HPT 1st-stage disk, P/N 2A4802, with an S/N listed in Accomplishment Instructions, Table 2, of P&W SI No. 112F–21, that has been installed at any time in an IAE V2522–A5, V2524–A5, V2525–D5, or V2527–A5 model turbofan engine during operation, within 620 FCs after the effective date of this AD, perform a USI of the HPT 1st-stage disk using the Accomplishment Instructions, paragraph 6, of IAE NMSB V2500–ENG–72–0713, Revision 1.

(4) For an HPT 2nd-stage disk, P/N 2A4802, with an S/N listed in Accomplishment Instructions, Table 2, of P&W SI No. 112F–21, that has only been installed in an IAE V2522–A5, V2524–A5, V2525–D5, or V2527–A5 model turbofan engine during operation, within 620 FCs after the effective date of this AD, perform a USI of the HPT 2nd-stage disk using the Accomplishment Instructions, paragraph 7, of IAE NMSB V2500–ENG–72–0713, Revision 1.

(5) For an HPT 2nd-stage disk, P/N 2A4802, with an S/N listed in Accomplishment Instructions, Table 1, of P&W SI No. 114F–21, that has only been installed in an IAE V2531–E5 model turbofan engine during operation, within 620 FCs after the effective date of this AD, perform a USI of the HPT 2nd-stage disk using the Accomplishment Instructions, paragraph 7, of IAE NMSB V2500–E5–72–0015.
(6) If, during the USL required by paragraphs (g)(1) through (5) of this AD, a HPT 1st-stage disk or HPT 2nd-stage disk does not pass the inspection as specified in the Accomplishment Instructions, paragraph 8, of IAE NMSB V2500–ENG–72–0713, Revision 1, or Appendix A, Tables 1 and 2, of IAE NMSB V2500–E5–72–0015, that passed the USL required by paragraphs (g)(1) through (5) of this AD; or

(2) An HPT 1st-stage disk or HPT 2nd-stage disk that is not listed in Appendix A, Tables 1 and 2, of IAE NMSB V2500–ENG–72–0713, Revision 1, or Appendix A, Tables 1 and 2, of IAE NMSB V2500–E5–72–0015.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO 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 of the certification office, send it to the attention of the person identified in Related Information. You may email your request to: AVE-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.

(j) Related Information

For more information about this AD, contact Alberto Hernandez, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7329; fax: (781) 238–7199; email: Alberto.J.Hernandez@faa.gov.

(k) 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.

(3) The following service information was approved for IBR on August 5, 2021.


(4) The following service information was approved for IBR on July 13, 2021 (86 FR 30380, June 8, 2021).


(60) 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 (781) 238–7759.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg_legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on July 15, 2021.

Lance T. Gant,
Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2021–15486 Filed 7–16–21; 4:15 pm]
BILLING CODE 4910–13–P

POSTAL SERVICE

39 CFR Part 233

Mail Screening Regulations

AGENCY: Postal Service.

ACTION: Final rule.

SUMMARY: The Postal Service is amending its regulations regarding the screening of mail to be consistent with aviation regulations regarding the transportation of mail via aircraft; continue to enhance the security and ensure the safety of all persons and property onboard aircraft carrying mail; and continue to prevent and deter the carriage of unauthorized explosives, incendiaries, or other destructive substances or items in the mail or in postal products transported onboard aircraft.

DATES: This rule is effective August 20, 2021.

FOR FURTHER INFORMATION CONTACT: Amber Jordan, Inspector Attorney, arjordan@usps.gov, (202) 268–7812.

SUPPLEMENTARY INFORMATION: On May 24, 2021, the Postal Service published a Federal Register Notice (86 FR 27823) with a proposed rule to update Postal Service regulations regarding the screening of mail. The circumstances which created the need for the update were as follows: (1) 39 CFR 233.11 was published as a final rule on February 28, 1996; (2) since the publication of 39 CFR 233.11, no updates had been made; (3) after February 28, 1996, changes were made to 49 U.S.C. 44901 requiring the screening of all items, including United States mail, transported via aircraft; and (4) an update is required to ensure it is consistent with title 49 of the Code of Federal Regulations as it pertains to mail being transported via aircraft.

Therefore, this final rule modifies the Postal Service regulations regarding the screening of mail to make said regulations: (1) More consistent with aviation regulations regarding the transportation of mail via aircraft; (2) continue to enhance the security and ensure the safety of all persons and property onboard aircraft carrying mail; and (3) continue to prevent and deter the carriage of unauthorized explosives, incendiaries, or other destructive substances or items in the mail or in postal products transported onboard aircraft.

In response to the proposed rule to update mail screening regulations, the Postal Service received comments and feedback. The comments and feedback can be grouped into four areas: (I) Term clarity (II) clarification of the methods for air carriers to request and obtain authority to screen U.S. mail, (III) procedures for screening, and (IV) a defined effective date.

(I) Term Clarity

Term(s): Undeclared hazardous materials, undeclared dangerous goods.

Some comments sought clarification as to what items would be included in the phrase unauthorized explosives, incendiaries, or other destructive substances. Of specific interest was whether this phrase and the revised regulation in general would apply to undeclared hazardous materials and undeclared dangerous goods. This phrase must also be taken together with language noting screening must be capable of identifying explosives, nonmailable firearms, or other dangerous contents in the mails that are destructive or could endanger life or property.

It is the intent of the Postal Service to encompass declared and undeclared goods as the dangerous nature of these items is unrelated to whether they have been declared. Additionally, with respect to the definition of hazardous material, explosives, dangerous goods and the concept of item mailability the Postal Service defines these terms in Publication 52, Hazardous, Restricted, and Perishable Mail and it is the intent of the Postal Service for Publication 52 to be used as a reference source.

Term: Sufficient weight to pose a threat is a