

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

[Docket No. 2003-NE-41-AD]

RIN 2120-AA64

**Airworthiness Directives; Pratt & Whitney Canada JT15D-1, -1A, and -1B 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 Pratt & Whitney Canada (PWC) JT15D-1, -1A, and -1B turbofan engines with certain impellers part number (P/N) 3020365. This proposed AD would require a one-time borescope inspection of the rear face of certain impellers for evidence of a machined groove or step, and repair or replacement of the impeller if a groove or step is found. This proposed AD is prompted by three reports of uncontained failure of the impeller. We are proposing this AD to prevent uncontained failure of the impeller and possible damage to the airplane.

**DATES:** We must receive any comments on this proposed AD by January 12, 2004.

**ADDRESSES:** Use one of the following addresses to submit comments on this proposed AD:

- By mail: Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003-NE-41-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

- By fax: (781) 238-7055.

- By e-mail:

9\_ane\_adcomment@faa.gov.

You can get the service information identified in this proposed AD from Pratt & Whitney Canada, 1000 Marie-Victorin, Longueuil, Quebec, Canada J4G1A1, telephone (800) 268-8000; fax (450) 647-2888. You may examine the AD docket, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

**FOR FURTHER INFORMATION CONTACT:** Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7178; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:****Comments Invited**

We invite you to submit any written relevant data, views, or arguments regarding this proposal. Send your comments to an address listed under **ADDRESSES**. Include "AD Docket No. 2003-NE-41-AD" in the subject line of your comments. If you want us to acknowledge receipt of your mailed comments, send us a self-addressed, stamped postcard with the docket number written on it; we will date-stamp your postcard and mail it back to you. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. If a person contacts us verbally, and that contact relates to a substantive part of this proposed AD, we will summarize the contact and place the summary in the docket. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We are reviewing the writing style we currently use in regulatory documents. We are interested in your comments on whether the style of this document is clear, and your suggestions to improve the clarity of our communications that affect you. You may get more information about plain language at <http://www.faa.gov/language> and <http://www.plainlanguage.gov>.

**Examining the AD Docket**

You may examine the AD Docket (including any comments and service information), by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. See **ADDRESSES** for the location.

**Discussion**

Transport Canada (TC), which is the airworthiness authority for Canada, recently notified the FAA that an unsafe condition may exist on PWC JT15D-1, -1A, and -1B turbofan engines with certain impellers, P/N 3020365 installed. TC advises that there have been three uncontained failures of impellers, P/N 3020365. TC advises that some impellers, P/N 3020365, were manufactured with a machined groove or a step on the rear face. Incidents of impeller fracture and uncontained liberation of high-energy fragments have occurred. The National Transportation Safety Board has investigated and determined that machine marks on the back face of the impeller were the cause of these failures. An impeller with this machined groove or step on the rear face could result in an uncontained failure of the impeller.

**Relevant Service Information**

We have reviewed and approved the technical contents of Pratt & Whitney Canada Service Bulletin (SB) No. JT15D-72-7590, dated May 23, 2003. That SB describes procedures for borescope inspecting impellers, P/N 3020365, that were not previously inspected using PWC overhaul manual Revision 14, and that are not listed in Appendix A of the SB No. JT15D-72-7590, dated May 23, 2003. Transport Canada classified this SB as mandatory and issued airworthiness directive CF-2003-17, dated June 23, 2003, in order to ensure the airworthiness of these PWC engines in Canada.

**FAA's Determination and Requirements of the Proposed AD**

These PWC JT15D-1, -1A, and -1B turbofan engines, manufactured in Canada, are type-certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, Transport Canada has kept us informed of the situation described above. We have examined Transport Canada's findings, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States. Therefore, we are proposing this AD, which would require a one-time borescope inspection of the rear face of certain impellers for evidence of a machined groove or step, and repair or replacement of the impeller, if a groove or step is found. The proposed AD would require you to use the service information described previously to perform these actions.

**Changes to 14 CFR Part 39—Effect on the Proposed AD**

On July 10, 2002, we issued a new version of 14 CFR part 39 (67 FR 47998, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

**Costs of Compliance**

There are about 1,300 PWC JT15D-1, -1A, and -1B turbofan engines of the affected design in the worldwide fleet. We estimate that 740 of the PWC engines installed on airplanes of U.S. registry would be affected by this