[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-2523; Project Identifier AD-2023-01086-E]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Pratt & Whitney (PW) Model PW1519G, PW1521G, PW1521GA, PW1521G-3, PW1524G, PW1524G-3, PW1525G, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A engines. This proposed AD was prompted by an updated analysis of an event involving an International Aero Engines, LLC (IAE LLC) Model PW1127GA-JM engine, which experienced a high-pressure compressor (HPC) 7th-stage integrally bladed rotor (IBR-7) separation that resulted in an engine shutdown and aborted takeoff. This proposed AD would require performing an angled ultrasonic inspection (AUSI) of certain high-pressure turbine (HPT) 1st-stage hubs, HPT 2nd-stage hubs, and HPC 8th-stage disks for cracks and, depending on the results of the inspections, replacing the HPT 1st-stage hubs, HPT 2nd-stage hubs, or HPC 8th-stage disks. This proposed AD would also require accelerated replacement of certain HPC 7th-stage rotors, HPC 8th-stage disks, HPC rear hubs, HPT 1st-stage hubs, HPT 2nd-stage hubs, HPT 1st-stage air seals, HPT 2nd-stage air seals, HPT 1st-stage blade retaining plates, and HPT 2nd-stage blade retaining plates. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2023-2523; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

• For Pratt & Whitney service information identified in this AD, contact International Aero Engines, LLC, 400 Main Street, East Hartford, CT 06118; phone: (860) 565-0140; email: help24@pw.utc.com; website: connect.prattwhitney.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: Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7655; email: carol.nguyen@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2023-2523; Project Identifier AD-2023-01086-E" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA

will consider all comments received by the closing date and may amend this proposal because of those comments.

The FAA has been informed that PW has done some outreach with affected operators regarding the proposed corrective actions for this unsafe condition. As a result, affected operators are already aware of the proposed corrective actions and, in some cases, have already begun planning for replacement of the affected parts. Therefore, the FAA has determined that a 30-day comment period is appropriate given the particular circumstances related to the proposed correction of this unsafe condition.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

On December 24, 2022, an Airbus Model A320neo airplane powered by IAE LLC Model PW1127GA-JM engines, experienced a failure of the HPC IBR-7 that resulted in an engine shutdown and aborted take-off. Following this event, the manufacturer

conducted a records review of production and field-returned parts and re-evaluated their engineering analysis methodology. The new analysis found that the failure of the HPC IBR-7 was caused by a nickel powdered metal anomaly, similar in nature to an anomaly previously observed. The analysis also concluded that there is an increased risk of failure for additional nickel powdered metal parts in certain nickel powdered metal production campaigns, and these parts are susceptible to failure much earlier than previously determined. As a result, the FAA is proposing additional AUSIs for certain affected nickel powdered metal parts and removal from service of certain affected nickel powdered metal parts. Certain PW Model PW1519G, PW1521G, PW1521GA, PW1521G-3, PW1524G, PW1524G-3, PW1525G, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A engines are among the products affected by this condition. This condition, if not addressed, could result in uncontained disk failure, release of high-energy debris, damage to the engine, damage to the airplane, and possible loss of the airplane.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed the following service information:

• PW Alert Service Bulletin (ASB) PW1000G-A-72-00-0196-00A-930A-D, Issue No: 002, dated November 30, 2023, and PW ASB PW1000G-A-72-00-0141-00B-930A-D, Issue No: 002, dated November 30, 2023. This service information specifies a list of affected HPT 1st-stage hubs and HPT 2nd-stage hubs that are identified by serial number (S/N) and installed on certain PW engines; and instructions for performing an AUSI on affected HPT 1st-stage hubs and HPT 2nd-stage hubs.

• PW ASB PW1000G-A-72-00-0197-00A-930A-D, Issue No: 004, dated November 30, 2023, and PW ASB PW1000G-A-72-00-0142-00B-930A-D, Issue No: 004, dated November 30, 2023. This service information specifies a list of affected HPC

8th-stage disks that are identified by S/N and installed on certain PW engines; and instructions for performing an AUSI on affected HPC 8th-stage disks.

