European Aviation Safety Agency

EASA

TYPE CERTIFICATE DATA SHEET
EASA.A.062

MF50, MF900, F900EX

Manufacturer:
DASSAULT AVIATION
9 Rond Point Marcel Dassault
75008 PARIS

For models: MF50, MF900, F900EX
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2.III MF50 Technical Characteristics and Operational Limitations

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SECTION 1. GENERAL (ALL MODELS)

- **Data Sheet No:** TCDS DGAC 163 replaced by TCDS EASA.A.062

- **Airworthiness Category:** Large Airplane

- **Performance Category:** A

- **Certifying Authority:** EASA

- **Type Certificate Holder:** DASSAULT AVIATION  
  9, Rond Point Marcel Dassault  
  75008 PARIS – FRANCE

- **ETOPS:** Not applicable
SECTION 2. MYSTERE FALCON 50

2.I  General

Aeroplane: ............................................................MYSTERE-FALCON 50 (MF50)

2.II  MF50 Certification Basis

- Application Date for EASA Certification: November 14th, 1973
- EASA Certification Date (JAA recommendation): February 27th, 1979
- EASA Certification Basis:
  Federal Aviation Regulations Part 25, Amendments 1 through 34, supplemented by the following sections.
  25.979 (d) and (e) of Amendment 38.
  25.1013 (b) (1) of Amendment 36.
  25.1351 (d) of Amendment 41.
  25.1353 (e) (6) of Amendment 42.
- Special Conditions:
  Supplementary conditions, Revision 4 of 22 February 1979.
  Compliance with FAR Part 25 requirements relative to flight in icing conditions (25.1093 and 25.1419) has been shown.
  Compliance with FAR Part 25 requirements relative to ditching (25.801) has been shown.
  Compliance with "Arrêté du 16 Novembre 1990" relative to the "operation of subsonic jet aircraft in order to limit their noise effect" has been shown. This "Arrêté" is in force in France at the edition date of type Certificate Data Sheet number 163 issue number 10.
- Exemptions: none
- Equivalent Safety Findings: none
- Environmental Standards:
  Chapter III annex 16 of ICAO Convention.

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

AMD-BA documents DTM380075/91 and 4510/78.
Document A320 (DTM2092/78).
2.III.3 Dimensions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>18.516 m</td>
</tr>
<tr>
<td>Width</td>
<td>18.858 m</td>
</tr>
<tr>
<td>Height</td>
<td>6.975 m</td>
</tr>
<tr>
<td>Distance between main landing gears</td>
<td>3.98 m</td>
</tr>
</tbody>
</table>

2.III.4 Engines

Model:
GARRETT TURBINE ENGINE COMPANY TFE 731-3-1C (FAA Type Certificate Data Sheet n° E6WE).

Number: 3.

Engine Limits:
- Maximum takeoff static thrust up to 24° C - Sea level condition (5 minutes): 3.700 lbs (1.646 daN).
- Maximum continuous static thrust at 15° C - Sea level conditions: 3.700 lbs (1.646 daN).

Note:
Refer to Airplane Flight Manual for engine operating instructions. (For the MYSTERE-FALCON 50 aircraft, the DGAC approved "Manuel de Vol" are document DTM803 "French version" and "Air Flight Manual" document DTM813 "English version"). In the remainder of this document, only AFM DTM813 will be mentioned.

- Maximum engine operating speed:
  Low pressure rotor (N1) ..................................................... RPM: 21.000 (Percent 101,5)
  Transient (1 minute) ........................................................ 101.5 to 103 %
  Transient (5 seconds) ...................................................... 103 to 105 %

- High pressure rotor (N2) .................................................... RPM: 29.692 (Percent 100)
  Transient (1 minute) ........................................................ 100 to 103 %
  Transient (5 seconds) ...................................................... 103 to 105 %

- 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

-- Oil pressure limits
  At idle ................................................................. 25 to 46 psig
  Takeoff and maximum continuous ..................................... 38 to 46 psig
  For more information, refer to Airplane Flight Manual.

- 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 ....................................... 30°C

-- Fuel pressure
  Minimum fuel pressure warning ......................................... 4,5 psig
2.III.5 Auxiliary Power Unit (APU)

Model: ALLIEDSIGNAL / HONEYWELL ENGINES COMPANY - GTCP 36 - 100(A)

APU Limits:
Usable for ground operation only
EGT: Normal operation: 680°C - Maximum: 732°C
RPM: Normal operation: 100% - Maximum: 109%

2.III.6 Fluids (Fuel/Oil/Additives)

- Fuel conforming to specifications:
  See AFM DTM813 page 1-10-4
- Fuel additives
  See AFM DTM813 page 1-10-6
- Lubricating system conforming to specifications:
  See AFM DTM813 page 1-10-7

2.III.7 Fluid capacities

- Fuel tank capacity (nominal)

<table>
<thead>
<tr>
<th></th>
<th>Liters</th>
<th>Kg (*)</th>
<th>US gallons</th>
<th>lbs(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USUABLE FUEL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Left wing</td>
<td>2.117</td>
<td>1.700</td>
<td>559.3</td>
<td>3.748</td>
</tr>
<tr>
<td>- Center wing</td>
<td>1.553</td>
<td>1.247</td>
<td>410.2</td>
<td>2.749</td>
</tr>
<tr>
<td>- Right wing</td>
<td>2.117</td>
<td>1.700</td>
<td>559.3</td>
<td>3.748</td>
</tr>
<tr>
<td>- Left fuselage</td>
<td>793</td>
<td>637</td>
<td>209.5</td>
<td>1.404</td>
</tr>
<tr>
<td>- Center fuselage</td>
<td>1.390</td>
<td>1.116</td>
<td>367.2</td>
<td>2.461</td>
</tr>
<tr>
<td>- Right fuselage</td>
<td>793</td>
<td>637</td>
<td>209.5</td>
<td>1.404</td>
</tr>
<tr>
<td><strong>TOTAL USABLE</strong></td>
<td>8.763</td>
<td>7.037</td>
<td>2.315</td>
<td>15.514</td>
</tr>
</tbody>
</table>

|                  |        |        |            |        |
| **UNUSABLE FUEL**|        |        |            |        |
| Drainable:       |        |        |            |        |
| - Left wing      | 3      | 2.4    | 0.8        | 5.3    |
| - Center wing    | 2      | 1.6    | 0.5        | 3.5    |
| - Right wing     | 3      | 2.4    | 0.8        | 5.3    |
| - Left fuselage  | 2.5    | 2      | 0.7        | 4.4    |
| - Center fuselage| 2      | 1.6    | 0.5        | 3.5    |
| - Right fuselage | 2.5    | 2      | 0.7        | 4.4    |
| Trapped: Tanks and lines | 37.3 | 30    | 9.8        | 66.2   |
| **TOTAL UNUSABLE**| 52.3   | 42     | 13.8       | 92.6   |

|                  |        |        |            |        |
| **TOTAL FUEL**   |        |        |            |        |
| - Left engine    | 2927.5 | 2351   | 773.3      | 5 183  |
| - Center engine  | 2960   | 2376.7 | 782.2      | 5 240  |
| - Right engine   | 2927.5 | 2351   | 773.3      | 5 183  |
| **TOTAL**        | 8 815  | 7078.7 | 2328.8     | 15 606 |

(*) Fuel density: 0.803 kg/l

- Refer to weight and balance report of each individual airplane for exact capacity
- Refer to NOTE 2 for information on the use of fuel additives.
Oil capacity

Engine lubrication system capacity:

<table>
<thead>
<tr>
<th>LH, center or RH engine</th>
<th>Liters</th>
<th>U.S. GALLONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unusable</td>
<td>1.89</td>
<td>0.5</td>
</tr>
<tr>
<td>Usable</td>
<td>8.52</td>
<td>2.25</td>
</tr>
</tbody>
</table>

2.III.8 Air Speeds

(Unless otherwise specified, speeds are indicated airspeeds)

VMO at sea level ................................................................. 350 kt
VMO straight line variation up to 10,000 ft............................. 370 kt
VMO from 10,000 ft to 24,000 ft ........................................... 370 kt
MMO above 24,000 ft ................................................................ 0.86
VA maneuvering speed ......................................................... 210 kt
Vfe slats .............................................................................. 200 kt
slats + flaps 20° .................................................................. 190 kt
slats + flaps 48° .................................................................. 175 kt
Vlo landing gear operation ...................................................... 190 kt
Mlo ................................................................. 0.70
Vle landing gear extended ...................................................... 220 kt
Mle ................................................................. 0.75
DV window opening speed ...................................................... 180 kt
windshield wiper operating speed ........................................... 205 kt
Vmca minimum control speed in flight ..................................... 82.5 kt (CAS)
Vmcg minimum control speed on ground ................................. 87.5 kt (CAS)

2.III.9 Maximum Operating Altitude

Without Modification M17:
The Maximum operating altitude for MYSTERE-FALCON 50 aircraft is Flight level 450.

With Modification M17:
The Maximum operating altitude for MYSTERE-FALCON 50 aircraft modified by incorporation of Modification M17 or AMD-BA Service Bulletin F50-0163 is Flight level 490.

