



THE STANDARD DAY

Sea level: 15°C / 59°F, 29.92 inHg / 1013 hPa. Temperature falls **1.98°C (≈2°C) per 1,000 ft. ISA deviation** = your OAT – the ISA temp at that altitude — positive means warmer than standard, which means a **higher density altitude**.

ISA TABLE

PRESSURE ALTITUDE

ALT FT	°C	°F	INHG	HPA	P/P ₀
SL	15.0	59.0	29.92	1013	100%
2,000	11.0	51.9	27.82	942	94%
4,000	7.1	44.7	25.84	875	89%
6,000	3.1	37.6	23.98	812	84%
8,000	-0.8	30.5	22.22	753	79%
10,000	-4.8	23.3	20.58	697	74%
12,000	-8.8	16.2	19.03	644	69%
14,000	-12.7	9.1	17.58	595	65%

ρ/ρ_0 = air density as a fraction of sea-level density on a standard day.

READING ISA DEVIATION

Field 6,000 ft, OAT 25°C. ISA temp = 3°C → **ISA +22°C**.

Every +1°C above ISA adds roughly 120 ft of density altitude. +22°C ≈ +2,600 ft DA on top of your pressure altitude.