DASSAULT AVIATION

FALCON 900 AIRPLANE CHARACTERISTICS FOR AIRPORT PLANNING

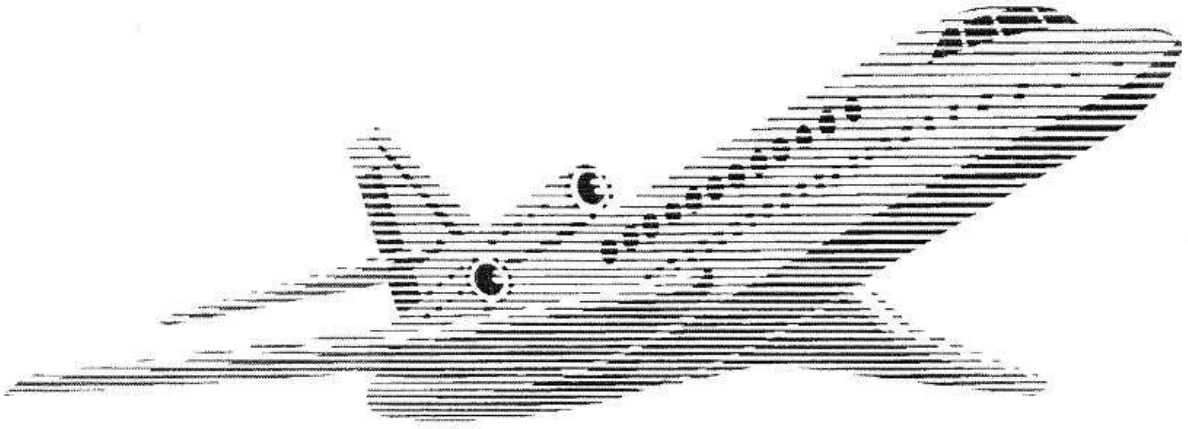
Falcon 900 A / B / C

Falcon 900EX

Falcon 900EX EASy

Falcon 900DX

Falcon 900LX



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1. PURPOSE

This document provides, in a short manner, airplane characteristics data for general airport planning.

Caution

The information provided hereafter is for advisory purpose only and must not supersede Dassault official documentation (Airplane Flight Manual, Operating Manual, Ground Servicing Manual) for any operational purpose.

2. AIRCRAFT CHARACTERISTICS - F900 All models

The FALCON 900 is a long-range wide body business trijet airplane, with the capability to operate to or from less than 1,200 meters (4,000 ft) long runways.

- Maximum airport pressure altitude: from – 1,000 to + 14,000 ft.
- Runway slope: from – 2.5% to + 2.5%.
- Maximum range: from 3,600 NM to 4,750 NM, according to the type.
- Maximum tailwind component for takeoff and landing: 10 kt.
- Maximum demonstrated crosswind component: 30 kt.

The airplane is certified for CAT II operations. F900EX series are optionally certified for CAT III operations.

NOTE : For FALCON 900LX, HUD CAT III capability is not yet available.

The family:

- FALCON 900A: initial version,
- FALCON 900B: higher performance due to upgraded engines,
- FALCON 900C: 900B upgraded with new avionics,
- FALCON 900EX: 900B upgraded with new avionics, and fitted with new engines and improved fuel capacity,
- FALCON 900EX EASy: 900EX equipped with the new "**E**nhanced **A**vionics **Sy**stem",
- FALCON 900DX: 900EX EASy with reduced fuel capacity,
- FALCON 900LX: 900EX EASy with installation of winglets (modification M5281).

NOTE : Only the FALCON 900LX is still in production.

2.1 Common characteristics - F900 All models

The main entry door also serves as an access stairway: the airplane is self-sufficient for passenger boarding.

The built-in auxiliary power unit (APU) provides, on ground only, the air conditioning, the electrical power generation and the assistance for engines start.

The airplane may be pressure- or gravity-refueled or defueled.

The use of thrust reverser is approved for airplane back moving.

All usual ground servicing operations are performed without any specific equipment.

According to ICAO annex 14, the airplane is classified Rescue and Fire Fighting category 4.

According to ICAO annex 14, Volume I, Chapter 3, the reference code of the Falcon 900 airplanes is 3B which corresponds to a minimum runway width of 30.0 m (98 ft).

Minimum flight crew: 2 pilots.

3. PHYSICAL DESCRIPTION - F900 All models

3.1 Weight and loading

Kg	F900A, B and C Without SB 139	F900A, B and C With SB 139	F900EX	F900EXEASy	F900DX	F900LX
Maximum Ramp Weight	20,730 Kg	21,183 Kg	22,317 Kg	22,317 Kg	21,274 Kg	22,317 Kg
Maximum Takeoff Weight	20,639 Kg	21,092 Kg	22,226 Kg	22,226 Kg	21,183 Kg	22,226 Kg
Maximum Landing Weight	19,051 Kg	19,051 Kg	20,185 Kg	20,185 Kg	19,142 Kg	20,185 Kg
Maximum Zero Fuel Weight	12,800 Kg	14,000 Kg	14,000 Kg	14,000 Kg	14,000 Kg	14,000 Kg
Fuel Capacity	8,647.5 Kg	8,647.5 Kg	9,526 Kg	9,526 Kg	8,545 Kg	9,483 Kg
Center of Gravity Limits	14% to 31% MAC	14% to 31% MAC	13% to 31% MAC	13% to 31% MAC	13% to 31% MAC	13% to 31% MAC*

*cf. specific F900LX Center of Gravity Limits in the last revision of flight documentation.

lb	F900A, B and C Without SB 139	F900A, B and C With SB 139	F900EX	F900EXEASy	F900DX	F900LX
Maximum Ramp Weight	45,700 lb	46,700 lb	49,200 lb	49,200 lb	46,900 lb	49,200 lb
Maximum Takeoff Weight	45,500 lb	46,500 lb	49,000 lb	49,000 lb	46,700 lb	49,000 lb
Maximum Landing Weight	42,000 lb	42,000 lb	44,500 lb	44,500 lb	42,200 lb	44,500 lb
Maximum Zero Fuel Weight	28,220 lb	30,870 lb	30,864 lb	30,864 lb	30,864 lb	30,864 lb
Fuel Capacity	19,065 lb	19,065 lb	21,000 lb	21,000 lb	18,830 lb	20,907 lb
Center of Gravity Limits	14% to 31% MAC	14% to 31% MAC	13% to 31% MAC	13% to 31% MAC	13% to 31% MAC	13% to 31% MAC*

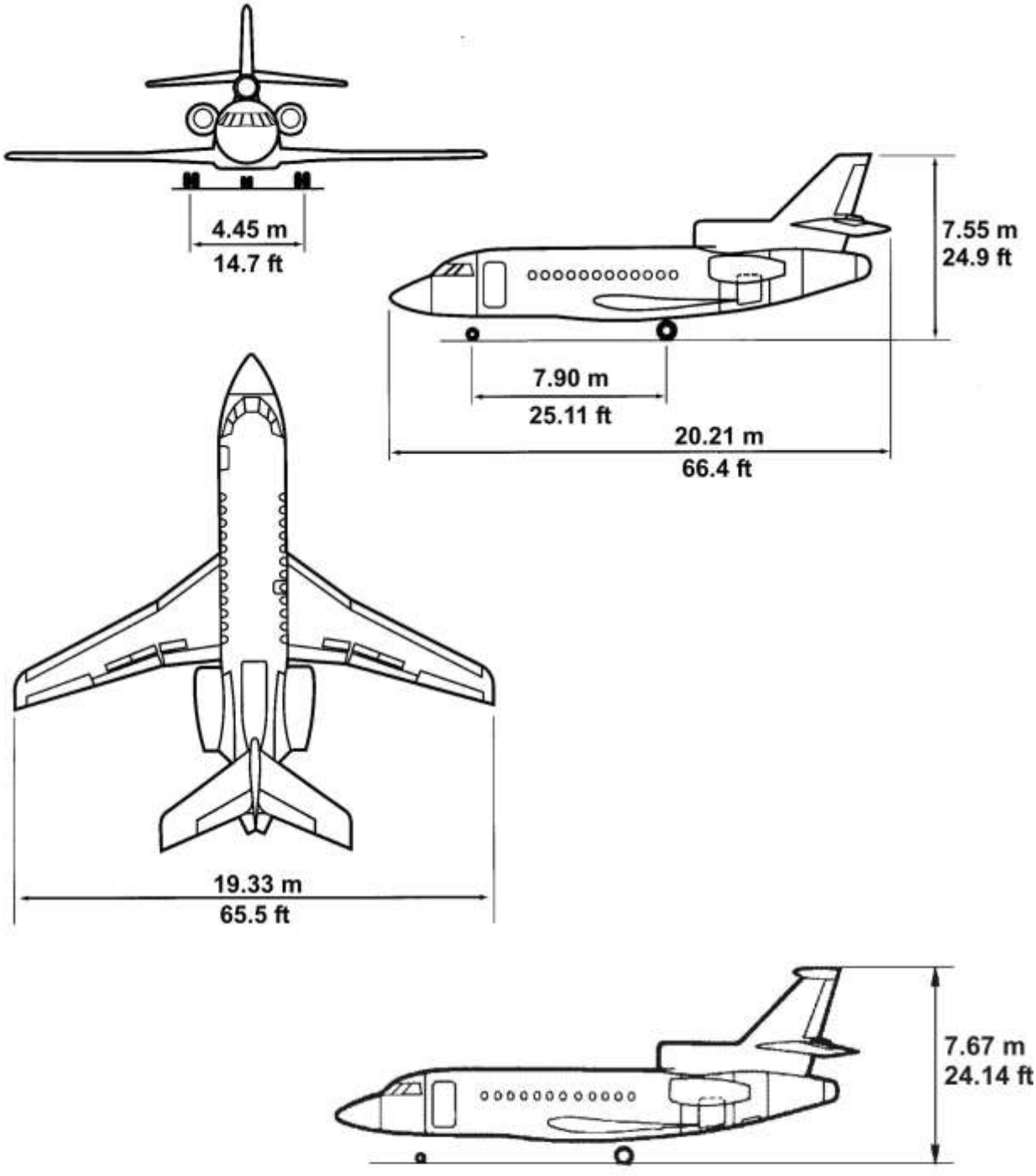
*cf. specific F900LX Center of Gravity Limits in the last revision of flight documentation.

