1. OPERATING LIMITATIONS

A. Altitude and Temperature Operating Limit

The altitude and temperature operating limit is as shown in Figure 02–04–1.

Maximum airport pressure altitude for take-off and landing is 10,000 feet.

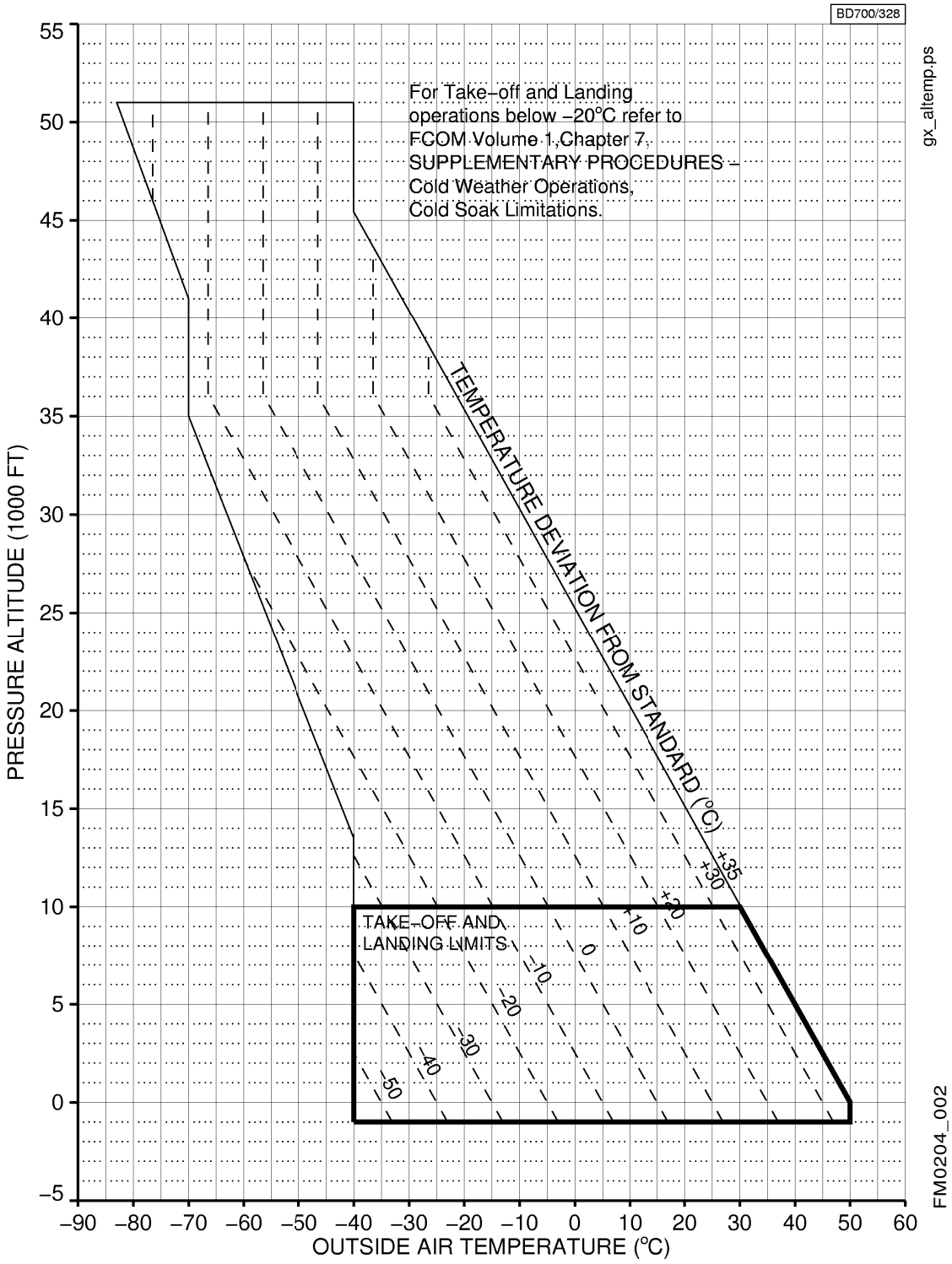
Maximum operating altitude is 51,000 feet.

Maximum ambient air temperature approved for take–off and landing is +50 °C (122 °F).

I Minimum ambient temperature approved for take-off is –40 °C (–40 °F).

