PART 7 APPROACH AND LANDING

LIST OF FIGURES

1. The above Figures give the landing ground roll on dry tarmac or wet concrete *(assumed to give the most favourable and the most adverse cases in normal conditions)* for a range of weights, airfield heights, temperatures and wind, both with and without a parachute. The airbrakes are assumed OUT. Data are valid for aircraft with increased braking capability post-mod 4862.

2. **Operations in Wet Conditions (Binbrook)**

For operations at Binbrook in wet conditions, instead of using the wet concrete data of Figures 7.2.1 and 7.2.2 the following factors may be applied to the appropriate dry distances obtained from Figures 7.1.1 and 7.1.2.

2.1 WET RUNWAY (μ meter reading greater than 0.75)
WITH BRAKE PARACHUTE. Factor values from Fig 7.1.1 by 1.10.
WITHOUT BRAKE PARACHUTE. Factor values from Fig 7.1.2 by 1.15.

2.2 RUNWAY WITH STANDING WATER (μ meter readings between 0.75 and 0.7)
WITH BRAKE PARACHUTE. Factor values from Fig 7.1.1 by 1.20.
WITHOUT BRAKE PARACHUTE. Factor values from Fig 7.1.2 by 1.30.

For μ meter readings less than 0.7 use Fig 7.2.1 or 7.2.2 as appropriate.

3. **Touch-down speeds**

Landing ground roll distances are based on touch-down speeds of 155 kts IAS at 30 000 lb and below, varying linearly to 167 kts IAS at 35 000 lb.

4. **Airborne distance from 50 ft**

An estimate of the *(still air)* airborne distance from 50 ft to touch-down can be made by assuming a constant 2° flight path, this assumes a 3° glide path with an allowance for flare. This gives an airborne distance of 1433 ft.

Example (A)

Conditions:–
AUW 40 000 lb: airfield height 6000 ft:
OAT + 30°C (ISA + 27°C)
10 kts tailwind on dry tarmac.

From Fig 7.1.1 ground roll with parachute	7080 ft
Add:– Airborne distance from 50 ft	1433 ft
Therefore:– distance from 50 ft with parachute	8513 ft

▶ Example (B)

Conditions:–
AUW 40 000 lb: sea level: OAT + 50°C (ISA + 35°C)
10 kts crosswind on wet concrete

From Fig 7.2.1 ground roll with parachute	6900 ft
Add:– Airborne distance from 50 ft	1433 ft
Therefore:– distance from 50 ft with parachute	8333 ft ◀

NOTE: *Conditions quoted in examples are for illustration only and not necessarily representative.*