Loading - F900 All models

Maximum passenger	19	
Maximum cargo in baggage compartment	2,866 lb	1,300 Kg

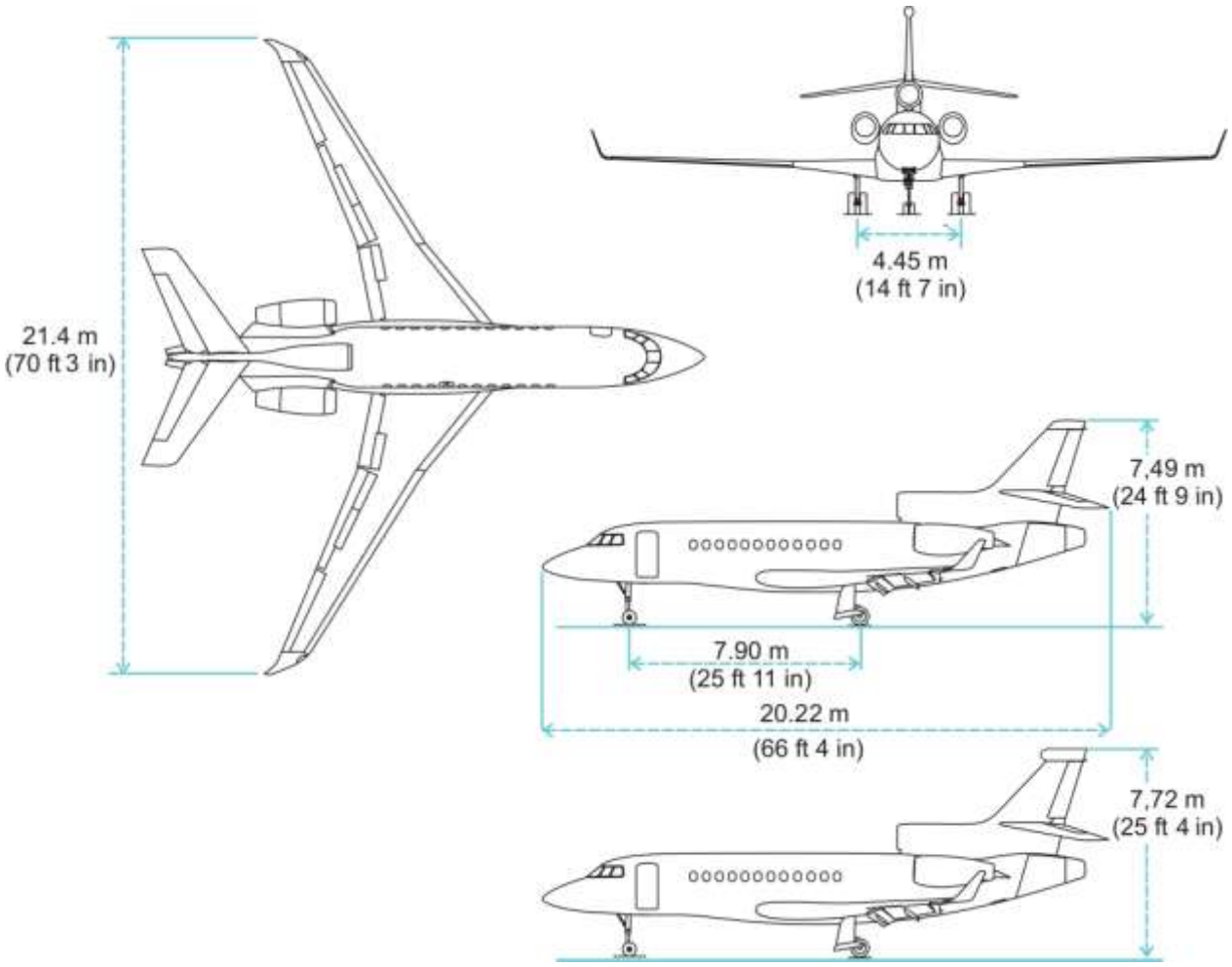
3.2 Dimensions

3.2.1 F900 A / B / C / EX / EX EASy / DX



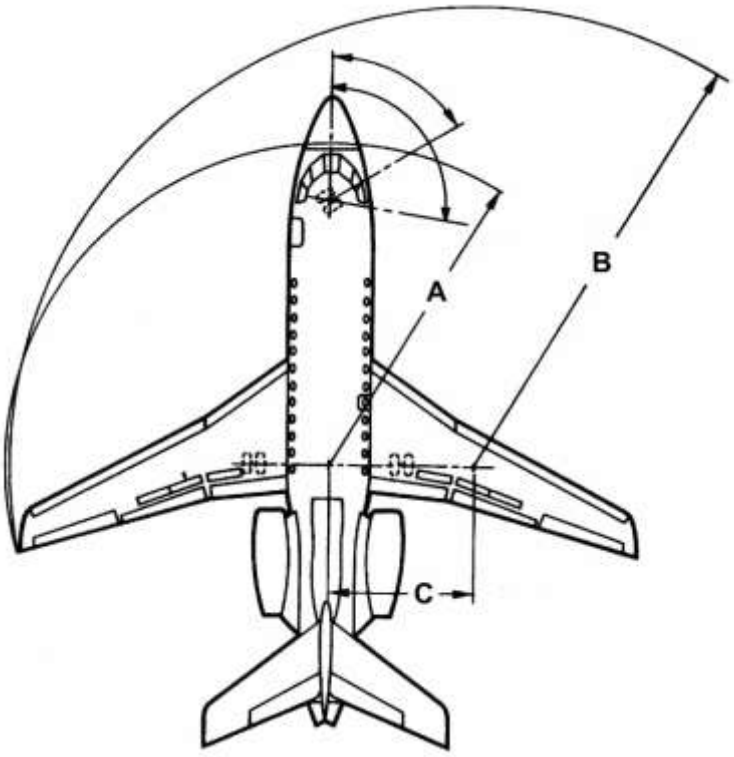
Airplane equipped with SATCOM antenna

3.2.2 F900LX



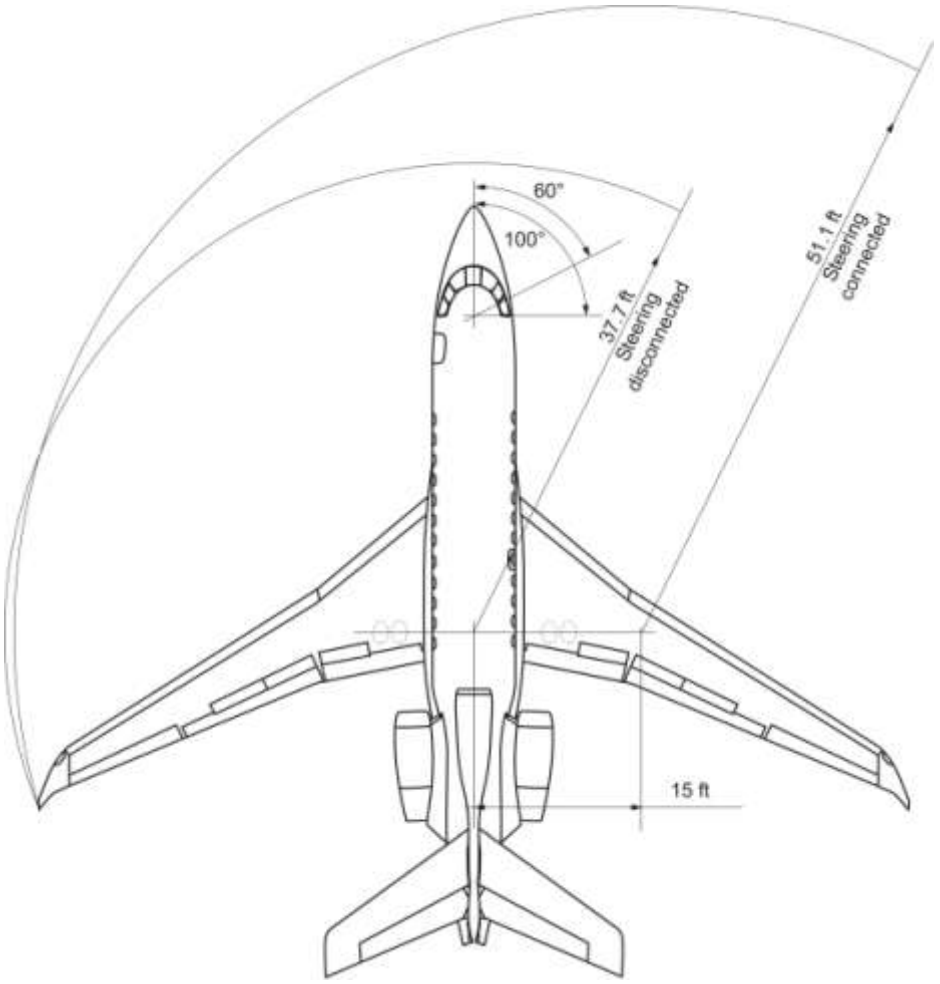
3.3 Minimum turn radius

3.3.1 F900A / B / C / EX / EX EASy / DX



Steering uncoupled (towing)	Steering coupled	
A : r = 10.2 m / 33.4 ft	**B** : r = 14.5 m / 47.6 ft	**C** : 4.6 m / 15 ft
NOTE: The towing bar is specific to the airplane. Towing with a towbarless vehicle is approved provided the appropriate interface tool is used.		

