

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>.