

Pressure - Atmosphere P_{atm}

(Why)? gravity pulls atmosphere

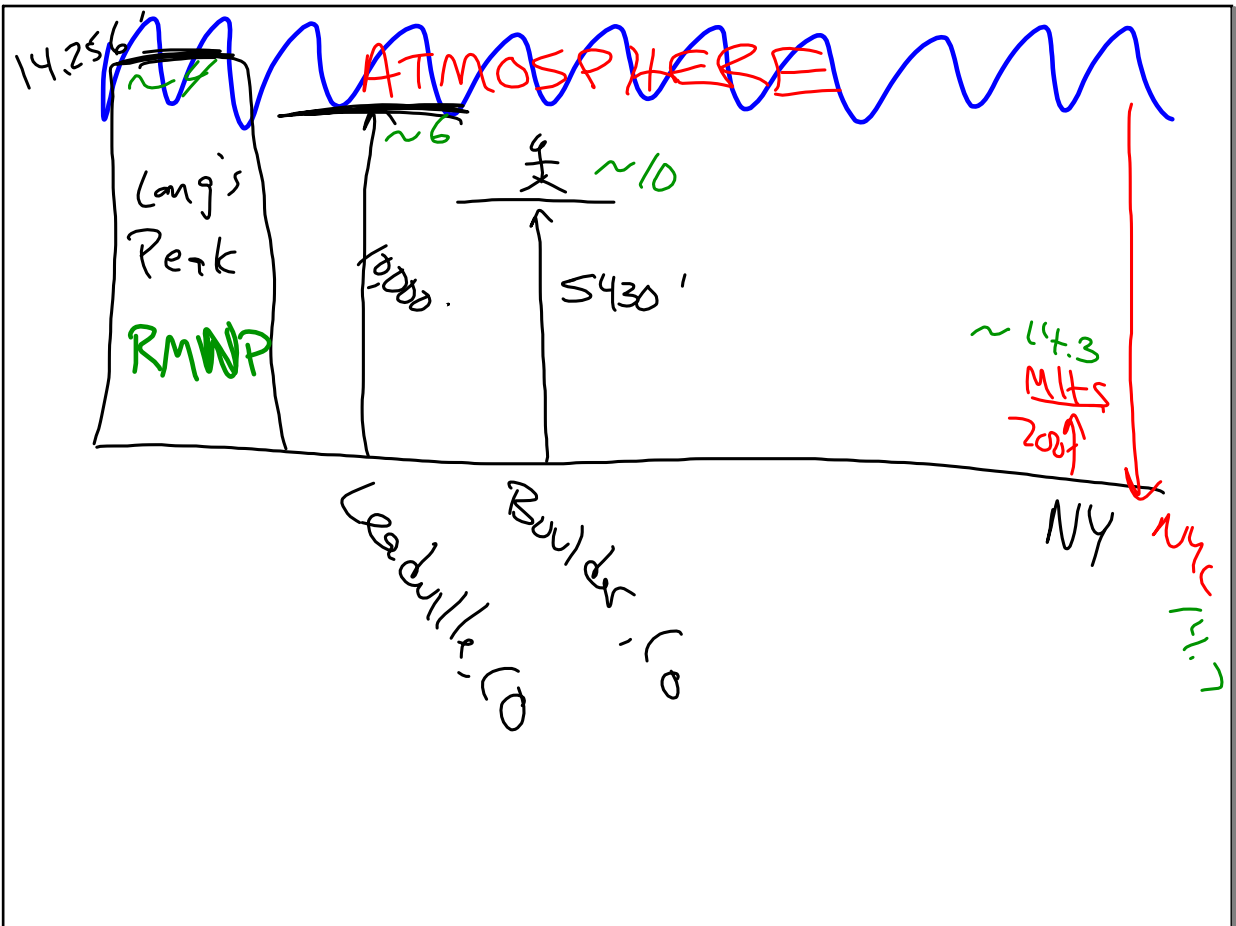
$P_{atm} = \sim 14.7 \frac{\text{pounds}}{\text{in}^2}$ force DOWN

at sea level

$$P = \frac{\text{Force}}{\text{Area}}$$

Area = L * W

Feb 17-8:34 AM



Feb 17-9:05 AM

CAN DEMO

- Air inside can heats up & expands.
 Keeps can from crushing even though
 the

$$\text{Density}_{\text{Air outside}} > \text{Density}_{\text{Air inside}}$$

Feb 17-9:33 AM

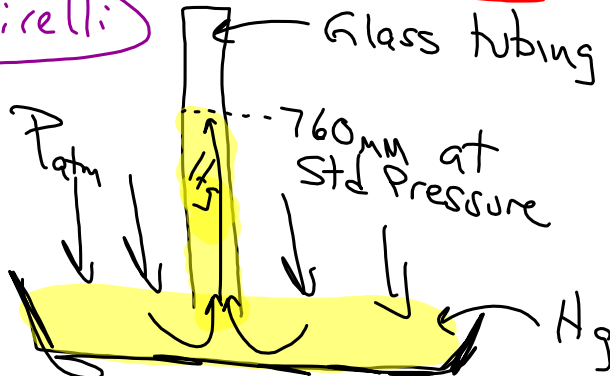
Measuring P_{atm}

- Barometer

(Hg) Mercury Barometer

pressure

Torrilli



(near vacuum)

allows Hg ↑ freely
Prevent downward P

$$760 \text{ mmHg} = 760 \text{ Torr}$$

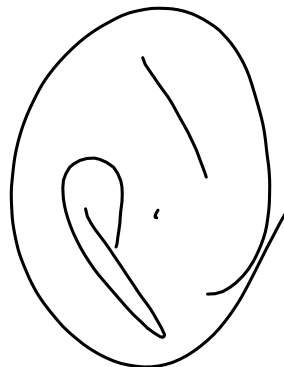
$$P_{\text{atm}} = 760 \text{ mmHg} \quad 101.35 \text{ kPa, } 1 \text{ atm}$$

$$760 \text{ mm Hg} \quad \sim 14.7 \text{ Pounds/in}^2$$

Feb 17-9:40 AM

$$650 \text{ mmHg} = \text{_____ atm}$$

650 mmHg	1 atm
	760 mmHg



Feb 17-10:02 AM