3.3.2 F900LX

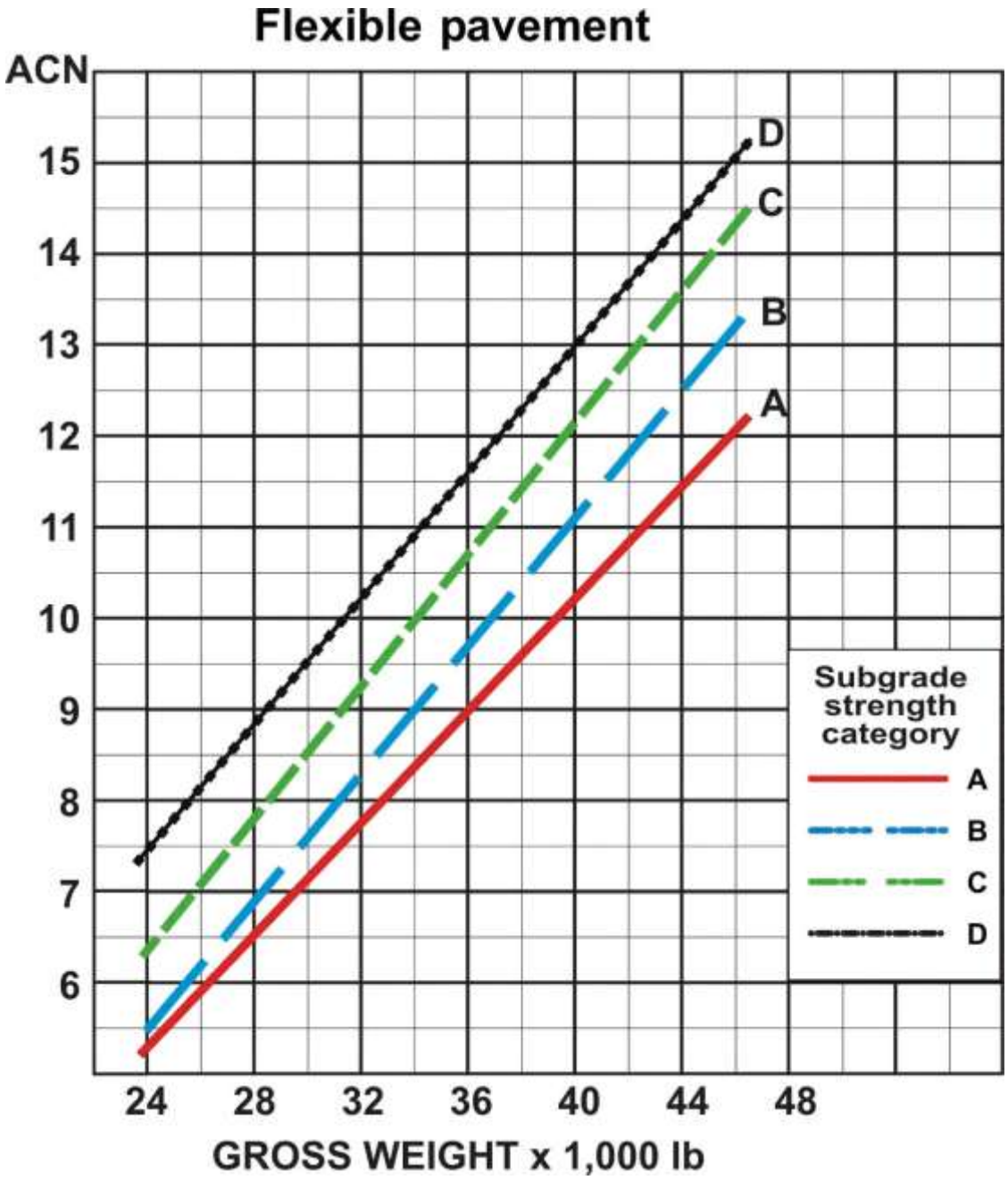


3.4 Tire Pressure - F900 All models

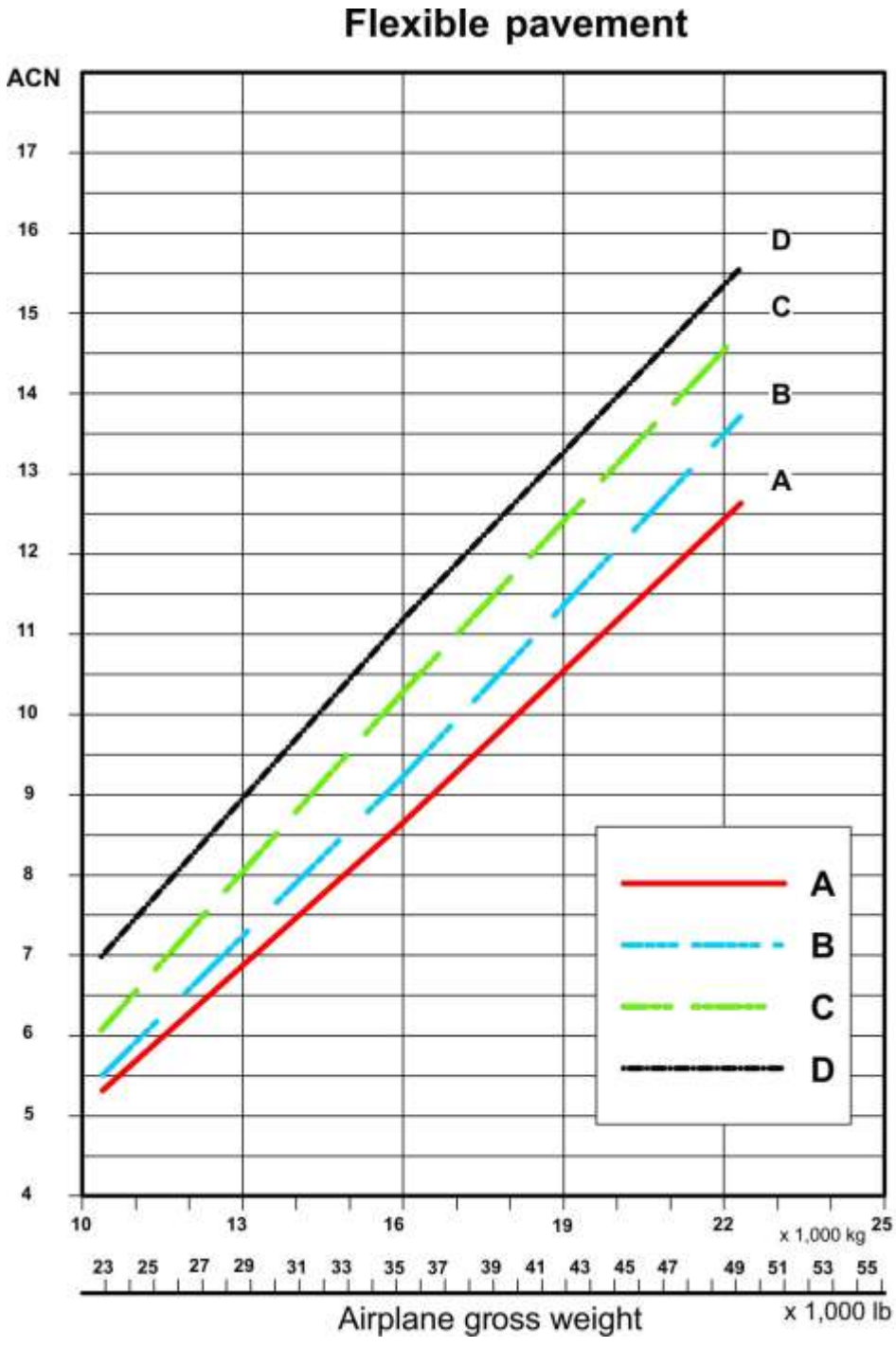
	Main gear	Nose gear
Falcon 900A, B, C	13.3 bars / 193 psi	10.2 bars / 148 psi
Falcon 900EX, EX EASy, DX, LX	13.8 bars / 200 psi	10.4 bars / 151 psi

4. PERFORMANCE - F900 All models

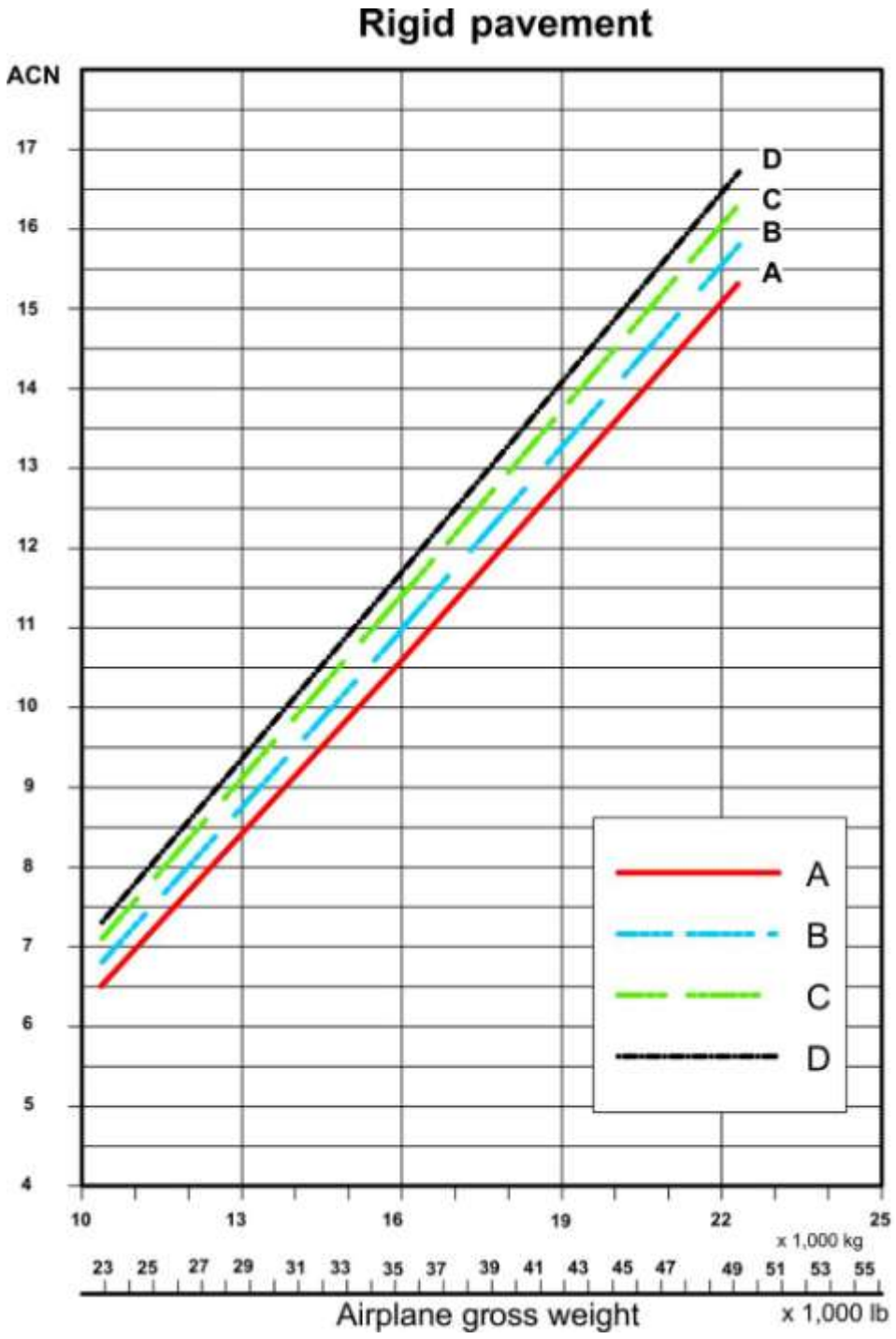
4.1 Airplane Classification Number (ACN) values - FALCON 900A, B and C



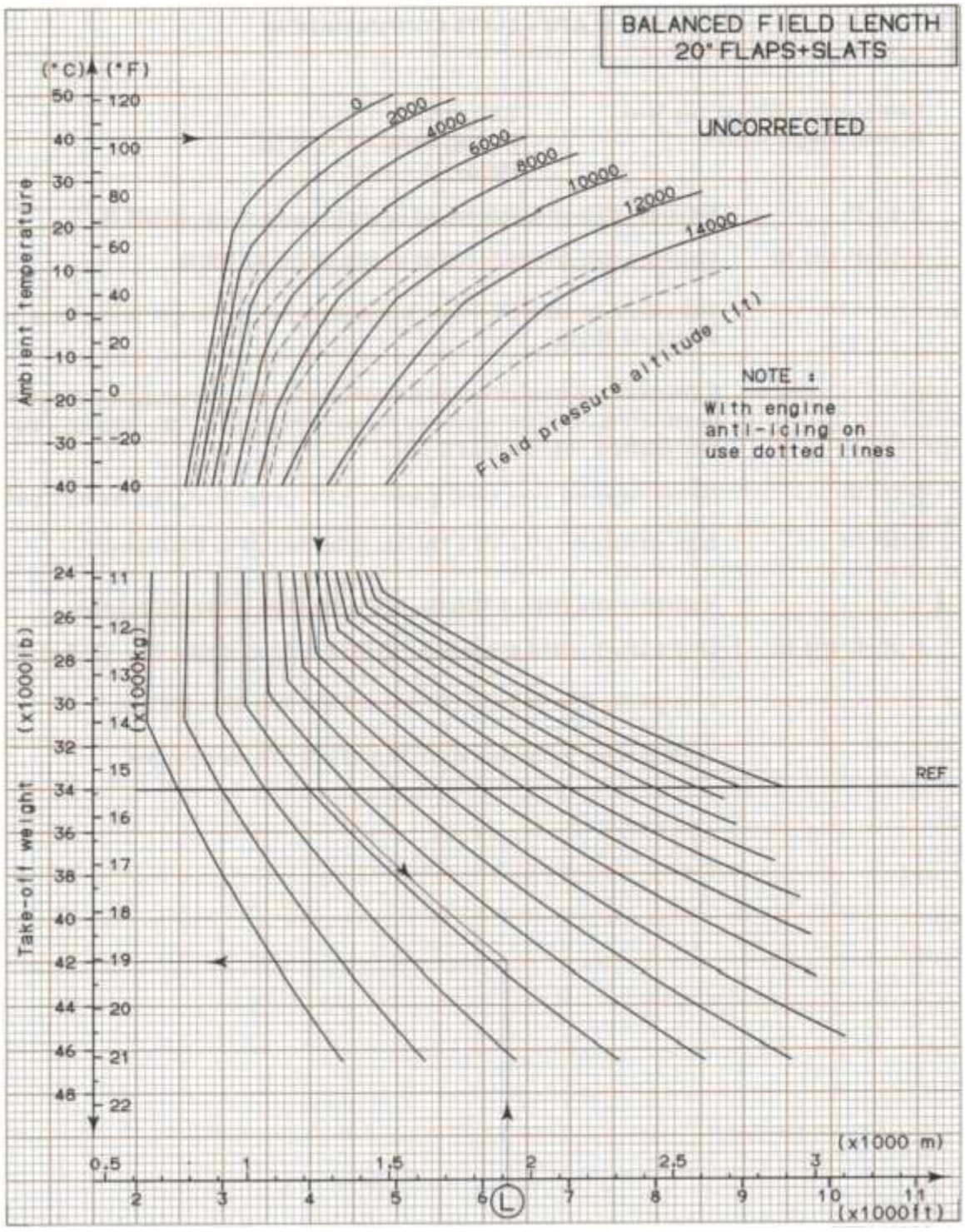
4.2 Airplane Classification Number (ACN) values - FALCON 900EX, EX EASy, DX, and LX



