



## Airworthiness Directive

**AD No.:** 2016-0063

**Issued:** 31 March 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:**

DASSAULT AVIATION

**Type/Model designation(s):**

Falcon 7X aeroplanes

**Effective Date:** 14 April 2016

**TCDS Number(s):** EASA.A.155

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 76 – Engine Controls – Engine Electronic Control – Software Update

**Manufacturer(s):**

Dassault Aviation

**Applicability:**

Falcon 7X aeroplanes, all serial numbers, except aeroplanes modified with Dassault Aviation modification (Mod) M1389.

**Reason:**

A review of the Pratt & Whitney Canada (PWC) 307A engine data files has disclosed that, under certain operational take-off conditions (high altitude runway and low temperature), the available thrust in relation with N1 indication is less than certified and described in the Aircraft Flight Manual (AFM).

This condition, if not corrected, affects the safety margins with an engine failure during take-off, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, PWC developed an interim correction, to be embodied in service with PWC Service Bulletin (SB) 47202, which allows augmenting the thrust through a general N1-detrimming. Subsequently, PWC developed a new Engine Electronic Control (EEC) software version, which provides a definitive correction of the thrust rating deficiency. PWC published SB 47216 that provides instructions for in service installation of EEC software version 307A0514.



Concurrently with these developments, Dassault Aviation published SB 7X-287 to provide aeroplane modification instructions and also revised the performance charts relevant to the new thrust rating, available with AFM Revision 21 (incorporating Temporary Revision CP098).

For the reasons described above, this AD requires modification of each engine, installation of the new software version, and amendment of the applicable AFM.

**Required Action(s) and Compliance Time(s):**

Required as indicated, unless accomplished previously:

- (1) Within 30 days after the effective date of this AD, modify each engine installed on the aeroplane in accordance with the instructions of PWC SB 47202.
- (2) Within 12 months after the effective date of this AD, modify each engine installed on the aeroplane by updating the EEC (installation of software EEC version 307A0514) in accordance with the instructions of Dassault Aviation SB 7X-287.
- (3) Concurrent with modification of an aeroplane as required by paragraph (2) of this AD, amend the applicable AFM of that aeroplane by inserting a copy of AFM Revision 21 (incorporating AFM CP098) in accordance with the instructions of Dassault Aviation SB 7X-287. Inform all flight crews and, thereafter, operate the aeroplane accordingly.
- (4) Amending the applicable AFM to incorporate a later AFM revision, which includes the AFM CP098 as required by paragraph (3) of this AD, is acceptable to comply with the requirements of paragraph (3) of this AD.
- (5) After modification of an aeroplane as required by paragraph (2) of this AD, installation of a replacement engine on that aeroplane is allowed, provided that, prior to installation, it is established that the engine embodies software EEC version 307A0514. Modification of a pre-mod engine to embody this software can be accomplished in accordance with the instructions of Pratt & Whitney Canada SB PW300-72-47216.
- (6) Installation of a replacement engine or replacement EEC unit on an aeroplane after the effective date of this AD, which embodies a later software EEC version, is equal to compliance with paragraph (2) of this AD, provided the conditions as specified in paragraphs (6.1) and (6.2) of this AD are met.
  - (6.1) The software EEC version must be approved by EASA, or approved under Dassault Aviation DOA; and
  - (6.2) The installation must be accomplished in accordance with aeroplane modification instructions approved by EASA, or approved under Dassault Aviation DOA.

**Ref. Publications:**

Dassault Aviation Falcon 7X SB 7X-287 original issue dated 04 January 2016.



Dassault Aviation AFM CP098 of the Falcon 7X AFM Dassault Aviation DGT105608 revision 21.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Pratt& Whitney Canada SB 47202 initial issue dated 17 June 2014 or revision 1 dated 18 November 2014.

Pratt& Whitney Canada SB 47216 initial issue dated 13 January 2016.

**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 18 February 2016 as PAD 16-024 for consultation until 17 March 2016. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact your Dassault Falcon Technical Center:
  - For Europe, Middle East and Africa based operators:  
Hot Line: (33) 1 47 11 37 37 / Fax: (33) 1 47 11 89 49
  - For USA, Canada and Mexico based operators:  
Help Desk: (1) 800-2FALCON (2325266)
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