# Airworthiness Directive

**AD No.:** **2023-0003**

**Issued:** **06 January 2023**

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I Part M.A.301, or Annex Vb Part ML.A.301, as applicable, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I Part M.A.303, or Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

**Design Approval Holder's Name:**
DASSAULT AVIATION

**Type/Model designation(s):**
Falcon 7X aeroplanes

Effective Date: 20 January 2023

TCDS Number(s): EASA.A.155

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2022-0145 dated 12 July 2022.

## ATA 34 – Navigation – EASy Avionics Architecture / Modification

## Aircraft Flight Manual – Amendment

## Master Minimum Equipment List – Implementation

## Operational Suitability Manual – Flight Crew – Implementation

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### Manufacturer(s):
Dassault Aviation (Dassault)

### Applicability:
Falcon 7X aeroplanes, all manufacturer serial numbers (MSN), including those on which Dassault modification (mod) M1000 (commercially known as Falcon 8X) has been embodied in production, except those on which Dassault mod M2091, M2096 or M2097 has been embodied in production.

### Definitions:
For the purpose of this AD, the following definitions apply:

**The MMEL-CP**: Dassault Master Minimum Equipment List (MMEL) Change Project (CP) CP0299-PUB.

**The OSM-FC**: Dassault 7X Operational Suitability Manual (OSM) Flight Crew (FC) DGT 148654 Revision 06.

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**The SB:** Dassault Service Bulletin (SB) 7X-590, SB 7X-591 or SB 7X-592, as applicable.

**Groups:** Group 1 aeroplanes are all MSNs, except Group 2 and Group 3 aeroplanes.
Group 2 aeroplanes are those having MSN 402 and subsequent, which have been modified in service in accordance with the instructions of Dassault SB 7X-550 or on which Dassault mod M1925 has been embodied in production (known as "EASy III – 3rd CERT"); or which have been modified in service in accordance with the instructions of Dassault SB 7X-430 or on which Dassault mod M1745 has been embodied in production (known as "EASy III – 2nd CERT").
Group 3 aeroplanes are those having MSN 002 to 400 (inclusive).

**Reason:**
A weak point has been identified in the Falcon 7X 'EASy' avionics architecture that, coupled with theoretical Generic IO (Input/Output) card failure, may lead to misleading data on display units.

This condition, if not corrected, could reduce the safety margins and lead to increased pilot workload, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Dassault issued Airplane Flight Manual (AFM) AFM-CP0177-PUB, the MMEL-CP and the OSM-FC, as defined in this AD, and EASA issued AD 2021-0197 to require amendment of the applicable AFM, implementation of the MMEL-CP and implementation of the OSM-FC.

Since EASA AD 2021-0197 was issued, Dassault developed mod M2091, applicable for certain MSNs, upgrading the aeroplane avionics to the "EASy III – 4th CERT" standard that improves the Falcon 7X EASy avionics architecture. Additionally, Dassault issued SB 7X-590 providing modification instructions for in-service aeroplanes. Consequently, EASA issued AD 2022-0145, retaining the requirements of EASA AD 2021-0197, which was superseded, and requiring modification and amendment of the applicable AFM for Group 2 aeroplanes, as defined in this AD.

Since EASA AD 2022-0145 was issued, Dassault developed mod M2096 and M2097, upgrading the aeroplane avionics to "EASy II – 5th CERT" standard and issued SB 7X-591 and SB 7X-592, as applicable to MSN, to provide in-service modification instructions for Group 3 aeroplanes, as defined in this AD.

For the reasons described above, this AD retains the requirements of EASA AD 2022-0145, which is superseded, and additionally requires modification and amendment of the applicable AFM for Group 3 aeroplanes.

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## Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

**AFM Amendment / MMEL Implementation / OSM-FC Implementation**:

(1) For all aeroplanes: Within 2 months after 06 September 2021 [the effective date of EASA AD 2021-0197], accomplish the actions as required by paragraph (1.1) of this AD, or as specified in paragraph (1.2) of this AD, and the actions as required by paragraphs (1.3) and (1.4) of this AD, inform all flight crews, and, thereafter, ensure that each pilot has performed the training and operates the aeroplane accordingly.

(1.1) Amend the applicable AFM to incorporate the Dassault AFM-CP0177-PUB.

(1.2) Amending the applicable AFM to incorporate a later revision, which includes the Dassault AFM-CP0177-PUB, is an acceptable method to comply with the requirements of paragraph (1.1) of this AD.

(1.3) Implement the instructions of the MMEL-CP, on basis of which the operator's Minimum Equipment List (MEL) must be amended.

(1.4) Implement the instructions of the OSM-FC.

**Modification:**

(2) For Group 2 and Group 3 aeroplanes: Within the compliance time defined in Table 1 of this AD, as applicable, accomplish the actions as required by paragraph (2.1) and (2.2) of this AD in accordance with the instructions of the SB.

Table 1 – Compliance Time

| Groups | Compliance Time |
|---|---|
| Group 2 | Within 12 months after 26 July 2022 [the effective date of EASA AD 2022-0145] |
| Group 3 | Within 12 months after the effective date of this AD |

(2.1) Modify the aeroplane.

(2.2) Before next flight after modification of the aeroplane as required by paragraph (2.1) of this AD, amend the applicable AFM to incorporate Dassault AFM-CP0178-PUB or AFM-CP0185-PUB or AFM-CP0186-PUB, as applicable, inform all flight crews, and, thereafter, operate the aeroplane accordingly.

(2.3) Amending the applicable AFM to incorporate a later revision which includes the Dassault AFM-CP0178-PUB or AFM-CP0185-PUB or AFM-CP0186-PUB, as applicable, is an acceptable method to comply with the requirements of paragraph (2.2) of this AD.

(3) For all aeroplanes: Within 90 days after the effective date of this AD, amend the operator MEL by removing an item corresponding to Falcon 7X/8X OSM-MMEL Revision 15 (or earlier) item 34-3.1 (Modular Avionic Unit #1B) which is therefore considered as 'NO GO' item.

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(4) Amending the operator MEL to incorporate Falcon 7X/8X OSM-MMEL which does not include dispatch relief for item 34-3.1 (Modular Avionic Unit #1B) is an acceptable method to comply with the requirements of paragraph (3) of this AD.

**Ref. Publications:**

Dassault AFM-CP0177-PUB dated 28 June 2021.

Dassault AFM-CP0178-PUB dated 07 April 2022.

Dassault AFM-CP0185-PUB dated 27 July 2022.

Dassault AFM-CP0186-PUB dated 27 July 2022.

Dassault MMEL-CP0299-PUB dated 14 April 2021.

Dassault OSM-FC DGT 148654 Revision 06 dated 02 July 2021.

Dassault SB 7X-590 original issue dated 19 April 2022, released on 20 June 2022.

Dassault SB 7X-591 original issue dated 15 September 2022, released on 15 December 2022.

Dassault SB 7X-592 original issue dated 15 September 2022, released on 15 December 2022.

Falcon 7X/8X OSM-MMEL Revision 15 effective date 01 March 2021.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.

**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 16 December 2022 as PAD 22-172 for consultation until 30 December 2022. No comments were received during the consultation period.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the EU Aviation Safety Reporting System. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA parts manufacturer approval (PMA), Supplemental Type Certificate (STC) or other modification.

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5. For any question concerning the technical content of the requirements in this AD, please contact your Dassault Falcon Command Centre:
   - Mérignac, France: +33 5 56 18 47 47; commandcenter@dassault-aviation.com
   - Teterboro, NJ USA: +1 201 541 47 47; commandcenter@dassaultfalconjet.com.

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