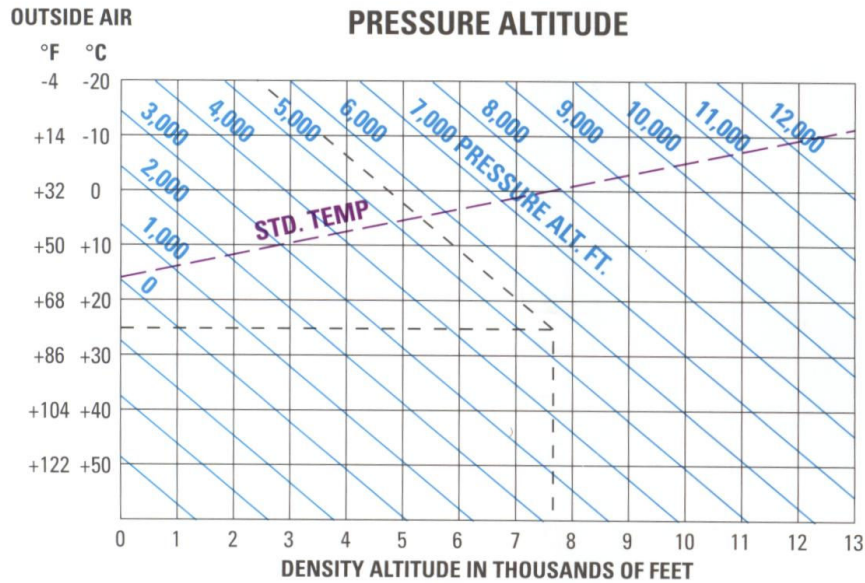


Density Altitude

Here is simple chart for determining **Density altitude** from *Pressure Altitude* and *Temperature*.



Pressure Altitude is what you would read on the *Altimeter* when the *barometric pressure* is set to **29.92**.

Temperature will be given on **ATIS** in degrees Celsius.

You can calculate **Pressure Altitude** and **Standard Temperature** as follows.

$$\text{Pressure Altitude} = \text{Current Altitude} + 1000 \times (29.92 - \text{Current Altimeter setting})$$

For example, at SDL the Altitude is 1510 and if the Current Altimeter is 29.82 and the current temperature is 35° C. Then

$$\text{Pressure Altitude (PA)} = 1510 + 1000 \times (29.92 - 29.82)$$

$$\text{PA} = 1510 + 1000 \times (0.1)$$

$$\text{PA} = 1610$$

$$\text{Standard Temperature (Ts)} = 15 - .002 \times \text{Altitude (altitude in ft)}$$

$$\text{Ts} = 15 - .002 \times 1510$$

$$\text{Ts} = 12^\circ \text{C}$$

You can then calculate **Density Altitude (DA)** for the example at SDL as follows:

$$\text{Density Altitude (DA)} = \text{PA} + 120 \times (\text{T} - \text{Ts})$$

$$\text{DA} = 1610 + 120 \times (35 - 12)$$

$$\text{DA} = 4370 \text{ ft}$$