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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1023; Product Identifier 2017-NM-144-AD; Amendment 39-19104; AD 2017-23-10]

RIN 2120-AA64

Airworthiness Directives; Dassault Aviation Airplanes

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

ACTION: Final rule; request for comments.

SUMMARY: We are superseding Airworthiness Directive (AD) 2017-19-17, which applied to certain Dassault Aviation Model FALCON 900EX and FALCON 2000EX airplanes. AD 2017-19-17 required revising the airplane flight manual (AFM) to include procedures to follow when an airplane is operating in icing conditions. AD 2017-19-17 also required a detailed inspection of the wing anti-ice system ducting for the presence of a diaphragm, and follow-on actions (replacement of ducting or re-identification of the ducting part marking). This new AD retains the actions required by AD 2017-19-17, and corrects the follow-on actions for certain airplanes. This AD was prompted by a determination that the follow-on actions specified in AD 2017-19-17 were incorrect for certain airplanes. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective December 1, 2017.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 27, 2017 (82 FR 44305, September 22, 2017).

We must receive comments on this AD by January 2, 2018.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For 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>. 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-2017-1023.

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-2017-1023; 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 AD 2017-19-17, Amendment 39-19047 (82 FR 44305, September 22, 2017) (“AD 2017-19-17”), which applied to certain Dassault Aviation Model FALCON 900EX and FALCON 2000EX airplanes. AD 2017-19-17 superseded AD 2016-17-02, Amendment 39-18615 (81 FR 55366, August 19, 2016). AD 2017-19-17 was prompted by a design review of in-production airplanes that identified a deficiency in certain wing anti-ice system ducting. AD 2017-19-17 required revision of the AFM to include procedures to follow when an airplane is operating in icing conditions, the detailed inspection of the wing anti-ice system ducting for the presence of a diaphragm, and replacement of ducting or re-identification of the ducting part marking. We issued AD 2017-19-17 to detect and correct a deficiency in the wing anti-ice system ducting, which could result in reduced performance of the wing anti-ice system with potential ice accretion and ingestion, and could result in degraded engine power and degraded handling characteristics.

Since we issued AD 2017-19-17, we found that the follow-on actions specified in paragraphs (h)(1) and (h)(2) of AD 2017-19-17 are correct for Model FALCON 900EX airplanes. However, for Model FALCON 2000EX airplanes, the follow-on actions specified in paragraphs (h)(1) and (h)(2) of AD 2017-19-17 would be dependent on different conditions than those specified for Model FALCON 900EX airplanes. This AD corrects those actions for Model FALCON 2000EX airplanes.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Emergency AD 2016-0130-E, dated July 5, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Dassault Aviation Model FALCON 900EX and FALCON 2000EX airplanes. The MCAI states:

A design review of in production aeroplanes identified a manufacturing deficiency of some wing anti-ice system ducting.

This condition, if not detected and corrected, could lead to an undetected reduced performance of the wing anti-ice system, with potential ice accretion and ingestion, possibly resulting in degraded engine power and degraded handling characteristics.

The Falcon 900EX EASY and Falcon * * * [2000EX] Aircraft Flight Manuals (AFM) contain a normal procedure 4-200-05A, "Operations in Icing Conditions", addressing minimum fan speed rotation (N1) during combined operation of wing anti-ice and engine anti-ice systems. The subsequent investigation demonstrated that the wing anti-ice system performance for aeroplanes equipped with ducting affected by the manufacturing deficiency can be restored increasing N1 value. In addition, Dassault Aviation published Service Bulletin (SB) F900EX-464 (for Falcon 900EX aeroplanes) and SB F2000EX-393 (for Falcon 2000EX aeroplanes), providing instructions for wing anti-ice system ducting inspection.

For the reasons described above, this [EASA] AD requires an AFM amendment and a one-time [detailed] inspection of the wing anti-ice system ducting [and, as applicable, a check of the part number,] and, depending on findings, re-identification or replacement of the wing anti-ice system ducting.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1023.

Related Service Information Under 1 CFR Part 51

Dassault has issued Service Bulletin F900EX-464, dated June 20, 2016; and Service Bulletin F2000EX-393, dated June 20, 2016. This service information describes procedures for an inspection of the wing anti-ice system ducting and re-identification or replacement of the wing anti-ice system ducting. These documents are distinct since they apply to different airplane models. 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.

FAA's Determination and Requirements of This AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of these same type designs.

FAA's Justification and Determination of the Effective Date

We determined that AD 2017-19-17 contains an error in the description of follow-on actions that could allow the identified unsafe condition to continue for Model FALCON 2000EX airplanes. This AD corrects the follow-on actions for the Model FALCON 2000EX airplanes. No other changes have been made to AD 2017-19-17. Therefore, we determined that notice and opportunity for public comment before issuing this AD are unnecessary and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-1023; Product Identifier 2017-NM-144-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD affects 52 airplanes of U.S. registry.