2.III.10 All weather Capability

Cat .I requirements provided the airplane is operated in accordance with Airplane Flight Manual DTM813.
Cat .II requirements provided the airplane is operated in accordance with Airplane Flight Manual DTM813 supplement N°1 (Service Bulletin F50-10) or supplement N°8 (M1000) or supplement N°12 (M1496)
2.III.11 Maximum Weights

- Airplane without modification M1230 or Service Bulletin SB F50-161
  - Maximum ramp .................................................................17.600 kg (38.800 lbs)
  - Maximum takeoff ............................................................17.600 kg (38.800 lbs)
  - Maximum landing: ............................................................16.200 kg (35.715 lbs)
  - Maximum zero fuel: ..........................................................11.600 kg (25.570 lbs)
  - Minimum flight ...............................................................8.600 kg (18.959 lbs)

- Airplane with modification M1230 or Service Bulletin SB F50-161
  - Maximum ramp ................................................................ 18,500 kg (40,780 lbs)
  - Maximum takeoff ............................................................ 18,500 kg (40,780 lbs)
  - Maximum landing ............................................................. 16,200 kg (35,715 lbs)
  - Maximum zero fuel ........................................................... 11,600 kg (25,570 lbs)
  - Minimum flight .................................................................. 8,600 kg (18,959 lbs)

- Airplane with modification M1430 or Service Bulletin SB F50-191
  - Maximum ramp ................................................................. 18,500 kg (40,780 lbs)
  - Maximum takeoff ............................................................ 18,500 kg (40,780 lbs)
  - Maximum landing ............................................................. 16,200 kg (35,715 lbs)
  - Maximum zero fuel ........................................................... 11,600 kg (25,570 lbs)
  - Minimum flight ............................................................... 8,600 kg (18,959 lbs)

2.III.12 Center of Gravity Range:
The weight and balance charts are contained in the Airplane Flight Manual.

Gear retraction has a negligible effect on CG range (- 50 mkg, i.e. 0.2 % on CG range at minimum flight weight).

- Airplane without modification M1230 or Service Bulletin SB F50-161

<table>
<thead>
<tr>
<th>Weight</th>
<th>Forward limit</th>
<th>Aft limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kg</td>
<td>lbs</td>
<td>% MAC</td>
</tr>
<tr>
<td>8.600</td>
<td>18.959</td>
<td>14</td>
</tr>
<tr>
<td>13.700</td>
<td>30.203</td>
<td>14</td>
</tr>
<tr>
<td>16.200</td>
<td>35.715</td>
<td>19.8</td>
</tr>
<tr>
<td>17.600</td>
<td>38.800</td>
<td>22.3</td>
</tr>
</tbody>
</table>

- Airplane with modification M1230 or Service Bulletin SB F50-161

<table>
<thead>
<tr>
<th>Weight</th>
<th>Forward limit</th>
<th>Aft limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kg</td>
<td>lbs</td>
<td>% MAC</td>
</tr>
<tr>
<td>8.600</td>
<td>18.959</td>
<td>14</td>
</tr>
<tr>
<td>13.900</td>
<td>30.640</td>
<td>14</td>
</tr>
<tr>
<td>16.200</td>
<td>35.715</td>
<td>19.2</td>
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<td>18.260</td>
<td>40.255</td>
<td>22.8</td>
</tr>
<tr>
<td>18.500</td>
<td>40.780</td>
<td>23.3</td>
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</table>

- Airplane with modification M1430 or Service Bulletin SB F50-191

<table>
<thead>
<tr>
<th>Weight</th>
<th>Forward limit</th>
<th>Aft limit</th>
</tr>
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<tbody>
<tr>
<td>Kg</td>
<td>lbs</td>
<td>% MAC</td>
</tr>
<tr>
<td>8.600</td>
<td>18.959</td>
<td>14</td>
</tr>
<tr>
<td>14.800</td>
<td>32.624</td>
<td>14</td>
</tr>
<tr>
<td>16.200</td>
<td>35.715</td>
<td>17.3</td>
</tr>
<tr>
<td>18.260</td>
<td>40.255</td>
<td>20.6</td>
</tr>
<tr>
<td>18.500</td>
<td>40.780</td>
<td>20.9</td>
</tr>
</tbody>
</table>
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.13 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.14 Mean Aerodynamic Cord (MAC)

MAC = 2.839 m

2.III.15 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.16 Minimum Flight Crew

1. Two pilots.
2. One pilot and one trained crew member when Service Bulletin F50-011 (VMO/MMO warning activated by copilot air data system) is incorporated.

The second crew member duties are specified in the Aircraft Operating Manual, Section 2.99: Qualification of the second crew member.

Operation of the MYSTERE-FALCON 50 aircraft with one pilot and one trained crew member is not permitted when AMD-BA modification M1000 (Installation of EFIS) is incorporated.

2.III.17 Maximum Passenger Seating Capacity

19 seats in the passenger cabin, in compliance with the requirements of FAR 25.807 (c) applicable to emergency exits (AMD-BA document DTM 800 defines an approved cabin interior accommodation for 8 or 9 passengers).

The MYSTERE-FALCON 50 aircraft modified by incorporation of Modification M1230 in production or AMD-BA Service Bulletin F50-0161 in service must not carry more than 12 passengers (FAR 25.831 Ventilation) any time the flight is made at an altitude above 45,000 ft.

SECTION 2.III - MF50 TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS
2.III.18 Exits

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Passenger door</td>
<td>I</td>
</tr>
<tr>
<td>2 Emergency exit</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>508 X 914</td>
</tr>
</tbody>
</table>

2.III.19 Baggage/Cargo Compartments
1.000 kg and 600 kg per square meter.

2.III.20 Wheels and Tyres:
This aircraft is equipped with wheels, brakes and tubeless and radial tires.
Main wheel tyres are 26*6 -14"
Nose wheel tyres are 14.5*5.5 - 6"

2.III.21 Environmental Flight Envelope
Refer to approved Airplane Flight Manual.

2.III.22 Other Limitations
Refer to approved Airplane Flight Manual.

2.III.23 Hydraulics
Hydraulic fluid approved for use must conform to MIL-H-5606 specifications (NATO codes H515 or H520)

2.III.24 Notes
GARRETT GTCP 36-100 (A) Auxiliary Power Unit
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.IV MF50 Operating and Service Instructions

- Airplane Flight Manual: documents DTM813 (English language) and DTM803 (French 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
Service Bulletins are listed in Service Bulletin index (SB 0)
• Various statements
  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 (French "arrêté of November 5th, 1987 and 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 system is installed and the airplane is operated in accordance with associated AFM supplements.
  - TCAS II change 7 (JAR-OPS1) requirements (§668) provided the modification M2737 (TCAS 4000) is applied and the airplane is operated in accordance with Airplane Flight Manual, Supplement 20.

2.V Falcon 50EX version

F50EX designation for Mystere Falcon 50 airplane does not correspond to a new model designation. This is only a commercial designation for Mystere Falcon 50 airplanes on which the six following major modifications are embodied on assembly line:

- M1810: new engines - assembly line configuration - TFE 731-40
- M1939: new engines control EIED
- M1890: new avionics - EFIS
- M1940: bleed air system computer
- M2159: ADC New calibration (Reduce Vertical Separation Minimum)
- M1200: increase of rudder control authority

2.V.1 Certification Basis

• Reference Application Date for EASA Certification:..........April 19th, 1995
• EASA Certification Date (JAA recommendation): ...............November, 1996
• EASA Certification Basis:
  Applicable requirements (refer to CRI Falcon 50-M1810 A-01 issue 5 and CRI Falcon 50-M1924/1890 A-01 issue 2.

  1 - Whole aircraft:

  FAR part 25 amendments 1 to 34 plus the following paragraphs:
  • FAR 25.979 (d) and (e)  amendment 38
  • FAR 25.1013 (b) (1)  amendment 36
  • FAR 25.1351 (d)  amendment 41
  • FAR 25.1353 (e) (6)  amendment 42


  - Supplementary Condition for flight operation above 41000 ft.

2 - New parts:

2.1 M1939 (Installation of Engine Indicator Electronic Displays derived from the F2000 EIED system):

JAR 25X899 change 14
JAR 25.1309 change 14
JAR 25.1322 change 14

2.2 For the new avionics itself (M1890: "new avionics - EFIS"), the following paragraphs of JAR 25 change 14:

JAR 25.773 (d)  JAR 25.1322  JAR 25.1333
JAR 25.777  JAR 25.1323  JAR 25.1335
JAR 25X899  JAR 25.1325  JAR 25.1381
JAR 25.1301  JAR 25.1326  JAR 25.1431
JAR 25.1303  JAR 25.1327  JAR 25X1524
JAR 25.1307  JAR 25X1328  JAR 25.1543
JAR 25.1309  JAR 25.1329  JAR 25.1583
JAR 25.1321  JAR 25.1331

Plus JAR AWO change 1 plus amdtd AWO/91/1.

3 - Dassault Aviation elect to comply requirements:

JAR 25.997 change 14
JAR 25.1013 change 14
JAR 25.1015 change 14
JAR 25.1019 change 14
NPA AWO-3 (Miscellaneous amendment to JAR AWO cat 2)
NPA AWO-4 (Automatic landing system)

• Special Conditions:
  - SC E-01 - Reverse - based upon INT/POL/25/7 dated 28 Jul. 92.
  - SC S-01 - Lightning protection indirect effects based upon INT/POL/25/4 - Rev 1 dated 01 Oct. 94.
  - SC S-04 - Lightning protection direct effects dated 12 Nov. 96.

• Exemptions: None

• Equivalent Safety Findings: None

• Environmental Standards:
  Chapter III and IV of annex 16 of ICAO Convention.

2.V.2 Technical Characteristics and Operational Limitations

2.V.2.1 Type Design Definition

Falcon 50 EX airplanes have received modifications:

M1810: new engines - assembly line configuration - TFE 731-40
M1939: new engines control EIED
M1890: new avionics - EFIS
M1940: bleed air system computer
M2159: ADC New calibration (Reduce Vertical Separation Minimum)
M1200: increase of rudder control authority

Falcon 50EX Technical Specifications are detailed in document DGT218952 at latest revision.

2.V.2.2 Equipment

Document A900 List of equipment and categorization (DGT67435 dated August 26, 1996)

2.V.2.3 All weather capability

Cat I and Cat II requirements provided the airplane is operated in accordance with Airplane Flight Manual DTM813EX Limitations Page 1-160-1 and annex 2 (Autopilot coupled approach to Cat II "commercial operation" performance requirements.

2.V.2.4 Engine

Type: ALLIED SIGNAL / HONEYWELL TFE 731-40 (EASA TCDS IM.E.011).