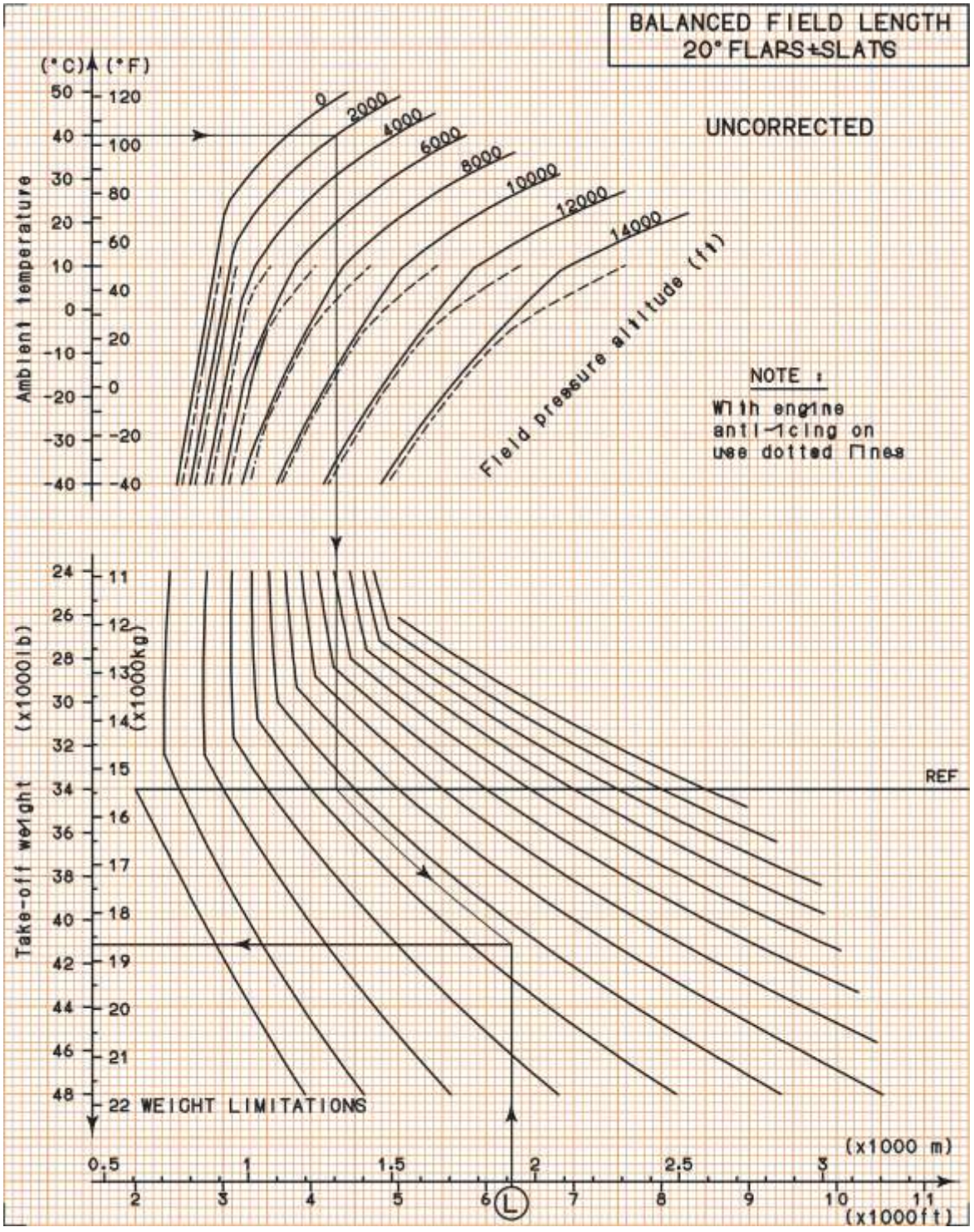
4.2 Airplane Classification Number (ACN) values - FALCON 900EX, EX EASy, DX and LX (Con'd)



