



DATE: February 16, 2024
AD #: 2024-04-51

Emergency Airworthiness Directive (AD) 2024-04-51 is sent to owners and operators of Pratt & Whitney Canada Corp. Model PT6A-64, PT6A-66, PT6A-66A, PT6A-66B, PT6A-66D, PT6A-67, PT6A-67A, PT6A-67AF, PT6A-67AG, PT6A-67B, PT6A-67D, PT6A-67F, PT6A-67P, PT6A-67R, PT6A-67RM, PT6A-67T, PT6A-68, PT6A-68D, PT6E-67XP, and PT6E-66XT engines.

Background

This emergency AD was prompted by reports of second-stage power turbine (PT2) blade failures. Transport Canada, which is the aviation authority for Canada, has issued Transport Canada Emergency AD CF-2024-05, dated February 15, 2024 (Transport Canada Emergency AD CF-2024-05) (referred to after this as the mandatory continuing airworthiness information, or the MCAI), to correct an unsafe condition on Pratt & Whitney Canada Corp. (P&WC) Model PT6A-64, PT6A-66, PT6A-66A, PT6A-66B, PT6A-66D, PT6A-66T, PT6A-67, PT6A-67A, PT6A-67AF, PT6A-67AG, PT6A-67B, PT6A-67D, PT6A-67F, PT6A-67P, PT6A-67R, PT6A-67RM, PT6A-67T, PT6A-68, PT6A-68B, PT6A-68C, PT6A-68D, PT6A-68T, PT6E-67XP, and PT6E-66XT engines. The MCAI states that there has been a recent in-service report of a PT2 blade failure on a model PT6A-67 engine and two reports of PT2 blade failures during testing at the manufacturer's facility. The PT2 blade failures were contained. The manufacturer is investigating the root cause of the PT2 blade failures, but the preliminary investigation determined that the affected power turbine modules contained PT2 blades with part number 3056693-01, which were newly manufactured from the same raw material. In all cases, the PT2 blades had accumulated less than 25 hours air time since new. Transport Canada Emergency AD CF-2024-05 specifies removal of the suspect blades prior to the next flight and prohibits installation of the suspect blades. Transport Canada Emergency AD CF-2024-05 states that the corrective actions are interim actions until the root cause investigation is completed.

This emergency AD is intended to prevent the failure of PT2 blades. This condition, if not addressed, could result in engine power loss or engine in-flight shut down, resulting in consequent emergency landing or reduced control of the airplane.

Related Service Information

The FAA reviewed Transport Canada Emergency AD CF-2024-05, which requires replacing the affected PT2 blades. Transport Canada Emergency AD CF-2024-05 also prohibits the installation of the affected PT2 blades.

FAA's Determination

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 and service information described above. The FAA is issuing this emergency AD after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Emergency AD Requirements

This emergency AD requires accomplishing the actions specified in the MCAI, except as discussed under “Differences Between this Emergency AD and the MCAI.”

Differences Between this Emergency AD and the MCAI

The MCAI applies to P&WC Model PT6A-66T, PT6A-68B, PT6A-68C, and PT6A-68T engines, but this emergency AD does not as these engines are not type-certificated in the US.

Interim Action

The FAA considers that this emergency AD is an interim action. The manufacturer is currently investigating the root cause of the unsafe condition identified in this AD. If final action is later identified, the FAA might consider further rulemaking.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this emergency AD to all known U.S. owners and operators of these airplanes. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because failure of the PT2 blade could result in engine power loss or engine in-flight shut down, and consequent emergency landing or reduced control of the airplane. Given the significance of the risk presented by this unsafe condition, it must be immediately addressed. Thus, the FAA has determined that the affected PT2 blades must be removed before further flight. 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 forgo notice and comment.

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.

Presentation of the Actual Emergency Airworthiness Directive

The FAA is issuing this emergency airworthiness directive under 49 U.S.C. 106(g), 40113, and 44701 according to the authority delegated to me by the Administrator.

2024-04-51 Pratt & Whitney Canada Corp.: Project Identifier MCAI-2024-00116-E.

(a) Effective Date

This emergency airworthiness directive (AD) is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

This emergency AD applies to Pratt & Whitney Canada Corp. Model PT6A-64, PT6A-66, PT6A-66A, PT6A-66B, PT6A-66D, PT6A-67, PT6A-67A, PT6A-67AF, PT6A-67AG, PT6A-67B, PT6A-67D, PT6A-67F, PT6A-67P, PT6A-67R, PT6A-67RM, PT6A-67T, PT6A-68, PT6A-68D, PT6E-67XP, and PT6E-66XT engines.

(d) Subject

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

(e) Unsafe Condition

This emergency AD was prompted by reports from the manufacturer of the failure of second-stage power turbine (PT2) blades. The FAA is issuing this emergency AD to prevent the failure of PT2 blades. The unsafe condition, if not addressed, could result in engine power loss or engine in-flight shut down, resulting in consequent emergency landing or reduced control of the airplane.

(f) Compliance

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

(g) Required Actions

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada Emergency AD CF-2024-05, dated February 15, 2024 (Transport Canada Emergency AD CF-2024-05).

(h) Exceptions to Transport Canada Emergency AD CF-2024-05

(1) Where Transport Canada Emergency AD CF-2024-05 refers to its effective date, this AD requires using the date of receipt of this AD.

(2) Where Transport Canada Emergency AD CF-2024-05 refers to hours air time, this AD requires using flight hours.

(3) Where paragraph B of Transport Canada Emergency AD CF-2024-05 specifies “After the effective date of this AD,” replace that text with “As of the effective date of this AD.”

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, AIR-520 Continued Operational Safety Branch, FAA, has the authority to approve AMOCs for this emergency 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 AIR-520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (j)(1) of this emergency 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.

(i) Additional Information

(1) For more information about this emergency AD, contact Barbara Caufield, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7146; email: barbara.caufield@faa.gov.

(2) For Transport Canada Emergency AD CF-2024-05 referenced in this emergency AD, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; phone: (888) 663-3639; email: TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website: tc.canada.ca/en/aviation. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on February 16, 2024.

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