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**SECTION 1: GENERAL**

|                                    |   |
|------------------------------------|---|
| 1.1. Data Sheet No:                | TJI 0008  |
| 1.2. Type Certificate Holder:      | DASSAULT AVIATION<br>9 Rond Point Marcel Dassault<br>75008 PARIS - FRANCE |
| 1.3. Initial Certifying Authority: | JAA/EASA  |
| 1.4. Airworthiness Category:       | Transport Category airplane   |
| 1.5. Manufacturer:                 | See 4.6   |

**SECTION 2: MYSTERE FALCON 50****2.I. General**

|  |   |
|--|---|
| 2.I.1. Aircraft designation:   | MYSTERE FALCON 50 (MF50)  |
| 2.I.2. Application Date for State Aviation Administration (SAAU) validation: | 30.11.1994  |
| 2.I.3. SAAU Validation Date:   | 31.08.1999  |
| 2.I.4. Eligible serial number:   | aircraft s/n 1 (s/n 2, see DGAC TCDS 163) through 250, and s/n 252. |

**2.II. MF 50 Certification Basis**

|  |  |
|--|--|
| 2.II.1. Reference Application Date for JAA/EASA Certification: | 14.11.1973   |
| 2.II.2. EASA Certification Date (JAA recommendation):          | 27.02.1979   |
| 2.II.3. EASA Certification Basis:                              | Refer to TCDS EASA.A.062   |
| 2.II.4. SAAU Certification Basis:                              | - Additional Technical Conditions based on "Airworthiness requirements for civil airplanes" (NLGS-3) up to and including Amendment 16 and<br>- Environmental Standards: ICAO Annex 16, volume I, Part II, Chapter 3. |

**2.III. MF50 Technical Characteristics and Operational Limitations:**

|                                      |  |
|--------------------------------------|--|
| 2.III.1. Type Design Definition:     | The type aircraft is defined in document DTM800, Revision H  |
| 2.III.2. Equipment:                  | AMB-BA documents DTM380075/91 and 4510/78/<br>Document A320 (DTM2092/78)<br><br><i>Note: See Note 2.V.3.</i> |
| 2.III.3. Dimensions:                 |  |
| Length:                              | 18,516 m   |
| Width:                               | 18,858 m   |
| Height:                              | 6,975 m  |
| Distance between main landing gears: | 3,98 m   |

**2.III.4. Engines:**

2.III.4.1. Model: Honeywell International Inc. (Garret) TFE731-3-1C  
SAAU TC n° TД 0011

2.III.4.2. Number: 3

2.III.4.3. Engine Limits (sea level conditions):

- Maximum takeoff static thrust up to 24°C (5 minutes): 3 700 lbs (1678 kg)
- Maximum continuous static thrust at 15°C: 3 700 lbs (1678 kg)

*Note: Refer to Airplane Flight Manual (AFM) for engine operating instructions (See 2.IV).*

2.III.4.4. Maximum engine operating speed:

- Low pressure rotor (N1): RPM: 21 000 (101,5%)
  - Transient (1 minute): 101,5 to 103 %
  - Transient (5 seconds): 103 to 105 %
- High pressure rotor (N2): RPM: 29 692 (100%)
  - Transient (1 minute): 100 to 103 %
  - Transient (5 seconds): 103 to 105 %

2.III.4.5. Maximum Interstage Turbine Temperature (ITT):

- During starting: 907°C
- Transient (10 seconds): 927°C
- Takeoff (5 minutes): 907°C
- Transient (10 seconds): 939°C
- Maximum continuous: 885°C

2.III.4.6. Oil pressure limits:

- At idle: 25 to 46 psig  
(1,75 – 3,24 kg/sm<sup>2</sup>)
- Takeoff and maximum continuous: 38 to 46 psig  
(2,67 – 3,24 kg/sm<sup>2</sup>)

*Note: For more information, refer to AFM (See 2.IV).*

2.III.4.7. Oil temperature limits (at fan gearbox inlet):

- Maximum, from sea level up to 30 000 ft (9144 m): 127°C
- Maximum above 30 000 ft (9144 m): 140°C
- Maximum transient at any operational altitude (2 minutes): 149°C
- Minimum, continuous operation: 30°C

2.III.4.8. Fuel pressure:

- Minimum fuel pressure warning: 4,5 psig (0,31 kg/sm<sup>2</sup>)

**2.III.5. Auxiliary Power Unit (APU):**

*Note: Usable for ground operation only*

2.III.5.1. Model: ALLIEDSIGNAL / HONEYWELL  
ENGINES COMPANY – GTCP 36-100(A)

2.III.5.2. Number: 1

## 2.III.5.3. APU Limits:

|        | Normal operation | Maximum |
|--------|------------------|---------|
| - EGT: | 680°C            | 732°C   |
| - RPM: | 100%             | 109%    |

