Recently, a Dassault Aviation Falcon 7X aeroplane experienced an uncontrolled pitch trim runaway during descent. The crew succeeded in recovering a stable situation and performed an uneventful landing.

This condition, if occurring again, could lead to a loss of control of the aeroplane. To address this potential unsafe condition, pending investigations by the manufacturer, EASA issued emergency AD 2011–0102–E (which corresponds to FAA AD 2011–12–51) which prohibited further flights from its effective date.

The initial results of the investigations show that there was a production defect in the Horizontal Stabilizer Electronic Control Unit (HSECU) which could have contributed to the cause of the event. There are two different HSECU part numbers (P/N) in use: P/N 051244–02 is not affected by this production defect and P/N 051244–04 is potentially affected by this production defect.

The aeroplane that experienced the uncontrolled pitch trim runaway event was equipped with a HSECU P/N 051244–04. Investigations are continuing to confirm this cause.

In the meantime, to allow re-starting flight operations and providing protection against further pitch trim runaway events, Dassault Aviation have developed two modifications (M1235 and M1236) which are implemented through accomplishment of Dassault Aviation Service Bulletin (SB) F7X–211.

Furthermore, the flight envelope must be restricted, compared to the original certified flight envelope. Dassault Aviation have developed the corresponding Aircraft Flight Manual (AFM) limitations and a placard, to be installed in the cockpit (part of the instructions of SB F7X–211) to remind the flight crew of the limitations. In addition, modified operational procedures have been developed for in-flight activation of the new protection.

A Certification Maintenance Requirement (CMR), to repetitively test the new Horizontal Stabilizer Trim Actuator (HSTA) electric motors reversion relays (installed with M1235 and M1236), has been developed and must be introduced into chapter 5.40 of the Aircraft Maintenance Manual (AMM). Additionally, the Master Minimum Equipment List (MSEL) is modified by this AD to prohibit dispatch of the aeroplane with some specific identified failures.

To correct this unsafe condition and allow resumption of flights for aeroplanes equipped with HSECU P/N 051244–02, EASA issued AD 2011–0114–E, which superseded EASA AD 2011–0102–E, to require:

1. Accomplishing two Dassault Aviation modifications,
2. Amending the AFM and installing a placard in the cockpit,
3. Amending the Minimum Equipment List (MSEL), and
4. Implementing an operational test of the HSTA electric motors reversion relays.

For aeroplanes equipped with HSECU P/N 051244–04, the prohibition of flights was maintained.

Since EASA AD 2011–0114–E was issued, Dassault Aviation have issued SB F7X–212 which gives instructions, for aeroplanes equipped with HSECU P/N 051244–04, to remove the HSECU for verification by Rockwell Collins and replace it with an HSECU that has passed the verification, having a name plate with a stamped V. After

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; Dassault Aviation Model FALCON 7X Airplanes

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

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above that would supersede an existing AD. 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:

Recently, a Dassault Aviation Falcon 7X aeroplane experienced an uncontrolled pitch trim runaway during descent. The crew succeeded in recovering a stable situation and performed an uneventful landing.

This condition, if occurring again, could lead to a loss of control of the aeroplane.

* * * * *

This AD requires actions that are intended to address the unsafe condition described in the MCAI.

DATES: This AD becomes effective August 22, 2011.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in the AD as of August 22, 2011.

We must receive comments on this AD by September 19, 2011.

ADDRESSES: You may send comments 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 W12–40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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 this AD, 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.


SUPPLEMENTARY INFORMATION:

Discussion


Since we issued AD 2011–12–51, we have been advised of the development of new modifications that will address the unsafe condition. We have determined that these modifications are necessary to allow these airplanes to resume operation. The EASA issued Emergency AD 2011–0114–E, dated June 16, 2011, to supersede AD 2011–0102–E. The EASA subsequently revised that AD with EASA AD 2011–0114R1, dated June 23, 2011. The EASA subsequently revised that AD with EASA AD 2011–0114R2, dated July 7, 2011 (referred to after this as “the MCAI”), which states:

Recently, a Dassault Aviation Falcon 7X aeroplane experienced an uncontrolled pitch trim runaway during descent. The crew succeeded in recovering a stable situation and performed an uneventful landing.
replacement of the HSEC U P/N 051244–04 with a verified HSEC U P/N 051244–04 “V”. The airplane can resume flights, provided the requirements of this AD are complied with.