• PW ASB PW1000G-A-72-00-0204-00A-930A-D Issue No: 001, dated November 30, 2023, and PW ASB PW1000G-A-72-00-0150-00B-930A-D Issue No:001, dated November 30, 2023, which specifies procedures for performing repetitive AUSIs on affected HPC 8th-stage disks.

• PW ASB PW1000G-A-72-00-0205-00A-930A-D, Issue No: 001, dated November 30,2023, and PW ASB PW1000G-A-72-00-0151-00B-930A-D, Issue No: 001, dated November 30, 2023, which specify procedures for performing repetitive AUSIs on affected HPT 1st-stage hubs and HPT 2nd-stage hubs.

• PW Special Instruction No. 240F-23, dated November 30, 2023, which specifies a list of affected HPT 1st-stage hubs and HPT 2nd-stage hubs that are identified by S/N and installed on certain PW engines.

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 ADDRESSES.

Proposed AD Requirements in this NPRM

This proposed AD would require performing an AUSI of certain HPT 1st-stage hubs, HPT 2nd-stage hubs, and HPC 8th-stage disks for cracks and, depending on the results of the inspections, replacing the HPT 1st-stage hubs, HPT 2nd-stage hubs, or HPC 8th-stage disks. This proposed AD would also require accelerated replacement of certain HPC 7th-stage rotors, HPC 8th-stage disks, HPC rear hubs, HPT 1st-stage air seals, HPT 2nd-stage air seals, HPT 1st-stage hubs, HPT 2nd-stage hubs, HPT 1st-stage blade retaining plates, and HPT 2nd-stage blade retaining plates.

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, if adopted as proposed, would affect 430 engines installed on airplanes of U.S. registry. The FAA estimates that 160 engines would need the AUSI of the HPT 1st-stage hub, HPT 2nd-stage hub, and HPC 8th-stage disk; 218 engines would need replacement of the HPT 1st-stage hub; 226 engines would need replacement of the HPT 2nd-stage hub; 231 engines would need replacement of the HPC 7th-stage rotor; 231 engines would need replacement of the HPC 8th-stage disk; 231 engines would need replacement of the HPC rear hub; 231 engines would need replacement of the HPT 1st-stage air seal; 233 engines would need replacement of the HPT 2nd-stage air seal; 232 engines would need replacement of the HPT 1st-stage blade retaining plate; and 231 engines would need replacement of the HPT 2nd-stage blade retaining plate.

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

Estimated costs

Action	Labor Cost	Parts Cost (average pro-rated cost)	Cost per product	Cost on U.S. operators
Perform AUSI of HPT 1st-stage hub, HPT 2nd-stage hub, and HPC 8th-stage disk	60 work-hours x $85 per hour = $5,100	$0	$5,100	$816,000
Replace HPT 1st-stage hub	10 work-hours x $85 per hour = $850	$49,500	$50,350	$10,976,300
Replace HPT 2nd-stage hub	10 work-hours x $85 per hour = $850	$25,500	$26,350	$5,955,100
Replace HPC 7th-stage rotor	10 work-hours x $85 per hour = $850	$48,000	$48,850	$11,284,350
Replace HPC 8th-stage disk	10 work-hours x $85 per hour = $850	$35,500	$36,350	$8,396,850
Replace HPC rear hub	10 work-hours x $85 per hour = $850	$83,000	$83,850	$19,369,350

Action	Labor Cost	Parts Cost (average pro-rated cost)	Cost per product	Cost on U.S. operators
Replace HPT 1st-stage air seal	10 work-hours x $85 per hour = $850	$21,000	$21,850	$5,047,350
Replace HPT 2nd-stage air seal	10 work-hours x $85 per hour = $850	$36,000	$36,850	$8,586,050
Replace HPT 1st-stage blade retaining plate	10 work-hours x $85 per hour = $850	$34,000	$34,850	$8,085,200
Replace HPT 2nd-stage blade retaining plate	10 work-hours x $85 per hour = $850	$13,000	$13,850	$3,199,350

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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD 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.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would 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 Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

Pratt & Whitney: Docket No. FAA-2023-2523; Project Identifier AD-2023-01086-E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

Pratt & Whitney (PW) Model PW1519G, PW1521G, PW1521GA, PW1521G-3, PW1524G, PW1524G-3, PW1525G, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A engines.