Number: 3

Engine limits
Maximum takeoff static thrust up to 24° C - Sea level condition (5 mn): 1.646 daN (3700 lbs).
Maximum continuous static thrust at 15° C - Sea level conditions: 1.623 daN (3641 lbs).

Note: Refer to Airplane Flight Manual for engine operating instructions

- Maximum engine operating speed:
  Low pressure rotor (N1) .....................................................RPM: 21.021 (Percent 100.1)
  Transient (5 seconds) ......................................................21.105 (Percent 100.5)
  High pressure rotor (N2) .....................................................RPM: 31.845 (Percent 101)
  Transient (5 seconds) ......................................................31.952 (Percent 102.5)

- Maximum Interstage Turbine Temperature (ITT)
  During starting .......................................................... 991°C
  Takeoff (5 minutes)........................................................1 013°C
  Maximum continuous .................................................. 991°C

- Oil pressure limits
  At idle ..........................................................50 to 80 psig
  Takeoff and maximum continuous ..................65 to 80 psig

For more information, refer to Airplane Flight Manual.

- 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 ......................... 40°C

- Fuel pressure
  Minimum fuel pressure warning .........................4,5 psig (320 mbars)
2.V.2.5 Center of Gravity range

- Airplanes without Dassault Aviation Service Bulletin SB F50-161

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>Forward limit % MAC</th>
<th>Aft limit % MAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 600</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>13 689</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>18 008</td>
<td>22.96</td>
<td>32</td>
</tr>
</tbody>
</table>

- Airplanes with Dassault Aviation Service Bulletin SB F50-161

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>Forward limit % MAC</th>
<th>Aft limit % MAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 600</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>13 888</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>18 280</td>
<td>22.99</td>
<td>32</td>
</tr>
<tr>
<td>18 500</td>
<td>23.3</td>
<td>29.57</td>
</tr>
</tbody>
</table>

2.V.2.6

2.V.2.7 Maximum weight

- Airplanes without Dassault Aviation Service Bulletin SB F50-161
  - Maximum ramp : 18.008 kg (39.700 lbs)
  - Maximum takeoff : 18.008 kg (39.700 lbs)
  - Maximum landing : 16.200 kg (35.715 lbs)
  - Maximum zero fuel : 11.600 kg (25.570 lbs)
  - Minimum flight : 8.600 kg (18.959 lbs)

- Airplanes with Dassault Aviation Service Bulletin SB F50-161
  - Maximum ramp : 18.500 kg (40.785 lbs)
  - Maximum takeoff : 18.500 kg (40.785 lbs)
  - Maximum landing : 16.200 kg (35.715 lbs)
  - Maximum zero fuel : 11.600 kg (25.570 lbs)
  - Minimum flight : 8.600 kg (18.959 lbs)

2.V.2.8

2.V.2.9 Oil capacity

Engine lubrication system capacity:

<table>
<thead>
<tr>
<th>LH, center or RH engine</th>
<th>Liters</th>
<th>U.S. GALLONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unusable</td>
<td>1.18</td>
<td>0.31</td>
</tr>
<tr>
<td>Usable</td>
<td>3.82</td>
<td>1.01</td>
</tr>
</tbody>
</table>
2.V.2.10 Notes

- FM immunity
  The F50EX is compliant to:
  - FM immunity for navigation system VOR/ILS against ICAO Annex 10, Vol I, §3.1.4 and §3.3.8 provided modification M2115 is applied.
  - FM immunity for communication system VHF against ICAO Annex 10, Vol III, §2.3.3 provided modification M2325 is applied.

- Falcon 50 EX Ferry Kit.
  Modification M2133 has been developed and approved by DGAC to allow long range ferry flights overseas in order to enable to complete the aircraft delivered at completion center.
  The aircraft equipped with the "ferry-kit" may have a French airworthiness certificate for export which can be exchanged for an US airworthiness certificate.
  As long as the aircraft is not certified, the aircraft may be flown only with a "laisser-passer exceptionnel".

2.V.3 Operating and Service Instructions

- 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.
- Various statements
  The F50EX is compliant to:
  - Basic RNAV, RNP10 - See Airplane Flight Manual, Limitations Section, page 1-160-2 and 1-160-3
  - RVSM requirements are met provided airplane complies with SB F50-246
  - NAT MNPS: As per AFM, the minimum navigation performance required by NAT MNPS regulations (French "arrêté of November 5th, 1987 and 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
  - CVR (JAR-OPS1) requirements (2 hours) provided the modification M2372 is applied.
  - EGPWS (JAR-OPS 1 § 665) provided the airplane is operated in accordance with the associated Airplane Flight Manual.
  - TCAS II change 7 (JAR OPS 1 § 668) provided the airplane is operated in accordance with the associated Airplane Flight Manual (M2737).
SECTION 3. MYSTERE FALCON 900

3.I General

- Aeroplane: MYSTERE FALCON 900 (MF900)

3.II MF900 Certification Basis

- Reference Application Date for EASA Certification: February, 12th 1982
- EASA Certification Date (JAA recommendation): March, 13th 1986
- EASA Certification Basis:
  - Federal Aviation Regulations Part 25, Amendments 1 through 56, except for the following sections of Amendments 35 through 56.
    - 25.107 Amendt. 42 - Takeoff speeds
    - 25.109 Amendt. 42 - Accelerate-stop distance
    - 25.111 Amendt. 42 & 54 - Takeoff path
    - 25.149 Amendt. 42 - Minimum control speed
    - 25.629 Amendt. 46 - Flutter, deformation and fail-safe criteria
    - 25.933 Amendt. 40 - Reversing systems
    - 25.997 Amendt. 36 - Fuel strainer or filter
    - 25.1019 Amendt. 36 - Oil strainer or filter
    - 25.1093 Amendt. 36, 38 & 40 - Induction system deicing and anti-icing provisions
    - 25.1141 Amendt. 40 - Powerplant controls - General
    - 25.1167 Amendt. 38 - Accessory gearboxes
    - 25.1305 Amendt. 35, 36, 38 & 54 - Powerplant instruments
  - "Circulaire" No 3938 DTA/M relative to conditions applicable to airborne equipment and installations required to perform precision approaches to Category II landing minimums, 25 November 1971 issue.
  - Compliance with "Arrêté du 16 Novembre 1990" relative to the "operation of subsonic jet aircraft in order to limit their noise effect" has been shown. This "Arrêté" is in force in France at the edition date of type Certificate Data Sheet number 163 issue number 10. (See NOTE 5).
  - Compliance with FAR Part 25 requirements relative to ditching (25.801) has been shown.
    - Compliance with FAR Part 25 requirements relative to flight in icing conditions (25.1093 and 25.1419) has been shown.
  - Special condition:
    - French Special Condition for operation between 41,000 and 51,000 ft (DGAC letter 54-063 SFAC/TC of 28 October 1985).
  - Exemptions: None.
  - Equivalent Safety Findings:
    - Compliance with FAR Part 25 requirements relative to illumination of Type III passenger emergency exit operating handle (25.811 (e) (3) ) has been shown on the basis of an equivalent safety.
• Environmental Standards:
  Chapter III and Chapter IV of annex 16 of ICAO convention.

3.III MF900 Technical Characteristics and Operational Limitations

3.III.1 Type Design Definition

The type aircraft is defined in document DTM20078 (including F900C Technical Specifications). Definition of reference airplane by DASSAULT AVIATION documents A001, A002 and A003 "Liste des plans structure, électrique et avionique".

3.III.2 Equipment

Document A230 DTM 35-II N524 "Liste des équipements"

3.III.3 Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>20,2 m</td>
</tr>
<tr>
<td>Span</td>
<td>19,33 m</td>
</tr>
<tr>
<td>Height</td>
<td>7,5 m</td>
</tr>
<tr>
<td>Distance between main landing gears</td>
<td>4,45 m</td>
</tr>
</tbody>
</table>

3.III.4 Engines

Mystère Falcon 900 Airplanes with modification M1200 and M1548 (SB F900-100) are equipped with ALLIEDSIGNAL / HONEYWELL ENGINES TFE 731-5BR-1C engines. Commercial name of MYSTERE-FALCON 900 airplanes fitted with M1200 and M1548 modifications is F900B.

Number: 3

<table>
<thead>
<tr>
<th>Type: ALLIEDSIGNAL / HONEYWELL ENGINES TFE731-5xxx (TCDS FAA n° E6WE)</th>
<th>Aircraft without M1200 and M1548</th>
<th>Aircraft with M1200 and M1548</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFE 731-5AR-1C</td>
<td>TFE 731-5BR-1C</td>
<td></td>
</tr>
</tbody>
</table>

- ENGINE LIMITS:
  - Maximum takeoff static thrust up to 23°C Sea level conditions (5 minutes)
    - 2002 daN (4500 lbs)
  - Maximum continuous static thrust at 15°C Sea level conditions
    - 2002 daN (4500 lbs)

Note: refer to Airplane Flight Manual for engine operating instructions

- Maximum engine operating speeds:
  - Low pressure rotor (N1)
    - RPM 21000 (percent 100%)
    - 100% to 103%
  - Transient (5 seconds)
    - RPM 21000 (percent 100%)
    - 100 % to 103 %
### Aircraft without M1200 and M1548

<table>
<thead>
<tr>
<th>Section</th>
<th>Aircraft with M1200 and M1548</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPM 29989 (percent 101%)</td>
<td>RPM 30540 (percent 100.8%)</td>
</tr>
<tr>
<td>101% to 103%</td>
<td>100.8% to 103%</td>
</tr>
</tbody>
</table>

### - Maximum Interstage Turbine Temperatures (ITT)

<table>
<thead>
<tr>
<th>Operation</th>
<th>Aircraft without M1200 and M1548</th>
<th>Aircraft with M1200 and M1548</th>
</tr>
</thead>
<tbody>
<tr>
<td>During starting</td>
<td>952°C</td>
<td>978°C</td>
</tr>
<tr>
<td>Transient (10 seconds)</td>
<td>974°C</td>
<td>996°C</td>
</tr>
<tr>
<td>Takeoff (5 minutes)</td>
<td>974°C</td>
<td>996°C</td>
</tr>
<tr>
<td>Transient (5 seconds)</td>
<td>984°C</td>
<td>1006°C</td>
</tr>
<tr>
<td>Transient (2 seconds)</td>
<td>994°C</td>
<td>1016°C</td>
</tr>
<tr>
<td>Maximum continuous</td>
<td>924°C</td>
<td>968°C</td>
</tr>
</tbody>
</table>