1. OPERATING LIMITATIONS (CONT'D)

A. Altitude and Temperature Operating Limit (Cont'd)



Altitude and Temperature Operating Limit
Figure 02–04–1

1. OPERATING LIMITATIONS (CONT'D)

B. Operation in Icing Conditions

(1) COWL ANTI-ICE SYSTEM

Ground Operations:

- During take-off, use of cowl anti-ice in AUTO mode is prohibited.
- The cowl anti-ice system must be ON when the OAT is 10 °C (50 °F) or below and visible moisture in any form is present [such as fog with a visibility of 1,500 meters (one mile) or less, rain, snow and ice crystals].
- The cowl anti-ice must also be ON when the OAT is 10 °C (50 °F) or below when operating on runways, ramps, or taxiways where surface snow, ice, standing water, or slush is present.

Flight Operations:

NOTE

Icing conditions exist in flight at a **TAT** of 10 °C (50 °F) or below, and visible moisture in any form is encountered (such as clouds, rain, snow, sleet or ice crystals), except when the **SAT** is –40 °C (–40 °F) or below.

- The engine cowl anti-ice system must be ON, when in icing conditions, or when ICE is annunciated by the ice detection system.

(2) WING ANTI-ICE SYSTEM

Ground Operations:

- During take-off, use of the wing anti-ice system in AUTO is prohibited.
- The wing anti-ice system must be ON for take-off when the OAT is 5 °C (41 °F) or below and visible moisture in any form is present (such as fog with visibility of 1,500 meters (one mile) or less, rain, snow, sleet and ice crystals).
- The wing anti-ice system must also be ON for take-off when the OAT is 5 °C (41 °F) or below and the runway is contaminated with surface snow, slush or standing water.
- I When SAE Type II, Type III or Type IV anti-icing fluids have been applied, the wing anti-ice system must only be selected ON, if required, just prior to thrust increase for take-off.

Flight Operations:

NOTE

Icing conditions exist in flight at a **TAT** of 10 °C (50 °F) or below, and visible moisture in any form is encountered (such as clouds, rain, snow, sleet or ice crystals), except when the **SAT** is –40 °C (–40 °F) or below.

- The wing anti-ice system must be ON when in icing conditions, or when ICE is annunciated by the ice detection system.
- Do not hold in icing conditions with the slats extended.
- When in icing conditions, maintain a minimum engine speed of 76% N_2.

1. OPERATING LIMITATIONS (CONT'D)

C. Runway Slopes

The maximum runway slopes approved for take-off and landing are:

+2% (uphill)

–2% (downhill)

D. Tailwind Conditions

The maximum tailwind component approved for take-off and landing is 10 knots.

E. Minimum Flight Crew

The minimum flight crew is one pilot and one copilot.

F. Maximum Occupants

The total number of occupants, including no more than nineteen (19) passengers, must not exceed the lesser of the following:

- Twenty two (22), or
- The number for which seating accommodation approved for take-off and landing is provided.

G. Cold Weather Operations

Airplane operation in cold weather conditions is to be conducted in accordance with Flight Crew Operating Manual, Volume 1, Chapter 7, SUPPLEMENTARY PROCEDURES – Cold Weather Operations. The minimum ambient temperature approved for take-off is –40 °C (–40 °F).

Take-off is prohibited with frost, ice, snow or slush adhering to any critical surface (wings, horizontal stabilizer, vertical stabilizer, control surfaces, engine inlets and upper surface of the fuselage).

WARNING

Even small amounts of frost, ice, snow or slush on the wing leading edges and forward upper wing surface may adversely change the stall speeds, stall characteristics and the protection provided by the stall protection system, which may result in loss of control on take-off.

NOTE

1. Comprehensive procedures for operating in cold weather are provided in Flight Crew Operating Manual, Volume 1, Chapter 7; SUPPLEMENTARY PROCEDURES – Cold Weather Operations.
2. Take-off is permitted with frost adhering to the underside of the wing that is caused by cold soaked fuel, in accordance with the instructions provided in Flight Crew Operating Manual, Volume 1, Chapter 7; SUPPLEMENTARY PROCEDURES – Cold Weather Operations – Pre-flight Preparation, External Safety Inspection.

1. OPERATING LIMITATIONS (CONT'D)

H. Runway Surface Condition

Operations from unprepared (i.e. gravel, grass, etc.) runways are prohibited.

I. Display Unit Operating Temperature

Ground operation of the Display Units with flight compartment temperatures in excess of 40°C, for greater than 30 minutes, is prohibited.

J. Approach

Flying an approach with a published glidepath angle of 4.5 degrees or greater is prohibited.

Approaches with published glidepath angles greater than 3.5 degrees must be flown in accordance with Supplement 29, Approaches With Published Glidepath Angles Greater Than 3.5 Degrees.

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