(d) Subject

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

Compressor Section; 7250, Turbine Section.

(e) Unsafe Condition

This AD was prompted by an updated analysis of an event involving an International Aero Engines, LLC Model PW1127GA-JM engine, which experienced a high-pressure compressor (HPC) 7th-stage integrally bladed rotor separation that resulted in an engine shutdown and aborted takeoff. The FAA is issuing this AD to prevent failure of the high-pressure turbine (HPT) 1st-stage hub, HPT 2nd-stage hub, and HPC 8th-stage disk. The unsafe condition, if not addressed, could result in uncontained hub failure, release of high-energy debris, damage to the engine, damage to the airplane, and possible loss of the airplane.

(f) Compliance

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

(g) Required Actions

(1) For PW1500G engines with an installed HPC 8th-stage disk having part number (P/N) 30G7208, at the next HPC engine shop visit, except as required by paragraph (g)(3) of this AD, perform an angled ultrasonic inspection (AUSI) of the affected HPC 8th-stage disk for cracks in accordance with the Accomplishment Instructions, paragraph 8., of PW Alert Service Bulletin (ASB) PW1000G-A-72-00-0197-00A-930A-D, Issue No: 004, dated November 30, 2023.

(2) For PW1500G engines with an installed HPT 1st-stage hub having P/N 30G8501 or an installed HPT 2nd-stage hub having P/N 30G7202, at the next engine shop visit, except as required by paragraph (g)(3) of this AD, perform an AUSI of the affected HPT 1st-stage hub or HPT 2nd-stage hub, as applicable, for cracks in accordance with the Accomplishment Instructions, paragraph 8.A. or 8.B., of PW ASB PW1000G-A-72-00-0196-00A-930A-D, Issue No: 002, dated November 30, 2023.

(3) For PW1500G engines with an installed part, P/N and serial number (S/N) listed in Table 1 to paragraph (g)(3) of this AD with no AUSI performed prior to the effective date of this AD, within the applicable compliance time listed in Table 1 to paragraph (g)(3) of this AD or within 100 flight cycles (FCs) after the effective date of this AD, whichever occurs later, perform an AUSI of the affected part for cracks in

accordance with the applicable service bulletin listed in Table 1 to paragraph (g)(3) of this AD.

Table 1 to Paragraph (g)(3) - AUSI Compliance Times

Part	Applicable S/N listing	Compliance Time	Applicable service bulletin (see paragraph (m)(2) of this AD)
HPC 8th-stage disk P/N 30G7208	Table 1 of PW ASB PW1000G-A-72-00-0197-00A-930A-D	Next HPC engine shop visit not to exceed 10,000 part cycles since new (CSN)	Accomplishment Instructions, paragraph 8., of PW ASB PW1000G-A-72-00-0197-00A-930A-D
HPT 1st-stage hub P/N 30G8501	Table 2 of PW ASB PW1000G-A-72-00-0196-00A-930A-D	Next engine shop visit not to exceed 5,000 part CSN	Accomplishment Instructions, paragraph 8.A. of PW ASB PW1000G-A-72-00-0196-00A-930A-D
HPT 2nd-stage hub P/N 30G7202	Table 3 of PW ASB PW1000G-A-72-00-0196-00A-930A-D	Next engine shop visit not to exceed 5,000 part CSN	Accomplishment Instructions, paragraph 8.B, of PW ASB PW1000G-A-72-00-0196-00A-930A-D
HPT 1st-stage hub P/N 30G8501	Table 4 of PW ASB PW1000G-A-72-00-0196-00A-930A-D	Next engine shop visit not to exceed 4,000 part CSN	Accomplishment Instructions, paragraph 8.A, of PW ASB PW1000G-A-72-00-0196-00A-930A-D
HPT 2nd-stage hub P/N 30G7202	Table 5 of PW ASB PW1000G-A-72-00-0196-00A-930A-D	Next engine shop visit not to exceed 4,000 part CSN	Accomplishment Instructions, paragraph 8.B., of PW ASB PW1000G-A-72-00-0196-00A-930A-D