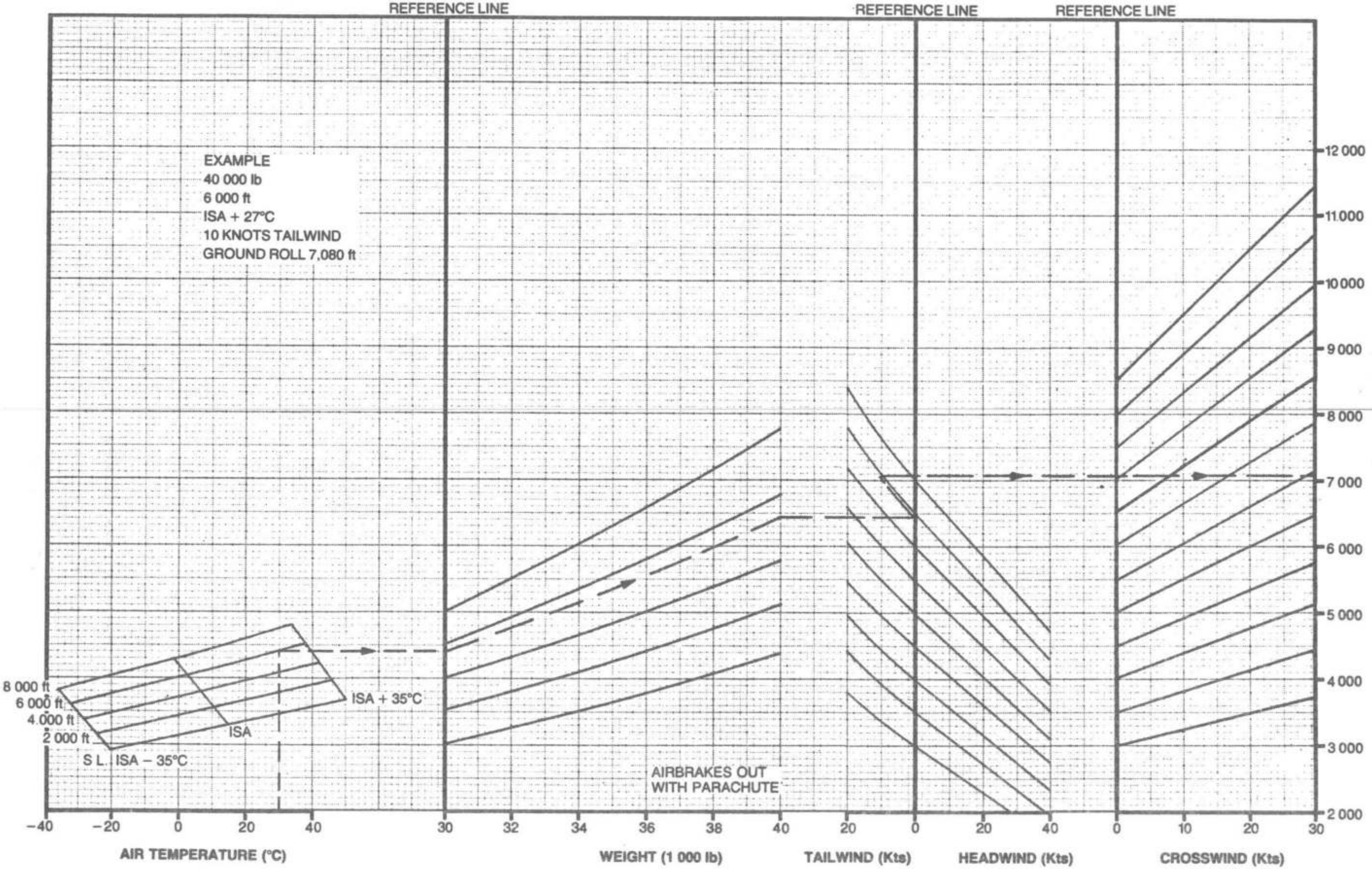


FIG 7.1.1 LANDING GROUND ROLL – DRY TARMAC (POST MOD 4862)

