

Bulletin (SB) CFE738–72–A8082, dated July 4, 2023 (CFE738–72–A8082).

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7250, Turbine Section.

**(e) Unsafe Condition**

This AD was prompted by a manufacturer investigation that revealed certain HPT stage 1 disks and HPT stage 2 disks were manufactured from powder metal material suspected to contain iron inclusion. The FAA is issuing this AD to prevent premature fracture and consequent uncontained failure. The unsafe condition, if not addressed, could result in uncontained debris release, damage to the engine, and damage to the airplane.

**(f) Compliance**

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

**(g) Required Actions**

At the applicable times specified in paragraphs (g)(1) and (2) of this AD, remove each affected HPT stage 1 disk and HPT stage 2 disk from service and replace with a part eligible for installation, in accordance with steps (1) through (9) in paragraph B. of the Accomplishment Instructions of CFE738–72–A8082.

(1) For affected HPT stage 1 disks, at the next piece-part exposure or before exceeding 2,450 cycles since new (CSN), whichever occurs first.

(2) For affected HPT stage 2 disks, at the next piece-part exposure or before exceeding 2,930 CSN, whichever occurs first.

**(h) Definition**

For the purpose of this AD:

(1) A “part eligible for installation” is any HPT stage 1 disk or HPT stage 2 disk with a P/N and S/N that is not identified in Section 1. Planning Information, paragraph E. Compliance, Tables 2 and 3 of CFE738–72–A8082.

(2) “Piece-part exposure” is when the affected part is removed from the engine.

**(i) 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 of the AIR–520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (j) of this AD and email to: [ANE-AD-AMOC@faa.gov](mailto: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.

**(j) Related Information**

For more information about this AD, contact Alexei Marqueen, Aviation Safety Engineer, FAA, 2200 South 216th Steet, Des

Moines, WA 98198; phone: (781) 238–7178; email: [alexei.t.marqueen@faa.gov](mailto:alexei.t.marqueen@faa.gov).

**(k) Material Incorporated by Reference**

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

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

(i) CFE Service Bulletin CFE738–72–A8082, dated July 4, 2023.

(ii) [Reserved]

(3) For CFE material, contact CFE Company, 111 S 34th Street, Phoenix, AZ 85034; phone: (800) 601–3099; email: [CFE738DataCenter@honeywell.com](mailto:CFE738DataCenter@honeywell.com); website: [aerospace.honeywell.com](http://aerospace.honeywell.com).

(4) You may view this material 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.

(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-locations](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on June 11, 2024.

**Suzanne Masterson,**

*Deputy Director, Integrated Certificate Management Division, Aircraft Certification Service.*

[FR Doc. 2024–14939 Filed 7–8–24; 8:45 am]

**BILLING CODE 4910–13–P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA–2024–0757; Project Identifier MCAI–2023–01205–T; Amendment 39–22765; AD 2024–12–01]**

**RIN 2120–AA64**

**Airworthiness Directives; Airbus SAS Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is superseding Airworthiness Directive (AD) 2022–14–10, which applied to certain Airbus SAS Model A318 series airplanes; Model A319–111, –112, –113, –114, –115, –131, –132, and –133 airplanes; Model A320–211, –212, –214, –216, –231, –232, and –233 airplanes; and Model A321–111, –112, –131, –211, –212, –213, –231, and –232 airplanes. AD 2022–14–10 required repetitive inspections for cracking of the radius of the front spar vertical stringers and the horizontal floor beam on a certain frame

(FR), repetitive inspections for cracking of the fastener holes of the front spar vertical stringers on that frame, and repair if necessary. AD 2022–14–10 also provided, for certain airplanes, a modification of the center wing box area that terminates the repetitive inspections under certain conditions. Since the FAA issued AD 2022–14–10, an additional airplane model has been identified that is also subject to the unsafe condition. This AD continues to require the actions in AD 2022–14–10 and adds Model A321–271N airplanes to the applicability, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference (IBR). The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective August 13, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 13, 2024.

