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| No. | CF-2010-19 | 1/2 |
| Issue Date | 7 July 2010 | |

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to **Canadian Aviation Regulation (CAR) 521 Division X**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.

This AD has been issued by the Continuing Airworthiness Division (AARDG), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number: CF-2010-19
Subject: Intercompressor Bleed Valve/Servo Valve Malfunction
Effective: 22 July 2010
Applicability: Pratt & Whitney Canada (P&WC) PW530A, PW545A and PW545B engines incorporating either P&WC Service Bulletin (SB) 30343 or 30404, or their later revisions.
Compliance: As indicated, unless already accomplished.

Background: 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.

Since there is a possibility of a dual engine event, P&WC has issued Alert Service Bulletin (ASB) A30421 to rectify the problem. This directive is issued to mandate the incorporation of ASB A30421 to the affected engines to ensure continued safe operation of the fleet.

- Corrective Actions:**
- A. For PW530A and PW545A engines with post-SB 30343 (or its later revisions) or post-SB 30404 (or its later revisions) servo valves that have accumulated less than 50 hours air time (since new or since overhaul) installed on both engines of the same aeroplane, within 15 hours air time after the effective date of this directive, incorporate either one of Accomplishment Instructions Part B, Part C or Part D of P&WC ASB A30421 dated 29 June 2010, or its later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, on at least one engine of the aeroplane;
 - B. For PW530A and PW545A engines with post-SB 30343 (or its later revisions) or post-SB 30404 (or its later revisions) servo valves that have accumulated more than or equal to 50 hours air time but less than 250 hours air time (since new or since overhaul) installed on both engines of the same aeroplane, within 15 hours air time after the effective date of this directive, incorporate either one of Accomplishment Instructions Part A, Part B, Part C or Part D of P&WC ASB A30421 dated 29 June 2010, or its later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, on at least one engine of the aeroplane;
 - C. For pre-SB 30311 (or its later revisions) PW545B engines with post-SB 30343 (or its later revisions) or post-SB 30404 (or its later revisions) servo valves that have accumulated less than 50 hours air time (since new or since overhaul) installed on both engines of the same aeroplane, within 15 hours air time after the effective date of this directive, incorporate either one of Accomplishment Instructions Part B, Part C or Part D of P&WC ASB A30421 dated 29 June 2010, or its later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, on at least one engine of the aeroplane;
 - D. For pre-SB 30311 (or its later revisions) PW545B engines with post-SB 30343 (or its later revisions) or post-SB 30404 (or its later revisions) servo valves that have accumulated more than or equal to 50 hours air time but less than 250 hours air time (since new or since overhaul) installed on both engines of the same aeroplane, within 15 hours air time after the effective date of this directive, incorporate either one of Accomplishment Instructions Part A, Part B, Part C or Part D of P&WC ASB A30421 dated 29 June 2010, or its later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, on at least one engine of the aeroplane;

Pursuant to **CAR 202.51** the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.

To request a change of address, contact the **Civil Aviation Communications Centre (AARC)** at **Place de Ville, Ottawa, Ontario K1A 0N8**, or **1-800-305-2059**, or www.tc.gc.ca/civilaviation/communications/centre/address.asp



- E. For post-SB 30311 (or its later revisions) PW545B engines with post-SB 30343 (or its later revisions) or post-SB 30404 (or its later revisions) servo valves that have accumulated less than 50 hours air time (since new or since overhaul) installed on both engines of the same aeroplane, within 35 hours air time after the effective date of this directive, incorporate either one of Accomplishment Instructions Part B, Part C or Part D of P&WC ASB A30421 dated 29 June 2010, or its later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, on at least one engine of the aeroplane;
- F. For post-SB 30311 (or its later revisions) PW545B engines with post-SB 30343 (or its later revisions) or post-SB 30404 (or its later revisions) servo valves that have accumulated more than or equal to 50 hours air time but less than 250 hours air time (since new or since overhaul) installed on both engines of the same aeroplane, within 35 hours air time after the effective date of this directive, incorporate either one of Accomplishment Instructions Part A, Part B, Part C or Part D of P&WC ASB A30421 dated 29 June 2010, or its later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, on at least one engine of the aeroplane;
- G. For PW530A, PW545A and PW545B engines with post-SB 30343 (or its later revisions) or post-SB 30404 (or its later revisions) servo valves that have accumulated less than 250 hours air time (since new or since overhaul) installed on only one engine of the same aircraft, within 150 hours air time after the effective date of this directive, incorporate P&WC ASB A30421 dated 29 June 2010, or its later revisions approved by the Chief, Continuing Airworthiness, Transport Canada;
- H. If the operator elects to comply with ASB A30421 Accomplishment Instructions Part A, the test procedure listed in Part A must be repeated at intervals not exceeding 25 hours air time for engines with a servo valve that has accumulated less than 100 hours air time; for engines with a servo valve that has accumulated between 100 hours and 250 hours air time, repeat the test procedure at intervals not exceeding 50 hours air time, until the servo valve has accumulated 250 hours air time, or the engine has incorporated either Part B, Part C or Part D of ASB A30421 Accomplishment Instructions.

Authorization: For Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

D. Ferguson
Chief, Continuing Airworthiness

Contact: Mr. Robin Lau, Continuing Airworthiness, Ottawa, telephone 613-952-4461, facsimile 613-996-9178 or e-mail CAWWEBFeedback@tc.gc.ca or any Transport Canada Centre.