

## Types of Altitude - Ground Lesson

### Attention

High, hot, and heavy!

### Schedule

Ground instruction – 10 minutes

### Material

#### **TYPES OF ALTITUDE**

*We refer to altitude in five different ways.*

**True:** The actual height above sea level.

**Indicated:** What's read off the face of the altimeter.

**Absolute:** The height above the ground, or agl.

**Pressure:** What's read off the instrument with the pressure set to standard (29.92 inches).

**Density:** Pressure altitude corrected for nonstandard temperature, or what the aircraft "feels" as the actual altitude.

True = MSL

Indicated = Look

Absolute = AGL

Pressure = Look...when set to 29.92

Density = For performance charts

If density altitude ↑:

Acceleration ↓

TAS ↑

Ground speed ↑

#### When to use Pressure Altitude

The cruising altitude or flight level of aircraft shall be maintained by reference to an altimeter which shall be set, when operating at or above 18,000 feet MSL, to 29.92" Hg (standard setting).

#### When to be extra cautious

From high pressure to low pressure – actual altitude is lower  
'high to low look out below'

At same indicated altitude but sun goes down  
'hot to cold look out below'

Any time density altitude is very high, the plane will have poor performance