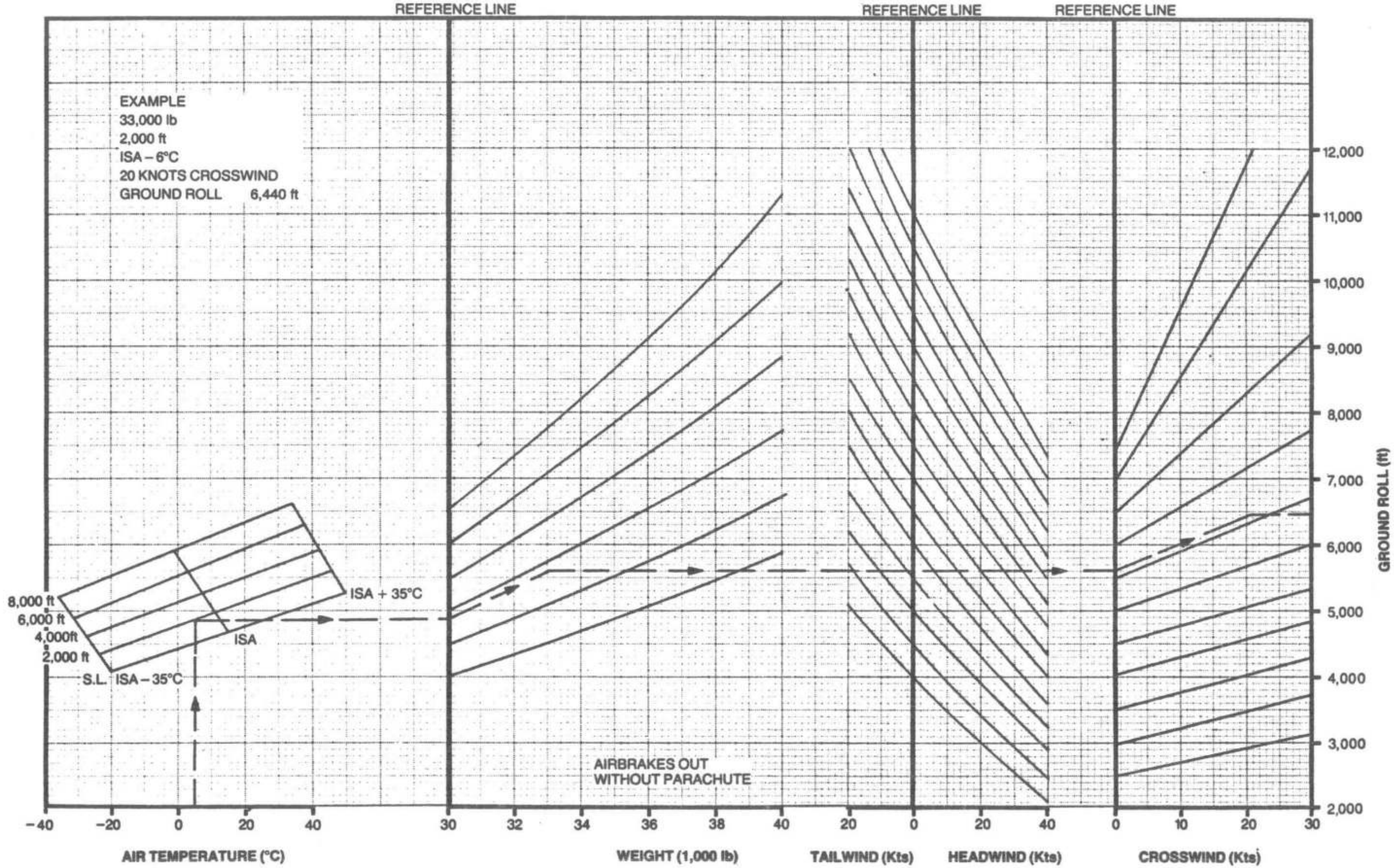
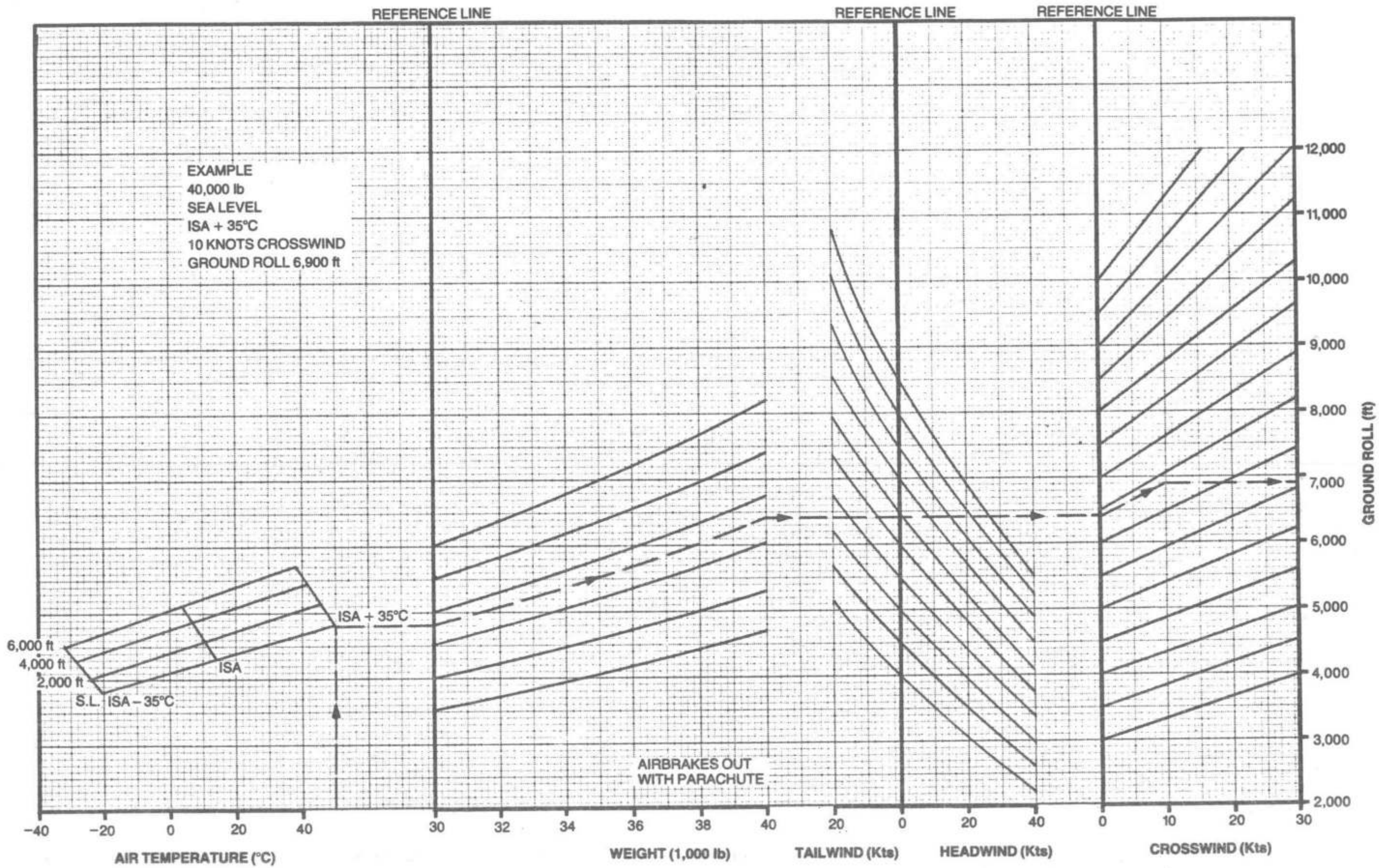