### - Oil pressure limits

<table>
<thead>
<tr>
<th>idle</th>
<th>Takeoff and maximum continuous</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 to 46 psig</td>
<td>38 to 46 psig</td>
</tr>
</tbody>
</table>

### - Oil temperature limits (at fan gearbox inlet)

<table>
<thead>
<tr>
<th>Altitude</th>
<th>Aircraft without M1200 and M1548</th>
<th>Aircraft with M1200 and M1548</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum, from sea level up to 30,000 ft</td>
<td>127°C</td>
<td>140°C</td>
</tr>
<tr>
<td>Maximum above 30,000 ft</td>
<td>149°C</td>
<td></td>
</tr>
<tr>
<td>Maximum transient at any operational altitude (2 minutes)</td>
<td>149°C</td>
<td></td>
</tr>
<tr>
<td>Minimum, continuous operation</td>
<td>30°C</td>
<td></td>
</tr>
</tbody>
</table>

### - Fuel pressure

| Minimum fuel pressure warning | 4.5 psig |

---

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

Model: ALLIEDSIGNAL / HONEYWELL ENGINES COMPANY - GTCP 36 - 150(F)

APU limits: usable for ground operation only

<table>
<thead>
<tr>
<th>Normal operation</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGT: .........................</td>
<td>720°C</td>
</tr>
<tr>
<td>RPM: .........................</td>
<td>102%</td>
</tr>
</tbody>
</table>

### 3.III.6 Fluids (Fuel/Oil/Additives)

- Fuel conforming to specifications: See AFM
- Lubricating system conforming to specifications: See AFM
### 3.III.7 Fluid capacities

Fuel tank capacity (nominal)

<table>
<thead>
<tr>
<th></th>
<th>Liters</th>
<th>Kg (*)</th>
<th>US gallons</th>
<th>lbs (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USABLE FUEL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- LH wing and center section</td>
<td>3.422</td>
<td>2.748</td>
<td>904</td>
<td>6.058</td>
</tr>
<tr>
<td>- RH wing and center section</td>
<td>3.422</td>
<td>2.748</td>
<td>904</td>
<td>6.058</td>
</tr>
<tr>
<td>- Forward and aft fuselage</td>
<td>3.925</td>
<td>3.152</td>
<td>1.037</td>
<td>6.949</td>
</tr>
<tr>
<td><strong>TOTAL USABLE</strong></td>
<td>10.769</td>
<td>8.648</td>
<td>2.845</td>
<td>19.065</td>
</tr>
<tr>
<td><strong>UNUSABLE FUEL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drainable:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- LH wing and center section</td>
<td>11.2</td>
<td>9</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>- RH wing and center section</td>
<td>8.7</td>
<td>7</td>
<td>2.3</td>
<td>15.4</td>
</tr>
<tr>
<td>- Forward and aft fuselage</td>
<td>8.7</td>
<td>7</td>
<td>2.3</td>
<td>15.4</td>
</tr>
<tr>
<td>Trapped: Tanks and lines</td>
<td>38.6</td>
<td>31</td>
<td>10.2</td>
<td>68.4</td>
</tr>
<tr>
<td><strong>TOTAL UNUSABLE</strong></td>
<td>67.2</td>
<td>54</td>
<td>17.8</td>
<td>119.2</td>
</tr>
<tr>
<td><strong>TOTAL FUEL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- LH engine</td>
<td>3.445</td>
<td>2.767</td>
<td>910</td>
<td>6.100</td>
</tr>
<tr>
<td>- RH engine</td>
<td>3.440</td>
<td>2.762</td>
<td>909</td>
<td>6.089</td>
</tr>
<tr>
<td>- Center engine</td>
<td>3.951</td>
<td>3.173</td>
<td>1.044</td>
<td>6.995</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>10.836</td>
<td>8.702</td>
<td>2862.8</td>
<td>19.184</td>
</tr>
</tbody>
</table>

(*) Fuel density: 0.803 kg/l

Refer to weight and balance report of each individual airplane for exact capacity.

Refer to NOTE 2 for information on the use of fuel additives.

**Oil capacity**

Engine lubrication system capacity

<table>
<thead>
<tr>
<th>LH, center or RH engine</th>
<th>Liters</th>
<th>U.S. GALLONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unusable</td>
<td>1.42</td>
<td>0.37</td>
</tr>
<tr>
<td>Usable</td>
<td>10.82</td>
<td>2.86</td>
</tr>
</tbody>
</table>
3.III.8

3.III.9  Air Speeds

(unless otherwise specified, speeds are indicated airspeeds).

VMO at sea level ................................................................. 350 kt
VMO straight line variation up to 10,000 ft .......................... 370 kt
VMO from 10,000 to 25,000 ft ........................................... 370 kt

**Weight lower than 15,876 kg (35,000 lbs)**
- MMO from 25,000 to 38,000 ft ........................................ 0.87
- MMO from 38,000 to 42,000 ft, straight line variation down to .. 0.84
- MMO above 42,000 ft .................................................. 0.84

**Weight higher than 15,876 kg (35,000 lbs)**
- MMO from 25,000 to 33,000 ft .......................................... 0.87
- MMO from 33,000 to 37,000 ft, straight line variation down to .. 0.84
- MMO above 37,000 ft .................................................. 0.84

- $V_A$: maneuvering speed ............................................. 228 kt
- $V_{FE}$: slats + flaps 7° ............................................. 200 kt
  - slats + flaps 20° ..................................................... 190 kt
  - slats + flaps 40° ..................................................... 180 kt
- $V_{LO}$: landing gear operation ...................................... 190 kt
- $M_{LO}$: ........................................................................ 0.70
- $V_{LE}$: landing gear extended ....................................... 245 kt
- $M_{LE}$: ........................................................................ 0.75
- DV window opening speed ........................................... 215 kt
- Windshield wiper operating speed................................. 215 kt

<table>
<thead>
<tr>
<th>SVMCA</th>
<th>Minimum control speed in flight</th>
<th>SVMCG</th>
<th>Minimum control speed on ground</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>without M1200 and M1548</td>
<td></td>
<td>with M1200 and M1548</td>
</tr>
<tr>
<td>83 kt (CAS)</td>
<td></td>
<td>83,6 kt (CAS)</td>
<td></td>
</tr>
<tr>
<td>85,3 kt (CAS)</td>
<td></td>
<td>86 kt (CAS)</td>
<td></td>
</tr>
</tbody>
</table>

3.III.10 Maximum Operating Altitude

Flight level: FL 510

3.III.11 All weather Capability

Cat II requirements

3.III.12 Maximum Weights

- Airplane without DASSAULT AVIATION modification M1196
  - Maximum ramp ........................................................... 20 729 kg (45 700 lbs)
  - Maximum take off ..................................................... 20 639 kg (45 500 lbs)
  - Maximum landing ..................................................... 19 051 kg (42 000 lbs)
- Maximum zero fuel ......................................................... 12,800 kg (28,220 lbs)
- Minimum flight .............................................................. 9,390 kg (20,700 lbs)

- Airplane with DASSAULT AVIATION modification M1196
  - Maximum ramp ............................................................ 21,183 kg (46,700 lbs)
  - Maximum takeoff ...................................................... 21,092 kg (46,500 lbs)
  - Maximum landing ...................................................... 19,051 kg (42,000 lbs)
  - Maximum zero fuel .................................................... 14,000 kg (30,865 lbs)
  - Maximum flight .......................................................... 9,390 kg (20,700 lbs)

3.III.13 Center of Gravity Range

- Airplane without DASSAULT AVIATION modification M1196

<table>
<thead>
<tr>
<th>Weight</th>
<th>Forward limit</th>
<th>Aft limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kg</td>
<td>lbs</td>
<td>% MAC</td>
</tr>
<tr>
<td>9,390</td>
<td>20,700</td>
<td>14</td>
</tr>
<tr>
<td>19,051</td>
<td>42,000</td>
<td>14</td>
</tr>
<tr>
<td>20,639</td>
<td>45,500</td>
<td>14</td>
</tr>
</tbody>
</table>

- Airplane with DASSAULT AVIATION modification M1196

<table>
<thead>
<tr>
<th>Weight</th>
<th>Forward limit</th>
<th>Aft limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kg</td>
<td>lbs</td>
<td>% MAC</td>
</tr>
<tr>
<td>9,390</td>
<td>20,700</td>
<td>14</td>
</tr>
<tr>
<td>19,051</td>
<td>42,000</td>
<td>14</td>
</tr>
<tr>
<td>21,092</td>
<td>46,500</td>
<td>14</td>
</tr>
</tbody>
</table>

- 14 % MAC is 0.318 m forward of datum
- 15 % MAC is 0.289 m forward of datum
- 25 % MAC is datum
- 31 % MAC is 0.173 m aft of datum

The weight and balance charts are contained in the DGAC approved Manuel de Vol.

Gear retraction has a negligible effect on CG range (-46 mkg, i.e. -0.17 % on CG range at minimum flight weight).

3.III.14 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.

3.III.15 Mean Aerodynamic Cord (MAC)

MAC = 2.888 m

3.III.16 Leveling Means

A bubble type level may be placed on the passenger seat tracks. Leveling can be obtained in the lateral and longitudinal directions.
3.III.17 Minimum Flight Crew
Two pilots.

3.III.18 Maximum Passenger Seating Capacity
19 seats in the passenger cabin, in compliance with the requirements of FAR 25.807 (c) applicable to emergency exits (AMD-BA document DTM20164 defines an approved cabin interior accommodation for 12 passengers).