(4) Thereafter at each piece-part exposure of the affected part for PW1500G engines with an installed HPC 8th-stage disk having P/N 30G7208, an installed HPT 1st-stage hub having P/N 30G8501, or an installed HPT 2nd-stage hub having P/N 30G7202, do the following:

(i) Perform an AUSI of the affected HPC 8th-stage disk for cracks in accordance with the Accomplishment Instructions, paragraph 5.B., PW ASB PW1000G-A-72-00-0204-00A-930A-D, Issue No: 001, dated November 30, 2023.

(ii) Perform an AUSI of the affected HPT 1st-stage hub and HPT 2nd-stage hub, as applicable, for cracks in accordance with the Accomplishment Instructions, paragraph

7.A. or 7.B., of PW ASB PW1000G-A-72-00-0205-00A-930A-D, Issue No: 001, dated November 30, 2023.

(5) For PW1900G engines with an installed HPC 8th-stage disk having P/N 30G7208, at the next HPC engine shop visit, except as required by paragraph (g)(7) of this AD, perform an AUSI of the affected HPC 8th-stage disk for cracks in accordance with the Accomplishment Instructions, paragraph 8., of Pratt & Whitney PW ASB PW1000G-A-72-00-0142-00B-930A-D, Issue No: 004, dated November 30, 2023.

(6) For PW1900G engines with an installed HPT 1st-stage hub having P/N 30G8501 or an installed HPT 2nd-stage hub having P/N 30G7202, at the next engine shop visit, except as required by paragraph (g)(7) of this AD, perform an AUSI of the affected HPT 1st-stage hub and HPT 2nd-stage hub, as applicable, for cracks in accordance with the Accomplishment Instructions, paragraph 8.A. or 8.B., of PW ASB PW1000G-A-72-00-0141-00B-930A-D, Issue No: 002, dated November 30, 2023.

(7) For PW1900G engines with an installed part, P/N and S/N listed in Table 2 to paragraph (g)(7) of this AD, with no AUSI performed prior to the effective date of this AD, within the compliance time listed in Table 2 to paragraph (g)(7) of this AD or within 100 FCs after the effective date of this AD, whichever occurs later, perform an AUSI of the affected parts for cracks in accordance with the applicable service bulletin listed in Table 2 to paragraph (g)(7) of this AD.

Table 2 to Paragraph (g)(7) - AUSI Compliance Times

Part	**Table S/N is listed in**	**Compliance Time**	**Applicable service bulletin (see paragraph (m)(2) of this AD)**
HPC 8th-stage disk having P/N 30G7208	Table 1 of PW ASB PW1000G-A-72-00-0142-00B-930A-D	Next HPC engine shop visit not to exceed 10,000 part CSN	Accomplishment Instructions, paragraph 8., of PW ASB PW1000G-A-72-00-0142-00B-930A-D
HPT 1st-stage hub having P/N 30G8501	Table 2 of PW ASB PW1000G-A-72-00-0141-00B-930A-D	Next engine shop visit not to exceed 5,000 part CSN	Accomplishment Instructions, paragraph 8.A., of PW ASB PW1000G-A-72-00-0141-00B-930A-D

Part	Table S/N is listed in	Compliance Time	Applicable service bulletin (see paragraph (m)(2) of this AD)
HPT 2nd-stage hub having P/N 30G7202	Table 3 of PW ASB PW1000G-A-72-00-0141-00B-930A-D	Next engine shop visit not to exceed 5,000 part CSN	Accomplishment Instructions, paragraph 8.B, of PW ASB PW1000G-A-72-00-0141-00B-930A-D
HPT 1st-stage hub having P/N 30G8501	Table 4 of PW ASB PW1000G-A-72-00-0141-00B-930A-D	Next engine shop visit not to exceed 4,000 part CSN	Accomplishment Instructions, paragraph 8.A., of PW ASB PW1000G-A-72-00-0141-00B-930A-D
HPT 2nd-stage hub having P/N 30G7202	Table 5 of PW ASB PW1000G-A-72-00-0141-00B-930A-D	Next engine shop visit not to exceed 4,000 part CSN	Accomplishment Instructions, paragraph 8.B., of PW ASB PW1000G-A-72-00-0141-00B-930A-D