For the reasons described above, EASA AD 2011–0114R1 was issued to allow aeroplanes equipped with HSEC U P/N 051244–04 to resume flights under the same conditions as those previously established for aeroplanes equipped with HSEC U P/N 051244–02, provided an HSEC U P/N 051244–04 with stamped “V” is installed.

Since EASA AD 2011–0114R1 was issued, Dassault Aviation has developed a modification of HSEC U P/N 051244–04 which corrects the production defect found on some of these units inspected during the initial investigation. This modified unit has a new P/N 051244–05 and it is eligible for installation on an aeroplane.

For the reasons described above, this revised AD is issued to allow aeroplanes equipped with HSEC U P/N 051244–05 to resume flights under the same conditions as those previously established for aeroplanes equipped with HSEC U P/N 051244–02, or HSEC U P/N 051244–04 with stamped “V.”

This revised AD is still considered to be an interim measure. Pending results of the ongoing investigations, further AD action may follow to restore a fully certified flight envelope for aeroplanes of this type design.

Required actions include revising the AFM to limit operation with certain inoperative MEL items, and revising the electronic checklist. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information


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 Designation, 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 the same type design.

Differences Between the 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 FAA policies. Any such differences are highlighted in a Note within the AD.

FAA’s Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because of the possibility of an uncontrolled pitch trim runaway during descent, which could result in loss of control of the airplane. Therefore, we determined that notice and opportunity for public comment prior to issuing this AD is impracticable 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.

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.

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 Amendment 39–16735 (76 FR 37251, June 27, 2011) and adding the following new AD:

2011–16–01 Dassault Aviation


Effective Date

(a) This airworthiness directive (AD) becomes effective August 22, 2011.

Affected ADs

(b) This AD supersedes AD 2011–12–51, Amendment 39–16735.

Applicability

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

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (n)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

Subject

(d) Air Transport Association (ATA) of America Code 27: Flight controls.

Reason

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

Recently, a Dassault Aviation Falcon 7X airplane experienced an uncontrolled pitch trim runaway during descent. The crew succeeded in recovering a stable situation and performed an uneventful landing. This condition, if occurring again, could lead to a 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.

Modification

(g) Before further flight, do the applicable actions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD.

(1) For airplanes on which Dassault Mandatory Service Bulletin 7X–211, Revision 1, dated June 14, 2011, has been done as of the effective date of this AD: Modify the airplane by adding an automatic reversion logic and a means for the pilot to override pitch trim control normal modes, and install placards in the cockpit in full view of the pilots, in accordance with paragraph 2.


(2) For airplanes on which Dassault Mandatory Service Bulletin 7X–211, Revision 1, dated June 14, 2011, has been done as of the effective date of this AD:

Replace the frame of the emergency switch box, in accordance with paragraph 3.


(3) For airplanes equipped with any horizontal stabilizer electronic control unit (HSECU) P/N 051244–04, replace the HSECU with any HSECU identified in paragraph (g)(3)(i), (g)(3)(ii), or (g)(3)(iii) of this AD, in accordance with the Accomplishment Instructions of Dassault Mandatory Service Bulletin 7X–212, Revision 2, dated July 7, 2011.

(i) HSECU P/N 051244–02

(ii) Verified HSECU P/N 051244–04 having a stamped "V"

(iii) HSECU P/N 051244–05

Credit for Actions Accomplished in Accordance With Previous Service Information

(b) An HSECU replacement done before the effective date of this AD in accordance with Dassault Mandatory Service Bulletin 7X–212, Revision 1, dated June 23, 2011, is acceptable for compliance with the requirements of either paragraph (g)(3)(i) or (g)(3)(iii) of this AD.

Revision of Airplane Flight Manual (AFM)

(i) As of the effective date of this AD, operate the airplane according to the limitations and airworthiness conditions specified in the Dassault Falcon 7X AFM, Revision 12, dated June 16, 2011. Revision 12 introduces revised operational speed limitations and revised procedures accounting for the new TRIM EMERG button.

Electronic Checklist Database Installation

(j) Before further flight, install the electronic checklist V0007 database, in accordance with the Accomplishment Instructions of Dassault Service Bulletin 7X–213, dated June 22, 2011.

Operating Restrictions

(k) Before further flight, revise the Limitations section of the Dassault Falcon 7X AFM to include the following information. This may be accomplished by inserting a copy of this AD into the AFM.

