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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0860; Directorate Identifier 2010-NE-28-AD; Amendment 39-16422; AD 2010-18-09]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada (P&WC) PW530A, PW545A, and PW545B Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

There have been reports of engine surge, lack of response to Power Lever input and crew commanded engine shutdown on PW530A/PW545A/PW545B engines powered aeroplanes. Investigation revealed engine intercompressor bleed valve/servo valve malfunction as the cause of the above problems, and that this problem is limited to engines fitted with low time (new or overhauled) bleed valve servo valves with either SB 30343 or 30404 incorporated.

We are issuing this AD to prevent inflight loss of power of one or both of the engines and possible loss of control of the airplane.

DATES: This AD becomes effective September 10, 2010.

We must receive comments on this AD by September 27, 2010. The Director of the Federal Register approved the incorporation by reference of P&WC Alert Service Bulletin PW500-72-A30421, dated June 29, 2010, listed in the AD as of September 10, 2010.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9
- a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

Transport Canada, which is the aviation authority for Canada, has issued Canada Airworthiness Directive CF-2010-19, dated July 7, 2010 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

There have been reports of engine surge, lack of response to Power Lever input and crew commanded engine shutdown on PW530A/PW545A/PW545B engines powered aeroplanes. Investigation revealed engine intercompressor bleed valve/servo valve malfunction as the cause of the above problems, and that this problem is limited to engines fitted with low time (new or overhauled) bleed valve servo valves with either SB 30343 or 30404 incorporated.

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

P&WC has issued Alert Service Bulletin (ASB) PW500-72-A30421, dated June 29, 2010. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This AD

This product has been approved by the aviation authority of Canada, and is approved for operation in the United States. Pursuant to our bilateral agreement with Canada, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all information provided by Canada and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between the AD and the MCAI or Service Information

The MCAI compliance requires action on at least one engine of the airplane. The FAA AD will require action on both engines within the defined compliance time and will not state "on at least one engine per airplane."

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the unsafe condition is such that a possible twin engine, nonrecoverable surge could occur. There is insufficient time to issue an NPRM for public comment. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2010-0860; Directorate Identifier 2010-NE-28-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

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.

We are 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

We 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 this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of 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 AD:



2010-18-09 Pratt & Whitney Canada: Amendment 39-16422; Docket No. FAA-2010-0860; Directorate Identifier 2010-NE-28-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective September 10, 2010.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Pratt & Whitney Canada (P&WC) PW530A, PW545A, and PW545B turbofan engines that incorporate either P&WC Service Bulletin (SB) PW500-72-30343 or PW500-72-30404. These engines are installed on, but not limited to, Cessna Aircraft Company model 550 (Citation Bravo) and model 560 (Citation Excel and XLS) airplanes.

Reason

(d) There have been reports of engine surge, lack of response to Power Lever input and crew commanded engine shutdown on PW530A/PW545A/PW545B engines powered aeroplanes. Investigation revealed engine intercompressor bleed valve/servo valve malfunction as the cause of the above problems, and that this problem is limited to engines fitted with low time (new or overhauled) bleed valve servo valves with either SB 30343 or 30404 incorporated.

We are issuing this AD to prevent inflight loss of power of one or both of the engines and possible loss of control of the airplane.

Actions and Compliance

(e) Unless already done, do the following actions.

(1) For engines that have an intercompressor bleed valve (BOV) servo valve with 250 or more hours time-in-service (TIS) since new or overhaul on the effective date of this AD, no further action is required.

Remove Intercompressor Bleed Valve/Servo Valve

(2) For engines that have a BOV servo valve with fewer than 50 hours TIS since new or overhaul on the effective date of this AD, remove the BOV servo valve from service as specified in Table 1 of this AD.

Table 1 – BOV Servo Valve Removal by Engine Model and Service Bulletin

Engine Model	Remove from service...
PW530A and PW545A.	Within 15 hours TIS after the effective date of this AD.
PW545B engines before incorporation of SB PW500-72-30311.	Within 15 hours TIS after the effective date of this AD.
PW545B engines after incorporation of SB PW500-72-30311.	Within 35 hours TIS after the effective date of this AD.

Engine Testing

(3) For engines that have a BOV servo valve with 50 hours or more TIS and fewer than 250 hours TIS since new or overhaul on the effective date of this AD, test the engine as specified in P&WC Alert Service Bulletin (ASB) PW500-72-A30421, dated June 29, 2010. Use the compliance times specified in Table 2 of this AD.

Table 2 – Engine Testing by Engine Model and Service Bulletin

Engine Model	Perform Test...
PW530A and PW545A.	Within 15 hours TIS after the effective date of this AD.
PW545B engines before incorporation of SB PW500-72-30311.	Within 15 hours TIS after the effective date of this AD.
PW545B engines after incorporation of SB PW500-72-30311.	Within 35 hours TIS after the effective date of this AD.

(4) Thereafter, test the engine as specified in P&WC ASB PW500-72-A30421, dated June 29, 2010. Use the compliance times specified in Table 3 of this AD.

Table 3 – Repetitive Engine Testing by BOV TIS

Time on BOV Servo Valve	Repeat test...
Fewer than 100 hours TIS since new.	Within 25 hours TIS since last inspection.
100 or more hours TIS since new, but fewer than 250 hours TIS since new.	Within 50 hours TIS since last inspection.
250 or more hours TIS since new.	No repetitive tests required.

Optional Terminating Action

(f) Replacing the BOV servo valve with a BOV servo valve that is not subject of this AD is terminating action to the testing requirements of paragraphs (e)(3) and (e)(4) of this AD.

FAA AD Differences

(g) This AD differs from the Mandatory Continuing Airworthiness Information (MCAI) in that while the MCAI requires initial mandatory action on only one engine per airplane with follow-on

action to the second engine at a later compliance time, this AD requires initial action on both engines of the airplane at the same compliance time.

Other FAA AD Provisions

(h) Alternative Methods of Compliance (AMOCs): The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) Refer to MCAI Transport Canada Airworthiness Directive CF-2010-19, dated July 7, 2010.

(j) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(k) You must use Pratt & Whitney Canada Alert Service Bulletin PW500-72-A30421, dated June 29, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; telephone 800-268-8000; fax 450-647-2888; Web site: <http://www.pwc.ca>.

(3) You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on August 19, 2010.

Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.