**2.III.6. Fluids (Fuel/Oil/Additives/Hydraulics):**

2.III.6.1. Fuel conforming to specifications: See AFM DTM813 page 1-10-4

2.III.6.2. Fuel additives: See AFM DTM813 page 1-10-6

*Note: Refer to NOTE 4.2 for information on the use of fuel additives.*

2.III.6.3. Brand names of oils (See 4.2): See AFM DTM813 page 1-10-7

2.III.6.4. Hydraulics: Hydraulic fluid approved for use must conform to MIL-H-5606 specifications (NATO codes H515 or H520)

**2.III.7. Fluid capacities**

2.III.7.1. Fuel tank capacity (nominal):

|                            | Liters       | Kg (*)         |
|----------------------------|--------------|----------------|
| <b>USABLE FUEL</b>         |              |                |
| - Left wing:               | 2 117        | 1 700          |
| - Center wing:             | 1 553        | 1 247          |
| - Right wing:              | 2 117        | 1 700          |
| - Left fuselage:           | 793          | 637            |
| - Center fuselage:         | 1 390        | 1 116          |
| - Right fuselage:          | 793          | 637            |
| <b>TOTAL USABLE:</b>       | <b>8 763</b> | <b>7 037</b>   |
| <b>UNUSABLE FUEL</b>       |              |                |
| Drainable:                 |              |                |
| - Left wing:               | 3            | 2.4            |
| - Center wing:             | 2            | 1,6            |
| - Right wing:              | 3            | 2.4            |
| - Left fuselage:           | 2,5          | 2              |
| - Center fuselage:         | 2            | 1,6            |
| - Right fuselage:          | 2,5          | 2              |
| Trapped (tanks and lines): | 37,3         | 30             |
| <b>TOTAL UNUSABLE:</b>     | <b>52,3</b>  | <b>42</b>      |
| <b>TOTAL FUEL</b>          |              |                |
| - Left engine:             | 2 927,5      | 2 351          |
| - Center engine:           | 2 960        | 2 376,7        |
| - Right engine:            | 2 927,5      | 2 351          |
| <b>TOTAL:</b>              | <b>8 815</b> | <b>7 078,7</b> |

(\*) Fuel density: 0,803 kg/l

*Note: - Refer to weight and balance report of each individual airplane for exact capacity*

## 2.III.7.2. Oil capacity:

Each engine (LH, center or RH) lubrication system capacity:

|          |        |
|----------|--------|
| Unusable | 1,89 l |
| Usable   | 8,52 l |

**2.III.8. Air Speeds** (Unless otherwise specified, speeds are indicated airspeeds):VMO (maximum operating):

|  |                   |
|--|-------------------|
| - at sea level:                                      | 350 kt (648 km/h) |
| - straight line variation up to 10 000 ft (3 048 m): | 370 kt (685 km/h) |
| from 10 000 ft (3 048 m) to 24 000 ft (7 315 m):     | 370 kt (685 km/h) |

MMO (maximum operating):

|                              |      |
|------------------------------|------|
| - above 24 000 ft (7 315 m): | 0.86 |
|------------------------------|------|

VA (maneuvering speed): 210 kt (389 km/h)

VFE (slat and flap speeds):

|                      |                   |
|----------------------|-------------------|
| - slats:             | 200 kt (370 km/h) |
| - slats + flaps 20°: | 190 kt (352 km/h) |
| - slats + flaps 48°: | 175 kt (324 km/h) |

VLO (landing gear operation): 190 kt (352 km/h)

MLO: 0,70

VLE (landing gear extended): 220 kt (407 km/h)

MLE: 0,75

DV (window opening speed): 180 kt (333 km/h)

windshield wiper operating speed: 205 kt (380 km/h)

VMCA (minimum control speed in flight): CAS 82,5 kt (153 km/h CAS)

VMCG (minimum control speed on ground): CAS 87,5 kt (162 km/h CAS)

**2.III.9. Maximum Operating Altitude:**

2.III.9.1. Without Modification M17: 45 000 ft (13 716 m, flight level 450)

2.III.9.2. With Modification M17  
(or AMD-BA Service Bulletin F50-0163): 49 000 ft (14 935 m, flight level 490)**2.III.10. All weather Capability**

2.III.10.1. Cat. I: in accordance with Airplane Flight Manual DTM813

12.III.0.2. Cat. II: in accordance with supplements to AFM DTM813:  
- supplement N°1 (Service Bulletin F50-10) or  
- supplement N°8 (Modification M1000) or  
- supplement N°12 (Modification M1496)**2.III.11. Weight Limitations**