FIG 7.1.2. LANDING GROUND ROLL – DRY TARMAC
(POST MOD 4862)



EXAMPLE
40,000 lb
SEA LEVEL
ISA + 35°C
10 KNOTS CROSSWIND
GROUND ROLL 6,900 ft

AIRBRAKES OUT
WITH PARACHUTE

FIG 7.2.1 LANDING GROUND ROLL – WET CONCRETE (POST MOD 4862)

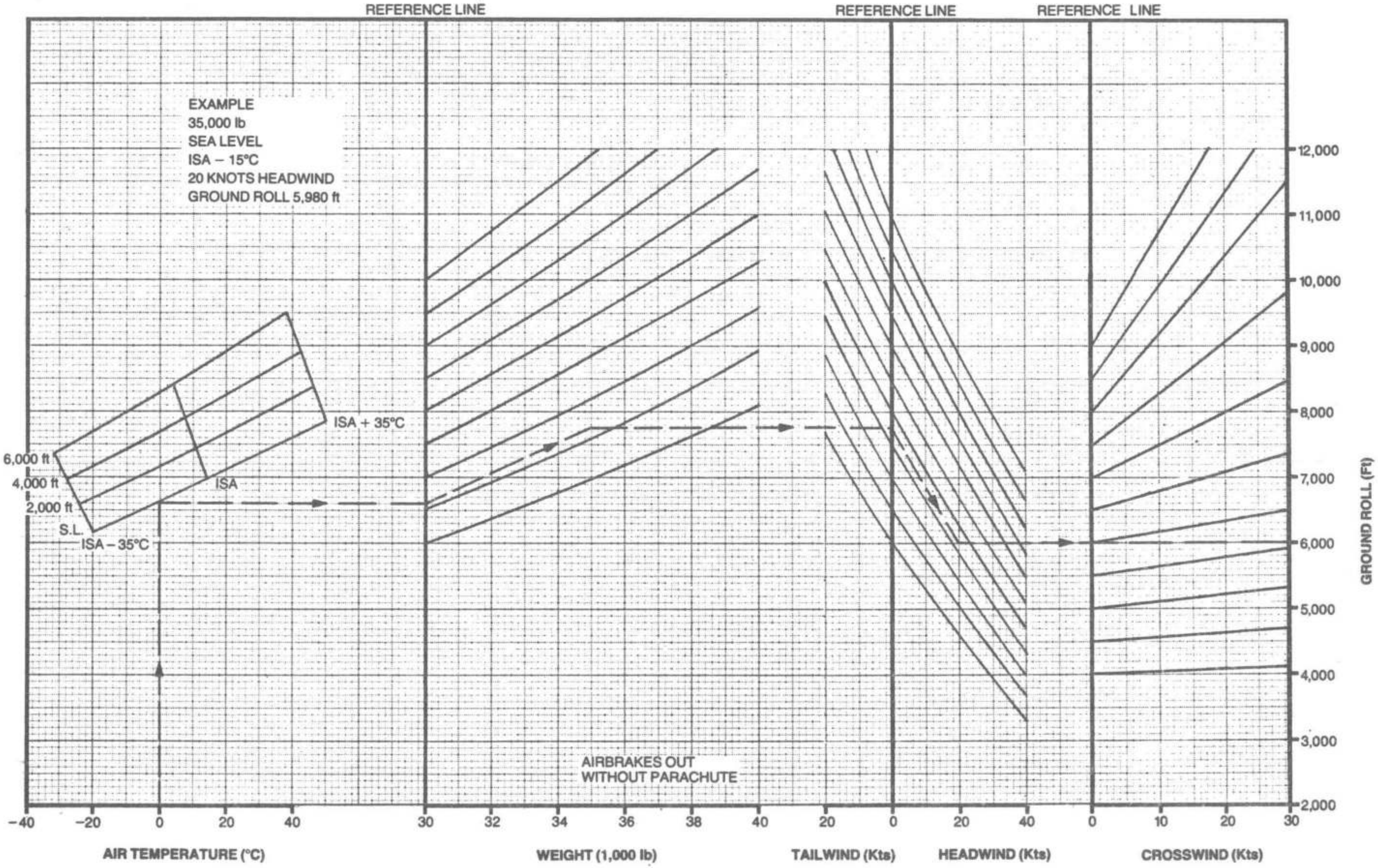


FIG 7.2.2 LANDING GROUND ROLL – WET CONCRETE (POST MOD 4862)