The action required by AD 2017-19-17, and retained in this AD, takes about 5 work-hours per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the action that is required by AD 2017-19-17 is \$425 per product. This AD adds no new economic burden to AD 2017-19-17.

We also estimate that any necessary follow-on actions will take about 19 work-hours and require parts costing \$24,000, for a cost of \$25,615 per product. We have no way of determining the number of aircraft that might need these actions.

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 removing airworthiness directive (AD) 2017-19-17, Amendment 39-19047 (82 FR 44305, September 22, 2017), and adding the following new AD:



FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2017-23-10 Dassault Aviation: Amendment 39-19104; Docket No. FAA-2017-1023; Product Identifier 2017-NM-144-AD.

(a) Effective Date

This AD is effective December 1, 2017.

(b) Affected ADs

This AD replaces AD 2017-19-17, Amendment 39-19047 (82 FR 44305, September 22, 2017) ("AD 2017-19-17").

(c) Applicability

This AD applies to the Dassault Aviation airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Model FALCON 900EX airplanes, serial numbers (S/Ns) 270 through 291 inclusive and 294.

(2) Model FALCON 2000EX airplanes, S/Ns 263 through 305 inclusive, 307 through 313 inclusive, 315, 320, and 701 through 734 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 30, Ice and rain protection.

(e) Reason

This AD was prompted by a design review of in-production airplanes that identified a deficiency in certain wing anti-ice system ducting. We are issuing this AD to detect and correct a deficiency in the wing anti-ice system ducting, which could result in reduced performance of the wing anti-ice system with potential ice accretion and ingestion, and could result in degraded engine power and degraded handling characteristics.

(f) Compliance

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

(g) Retained Revision to the Airplane Flight Manual (AFM), With No Changes

This paragraph restates the requirements of paragraph (g) of AD 2017-19-17, with no changes.

(1) For Model FALCON 900EX airplanes on which the actions specified in Dassault Service Bulletin F900EX-464 have not been accomplished: Within 10 flight cycles after September 6, 2016 (the effective date of AD 2016-17-02, Amendment 39-18615 (81 FR 55366, August 19, 2016) ("AD 2016-17-02")), revise Section 4-200-05A, "OPERATION IN ICING CONDITIONS," of the Model FALCON 900EX AFM to include the information in figure 1 to paragraph (g)(1) of this AD, and

thereafter operate the airplane accordingly. The AFM revision may be done by inserting a copy of this AD into the AFM.

Figure 1 to Paragraph (g)(1) of this AD – Operation in Icing Conditions

Wings Anti-Ice System Operation				
During in-flight operation of a wings anti-ice system (WINGS ANTI-ICE) maintain the N1 of all engines equal to or more than the values defined in Table 1, as applicable to atmospheric condition.				
Table 1				
New Minimum N1 values required during in-flight operation of a wings anti-ice system				
Three operative engines:				
TAT	– 30 to – 20 °C	– 20 to – 10 °C	– 10 to 0 °C	0 to + 10 °C
Above 20,000 ft	79%	75%	71%	66%
From 20,000 ft to 10,000 ft	76%	73%	66%	59%
Below 10,000 ft	68%	66%	61%	58%
These new values include 3% increase compared to former values (4-200-05A page 1/2).				
Two operative engines:				
TAT	– 30 to – 20 °C	– 20 to – 10 °C	– 10 to 0 °C	0 to + 10 °C
Above 20,000 ft	86%	82%	78%	73%
From 20,000 ft to 10,000 ft	83%	80%	73%	66%
Below 10,000 ft	75%	73%	68%	65%
These new values include 3% increase compared to former values (4-200-05A page 1/2).				
TAT – Total Air Temperature				
Note 1: Maintaining the N1 above the minimum anti-ice N1 on all engines may lead to exceedance of approach speed. Early approach or landing configuration of an airplane and/or application of airbrakes may be used to control the airspeed. In approach and landing and for a limited duration up to three minutes, selection of N1 speeds below the minimum anti-ice N1 speed is authorized. In this case it is necessary to disengage the autothrottle.				
Effectivity: F900EX (LX variant) S/N 270 to 291, 294 without Dassault Aviation SB F900EX-464.				

(2) For Model FALCON 2000EX airplanes on which the actions specified in Dassault Service Bulletin F2000EX-393 have not been accomplished: Within 10 flight cycles after September 6, 2016 (the effective date of AD 2016-17-02), revise Section 4-200-05A, “OPERATION IN ICING CONDITIONS,” of the Model FALCON 2000EX AFM to include the information in figure 2 to paragraph (g)(2) of this AD, and thereafter operate the airplane accordingly. The AFM revision may be done by inserting a copy of this AD into the AFM.

