



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 16-024

Issued: 18 February 2016

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

DASSAULT AVIATION

Type/Model designation(s):

Falcon 7X aeroplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

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 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 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 above 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. This Proposed AD will be closed for consultation 17 March 2016.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, 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)
 - All other areas:
(1) 201 541 4747