3.III.19 Exits

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Passenger door</td>
<td>I 0.800*1.72m</td>
</tr>
<tr>
<td></td>
<td>(31.50*67.72in)</td>
</tr>
<tr>
<td>1 Emergency exit</td>
<td>III 0.534*0.916m</td>
</tr>
<tr>
<td></td>
<td>(21.02*36.06in)</td>
</tr>
</tbody>
</table>

3.III.20 Baggage/Cargo Compartments:
1,300 kg and 600 kg per square meter.

3.III.21 Wheels and Tyres:
This aircraft is equipped with wheels, brakes and tubeless and radial tyres.
Main wheel tyres are 29 X 7.7 -15"
Nose wheel tyres are 17.5 X 5.75 -8"

3.III.22 Notes
- FM immunity
  The MF900 is compliant to:
  - FM immunity for navigation system VOR/ILS against ICAO Annex 10, Vol I, §3.1.4 and §3.3.8 provided modification M1865 is applied.
  - FM immunity for communication system VHF against ICAO Annex 10, Vol III, §2.3.3 provided modification M2731 is applied.

3.III.23 Environmental Flight Envelope
Refer to approved Airplane Flight Manual.

3.III.24 Other Limitations
Refer to approved Airplane Flight Manual.

3.III.25 Hydraulics
Hydraulic fluid approved for use must conform to MIL-H-56 06 specifications (NATO codes H515 or H520)
3.IV MF900 Operating and Service Instructions

- 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 DMD35543.
- Service Letters and Service Bulletins
  Service Bulletins are listed in Service Bulletin index (SB 0)
- Various statements
  The MF900 is compliant to:
  - Basic RNAV, RNP10 airworthiness requirements are operated in accordance with Airplane Flight Manual, Limitations Section, Kinds of Operation, pages 1-16-2 and 1-16-3
  - CVR (JAR-OPS1) requirements (2 hours) provided modification M2819 is applied.
  - RVSM requirements (Service Bulletin F900-186) if the airplane is operated in accordance with Airplane Flight Manual page 1-16-4.
  - NAT MNPS: As per AFM, the minimum navigation performance required by NAT MNPS regulations (French "arrêté of November 5th, 1987 and 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
    - 1 IRS in NAV mode and 1 GPS
  - TCAS II change 7 (JAR OPS 1 § 668) if the airplane is operated in accordance with the associated Airplane Flight Manual Supplements. (M3377 and M3501 or Service Bulletin F900-251 / M3219)

3.V Falcon 900C version

F900C designation for Mystere Falcon 900 airplane does not correspond to a new model designation. This is only a commercial designation for Mystere Falcon 900 airplanes on which one of these 2 major modifications is embodied on assembly line:

3.V.1 Certification Basis

- Reference Application Date for EASA Certification:.............  Feb 20th, 1998.
- EASA Certification Basis:

  - Airworthiness requirements:
Certification basis consists in Falcon 900 certification basis, plus following requirements:

1- JAR25 change 14 Plus op/96/1 relevant paragraphs applicable to the significant change:

JAR 25 subpart D - Design and construction:
- JAR 25.773 (d) “Pilot Compartment View”
- JAR 25X899 “Electrical bonding and protection”

JAR 25 subpart F - Equipment:
- JAR 25.1301: « Function and Installations »
- JAR 25.1303: « Flight and Navigation Instruments »
- JAR 25.1307 (c)(d)(e): « Miscellaneous equipments »
- JAR 25.1309: « Equipment, systems and installations »
- JAR 25X1315: « Negative acceleration »
- JAR 25.1316: « System lightning protection »
- JAR 25.1321: « Arrangement and visibility »
- JAR 25.1322: « Warning, Caution and advisory lights »
- JAR 25.1323: « Airspeed indicating system »
- JAR 25.1326: « Pitot heat indication systems »
- JAR 25.1327: « Magnetic direction indicator »
- JAR 25X1328: « Direction indicator »
- JAR 25.1329: « Automatic pilot system »
- JAR 25.1331: « Instruments using a power supply »
- JAR 25.1333: « Instrument systems »
- JAR 25.1335: « Flight director systems »
- JAR 25.1381 Instrument Lights
- JAR 25.1431 Electronic Equipment
-- JAR 25.1457 “Cockpit voice recorders”
-- JAR 25.1459 “Flight recorders”

JAR 25 subpart G - Operating limitations and information:
- JAR 25X1524 Systems and equipment limitations
- JAR 25.1529 Instructions for Continued Airworthiness
- JAR 25.1543 Instrument Markings: General
- JAR 25.1545 Airspeed limitation information
- JAR 25.1547 Magnetic Direction Indicator
- JAR 25.1549 Powerplant Instruments

Plus JAR AWO Change 2.

2- Special conditions:

DGAC special conditions are:
- CRI F-02: «HIRF»
- CRI F-04: «Lightning indirect effects»
- CRI F-08: «E-GPWS option»

- Special Conditions: None.
- Exemptions: None.
- Equivalent Safety Findings: None.
3.V.2  Technical Characteristics and Operational Limitations

3.V.2.1  Type Design Definition

Two changes are issued to cover the basic installation:

Modification M1975: Primus 2000 avionics suite installation on MF900, which is the basic installation on the newly produced aeroplanes, with serial number equal or greater than S/N 179.

Modification M2695: Primus 2000 avionics suite installation on MF900 (retrofit), installation of this avionics suite on by a specific Service Bulletin.

3.V.2.2  Equipment

See modification sheets listed here above.

3.V.2.3  All weather capability

Cat II.

3.V.3  Operating and Service Instructions

- Maintenance Manual

Airworthiness limitations are listed in the DGAC approved recommended maintenance schedules and TBO's, Chapter 5-40-00 of the Maintenance Manual DMD 35542.

- Various statements

The F900C is compliant to:
- Basic RNAV, RNP10 airworthiness provided the airplane is operated in accordance with Airplane Flight Manual, Limitations Section, kind of operations, page 1-160-2
- CVR (JAR-OPS1) requirements (2 hours) provided the modification M2819 is applied
- RVSM requirements (SB F900EX-4) if the airplane is operated in accordance with Airplane Flight Manual page 1-160-1.
- NAT MNPS: As per AFM, the minimum navigation performance required by NAT MNPS regulations (French "arrêté of November 5th, 1987 and 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-OPS 1 § 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 OPS 1 § 668) (M3219 or 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 Airplane Flight Manual Supplements.
SECTION 4. FALCON 900EX

4.I General

- Aeroplane: ..........................................................FALCON 900EX (F900EX)

4.II F900EX Certification Basis

- Reference Application Date for EASA Certification:............March 3, 1993
  DGQT/NAV letter No. 153/93
- EASA Certification Date (JAA recommendation): ...............May, 31st 1996
- EASA Certification Basis:

  - Applicable requirements (refer to CRI A01 issue 8):
    1. FAR part 25 up to and including amendment 25.56 except for amendments 36 through 56 which have not been selected for the following paragraphs:
       25.109   Amdt 42  Accelerate-stop distance
       25.149   Amdt 42  Minimum control speed
       25.629   Amdt 46  Flutter, deformation, and fail-safe criteria
       25.933   Amdt 40  Reversing systems
       25.1093  Amdt 36, 38 and 40  Induction system icing protection
       25.1141  Amdt 40  Powerplant controls: general
    2. Requirements of JAR 25 change 13 plus Orange Paper 90/1 and associated interpretations for M1466 modifications (300 l tank in rear servicing compartment) and M3008 (Upgrading of Falcon 900EX avionics).
       JAR 25X899
       JAR 25.901 (c) (OP 90/1) 90/1
       JAR 25.963 (e) (and referenced JAR 25X1315)
       JAR 25.561
       JAR 25.1141 (f)
       JAR 25.1303
       JAR 25.1305
       JAR 25.1331

      Plus JAR AWO Change 1 and Amdt AWO/91/1

    3. Requirements applied upon Dassault Aviation's request:
       JAR 25.107 change 13  Take-off speeds
       JAR 25.111 change 13  Take-off path
       JAR 25.997 change 13  Fuel strainer or filter
       JAR 25.1019 change 13  Oil strainer or filter
       JAR 25.1167 OP 90/1  Accessory gearboxes
       NPA AWO - 3  Miscellaneous amendments to JAR AWO cat 2
       NPA AWO - 4  Automatic landing system Proposal 2

    - Special conditions:
      SC S-01 Thrust reverser
      SC S-02 Lightning, indirect effect
      SC S-04 HIRF

SECTION 4.I - GENERAL
- Complementary technical conditions (DGAC letter 54-147 SFACT/TC dated November 22, 1985, with DGAC letter 53-260 SFACT/TC dated March 5, 1986, and with CRI A03 edition 3).
- Special French Condition for flight between 41,000 and 51,000 ft (DGAC letter 54-063 SFACT/TC dated October 28, 1985).
- Ditching: compliance with FAR Part 25 requirements regarding ditching (FAR 25-801) was shown.
- Icing Conditions: compliance with FAR Part 25 requirements regarding flight in icing conditions (FAR 25-1093 and 25-1419) was shown.
- Exemptions: None.
- Equivalent Safety Findings:
  Compliance with requirements of FAR, Part 25, regarding Type III emergency exit handle lighting III (FAR 25-811 e (3)) was showed on a safety equivalent basis.
- Environmental Standards:
  Chapter III and Chapter IV of annex 16 of ICAO convention.

4.III F900EX Technical Characteristics and Operational Limitations

4.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

4.III.2 Equipment

A 330/1DTM 5100/84 LISTE DES EQUIPEMENTS AVION DE TYPE
A330/2 DTM 5257/84 LISTE DES EQUIPEMENTS OPTIONS

4.III.3 Dimensions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>20,2 m</td>
</tr>
<tr>
<td>Span</td>
<td>19,33 m</td>
</tr>
<tr>
<td>Height</td>
<td>7,5 m</td>
</tr>
<tr>
<td>Distance between main landing gears</td>
<td>4,45 m</td>
</tr>
</tbody>
</table>

4.III.4 Engines

Model: ALLIEDSIGNAL / HONEYWELL ENGINES TFE 731-60 (EASA TCDS IM.E.011).