## 2.III.11.1. Basic

|                   |           |
|-------------------|-----------|
| Maximum ramp      | 17 600 kg |
| Maximum takeoff   | 17 600 kg |
| Maximum landing   | 16 200 kg |
| Maximum zero fuel | 11 600 kg |
| Minimum flight    | 8 600 kg  |

|             |  |           |
|-------------|--|-----------|
| 2.III.11.2. | Airplane with modification M1230 (SB F50-161) or modification M1430 (SB F50-191) |           |
|             | Maximum ramp   | 18 500 kg |
|             | Maximum takeoff  | 18 500 kg |
|             | Maximum landing  | 16 200 kg |
|             | Maximum zero fuel  | 11 600 kg |
|             | Minimum flight   | 8 600 kg  |

**2.III.12. Baggage/Cargo Compartments**

|             |                        |                       |
|-------------|------------------------|-----------------------|
| 2.III.12.1. | Maximum weight:        | 1 000 kg              |
| 2.III.12.2. | Maximum floor loading: | 600 kg/m <sup>2</sup> |

**2.III.13. Center of Gravity Data:**

The weight and balance charts are contained in the Airplane Flight Manual DTM813.

## 2.III.13.1. Center of Gravity Range

| Weight, kg   | Forward limit<br>% MAC | Aft limit<br>% MAC |
|--|------------------------|--------------------|
| <b>Basic</b>   |                        |                    |
| 8 600  | 14                     | 32                 |
| 13 700   | 14                     | 32                 |
| 16 200   | 19,8                   | 32                 |
| 17 600   | 22,3                   | 32                 |
| <b>With modification M1230<br/>(Service Bulletin SB F50-161)</b> |                        |                    |
| 8 600  | 14                     | 32                 |
| 13 900   | 14                     | 32                 |
| 16 200   | 19,2                   | 32                 |
| 18 260   | 22,8                   | 32                 |
| 18 500   | 23,3                   | 29,6               |
| <b>With modification M1430<br/>(Service Bulletin SB F50-191)</b> |                        |                    |
| 8 600  | 14                     | 32                 |
| 14 800   | 14                     | 32                 |
| 16 200   | 19,2                   | 32                 |
| 18 260   | 22,8                   | 32                 |
| 18 500   | 23,3                   | 29,6               |

Notes: - Linear interpolation between the values.

- Gear retraction has a negligible effect on CG range (-50 m.kg, i.e. 0,2 % on CG range at minimum flight weight).

|             |        |  |
|-------------|--------|--|
| 2.III.13.2. | Datum: | Datum is 25 % of mean aerodynamic chord (MAC) which is marked on aircraft and is 9,724 m from the forward end of the aircraft nose cone. |
|-------------|--------|--|



2.III.13.3. Mean Aerodynamic Cord (MAC): 2,839 m

Note: - 14% MAC is 0.312 m forward of datum;  
 - 17,3% MAC is 0.218 m forward of datum;  
 - 19,2% MAC is 0.165 m forward of datum;  
 - 19,8% MAC is 0.148 m forward of datum;  
 - 20,6% MAC is 0.125 m forward of datum;  
 - 20,9% MAC is 0.116 m forward of datum;  
 - 22,3% MAC is 0.077 m forward of datum;  
 - 22,8% MAC is 0.062 m forward of datum;  
 - 23,3% MAC is 0.048 m forward of datum;  
 - 25% MAC is datum;  
 - 29,6% MAC is 0,130 m aft of datum;  
 - 32% MAC is 0,199 m aft of datum.

**2.III.14. Leveling Means** A bubble type level may be placed on the head of screws provided on structural components in the fuselage rear compartment.  
 Leveling can be obtained in the lateral and longitudinal directions.

**2.III.15. Minimum Flight Crew:** Two pilots (One pilot and one copilot).

**2.III.16. Maximum number of passengers:** 19 (see Note 2.V.2.)

**2.III.17. Emergency exits:**

|                | Quantity | Size (mm) |
|----------------|----------|-----------|
| Passenger door | 1        |           |
| Emergency exit | 2        | 508 x 914 |

**2.III.18. Other Limitations:** Refer to approved Airplane Flight Manual DTM813

## 2.IV. MF50 Operating and Service Instructions

- Airplane Flight Manual (AFM): EASA approved Document DTM813 (English language).
- Maintenance Manual.  
 Airworthiness limitations (life limited airframe components and required maintenance/inspections) are listed in DGAC approved Recommended Maintenance Schedules and TBO's, chapter 5-40-00 of the Maintenance Manual, document DMD11765.
- Service Letters and Service Bulletins

Note: Service Bulletins are listed in Service Bulletin index (SB 0)

## 2.V. Notes for MF 50

2.V.1. The installation of the GARRETT GTCP 36-100 (A) Auxiliary Power Unit in the MYSTERE-FALCON 50 aircraft is an approved option. This Auxiliary Power Unit may be installed in aircraft in service per AMD-BA Service Bulletin F50-002.

