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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-1306; Directorate Identifier 2010-NM-112-AD; Amendment 39-16682; AD 2011-10-01]

RIN 2120-AA64

Airworthiness Directives; Dassault-Aviation Model FALCON 7X Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

A design review has revealed a potential dormant failure of the Ram Air Turbine (RAT) heating system. If this failure occurs, it could lead to the freezing of the RAT mechanism [the potential consequence of this heater being inoperative relates primarily to generator rotor/turbine assembly rotation—either the ability to rotate or to rotate at rated RPM for a given airspeed], and the consequent * * * [non-functioning] of the RAT when needed.

* * * * *

Non-functioning of the RAT could result in insufficient electrical power to operate the fly-by-wire system, and subsequent loss of control of the airplane. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective June 9, 2011.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 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 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on January 5, 2011 (76 FR 480). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

A design review has revealed a potential dormant failure of the Ram Air Turbine (RAT) heating system. If this failure occurs, it could lead to the freezing of the RAT mechanism [the potential consequence of this heater being inoperative relates primarily to generator rotor/turbine assembly rotation—either the ability to rotate or to rotate at rated RPM for a given airspeed], and the consequent * * * [non-functioning] of the RAT when needed.

The purpose of this AD is to require a repetitive functional test of the RAT heater * * *

Non-functioning of the RAT could result in insufficient electrical power to operate the fly-by-wire system, and subsequent loss of control of the airplane. The corrective action is repairing. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comment received.

Request To Rephrase Summary and Reason Sections of the NPRM

Hamilton Sundstrand requested that we rephrase the Summary and Reason sections of the NPRM regarding the potential for RAT non-deployment due to freezing of the RAT mechanism. The commenter stated that the malfunction of the RAT heating system would not in itself prevent RAT deployment. The commenter stated that the heating system consists of only the RAT heater within the generator, and the potential consequence of this heater being inoperative relates primarily to freezing of the gap between the rotor and stator of the generator rotor/turbine assembly, leading to the RAT generator inability to rotate or to rotate at rated rotations per minute (RPM) for a given airspeed.

We agree to rephrase the Summary and Reason sections of the AD, as well as paragraph (e) of this AD, although the end result of the heater issue results in the identified insufficient electrical power to operate the fly-by-wire system, and subsequent loss of control of the airplane.

Conclusion

We reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow our FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

We estimate that this AD will affect 21 products of U.S. registry. We also estimate that it will take about 1 work-hour per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$1,785, or \$85 per product.

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.

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 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); and
3. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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 AD:



2011-10-01 Dassault-Aviation: Amendment 39-16682. Docket No. FAA-2010-1306; Directorate Identifier 2010-NM-112-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 9, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Dassault-Aviation Model FALCON 7X airplanes, certificated in any category, all serial numbers.

Subject

(d) Air Transport Association (ATA) of America Code 24: Electrical power.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

A design review has revealed a potential dormant failure of the Ram Air Turbine (RAT) heating system. If this failure occurs, it could lead to the freezing of the RAT mechanism [the potential consequence of this heater being inoperative relates primarily to generator rotor/turbine assembly rotation—either the ability to rotate or to rotate at rated RPM for a given airspeed], and the consequent * * * [non-functioning] of the RAT when needed.

* * * * *

Non-functioning of the RAT could result in insufficient electrical power to operate the fly-by-wire system, and subsequent loss of control of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) At the applicable times specified in paragraph (g)(1) or (g)(2) of this AD, do a functional test of the RAT heater using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its

delegated agent). Repeat the functional test of the RAT heater thereafter at the applicable time specified in paragraph (g)(1) or (g)(2) of this AD. If any functional test fails, before further flight, repair using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA (or its delegated agent).

(1) For Falcon 7X airplanes on which modification M0305 has not been done and on which Dassault Service Bulletin 7X-018, dated March 6, 2009, has not been done: Within 650 flight hours after the effective date of this AD, do a functional test of the RAT heater and repeat the functional test of the RAT heater thereafter at intervals not to exceed 650 flight hours.

(2) For Falcon 7X airplanes on which modification M0305 has been done or on which Dassault Service Bulletin 7X-018, dated March 6, 2009, has been done: Within 1,900 flight hours after the effective date of this AD or after modification M0305 or Dassault Service Bulletin 7X-018, dated March 6, 2009, has been done, whichever occurs later, do a functional test of the RAT heater. Repeat the functional test of the RAT heater thereafter at intervals not to exceed 1,900 flight hours.

Note 1: Additional guidance for doing the functional test of the RAT heater required by paragraph (g) of this AD can be found in Task 24-50-25-720-801, Functional Test of the RAT Heater, dated January 16, 2009, of the Dassault Falcon 7X Aircraft Maintenance Manual (AMM).

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows:

(1) The MCAI provides an option of inserting the MCAI into Chapter 5-40 of the Dassault Falcon 7X AMM, pending publication of the revised Chapter 5-40 of the Dassault Falcon 7X AMM. This AD does not have that option.

(2) The MCAI requires doing the actions in accordance with Task 24-50-25-720-801 of Chapter 5-40, of the Dassault Falcon 7X AMM. However, this AD requires that the actions be done using a method approved by the FAA or EASA (or its delegated agent).

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, 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 Branch, send it to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Information may be e-mailed 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. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

Related Information

(i) Refer to MCAI EASA Airworthiness Directive 2010-0033, dated March 3, 2010, for related information.

Material Incorporated by Reference

(j) None.

Issued in Renton, Washington, on April 20, 2011.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.