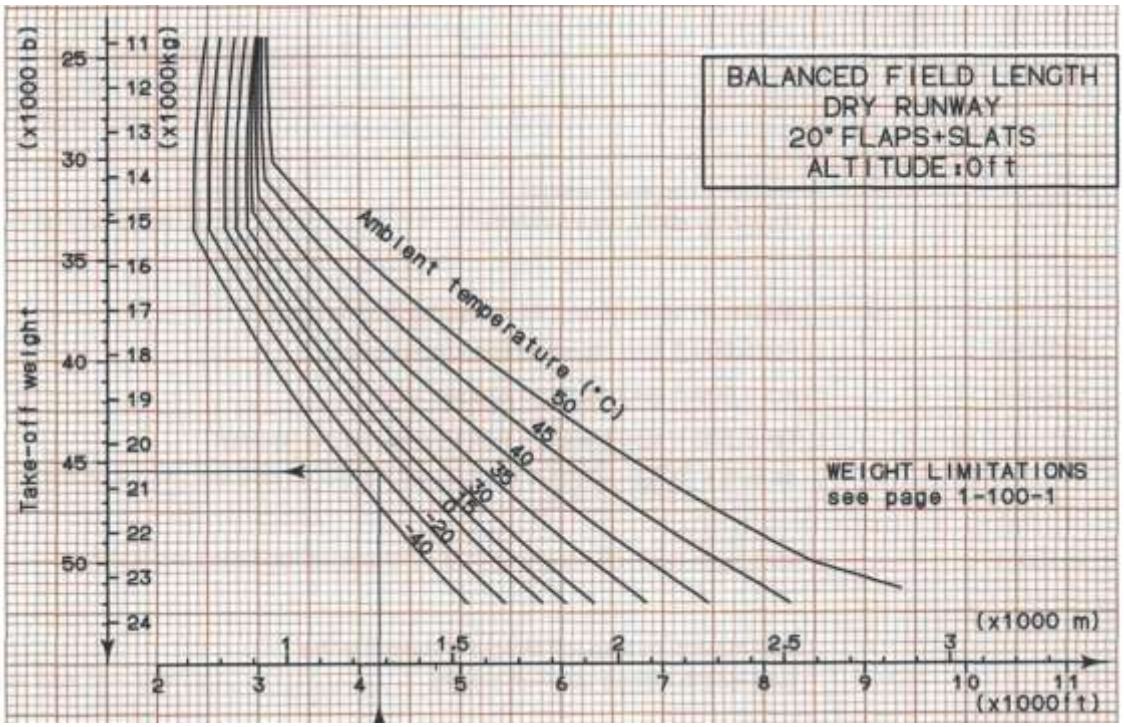
4.3 Takeoff - FALCON 900A

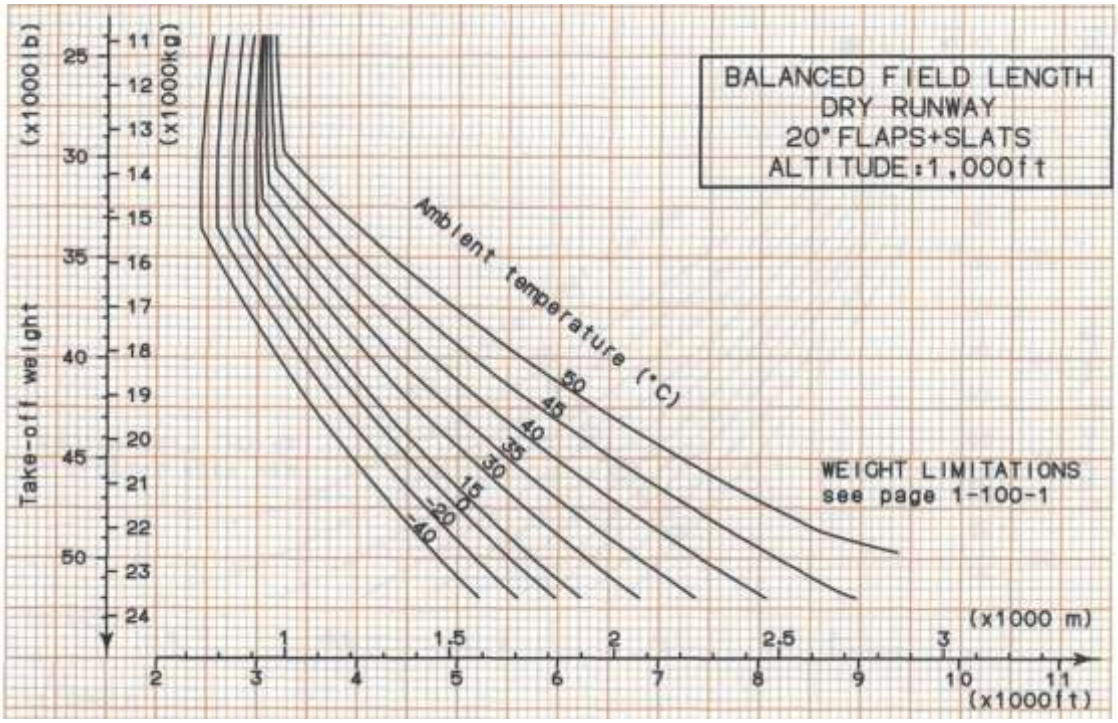


4.4 Take-off - FALCON 900B and C

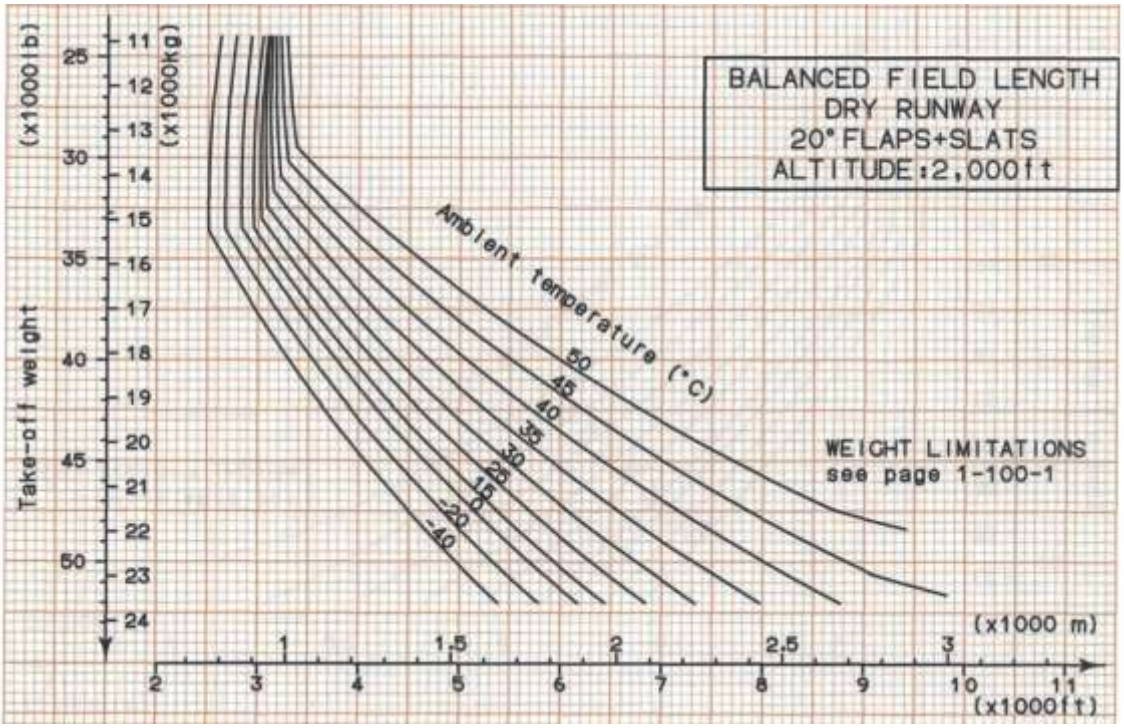


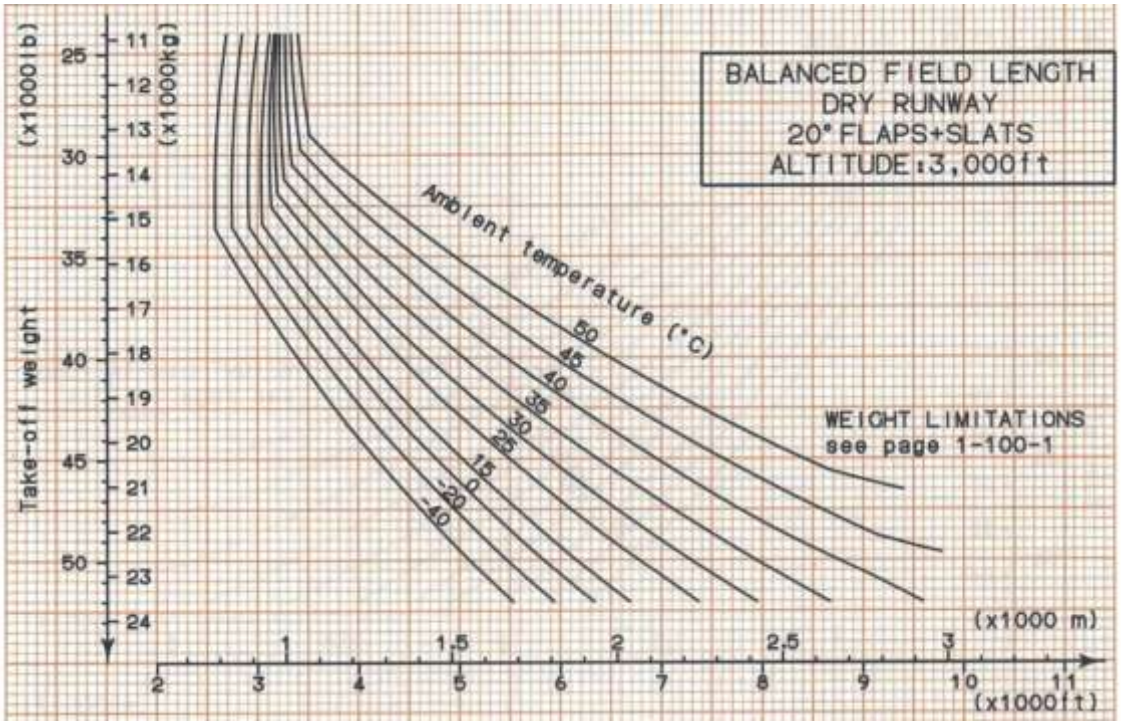
4.5 Take-off - FALCON 900EX, EX EASy, DX and LX



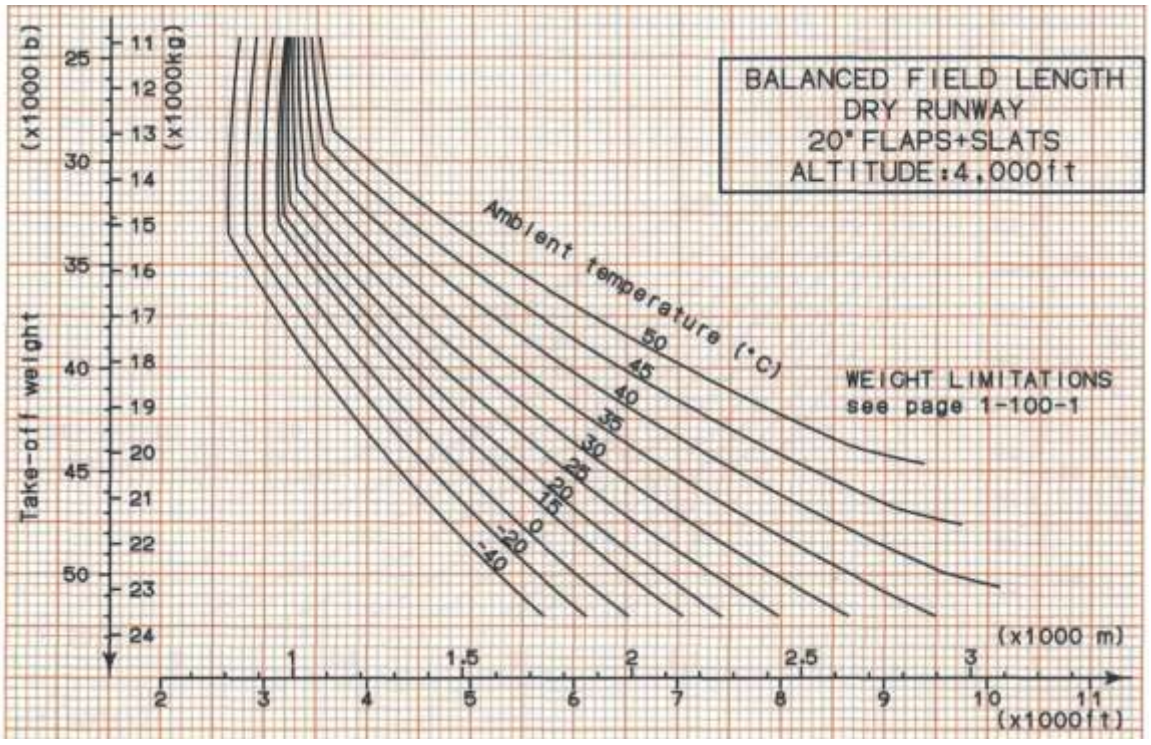


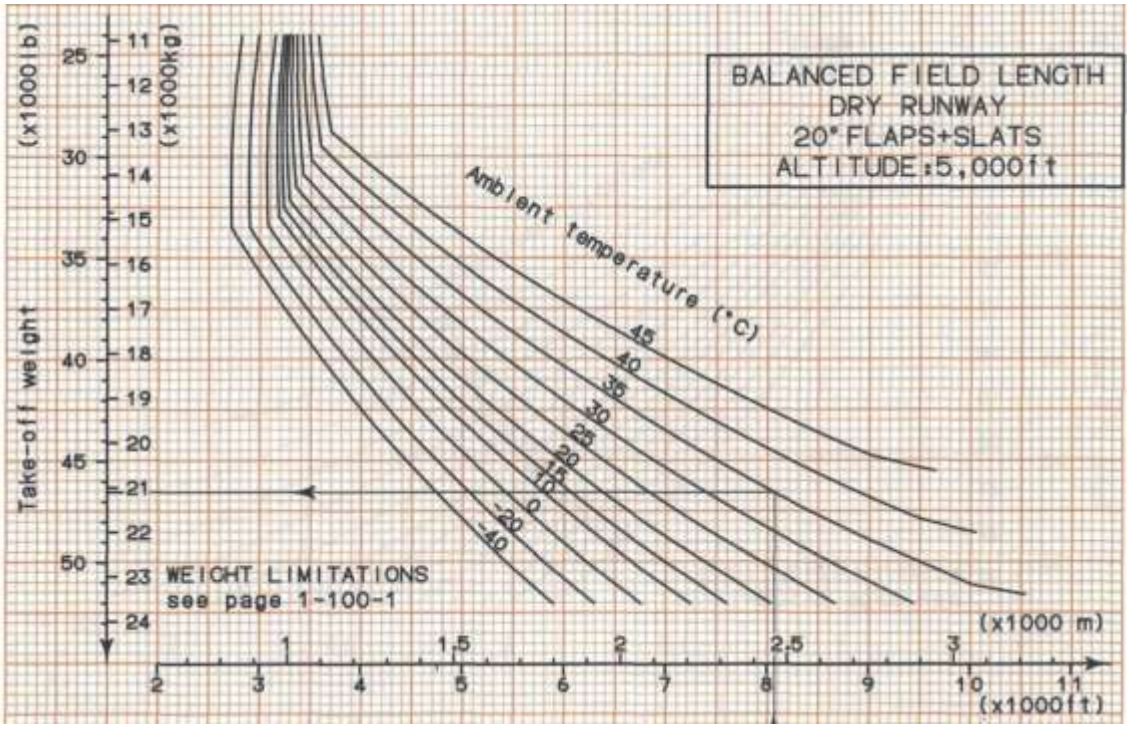
4.5 Take-off - FALCON 900EX, EX EASy, DX and LX (Con'd)





