



No.	CF-2008-08R1	1/2
Issue Date	18 March 2008	

# 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) 593**. 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), Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

- Number:** CF-2008-08R1
- Subject:** Engine Fan Blade Fracture
- Effective:** 7 February 2008
- Revision** Supersedes Airworthiness Directive (AD) 2008-08 dated 07 February 2008 and is issued to correct the SB number in "Note" under paragraph "4." of the "Corrective Action".
- Applicability:** Pratt & Whitney Canada (P&WC) - PW305A and PW305B engines serial numbers:
- CA0192, CA0195, CA0197, CA0199, CA0200, CA0202, CA0203, CA0204, CA0206, CA0207, CA0208, CA0209, CA0210, CA0211, CA0212, CA0213, CA0214, CA0215, CA0216, CA0217, CA0218, CA0220, CA0221, CA0223, CA0228, CA0231, CA0232, CA0234, CA0235, CA0240, CA0241, CA0243, CA0244, CA0246, CA0247, CA0257, CA0259, CA0260, CA0280, CA0300.
- Compliance:** Is required as indicated, unless already accomplished.
- Background:** There have been two incidents of fan blade dislodgements due to blade fracture on relatively hi-time PW305 engines (over 5000 Hrs). The blade dislodgement in both cases was contained. However, engine installations sustained considerable collateral damage. The root cause of fan blade fracture was determined to be the under-minimum material condition at the fracture location.
- P&WC has established that the subject under-minimum material condition is limited only to fan blades P/N 30B2855-01, manufactured under heat code: MCBWF. Accordingly, P&WC on 24 August 2007 issued Alert Service Bulletin (ASB) No. A24588, requiring, on priority bases, identification and removal of all such discrepant fan blades from service, in accordance with Special Instructions (SI) No.37-2007. ASB No. A24588 was subsequently revised (Rev. 2) on 27 November 2007 to include clarification on the incorporation of another Service Bulletin (SB) No. 24595, on the same subject.
- Considering the potentially hazardous consequence of possible uncontained dislodgement of discrepant blade and its impact on aircraft safety, this AD is issued to mandate the inspection of the affected engine low-pressure (LP) compressor fan blades in accordance with ASB A24588 requirements.
- Corrective Actions:** On all affected engines as specified in the applicability section of this directive, accomplish in accordance with ASB No. A24588R2 or later revisions approved by the Chief, Continuing Airworthiness, National Aircraft Certification, Transport Canada, the following:

- For engines with more than 5000 hours of operating time;
  - Before next flight, inspect low-pressure compressor fan blades and replace any blade that is found to be under-minimum material condition.

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](http://www.tc.gc.ca/civilaviation/communications/centre/address.asp)



Note: One repositioning maintenance flight to facilitate the subject inspection may be allowed.

2. For engines with 5000 or less, but more than 4000 hours of operating time;

Within 30 hours of operating time from the effective date of this directive, but not later than 30 September 2008, inspect low-pressure compressor fan blades and replace any blade that is found to be under-minimum material condition.

3. For engines with 4000 or less, but more than 2500 hours of operating time;

No later than September 30, 2008, inspect low-pressure compressor fan blades and replace any blade that is found to be under-minimum material condition, in accordance with one of the following schedules, whichever occurs first:

- at the next First Stage High Pressure Compressor Rotor inspection (Ref 05-20-00, Scheduled Maintenance Checks), or
- at the next scheduled opportunity where the low-pressure compressor fan is removed, (Ref. Hot Section Inspection or Overhaul Shop Visit), or
- within 300 hrs of operating time from August 24, 2007.

4. For engines with 2500 or less hours of operating time;

Before it accumulates 4000 hours of operating time, but not later than 30 September 2008, inspect low-pressure compressor fan blades and replace any blade that is found to be under-minimum material condition.

Note: Compliance with earlier versions of ASB No. A24588R2 requirements or incorporation of SB No. 24595, prior to the effective date of this directive satisfies the corrective action requirements of this directive.

**Authorization:** For Minister of Transport, Infrastructure and Communities

Derek Ferguson  
Acting Chief, Continuing Airworthiness

**Contact:** Mr. A K Durrani, Continuing Airworthiness, Ottawa, telephone 613-952-5385, facsimile 613-996-9178 or e-mail durrana@tc.gc.ca or any Transport Canada Centre.