**ADDRESSES:**

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA–2024–0757; 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, the mandatory continuing airworthiness information (MCAI), 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 EASA material, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); website [easa.europa.eu](http://easa.europa.eu). You may find this material on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu).

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA–2024–0757.

**FOR FURTHER INFORMATION CONTACT:** Timothy Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206–231–3667; email [timothy.p.dowling@faa.gov](mailto:timothy.p.dowling@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2022–14–10, Amendment 39–22115 (87 FR 42315, July 15, 2022), (AD 2022–14–10). AD 2022–14–10 applied to certain Airbus SAS Model A318 series airplanes; Model A319–111, –112, –113, –114, –115, –131, –132, and –133 airplanes; Model A320–211, –212, –214, –216, –231, –232, and –233 airplanes; and Model A321–111, –112, –131, –211, –212, –213, –231, and –232 airplanes. AD 2022–14–10 required repetitive inspections for cracking of the radius of the front spar vertical stringers and the horizontal floor beam on FR 36, repetitive inspections for cracking of the fastener holes of the front spar vertical stringers on FR 36, and repair if necessary, and, for certain airplanes, a potential terminating action modification of the center wing box area. The FAA issued AD 2022–14–10 to address fatigue cracking of the front spar vertical stringers on the wings, which, if not corrected, could result in reduced structural integrity of the airplane.

The NPRM published in the **Federal Register** on March 22, 2024 (89 FR 20364). The NPRM was prompted by AD 2023–0205, dated November 21, 2023 (EASA AD 2023–0205) (also referred to as the MCAI), issued by EASA, which is the Technical Agent for the Member States of the European Union. The MCAI states that analysis of the full-scale certification fatigue testing findings indicated that Model A321–271N airplanes are also subject to the unsafe condition. Fatigue cracking of the front spar vertical stringers on the wings, if not detected and corrected, could lead to crack propagation, possibly resulting in reduced structural integrity of the airplane.

In the NPRM, the FAA proposed to continue to require the actions in AD

2022–14–10 and add Model A321–271N airplanes to the applicability, as specified in EASA AD 2023–0205. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA–2024–0757.

**Discussion of Final Airworthiness Directive**

**Comments**

The FAA received a comment from United Airlines who supported the NPRM without change.

**Additional Changes Made to This AD**

The FAA added paragraphs (h)(5) and (6) of this AD to clarify who can provide approval instructions for certain actions. These paragraphs correspond to actions retained from AD 2022–14–10 and were inadvertently omitted from the proposed AD.

**Conclusion**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comment 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 this product. 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**

EASA AD 2023–0205 specifies procedures for repetitive special

detailed inspections for cracking of the radius of the front spar vertical stringers, horizontal floor beam radius and fastener holes of the front spar vertical stringers on FR 36, and for installing new fasteners. EASA AD 2023–0205 further describes procedures for repetitive high frequency eddy current (HFEC) inspections for cracking of the horizontal floor beam, repetitive HFEC inspections for cracking of the fastener holes of the front spar vertical stringers on FR 36, repetitive rototest inspections of the fastener holes of the spar vertical stringers, and repair. EASA AD 2023–0205 also describes procedures for the modification of the center wing box area. The modification is required for airplanes in configuration 1, 2 or 3; and for airplanes in configuration 5, 6, or 7, the modification is optional and is a terminating action for the repetitive inspections when done within a specified time frame. The modification includes related investigative and corrective actions. Related investigative actions include an HFEC inspection on the radius of the rib flanges, a rototest inspection of the fastener holes, detailed and HFEC inspections for cracking on the cut edges, detailed and rototest inspections on all open fastener holes, and an inspection to determine if secondary structure brackets are installed. Corrective actions include rework of the secondary structure bracket and repair.

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.

**Costs of Compliance**

The FAA estimates that this AD affects 1,755 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

**ESTIMATED COSTS FOR REQUIRED ACTIONS**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection, per inspection cycle.	25 work-hours × \$85 per hour = \$2,125.	Up to \$100 .....	Up to \$2,225 .....	Up to \$3,904,875.