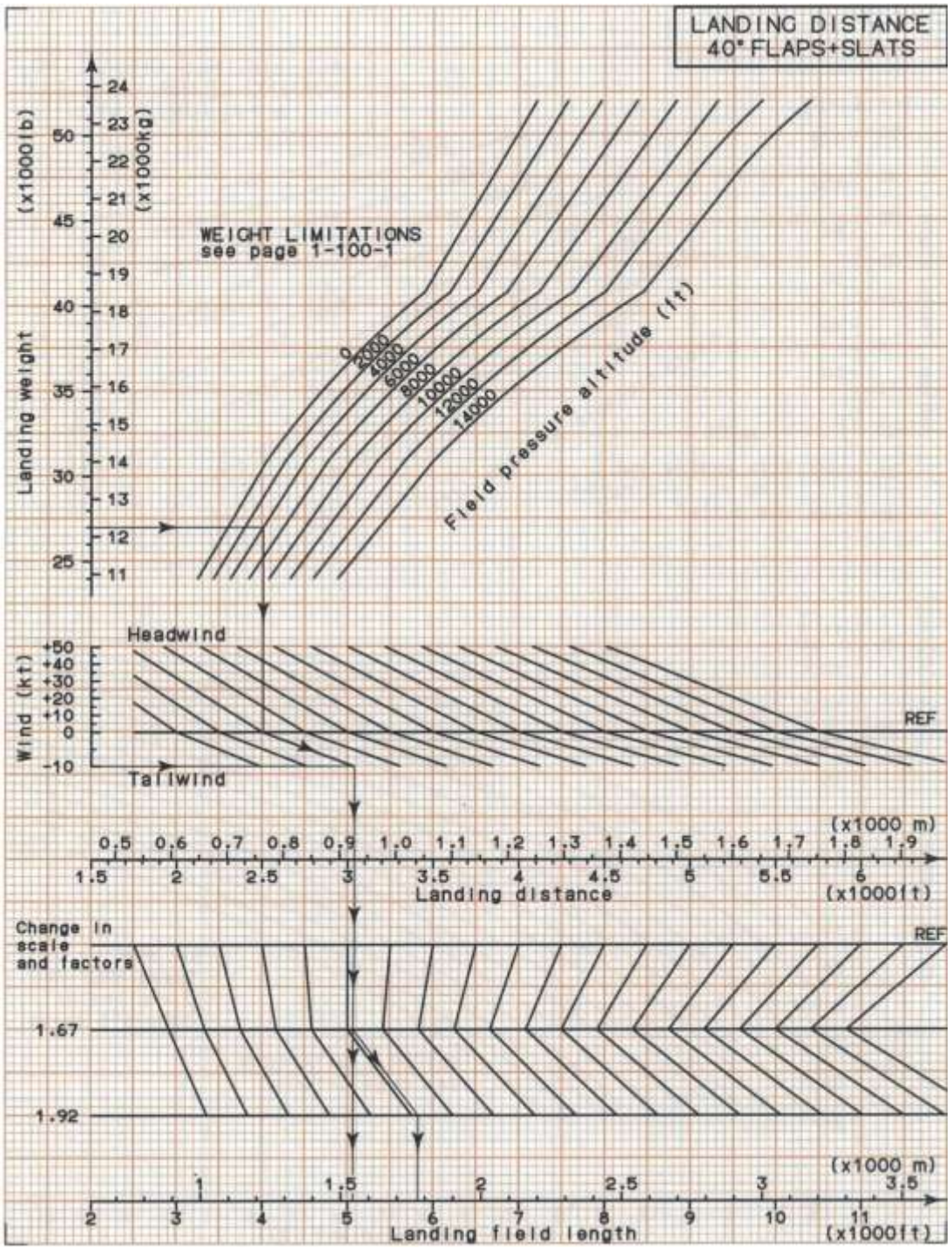
4.5 Take-off - FALCON 900EX, EX EASy, DX and LX (Con'd)



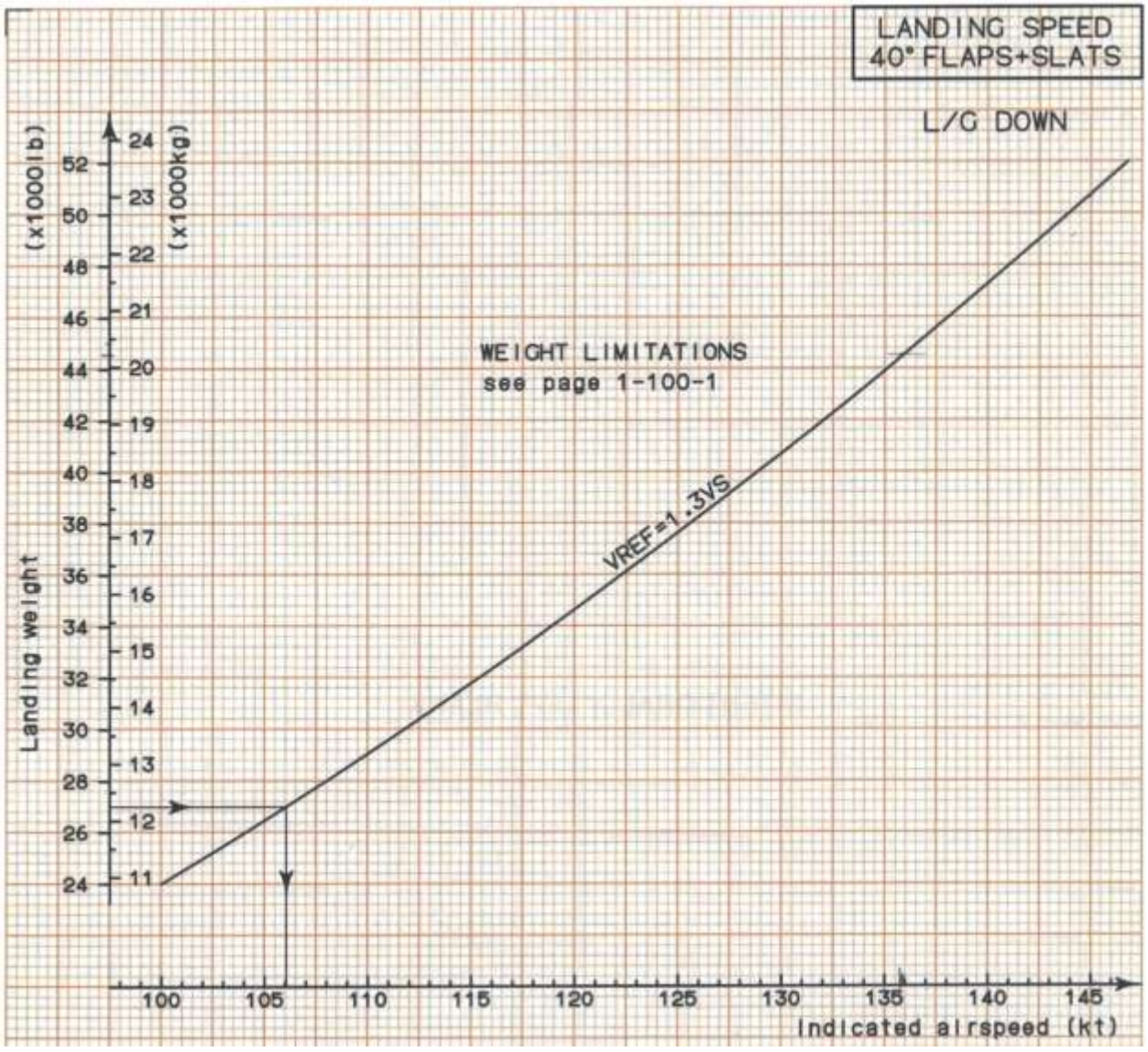


4.6 LANDING - F900 All models

4.6.1 Landing distance - F900 All models



4.6.2 Approach speed - F900 All models



4.7 Noise - F900 All models

4.7.1 FALCON 900A

Reference point	Noise levels (EPNdB)	Noise limits (EPNdB)
Flyover	81.9	89
Lateral	89.5	94
Approach	91.7	98

4.7.2 FALCON 900B and C

Reference point	Noise levels (EPNdB)	Noise limits (EPNdB)
Flyover	79.8	89
Lateral	91.2	94
Approach	91.7	98

4.7.3 FALCON 900EX and EX EASy

Reference point	Noise levels (EPNdB)	Noise limits (EPNdB)
Flyover	79.8	89
Lateral	90.5	94
Approach	92.3	98

4.7.4 FALCON 900DX

Reference point	Noise levels (EPNdB)	Noise limits (EPNdB)
Flyover	78.7	89
Lateral	90.6	94
Approach	92.2	98

4.7.5 FALCON 900LX

Reference point	Noise levels (EPNdB)	Noise limits (EPNdB)
Flyover	78.2	89
Lateral	90.3	94
Approach	92.1	98

5. CRASH INFORMATION - F900 All models

See Annex 1 - Location of flammables (Falcon 900 All models)

See Annex 2 - Emergency access and rescue (Falcon 900 All models)

See Annex 3 - Shut-down procedures (Falcon 900A / B)

See Annex 4 - Shut-down procedures (Falcon 900C / EX)

See Annex 5 - Shut-down procedures (Falcon 900DX / LX / EX EASy)

6. HANDLING - F900 All models

See Annex 6 - Refueling (Falcon 900)

See Annex 7 - Ground de-icing recommendations (Falcon 900)

See Annex 8 - Miscellaneous (Falcon 900)

See Annex 9 - Clear areas (Falcon 900 All models)

FALCON 900 (all models) | LOCATION OF FLAMMABLES

FUEL TANKS

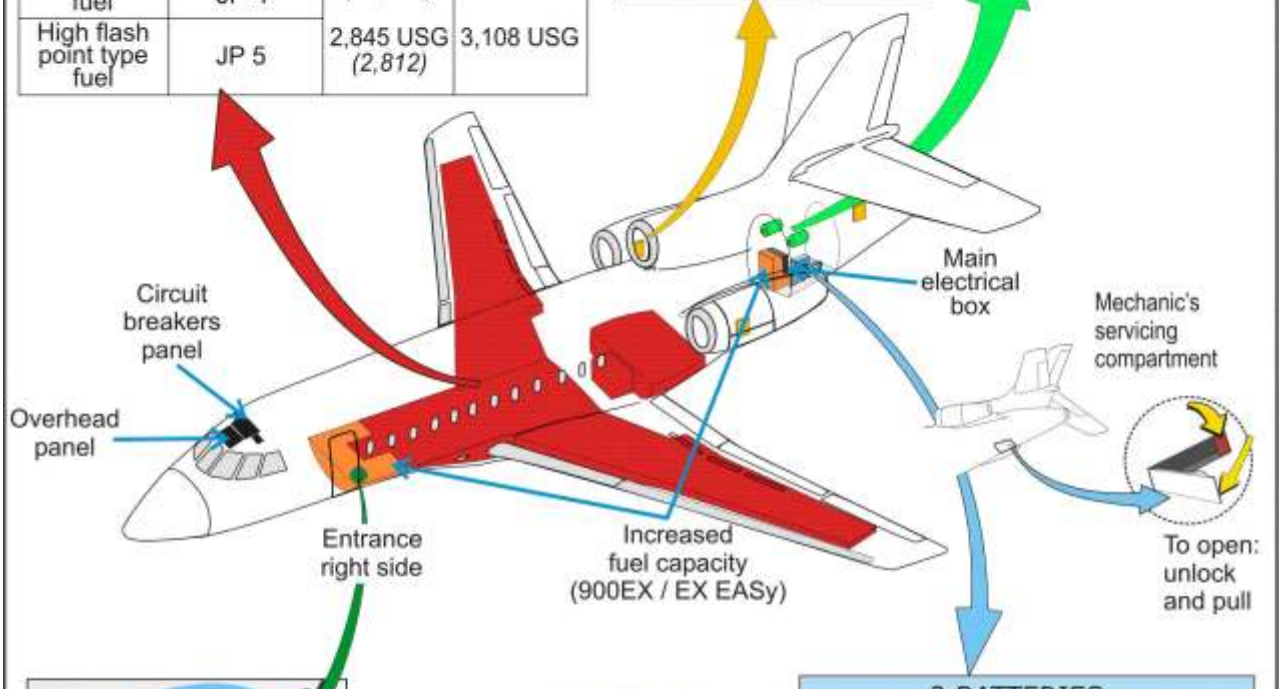
Designation	Commercial specification	Total tank capacity	
		900A, B, C, *(900DX)*	900EX, EX EASy
Kerosene	JET A JET A-1 JP-8	10,769 l *(10,646)*	11,764 l
Wide cut type fuel	JET B JP-4	19,065 lb *(18,830)*	20,825 lb
High flash point type fuel	JP 5	2,845 USG *(2,812)*	3,108 USG