Number: 3.
Engine limits:

- Maximum takeoff static thrust: 2 225 daN (5 000 lbs) (sea level, not installed, ISA conditions + 17°, 5 min max).

Note: Refer to Airplane Flight Manual for engine operating instructions.

- 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 %

- Maximum Interstage Turbine Temperatures (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

- Oil pressure limits
  At idle ..................................................................................25 to 46 psi
  Takeoff and maximum continuous .....................................38 to 46 psi
  Transient ............................................................................max 100 psi

- 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 ...................................... 30°C

- Fuel pressure
  Minimum fuel pressure warning .........................................4,5 psi

4.III.5 Auxiliary Power Unit (APU)

Model: ALLIEDSIGNAL / HONEYWELL ENGINES COMPANY - GTCP 36 - 150(F)

APU limits: usable for ground operation only
EGT Normal operation: 720°C - Maximum: 973°C
RPM Normal operation: 102% - Maximum: 110%

4.III.6 Fluids (Fuel/Oil/Additives):

Fuel conforming to specifications:
See AFM

Lubricating system conforming to specifications:
See AFM

4.III.7 Fluid capacities:

Fuel capacity
(Initial specification has been confirmed through tests)
<table>
<thead>
<tr>
<th></th>
<th>Liters</th>
<th>kg (*)</th>
<th>US Gallons</th>
<th>lbs (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USABLE FUEL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left wing</td>
<td>2 129</td>
<td>1 710</td>
<td>563</td>
<td>3 769</td>
</tr>
<tr>
<td>Left center fuselage</td>
<td>822</td>
<td>660</td>
<td>217</td>
<td>1 455</td>
</tr>
<tr>
<td>Front left tank</td>
<td>534</td>
<td>429</td>
<td>141</td>
<td>945</td>
</tr>
<tr>
<td>Left feeder tank</td>
<td>481</td>
<td>386</td>
<td>127</td>
<td>852</td>
</tr>
<tr>
<td><strong>Total left circuit</strong></td>
<td>3 966</td>
<td>3 185</td>
<td>1 048</td>
<td>7 021</td>
</tr>
<tr>
<td>Right wing</td>
<td>2 129</td>
<td>1 710</td>
<td>563</td>
<td>3 769</td>
</tr>
<tr>
<td>Right center fuselage</td>
<td>822</td>
<td>660</td>
<td>217</td>
<td>1 455</td>
</tr>
<tr>
<td>Front right tank</td>
<td>509</td>
<td>409</td>
<td>135</td>
<td>901</td>
</tr>
<tr>
<td>Right feeder tank</td>
<td>481</td>
<td>386</td>
<td>127</td>
<td>852</td>
</tr>
<tr>
<td><strong>Total right circuit</strong></td>
<td>3 941</td>
<td>3 165</td>
<td>1 041</td>
<td>6 977</td>
</tr>
<tr>
<td>Front tank</td>
<td>1 656</td>
<td>1 330</td>
<td>438</td>
<td>2 932</td>
</tr>
<tr>
<td>Aft tank</td>
<td>1 706</td>
<td>1 370</td>
<td>451</td>
<td>3 020</td>
</tr>
<tr>
<td>Aft compartment tank</td>
<td>300</td>
<td>241</td>
<td>79</td>
<td>531</td>
</tr>
<tr>
<td>Center feeder tank</td>
<td>193</td>
<td>155</td>
<td>51</td>
<td>342</td>
</tr>
<tr>
<td><strong>Total center circuit</strong></td>
<td>3 857</td>
<td>3 097</td>
<td>1 019</td>
<td>6 828</td>
</tr>
<tr>
<td><strong>TOTAL USABLE</strong></td>
<td>11 764</td>
<td>9 446</td>
<td>3 109</td>
<td>20 825</td>
</tr>
</tbody>
</table>

| **UNUSABLE FUEL**    |        |        |            |         |
| Drainable:           |        |        |            |         |
| Left circuit         | 21,4   | 17,2   | 6          | 38      |
| Right circuit        | 23,0   | 18,5   | 6          | 41      |
| Center circuit       | 19,8   | 15,9   | 5          | 35      |
| **Trapped: Tanks and lines** | 26 | 21 | 7 | 46 |
| **TOTAL UNUSABLE**   | 90     | 73     | 24         | 160     |

| **TOTAL FUEL PER ENGINE** |        |        |            |         |
| Left circuit            | 3 996,14 | 3 208,9 | 1 056      | 7 074,4 |
| Right circuit           | 3 972,76 | 3 190,1 | 1 050      | 7 033,1 |
| Center circuit          | 3 885,52 | 3 120,1 | 1 027      | 6 878,6 |
| **TOTAL FUEL**          | 11 854  | 9 519  | 3 133      | 20 986  |

* Fuel density: 0,803 kg/l

- Refer to weight and balance report of each individual airplane for exact capacity.
- Refer to NOTE 2 for information on the use of fuel additives.

**Oil Capacity**
Total oil engine capacity: 6,9 l. (7,3 quarts)
Usable: 3,8 l. (4,05 quarts)
Unusable: 1,2 l. (1,25 quart)
4.III.8 Air Speeds

(Unless otherwise specified, speeds are indicated airspeeds)

VMO at sea level ................................................................. 350 kt
VMO straight line variation up to 10,000 ft ......................... 370 kt
VMO from 10,000 ft to 25,000 ft ........................................ 370 kt

**Weight lower than 15,980 kg (35,000 lbs)**

MMO from 25,000 to 38,000 ft ............................................ 0,87
MMO from 38,000 to 42,000 ft, straight line variation down to 0,84
MMO above 42,000 ft ......................................................... 0,84

**Weight higher than 15,890 kg (35,000 lbs)**

MMO from 25,000 to 33,000 ft ............................................ 0,87
MMO from 33,000 to 37,000 ft, straight line variation down to 0,84
MMO above 37,000 ft ......................................................... 0,84

VA maneuvering speed .................................................. 228 kt
VFE slats + flaps 7° .......................................................... 200 kt
    slats + flaps 20° ........................................................ 190 kt
    slats + flaps 48° ........................................................ 180 kt

**Note:** Above 20,000 ft, do not extend, nor keep extended slats and flaps.

VLO Landing gear operation ............................................. 190 kt
MLO ............................................................... 0,70
VLE Landing gear extended ............................................. 245 kt
MLE ............................................................... 0,75
DV window opening speed ........................................ 215 kt
windshield wiper operating speed ................................ 215 kt

VMCA minimum control speed in flight ......................... 85,2 kt (CAS)
VMCG minimum control speed on ground ..................... 88,9 kt (CAS)

4.III.9 Maximum Operating Altitude

Aircraft is approved for 51,000 feet operation.

4.III.10 All weather Capability

Cat II PA
HUD Cat I (M2912)
HUD Cat 2/3 (M2913)

4.III.11 Maximum Weights

<table>
<thead>
<tr>
<th>Without M3020 (BS N° 1)</th>
<th>Weight</th>
<th>Forward limit</th>
<th>Aft limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kg</td>
<td>lbs</td>
<td>% MAC</td>
</tr>
<tr>
<td>Minimum flight</td>
<td>9.390</td>
<td>20.700</td>
<td>14</td>
</tr>
<tr>
<td>Maximum zero fuel</td>
<td>14 000</td>
<td>30 864</td>
<td>14</td>
</tr>
<tr>
<td>Maximum landing</td>
<td>19 051</td>
<td>42 000</td>
<td>14</td>
</tr>
<tr>
<td>Maximum for aft CG at 31 %</td>
<td>21 228</td>
<td>46 800</td>
<td>14</td>
</tr>
<tr>
<td>Maximum takeoff</td>
<td>21 908</td>
<td>48 300</td>
<td>14</td>
</tr>
<tr>
<td>Maximum ramp</td>
<td>22 000</td>
<td>48 500</td>
<td>14</td>
</tr>
</tbody>
</table>

SECTION 4.III - F900EX TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS
Weight

<table>
<thead>
<tr>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>With M3020 (BS N° 1)</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>kg</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Minimum flight</td>
</tr>
<tr>
<td>Maximum zero fuel</td>
</tr>
<tr>
<td>Maximum landing</td>
</tr>
<tr>
<td>Maximum for aft CG at 31 %</td>
</tr>
<tr>
<td>Maximum takeoff</td>
</tr>
<tr>
<td>Maximum ramp</td>
</tr>
</tbody>
</table>

Note: 13 % MAC is 347 mm forward of datum
25 % MAC is datum
14 % MAC is 318 mm forward of datum
31 % MAC is 173 mm aft of datum

Gear retraction has a negligible effect on CG range (- 50 mkg., i.e. 0.2 % on CG range at minimum flight weight).

4.III.12 Datum:
Datum is 25 % of mean aerodynamic chord (MAC) which is marked on aircraft and is 10 679 mm from the forward end of the aircraft nose cone. 0 % MAC is at 9 957 mm from the forward end of the aircraft.

4.III.13 Mean Aerodynamic Cord (MAC):
MAC = 2 888 mm

4.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.

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

4.III.16 Maximum Passenger Seating Capacity:
-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.

4.III.17 Exits:

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Passenger door</td>
<td>I</td>
</tr>
<tr>
<td>1 Emergency exit</td>
<td>III</td>
</tr>
</tbody>
</table>

4.III.18 Baggage/Cargo Compartments:
Baggage compartment: 1 300 Kg and 600 kg per square meter.
4.III.19 Wheels and Tyres:
This aircraft is equipped with wheels, brakes and tubeless and radial tyres.

- Main wheel tyres are 29\*7.7 - 15"
- Nose wheel tyres are 17.5\*5.75 - 8"

4.III.20 Notes

- FM immunity
  The F900EX is compliant to:
  - 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.

4.III.21 Environmental Flight Enveloppe
Refer to approved Airplane Flight Manual.

