



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0496; Product Identifier 2016-NM-103-AD; Amendment 39-19001; AD 2017-17-11]**

**RIN 2120-AA64**

**Airworthiness Directives; Dassault Aviation Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Dassault Aviation Model FALCON 7X airplanes. This AD was prompted by a report indicating that, under certain operational takeoff conditions, the available thrust in relation with the N1 indication is less than a certified value, which could affect the safety margins with an engine failure during takeoff. This AD requires modifying each engine by updating the electronic engine control (EEC) software and adjusting the engine N1 trim value, and revising the airplane flight manual (AFM). We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For Dassault service information identified in this final rule, contact Dassault Falcon Jet Corporation, Teterboro Airport, P.O. Box 2000, South Hackensack, NJ 07606; telephone 201-440-6700; Internet <http://www.dassaultfalcon.com>. For Pratt & Whitney Canada service information identified in this final rule, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; telephone 800-268-8000; fax 450-647-2888; Internet <http://www.pwc.ca>. You may view this referenced service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0496.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0496; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Tom Rodriguez, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1137; fax 425-227-1149.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Dassault Aviation Model FALCON 7X airplanes. The NPRM published in the Federal Register on May 30, 2017 (82 FR 24603) (“the NPRM”). We are issuing this AD to prevent a reduction in available engine thrust during certain operational takeoff conditions, which could affect the safety margins with an engine failure during takeoff and could result in reduced control of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2016-0063, dated March 31, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Dassault Aviation FALCON 7X airplanes. The MCAI states:

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 [i.e., modifying each engine installed on the airplane], 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 [EASA] AD requires modification of each engine, installation of the new software version, and amendment of the applicable AFM.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0496.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

We reviewed Dassault FALCON 7X AFM DGT105608, Revision 21, dated November 20, 2015, which incorporates AFM CP098 (provides performance charts relevant to the new thrust rating). This AFM describes operating limitations, normal/abnormal/emergency operating procedures, and performance data and loading information.

We reviewed Dassault Service Bulletin 7X-287, also referred to as 287, dated January 4, 2016. This service information describes procedures for modifying each engine installed on the airplane by updating the EEC, which includes performing tests after removal and installation of the EEC.

We reviewed Pratt & Whitney Canada Service Bulletin PW300-72-47202, Revision 3, also referred to as 47202R3, dated March 10, 2016. This service information describes procedures for modifying an engine by adjusting the engine N1 trim value for PW307A engines.

We reviewed Pratt & Whitney Canada Service Bulletin PW300-72-47216, also referred to as 47216, dated January 13, 2016. This service information describes procedures for modifying each engine installed on the airplane by updating the EEC, which includes installing software EEC version 307A0514.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

**Costs of Compliance**

We estimate that this AD affects 62 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Modification and AFM Revision	6 work-hours X \$85 per hour = \$510	\$19,002	\$19,512	\$1,209,744

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2017-17-11 Dassault Aviation:** Amendment 39-19001; Docket No. FAA-2017-0496; Product Identifier 2016-NM-103-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Dassault Aviation Model FALCON 7X airplanes, certificated in any category, all serial numbers, except airplanes modified with Dassault Aviation modification (Mod) M1389.

**(d) Subject**

Air Transport Association (ATA) of America Code 76, Engine Controls.

**(e) Reason**

This AD was prompted by a report indicating that, under certain operational takeoff conditions, the available thrust in relation with the N1 indication is less than a certified value, which could affect the safety margins with an engine failure during takeoff. We are issuing this AD to prevent a reduction in available engine thrust during certain operational takeoff conditions, which could affect the safety margins with an engine failure during takeoff and could result in reduced control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Modification - Software Update**

Within 12 months after the effective date of this AD, modify each engine installed on the airplane by updating the electronic engine control (EEC) (installation of software EEC version 307A0514), in accordance with the Accomplishment Instructions of Dassault Service Bulletin 7X-287, also referred to as 287, dated January 4, 2016; and Pratt & Whitney Canada Service Bulletin PW300-72-47216, also referred to as 47216, dated January 13, 2016.

**(h) Airplane Flight Manual (AFM) Revision**

Concurrently with the modification of an airplane required by paragraph (g) of this AD, revise the applicable AFM of that airplane by inserting a copy of Dassault

FALCON 7X AFM DGT105608, Revision 21, dated November 20, 2015 (incorporating AFM CP098).

**(i) Modification – N1 Detrim**

Prior to or concurrently with the modification of an airplane required by paragraph (g) of this AD, modify each engine installed on the airplane by adjusting the engine N1 trim value, in accordance with the Accomplishment Instructions of Pratt & Whitney Canada Service Bulletin PW300-72-47202, Revision 3, also referred to as 47202R3, dated March 10, 2016.

**(j) Replacement Limitation**

After modification of an airplane as required by paragraph (g) of this AD, installation of a replacement engine on that airplane is allowed, provided that, prior to installation, it is positively established that the engine embodies software EEC version 307A0514. Modification of a pre-modified engine to embody this software can be accomplished in accordance with the Accomplishment Instructions of Pratt & Whitney Canada Service Bulletin PW300-72-47216, also referred to as 47216, dated January 13, 2016.

**(k) Alternative Replacements**

Installation of a replacement engine or replacement EEC unit on an airplane after the effective date of this AD, which embodies a later software EEC version, is acceptable for compliance with paragraph (g) of this AD, provided the conditions specified in paragraphs (k)(1) and (k)(2) of this AD are met.

(1) The software EEC version must be approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Dassault Aviation's EASA Design Organization Approval (DOA).

(2) The installation must be accomplished in accordance with airplane modification instructions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Dassault Aviation's EASA DOA.

**(l) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using service information in paragraph (l)(1), (l)(2), or (l)(3) of this AD.

(1) Pratt & Whitney Canada Service Bulletin PW300-72-47202, also referred to as 47202, dated June 17, 2014.

(2) Pratt & Whitney Canada Service Bulletin PW300-72-47202, Revision 1, also referred to as 47202R1, dated November 18, 2014.

(3) Pratt & Whitney Canada Service Bulletin PW300-72-47202, Revision 2, also referred to as 47202R2, dated January 5, 2016.

**(m) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards

District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (n)(2) of this AD. Information may be emailed to: [9-ANM-116-AMOC-REQUESTS@faa.gov](mailto:9-ANM-116-AMOC-REQUESTS@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Dassault Aviation's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(n) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016-0063, dated March 31, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0496.

(2) For more information about this AD, contact Tom Rodriguez, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1137; fax 425-227-1149.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (o)(4) and (o)(5) of this AD.

**(o) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Dassault FALCON 7X Airplane Flight Manual DGT105608, Revision 21, dated November 20, 2015.

(ii) Dassault Service Bulletin 7X-287, also referred to as 287, dated January 4, 2016.

(iii) Pratt & Whitney Canada Service Bulletin PW300-72-47202, Revision 3, also referred to as 47202R3, dated March 10, 2016.

(iv) Pratt & Whitney Canada Service Bulletin PW300-72-47216, also referred to as 47216, dated January 13, 2016.

(3) For Dassault service information identified in this AD, contact Dassault Falcon Jet Corporation, Teterboro Airport, P.O. Box 2000, South Hackensack, NJ 07606; telephone 201-440-6700; Internet <http://www.dassaultfalcon.com>.

(4) For Pratt & Whitney Canada 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; Internet <http://www.pwc.ca>.

(5) You may view this service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(6) You may view this service information that is incorporated by reference 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>.

Issued in Renton, Washington, on August 9, 2017.

Dionne Palermo,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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