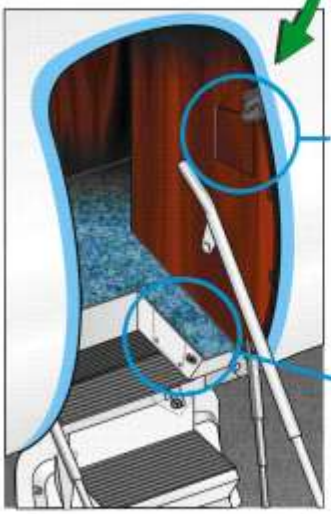
3 OIL RESERVOIRS

Oil specification	Total capacity
MIL-L-23699C	21 to 27 l 5.5 to 7 USG

2 HYDRAULIC RESERVOIRS

Hydraulic Fluid specification	Total capacity
MIL-H-5606F	15 l 4 USG

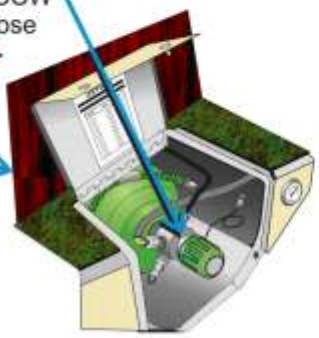




Falcon 900EX and EX EASy

Turn CCW to close

Falcon 900A, B, C and 900DX

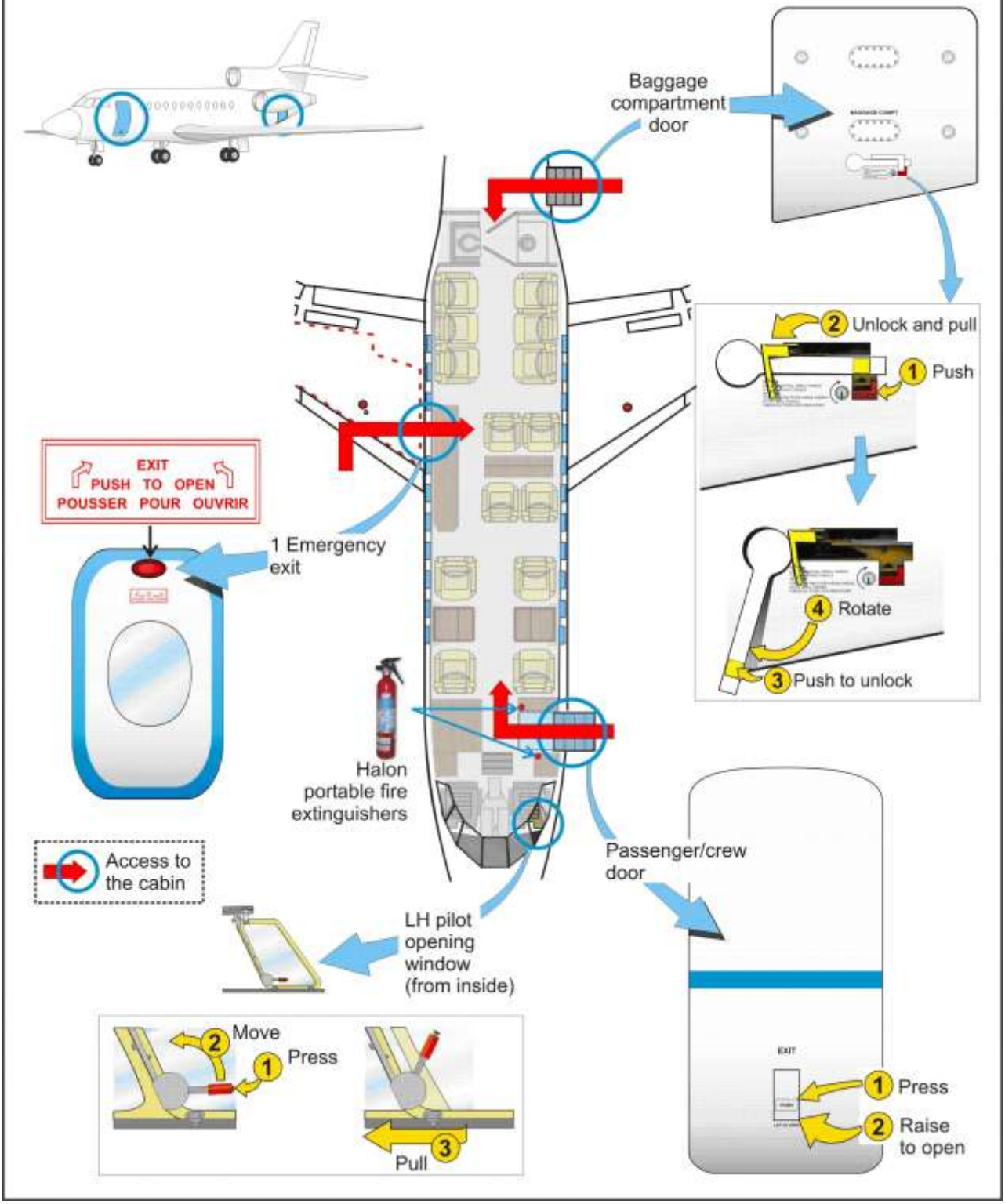


2 BATTERIES

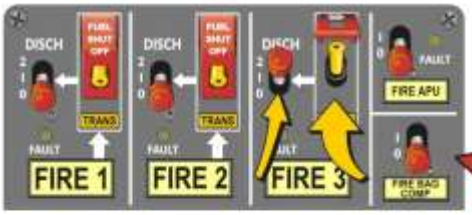
Turn CCW to untie

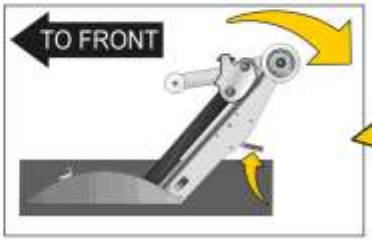
Oxygen cylinder	Quantity
	2,200 l (O2)

FALCON 900 (all models) | EMERGENCY ACCESS AND RESCUE



FALCON 900A/B — SHUT-DOWN PROCEDURES





1 **POWER LEVERS:**
Lift up each throttle lever unlocking catch and move in the same time throttle lever aft to STOP position.

2 **FUEL SHUT OFF switches (all 3):**
raise the safety guards and move up the switches.

3 **Engine, baggage compartment and APU fire extinguisher DISCH switches (all 5):**
set the switches directly to the upward position by pulling and throwing them.

4 **BATtery and GENerators switches (all 5):**
Move down to the OFF position.

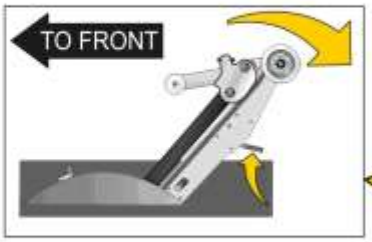
5 **PARK BRAKE:**
Pull the handle to the max. detent.

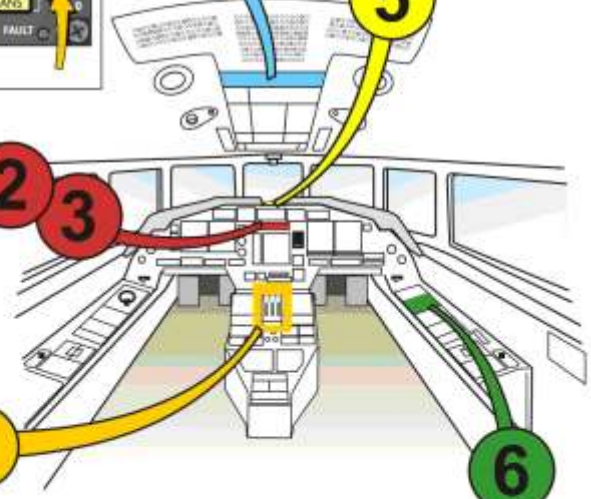
6 **PASSENGER OXYGEN:**
Rotate the selector switch to the CLOSE position.

FALCON 900C, EX — SHUT-DOWN PROCEDURES

Falcon 900EX

Falcon 900C





1 **POWER LEVERS:**
Lift up each throttle lever unlocking catch and move in the same time throttle lever aft to STOP position.

2 **FUEL SHUT OFF switches (all 3):**
raise the safety guards and move up the switches.

3 **Engine fire extinguisher DISCH switches (all 3):**
set the switches directly to the upward position by pulling and throwing them.
Baggage compartment, (*+aft compartment (900EX)*) and APU fire extinguisher DISCH switches (all 2 *(3)*):
raise the safety guard and push the button.

4 **BATtery and GENerators switches (all 5):**
Move down to the OFF position.

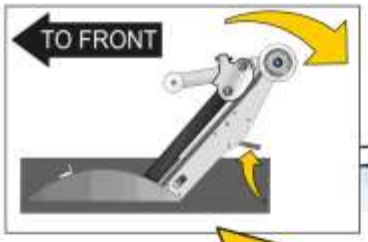
5 **PARK BRAKE:**
Pull the handle to the max. detent.

6 **PASSENGER OXYGEN:**
Rotate the selector switch to the CLOSE position.

FALCON 900EX EASy / DX / LX — SHUT-DOWN PROCEDURES

Falcon 900DX

Falcon 900EX EASy / LX



1 **POWER LEVERS:**
Lift up each throttle lever unlocking catch and move in the same time throttle lever aft to STOP position.

2 **FUEL SHUT OFF switches (all 3):**
raise the safety guard and push the button.

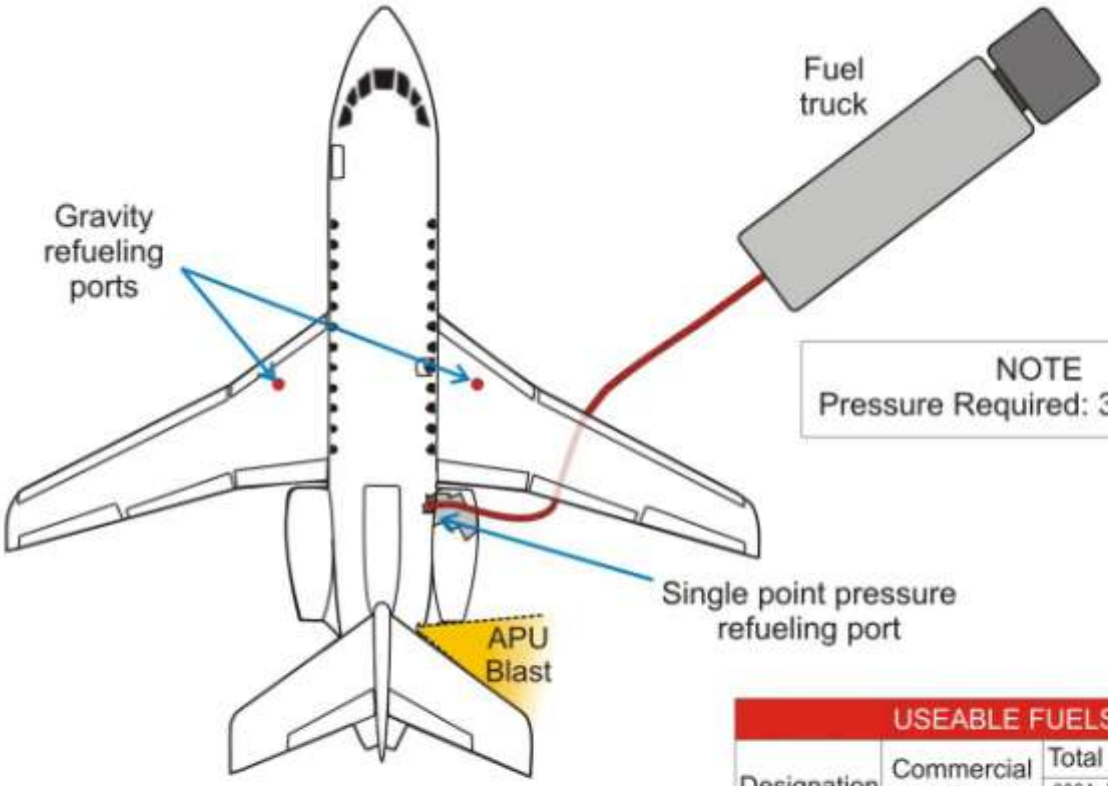
3 **Engine fire extinguisher DISCH 2 switches (all 3), APU, (+REAR *COMPartment (EASy)*) and BAGgage COMpartment fire extinguisher PUSH TO DISCH switches (all 3*(2)*):**
raise the safety guard and push the button.