(8) Thereafter at each piece-part exposure of the affected part for PW1900G engines with an installed HPC 8th-stage disk having P/N 30G7208, or an installed HPT 1st-stage hub having P/N 30G8501, or an installed HPT 2nd-stage hub having P/N 30G7202, do the following:

(i) Perform an AUSI of the affected HPC 8th-stage disk for cracks in accordance with the Accomplishment Instructions, paragraph 5.B., of PW ASB PW1000G-A-72-00-0150-00B-930A-D, Issue No: 001, dated November 30, 2023.

(ii) Perform an AUSI of the affected HPT 1st-stage hub and HPT 2nd-stage hub, as applicable, for cracks in accordance with the Accomplishment Instructions, paragraph 7.A. or 7.B., of PW ASB PW1000G-A-72-00-0151-00B-930A-D, Issue No: 001, dated November 30, 2023.

(9) If any crack is found during the inspections required by paragraph (g) of this AD, before further flight, remove the affected part from service and replace with a part eligible for installation.

(10) For engines with an installed part and P/N listed in Table 3 to paragraph (g)(10) of this AD having 3,300 CSN or less on the effective date of this AD, before the part accumulates 4,000 CSN or at the next engine shop visit after the effective date of this AD, whichever occurs first, remove the part from service and replace with a part eligible for installation.

Table 3 to Paragraph (g)(10) - Part Numbers

Part Name	P/N
HPC 7th-stage rotor	30G3307
HPC 8th-stage disk	30G3248
HPC rear hub	30G2902
HPT 1st-stage hub	30G5701
HPT 2nd-stage hub	30G5002
HPT 1st-stage air seal	30G3132
HPT 2nd-stage air seal	30G3451
HPT 1st-stage blade retaining plate	30G1692
HPT 2nd-stage blade retaining plate	30G1698

(11) For engines with an installed part and P/N listed in Table 3 to paragraph (g)(10) of this AD having more than 3,300 CSN on the effective date of this AD, at the next engine shop visit or within 700 FCs after the effective date of this AD, whichever occurs first, remove the part from service and replace it with a part eligible for installation.

(12) For engines with an installed HPT 1st-stage hub having P/N 30G8501 or an installed HPT 2nd-stage hub having P/N 30G7202 and an S/N listed in Table 1 of PW Special Instruction (SI) No. 240F-23, dated November 30, 2023, within 100 FCs from the effective date of this AD, remove the hub from service and replace it with a part eligible for installation.

(13) If an affected part has accumulated 100 FCs or less since the last AUSI, reinspection is not required provided that the part was not damaged during removal from the engine.

(h) Installation Prohibition

After the effective date of this AD, do not install an HPT 1st-stage hub having P/N 30G8501 or an HPT 2nd-stage hub having P/N 30G7202 and an S/N listed in Table 1

of PW SI No. 240F-23, dated November 30, 2023, in any engine.

(i) Definitions

(1) For the purposes of this AD, "PW1500G" engines are PW Model PW1519G, PW1521G, PW1521GA, PW1521G-3, PW1524G, PW1524G-3, PW1525G, and PW1525G-3 engines.

(2) For the purposes of this AD, "PW1900G" engines are PW Model PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A engines.

(3) For the purposes of this AD, a "part eligible for installation" is:

(i) Any HPC 7th-stage rotor, P/N 30G5307 or later approved P/N.

(ii) Any HPC 8th-stage disk, P/N 30G7208, that has passed the AUSI required by paragraph (g) of this AD or later approved P/N.

(iii) Any HPC rear hub, P/N 30G7308 or later approved P/N.

(iv) Any HPT 1st-stage hub, P/N 30G8501, that has passed the AUSI required by paragraph (g) of this AD or later approved P/N.