- 2.V.2
- a) Maximum number of passengers are limited by emergency exit requirement.
  - b) AMD-BA document DTM 800 defines an approved cabin interior accommodation for 8 or 9 passengers

c) Airplane with modification M17 or AMD-BA Service Bulletin F50-0163 must not carry more than 12 passengers any time the flight is made at an altitude above 45 000 ft (13 716 m, flight level 450).

2.V.3. The MF50 is compliant to:

- RVSM requirements are met provided airplane complies with Service Bulletin F50-246;
- NAT MNPS: As per AFM, the minimum navigation performance required by NAT MNPS regulations (FAR Part 91, Appendix C) are demonstrated provided that there are at least, operating on board, 2 FMS's and:
  - 2 IRS's in NAV mode or
  - 2 GPS or
  - 1 IRS in NAV mode and 1 GPS;
- Basic RNAV, RNP10 are operated in accordance with the AFM DTM813, Limitations Section, page 1-15-5 and 1-15-6;
- EGPWS (JAR-OPS1) requirements (§665) provided the system is installed and the airplane is operated in accordance with associated supplements to AFM DTM813;
- TCAS II change 7 (JAR-OPS1) requirements (§668) provided the modification M2737 (TCAS 4000) is applied and the airplane is operated in accordance with the Supplement 20 to AFM DTM813.

2.V.4. The noise levels of the airplane are not greater than the noise level prescribed in ICAO, Annex 16, Volume I, Part 2, Chapter 3 noise limits. The noise levels are follows:

| Modification                                      | Noise levels in control points EPNL, EPNdB |           |      |           |      |                |           |           |      |
|---|--|-----------|------|-----------|------|----------------|-----------|-----------|------|
|   | During take-off                            |           |      |           |      | During landing |           |           |      |
|   | Gmax,<br>kg                                | Lateral   |      | Flyover   |      | Gmax,<br>kg    | Approach  |           |      |
|   |  | sl/fl 20° | ICAO | sl/fl 20° | ICAO |                | sl/fl 48° | sl/fl 20° | ICAO |
| Basic   | 17 600                                     | 91,6      | 94,0 | 84,3      | 89,0 | 16 200         | 97,4      | 90,5      | 98,0 |
| M1230<br>(SB F50-161)<br>or M1430<br>(SB F50-191) | 18 500                                     | 91,5      | 94,0 | 84,8      | 89,0 | 16 200         | 97,1      | 89,8      | 98,0 |

Restrictions, conditions and operational methods for provision of the above noise levels are contained in the AFM DTM813.

**SECTION 3. FALCON 900EX****3.I. General**

- 3.I.1. Aircraft designation: FALCON 900EX (F900EX) and EASy version (See 3.V).
- 3.I.2. Application Date for SAAU Certification: 15.02.2006
- 3.I.3. SAAU Certification Date: 14.04.2009
- 3.I.4. Eligible serial number: Aircraft serial number 1 through 119 except 97. Aircraft with Serial numbers 97 and 120 through 600 include modification M3083 as standard are defined as F900EX EASy.

**3.II. F900EX Certification Basis**

- 3.II.1. Reference Application Date for JAA/EASA Certification: 03.03.1993
- 3.II.2. EASA Certification Date (JAA recommendation): 31.05.1996
- 3.II.3. EASA Certification Basis: Refer to European Aviation Safety Agency TCDS EASA.A.062
- 3.II.4. SAAU Certification Basis: - Additional Technical Conditions based on "Airworthiness requirements for civil airplanes transport category. Part 25." (AR-25) and  
- Environmental Standards: ICAO Annex 16, volume I, Part II, Chapters 3 and 4.

**3.III. F900EX Technical Characteristics and Operational Limitations**

- 3.III.1. Type Design Definition:** - The type aircraft is defined in modification M3000 revision B2 of Mystère Falcon 900 (F900EX Technical specification are detailed in document DTM 35-I-177/94 at latest revision).  
- Definition of reference airplane by DASSAULT AVIATION documents A-340 DTM 5303/85 MASTER DRAWLING LIST OF THE TYPE AIRCRAFT
- 3.III.2. Equipment:** - A 330/1DTM 5100/84 LISTE DES EQUIPEMENTS AVION DE TYPE  
- A330/2 DTM 5257/84 LISTE DES EQUIPEMENTS OPTIONS

*Note: See Note 3.VI.1.*

**3.III.3. Dimensions:**

|                                      |         |
|--------------------------------------|---------|
| Length:                              | 20,2 m  |
| Width:                               | 19,33 m |
| Height:                              | 7,5 m   |
| Distance between main landing gears: | 4,45 m  |