**ESTIMATED COSTS FOR OPTIONAL ACTIONS**

Labor cost	Parts cost	Cost per product
Up to 409 work-hours × \$85 per hour = Up to \$34,765 .....	Up to \$66,050 .....	Up to \$100,815.

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this AD.

**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

The FAA 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, 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:
  - a. Removing Airworthiness Directive (AD) 2022–14–10, Amendment 39–22115 (87 FR 42315, July 15, 2022); and
  - b. Adding the following new AD:

**2024–12–01 Airbus SAS:** Amendment 39–22765; Docket No. FAA–2024–0757; Project Identifier MCAI–2023–01205–T.

### (a) Effective Date

This airworthiness directive (AD) is effective August 13, 2024.

### (b) Affected ADs

This AD replaces AD 2022–14–10, Amendment 39–22115 (87 FR 42315, July 15, 2022) (AD 2022–14–10).

### (c) Applicability

This AD applies to the Airbus SAS airplanes identified in paragraphs (c)(1) through (4) of this AD, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2023–0205, dated November 21, 2023 (EASA AD 2023–0205).

(1) Model A318–111, –112, –121, and –122 airplanes.

(2) Model A319–111, –112, –113, –114, –115, –131, –132, and –133 airplanes.

(3) Model A320–211, –212, –214, –216, –231, –232, and –233 airplanes.

(4) Model A321–111, –112, –131, –211, –212, –213, –231, –232, and –271N airplanes.

### (d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

### (e) Unsafe Condition

This AD was prompted by a report that, during a center fuselage certification full-scale fatigue test, cracks were found on the front spar vertical stringer at a certain frame. This AD was also prompted by a determination that Model A321 airplanes that have incorporated modification 160021 are also subject to the unsafe condition. The FAA is issuing this AD to address fatigue cracking of the front spar vertical stringers on the wings. The unsafe condition, if not addressed, could result in reduced structural integrity of the airplane.

### (f) Compliance

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

### (g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2023–0205.

### (h) Exceptions to EASA AD 2023–0205

(1) Where EASA AD 2023–0205 refers to "22 November 2021 [the effective date of EASA AD 2021–0241]," this AD requires using August 19, 2022 (the effective date of AD 2022–14–10).

(2) Where EASA AD 2023–0205 refers to its effective date, this AD requires using the effective date of this AD.

(3) This AD does not adopt the "Remarks" section of EASA AD 2023–0205.

(4) Where paragraph (5) of EASA AD 2023–0205 specifies "if any crack is found, before next flight, contact Airbus for approved corrective action instructions and accomplish those instructions accordingly," this AD requires replacing that text with "if any crack is found, the crack must be repaired before further flight using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA

Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature."

(5) Where paragraph (4) of EASA AD 2023–0205 specifies actions for airplanes repaired "in accordance with instructions approved by EASA or approved under the authority of Airbus Design Organization Approval (DOA) privileges," this AD requires replacing that text with "using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature."

(6) Where paragraph (9) of EASA AD 2023–0205 specifies approval "by Airbus DOA," this AD requires replacing that text with "by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature."

### (i) No Reporting Requirement

Although the service information referenced in EASA AD 2023–0205 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

### (j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (k) of this AD. Information may be emailed to: [9-AVS-AIR-730-AMOC@faa.gov](mailto:9-AVS-AIR-730-AMOC@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC):* Except as required by paragraph (j)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified 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 procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(k) Additional Information**

For more information about this AD, contact Timothy Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206-231-3667; email [timothy.p.dowling@faa.gov](mailto:timothy.p.dowling@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 this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2023-0205, dated November 21, 2023.

(ii) [Reserved]

(3) For EASA AD 2023-0205, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); website [easa.europa.eu](http://easa.europa.eu). You may find this EASA AD on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu).

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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-locations](http://www.archives.gov/federal-register/cfr/ibr-locations), or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on June 5, 2024.