4.III.22 Other Limitations
Refer to approved Airplane Flight Manual.

4.III.23 Hydraulics
Hydraulic fluid approved for use must conform to MIL-H-56 06 specifications (NATO codes H515 or H520)

4.IV F900EX Operating and Service Instructions

- Airplane Flight Manual: 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
  Service Bulletins are listed in Service Bulletin index
- Various statements
  The F900EX is compliant to:
  - Basic RNAV, RNP10 airworthiness provided the airplane is operated in accordance with Airplane Flight Manual, Limitations Section, kind of operations, page 1-160-2
  - CVR (JAR-OPS1) requirements (2 hours) provided the modification M2819 is applied
  - RVSM requirements (SB F900EX-4) if the airplane is operated in accordance with Airplane Flight Manual page 1-160-1.
  - NAT MNPS: As per AFM, the minimum navigation performance required by NAT MNPS regulations (French "arrêté of November 5th, 1987 and 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

SECTION 4.IV - F900EX OPERATING AND SERVICE INSTRUCTIONS
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

4.V.1 Certification Basis

- Reference Application Date for EASA Certification: November 8th, 1999
- EASA Certification Date (JAA recommendation): November 13th, 2003
- EASA Certification Basis:
  - Modifications M2862, M2861, M2963 and M2823 are Major Level 2 (Non Significant Changes). They have the same certification basis as for F900EX (defined in above § 4.II)
  - Modification M3083 is Major Level 1 (Significant Change). Its certification basis are defined in CRI A-1101 and consist of the followings:
    - JAR 25 paragraphs applicable at Change 14 plus OP Amdt 25/96/1 (and associated Reversions, if any):
      - JAR 25.207 “Stall warning”
      - JAR 25.581 “Lightning protection”
      - JAR 25.601 “General”
      - JAR 25.611 “Accessibility provisions”
      - JAR 25.631 “Bird strike damage”
      - JAR 25.671 (b)(c) “Control systems: general”
      - JAR 25.672 “Stability augmentation and automatic
      - JAR 25.677 (b) “Trims systems”
      - JAR 25.699 “Lift and drag device indicator”
      - JAR 25.703 “Take-Off warning systems”
      - JAR 25.729 (e) “Retracting mechanism”
      - JAR 25.777 (a)(c)(e) “Pilot compartment”
      - JAR 25.773 (a)(d) “Pilot Compartment View”
      - JAR 25.783 (e) “Doors”
      - JAR 25.789(a): “Retention of items of mass in passenger and crew compartments and galleys”
      - JAR 25.791(a)(b): “Passenger information signs and placards”
      - JAR 25.812(f): “Emergency lighting”
- JAR 25.841(b)(5)(b)(6) “Pressurised cabins”
- JAR 25.863(c) “Flammable fluid fire protection”
- JAR 25.869(a) “Fire protection: systems – Electrical system components”
- JAR 25X899 “Electrical bonding and protection”
- JAR 25.903(d)(2): “Engines”
- JAR 25.1141(a)(f): “Powerplant controls- General”
- JAR 25.1145(a)(b) “Ignition switches”
- JAR 25.1301: “Function and Installations”
- JAR 25.1305: “Powerplant Instruments”
- JAR 25.1307(c)(d)(e): “Miscellaneous equipments”
- JAR 25.1309: “Equipment, systems and installations”
- JAR 25X1315: “Negative acceleration”
- JAR 25.1316: “System lightning protection”
- JAR 25.1321: “Arrangement and visibility”
- JAR 25.1322: “Warning, Caution and advisory lights”
- JAR 25.1323: “Airspeed indicating system”
- JAR 25.1325(a)(c)(d)(e)(f)(g): “Static pressure systems”
- JAR 25.1326: “Pitot heat indication systems”
- JAR 25.1327: “Magnetic direction indicator”
- JAR 25X1328: “Direction indicator”
- JAR 25.1329: “Automatic pilot system”
- JAR 25.1331: “Instruments using a power supply”
- JAR 25.1333: “Instrument systems”
- JAR 25.1335: “Flight director systems”
- JAR 25.1337(b)(d): “Powerplant instruments”
- JAR 25.1351: “Electrical systems and equipment - General” ⇒ Reversion to FAR 25.1351 Amdt 41 accepted.
- JAR 25.1353: “Electrical equipment and installations” ⇒ Reversion to FAR 25.1353 Amdt 42 accepted.
- JAR 25.1355: “Distribution system” ⇒ Reversion to FAR 25.1355 Amdt 38 accepted
- JAR 25.1357: “Circuit protective devices”
- JAR 25X1360 “Precautions against injury”
- JAR 25.1381 Instrument Lights
- JAR 25.1419(c) “Ice protection”
- JAR 25.1431 Electronic Equipment
- JAR 25.1435(a)(2) “Hydraulic systems”
- JAR 25.1457 “Cockpit voice recorders”
- JAR 25.1459 “Flight recorders”
- JAR 25.1501(b)(c) “General”
- JAR 25.1523 “Minimum flight crew”
- JAR 25X1524 Systems and equipment limitations
- JAR 25.1529 Instructions for Continued Airworthiness
- JAR 25.1541 “Markings and placards – General”
- JAR 25.1543(b) Instrument Markings: General
- JAR 25.1545 Airspeed limitation information
- JAR 25.1547 Magnetic Direction Indicator
- JAR 25.1549 Powerplant Instruments
- JAR 25.1551 “Oil quantity indicator”

SECTION 4.V - FALCON 900EX EASY VERSION
– JAR 25.1553 “Fuel quantity indicator”
– JAR 25.1555 “Control and markings”
– JAR 25.1563 “Airspeed placards”
– JAR 25.1581 “Aeroplane flight manual – General”
– JAR 25.1585 (a)(b)(d)(e) “Operating procedures”
– JAR 25A1141 (a)(d) “APU controls: general”
– JAR 25A1305 “All APUs – APU instrument”

– JAR 25A1549 “All APUs – APU instruments”
– JAR25A1551 “All APUs – Oil quantity indicator”

• Special Conditions:
  – F-06 EGPWS Airworthiness Approval (from basic F900EX)
  – F-21 Electronic Stand-by Instrument system (from basic F900EX)
  – F-1106 Protection against HIRF
  – F-1123 Requirements for Human Factors.

• Exemptions: None

• Equivalent Safety Findings:
  – D-1115: Lift and Drag Devices Indicator
  – E-1103: Powerplant instrument – Cabin Markings
  – F-1136: Honeywell Primus EPIC Integrated Modular Avionics system (compliance with requirements for individual protection) ; JAR 25.1357 (e) and JAR 25.1309

4.V.2 Technical Characteristics and Operational Limitations

4.V.2.1 Type Design Definition:
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

M3083-01-102 (DGT 97670) - F900EX EASy Drawing List

4.V.2.2 Equipment:
M3083-01-101 (DGT98284) - F900EX EASy Equipment List

4.V.2.3 All weather capability:
Cat I provided the aircraft is operated according to Flight Manual DGT84972
Cat II provided the aircraft is operated according to Flight Manual DGT84972 Annex 2
HUD Cat I (M3090, M3968).
HUD Cat 2/3 (M3725 EASY Step2 and M5089 EASY Step3).

4.V.3 Operating and Service Instructions

• Airplane Flight Manual: 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)

• Various statements
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 associated Airplane Flight Manual.
- CVR (JAR-OPS1) requirements (2 hours).
- RVSM requirements provided the airplane is operated in accordance with Airplane Flight Manual.
- EGPWS (JAR-OPS 1 § 665) provided the airplane is operated in accordance with the associated Airplane Flight Manual.
- TCAS II change 7 (JAR OPS 1 § 668) provided the airplane is operated in accordance with the associated Airplane Flight Manual.

4.VI Falcon 900DX version
F900DX designation does not correspond to new model designation. F900DX is a commercial designation for F900EX airplanes on which the following modifications have been applied:
- Modification Major Level 1: M4000.
- Modification Major Level 2: M3876, M5046, M3755, M2823.

4.VI.1 Certification Basis
• Reference Application Date for EASA Certification:.............June 20th, 2003
• EASA Certification Date (JAA recommendation): ...............October 21th, 2005
• EASA Certification Basis:
Modifications M3876, M5046, M3755, and M2823 are Major Level 2 Non Significant Changes. Modification M4000 is Major Level 1 Non-Significant Change.
These modifications have no impact on applicable requirements. Amendment levels from original F900EX type certification and most recent significant change (M3083 EASy) are retained.
• Special Conditions: None
• Exemptions: None
• Equivalent Safety Findings: None

4.VI.2 Technical Characteristics and Operational Limitation
4.VI.2.1 Type Design Definition
F900DX airplane have received modifications:
- M3876: F900EX EASY Step 3
- M5046: FQMC 1-6
- M3755: Rear compartment Fire detection deletion
- M2823: Electro pneumatic oxygen controller
- M4000: Definition of F900DX

SECTION 4.VI - FALCON 900DX VERSION
• Equipment: see modifications here above.