**3.III.4. Engines:**

- 3.III.4.1. Model: Honeywell International Inc. (AlliedSignal) TFE 731-60  
SAAU TC n° TД 0026
- 3.III.4.2. Number: 3

- 3.III.4.3. Engine Limits (sea level conditions, not installed):
- Maximum takeoff static thrust up to 32°C (5 minutes): 5 000 lbs (2268 kg)
  - Maximum continuous static thrust at 15° C: 4 525 lbs (2053 kg)

*Note: Refer to Airplane Flight Manual for engine operating instructions (see subsection 3.V).*

- 3.III.4.4. Maximum engine operating speed:
- Low pressure rotor (N1): 21 000 RPM
    - Transient (1 second): 100 % to 100,5 %
  - High pressure rotor (N2): 31 485 RPM
    - Transient (1 second): 100 % to 100,5 %

- 3.III.4.5. Maximum Interstage Turbine Temperature (ITT):
- During starting on ground: 994°C
  - During starting in flight: 994°C
  - Takeoff (5 minutes): 1 022°C
  - Transient (10 seconds): 1 032°C
  - Maximum continuous: 991°C

- 3.III.4.6. Oil pressure limits:
- At idle: 50 to 80 psi  
(3,52 – 5,62 kg/sm<sup>2</sup>)
  - Takeoff and maximum continuous: 65 to 80 psi  
(4,37 – 5,62 kg/sm<sup>2</sup>)
  - Transient (less than 3 minutes): max 100 psi (7,03 kg/sm<sup>2</sup>)  
(less than 3 minutes)

- 3.III.4.7. Oil temperature limits (at fan gearbox inlet)
- Maximum, from sea level up to 30,000 ft: 127°C
  - Maximum above 30,000 ft: 140°C
  - Maximum transient at any operational altitude (2 minutes): 149°C
  - Minimum, continuous operation:

- 3.III.4.8. Fuel pressure:
- Minimum fuel pressure warning: 5 psi (0,35 kg/sm<sup>2</sup>)

### 3.III.5. Auxiliary Power Unit (APU):

*Note: Usable for ground operation only*

- 3.III.5.1. Model: ALLIEDSIGNAL / HONEYWELL ENGINES COMPANY – GTCP 36-150(F)

- 3.III.5.2. Number: 1

- 3.III.5.3. APU Limits:
- |        | Normal operation | Maximum |
|--------|------------------|---------|
| - EGT: | 720°C            | 973°C   |
| - RPM: | 102%             | 110%    |

**3.III.6. Fluids (Fuel/Oil/Additives/Hydraulics):**

- 3.III.6.1. Fuel conforming to specifications: See Section 1 AFM:  
- DTM561 for F900 EX or  
- DGT84972 for F900 EX (EASy)
- 3.III.6.2. Fuel additives: See Section 1 AFM:  
- DTM561 for F900 EX or  
- DGT84972 for F900 EX (EASy)
- 3.III.6.3. Brand names of oils (See 4.2): See Section 1 AFM:  
- DTM561 for F900 EX or  
- DGT84972 for F900 EX (EASy)
- 3.III.6.4. Hydraulics: Hydraulic fluid approved for use must conform to MIL-H-5606 specifications (NATO codes H515 or H520)

**3.III.7. Fluid capacities:**

- 3.III.7.1. Fuel tank capacity (initial specification has been confirmed through tests):

|                                   | <b>Liters</b> | <b>Kg (*)</b> |
|-----------------------------------|---------------|---------------|
| <b>USUABLE FUEL:</b>              |               |               |
| - Left wing:                      | 2 129         | 1 710         |
| - Left center fuselage:           | 822           | 660           |
| - Front left tank:                | 534           | 429           |
| - Left feeder tank:               | 481           | 386           |
| <b>Total left circuit:</b>        | <b>3 966</b>  | <b>3 185</b>  |
| - Right wing:                     | 2 129         | 1 710         |
| - Right center fuselage:          | 822           | 660           |
| - Front right tank:               | 509           | 409           |
| - Right feeder tank:              | 481           | 386           |
| <b>Total right circuit:</b>       | <b>3 941</b>  | <b>3 165</b>  |
| - Front tank:                     | 1 656         | 1 330         |
| - Aft tank:                       | 1 706         | 1 370         |
| - Aft compartment tank:           | 300           | 241           |
| - Center feeder tank:             | 193           | 155           |
| <b>Total center circuit:</b>      | <b>3 857</b>  | <b>3 097</b>  |
| <b>TOTAL USABLE:</b>              | <b>11 764</b> | <b>9 446</b>  |
| <b>UNUSABLE FUEL:</b>             |               |               |
| <b>Drainable:</b>                 |               |               |
| - Left circuit:                   | 21,4          | 17,2          |
| - Right circuit:                  | 23,0          | 18,5          |
| - Center circuit:                 | 19,8          | 15,9          |
| <b>Trapped (tanks and lines):</b> | <b>26</b>     | <b>21</b>     |
| <b>TOTAL UNUSABLE:</b>            | <b>90</b>     | <b>73</b>     |
| <b>TOTAL FUEL PER ENGINE:</b>     |               |               |
| - Left circuit:                   | 3 996,14      | 3 208,9       |
| - Center circuit:                 | 3 972,76      | 3 190,1       |
| - Right circuit:                  | 3 885,52      | 3 120,1       |
| <b>TOTAL FUEL:</b>                | <b>11 854</b> | <b>9 519</b>  |