4 **BATtery and GENerators switches (all 5):**
Move down to the OFF position.

5 **PARK BRAKE:**
Pull the handle to the max. detent.

6 **PASSENGER OXYGEN:**
Rotate the selector switch to the CLOSE position.

FALCON 900 — REFUELING



CAUTION

Although it is allowed to refuel with APU running, it is highly recommended to not start the APU while refueling is in progress.

USEABLE FUELS

Designation	Commercial specification	Total tank capacity	
		900A, B, C, *(900DX)*	900EX, EX EASy
Kerosene	JET A JET A-1 JP-8	10,769 l *(10,646)*	11,764 l
Wide cut type fuel	JET B JP-4	19,065 lb *(18,830)*	20,825 lb
High flash point type fuel	JP 5	2,845 USG *(2,812)*	3,108 USG

DASSAULT AVIATION

FALCON 900 (all models) | GROUND DEICING / ANTI-ICING RECOMMENDATIONS

PFD Fluids TYPE I, TYPE II or TYPE IV are approved for airplane de-icing.
PFD Fluids TYPE II or TYPE IV are approved for airplane anti-icing.

De-icing can be performed with passengers on board, just before starting.
The APU must not be operated while de-icing/anti-icing is in process.
It is not recommended to de-ice the airplane with the engines running.
If engine operation is required, switch off the conditioning system. Do not spray de-icing fluid directly into engine air intake, exhausts, sensors, vents or drains.

For de-icing, use type I, II or IV fluid diluted with water (hot water, if possible). The sprayed mixture must comply with the values specified in the relevant tables which enable the crew to check the estimated protection duration (see holdover time tables).
When de-icing only, it is possible to repeat spraying if required. with more concentrated fluid. Wait for a few minutes before spraying again.

For anti-icing, use pure type II or IV fluid.

NOTE:
This process is to be performed by qualified and thoroughly trained personnel. The use of "neat" type II or type IV fluid requires particular precautions.

WARNING:
It is forbidden to perform two successive anti-icing operations on an airplane which has not flown in-between. This may induce a critical overload for the airplane.
If an aircraft which has been anti-iced does not fly, it must be cleaned through washing-down or through de-icing if the ambient temperature doesnot allow washing.

Avoid spraying cockpit windshields/windows, radome and nose cone.
Any fluid sprayed over these areas must be removed before take-off.

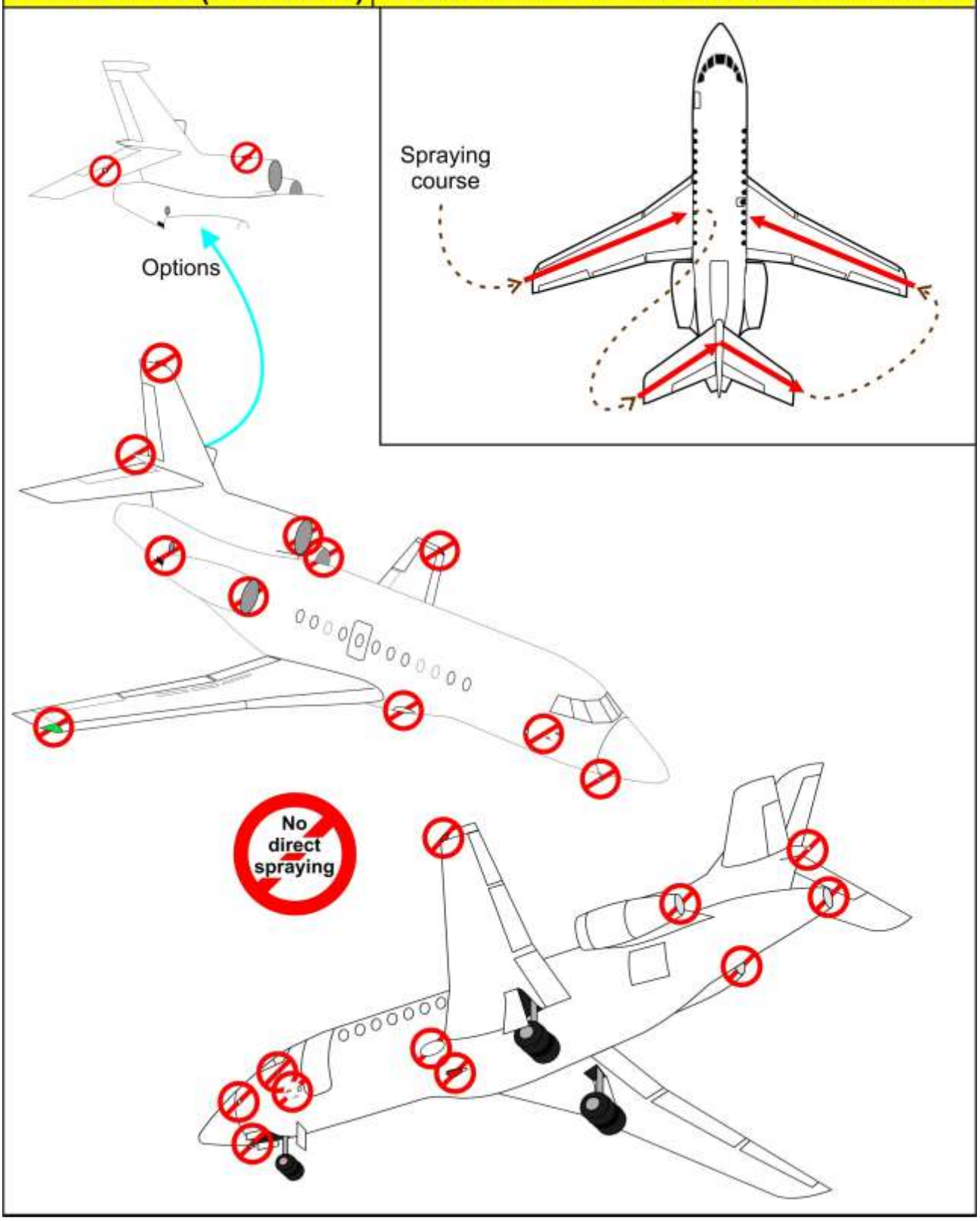
The landing gears, wheels, tires, brake units and uplocks must be free of snow, ice or frost.

NOTE:
De-icing/anti-icing fluids are harmless to tires and do no cause any damage to the carbon brakes. However, avoid spraying fluid directly onto the brakes, as this may reduce the braking efficiency.

The ground crew in charge of the de-icing/anti-icing process must provide the pilot-in-command with the following instructions:

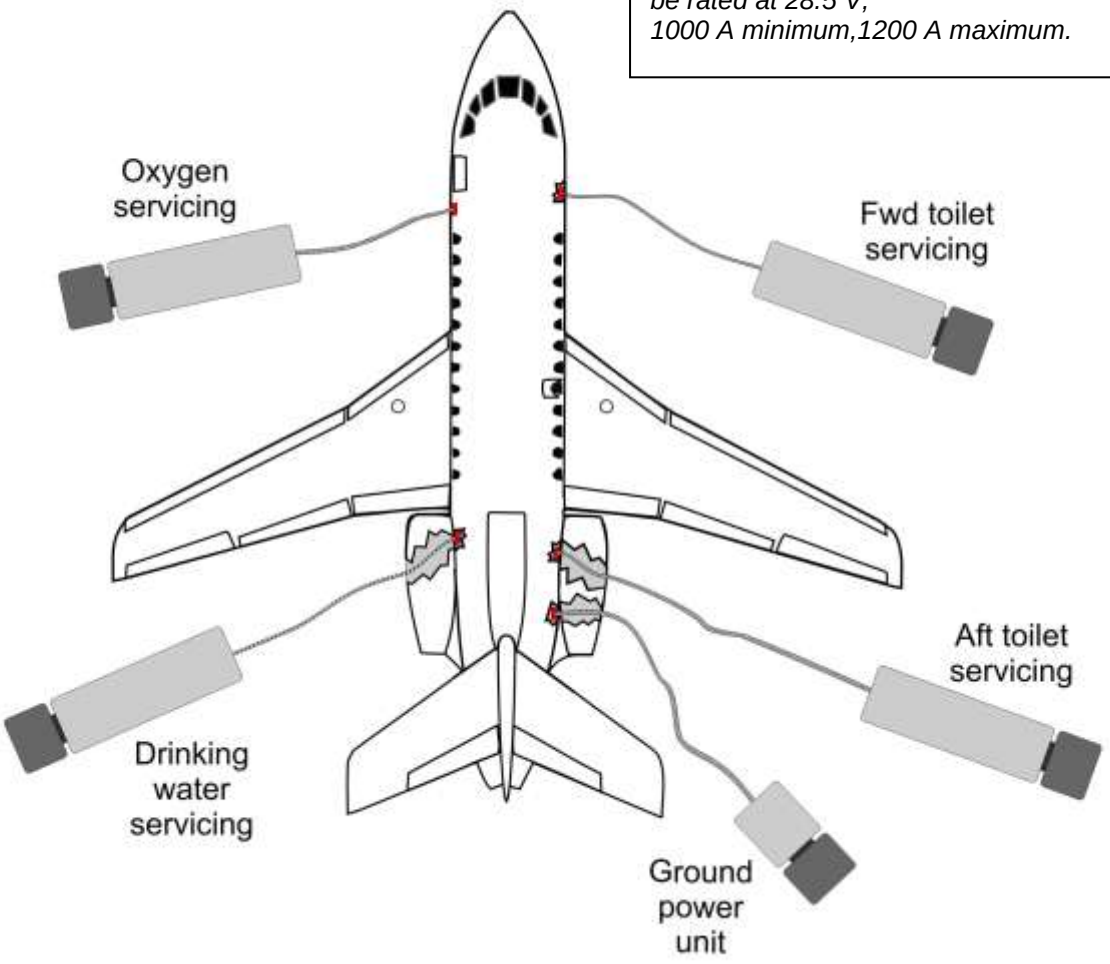
- type of treatment,
- fluid concentration,
- time of treatment,
- type of product used,
- water concentration,
- date of treatment.

FALCON 900 (all models) | GROUND DEICING / ANTI-ICING RECOMMENDATIONS



FALCON 900 (all models) | **MISCELLANEOUS**

NOTE : The Ground power unit output shall be rated at 28.5 V,
1000 A minimum,1200 A maximum.



FALCON 900 (all models) | **CLEAR AREAS (engines running)**