**Suzanne Masterson,**

*Deputy Director, Integrated Certificate Management Division, Aircraft Certification Service.*

[FR Doc. 2024-14868 Filed 7-8-24; 8:45 am]

**BILLING CODE** 4910-13-P

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

[Docket No. FAA-2023-1640; Project Identifier AD-2022-00283-E; Amendment 39-22768; AD 2024-12-04]

**RIN 2120-AA64**

**Airworthiness Directives; Pratt & Whitney Engines**

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Pratt & Whitney (PW) Model PW2037, PW2037M, and PW2040 engines with a certain high-pressure turbine (HPT) 2nd stage blade assembly installed. This AD was prompted by an in-flight shutdown

(IFSD) caused by the fracture of HPT 2nd stage turbine hub assembly lugs, which resulted in blade liberation and a titanium fire in the high-pressure compressor (HPC). This AD requires a visual inspection of the HPT 2nd stage blade assemblies for missing contact marks, a dimensional shadowgraph inspection of the HPT 2nd stage blade assemblies for blade root profile dimensional deviations, and an eddy current inspection (ECI) of the HPT 2nd stage turbine hub assembly for conforming slot flatness. This AD also requires removal from service and replacement of any HPT 2nd stage turbine hub assembly or HPT 2nd stage blade assembly that does not pass any inspection. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective August 13, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 13, 2024.

**ADDRESSES:**

**AD Docket:** You may examine the AD docket at [regulations.gov](http://regulations.gov) under Docket No. FAA-2023-1640; 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 Pratt & Whitney, 400 Main Street, East Hartford, CT 06118; phone: (860) 565-0140; email: [help24@pw.utc.com](mailto:help24@pw.utc.com); website: [connect.prattwhitney.com](http://connect.prattwhitney.com).
- You may view this service information at the FAA, Airworthiness Products Section, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](http://regulations.gov) under Docket No. FAA-2023-1640.

**FOR FURTHER INFORMATION CONTACT:**

Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7655; email: [carol.nguyen@faa.gov](mailto:carol.nguyen@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 all PW Model PW2037,

PW2037M, and PW2040 engines with a certain HPT 2nd stage blade assembly installed. The NPRM published in the **Federal Register** on August 25, 2023 (88 FR 58114). The NPRM was prompted by an IFSD caused by the fracture of HPT 2nd stage turbine hub assembly lugs, which resulted in blade liberation and a titanium fire in the HPC.

In the NPRM, the FAA proposed to require a visual inspection of the HPT 2nd stage blade assemblies for missing contact marks, a dimensional shadowgraph inspection of the HPT 2nd stage blade assemblies for blade root profile dimensional deviations, and an ECI of the HPT 2nd stage turbine hub assembly for conforming slot flatness. The NPRM also proposed to require removal from service and replacement of any HPT 2nd stage turbine hub assembly or HPT 2nd stage blade assembly that does not pass any inspection. 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 six commenters. The commenters were The Boeing Company (Boeing), Delta Air Lines (Delta), European Air Transport (EAT), FedEx Express (FedEx), MTU Maintenance Hannover GmbH (MTU), and United Parcel Service (UPS). Boeing supported the NPRM without change. The following presents the comments received from Delta, EAT, FedEx, MTU, and UPS on the NPRM and the FAA's response to each comment.

**Request To Exempt Certain Hubs From NPRM Cycle Limit**

Delta requested that the FAA allow hubs with an ECI performed on 25% of the blade slots to be inspected in accordance with the updated dimensional ECI procedure at the next piece part exposure of the HPT 2nd stage turbine hub assembly, rather than being inspected within the cycle limit of the NPRM. Delta noted that Method 2, Step 4 in PW Alert Service Bulletin PW2000 A72-777, Initial Issue, dated September 29, 2021 (PW2000 A72-777, Initial Issue) requires that HPT 2nd stage turbine hub assemblies be installed that have passed the HPT 2nd stage turbine hub assembly ECI inspection specified in PW2000 Engine Manual, Task 72-52-16-200-006, but does not provide guidance on the required amount of slots to be inspected. Delta also noted that in the beginning of the HPT Field Management Program for this unsafe condition and