(\*) Fuel density: 0,803 kg/l

*Note: - Refer to weight and balance report of each individual airplane for exact capacity.*

**3.III.7.2. Oil capacity:**

|                            |       |
|----------------------------|-------|
| Total oil engine capacity: | 6,9 l |
| Usable:                    | 3,8 l |
| Unusable:                  | 1,2 l |

**3.III.8. Air Speeds** (Unless otherwise specified, speeds are indicated airspeeds):VMO (maximum operating):

|  |                   |
|--|-------------------|
| - at sea level:                                      | 350 kt (648 km/h) |
| - straight line variation up to 10 000 ft (3 048 m): | 370 kt (685 km/h) |
| - from 10 000 ft (3 048 m) to 25 000 ft (7 620 m):   | 370 kt (685 km/h) |

MMO (maximum operating):

## Weight lower than 15 980 kg:

|   |      |
|---|------|
| - from 25 000 ft (7 620 m) to 38 000 ft (11 582 m):                                   | 0,87 |
| - from 38 000 ft (11 582 m) to 42 000 ft (12 802 m), straight line variation down to: | 0,84 |
| - above 42 000 ft (12 802 m):   | 0,84 |

## Weight 15 890 kg and higher:

|   |      |
|---|------|
| - from 25 000 ft (7 620 m) to 33 000 ft (10 058 m):                                   | 0,87 |
| - from 33 000 ft (10 058 m) to 37 000 ft (10 058 m), straight line variation down to: | 0,84 |
| - above 37 000 ft (10 058 m):   | 0,84 |

VA (maneuvering speed): 228 kt (422 km/h)

VFE (slat and flap speeds):

|                           |                   |
|---------------------------|-------------------|
| - slats slats + flaps 7°: | 200 kt (370 km/h) |
| - slats + flaps 20°:      | 190 kt (352 km/h) |
| - slats + flaps 48°:      | 175 kt (324 km/h) |

*Note: Above 20 000 ft (6 096 m), do not extend, nor keep extended slats and flaps.*

|                                      |                            |
|--------------------------------------|----------------------------|
| VLO (landing gear operation)         | 190 kt (352 km/h)          |
| MLO                                  | 0,70                       |
| VLE (landing gear extended)          | 220 kt (407 km/h)          |
| MLE                                  | 0,75                       |
| DV window opening speed              | 180 kt (333 km/h)          |
| windshield wiper operating speed     | 205 kt (380 km/h)          |
| VMCA minimum control speed in flight | CAS 82,5 kt (153 km/h CAS) |
| VMCG minimum control speed on ground | CAS 87,5 kt (162 km/h CAS) |

**3.III.9. Maximum Operating Altitude:** 51 000 ft (15 545 m, flight level 510)**3.III.10. All weather Capability:** Cat. II  
(in accordance with AFM DTM561)

**3.III.11. Weight and Center of Gravity (CG) Limitations:**

| Weight limits, kg                    |        | CG limits, % MAC |       |
|--------------------------------------|--------|------------------|-------|
|                                      |        | Forward          | Aft   |
| Without modification M3020 (BS N° 1) |        |                  |       |
| Maximum ramp                         | 22 000 | 14               | 23,45 |
| Maximum takeoff                      | 21 908 | 14               | 24,20 |
| Maximum for aft CG at 31 %           | 21 228 | 14               | 31    |
| Maximum landing                      | 19 051 | 14               | 31    |
| Maximum zero fuel                    | 14 000 | 14               | 31    |
| Minimum flight                       | 9 390  | 14               | 31    |
| With modification M3020 (BS N° 1)    |        |                  |       |
| Maximum ramp                         | 22 317 | 13               | 20,50 |
| Maximum takeoff                      | 22 226 | 13               | 21,35 |
| Maximum for aft CG at 31 %           | 21 228 | 13               | 31    |
| Maximum landing                      | 20 185 | 13               | 31    |
| Maximum zero fuel                    | 14 000 | 13               | 31    |
| Minimum flight                       | 9 390  | 13               | 31    |

*Notes: Gear retraction has a negligible effect on CG range (-50 m·kg, i.e. 0,2 % on CG range at minimum flight weight).*

**3.III.12. Baggage/Cargo Compartments:**

- 3.III.12.1. Maximum weight: 1 300 kg  
 3.III.12.2. Maximum floor loading: 600 kg/m<sup>2</sup>

**3.III.13. Center of Gravity Data:**

The weight and balance charts are contained in the Airplane Flight Manual DGT84972.