4.VI.2.2 Fuel capacity

<table>
<thead>
<tr>
<th>USABLE FUEL</th>
<th>Liters</th>
<th>kg (*)</th>
<th>US Gallons</th>
<th>lbs (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left wing and half center wing box:</td>
<td>3423</td>
<td>2749</td>
<td>904</td>
<td>6060</td>
</tr>
<tr>
<td>Right wing and half center wing box:</td>
<td>3439</td>
<td>2762</td>
<td>908</td>
<td>6088</td>
</tr>
<tr>
<td>Rear tank:</td>
<td>1945</td>
<td>1562</td>
<td>514</td>
<td>3443</td>
</tr>
<tr>
<td>Front tank:</td>
<td>1833</td>
<td>1472</td>
<td>484</td>
<td>3245</td>
</tr>
<tr>
<td>TOTAL USABLE</td>
<td>10640</td>
<td>8545</td>
<td>2810</td>
<td>18836</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL FUEL PER ENGINE</th>
<th>Liters</th>
<th>kg (*)</th>
<th>US Gallons</th>
<th>lbs (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left circuit</td>
<td>3423</td>
<td>2748</td>
<td>856</td>
<td>6060</td>
</tr>
<tr>
<td>Right circuit</td>
<td>3439</td>
<td>2762</td>
<td>909</td>
<td>6090</td>
</tr>
<tr>
<td>Center circuit</td>
<td>3773</td>
<td>3030</td>
<td>997</td>
<td>6680</td>
</tr>
<tr>
<td>TOTAL FUEL</td>
<td>10636</td>
<td>8541</td>
<td>2811</td>
<td>18830</td>
</tr>
</tbody>
</table>

Total unusable fuel: 67kg

4.VI.2.3 Maximum weight

<table>
<thead>
<tr>
<th>With M4000</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kg</td>
</tr>
<tr>
<td>Maximum zero fuel</td>
<td>14,000</td>
</tr>
<tr>
<td>Maximum landing</td>
<td>19,142</td>
</tr>
<tr>
<td>Maximum takeoff</td>
<td>21,183</td>
</tr>
<tr>
<td>Maximum ramp</td>
<td>21,273</td>
</tr>
<tr>
<td>Minimum flight</td>
<td>9,390</td>
</tr>
</tbody>
</table>

4.VI.3 Operating and Service Instructions

• Maintenance Manual
Airworthiness limitations are listed in the DGAC approved recommended maintenance schedules and TBO's, Chapter 5-40-00 of the Maintenance Manual, document DGT620
• Various statements
The F900DX 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 associated Airplane Flight Manual.
- CVR (JAR-OPS1) requirements (2 hours).
- RVSM requirements provided the airplane is operated in accordance with Airplane Flight Manual.
- EGPWS (JAR-OPS 1 § 665) provided the airplane is operated in accordance with the associated Airplane Flight Manual.
- TCAS II change 7 (JAR OPS 1 § 668) provided the airplane is operated in accordance with the associated Airplane Flight Manual.
4.VII Falcon 900LX version airplanes:

F900LX designation does not correspond to new model designation. F900LX is a commercial designation for F900EX EASy airplanes on which the following modifications M5281 and M5535 have been applied.

4.VII.1 Certification basis:

Application date for EASA certification .......... September 14, 2006
EASA certification date:.................................. July 7, 2010

EASA certification basis:
Modification M5281 is classified major change level 1 significant.
The applicable airworthiness standard at the EASA application date is CS25 amendment 1.

The certification basis of the F900LX are defined in the CRI A-01 and consist of the following:

A) The EASA « Mandatory » airworthiness standards that are effective on the reference date (September 14, 2006):

CS 25 amendment I and CS AWO initial issue

Except

The following paragraphs for which EASA accept reversion to an earlier amendment in application to PART 21A 01 (b)

a) FAR 25 paragraphs at amendment 0
25.109, 25.1093

b) FAR 25 paragraphs at amendment 11
25.939, 25.1141 (except (a) and (f))

c) FAR 25 paragraph at amendment 38
25.161, 25.933

d) FAR 25 paragraphs at amendment 56

e) JAR 25 paragraphs at change 13 + 0F 90/1

25.901(c), 25.963(e), 25.997, 25.1019, 25.1041(f), 25.1167

f) JAR 25 paragraphs at JAR 25 change 14


g) JAR 25 paragraphs at change 14 plus Orange Paper 96/1


h) CS 25 amendment 1

25.562, 25.1362, 25.1436, 25.1591 are not retained

j) JAR AWO change 2

Environmental requirements for noise, fuel venting and emissions
CS 36 initial issue and CS 34 initial issue

B) Special conditions issued because the product has novel or unusual design features relative to the design practices on which the applicable CS 25 are based (EC 1702/2003 part 21.A1 6(a)(1))

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-06</td>
<td>EGPWS Airworthiness Approval</td>
</tr>
<tr>
<td>F-21</td>
<td>Electronic stand-by instrument system (MEGGITT)</td>
</tr>
<tr>
<td>F-1 106</td>
<td>Protection against HIRF</td>
</tr>
<tr>
<td>F-1143</td>
<td>Enhanced Flight Vision System (EFVS)</td>
</tr>
</tbody>
</table>
C) Special conditions issued because the intended use of the product is unconventional (EC 1702/2003 part 21 .A16 (a)(2))

None

D) Special conditions issued because experience from other products has shown that unsafe conditions may develop (EC 1702/2003 part 21 .A1 6 (a)(3))

<table>
<thead>
<tr>
<th>S-01</th>
<th>Thrust reverser certification policy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Special condition for flight between 41,000 and 51,000</td>
<td>DGAC letter 54-063 SFAC/TC dated October 28, 1985</td>
</tr>
<tr>
<td>F-1123</td>
<td>Requirement for human factors</td>
<td>INT/POL/25/14 issue 2</td>
</tr>
</tbody>
</table>

E) Special conditions issued from an elect to comply by the applicant with NPA or other regulatory proposals

<table>
<thead>
<tr>
<th>F-1117</th>
<th>Head-Up Guidance system</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>JAR AWOG HUDS 901, 902 and 903</td>
</tr>
</tbody>
</table>

F) Elect to Comply

CS36 amendment 2
ICAO Annex 16 Volume 1 Chapter 4 and ICAO ETM Doc 9501

G) Equivalent safety

<table>
<thead>
<tr>
<th>D-1115</th>
<th>Lift and Drag Device Indicator</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E-1103</td>
<td>Powerplant instruments — Color markings</td>
<td></td>
</tr>
<tr>
<td>F-1136</td>
<td>Honeywell PRIMUS EPIC integrated modular avionics system</td>
<td></td>
</tr>
</tbody>
</table>

H) Deviations:

None
4.VII.2 Technical Characteristics and Operational Limitation

Only the paragraphs impacted by the change are described here below

4.VII.2.1 Type Design Definition

Only new aircraft F900EX EASy manufactured under the DASSAULT AVIATION POA are fitted with winglets under M5281 and new slats under M5535 modifications. No Service Bulletin is planned for retrofit of aircraft in service.

F900EX EASy airplanes have received the following modifications on the production line:

- M5281 Winglet installation
- M5250 - Easy treatment of AGM obsolescence (prerequisite but not linked to winglet installation)
- M5535 External Slats setting adaptation
- M5487 Fuselage reinforcement
- M5583 Full capabilities for Winglets installations (includes wing reinforcement),
- M5454 Aileron bearing #1 change
- M5532 Guiding roller capabilities
- M5155 Wiring provision for EASy Phase 2
- M5605 Aileron Control Rod Assy Evolution

4.VII.2.2 Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>20,2 m</td>
</tr>
<tr>
<td>Span</td>
<td>21,38 m</td>
</tr>
<tr>
<td>Height</td>
<td>7,5 m</td>
</tr>
<tr>
<td>Distance between main landing gears</td>
<td>4,45 m</td>
</tr>
</tbody>
</table>

4.VII.2.3 All weather capability:

Cat 1 provided the aircraft is operated according to Flight Manual DGT84972
Cat 2 provided the aircraft is operated according to Flight Manual DGT84972

4.VII.3 Operating and Service Instructions

- Airplane Flight Manual:
  Document DGT 84972 (with supplement n° 6 included)

- Maintenance Instructions and Airworthiness limitations
  Airworthiness limitations (life limited airframe components and required maintenance/inspections) are listed in the AMM Chapter 5.40 referenced DGT113875 of the maintenance manual approved by EASA.

SECTION 4.VII - FALCON 900LX VERSION AIRPLANES:
• Various statements:
The F900LX version is compliant to:
  o RNP RNAV, P-RNAV, B-RNAV, RNP 10, NAT MNPS, GPS primary means provided the airplane is operated in accordance with associated Airplane Flight Manual.
  o CVR (JAR-OPS1) requirements (2 hours).
  o RVSM requirements provided the airplane is operated in accordance with Airplane Flight Manual.
  o EGPWS (JAR-OPS 1 § 665) provided the airplane is operated in accordance with the associated Airplane Flight Manual.
  o TCAS II change 7 (JAR OPS 1 § 668) provided the airplane is operated in accordance with the associated Airplane Flight Manual.
SECTION 5. NOTES

NOTE 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 Mystere-Falcon 50, 33.39 kg for the Mystere-Falcon 900 and 18.82 kg for the Falcon 900EX) 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.

NOTE 2.

a) If a different type of fuel, or a mixture of fuels, is used, the engine computer must be adjusted (in order to adapt the computer to the density of the fuel used) so as to preserve the starting, acceleration and deceleration characteristics of the engine.

b) The use of anti-ice additive conforming to Air 3652 or MIL.I.27686 D or E, (JP4 and JP8) or MIL.I.8570 (JP5) or equivalent, is approved in amounts up to 0.15 % by volume.

c) The use of an anti-static additive is approved for use in the fuel provided concentration do not exceed
   - 1 part per million for SHELL ASA 3.
   - 3 parts per million for STADIS 450.
   SOHIO Biobor JF biocide additive, or equivalent, is approved for use in the fuel at a concentration not to exceed 270 parts per million.

NOTE 3.

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 36-100A and GTCP 36-150 (F) APU's.

NOTE 4.

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 MYSTERE-FALCON 50 airplane and DTM 20-167 for MYSTERE-FALCON 900 and Falcon 900EX. These specifications mainly cover the gust and forced landing load factors.

NOTE 5.

The MYSTERE-FALCON 50, MYSTERE-FALCON 900, FALCON 900EX and FALCON 900DX certified noise levels are specified in the Airplane Flight Manual of each model.
NOTE 6.

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.

NOTE 7.

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:

a - Mystère Falcon 50 airplanes S/N 226, and beyond, are produced in the scope of one of these agreements.

b - Mystère Falcon 900 airplanes S/N 100 ; 106 ; 112 and beyond, are produced in the scope of one of these agreements.

c - Falcon 900EX airplanes, all serial numbers, are produced in the scope of one of these agreements.