Figure 2 to Paragraph (g)(2) of this AD – Operation in Icing Conditions

Wing Anti-Ice System Operation				
During in-flight operation of a wing anti-ice system (WING ANTI-ICE) maintain the N1 of both engines equal to or more than the values defined in Table 1, as applicable to atmospheric condition.				
Table 1 New Minimum N1 values required during in-flight operation of a wing anti-ice system				
Two engines operative minimum N1:				
Z \ TAT	-30 °C	-15 °C	0 °C	+10 °C
31,000 ft	74.6	67.6	52.8	52.8
22,000 ft	72.4	63.7	52.8	52.1
3,000 ft	57.3	54.9	49.4	48.8
0 ft	54.9	54.9	49.4	48.8
These new values include 2% increase compared to former values (4-200-05A page 1/2).				
One engine operative or one bleed inoperative minimum N1:				
Z \ TAT	-30 °C	-15 °C	0 °C	+10 °C
31,000 ft	82.4	77.0	64.0	58.0
22,000 ft	79.2	72.0	59.8	56.6
3,000 ft	71.2	66.4	59.8	49.3
0 ft	64.2	63.7	59.8	49.3
These new values include 2% increase compared to former values (4-200-05A page 1/2).				
TAT – Total Air Temperature Z - Altitude				
Note 1: Maintaining the N1 above the minimum anti-ice N1 on all engines may lead to exceedance of approach speed. Early approach or landing configuration of an aeroplane and/or application of airbrakes may be used to control the airspeed. In approach and landing and for a limited duration up to three minutes, selection of N1 speeds below the minimum anti-ice N1 speed is authorized. In this case it is necessary to disengage the autothrottle.				
Effectivity: F2000EX (LX/S variants) S/N 263 to 305, 307 to 313, 315, 320, 701 to 734 without Dassault Aviation SB F2000EX-393.				

(h) Retained Inspection, Part Replacement, Part Re-identification, With Revised Affected Airplanes

This paragraph restates the requirements of paragraph (h) of AD 2017-19-17, with revised affected airplanes. For Model FALCON 900EX airplanes: Within 9 months after October 27, 2017 (the effective date of AD 2017-19-17), do a detailed inspection of the wing anti-ice system ducting (anti-ice pipe) for the presence of a diaphragm, and do all applicable actions specified in paragraph (h)(1) or (h)(2) of this AD, in accordance with the Accomplishment Instructions of Dassault Service Bulletin F900EX-464, dated June 20, 2016. After the applicable actions specified in paragraph (h)(1) or (h)(2) of this AD have been completed, the AFM revision required by paragraph (g) of this AD may be removed from the AFM for that airplane.

(1) If during the inspection required by the introductory text to paragraph (h) of this AD it is determined that a diaphragm is present: Before further flight, replace the wing anti-ice system ducting.

(2) If during the inspection required by the introductory text to paragraph (h) of this AD it is determined that a diaphragm is not present: Before further flight, do a check of the anti-ice pipe part number and re-identify the wing anti-ice system ducting.

(i) New Actions: Inspection, Part Replacement, Part Re-identification

For Model FALCON 2000EX airplanes: Within 9 months after the effective date of this AD, do a detailed inspection of the wing anti-ice system ducting (anti-ice pipe) for the presence of a diaphragm, and do all applicable actions specified in paragraph (i)(1) or (i)(2) of this AD, in accordance with the Accomplishment Instructions of Dassault Service Bulletin F2000EX-393, dated June 20, 2016. After the applicable actions specified in paragraph (i)(1) or (i)(2) of this AD have been completed, the AFM revision required by paragraph (g) of this AD may be removed from the AFM for that airplane.

(1) If during the inspection required by the introductory text to paragraph (i) of this AD it is determined that a diaphragm is not present: Before further flight, replace the wing anti-ice system ducting.

(2) If during the inspection required by the introductory text to paragraph (i) of this AD it is determined that a diaphragm is present: Before further flight, do a check of the anti-ice pipe part number and re-identify the wing anti-ice system ducting.

(j) 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 (k)(2) of this AD. Information may be emailed to: 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 the European Aviation Safety Agency (EASA); or Dassault Aviation's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Emergency AD 2016-0130-E, dated July 5, 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-2017-1023.

(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.

(l) 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.

(3) The following service information was approved for IBR on October 27, 2017 (82 FR 44305, September 22, 2017).

(i) Dassault Aviation Service Bulletin F900EX-464, dated June 20, 2016.

(ii) Dassault Aviation Service Bulletin F2000EX-393, dated June 20, 2016.

(4) For 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>.

(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 November 7, 2017.

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