- 3.III.13.1. Datum: Datum is 25 % of mean aerodynamic chord (MAC) which is marked on aircraft and is 10,679 m from the forward end of the aircraft nose cone. 0 % MAC is at 9,957 m from the forward end of the aircraft.

- 3.III.13.2. Mean Aerodynamic Cord (MAC): 2,888 m

*Note: - 13 % MAC is 0,347 m forward of datum;*

*- 25 % MAC is datum;*

*- 14 % MAC is 0,318 m forward of datum;*

*- 31 % MAC is 0,173 m aft of datum;*

- 3.III.14. Leveling Means:** A bubble type level may be placed on the head of screws provided on structural components in the fuselage rear compartment.

Leveling can be obtained in the lateral and longitudinal directions.

- 3.III.15. Minimum Flight Crew:** Two pilots (One pilot and one copilot).

- 3.III.16. Maximum number of passengers:** -19 seats in the passenger cabin.  
 -12 passengers accommodation cabin layout taken as a reference for performance is given by document F900EX DTM 35-1-177/94.

**3.III.17. Emergency exits:**

|                | Quantity | Type | Size (mm)  |
|----------------|----------|------|------------|
| Passenger door | 1        | I    | 800 x 1720 |
| Emergency exit | 1        | III  | 534 x 916  |

**3.III.18. Other Limitations:** Refer to approved Airplane Flight Manual**3.IV. F900 EX Operating and Service Instructions:**

- Airplane Flight Manual (AFM): EASA approved Document DTM561.
- Maintenance Manual.  
Airworthiness limitations (life limited airframe components and required maintenance/inspections) are listed in DGAC approved Recommended Maintenance Schedules and TBO's, chapter 5-40-00 of the Maintenance Manual, document DTM568.
- Service Letters and Service Bulletins.

*Note: Service Bulletins are listed in Service Bulletin index (SB 0)*

**3.V. Falcon 900EX EASy version.**

F900EX EASy designation does not correspond to new model designation. F900EX EASy is a commercial designation for airplanes on which the following modifications have been applied:

- Step 1: M3083, M2862, M2861, M2963, M2823.
- Step 2: M3795, M3784.
- Step 3: M3876, M3706.

**3.V.1. F900EX EASy Certification Basis:**

- Reference Application Date for JAA/EASA Certification: 08.11.1999
- EASA Certification Date (JAA recommendation): 13.11.2003
- EASA Certification Basis: See 3.II.3.
- SAAU Certification Basis: See 3.II.4.

**3.V.2. F900EX EASy Technical Characteristics and Operational Limitations**

- 3.V.2.1. Type Design Definition: M3083-01-102 (DGT 97670) - F900EX EASy Drawing List.
- 3.V.2.2. Equipment: M3083-01-101 (DGT98284) - F900EX EASy Equipment List.
- 3.V.2.3. All weather capability: Cat. II  
(in accordance with AFM DGT84972)

**3.V.3. Falcon 900EX EASy Operating and Service Instructions:**

- Airplane Flight Manual (AFM): EASA approved Document DGT84972
- Maintenance Manual.  
Airworthiness limitations are listed in the DGAC approved Recommended Maintenance schedules and TBO's, Chapter 5-40-00 of the Maintenance Manual DGT620.



**3.VI. Notes for F900EX and F900EX EASy.**

## 3.VI.1. The F900EX is compliant to:

- Basic RNAV, RNP10 airworthiness provided the airplane is operated in accordance with AFM DTM561, Limitations Section, kind of operations, page 1-160-2;
- CVR (JAR-OPS1) requirements (2 hours) provided the modification M2818 or M2819 is applied;
- RVSM requirements (SB F900EX-4) if the airplane is operated in accordance with AFM DTM561 page 1-160-1;
- NAT MNPS: As per AFM, the minimum navigation performance required by NAT MNPS regulations (French FAR Part 91, Appendix C) are demonstrated provided that there are at least, operating on board, 2 FMS's and:
  - 2 IRS's in NAV mode or
  - 2 GPS or
  - 1 IRS in NAV mode and 1 GPS;
- EGPWS (JAR-OPS1) requirements (§665) provided the modification M2811 is applied and the airplane is operated in accordance with the associated AFM Supplement 7;
- TCAS II change 7 (JAR OPS1) requirements (§668) provided the modification M3219 (S/B F900EX-89) or M3236 or M3382 or M3428 or M3527 or M3540 or M3627 if the airplane is operated in accordance with the associated AFM Supplements;
- FM immunity for navigation system VOR/ILS against ICAO Annex 10, Vol I, §3.1.4 and §3.3.8 provided modification M2288 is applied;
- FM immunity for communication system VHF against ICAO Annex 10, Vol III, §2.3.3 provided modification M2712 is applied;
- the portable ELT is a unit of the emergency raft kit.

