

Lesson Plan, Chapter 2, Sec C

1. Altimeter:
 - a. each .01" increases the altitude 10'
 - b. each .10" increases the altitude 100'
 - c. each 1.0" increases the altitude 1000'
2. Altitudes:
 - a. Indicated: easiest – it's what is "indicated" on the airspeed indicator
 - b. True: actual height above sea level (MSL)
 - i. Elevations and obstacle heights on charts are true altitudes
 - c. Absolute: actual height above the surface of the earth terrain over which you fly (AGL)
 - d. Pressure (PA): what your altimeter reads when you put 29.92" in the selector
 - e. Density (DA) = PA corrected for temperature
 - i. this is what the airplane "thinks" it's at –
 - ii. aircraft performance is determined by this altitude; it performs as if actually flying at this altitude
3. Determining #feet changed with a change in setting
 - a. $30.22 - 29.92 = 300'$ lower
4. Video:
 - a. <http://www.youtube.com/watch?v=dLdsdQa6cmo>
5. Magnetic Compass Errors (Northern Hemisphere):
 - a. Provides accurate indications ONLY when flying straight and level, unaccelerated flight
 - b. Dip Error
 - i. UNOS = Undershoot North; Overshoot South
 - c. Acceleration Error
 - i. ANDS = Accelerate – North; Decelerate – South (most pronounced on East and West headings)
 - d. Turning Error (on North headings)
 - i. Compass initially shows a turn in the opposite direction
 - ii. Causes the compass to lead or lag the actual heading
6. Deviation versus Variation
 - a. The Earth is a variant – difference between true and magnetic north
 - i. Compass Correction Card
 - ii. Look at a Sectional Chart to see how variation is shown
 1. Isogonic lines (iso=equal)
 2. East is Least, West is Best
 - b. The airplane is a deviant (electronic equipment causing magnetic interference)
7. Video: <http://www.youtube.com/watch?v=Ih9vaXWsBw0>

Absolute = AGL
True = MSL
Pressure = 29.92"
Density = PA + temp

"High to low (or warm to cold), watch out below"