“Dispatch with any inoperative equipment identified below is prohibited. This prohibition takes precedence over the FAA master minimum equipment list (MMEL) or any operator’s MEL.

Air data systems (identified as MEL item 34–9)

Multi functional probe (MFP) heating system (identified as MMEL item 30–1)

ACMU3 and ACMU4 (identified as MMEL item 27–3)

LH REAR POWER #3 (identified as MMEL item 27–5–4–6)

Back-up mode (identified as MMEL item 27–8)

Maintenance Program Revision

(l) Within 30 days after the effective date of this AD, revise the maintenance program to incorporate MPD task 27–40–00–710–801, as specified in Dassault Aviation, Falcon 7X Maintenance Manual, Falcon 7X—Chapter 5–40–00 after Rev 01, dated June 10, 2011 (Commonly referred to as Dassault Change Proposal (CP) CP009 to Chapter 5–40–00 of Dassault Falcon 7X Maintenance Manual). The initial compliance time for doing the operational test of the HSTA electric motors reversion relays is 1,850 flight hours after accomplishment of the applicable actions required by paragraph (g) of this AD.

Note 2: The MM revision required by paragraph (l) of this AD may be done by inserting a copy of Dassault CP CP009, dated June 10, 2011, to Chapter 5–40–00 of Dassault Falcon 7X MM into the MM. When Dassault CP CP009 has been included in general revisions of the MM, the general revisions may be inserted into the MM, provided the relevant information in the general revision is identical to that in Dassault CP CP009, and Dassault CP CP009 may be removed.

No Alternative Procedures or Intervals

(m) After the maintenance program has been revised as required by paragraph (l) of this AD, no alternative procedure or interval for the operational test may be used unless the procedure and/or interval is approved as an AMOC in accordance with the procedures specified in paragraph (n) of this AD.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows:

(1) EASA AD 2011–0114R2 requires repetitive operational tests of the HSTA electric motors reversion relays, and specifies that the aircraft maintenance program may be revised in lieu of those repetitive tests. This FAA AD merely mandates revising the maintenance program.

(2) EASA AD 2011–0114R2 does not include any requirement to revise the electronic checklist. Paragraph (j) of this FAA AD requires this action.

(3) EASA AD 2011–0114R2 mandates amending the minimum equipment list (MEL) by removing certain items. This FAA AD instead requires revising the AFM to prohibit dispatch with those items inoperative. The operational effect, however, is the same.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, Transport Airplane Directorate, 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; phone: 425–227–1137; fax: 425–227–1149. 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 refer to 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 ensure the product is airworthy before it is returned to service.

### Table 1—Related Information

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### Material Incorporated by Reference

- You must use the service information contained in table 2 of this AD to do the actions required by this AD, unless the AD specifies otherwise. Appendix A and New Standard Installation Checklist of the Dassault Mandatory Service Bulletin 7X–211 are not dated or identified with a document number. The document date can only be found in the List of Revisions section of the Dassault Falcon 7X Airplane Flight Manual.

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

- For service information identified in this AD, contact Dassault Falcon Jet, P.O. Box 2000, South Hackensack, New Jersey 07606; telephone 201–440–6700; Internet http://www.dassaultfalcon.com.

- You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425–227–1221.

- You may also review copies of the 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/code_of_federal_regulations/ibr_locations.html.

### Table 2—Material Incorporated by Reference

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<th>Document</th>
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Issued in Renton, Washington, on July 15, 2011.

Ali Bahrami,  
Manager, Transport Airplane Directorate, Aircraft Certification Service.

DEPARTMENT OF TRANSPORTATION  
Federal Aviation Administration  
14 CFR Part 39  
RIN 2120-AA64  
Airworthiness Directives; The Boeing Company Model 747–400 and –400F Series Airplanes  
AGENCY: Federal Aviation Administration (FAA), DOT.  
ACTION: Final rule.  
SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD requires a general visual inspection for cracks and holes of the main equipment center (MEC) drip shields, and repairs if necessary; installation of a fiberglass reinforcing overcoat; and, for certain airplanes, installation of stiffening panels to the MEC drip shields. This AD was prompted by a report of a loss of bus control unit number 1 and generator control units numbers 1 and 2 while the airplane was on the ground, and multiple operator reports of cracked