## 3.VI.2. The F900EX EASy version is compliant to:

- RNP RNAV, P-RNAV, B-RNAV, RNP 10, NAT MNPS, GPS primary means provided the airplane is operated in accordance with the AFM DGT84972.
- CVR (JAR-OPS1) requirements (2 hours).
- RVSM requirements provided the airplane is operated in accordance with the AFM DGT84972.
- EGPWS (JAR-OPS1) requirements (§665) provided the airplane is operated in accordance with the AFM DGT84972.
- TCAS II change 7 (JAR OPS1) requirements (§668) provided the airplane is operated in accordance with the AFM DGT84972;
- the portable ELT is a unit of the emergency raft kit.

- 3.VI.2. The noise levels of the airplane are not greater than the noise level prescribed in ICAO, Annex 16, Volume I, Part 2, Chapter 3 or Chapter 4 noise limits. The noise levels are follows:

| Modification                            | Noise levels in control points EPNL, EPNdB |           |      |           |      |                |           |      |
|---|--|-----------|------|-----------|------|----------------|-----------|------|
|   | During take-off                            |           |      |           |      | During landing |           |      |
|   | Gmax,<br>kg                                | Lateral   |      | Flyover   |      | Gmax,<br>kg    | Approach  |      |
|   |  | sl/fl 20° | ICAO | sl/fl 20° | ICAO |                | sl/fl 40° | ICAO |
| Chapter 3, F900EX and F900EX EASy       |  |           |      |           |      |                |           |      |
| M3000<br>(Engine retrofit)              | 22 226                                     | 90,5      | 94   | 79,8      | 89,0 | 20 185         | 92,3      | 98   |
| Chapter 4 (Recertification) F900EX EASy |  |           |      |           |      |                |           |      |
| M3000 and<br>M5393<br>(Engine retrofit) | 22 226                                     | 90,5      | 94   | 79,8      | 89,0 | 20 185         | 92,3      | 98   |

Restrictions, conditions and operational methods for provision of the above noise levels are contained in associated Airplane Flight Manual.

#### SECTION 4: NOTES FOR ALL MODELS

- 4.1.
- a) A current weight and balance report, including the list of the certified empty weight equipment and the loading instructions (Performance Manual - Section 2) must be carried in the aircraft at all times from the moment the aircraft is originally certified.
  - b) Loading of the aircraft must be accomplished in a manner that always maintains the center of gravity within the specified limits considering crew and passenger movements as well as fuel consumption and transfer.
  - c) The weight of unusable fuel must be included in the aircraft empty weight and the fuel quantity indicators must read zero when the usable fuel quantity is zero.
  - d) The total weight of unusable oil in the tanks and lines (25,66 kg for the MF 50, and 18,82 kg for the F900EX and F900EX EASy) must be included in the aircraft empty weight.
  - e) The total weight of hydraulic fluid (48 kg) must be included in the aircraft empty weight.
- 4.2.
- a) ALLIEDSIGNAL ENGINES Service Information letters give brand names of oils conforming to Specification EMS 53 110, Class B, Type 2.
  - b) Brand names of oils approved for use in the Auxiliary Power Unit are listed in the Maintenance Manuals of the GTCP 36-100(A) and GTCP 36-150(F) APU's.
- 4.3. The cabin interior arrangements must be in compliance with the DASSAULT AVIATION general specifications for cabin interior completion, and are covered by the document DTM 802-30 for MF 50 airplane and DTM 20-167 for F900EX. These specifications mainly cover the gust and forced landing load factors.

- 4.4. On June 19th 1990 the name of manufacturer (AMD-BA: Avions Marcel Dassault – Breguet Aviation), has been changed. The new name, Dassault Aviation is now used on all documents and airplanes nameplates. However documents where old name still appear are valid.
- 4.5. Production agreement N° P05 was delivered by DGAC on December 12, 1991 then JAR 21 G Production Agreement N° F.G.006 on December 22, 1997, then EASA production agreement n°FR.21G.0006 on September 24th, 2004.  
Consequently MF 50 airplanes s/n 226, and beyond, and F900EX all serial numbers, are produced in the scope of one of these agreements.

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