(v) Any HPT 2nd-stage hub, P/N 30G7202, that has passed the AUSI required by paragraph (g) of this AD or later approved P/N.

(vi) Any HPT 1st-stage air seal, P/N 30G5195 or later approved P/N.

(vii) Any HPT 2nd-stage air seal, P/N 30G5196 or later approved P/N.

(viii) Any HPT 1st-stage blade retaining plate, P/N 30G5193 or later approved P/N.

(ix) Any HPT 2nd-stage blade retaining plate, P/N 30G5194 or later approved P/N.

(4) For the purposes of this AD, a "piece-part exposure" is when the part is disassembled from the rotor assembly.

(5) For the purposes of this AD, an "engine shop visit" is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating

engine flanges, except for the following situations, which do not constitute an engine shop visit.

(i) The separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance.

(ii) Fan case maintenance or replacement.

(6) For the purposes of this AD, an "HPC engine shop visit" is when the HPC rotor assembly is removed from the engine.

(j) Credit for Previous Actions

This paragraph provides credit for the initial AUSI of the HPC 8th-stage disk, HPT 1st-stage hub and HPT 2nd-stage hub specified in paragraph (g)(1), (2), (4) and (5) of this AD, if the initial AUSI was performed before the effective date of this AD using the following service information;

(1) PW ASB PW1000G-A-72-00-0196-00A-930A-D, Issue No: 001, dated March 16, 2023; or

(2) PW ASB PW1000G-A-72-00-0197-00A-930A-D, Issue No: 001, dated March 22, 2023; or

(3) PW ASB PW1000G-A-72-00-0197-00A-930A-D, Issue No: 002, dated June 19, 2023; or

(4) PW ASB PW1000G-A-72-00-0197-00A-930A-D, Issue No: 003, dated August 14, 2023; or

(5) PW ASB PW1000G-A-72-00-0141-00B-930A-D, Issue No: 001, dated March 16, 2023; or

(6) PW ASB PW1000G-A-72-00-0142-00B-930A-D, Issue No: 001, dated March 22, 2023; or

(7) PW ASB PW1000G-A-72-00-0142-00B-930A-D, Issue No: 002, dated June

19, 2023.; or

(8) PW ASB PW1000G-A-72-00-0142-00B-930A-D, Issue No: 003, dated August 14, 2023.

(k) 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 AIR-520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (l)(1) of this AD.

(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.

(l) Additional Information

(1) For more information about this AD, contact Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7655; email: carol.nguyen@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (4) of this AD.

(m) 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) Pratt & Whitney (PW) Alert Service Bulletin (ASB) PW1000G-A-72-00-0141-

00B-930A-D, Issue No: 002, dated November 30, 2023.

(ii) PW ASB PW1000G-A-72-00-0142-00B-930A-D, Issue No: 004, dated November 30, 2023.

(iii) PW ASB PW1000G-A-72-00-0150-00B-930A-D Issue No:001, dated November 30, 2023.

(iv) PW ASB PW1000G-A-72-00-0151-00B-930A-D, Issue No: 001, dated November 30, 2023.

(v) PW ASB PW1000G-A-72-00-0196-00A-930A-D, Issue No: 002, dated November 30, 2023.

(vi) PW ASB PW1000G-A-72-00-0197-00A-930A-D, Issue No: 004, dated November 30, 2023.

(vii) PW ASB PW1000G-A-72-00-0204-00A-930A-D Issue No:001, dated November 30, 2023.

(viii) PW ASB PW1000G-A-72-00-0205-00A-930A-D, Issue No: 001, dated November 30, 2023.

(ix) PW Special Instruction No. 240F-23, dated November 30, 2023.

(3) For PW service information identified in this AD, contact International Aero Engines, LLC, 400 Main Street, East Hartford, CT 06118; phone: (860) 565-0140; email: help24@pw.utc.com; website: connect.prattwhitney.com.

(4) 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.

(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 or email

fr.inspection@nara.gov.

Issued on December 27, 2023.

Caitlin Locke,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
[FR Doc. 2024-00309 Filed: 1/5/2024 4:15 pm; Publication Date: 1/9/2024]